



## *Agenda Commentary*

**Item Title/ Subject:** Water Study – Garver Engineering

**Staff Source:** City Manager, Steve Hewitt

**Date:** October 4, 2011

**History/Background Information:** Drastic drought levels have altered our source of drinking water. Clinton Lake was our primary source of water 70/30 offset by Foss. Now we are 70/30 Foss vs Clinton Lake. The cost of water at Clinton Lake is less than half our costs with Foss. Council and Staff both wanted to review supplemental options for Clinton Lake. Need for an Engineer is required to help us meet all regulations and find solutions.

**Item/Subject Summary:** Staff has been researching options and meeting with Garver discussing our options and they have proposed a scope of services to help the City locate new water alternatives. (see scope of work attachment)

**Price/Cost:** \$23,800

**Recommendation:** Staff recommends approval. Researching the feasibility of additional quality water supplements is important to the longevity of our community.

**Work Order No. 14**  
For Professional Engineering Services  
City of Clinton

In accordance with the Section 2 – SCOPE OF SERVICES of the Master Agreement between OWNER and ENGINEER dated February 7, 2006 ("Agreement"), OWNER and ENGINEER agree as follows:

1. **Specific Project Title:** Emergency Ground Water Supply Evaluation
2. **Description:** The Evaluation will identify planning level supply, and distribution needs to deliver ground water from the City of Clinton's existing well field to Lake Clinton for blending prior to treatment at the existing Clinton Water Treatment Plant (WTP). The Evaluation will only focus on meeting historical water demand. Future water demand scenarios and necessary infrastructure will not be evaluated within this Work Order.
3. **Services of Engineer:** In accordance with the Master Agreement; and:

3.1. Task 1 - Baseline Development

3.1.1. Previous Work Summary

If available, OWNER will provide to the ENGINEER all information and previous work relative to the Owner's water system including:

- Previous water master planning documents
- All water rights permits/allocation documents
- Original water supply yield analysis
- Conveyance, WTP, distribution, and storage infrastructure record drawings
- Electronic water billing data
- Ancillary GIS data base to include land use, roadways, parcels, structures, topography, water/wastewater and other utility infrastructure
- Water utility infrastructure inventory reports (GASB)
- Service area planning documents: land usage and transportation plans; census reports; growth projections; water demand projections
- Current Water Utility Capital Improvement Plan
- Wholesale contracts; water purchase terms and negotiations
- Rate/fee structures: inside and outside
- Building permits activity
- Outside service contracts
- Water distribution network atlas including information for all water lines 12-inches and larger
- Monthly Operating Reports for the potable water system from the last three years, including water quality parameters.
- Historical water well flow rates.

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ENGINEER will prepare a list of data deficiencies based on information gathered and meet with the OWNER to develop a procedure for remaining data procurement or a basis of assumption from which to proceed. ENGINEER will summarize and document all above information as necessary to establish existing system baseline. A record of transmittal will be maintained to assure the return of all OWNER documents provided to the ENGINEER.

**3.1.2. Historical Water Demand Summary**

ENGINEER will establish the existing annual average and maximum day water demands as derived from historical water production information and billing data provided by the OWNER.

**3.2. Task 2 - Existing Water System Assessment**

**3.2.1. Source Water Evaluation**

**3.2.1.1. Source Water Characterization**

Information will be assessed, under the guidance and direction of the OWNER, relative to the existing water rights, water use allowances, and water quality issues for the OWNER's ground water system.

**3.2.1.2. Infrastructure Assessment**

ENGINEER will assess the existing ground water infrastructure (pumps, wells, controls, interconnections, etc) and rate its suitability for continued use to meet water demands. Existing water treatment plant infrastructure will not be evaluated for capacity or compliance with current or future regulations.

**3.3. Task 3 - Plan Alternative**

**3.3.1. Ground Water Supply**

Based on the data developed in Tasks 1 and 2, ENGINEER will characterize and quantify ground water supply for meeting the Historical Demand. It is assumed that Lake Clinton will be utilized as a terminal routing pool to receive the ground water prior to treatment at the WTP. ENGINEER will identify ground water infrastructure needs for implementation

**3.3.1.1. Monetary Evaluation**

ENGINEER will perform an economic evaluation to include conceptual capital and O&M costs associated with implementation of the ground water supply alternative.

**3.4. Report Production**

ENGINEER will document the findings of Task 1, 2, and 3 into a Technical Memorandum for review and comment by Owner Staff. ENGINEER will submit three (3) bound and one (1) unbound copy to the OWNER for review.

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**3.5. Staff Workshop**

ENGINEER will conduct a workshop with OWNER to review the Technical Memorandum.

**3.6. Council Meeting**

ENGINEER will present a summary of findings of the ground water supply evaluation at a City Council Meeting.

**4. Project Deliverables:** The following will be submitted to the OWNER by the ENGINEER:

4.1. Technical Memorandum – Ground Water Supply Evaluation

4.2. Staff Workshop – Ground Water Supply Evaluation

4.3. Council Meeting – Ground Water Supply Evaluation

**5. Extra Work:** The following items are not included with the scope of this agreement but such services are available from Engineer and will be considered as extra work:

5.1. Evaluation of water treatment processes.

5.2. Water quality testing.

5.3. Evaluation of future water supply demand scenarios.

5.4. Submittals or deliverables in addition to those listed herein.

5.5. Design of any kind.

5.6. Survey of any kind.

5.7. Water Quality Modeling or Water Age Modeling

5.8. Subsurface utility excavation or potholing of existing utilities.

5.9. Environmental Handling and Documentation, including wetlands identification or mitigation plans or other work related to environmentally or historically (culturally) significant items.

5.10. Floodplain Determination

5.11. Coordination with Oklahoma Department of Environmental Quality or the Oklahoma Water Resources Board.

5.12. Financial Assistance

The scope for Additional Services may be authorized at a later time under separate work orders to the Master Agreement.

**6. Owner's Responsibilities:** As indicated in Master Agreement, and:

6.1. OWNER agrees to review and provide written comments to ENGINEER on all deliverables within 14 calendar days of delivery.

**7. Schedule:** Excluding any unforeseen delays or redirection by the OWNER, the Technical Memorandum will be delivered 90 days from the date of authorization to proceed.

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**8. Payment to Engineer:**

The total compensation to the ENGINEER for the services identified by this Work Order shall be paid as a Lump Sum of \$23,800. Partial payments shall be made on the basis of an agreed upon percentage of work completed by task.

The OWNER will pay the ENGINEER on a monthly basis, based upon statements submitted by the ENGINEER to the Owner for the scope of services described in this agreement. Payments not received within 60 days of invoice date will be subject to a one percent monthly simple interest charge.

If any payment due the ENGINEER under this agreement is not received within 60 days from date of invoice, the ENGINEER may elect to suspend services under this agreement without penalty or liquidated damages assessed from the OWNER.

Any additional work beyond the scope of services defined in this Work Order, and authorized by the OWNER, shall be paid for in a subsequent Work Order.

**9. Subconsultants:** None.

**10. Other Amendments to Master Agreement:** None.

**11. Attachments:** None.

**12. Approval and Acceptance**

Approval and Acceptance of this Work Order, including attachments listed above, shall incorporate this document as part of the Agreement. ENGINEER is authorized to begin performance upon receipt of a copy of this Work Order signed by the OWNER.

The Effective Date of the Work Order is \_\_\_\_\_, 2011.

ENGINEER:  
Garver, LLC

OWNER:  
City of Clinton

\_\_\_\_\_  
Signature

Michael J. Graves

Water Team Leader

Title

\_\_\_\_\_  
Signature

Steve Hewitt

City Manager

Title