

1008-00440



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October 9, 2008

RECEIVED

OCT 09 2008

PUBLIC SERVICE
COMMISSION

HAND DELIVERED

Stephanie L. Stumbo
Executive Director
Public Service Commission
211 Sower Boulevard
Frankfort, KY 40601

Re: *Request of Kentucky American Water for Approval to Defer Expenses as
Regulatory Assets*

Dear Ms. Stumbo:

The Commission's February 28, 2005 Order in Case No. 2004-00103, *In the Matter of: Adjustment of the Rates of Kentucky-American Water Company*, requires Kentucky American Water to make written request to you for approval to accrue an expense as a regulatory asset for accounting purposes.¹ By this letter, Kentucky American Water ("KAW") is requesting approval from the Commission Staff to accrue expenses that will be incurred by KAW as it complies with one of the conditions the Commission issued in Case No. 2007-00134, *In the Matter of: The Application of Kentucky-American Water Company for a Certificate of Public Convenience and Necessity*.

In the Commission's April 25, 2008 Order in Case No. 2007-00134, the Commission granted the requested Certificate of Public Convenience and Necessity enabling KAW to construct a new water treatment plant on the Kentucky River and an associated water transmission main. As a condition to issuing the requested certificate, the Commission required KAW to "retain a qualified consultant(s) to assist in developing a water conservation, leak-mitigation and demand management plan consistent with the best practices of the water industry. This plan shall include a program or programs to cost-effectively reduce non-revenue water." Finally, the Commission directed KAW to retain those consultant(s) no later than October 1, 2008. My October 3, 2008 letter to you notified you of KAW's compliance with this condition.

I have attached the contracts by which KAW has retained Strand Associates, Inc. for the water conservation and demand management program and Gannet Fleming, Inc. for the non-

¹ See February 28, 2005 Order, pp. 37, 89.

Stephanie L. Stumbo
October 9, 2008
Page 2

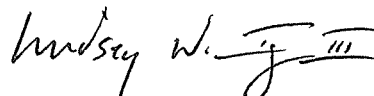
revenue water program. You will see that the total amount for both contracts that will have to be paid to the consultants is approximately \$184,700 (\$140,700 for the non-revenue water program and \$44,000 for the conservation program). These contracts are for the purpose of establishing the programs required by the Commission in Case No. 2007-00134. The consultant expenses are material, extraordinary, non-recurring and are not expected to be incurred during the test period that will be used in KAW's next general rate case.

By this letter, KAW is not requesting ratemaking treatment of the consultant expenses. It is only requesting approval to accrue these expenses as regulatory assets. The issue of the ratemaking treatment may be addressed in KAW's next general rate case. Notice of KAW's intent to file its next general rate case was provided by my September 30, 2008 letter to you.

In accordance with Ordering Paragraph No. 8 of the Commission's February 28, 2005 Order in Case No. 2004-00103, I have copied all parties to KAW's most recent general rate case (Case No. 2007-00143). We thank you for your consideration of this matter.

Very truly yours,

Stoll Keenon Ogden PLLC



Lindsey W. Ingram III

cc: Gerald E. Wuetcher
Parties to Case No. 2007-00143

**AGREEMENT FOR
GENERAL ENGINEERING SERVICES
BETWEEN KENTUCKY-AMERICAN WATER COMPANY AND
GANNETT FLEMING, INC. FOR
ANALYSIS NON-REVENUE WATER**

TASK ORDER NO. KY-08-GF - 03

Article 2 – Scope of Services shall be per the Request for Proposals (RFP) titled KENTUCKY AMERICAN WATER – REQUEST FOR PROPOSAL – ANALYSIS OF NON-REVENUE WATER, dated August 11, 2008, in accordance with the terms of the Master Agreement between Owner and Engineer dated February 7, 2005, inclusive of Appendices A through F, this Task Order, and the instructions of Owner's Representative.

Article 3 – Engineer's Representative in charge of the services is Dale Glatfelter, P.E. who may be contacted at 717-763-7211 ext. 2352. Owner's Representative in charge of the services is Linda C. Bridwell, P.E., who may be contacted at 859-268-6373, linda.bridwell@amwater.com.

Article 4 – The Services performed within the Task Order shall commence on or about September 25, 2008, and shall be complete on or before December 31, 2008.

Article 9 - Payment shall be a not to exceed time and expense contract in the amount of \$140,700 for Technical Services. The time and expense amounts shall be per the Master Agreement. If it becomes necessary for time and efforts to exceed these amounts using the agreed upon rates, an agreement must be reached between the Engineer's Representative and Owner's Representative for additional time and expense and a new Task Order shall be executed.

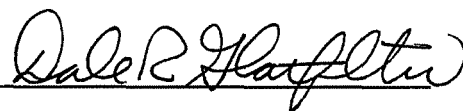
INVOICING INSTRUCTIONS: All invoices shall be submitted in duplicate and addressed to: Kentucky American Water, Southeast Region, Attn: Linda C. Bridwell, Workbasket No. A12DIR02, c/o Shared Services Center, P.O. Box 5610, Cherry Hill, NJ 08034.

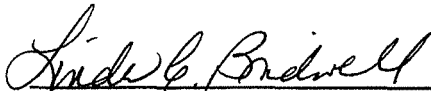
Owner and Engineer have caused this Agreement to be amended by representatives duly authorized to act, all as of the effective date of September 18, 2008.

PREPARED BY: Linda C. Bridwell, P.E. Date September 18, 2008
(OWNER's REPRESENTATIVE)

CONSULTANT
Gannett Fleming, Inc.

OWNER
Kentucky-American Water Company

By 

By 

Title Vice President

Title PROJECT DELIVER M&R-WATER SUPPLY

Date September 23, 2008

Date September 30, 2008

Kentucky American Water
REQUEST FOR PROPOSAL
ANALYSIS OF NON-REVENUE WATER

Issued: 08/11/2008
Proposals Due: 08/27/2008

Contacts:
Linda Bridwell
Linda.Bridwell@amwater.com
859-268-6373

Lance Williams
Lance.Williams@amwater.com
859-268-6316

Jarold Jackson
Jarold.Jackson@amwater.com
859-268-6322

Kentucky American Water
2300 Richmond Road
Lexington KY 40502

KAW Confidential Information

The information contained in this Request for Proposal is confidential and proprietary to KAW, and is to be used by the recipient solely for the purpose of responding to this RFP. This RFP shall be destroyed or returned to Kentucky American Water, upon request.

Scope of Engineering Services
Analysis of Non-Revenue Water, KAWC – Kentucky Central Division System

RFP INSTRUCTIONS AND EVENT CALENDAR

Kentucky American Water Representation

All contact and questions with regard to this RFP must be made by e-mail only through the COMPANY representative. Discussion with other parties within or associated with COMPANY may result in disqualification from this process.

For the purposes of this RFP, the COMPANY representative is:

Name: Linda Bridwell, Project Director

E-mail: Linda.Bridwell@amwater.com

Address: 2300 Richmond Road
Lexington, KY 40502

Name: Lance Williams, Director of Engineering

E-mail: Lance.Williams@amwater.com

Address: 2300 Richmond Road
Lexington, KY 40502

Name: Jarold Jackson, Manager Field Operations

E-mail: Jarold.Jackson@amwater.com

Address: 2300 Richmond Road
Lexington, KY 40502

Any responses received after the due date will not be accepted. KAW may also, in its sole discretion, extend the due date if, in KAW's judgment, such action is necessary to satisfy the requirements of the RFP process. However, any failure to comply with the response instructions requirement may result in rejection of consultant's response.

Event Calendar

The major milestones of this RFP process are reviewed in the table below:

TABLE 1 RFP EVENT CALENDAR

RFP Event	Date
Distribution of RFP; Response Period Begins	08/11/2008
Response Period ends; Proposals due	08/27/2008
Award Announced	09/10/2008
Project Team and Consultant Meeting	09/15/2008
Project Start	09/15/2008

Any changes or alterations to this schedule will be communicated to all participants. If you have any questions, please submit them via e-mail.

Scope of Engineering Services
Analysis of Non-Revenue Water, KAWC – Kentucky Central Division System

Additional Guidelines and Terms

Please carefully review the following guidelines and terms that apply to this RFP.

- A) Disclaimer - This RFP does not constitute an offer by KAW to enter into a contract, nor does any response to this RFP constitute an acceptance of an offer. A response to this RFP by a Consultant does not bind Kentucky American Water in any way. Additionally, any costs incurred in responding to this RFP are the sole responsibility of the Consultant.
- B) Right of Rejection / Consideration – KAW reserves the right to reject or consider any or all responses to this RFP. KAW reserves the right to waive any irregularity contained in any response.
- C) Award Of Contract - To the extent that KAW awards contracts, the contracts will be awarded to Consultants deemed best suited by KAW, in its sole discretion, to meet KAW's requirements. All respondents' results will be evaluated in order to develop a short list of consultants, and KAW will conduct respondents' certification discussions in order to reach final agreements with Consultants.
- D) Legal Authority - A person having legal authority to represent the Consultant must submit the response to this RFP. In the event of a discrepancy, written figures will take precedence over typed figures.
- E) Proposed Agreement Term - The intended term of the Engineering consultant Agreement will be up to project completion. KAW reserves the option to extend the contract beyond the initial period; Notwithstanding, KAW shall retain the right to terminate the agreement upon 30 days written notice.

Scope of Engineering Services

Analysis of Non-Revenue Water, KAWC – Kentucky Central Division System

A. Background

Kentucky American Water (KAW) recognizes its responsibility to wisely use Kentucky's water sources in the provision of water service to its customers. KAW has invested resources over the years in a continuing effort to improve Non Revenue Water results in its operating areas. These efforts have included dedicated leak detection, operation of distribution storage tanks significantly below overflow and routine monitoring and calibration of treatment plant effluent flow meters. In that same continued vein, KAW is soliciting proposals to evaluate its distribution system and water loss management strategies, and provide recommendations for cost effective enhancements to its water loss management program. Additionally, KAW has been ordered by the Kentucky Public Service Commission to retain a qualified consultant(s) to assist in developing a leak-mitigation plan consistent with the best practices of the water industry that shall include a program to cost-effectively reduce non-revenue water.

KAW operations are generally managed as two distinct water districts – the Central Division encompassing Lexington, generally serving Fayette County and parts of Scott County, and the Northern Division that services parts of Owen County. The scope of this analysis will generally focus on the Central Division system.

Kentucky American Water (KAW) serves approximately 115,000 customers through a total of over 1,620 miles of water mains. Kentucky American Water serves two districts, the Central and Northern Districts. The Central District service area includes most of Fayette County, which encompasses the City of Lexington and portions of Scott, Bourbon, Woodford, Harrison, Jessamine and Clark Counties. KAW also provides potable water to the City of Midway in Woodford County, North Middletown in Bourbon County, Georgetown Water and Sewer in Scott County, Harrison County Water Association in Cynthiana, Jessamine South Elkhorn Water District in Jessamine County, and City of Nicholasville in Jessamine County. The Northern District service area serves all of Owen County, and parts of Grant and Gallatin Counties and represents less than 10% of the customers served. The pipelines in the Central Division range in size from two inches to 30 inches in diameter and are made of various materials such as copper, PVC, grey iron, ductile iron, asbestos cement and prestressed concrete.

Water is supplied to the Central District zone from the distribution pumps at the system's two treatment plants - Kentucky River Station and the Richmond Road Station. Stored water is available from the 15 service tanks as needed to meet peak hour demands and to provide water for fire fighting purposes.

This proposal requests that the history of main breaks in the Central Division system be evaluated for trends regarding main failure and leakage and that an evaluation be done on sub-metering, pressure zones, water hammer and large meter programs to determine possible enhancements to current programs.

B. Scope of Services

1. Task Number One - Main Break Analysis and Leak Monitoring

Analyze existing main break database for the Central Division system to determine what correlations may exist between main breaks and location in the distribution system, pressure, main age, main size or customer usage. The Engineering Consultant shall also assess existing leak monitoring methodology (approach, frequency, acoustic and manual equipment, etc.) and provide recommendations to cost effectively enhance the ability to locate non-surfacing leaks. Personnel requirements to perform recommended tasks should also be included as part of this

Scope of Engineering Services
Analysis of Non-Revenue Water, KAWC – Kentucky Central Division System

assessment. The successful Engineering Consultant shall provide all estimated costs for recommendations proposed.

2. Task Number Two - Sub-Meter Zones and Reduced Pressure Zones

The consultant shall evaluate the distribution system and determine the practicality and economically feasibility of establishing sub-metered zones and/or reduced pressure zones in the Central Division. The static pressure in the existing Central Division distribution system currently ranges from about 30 to 120 psi. The intent of this task is to assess breaking the existing distribution system into smaller systems where the pressure might be reduced to prevent leaks from occurring and/or reduce the volume of water lost during leak events. The consultant shall include recommendations specifying locations, and required work and equipment necessary for implementation of meter or pressure zones. The Engineering Consultant shall also identify the potential negative effects that the proposed sub-metering and/or reduced pressure zones may have on existing customers. The successful Engineering Consultant shall provide all estimated costs for recommendations proposed.

3. Task Number Three - Surge Analysis

KAW has identified only a few general areas where surge is suspected to have occurred over time. The Engineering Consultant shall perform a preliminary evaluation from the available data, pump operations and discussions with distribution system operating personnel to determine the extent of water hammer in the distribution system, and provide recommendations based on evaluation. Recommendations may include installation of high speed recorders to define location and extent of water hammer, development of a computerized model simulating the water hammer, changes in system operation/control, surge relief valves, air/vacuum relief valves, variable speed drives, and surge tanks. The successful Engineering Consultant shall provide all estimated costs for recommendations proposed.

4. Task Number Four - Large Meter Program

The Engineering Consultant shall evaluate the effectiveness of KAW's current methodology of specifying and testing large meters (i.e., 2 inches and larger). The consultant shall evaluate current criteria for specifying the type and size of large meters to be installed, develop alternatives for enhancing that process, and assess the impact of metering issues on Non Revenue Water. The consultant shall also include an assessment of large meter testing protocols, including intervals and testing procedures. The successful Engineering Consultant shall provide all estimated costs for recommendations proposed.

5. Task Number Five - Special Connection, Private Property Loss Analysis

Analyze potential losses on private properties served by special connections and examine the feasibility of metering all such connections. The Engineering Consultant shall determine what category of meter is best suited for each type application, and develop a prioritization methodology for determining areas of initial focus by size of connection, pipe material, loss potential, etc. The successful Engineering Consultant shall provide all estimated costs for recommendations proposed.

6. Task Number Six - Tracking Water Loss - IWA and AWWA Audit Methodologies

KAW embraces the International Water Association (IWA) and soon to be American Water Works Association (AWWA) standards on water loss control and water audit methodology. KAW currently uses many of the audit methodologies. In this task the successful Engineering Consultant shall review the current water loss tracking controls in place in KAW and make recommendations of how it can be improved to current AWWA or IWA standards and methodologies. The successful Engineering Consultant shall provide estimated costs for all recommendations proposed.

Scope of Engineering Services
Analysis of Non-Revenue Water, KAWC – Kentucky Central Division System

C. Schedule

The dates provided in the schedule below represent the dates desired by the water company.

Task #	Task	Start Date	50% Complete	90% Complete	Final Report
1	Break Analysis	10/01/08	11/1/08	12/01/08	01/01/09
2	Meter Zones and Pressure Zones	10/01/08	11/1/08	12/01/08	01/01/09
3	Surge Analysis	10/01/08	11/1/08	12/01/08	01/01/09
4	Large Meters	10/01/08	11/1/08	12/01/08	01/01/09
5	Special Connections	10/01/08	11/1/08	12/01/08	01/01/09
6	Water Loss Tracking	10/01/08	11/1/08	12/01/08	01/01/09

D. Project Management and Deliverables

The consultant is required to prepare and maintain:

1. Copies of minutes of all meetings,
2. Monthly project status updates
3. Project schedule updated every month in Gantt Chart form
4. Monthly submittal of budget versus actual cost by task
5. Monthly Project invoices

The consultant should anticipate four (4) formal meetings with KAW at their offices on Richmond Road that can be combined with data collection efforts. This would include an initial project meeting, and three meetings throughout the project development.

A power-point presentation and written report is required for all tasks listed below. All presentations, reports, maps, graphs, tables and all other presented materials should be submitted in booklet and electronic format. Five copies of each are to be provided to KAW.

1. Task Number One – Distribution Infrastructure and Main Break Analysis, The results of this analysis will include a presentation of an evaluation of the distribution system infrastructure, looking at size, age, type, timing of breaks, condition of pipe, boosters and PRV's, and a map of where the main breaks have occurred to the limits of the data available. Where clusters of main breaks occur, a discussion of probable causes shall be presented along with recommended solutions. The deliverables should include:
 - Charts and Graphs by District and total Service Area
 - Leaks by type (transmission mains, distribution mains, services, valves, hydrants, & other
 - Leaks by size of pipe
 - Leaks by age of pipe
 - Leaks by pressure zones
 - Leaks by month of year
 - Leaks by pipe material
 - Leaks by location/area
 - Maps by District and total Service Area
 - Plotting leaks by location using GPS coordinates of addresses
 - Color coding by size
 - Color shading by pressure zones
 - Reports analyzing leak data with conclusions and recommendations with cost estimates

Scope of Engineering Services
Analysis of Non-Revenue Water, KAWC – Kentucky Central Division System

Provide recommendations for infrastructure replacement frequencies, and analyze current processes that KAW utilizes to replace aging infrastructure. Generate list of suggested infrastructure replacement by location and rank by cost effectiveness. The deliverables should include but not limited to:

- Replacement frequency - % of replacement rate per year and total cost
- Analysis of dollars spent on infrastructure replacement to reduction of NRW volumes
- Recommendations of infrastructure that should be replaced in the next five years ranked by cost effectiveness

Permanent acoustical leak survey sounding systems should be evaluated for cost effectiveness and ranked accordingly with the other solutions to reduce leakage. The deliverables should include but not limited to:

- Review of existing acoustical sounding systems on the market
- Recommendation for full or partial system coverage
- Cost of purchasing equipment, installing and maintaining recommended acoustical leak survey system

An evaluation of the cost effectiveness of implementing a GIS system to track main breaks. The deliverables should include but not limited to:

- Report on the cost of installing a full GIS system for KAW which would track infrastructure and leaks repaired utilizing the base GIS foundation currently being used by NJ American Water Company

All recommended solutions to reduce leakage will have an estimate of cost and ranking of cost effectiveness.

2. Task Number Two – Sub-Meter and Reduced Pressure Zones, The results of this analysis should include describing specific locations for metering stations and pressure reducing valves, isolation valves along with maps of the areas served. It should indicate whether reducing pressure is an option, the extent of pressure reduction and the quantitative effects of pressure reduction on existing customers. It should include minimum and maximum flows and pressures for each PRV/metering station. The potential negative effects shall also be described such as effects on pressure, fire flows and water quality. Recommendations for Sub-metering/ Reduced Pressure Zones will be provided considering the potential benefits and negative effects. Evaluate both the effectiveness of reducing pressures at night only and permanent reductions. Use of the existing boosters, tanks and SCADA shall be incorporated into the evaluation and recommendations. Evaluate existing night-flow tracking methods and recommend improvements. All recommended solutions will have an estimate of cost and ranking of cost effectiveness. The deliverables should include but not limited to:
 - Maps with recommended reduced pressure zones identified
 - Typical PRV station with zone metering specifications
 - Report on negative effects on current and potential customers
 - Overall analysis report on cost effectiveness of each new zone recommended
3. Task Number Three - Surge Analysis, - The results of this evaluation will be a determination of whether water hammer in the distribution system is severe enough to justify investment in surge modeling, monitoring equipment, and additional engineering studies that would evaluate and identify solutions. The deliverables should include, but not be limited to:
 - A discussion of the degree of surge issues present in the distribution system
 - Maps identifying areas where surge may be contributing to main beaks
 - Preliminary discussion of alternative solutions for identified areas

Scope of Engineering Services
Analysis of Non-Revenue Water, KAWC – Kentucky Central Division System

4. Task Number Four - Large Meter Program – The results of this analysis will be a discussion of current program and specific recommendations for enhancements. The deliverables should include, but not be limited to:
 - A discussion of prevailing and best practices in meter sizing and types by flow characteristic, service line size, etc.
 - A discussion of prevailing and best practices in large meter testing and replacement programs
 - An assessment of available technology to utilize large meters to aid in system leak monitoring activity
 - Specific recommended changes to KAW practice, with anticipated cost and benefits

5. Task Number Five - Special Connection, Private Property Loss Analysis – The results of this analysis will provide a prioritized road map for addressing potential non revenue water loss from private, unmetered components of KAW's legacy special connections. The deliverables should include, but not be limited to:
 - Suggested meter installations for each connection
 - Prioritization for meter installations, based on potential loss

6. Task Number Six - Tracking Water Loss - IWA and AWWA audit methodologies – Provide a presentation which reviews, analyzes, and evaluates the current tracking mechanisms in place at KAW and make recommendations that improves the way the company tracks water loss. These recommendations should as a basis the IWA and/or AWWA water audit methodologies. The deliverables should include but not limited to:
 - Report reviewing current processes with recommendations to improve reporting matrix utilizing the IWA/AWWA water loss methodologies
 - Report with analysis on the NRW trends in KAW over the past 15 years
 - Report analyzing KAW loss statistics to similar water systems in and out of the American Water family companies
 - Review current work activities that KAW performs and recommend additional practices that would benefit water loss reduction

E. Fee

The Consultant will be paid a fee based on the actual time and material expended for the work described above with a Not-to-Exceed amount provided in the proposal in accordance with Master Services Agreement and related Billing Rate. The Consultant will be authorized to provide services for each individual task described above.

If the Consultant does not currently have a Master Services Agreement with American Water, the Consultant will be asked to execute the Agreement for Professional Services provided in Appendix A. A rate schedule and acknowledgement of review of the Agreement for Professional Services must be included in the proposal submission.

F. Proposal Submission

The proposal will include;

1. A brief narrative description of the Consultant's understanding of the project concept.

Scope of Engineering Services
Analysis of Non-Revenue Water, KAWC – Kentucky Central Division System

2. Detailed description of how each of the tasks above will be delivered, what will be provided and time frame for completion. For example, will the main break analysis include a map showing where and when leaks occurred?
3. Proposed Not-to-Exceed Fees for each of the tasks described above,
4. Proposed Schedule for each of the tasks, based on the schedule above
5. Proposed Project Team including sub-consultants
6. Proposed alternates, including Fee, Schedule, and description of benefits, to the scope of services listed above that would reduce the Non-Revenue Water for KAW.
7. The Firm's statement of qualifications which must be organized and indexed in the following format:
 - o Letter of transmittal
 - o Firms qualifications (including sub-consultants)
 - o Assigned personnel experience and expertise on related projects
 - o References (minimum of three) on past record of performance
 - o Project understanding and familiarity with IWA/AWWA water loss methodologies
 - o Work plan in response to scope of work
 - o Locations where work will be performed
 - o Ability and resources to effectively manage and complete the work on schedule
 - o Other supporting or resource material
8. Acknowledgement of review and willingness to execute the Agreement for Professional Services and a rate schedule (if necessary).

A meeting will be held between successful consultant and KAW project team upon completion of the proposal to review the deliverables and time frames.

Documents to be provided to the selected consultant:

1. CAD Model for Lexington Central Division, upon request.
2. Flow chart schematics of distribution systems.
3. Historic System Delivery, Sales, Non Revenue Use, Identified Leakage Data
4. Water loss management plan
5. Water loss tracking and activity reports

This RFP including attachments contains information that is confidential and should be protected. This RFP, including attachments, constitutes nonpublic information intended to be conveyed only to the designated consultants and their employees. The unauthorized use, dissemination, distribution or reproduction of this RFP, including attachments, is prohibited.

APPENDICES

A. Agreement for Professional Services.

**AGREEMENT FOR
GENERAL ENGINEERING SERVICES
BETWEEN KENTUCKY-AMERICAN WATER COMPANY AND
STRAND ASSOCIATES, INC.
CONSERVATION PROGRAM REVIEW**

TASK ORDER NO. KY-08-ST-08

Article 2 – Scope of Services shall be per the Request for Proposals (RFP) titled KENTUCKY AMERICAN WATER – REQUEST FOR PROPOSAL – CONSERVATION PROGRAM REVIEW, dated August 8, 2008, in accordance with the terms of the Master Agreement between Owner and Engineer dated February 7, 2005, inclusive of Appendices A through F, this Task Order, and the instructions of Owner's Representative.

Article 3 – Engineer's Representative in charge of the services is Michael A. Woolum, P.E., PLS who may be contacted at 859-225-8500. Owner's Representative in charge of the services is Linda C. Bridwell, P.E., who may be contacted at 859-268-6373, linda.bridwell@amwater.com.

Article 4 – The Services performed within the Task Order shall commence on or about September 25, 2008, and shall be complete on or before May 15, 2009.

Article 9 - Payment shall be a not to exceed time and expense contract in the amount of \$44,000 for Technical Services. The time and expense amounts shall be per the Master Agreement. If it becomes necessary for time and efforts to exceed these amounts using the agreed upon rates, an agreement must be reached between the Engineer's Representative and Owner's Representative for additional time and expense and a new Task Order shall be executed.

INVOICING INSTRUCTIONS: All invoices shall be submitted in duplicate and addressed to: Kentucky American Water, Southeast Region, Attn: Linda C. Bridwell, Workbasket No. A12DIR02, c/o Shared Services Center, P.O. Box 5610, Cherry Hill, NJ 08034.

Owner and Engineer have caused this Agreement to be amended by representatives duly authorized to act, all as of the effective date of September 22,2008.

PREPARED BY: Linda C. Bridwell, P.E. Date September 22, 2008
(OWNER's REPRESENTATIVE)

CONSULTANT
Strand Associates, Inc.

OWNER
Kentucky-American Water Company

By *Matthew Riehl*

By *Linda C. Bridwell*

Title *Corporate Secretary*

Title *PROJECT DELIVERY MGR*

Date *9/26/08*

Date *9/30/08*

**KENTUCKY AMERICAN WATER
CONSERVATION PROGRAM REVIEW
REQUEST FOR PROPOSAL**

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**KENTUCKY AMERICAN WATER
CONSERVATION PROGRAM REVIEW
REQUEST FOR PROPOSAL**

I. SCOPE OF SERVICES

IA. DESIGN

This project is a separate not-to-exceed lump sum proposal for the review of Kentucky American Water (KAW) conservation program and recommendations for changes. Coordination and review will be managed by Linda Bridwell, P.E. of KAW, your primary contact throughout the scope of this project. Any changes in the scope of services during this project must be addressed by the Consultant before the work is performed.

1. Project Narrative Description

The proposed project consists of reviewing Kentucky American Water's conservation program, identify best practices in the industry and recommend changes, if any that can be made. Cost evaluations should be included. Particular emphasis should be placed on practices that may be most effective for the customer usage patterns of Central Kentucky.

The proposed schedule:

Start Date	September 15, 2008
Preliminary Review	December 1, 2008
Final Review	March 1, 2009
Completion Date	May 1, 2009

2. Project Management

- a. The Consultant will be required to prepare and maintain a progress schedule throughout the duration of the project. The schedule shall include all work items as defined in this Request for Proposal. The schedule shall be in Gantt chart form, compare actual to scheduled activities, and be updated every month. The schedule shall show actual dates once an award of contract is made.
- b. Your proposal shall include a maximum of four (4) formal meetings with KAW at their offices on Richmond Road. This would include an initial project meeting and three meetings throughout the project development to review key milestones at 30%, 60%, and 90% completion. All information which will be reviewed at each of the above mentioned meetings shall be submitted and received by KAW at least two days prior to the meeting. The Consultant shall prepare and distribute meeting minutes.

- c. The Consultant will interact with appropriate KAW personnel to gather necessary information to evaluate efforts, including but not limited to site visits, review of daily operating logs, usage data, demand projections and meter route information, where available. It is expected that interaction with KAW personnel will be coordinated through the KAW contact person for this project.

3. **Project Evaluation and Approach**

- a. Evaluate the existing Kentucky American Water conservation program to determine the most cost effective program, both full pipe and that is consistent with industry best practices.

4. **Hydraulic Model Update**

See details in Section III. Project Concept

5. **Deliverables**

The Consultant will furnish, but is not limited to, the following deliverables during the course of the project:

Project Management

- a. Minutes of all meetings.
- b. Monthly Project Status Updates.
- c. Project Schedule updated every month.
- d. Monthly submittal of budget versus actual cost by task.
- e. Monthly Project Invoices.

Project Evaluation and Approach

- a. Written submittal of complete evaluation and recommendations. Implementation plans for individual components, as well as methods for tracking, should also be identified.

II. INFORMATION TO BE SUBMITTED WITH THE PROPOSAL

The following minimum information must be submitted with your proposal:

- 1. A separate not-to-exceed lump sum fee for:
 - a. Reviewing the conservation program;
 - b. Evaluating additional program components; and
 - c. Implementation plan and tracking methods development.
- 2. A brief narrative description of the Consultant's understanding of the project concept. Additionally, provide specifics of any alternative concepts or approaches which may be proposed by the Consultant. The Consultant is encouraged to submit alternative approaches. Should alternative proposals be submitted, a written description of the

proposed methodology should be submitted along with cost estimates comparing the alternative concepts.

3. Specific identification of any sub-consultants that will be utilized for this project.
4. A preliminary schedule from date of award in Gantt chart form. If the time of completion desired by KAW is not acceptable, it shall be explicitly stated in the proposal.
5. Proposal is to be in a stapled, letter format with no binders.

III. PROJECT CONCEPT

System Background

Kentucky American Water (KAW) serves approximately 115,000 customers through a total of over 1,620 miles of water mains. Kentucky American Water serves two districts, the Central and Northern Districts. The Central District service area includes most of Fayette County, which encompasses the City of Lexington and portions of Scott, Bourbon, Woodford, Harrison, Jessamine and Clark Counties. KAW also provides potable water to the City of Midway in Woodford County, North Middletown in Bourbon County, Georgetown Water and Sewer in Scott County, Harrison County Water Association in Cynthiana, Jessamine South Elkhorn Water District in Jessamine County, and City of Nicholasville in Jessamine County. The Northern District service area serves all of Owen County, and parts of Grant and Gallatin Counties. The pipelines range in size from two inches to 30 inches in diameter and are made of various materials such as copper, PVC, grey iron, ductile iron, asbestos cement and prestressed concrete.

Water is supplied to the Central District zone from the distribution pumps at the system's two treatment plants - Kentucky River Station and the Richmond Road Station. Stored water is available from the 15 service tanks as needed to meet peak hour demands and to provide water for fire fighting purposes.

Water is supplied to the Northern district from the treatment plant in Owenton, along with three purchased water connections.

Program Background

In 1991, Kentucky American Water completed a study entitled 'Demand Management Alternatives' as part of its Demand Forecasting and Comprehensive Planning efforts. A conservation program was developed based on the study that included a number of programs. A copy of the study is attached in Appendix A. After piloting a number of the programs, Kentucky American Water felt it had realized limited success in ongoing programs, except for the public education efforts.

A 1994 plan filed with the Kentucky Public Service Commission and updates on initiatives are attached as part of Appendix B.

In April, 2008, the Kentucky Public Service Commission granted a Certificate of Convenience and Public Necessity for KAW to build a new water treatment plant and transmission line into its Central District service area. One of the conditions of the Order was:

“No later than October 1, 2008, Kentucky American shall retain a qualified consultant(s) to assist in developing a water conservation, leak-mitigation and demand management plan consistent with the best practices of the water industry. This plan shall include a program (or programs) to cost-effectively reduce non-revenue water.”

In 1989, Kentucky American Water formalized a Demand Management Plan that identified its efforts to manage demands during a drought period. The last revision of the plan is attached in Appendix C.

Project Scope

The proposed project's primary objective is to review Kentucky American Water's Demand Management Plan and Conservation Program, identify best management practices from the industry, and recommend changes that may be effective and reasonable for Kentucky American Water's customers.

The recommendation should include a cost evaluation and a potential implementation schedule. All resources required for implementation should be identified. Methods for tracking success should also be identified.