COUNTY DEPARTMENT AGENDA REQUEST

Department:	Water System	Presenter(s):	Tony Parrott
Meeting Date:	Thursday, March 24, 2011	Type of Request:	Old Business

Wording for the Agenda:

Consideration of the Water Committee's recommendation for Mallett Consulting to design engineering plans and to oversee the subsequent bidding process pertaining to the Magnetic Ion Exchange (MIEX) process for removal of Total Organic Carbons at the Crosstown Water Treatment Plant and the South Fayette Water Treatment Plant.

Background/History/Details:

The Water System is required to remove dissolved organic carbon from the raw water in its drinking water supply. To determine the best treatment technique, the Water System conducted two studies.

Two pilot studies were conducted at the South Fayette Water Treatment Plant in order to determine which treatment technique was the most effective to meet the requirement. MIEX DOC Resin is a magnetized ion exchange designed to primarily remove dissolved organic carbon (DOC) from drinking water supplies. It also has the ability to remove large portions of less selective ions such, but not limited to, sulfate, nitrate, and chromate.

The total cost of this project will be $9.3 million. Funding will come from multiple sources including the Georgia Environmental Finance Authority and existing Water System funds. The Fayette County Finance Department is currently studying the need and feasibility of a water rate increase to further fund this project.

What action are you seeking from the Board of Commissioners?

Approve the Water Committee's recommendation to authorize Mallett Consulting to design engineering plans and to oversee its subsequent bidding process pertaining to the Magnetic Ion Exchange process for removal of Total Organic Carbons at the Crosstown Water Treatment Plant and the South Fayette Water Treatment Plant.

If this item requires funding, please describe:

Funding will be supplied from multiple sources. Some funding is available from the Renewal and Extension Fund, other funds will be borrowed from the Georgia Environmental Finance Authority, and other funds may be utilized after a water rate increase.

Has this issue come before the Commissioners in the past?	Yes	If so, when?	Friday, February 11, 2011
Do you need audio-visual for the presentation?	No	Back-up Material Submitted?	Yes

STAFF USE ONLY

Approved by Finance	Yes	Reviewed by Legal	Yes
Approved by Purchasing	Not Applicable	Approved by County Clerk	Yes
Administrator's Approval	Yes		

Staff Notes:

This item was first presented to the Board of Commissioners on June 10, 2010 where the Board considered the pilot study for this project.

Mallett Consulting, Inc.
ENGINEERING - SURVEYING - PROJECT MANAGEMENT

101 DEVANT STREET, SUITE 804
FAYETTEVILLE, GEORGIA 30214
770-719-3333
770-719-3377 (fax)

March 9, 2011

Mr. Tony Parrott
Fayette County Water System
P.O. Box 190
Fayetteville, GA 30214

Re: Process Upgrades for Crosstown & So. Fayette WTPs
Fayette County Water System

Dear Tony:

This correspondence is to provide a Preliminary Project Cost Estimate for the above referenced project. The purpose of this project is to improve removal of Total Organic Carbon from treatment plant source water, and to assure the Fayette County Water System can meet the Federal Stage-II Disinfection Byproducts Removal regulations for 2012.

The attached cost estimate is based on the results of the onsite pilot program performed by Orica Watercare for their MIEX Treatment System. This pilot was successfully performed at the South Fayette WTP in July 2010.

The total project estimate includes construction and non-construction related costs. Non-construction costs include proposed fees for design, project management, surveying, testing and inspection. These fees are based on a percentage of the construction costs only (not including the cost of the MIEX resin). Fee percentages are consistent with those used for the Lake McIntosh Dam and Reservoir project.

Please feel free to call me if you need any additional information or would like to discuss this matter further.

Sincerely,
Mallett Consulting, Inc.

David Jaeger, P.E.
Project Engineer

cc: File 09105

Project Cost Estimate:

Magnetic Ion Exchange (MIEX) - Treatment of 50% of Raw Water Flow at Both WTPs	
Miex Equipment, not including initial resin	$3,700,000.00
Brine recovery system (South Fayette WTP only)	$275,000.00
Installation of Miex Equipment & Brine Recovery System	$600,000.00
Contactor vessel (concrete), Building, Plant Piping Modifications	$800,000.00
Electrical Equipment and Controls	$800,000.00
Site Construction	$500,000.00
Initial Resin Supply	$625,000.00
Contractor Mark Up on Equipment and Sales Tax	$500,000.00
Construction Contingency (10%+/-)	$800,000.00
Construction Cost Sub-Total:	$8,600,000.00
Engineering (5%):	$400,000.00
Project Management (1.75%):	$140,000.00
Surveying - Hourly (0.5%)	$40,000.00
Geotech/testing - Hourly (0.5%)	$40,000.00
Inspection - Hourly (1%)	$80,000.00
Total Project:	$9,300,000.00

Note: Consulting fees are based on Construction Cost, less Resin Cost.