

## CLAYTON COUNTY WATER AUTHORITY

1600 Battle Creek Road  
Morrow, Georgia 30260

Regular Board Meeting, December 4, 2003

Chairman Pete McQueen called the meeting to order at 1:30 p.m.

Chairman McQueen, on behalf of the Board of Directors, wished everyone a Merry Christmas and a happy, prosperous New Year. Chairman McQueen stated that the Board appreciates the employees and what they do for the Water Authority.

Present at the meeting were: Chairman, Pete McQueen, Vice Chairman, Lloyd Joiner, Secretary/Treasurer, Marie Barber, Board Members, Wes Greene, J. Alan Horton, and John L. Westervelt, General Manager, M. Wade Brannan, Deputy Manager, Terry R. Hicks, Department Managers, Frank Conort, Dennis Hammock, Guy Pihera, Mike Thomas, Jim Poff and Teresa Adams, Customer Accounts Director, Morris Kelly, Finance Director, Emory McHugh, Project Manager, Mike Buffington, Contract & Procurement Administrator, Karen Riser, Administrative Secretary, Dianne Hammock, Human Resource Director, Ed Durham, Executive Secretary, Janet Matthews. Also present were: Steve Fincher, Fincher & Hecht, L.L.C., Rick Hirsekorn, of CH2M Hill, Farrar Wood of Jim Wood & Associates Public Relations, Pam Ashman from the American Cancer Society, and Darrell Thomas of Williams-Russell & Johnson, Incorporated. CCWA employees: Eric Osborne, Andy Wells, Jenny Collier, Tony Ferrari, Bruce Taylor, Nikki Rhew, and Michelle Mirzaiee. Board member, Robbie Moore was out of town and Department Manager, Herbert Etheridge was absent.

Chairman McQueen called on Nikki Rhew, Engineering Technician, to give the invocation.

Chairman McQueen called for any omissions or additions to the Regular and Executive Session Board Minutes of November 6, 2003. Hearing none they were approved as mailed.

Financial and Statistical Report: Chairman McQueen called on Emory McHugh, Finance Director, who presented the monthly financial and statistical report. This report was received for information with some discussion from the Board.

Employee Recognition: Chairman McQueen asked Mr. Pihera, Manager of Water Production, to continue with the employee recognition. Mr. Pihera introduced Eric Osborne with Water Production, along with Jenny Collier and Andy Wells with Administration. Mr. Pihera asked the Board to look in their agenda book at the Consumer Confidence Report that was distributed. Mr. Pihera explained that the Authority is required by the EPA to publish and distribute this report to all our customers.

Regular Board Meeting  
December 4, 2003  
Page Two

Mr. Pihera stated that over seventy thousand (70,000) Consumer Confidence Reports have been sent out in the water bills over the past year.

Mr. Pihera added that this Consumer Confidence Report was put into judging with GW&PCA for competition in the state with large water systems and won first place in the award judging. This report was judged on content, meeting regulation, and general appearance. Mr. Pihera stated that Eric, Jenny, and Andy were instrumental in putting this report together and getting it distributed to all the Authority's customers as well as meeting the requirement from the EPA. Mr. Pihera congratulated Eric, Jenny and Andy for their efforts and displayed the award received from the GW&PCA.

Chairman McQueen stated that the Consumer Confidence Report was a good-looking report and thanked Eric, Jenny, and Andy for all their work on this project.

Chairman McQueen called on Ed Durham, Human Resources Director, to present the American Cancer Society Award. Mr. Durham asked Tony Ferrari, Michelle Mirzaiee, and Pam Ashman to come forward. Mr. Durham stated that every year the employees of Clayton County Water are very active in the fight against cancer, with Tony and Michelle being our champions in this cause. Mr. Durham explained that Tony heads up all our fund raising efforts, which includes the Relay for Life and also has many cookouts to raise funds. Mr. Durham added that Tony has done great things in raising a lot of money to help in the fight against cancer.

Mr. Durham stated that Michelle Mirzaiee has been the champion of the prevention of cancer and has instituted several programs that the Authority has hosted such as smoking cessation, mammograms, colon-rectal screenings, prostate screenings and other programs to help our employees identify, hopefully in the early stages, any potential signs of the disease.

Mr. Durham added that Pam Ashman from the American Cancer Society is here today to present an award to the Authority. Ms. Ashman stated that she is here to present the star partner award to the Authority for being an ACS-at-work star partner. Of the Cancer Society's seven programs, Relay for Life is one; another is the Fresh start program (smoking cessation program) and also the Making Strides Against Breast Cancer as a fundraiser, as well as Health Reach, which is providing on-site screenings at a work site. Ms. Ashman stated that besides having the health fair, where we hand out brochures, the Cancer Society also encourages and works with Michelle to get on-site screenings, which we hope to do again this year. Ms. Ashman added that if an

Regular Board Meeting  
December 4, 2003  
Page Three

organization picks three (3) programs and completes them in a year's time frame, the organization becomes a star partner with the Cancer Society.

Ms. Ashman stated that she is proud to present this award to the Water Authority and to thank all those that were responsible for the funds raised for the Cancer Society. Ms. Ashman added that this past year the Authority had three teams in the Relay for Life and raised fourteen thousand four hundred ninety dollars (\$14,490). Ms. Ashman wanted the Authority to know that the money does come back to the community. Three college scholarships were given to high school seniors who were childhood cancer survivors, as well as, two children were able to attend cancer camp from the funds raised. Ms. Ashman stated that the Cancer Society did twenty-one mammograms here at the Authority this year and is talking about adding skin cancer screenings possibly in May for employees that work outdoors. Ms. Ashman thanked Tony and Michelle and the Board gave them a round of applause.

Chairman McQueen, on behalf of the Board, thanked Tony and Michelle for what they do for the Clayton County Water Authority and thanked Ms. Ashman for being here today and presenting this award.

Retiree Insurance Request: Chairman McQueen asked Mr. Durham to continue with the Retiree Insurance Request. Mr. Durham stated that the Authority has two of our retirees that are not currently in our retirement health insurance because of extenuating circumstances who are requesting to re-enter our health insurance program. Mr. Durham added that he met yesterday with Board member, Wes Greene, and covered all the circumstances, which to our knowledge does not involve any health issues, more of a technical nature or a loss of coverage for the spouse. Mr. Durham asked Wes Greene if he would like to expound on this request.

Board member, Wes Greene, commented that he did review both of the requests and it is his recommendation that the Board honor those requests and extend coverage for those individuals. Mr. Greene added that one of the requests was a situation where one of our older retirees checked off block A of the Medicare Supplement, but failed to check off block B and this kicked him out of the insurance program. Mr. Greene stated that was just an oversight. Mr. Greene added that it is the right thing for the Board to reinstate that coverage.

Mr. Greene stated that in both situations the Authority felt without question that it was appropriate to extend coverage. By doing this, there are six others who potentially could come back and ask for coverage. The Board would then be setting precedent for

Regular Board Meeting  
December 4, 2003  
Page Four

those other six. The Authority felt that if those individuals did come forward and request coverage that the Board would look at their requests on a case-by- case basis.

Upon Motion by Wes Greene and seconded by Marie Barber it was unanimously

RESOLVED: to accept the recommendation of the staff to reinstate two retirees, John Davis and Raymond Hunt, into the Authority's retirement health insurance plan and if others were to ask to be reinstated that the Authority would consider their request on a case-by-case basis.

Board member, Alan Horton, asked if the retirees that participate in the insurance program pay all of the costs or does the Water Authority subsidize this program.

Board member, Wes Greene, stated that the Water Authority pays one hundred per cent of the retirees' costs.

Mr. Durham added that the retiree is responsible for the full costs of the spouse and dependent coverage. Mr. Durham added that the two retirees under discussion are over sixty-five (65), so they are in the Authority's "over 65 plus" plan and not in our group plan.

Vice Chairman, Lloyd Joiner, asked if there was a specific reason why these eight retirees were not currently in the insurance program.

Board member, Wes Greene, stated that on six of these retirees he did not know exactly why they did not choose to be in the insurance program, because the Authority's records do not document going back those numbers of years.

Deputy Manager, Terry Hicks, added that one of the retirees goes back to 1972. Most of these are prior to when the Board put retiree's health insurance in place in 1993. The Authority is not sure if some of these retirees might be deceased.

Chairman McQueen asked that Human Resource develop a form to be signed at the time of retirement that indicates whether the retiree does or does not want to be in the insurance program.

Mr. Durham stated that in going back through the minutes of past Board meetings the retiree benefit question has come up on several occasions, so the Human Resource section is drafting a document that hopefully can be put within our Board minutes next month. A copy of this proposed document was distributed to the Board for their review

Regular Board Meeting  
December 4, 2003  
Page Five

and also given to legal counsel. Mr. Durham added that the Authority wanted to make sure that this proposed document would be a cleaner representation so that if an issue were to come up again, that the Authority would have it well documented in the minutes and the Authority can refer to what has been approved by the Board.

Chairman McQueen called on Guy Pihera, Manager of Water Production, who updated the Board on the status of the Authority's water production and raw water reserve. Mr. Pihera discussed the information shown on the Water Supply Weekly Update for November 24, 2003, that was distributed to the Board.

Hooper Well Bid Recommendation: Mr. Pihera stated that the Authority had advertised for bids to construct a wellhead and chemical facility for one of the two production wells that the Authority is developing. Mr. Pihera added that the Authority sent out six (6) invitations to prospective contractors, with three (3) contractors picking up plans and specifications. Mr. Pihera stated that the Authority received only one bid in the amount of three hundred nineteen thousand two hundred dollars (\$319,200) from Willow Construction Company, which is well over the Authority's estimated cost for this project of one hundred twenty thousand dollars (\$120,000). Mr. Pihera recommends that the Authority reject this bid.

Mr. Pihera added that, as an alternate, the Authority plans to use with in-house personnel and also some subcontracting and see what kind of price the Authority can put together to do this job and bring this information back to the Board.

Chairman McQueen asked for a motion to reject the bid from Willow Construction, Incorporated in the amount of three hundred nineteen thousand two hundred dollars (\$319,200).

Upon Motion by Wes Greene and seconded by John Westervelt it was unanimously

**RESOLVED:** to reject the bid for the Hooper Well and 6-Inch Waterline Extension from Willow Construction in the amount of three hundred nineteen thousand two hundred dollars (\$319,200).

Regular Board Meeting  
 December 4, 2003  
 Page Six

Clayton County Water Authority  
 Hooper Well and 6-Inch Waterline Extension  
 Tab Sheet  
 November 2003

Vendor	Bid
Carter's Construction Group 530 Indian Cotton Trail McDonough, GA 30252	No Bid
Gary's Grading & Pipeline Co., Inc. 7434 Highway 81 Monroe, GA 30656	No Bid
Willow Construction, Inc. 3970 Flint Hill Road Powder Springs, GA 30127	\$319,200.00

Engineering estimate of \$120,000. We recommend not making an award at this time. We will either re-bid or use CCWA forces.

Board member, Wes Greene, asked why the Authority did not receive any more bids on this job.

Mike Thomas, Manager of Program Management & Engineering, explained that this job included a small unique structure that has a lot of poured concrete and piping.

Geographic Information System Update (GIS): Chairman McQueen called on Mr. Thomas to present the update on the GIS system. Mr. Thomas stated that the Authority has reached a significant milestone in the development of our Geographic Information System (GIS) and wanted to take this opportunity to tell the Board about this milestone and to give the Board an overview of the progress of this program.

Mr. Thomas introduced Bruce Taylor, Engineering Services Supervisor. Mr. Thomas stated that Mr. Taylor came to the Water Authority about three years ago and at

Regular Board Meeting  
December 4, 2003  
Page Seven

that time the Water Authority had absolutely nothing in the way of a geographic information system. Mr. Thomas added that Mr. Taylor has done an outstanding job, both efficiently and economically, with this GIS system.

Mr. Taylor explained to the Board that this program was affectionately named BHAG that stands for “Big Hairy Audacious Goal”, because it is a project that a lot of people said could not get done because it had been so many years since the Authority had actually had all updated information on our water and sewer system.

#### CCWA GEOGRAPHIC INFORMATION SYSTEM (GIS) UPDATE

November marked a significant milestone in the GIS (Geographic Information Systems) data collection effort as our survey crew completed the *valve detail* portion of a project we affectionately call the Big Hairy Audacious Goal (BHAG). Valve details are the “close up” representation of the water system valves. The Maintenance and Construction department, as well as other departments, use these valve details to locate valves in the field. Since valves get paved over or buried over the years, this information is crucial to rapid response during emergencies. During the course of 16 months, the survey crew measured the location of all 15,453 valves in the system by locating each valve, and pulling a measuring tape to three reference locations. After measuring, they entered this data into a laptop computer, and every evening uploaded the data to the CCWA computer network. Each of the surveyors (John Beale, Derek Doss, Adam Horton, and Crew Leader Jim Quattlebaum) spent roughly 1000 hours on the project, working in all weather conditions. This work was done in coordination with the Maintenance and Construction department, which is currently “exercising” valves and doing other valve maintenance.

The overall scope of the BHAG project is to completely update all water and sewer information in the GIS. It involves converting the water and sewer maps into digital format, digitizing as-built plans, surveying missing sewer lines, and the valve detail project. In all 610,294 feet of sewer lines, 57,623 feet of force main, 3,268 manholes, and 3,408 valves details were added to the system. With this true representation of the water and sewer systems, CCWA will be able to better manage them, using the data for preventive maintenance, asset replacement and upgrades, emergency management, and asset depreciation. Going beyond paper maps, the GIS allows users to determine, in a single mouse click, such key indicators as age, material, manufacturer, condition, and size – as well as many other statistics. Having such a complete and up-to-date GIS inventory is one of the hallmarks of a well-managed system.

Regular Board Meeting  
December 4, 2003  
Page Eight

Mr. Taylor stated that the data provided by the GIS system is critical information to respond to emergencies, as well as, finding the valves for routine maintenance. Mr. Taylor commented that the valve detail part of the BHAG was completed on November 18, 2003 with a total of fifteen thousand four hundred fifty-three (15,453) valves that were measured. Mr. Taylor added that in order to speed up the process of gathering information for the GIS system, instead of drawing things in the field by hand, the survey team started working with the GIS directly in the field, something that has not been done that often. The surveyors digitize or draw the information in the field, based on the measurements taken, and then upload that information directly to our master database at the end of the day. Our survey team spent roughly a thousand hours doing the valve detail collection. Mr. Taylor gave a slide presentation that showed the valve detail and explained the technique used and gave some statistical information on the GIS system

Mr. Brannan stated that this is new accurate information on the system that the Authority did not previously have to work with.

Mr. Taylor summed up the benefits from the GIS system as better management of the water and wastewater systems, with the ability to locate buried or covered valves, preventive maintenance, assessment of these fixed assets, and asset depreciation. Mr. Taylor stated that Charles Ecton, Wastewater Maintenance Coordinator, is working on a project, using a palm pilot, to assess the condition of all our manholes and upload that information into our system daily.

Board member, Wes Greene, asked Mr. Taylor what percent of the Authority's total system is in the GIS system.

Mr. Taylor stated that as far as the valves were concerned, five or ten percent, would need to be located and the sewer lines are up to ninety (90%) percent in the GIS system.

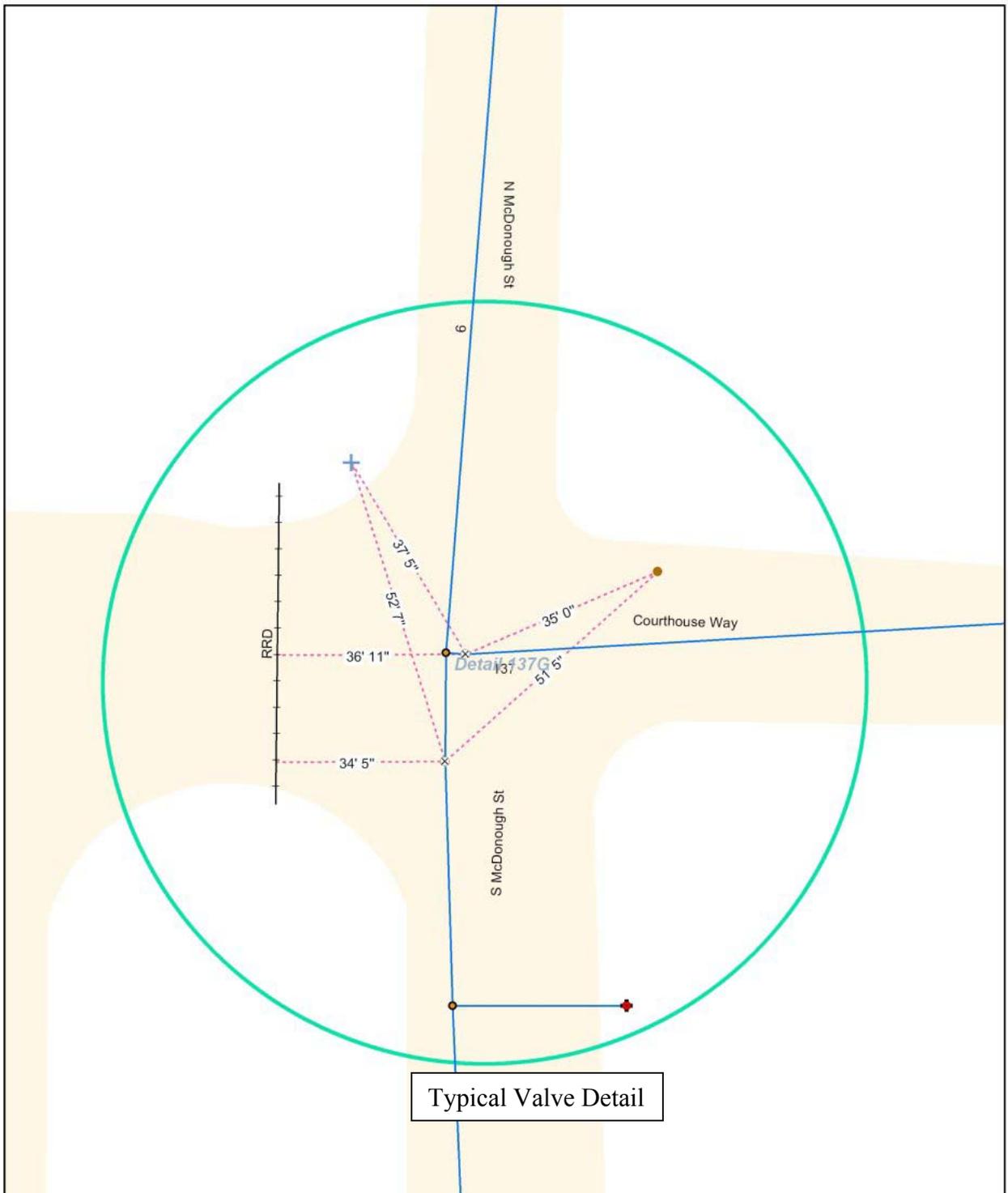
Chairman McQueen stated that the GIS system is a great benefit to the Water Authority and congratulated Mr. Taylor and the survey crew who completed this work.

Mr. Brannan commented that he and Mr. Hicks both had been dealing with this technology for fifteen years. Mr. Brannan stated that the Authority has no peers in regard to the GIS system that the Authority has in place and added that this is a direct result of Mr. Taylor and his crew. Mr. Brannan thanked the Board for their vision to put the Authority in the position that it is in today. Mr. Brannan added that the Authority has

Regular Board Meeting  
December 4, 2003  
Page Nine

documentation on where our facilities are located and this is critical as the Authority goes forward.

Board member, Wes Greene, stated that when the Board looked at the GIS system the costs were staggering, but Mr. Greene wanted to credit CH2M Hill with presenting this to the Authority and advising the Authority that this was a system that would be very beneficial to the Authority in the long term.



Regular Board Meeting  
 December 4, 2003  
 Page Ten

Ground Penetrating Radar Bid Recommendation: Chairman McQueen called on Mr. Brannan to discuss the Ground Penetrating Radar Bid Recommendation. Mr. Brannan explained that this equipment is used just like an x-ray. Mr. Brannan stated that the Authority has several areas where facilities are buried that the Authority would need to locate such as in the distribution or collection system. Mr. Brannan stated that the Ground Penetrating Radar equipment would locate the service, pick up the size of the pipe, and would help to comply with legal requirements as far as utility locate.

Mr. Brannan stated that the Authority had three bids with the low bid from Vermeer Southeast Sales & Service, who bid on a model that is not in production and also the software that they use is not compatible with the Authority's business software. Mr. Brannan stated that the next low bid was from Geophysical Survey Systems, Incorporated with a bid of twenty-five thousand four hundred dollars (\$25,400). Mr. Brannan stated that the staff recommends accepting the bid from Geophysical Survey Systems.

Clayton County Water Authority  
 Ground Penetrating Radar  
 Tab Sheet  
 October 2003

Vendor	Bid	Make/Model
Geophysical Survey Systems, Inc. Attn: Kristine Fichera 13 Klein Dr. P.O. Box 97 North Salem, NH 03073	\$25,400.00	Utility Scan FGUTIL Scan
Sensors and Software, Inc. 1040 Stacey Ct. Mississauga, ON L4W 2X8 Canada	\$25,430.00	Noggin 240 Smart Cart Plus
Ditch Witch of Georgia 4891 Clark Howell Hwy. College Park, GA. 30349	No Bid	
Vermeer Southeast Sales and Service 305 Racetrack Rd. McDonough, GA. 30253	\$23,500.00	Vermeer Integrator EQ

Recommendation: The CCWA staff recommends purchasing 1 New Utility

Regular Board Meeting  
December 4, 2003  
Page Eleven

Scan FQUTIL Scan from Geophysical Survey Systems, Inc in the amount of \$25,400.00. The low bid unit did not meet specifications (see attachment).

#### Ground Penetrating Radar – Specification Deficiencies

Survey Samples per scan was specified to be 256, 512, 1024, 2048, 4096, and 8,192 – The low bid unit is capable of 512 samples per scan only. The specifications permit the user to select the number of scans to optimize the data collection dependant on the specific needs of the job.

Unit was specified to be usable with a transport cart, free survey (used in a boat or behind a vehicle), and point mode (hand carried into a building or plant). The low bid unit offers the use of the transport cart only.

The specifications required that the unit have a user selectable time range for sampling at any speed from 0 – 8000 nanoseconds to optimize data acquisition in a multitude of environments and conditions. The low bid unit offers only 4 set points.

The software must be capable of exporting files to Microsoft Office Products and use Windows printer drivers to print to a variety of printers and plotters. The low bid unit does not offer this option.

Upon Motion by Lloyd Joiner and seconded by Alan Horton it was unanimously

RESOLVED: to authorize the purchase of one (1) New Utility Scan FQUTIL Scan from Geophysical Survey Systems, Incorporated in the amount of twenty-five thousand four hundred dollars (\$25,400).

Trenchless Pipe Bid Recommendation: Mr. Brannan continued with the bid recommendation for the Trenchless Pipe. Mr. Brannan added that the Authority had continually been getting information on this Trenchless Pipe Replacement, as this is the first time to receive bids on an annual basis for this type of work. With the wide spread of the bids, and after some bidding conversations with these contractors over the last few days, the Authority has determined that it would be best to reject and re-bid this service. Mr. Brannan stated that the Authority recommends that the Board reject this recommendation and get new bids, review them and bring this back before the Board probably in February.

Regular Board Meeting  
 December 4, 2003  
 Page Twelve

Clayton County Water Authority  
 Trenchless Pipe Replacement  
 Tab Sheet  
 October 2003

Vendor	Bid
Roland Pugh Construction, Inc. Attn: Ed Yessick 1280 Powder Plant Rd SW Bessemer, AL 35022	\$99,320.00
Rockdale Pipeline P.O. Box 1157 Conyers, GA. 30012	No Bid
W.L. Haley & Co. 2436 Cheshire Bridge Rd. NE Atlanta, GA	No Bid
Southeast Pipe Survey Attn: Randy Worden 3523 Williams St. Patterson, GA. 31557	No Bid
Reynolds, Inc. 121 Roberts St. Fairburn, GA. 30213	No Bid
Insituform Technologies Attn: Pat Melton P.O. Box 1837 Lexington, SC. 29071-1837	No Bid
CJB Contracting, Inc. Clinton Stanford Jr. 131 Ponce De Leon Ave. Atlanta, GA. 30308	\$164,576.00

Recommendation: The CCWA Staff recommends that this bid be rejected and rebid.

Upon Motion by John Westervelt and seconded by Wes Greene it was unanimously

RESOLVED: to reject all bids for the Trenchless Pipe Replacement.

Regular Board Meeting  
 December 4, 2003  
 Page Thirteen

Backflow Materials Bid Recommendation: Mr. Brannan stated that the next item on the agenda is Materials for Backflow Retrofits. Mr. Brannan stated that the low bidder is Apex Supply Company in the amount of two hundred thirty-six thousand six hundred fifty-five dollars (\$236,655). Mr. Brannan added that these materials are paid for out of the GEFA grant that the Authority currently has. Mr. Brannan stated that the staff's recommendation is the low bid of Apex Supply Company.

Clayton County Water Authority  
 Materials for Backflow Retrofits – Small Commercial Accounts  
 2,500 – ¾” and 750 – 1” Watts Double Check Valves  
 December 2003

Delta Municipal Supply Company Lawrenceville, GA.	\$244,000.00
Premier Utilities and Services, Inc. Mableton, GA.	\$261,000.00
Ferguson Underground Braselton, GA.	\$264,217.50
National Waterworks Kennesaw, GA.	\$247,712.50
Lanier Municipal Supply Lakeland, GA.	\$247,130.00
Lawrenceville Winnelson Lawrenceville, GA.	\$248,917.50
Trinity Steel Group, Inc. Atlanta, GA.	No Bid
Engineered Process Equipment, Inc. Atlanta, GA.	No Bid
F.M. Shelton, Inc. Atlanta, GA.	\$313,575.00
Frankie Thompson Enterprises, Inc. Riverdale, GA.	\$491,750.00
Apex Supply Company Norcross, GA.	\$236,655.00

Staff recommends purchasing these materials from the low bidder, Apex Supply Company, in the amount of \$236,655.00. This purchase is being funded with GEFA Loan Proceeds for our backflow upgrade program.

Regular Board Meeting  
December 4, 2003  
Page Fourteen

Upon Motion by Alan Horton and seconded by John Westervelt it was unanimously

RESOLVED: to approve the low bid of Apex Supply Company for the Materials for Backflow Retrofits in the amount of two hundred thirty-six thousand six hundred fifty-five dollars (\$236,655). These funds will come from the GEFA Loan Proceeds for our backflow retrofit program.

Huie Constructed Wetlands Task Order (Phase II & III): Chairman McQueen called on Mike Buffington, Project Engineer, who stated that he would like to give an informational update on Phase I of the Huie Constructed Wetlands and then present the Task Order for Phase II & III. Mr. Buffington stated that during the planning stages of our master plan, the Authority identified certain portions of our Huie Land Application site that the Authority would convert to constructed wetlands. Mr. Buffington added that the constructed wetlands would provide additional capacity as well as continuing the Water Authority's philosophy of using natural treatment systems. Mr. Buffington explained that Phase I construction of the Huie project started in August of this year with contract completion in 2004. The construction costs are seven million seven hundred ninety-five thousand dollars (\$7,795,000) and the contractor is Gary's Grading and Pipeline. Mr. Buffington added that this is the same contractor that constructed the Inman Road Wetlands. This project is funded by GEFA funds. Mr. Buffington also gave some background information on Phase I with a slide presentation. Mr. Buffington called on Rick Hirsekorn, of CH2M Hill, to present the design task order for Phase II and III of the Huie Constructed Wetlands.

Mr. Hirsekorn explained that the poster display behind the Board shows the stages of construction of the Constructed Wetlands that is currently in operation. This display was exhibited at the WEFTEC conference.

Mr. Hirsekorn reviewed the Design Task Order for the Huie Constructed Wetlands Phase II and III. Mr. Hirsekorn stated that ultimately the Authority is to have 15 MGD of permitted capacity of constructed wetlands and the remaining 9 MGD would remain in LAS. Mr. Hirsekorn added that the ultimate system is that the Authority operate both the constructed wetlands and the land application system in parallel with each other and to provide some flexibility to relieve some of the pressure on the LAS system and allow it to continue to operate successfully in the future. Mr. Hirsekorn gave a slide presentation showing the sites in Phase II and Phase III. There was discussion concerning this information.

Regular Board Meeting  
December 4, 2003  
Page Fifteen

Board member, Wes Greene, stated that residents in the area of the constructed wetlands are not aware that the Authority owns the land and Mr. Greene requested that a sign be installed that would explain what is being constructed in that area.

Mr. Buffington stated that normally the Authority requires the contractor to install a sign explaining what is to be constructed. The Authority would follow up on getting a sign posted on the site.

DESIGN TASK ORDER  
HUIE CONSTRUCTED WETLANDS  
PHASE TWO AND THREE

The Jackson Transfer Pump Station currently pumps treated effluent to the Huie holding ponds for further treatment on the land application system (LAS) with a capacity of 19.5 MGD. To expand and upgrade treatment at the Huie site, a portion of the LAS will be converted to constructed wetlands in several phases. Huie Constructed Wetlands Phase One, currently under construction, includes a splitter box, conveyance pipeline, and conversion of a portion of the LAS to constructed wetlands with an approximate treatment capacity of 3.6 MGD.

This project includes design of Huie Constructed Wetlands Phase Two and Three. Phase two will have an approximate treatment capacity of 3.0 MGD and phase three approximately 2.8 MGD. The project will include preparation of construction documents for wetland cells, plantings, control structures, and connection to the phase one conveyance piping system. The design process will include subsurface geotechnical investigation, schematic and detailed design, and bid services for phase two wetlands. Phase three will be a separate set of documents for bidding and construction at a later date.

*Project Managers:*

- CH2M Hill, Engineers – Jay Kirk
- Clayton County Water Authority – Mike Buffington

*Proposed Task Order Amount:*

\$ 457,600

*Funding:*

The project will be funded by the Series 2001 Bond Issue.

Regular Board Meeting  
 December 4, 2003  
 Page Sixteen

### TASK ORDER NO. BO-01-13

This is an attachment to the AGREEMENT between CH2M HILL (“ENGINEER”) and CLAYTON COUNTY WATER AUTHORITY (“OWNER”), for a project generally described as *Huie Constructed Wetlands Phase Two and Three Design*. The purpose of this Task Order is to design Phases Two and Three of the proposed wetlands treatment system on the Huie LAS to accept approximately 5.8 million gallons per day (mgd) of treated effluent from the new W. B. Casey WRF.

#### ARTICLE 1. SCOPE OF SERVICES

The Jackson transfer pump station pumps treated effluent, which it receives from the R. L. Jackson and W. B. Casey WRF’s, to the Huie Land Management Site storage reservoir. The effluent is then pumped to the land application system (LAS) for effluent disposal. Based on the projected increase in flows to the W. B. Casey and R. L. Jackson WRF’s, as part of the 2000 Master Planning effort, the Huie effluent disposal system was found to have inadequate capacity. In order to treat the projected increase in flow, the Master Plan recommended expanding the capacity of the W. B. Casey and the R. L. Jackson WRF’s and to construct a wetlands treatment system on a portion of the Huie LAS.

The OWNER has contracted with CH2M HILL for design of a new 24 million gallon per day (mgd) treatment plant on a green site off Flint River Road, north of the existing W. B. Casey Site. The new plant will be designed to treat the combined influent from the R. L. Jackson and the W. B. Casey WRF’s with enhanced treatment providing nutrient reduction. Since the Huie LAS has a permitted capacity of 19.5 mgd, it will be necessary to increase its effluent treatment capability.

The plan is to convert a portion of the LAS to a constructed wetlands system. A preliminary reconnaissance has concluded that 19-candidate sites totaling approximately 825-acres of the LAS could be converted into constructed wetlands yielding approximately 460-acres of wetted wetland area. Because of the need to maintain maximum capacity of the LAS for hydraulic loading and subsequent treatment, it will be necessary to carefully phase in the treatment wetlands while trying to minimally disturb the LAS irrigation network. The top 11-candidate sites have been identified based on the criteria developed during wetland site selection workshops with CCWA staff. The 11-candidate sites are scheduled to be developed in four phases and will provide approximately 15.2 mgd of treatment capacity. The four phases are as follows:

<u>Phase</u>	<u>Candidate Sites</u>	<u>Estimated Treatment Capacity</u>
1	G	3.6 mgd
2	D, E and F	3.0 mgd
3	H, I and J	2.8 mgd
4	K, L, M, and N	5.8 mgd

Regular Board Meeting  
December 4, 2003  
Page Seventeen

The design of the first phase of wetlands (Site G) was completed in January 2003. The construction of Site G is currently underway, with a notice to proceed date of August 20<sup>th</sup>, 2003. Construction of the Phase One wetlands is expected to be completed in August 2004.

Since the wetlands treatment cells will have discharges, it will be necessary to locate discharges for treated water throughout the LAS watershed. Multiple discharges will be required that direct treated water to flow to natural streams that exist in the LAS watershed where they will flow through natural wetlands and ponds prior to flowing into Blalock Reservoir.

The specific tasks included in the Phase Two and Three Wetlands design are as follows:

- Subsurface Geotechnical Investigation.
- Design of the Phase Two Wetland Cells.
- Design of the Phase Three Wetland Cells.
- Design Workshops.
- Bid Support Services, Phase Two Only.
- Stormwater NPDES Monitoring Plan, Phase Two Only.
- Huie LAS Evaluation Workshop

#### TASK 1 – Subsurface Geotechnical Investigation

A detailed subsurface geotechnical investigation within the vicinity of the proposed wetland cell locations for both Phase Two and Three candidate sites D, E, F, H, I, and J. The geotechnical investigation of these sites shall include 30 boring locations to define soil properties. A series of Shelby tube samples will be taken to confirm sub-surface soil properties and soil permeabilities.

A licensed professional surveyor will survey all soil boring locations. The surveying information for each location will be compared to information obtained through Lidar to confirm general accuracy.

The information obtained in Task 1 will be used in Tasks 2 and 3 to help determine grading elevations and cut and fill volumes.

#### TASK 2 – Design of the Phase Two Wetland Cells

This Task will include designing a wetland treatment system at candidate sites D, E, and F for approximately 3.0 mgd of treated effluent from the new W. B. Casey WRF. The projected treatment capacity of Phase Two will be revised to reflect the wetland treatment area once finalized. The wetland system will consist of terraced wetland cells such that an optimized flow path is developed taking into account topographic and geotechnical limitations. Operational flexibility with the ability to step-feed treated wastewater to any of the treatment cells will also be considered during the design of the Phase Two Wetland Cells.

Topographic information obtained from the Lidar survey issued in 2001 will be used for Task 2. As identified in Task 1, spot elevations will be surveyed for each soil boring location and to verify the general accuracy of the Lidar survey. Areas with significant differences between the Lidar survey and the spot elevations may require additional surveying efforts that are not covered as part of this Task Order.

Regular Board Meeting  
December 4, 2003  
Page Eighteen

Hydraulic and Hydrologic modeling will be used to determine the required overall cell depth and the size of the primary and emergency control structures. The two flow conditions to be modeled are as follows:

- 3.0 mgd base flow,
- 3.0 mgd base flow times a 2.25 peaking factor and the 100-year storm event, with a 4-hour lag.

The wetland cells earth volumes will be modeled in GeoPak or InRoads. An attempt to balance the cut and fill volumes such that the difference does not exceed 10% will be made. A 12-foot wide gravel road will be designed along the top of each berm to provide access for inspection and maintenance vehicles. A typical wetland-planting plan will be provided along with detail construction and stake out plans for the initial phase of the wetland cells.

The primary control structures will consist of a concrete structure with an adjustable weir gate as designed for the Huie Phase One wetlands. The emergency control structures will consist of a concrete structure with a fixed weir set approximately 16-inches below the top of berm elevation. The outlet pipe from the primary and emergency control structures will be sized such that turtles and other small animals will not get stuck in, or plug the pipe. A skimmer and a trash rack will be designed for the last primary control structure to prevent floating debris from being discharged into the existing on-site wetlands and conveyance systems.

The main conveyance pipeline that will feed Sites D, E, F has been designed as part of Phase One to include the valve building. For the Phase Two Wetlands design, the piping, and flow control valves required to connect each site to the existing conveyance system will be included in Task 2. The hydraulics of the conveyance system will be reviewed to ensure that adequate flow can be fed to each site.

A NPDES Stormwater Construction Permit will be required, since more than 1 acre will be disturbed. We will prepare the sediment and erosion control and monitoring plan for the site. However, applying for the permit and providing the required monitoring during construction will be the responsibility of the contractor and is not included as part of this Task Order.

Task 2 will be executed concurrently with Tasks 3 and 4.

### TASK 3 – Design of the Phase Three Wetland Cells

This Task will include designing a wetland treatment system at candidate sites H, I, and J for approximately 2.8 mgd of treated effluent from the new W. B. Casey WRF. The projected treatment capacity of Phase Three will be revised to reflect the wetland treatment area once finalized. The wetland system will consist of terraced wetland cells such that an optimized flow path is developed taking into account topographic and geotechnical limitations. Operational flexibility with the ability to step-feed treated wastewater to any of the treatment cells will also be considered during the design of the Phase Three Wetland Cells. Topographic information obtained from the Lidar Survey issued in 2001 will be used for Task 2. As identified in Task 1, spot elevations will be surveyed for each soil boring location and to verify the general accuracy of the Lidar survey. Areas with significant differences between the Lidar survey and the spot elevations may require additional surveying efforts that are not covered as part of this Task Order.

Regular Board Meeting  
December 4, 2003  
Page Nineteen

Hydraulic and Hydrologic modeling will be used to determine the required overall cell depth and the size of the primary and emergency control structures. The two flow conditions to be modeled are as follows:

- 2.8 mgd base flow,
- 2.8 mgd base flow times a 2.25 peaking factor and the 100-year storm event, with a 4-hour lag.

The wetland cells earth volumes will be modeled in GeoPak or InRoads. An attempt to balance the cut and fill volumes such that the difference does not exceed 10% will be made. A 12-foot wide gravel road will be designed along the top of each berm to provide access for inspection and maintenance vehicles. A typical wetland-planting plan will be provided along with detail construction and stake out plans for the initial phase of the wetland cells.

The primary control structures will consist of a concrete structure with an adjustable weir gate as designed for the Huie Phase One wetlands. The emergency control structures will consist of a concrete structure with a fixed weir set approximately 16-inches below the top of berm elevation. The outlet pipe from the primary and emergency control structures will be sized such that turtles and other small animals will not get stuck in, or plug the pipe. A skimmer and a trash rack will be designed for the last primary control structure to prevent floating debris from being discharged into the existing on-site wetlands and conveyance systems.

The main conveyance pipeline that will feed Sites H, I, and J has been designed as part of Phase One to include a stub out for each site. For the Phase Three Wetlands design, the piping, and flow control valves required to connect each site to existing conveyance system will be included. Due to the location of the sites with respect to each other designing a centralized flow control/valve building does not appear to be practical. Therefore, we have not included the design of a flow control/valve building as part of this task order. The hydraulics of the conveyance system will be reviewed to ensure that adequate flow can be fed to each site.

A NPDES Stormwater Construction Permit will be required, since more than 1 acre will be disturbed. We will prepare the sediment and erosion control plan for the site. Since NPDES Stormwater monitoring requirements may change before Phase Three is constructed we have not included the cost to develop the monitoring plan for this phase. Applying for the permit and providing the required monitoring during construction will be the responsibility of the contractor and is not included as part of this Task Order.

Task 3 will be executed concurrently with Tasks 2 and 4.

#### TASK 4 - Design Workshops

We propose to modify the CH2M HILL three-phased project delivery method similar to the approach used for the Huie Phase One design. This modified method will consist of holding the schematic and detailed design workshop at the same time. As in the Phase One design this provided an excellent venue for both CCWA and CH2M Hill staff to interact and discuss ways to improve the layout of the wetland cells while addressing operation and maintenance needs. At the end of the workshop a technical memo will be developed outlining the decisions made. This technical memo will be used as our final design criteria document. At approximately the 60% complete stage we will forward the first round of front ends and technical specification for your

Regular Board Meeting  
December 4, 2003  
Page Twenty

review and comments. Prior to the 90% workshop we will forward, for your review, a complete set of contract documents, plans and specifications. We will work with CCWA staff during the design process to determine the most appropriate date and location for each workshop.

Task 4 will be executed concurrently with Tasks 2 and 3.

#### TASK 5 – Bid Support Services

Bid support services, similar to those provided for the Huie Phase One Constructed Wetlands will be provided. Separate Bid Documents will be developed for the Phase Two and Phase Three Wetlands under the anticipation that Phase Three will be constructed at a later date. For the Phase Two Constructed Wetlands (Sites D, E, and F), bid services included in this Task Order are the following:

- Attend the pre bid meeting,
- Issue addendum's during the bidding phase to responded to bidders questions,
- Attend the bid opening,
- Review the bids for conformance with the contract documents,
- Submit written contract award recommendation to CCWA,
- Draft and submit the *Notice of Award* letter to all bidders,
- Draft and submit the *Final Documents* and instructions for processing, to the selected contractor,
- Submit two full size and one half size sets of the contract drawing and three sets of the specifications to EPD for review,
- Once the Notice of Award is issued, submit two full size and 3 half size sets of the drawings to the contractor and five sets of the specifications, and
- Attend meeting with Clayton Development Review Department along with CCWA staff.

Bid services for the Phase Three Wetlands will not be included as part of this Task Order. Task 5 will be executed upon completion of Tasks 2, 3, and 4.

#### TASK 6 - Comprehensive Monitoring Plan

Under Georgia Permit GAR10001, a comprehensive monitoring plan is required for construction activities that disturb more than 1 acre of land. Under Task 6, a comprehensive monitoring plan will be developed for Phase Two to include all information as required in GAR10001. This information will be submitted to the Awarded Contractor. It will be the Contractors responsibility to submit to the EPD with the permit application.

Task 6 will be executed concurrently with Task 5

#### Task 7 – Huie LAS Evaluation Workshop

CCWA has requested that a workshop be held to discuss operation of the existing Huie pump station and future LAS hydraulics and that the workshop be completed as a complementary task to the Huie Phase Two and Three design tasks. The Huie LAS currently has a permitted capacity of 19.5 mgd. The volume of effluent sent to the LAS will be reduced as each phase of the Huie Constructed Wetlands system comes on-line. Therefore, the LAS will undergo a hydraulic

Regular Board Meeting  
 December 4, 2003  
 Page Twenty-One

metamorphosis during the period of constructed wetland implementation. LAS operational procedures may also need to evolve to accommodate the change in system hydraulics.

The purpose the LAS evaluation workshop will be to identify future flow conditions and operational variables to include pressure and flow demands at the LAS field level, current operational protocols, and current operation and maintenance costs. LAS hydraulics will be reviewed for each phase of wetland implementation (currently 4 planned wetland phases). The information gathered during the workshop will be used to develop a work plan document that will identify recommended tasks to be considered based on the future LAS hydraulics and the needs of the CCWA.

The work plan will be summarized in a technical memorandum (TM) of approximately 5 to 10 pages in length. The intent of the work plan is to help the CCWA develop a "road map" on how to manage the change in operations of the LAS. The TM will provide a detailed discussion of the future tasks to be considered based on the future changes in operation of the LAS. However, no detailed engineering or hydraulic analyses of the Huie pump station will be conducted as part of this task.

#### ARTICLE 2. COMPENSATION

Compensation by OWNER to ENGINEER will be as follows:

Work will be performed based on a lump sum fee for Tasks 1 through 7	<u>\$457,600</u>
Total Lump Sum Amount	\$457,600

Payment will be due to the ENGINEER based on an assessment of current project status based by the CCWA program manager that work is progressing as planned. This determination will be made at monthly meetings and additionally as requested by the OWNER.

#### ARTICLE 3. - INSURANCE

The insurance coverage required for this "Task Order" is shown on the attached insurance exhibit B.

#### OTHER PROVISIONS

Specific assistance that the ENGINEER will need from the OWNER includes:

- Copies of relevant records including engineering reports, and as-built drawings of the LAS reservoirs and piping
- Access to all facilities for field associated activities
- Availability of the OWNER'S staff for meetings and conference call

Regular Board Meeting  
December 4, 2003  
Page Twenty-Two

This Task Order will become part of the referenced AGREEMENT when executed by both parties

IN WITNESS WHEREOF, the parties execute below:

For OWNER, CLAYTON COUNTY WATER AUTHORITY

Dated this \_\_\_\_\_ day of \_\_\_\_\_, 2003

By: \_\_\_\_\_  
Name Title

For ENGINEER, CH2M HILL

Dated this \_\_\_\_\_ day of \_\_\_\_\_, 2003

By: \_\_\_\_\_  
Name Title

Regular Board Meeting  
 December 4, 2003  
 Page Twenty-Three

EXHIBIT A  
 INSURANCE REQUIREMENTS  
 TASK ORDER BO-01-13  
 HUIE CONSTRUCTED WETLANDS PHASE 2 AND 3 DESIGN

ENGINEER's Insurance

The Engineer will maintain throughout the completion of the above and any subsequent task orders in connection with this project and after completion as required in this Exhibit A.

(a) Workers' compensation as required by the State (Statutory) where the work is performed and Employers Liability in the amount of one million (\$1,000,000) Each Per Accident, Per Disease Each Employee and Per Disease Policy Limit. ENGINEER shall also indemnify and hold OWNER harmless for any such liability that may attach to OWNER as a "statutory employer" of any of ENGINEER'S employees, agents or subcontractors. "An Alternate Employer Endorsement" naming the Owner as a protected Alternate Employer will be added to the Workers' Compensation policy.

(b) Automobile Liability insurance covering claims for injuries to persons and/or property arising from the use of motor vehicles, including onsite and offsite operations, owned, non-owned or hired vehicles, with \$1,000,000 Combined Single Limit.

(c) Commercial General Liability, Occurrence Form, including Contractual Liability, per Project General Aggregate Limit of Liability, losses caused by explosion, collapse and underground (X,C,U perils). The Owner is added as an Additional Insured using ISO Form CG 20-10 extended to include Products/Completed Operations, or an equivalent Additional Insured endorsement, either form must be acceptable to the Owner. The coverage is primary as to the work of the ENGINEER for the Owner and includes separation of insureds (cross liability). Additional Insured status will be certified to the Owner for a period of five (5) years following completion of the project. The General Liability shall cover claims for injuries to persons or damage to property arising out of any covered negligent act or omission of ENGINEER or of any of its employees, agents, or subcontractors.

The limits of coverage shall be:

\$ 1,000,000	Per Occurrence
\$ 1,000,000	Personal or Advertising Injury
\$ 1,000,000	Fire Damage
\$ 5,000	Medical Payments
\$ 1,000,000	General Aggregate
\$ 1,000,000	Products/Completed Operations Occurrence and Aggregate

Regular Board Meeting  
December 4, 2003  
Page Twenty-Four

In the alternative, the ENGINEER may substitute a claims made policy in the same amounts and for the same coverages, provided that it has full prior acts coverage and a five (5) year Extended Reporting Period included in the current policy.

(d) Professional liability insurance to include coverage for the Owner and all Subs, Engineers and Design Consultants, with a minimum limit of \$10,000,000 per claim and in the aggregate. The OWNER may increase the limit requirements where in the opinion of the OWNER such increase is desired. The policy shall contain an eight (8) year Extended Reporting Period or the Engineer will furnish the Owner evidence of continuing coverage for that same period of time after completion. The Retro-active date under the policy will predate any work for the Owner. Sixty (60) days prior written notice of cancellation or non-renewal shall be given to the OWNER in the event of termination or non-renewal.

The Owner may elect to obtain a PROJECT policy on a primary or excess basis. The Engineer will amend their PRACTICE policy to provide primary or excess coverage to increase the combined limits of coverage. Deductibles included in the policies will be the responsibility of the Engineer.

(e) An Umbrella policy, including Excess following form, will be provided with a minimum limit of \$25,000,000 Per Occurrence and Aggregate (Per Project) and will apply over underlying policies for Automobile Liability, Commercial General Liability and Employers Liability. The Umbrella policy limits may be combined with the underlying limits to obtain the total limits required.

(f) The ENGINEER will furnish a Certificate of Insurance to the Owner for coverages (a) Workers' Compensation/Employers Liability; (b) Automobile Liability; (c) Commercial General liability; (d) Professional Liability; and (e) Umbrella Liability. The certificates will include a copy of the endorsement on each policy, which requires written notice to the Owner in the event, or termination or non-renewal of at least sixty (60) days.

The certificates for the Commercial General Liability will also include a copy of the endorsement naming the Owner as an Additional Insured, providing primary coverage for Operations and Products/Completed Operations.

Waiver of Subrogation – ENGINEER waives subrogation against Owner as to Workers' Compensation including Employment Practices Liability, Automobile and Commercial General Liability Policies.

(g) Each and every policy required by this contract shall be with a company that is rated by Best as A- or better. Further, the OWNER shall not be responsible for any deductibles established by such policies.

Mr. Hirsekorn added that the flow would come from Casey to the constructed wetland cells, but as that occurs, it will be necessary to revise the current pump station that will continue to pump under pressure to the land application system

Regular Board Meeting  
December 4, 2003  
Page Twenty-Five

operations. Mr. Hirsekorn stated that this task order includes a preliminary evaluation workshop to review and document all those operations, in conjunction with the staff, and to come up with a planned follow up at what time and when the pump station will have to be modified. Mr. Hirsekorn stated this is not to actually take care of the work, but to say here is the strategy, long term, for that pump station as the Authority reduces the LAS and increases the amount of constructed wetlands.

In summary, Mr. Hirsekorn stated that the proposed task order for Phase II & III design includes schematic and detailed design, preparation of construction documents, for both phases, and bid services for Phase II. Mr. Hirsekorn stated that the task order amount is four hundred fifty-seven thousand six hundred dollars (\$457,600) and the funding is proposed from the Series 2001 Bond Issue.

Upon Motion by Lloyd Joiner and seconded by Marie Barber it was unanimously

RESOLVED: to approve the Huie Constructed Wetlands Task Order for Phase II & III in the amount of four hundred fifty-seven thousand six hundred dollars (\$457,600).

Advanced Disinfection Project Summary: Mr. Buffington gave the Board an informational summary on the Advanced Disinfection Facilities, which includes UV Disinfection facilities at William J. Hooper, J.W. Smith, and Freeman Road Water Production plants.

#### CONSTRUCTION OF UV ADVANCED DISINFECTION FACILITIES

Project includes UV Advanced Disinfection Facilities at the W. J. Hooper, J. W. Smith, and Freeman Road Water Production Plants. Wedeco, Ideal Horizons was selected to supply the UV equipment under Schematic Design and Equipment Evaluation task order. The construction of each facility included furnishing and installing all equipment, piping and valves, instrumentation and controls, and a building to house the UV equipment.

Advanced disinfection with ultraviolet light was installed to provide an additional pathogen barrier at each plant. Chlorine will continue to be used as a disinfectant, and a chlorine residual will be maintained in the distribution system.

*Project Managers:*

CH2M Hill, Engineers (Design) – George Ajy

CH2M Hill, Engineers (Construction Manager) – Dave Goddeyne

Regular Board Meeting  
December 4, 2003  
Page Twenty-Six

Clayton County Water Authority – Mike Buffington

*Construction Contract Summary:*

General Contractor – Winter Environmental, Atlanta, Georgia

Bid Amount – \$6,993,000

All construction work complete, with contractor and UV equipment supplier addressing final operational issues

Final Contract Amount – \$ 6,993,000

*Funding:*

Series 2001 Bond Issue

Mr. Buffington stated that through the planning of this facility the Authority evaluated ozone and UV and selected UV as the most cost effective and the desired system. The Authority then completed a life cycle cost evaluation and selected Wedeco, Ideal Horizons to furnish the UV reactors. Mr. Buffington stated that the Authority had opened bids and awarded a construction contract to Winter Environmental for construction of the facilities with a low bid of six million nine hundred ninety-three thousand dollars (\$6,993,000). Mr. Buffington added that construction was started in February 2002 and all construction is now complete and all facilities are in operation. Final construction costs are the same as the bid price of six million nine hundred ninety-three thousand dollars (\$6,993,000). Mr. Buffington stated that the Authority would have some additional expenses, where by state law, the Authority pays interest on retainage withheld during the construction period. Mr. Buffington added that the Authority would also apply for sales tax rebate on the major equipment used in the facility. Our Series 2001 Bond Issue funded this project. Mr. Buffington presented slides showing the different facilities.

Chairman McQueen asked Mr. Buffington if anyone else in Georgia uses the UV system.

Mr. Buffington stated that the Authority is the only one in Georgia that is in operation, but there are a couple others that are in the planning stage. Mr. Buffington added that the Authority was the first water facility to use the UV system in the southeast and one of the first in the nation.

Regular Board Meeting  
December 4, 2003  
Page Twenty-Seven

Mr. Buffington commented that CH2M Hill is working on assisting AWWA in rewriting the water treatment design book. Mr. Buffington stated that there would be a chapter on UV design and some of the photos of the Clayton County Water Authority facility will be in that design manual.

Lovejoy Sewer System Improvement Summary: Chairman McQueen called on Mike Thomas, Manager of Program Management & Engineering to give the Board a summary of the Lovejoy Sewer System Improvement. Mr. Thomas stated that he had some informational updates on three sewer line extension projects that were recently completed.

Mr. Thomas stated that the first sewer line extension was Lovejoy-Tara Boulevard where a new gravity line to serve the south part of the city of Lovejoy and a lift station to pump it back up to a gravity line further north in the city was installed. Mr. Thomas added that this project would serve at least three hundred forty-two acres (342). The initial conceptual estimate was seven hundred thousand dollars (\$700,000). Mr. Thomas gave a slide presentation to show the area.

Mr. Thomas added that as the Authority completed the design, the original construction cost estimate was a little over six hundred forty-eight thousand dollars (\$648,000) including labor and materials. Mr. Thomas stated that our final design and construction costs were just over seven hundred thousand dollars (>\$700,000). Mr. Thomas added that that cost increased because the Authority added an additional stub out under Highway 19 & 41 to serve the west side of the highway further south and that required boring under Highway 19 & 41 to put in casing. Mr. Thomas stated that the Authority also had to extend water from Henry County to serve the lift station site, so that water was available for cleanup around the station. Mr. Thomas stated that the City of Lovejoy originally paid fifty per cent (50%) of the six hundred forty-eight thousand dollars (\$648,000) and they have agreed to pay fifty per cent (50%) of the increased cost of twenty-six thousand four hundred ninety-one dollars and ninety-two cents (\$26,491.92). Mr. Thomas stated that there were several property owners who helped pay the initial Lovejoy share and as their is future development in this service area, they will pay a per acre cost to help the Authority recover our fifty per cent (50%) so that eventually the entire seven hundred one thousand dollars (\$701,000) will be paid by property owners/developers in that area.

Mr. Brannan added that the Authority is working with the City of Lovejoy to help determine what their flow will be in the city in case the station has to be upgraded and

Regular Board Meeting  
December 4, 2003  
Page Twenty-Eight

those people that tie onto it will actually have to pay for a future upgrade to accommodate whatever their land use plan has in place, so there should not be any additional costs to the Authority except for maintenance that the Authority would normally have on any lift station. Mr. Brannan added that the individuals that hook into that system would pay installation cost and future improvement.

Board member, John Westervelt, asked if this revenue flowed through the impact fees.

Mr. Brannan stated that the impact fees are totally separate. Mr. Brannan stated that this is a special assessment that the Authority put into place for that station to be installed.

#### MEMORANDUM

To: Wade Brannan

From: Mike Thomas

Date: November 25, 2003

Re: Lovejoy – Tara Boulevard Sewer Improvements – Cost Summary

The Lovejoy – Tara Boulevard Sewer Improvement project includes the following items:

3,477 ft. of 8 inch gravity sewer line

2,395 ft. of 10 inch gravity sewer line

8,007 ft. of 8 inch force main

Gorman-Rupp Series Connected T4 Pump Station and all associated components

Precision Systems Generator

This project will provide sewer service to approximately 342 acres in the south and east portions of the City of Lovejoy. The estimated and actual costs are listed below with a brief explanation for the difference. The primary reason for the increase was the addition of another bore and sewer stub-out under Hwy. 19/41 to serve the west side of the Highway.

Regular Board Meeting  
December 4, 2003  
Page Twenty-Nine

ITEM	ESTIMATE	ACTUAL COSTS	EXPLANATION
Gorman-Rupp Pump Station	\$109,284.00	\$109,284.00	
Precision Systems Generator	\$54,988.00	\$54,988.00	
Pipe and other materials	\$128,180.91	\$177,230.25	Materials for additional bore and stub-out under 19/41
Installation by Contractor	\$314,992.90	\$320,061.90	Installation of additional stub-out, removal of trash pit
Wetlands Permitting by Contractor	\$1,750.00	\$1,750.00	
Wetlands mitigation credits	\$15,000.00	\$7,910.00	Fewer credits required than expected
Engineering Design	\$24,155.00	\$24,469.10	Used outside vendor to copy plan sheets
Henry Co. Water Extension	--	\$5,641.60	Did not include cost to extend water to the site from Henry Co.
<b>TOTAL</b>	<b>\$648,350.81</b>	<b>\$701,334.85</b>	

The City of Lovejoy paid 50% of the estimated cost for this project of \$324,175.40. The remaining costs will be recouped when new developments request sewer service in this basin.

Attucks Boulevard Sewer & Water Extension Summary: Mr. Thomas stated that the second sewer extension is at Attucks Boulevard, an undeveloped road near Old Rex Morrow-Maddox Road and Rex Road. Mr. Thomas explained that the Association of Retarded Citizens wanted to build some homes along this road and the Authority helped with water and sewer extensions to be able to serve that site. Mr. Thomas gave a slide presentation showing the area of Attucks Boulevard and stated that a new Clayton County elementary school was also being constructed in this area. The Authority tied onto the sewer and extended water from Rex Road. Mr. Thomas explained that the Authority's final costs were slightly higher on the sewer side due to the contractor not including his cost for clearing in his initial estimate. Mr. Thomas added that the

Regular Board Meeting  
 December 4, 2003  
 Page Thirty

Association of Retarded Citizens paid the full amount for the extensions and have already paid the Authority the additional six hundred twenty-eight dollars and ninety-two cents (\$628.92). This project did not cost the Authority.

#### MEMORANDUM

To: Wade Brannan  
 From: Mike Thomas  
 Date: November 7, 2003  
 Re: Attucks Blvd./Assoc. of Retarded Citizens water & sewer improvements

Our original estimate for providing water and sewer service to the Attucks Boulevard area for the Clayton County Association of Retarded Citizens is shown below.

Water - 8 inch line extension	\$23,118.00
Sewer - 8 inch line extension	<u>\$54,512.00</u>
TOTAL	\$77,630.00

The Association of Retarded Citizens was invoiced and paid the total amount of \$77,630.00. Our final actual costs were slightly higher. The water line extension was completed slightly under the estimate. The sewer extension was slightly above the original estimate because the contractor had not included clearing in his original estimate. The total final costs are listed below.

Water - 8 inch line extension	\$23,085.02
Sewer - 8 inch line extension	<u>\$55,173.90</u>
TOTAL	\$78,258.92

The final invoice due the Association of Retarded Citizens is \$628.92. All back-up information such as job reports and invoices are attached.

Little Learners Academy Project Summary: Mr. Thomas continued with the third sewer extension at the Little Learners Academy, which is a project that the Authority became involved in with the Georgia DOT. Mr. Thomas stated that the widening of Highway 138 was going to infringe on the Little Learners Academy's septic tank, so GDOT asked the Authority to extend sewer to serve the building and the GDOT would pay the costs. Mr. Thomas added that this project looked like a good deal for the Authority because the Authority could provide service to about seven other parcels by

Regular Board Meeting  
December 4, 2003  
Page Thirty-One

extending that sewer line. Mr. Thomas stated that this project ended up being a two thousand three hundred sixty foot extension (2,360). The GDOT paid an engineer to do all the design work and then the Authority will be reimbursed for all construction costs. Mr. Thomas explained that the GDOT asked the Authority to obtain all the easements because their rules do not allow them to work off the project site, so the Authority obtained six easements at only a cost of five hundred dollars (\$500). Mr. Thomas added that one individual recently had a backflow preventer put on and had significant plumbing problems, so the Authority agreed to pay him five hundred dollars (\$500). GDOT paid all design costs directly and will reimburse CCWA for the construction costs of one hundred two thousand three hundred forty-five dollars and fifty cents (\$102,345.50).

Board member, Wes Greene, commented how well the staff comes under or close to the bid amount on the projects and how much the Board appreciates the efforts of the entire staff.

Upon Motion by John Westervelt and seconded by Lloyd Joiner it was unanimously

RESOLVED: that the Board adjourns into executive session. The Board reserved the right to return to the open session.

Chairman McQueen called the regular Board meeting back into open session.

Chairman McQueen called on Mr. Brannan who stated that since the last Board meeting, the Authority had met with the County Commissioners in regard to the Stormwater Issue and the Commissioners have agreed to pay half of the one hundred fifty thousand dollar (\$150,000) analysis costs. This project is now moving forward.

Mr. Brannan also added that initially the Authority wanted to have the Commissioners take a tour of our facilities at Casey and Inman Road Wetlands, but the Commissioners agreed to defer that tour until sometime in 2004.

Mr. Brannan stated that the Norfolk Southern Railroad has sent an agreement to the Authority outlining their charges for permits to any entity going across the railroad's right-of-way. From time to time, the Authority does have to do a bore under the railroad for sewer or water service. The Railroad has defined a fee structure for less than 24" casing, the charge is five thousand dollars (\$5,000) plus administrative and engineering

Regular Board Meeting  
December 4, 2003  
Page Thirty-Two

costs. If larger than a 24" casing, the charge will be ten thousand dollars (\$10,000) plus administrative and engineering costs.

Mr. Brannan stated that at the last Board meeting there was a question concerning the Authority's policy of local bidder preference. A copy of the Board minutes of the December 2, 1999 meeting was sent to the Board to update the Board on that policy. Mr. Brannan added that basically the policy states that if the Authority had bids that were very close and a local vendor is the next highest bidder and in the total analysis of the economics of using that vendor, the local vendor could be selected. By state law, this policy does not apply to public works projects.

Mr. Brannan stated that water from the Shoal Creek plant is supplied to the River's Edge Golf Course under an arrangement between the Water Authority and the previous owners of the golf course. The Water Authority wanted an agreement at that time because the Authority did not want the golf course to have a withdrawal permit to draw water out of the Flint River that would have affected the Authority's permit for withdrawal for the Smith plant. An arrangement was reached that the Authority would treat the water at the Shoal Creek plant and pump it over to River's Edge Golf Course. In turn, the golf course would not enforce the withdrawal permit, which could have affected water availability for our customers.

This year the contract was nullified when the golf course did not use any water due to the abundance of rainfall, over a period of one hundred eighty days (180). Mr. Brannan sent a notice of that fact in a letter that basically stated that the contract was not in force and the Authority was now taking that water and sending it to the Wetlands for our Wetlands plant. Mr. Brannan added that the current owner, Joe Hamilton, called Mr. Brannan before he finalized the purchase of the golf course and inquired about the availability of water from the Authority. Mr. Brannan told Mr. Hamilton at that time that water would be available for the golf course, but this was before the Authority had wetlands and the technology that the Authority currently uses.

Under the original contract, the charge for the water was at seven cents per thousand gallons (\$ .07). Mr. Brannan stated that the Authority reviewed the cost of producing that water and selling it to the golf course. As a result of that review, the cost is going to be considerably higher. Mr. Brannan suggested that the Authority enter into some discussion before a new contract is signed to provide water to the golf course. To recover our cost would be around a dollar or a dollar forty (\$1.00-\$1.40) per thousand gallons to have that water available and ship it over to their holding pond. When the Authority initially negotiated that contract, there was some benefit to the Authority. Mr.

Regular Board Meeting  
December 4, 2003  
Page Thirty-Three

Brannan stated that with legal counsel's assistance, the Authority would need to negotiate with the golf course and bring a proposal back to the Board on how to proceed.

Mr. Hicks stated that there was also a capacity issue, not just in the raw water coming out of the river. Initially, River's Edge was first proposed for a large number of apartments and our plant had a companion land spray irrigation system and had no way of handling the capacity that the development was proposing. The development changed in that the apartments were not built, housing and the golf course were developed. The golf course wanted the Authority to guarantee capacity, which the Authority could not do.

Mr. Hicks added that there were several mutual benefits at the time, but those from our end have all just about disappeared. The plan never worked as well as the Authority had hoped. When the Authority needed to get rid of water, it was in the wet season. When the Authority did not need to get rid of water was when the golf course needed it. The Authority did not have water available on numerous occasions. Now that the Authority needs the water for the Wetlands, which eventually goes back into our own drinking water sources, it is a lot more advantageous for the Authority to keep that water than it use to be. Mr. Hicks added that the Authority is not hurting for a place to put the water anymore, and in fact, the state just upped the permit for the wetlands more than the Authority had requested.

Chairman McQueen stated that his recommendation would be for Mr. Brannan to get with Joe Hamilton, the owner of the golf course, and with Steve Fincher, the Authority's legal counsel to reach a mutual agreement.

Board member, Wes Greene, stated that he thought the Authority had not been charging the golf course.

Mr. Hicks explained that the contract stated that there would not be any charge for the first five or eight years, but after that point in time, there was a small charge which was basically the difference in what it would cost the golf course for the power to run the pump that the golf course had in the river.

Mr. Brannan discussed the usage of the golf course over the last several years and added that hopefully a new arrangement could be reached between the owner and the Authority.

Regular Board Meeting  
December 4, 2003  
Page Thirty-Four

Mr. Brannan stated that the Authority received sixty-seven thousand dollars (\$67,000) less auction fees for a net amount of sixty thousand three hundred dollars (\$60,300) for the six backhoes that were auctioned off recently.

Mr. Brannan stated that Mr. Lane, Metro South Realtors, is proposing to construct a building at the end of Adamson Parkway, which would require an extension of a water line of 125 feet to serve the building. Mr. Brannan stated that Mr. Lane asked if the Board would give assistance on the cost of this project, which would have cost from a construction standpoint, approximately five to seven thousand dollars (\$5,000 to \$7,000). The Authority has previously participated with assistance on sewer extensions, but not on a water line such as this. Metro South Realtors would eventually have to hook onto our sewer system, which would also bring revenue to the Authority. Mr. Brannan stated that if the Authority participated at twenty-five per cent (25%) would be twelve hundred dollars (\$1,200). Mr. Brannan stated that he was bringing this before the Board for their consideration.

Chairman McQueen stated that he did not remember the Authority ever assisting on the installation of a water line and asked the Board what policy did they want to establish with this request.

Secretary/Treasurer, Marie Barber, asked Mr. Hicks if he ever remembered the Authority participating in a water line project.

Mr. Hicks added that there have been a lot of cases where, through the Master Plan, the Authority would be in dialogue with someone and let them know that the Authority was planning on running the water line and for them to hold off the development for a while. Mr. Hicks also stated that sometimes the developer would be extending a water line and it was a little in advance of our Master Plan, but all the developer needed was an eight inch line (8"), the Authority would pay the difference in what our Master Plan said, even if it was two years down the road and the plan said that the Authority needed a twelve inch line (12"). The Authority would go ahead and pay the difference. In that case, the developer was really helping the Authority, instead of the Authority helping them. Mr. Hicks added that the Authority has helped with sewer lines for a lot of years.

There was discussion concerning this request. Mr. Westervelt, being the newest Board member, stated that he understood helping with sewer request because the customer has an option of either a sewer line or a septic tank.

Regular Board Meeting  
December 4, 2003  
Page Thirty-Five

Mr. Hicks stated that historically the Authority has helped in cases where there was a good extension that crossed an area. Mr. Hicks added that if the Authority had a request for a sewer line that had the potential of others to tie onto the line, which would provide additional revenue for the Authority, then, the Authority could possibly participate in assisting with the installation of this sewer line.

Chairman McQueen added that when a sewer line is installed in a new subdivision that is being developed with one or two hundred homes it does not take long for the Authority to recoup our money. Each homeowner has to pay a tap-in fee and has to pay for sewerage, so financially it was a lot of help to the Authority. Chairman McQueen asked the Board for guidance in establishing a policy to address this request for a water line extension to a business.

Upon Motion by Lloyd Joiner and seconded by Alan Horton it was unanimously

RESOLVED: that the Board deny the request of Metro South Realtors to assist in the cost of installing one hundred twenty-five feet (125') of water line to serve a proposed building at the end of Adamson Parkway.

Mr. Brannan stated that during a sewer overflow there was some damage to a washer and dryer that made it worth a minimal value. Mr. Brannan added that there might be enough value to be able to salvage this washer and dryer. Mr. Brannan asked the Board for authorization to dispose of this washer and dryer to some community service group that might need a washer and dryer.

The Board authorized Mr. Brannan to proceed with giving the washer and dryer to an organization that is in need.

Mr. Brannan stated that next week the Authority had planned to have a Christmas Party for the employees. Mr. Brannan added that last year the Authority had about two hundred (200) people down at the Race Track. Mr. Brannan explained that this year the Authority did not have enough people to sign up to justify the cost. Mr. Brannan stated that only about eighty (80) people total had signed up, which would have only been about forty (40) employees with spouses or dates. Mr. Brannan added that the cost would have been several thousand dollars to have this type of party again this year. This party at the Race Track was canceled. Mr. Brannan, with the Board's blessing, will plan a lunch where a larger number of employees can participate and the employees can decide what type of luncheon they would like to have. The Board agreed.

Regular Board Meeting  
December 4, 2003  
Page Thirty-Six

Mr. Brannan reminded the Board that the first meeting of 2004 would be Thursday, January 8<sup>th</sup>, at 1:30 p. m. since the 1<sup>st</sup> of January is a holiday.

Mr. Brannan stated that the Chairman asked for an information sheet in the event the Board is questioned about the five per cent rate adjustment that will go into effect January 1, 2004. This information was distributed to the Board with some discussion. Mr. Brannan added that almost thirty-six per cent (36%) of the Authority's business is customers that use three thousand gallons or less per month. Mr. Brannan also added that eighty-six per cent (86%) of the Authority's customers use nine thousand gallons or less per month with a total change in their bill of two dollars and eighty-eight cents (\$2.88) per month.

Mr. Brannan wanted to tell the Board again how much they are appreciated.

The Board complimented management and staff for their professionalism and also complimented Steve Fincher for his good legal advise.

Board member, Wes Greene, asked Mr. Brannan if any toys had been given to Commissioner Virginia Gray, to help with Christmas.

Mr. Hicks stated that the Authority participates with Operation Christmas, which deals with DFACS, but has not necessarily been through Ms. Gray.

Ms. Barber added that Operation Christmas is through Salvation Army.

Chairman McQueen stated that the Operation Christmas is employee participation.

Mr. Brannan added that the Authority helps out those in need within the company such as employees in a hardship situation or somewhere else where funds that are available might be used.

Board member, Wes Greene, stated that he received a letter from Commissioner Gray requesting toys or a bike be given for underprivileged children. Mr. Greene added that he would forward the letter on to Mr. Brannan.

Chairman McQueen stated that he did not feel that the Board could spend Water Authority money on such a program, but maybe the Authority could help Commissioner Gray find some funds. It was suggested that some contractors might be willing to support such a program and Chairman McQueen also mentioned CH2M Hill would probably be

Regular Board Meeting  
December 4, 2003  
Page Thirty-Seven

willing to contribute. Chairman McQueen added that years ago the Water Authority did contribute funds to different programs and Chairman McQueen was not asked, but does not feel that it is legal for a Water Authority to do so.

Mr. Fincher, legal counsel, stated that lots of people donate funds and added that there are many ways to justify making such contributions, but he agrees with Chairman McQueen that it is not a good idea.

Mr. Greene asked Mr. Brannan to contact CH2M Hill and other contractors to help Commissioner Gray with her efforts to provide toys to underprivileged children.

Mr. Brannan stated that the next Board meeting would be Frank Conort and Dennis Hammock's last Board meeting and they will be retiring shortly after that. Mr. Brannan added that he had been talking to Mr. McHugh regarding his method of presentation of information and it will be a little different than Mr. Conort's, but Mr. Brannan thinks it is excellent as far as how he structures his presentation. Mr. McHugh will indicate the business unit and show last year's budgeted amount, what was actually expended, what was budgeted for this year, and the forecast of what will be spent and then the amount asked for in next year's budget. Mr. Brannan added that Mr. McHugh will actually show in his presentation the completed budget, forecasted budget, active budget and proposed budget on one sheet so that the Board can see across historically what the Authority has spent and behind that will also be a breakdown of each one of those business units where those expenditures are and they will total up to the sum total of the line item. Mr. Brannan stated that he feels that the Board will be pleased with this system and a copy of the form that Mr. McHugh will be using in future presentations will be made available to the Board.

Mr. Brannan stated that the Authority would have a retirement luncheon for Frank and Dennis before they retire and the Board will be invited.

Vice Chairman, Lloyd Joiner, asked if the transition was going well with Frank and Emory.

Mr. Hicks commented that Emory has already implemented some things and Frank is there as an advisor so to speak now. Mr. Hicks added that management is seeing things being done a little differently, seeing different approval levels where Frank use to do things, that now Emory is really pushed that down to some of his staff and Frank is really letting Emory run the department.

Regular Board Meeting  
December 4, 2003  
Page Thirty-Eight

Secretary/Treasurer, Ms. Barber, asked if Dennis' job was being phased out.

Mr. Brannan stated that Mike Thomas, on an interim basis, is going to be working between Dennis' shop and the Main Office and Guy Pihera is taking care of everything around the reservoirs, the CUB's, the deer hunt, the Wetlands center. All the maintenance activities and construction areas around the land application will be handled by Lonnie Philpot, Thomas Smith, and their outfits and Alice Cook will take care of things around the Wetlands, which is Mike's expertise.

Mr. Hicks stated that as a lot of that land spray irrigation system goes away, a lot of your maintenance headaches go away, and that is just the tail end of the water reclamation process, so as that staff dwindles down some they may become another section of water reclamation.

Mr. Brannan stated that if one were to look at the overall health of the company and where the Authority is headed, the Authority would be in a reduction mode as far as staff is concerned for the next several years, with the closing of the Jackson Plant, converting land application, and phasing in the Wetlands. Mr. Brannan added that the Board should continue to see a reduction in personnel as people retire, or people move around within the company, which will reduce the Authority's personnel costs. Mr. Brannan commented that the Authority will summarize this up this year by just thinking about those that left this year: Dennis Clements, Gary King, and several positions that were not filled as these folks left the Authority and this is something that the Authority needs to continue to do.

Upon Motion by Wes Greene and seconded by John Westervelt it was unanimously

RESOLVED: that the regular session board meeting be adjourned.

There being no further business to come before the open meeting the meeting was adjourned.

---

Pete McQueen, Chairman

---

Walter Marie Barber, Secretary/Treasurer