

**Minutes Of
Engineering And Maintenance Committee Meeting
Of The Water Works Board
Of The City Of Birmingham
July 16, 2019**

An Engineering and Maintenance Committee Meeting of The Water Works Board of the City of Birmingham was held Tuesday, July 16, 2019, at 11:30 a.m., at the Birmingham Water Works Board, 3600 First Avenue North, to discuss engineering and maintenance issues.

The following Committee members were present: Brett A. King, Brenda J. Dickerson and Ronald A. Mims. Committee member Sherry W. Lewis arrived late. Other Board Members present who do not serve on the Committee were: William “Butch” Burbage, Jr., Tommy Joe Alexander, William R. Muhammad, George Munchus and Deborah Clark.

The meeting was also attended by: Michael Johnson, General Manager; T. M. “Sonny” Jones, Interim Assistant General Manager of Operations and Technical Services; Derrick Murphy, Assistant General Manager of Engineering and Maintenance; Grace Amison, Executive Assistant to the Board of Directors; Tammy Wilson, Executive Assistant to T. M. “Sonny” Jones and Derrick Murphy; Rick Jackson, Public Relations Specialist; George Anderson, Information Technology Manager; Geoff Goodwin, Revenue Water Manager; Jonathan Harris, Water Treatment Manager; Casey Rogers, Electrical and Mechanical Manager; Stephen Franks, Principal Engineer; Doug Stockham, System Development Manager; Ben Sorrell, Chief Engineer; Terrell Jones, Security Superintendent; Derrick Maye, Senior Project Coordinator; Mark Parnell, Parnell Thompson, LLC; Kelvin Howard, Kelvin Howard, LLC; Brian Ruggs and Patrick Flannelly, ARCADIS; Tommy Palladino, Agency 54; Chandra Abesingha, CE Associates; Kim Bivins, Birmingham Construction Industry Authority(BCIA); Angela Hoskins, Studio 2H Design, LLC; Brian Hamilton, AG Gaston.

Chair of the Committee, Brett A. King called the meeting to order at 11:30 a.m. George Anderson, Information Technology Manager opened the meeting with prayer.

Following, General Manager, Michael Johnson addressed item 1, which was to approve minutes from previous Engineering and Maintenance Committee Meetings held March 20, April 30 and May 14, 2019. On a motion duly made and seconded, the Committee unanimously agreed to approve the minutes.

Next, Director King stated Director Dickerson had made a request to move the take bid items to the Board, as set forth in agenda items 3 through 8. On a motion duly made and seconded, the Committee unanimously agreed to move items 3 through 8 to the Board, which were requests to take bids for the purchase of a new 500HP AC Squirrel-Cage Induction Motor to be installed at Western Filter Plant, purchase of eighty-nine desktop and twenty-four laptop computers requested by the Information Technology department,

relocation of water Board facilities along Morgan Road along with entering into a Supplemental Agreement with ALDOT, purchase of Asphalt COLD Mix (delivered and picked-up), installation of a Liquid Lime Process at Putnam Filter Plant, and a 2nd extension contract with American Ductile Iron Pipe for annual quantities of pipe. Director Lewis arrived at 11:32 a.m. Director Lewis stated her iPad was not working and she did not get this information. Some discussion occurred regarding the recent executive email migration causing email issues, but it was confirmed that Board Members received email notification via Diligent Books in order to review the information presented in today's meeting.

Following, GM Johnson asked the Committee to award a bid to Siemens Industry, Inc., for estimated annual quantities of FM Static Flowmeters 4" and larger, at an estimated out-of-pocket cost of \$544,590.14; and to authorize the General Manager and/or the Assistant General Manager to execute a contract per bid specifications and conditions, as set forth in agenda item 9. On a motion duly made and seconded, the Committee agreed to move the item to the Board. Director Lewis abstained. Director Mims pointed out that in items 9 through 11, there was no minority participation. GM Johnson stated Staff is actively working with BCIA beyond what the Purchasing and Engineering departments are doing to increase minority participation. Director Clark stated she would like to meet with GM Johnson, BCIA and Michael Bell regarding this issue.

Next, GM Johnson asked the Committee to award a bid to Consolidated Pipe & Supply, for estimated annual quantities of Positive Displacement Meters, at an out-of-pocket cost of \$474,682.50; and to authorize the General Manager and/or the Assistant General Manager to execute a contract per bid specifications and conditions, as set forth in agenda item 10. On a motion duly made and seconded, the Committee agreed to move the item to the Board. Director Lewis abstained. Director King asked for an idea of how many meters this would be. AGM Sonny Jones estimated about 13,000 per year. Sonny Jones stated they are replaced based on the amount of water that goes through the meter, not by age, which equates to replacement about once every seven years. Revenue Water Manager, Geoff Goodwin added that the 4" and larger meter average life expectancy is much longer. Mr. Goodwin stated some of these meters will be used for new services. Director Munchus asked if anyone was present from Consolidated Pipe & Supply because he was interested in supplier diversity. Mr. Goodwin responded, no. Director King suggested that they be present at the next Board Meeting. Director Clark stated it would be helpful to know how many meters were replaced the previous year when making this type of request. Director Lewis stated she thought the Board was looking forward to the future with electronic technology and Staff seemed to be using lots of different meters. AGM Sonny Jones stated all of the technology is in the reader, so any meter will work with this technology. AGM Sonny Jones stated in about 8 weeks he should have information ready on AMI and AMR for the Board.

Following, GM Johnson asked the Committee to award a bid to Tank Pro, Inc., for painting and repairs of six tanks at Sipsey Sites 1,4 and 5, at an estimated out-of-pocket cost of \$1,899,852.00; and to authorize the General Manager and/or the Assistant General Manager to execute a contract per bid specifications and conditions, as set forth in agenda item 11. On a motion duly made and seconded, the Committee agreed to move the item to

the Board. Director Lewis Abstained. Some discussion occurred regarding Tank Pro, Inc. and the sub-contractor being used, Specialty Coatings, which is a white-woman owned business. Other discussions occurred regarding a particular type of paint having to be used. Director Clark stated she did not believe this company should be considered a sub-contractor. Director King stated if you are buying a particular product from someone, he believed that would be considered a sub-contractor on a job. Chief Engineer, Ben Sorrell stated the specialty paint company would be on-site monitoring during the painting process and indicated they have been on-site in the past for all of the Board's tank painting projects.

Next, Brian Ruggs from ARCADIS gave a presentation for discussion on Lake Purdy Dam and the next steps, as set forth in agenda item 2. An Infographic and the presentation were provided to the Committee (copies of which are on file with the Committee meeting book). Mr. Ruggs reiterated that the seepage issue should to be addressed. Total failure of the dam will cost about \$75 to \$100 million to rebuild, additionally the Board will not be able to get water to the south end of the system. Mr. Ruggs talked about the Project Drivers, which are Dam Stability, Overtopping and Scour and Foundation Seepage. The North Non-Overflow and Spillway have an inadequate factor for safety (FS) against sliding for all load cases. South Non-Overflow has insufficient FS at 100% Probable Maximum Flood (PMF) and 50% PMF. Some discussion occurred regarding when it was determined that the dam had issues. Mr. Ruggs stated a formal inspection in 2011 prompted an action report that resulted in the 2016 move toward a stability analysis. Director Dickerson stated her reading indicates that any dam over 100 years old can have issues. Director Alexander stated he thought Alabama Power had dams that are over 100 years old. Director Dickerson asked how frequent ARCADIS has performed inspections. Mr. Ruggs stated he was unsure. Patrick Flannelly responded that Board Staff conducts routine informal inspections as part of their maintenance and the Engineering Department conducts inspections annually. Some discussion occurred regarding how other states are approaching dam safety and where the Board is on completion of the Carson Loop Project. Mr. Flannelly stated with the completion of Carson Loop, the Board still needs Shades Mountain Filter Plant. Director King asked for a projected time frame on the completion of Carson Loop. AGM Sonny Jones stated there are other phases and he would estimate about 5 years. Director Muhammad asked what a high hazard dam is. Mr. Ruggs responded that a high hazard dam is classified as high hazard because of its proximity to housing communities and major roadways. Director Muhammad stated that the loss of human life is more important to him than providing water. Director Lewis pointed out that Lake Purdy will always be a high hazard dam because of its location and proximity to human life and any repairs made will never change that. Director Alexander asked out of 109 years how many times the dam has overflowed. Mr. Ruggs responded, never. Director Lewis reminded everyone to keep things in perspective. Mr. Ruggs addressed the Overtopping and Scour saying the current spillway can only pass 40% of the PMF before water begins to overflow into the non-overflow sections of the dam. Director Lewis asked if other dams that are older have been looked at to see how their risk is mitigated. Director Lewis stated cost is the elephant in the room and it is a concern at \$35 to \$40 million for design and construction. Director Lewis asked if ARCADIS would do the construction. Mr. Ruggs stated ARCADIS would do the design and partner with someone on the construction. Director Lewis stated the Board wants the

best product for the best price and she believes in competition. There are reasons in the past why the Board has not already approved this according to Director Lewis. Director King asked each Board member to give their opinion on the issue. Chairman Burbage stated he believed there is no doubt something needs to be done and he doesn't like quick fixes. The total dollars are something of a concern and something the Board needs to determine if it wants to take on. Director Lewis stated her concern is the cost. Director Clark stated she agreed with Chairman Burbage and she would like to look at other subs besides Schnabel for the construction and look at other older dams that are holding up as well. Director Mims stated it was expensive, but it is needed. Director Munchus stated he echoed Director Mims and that he is ready to move on with ARCADIS as long as they are meeting the HUB percentage the Board put in place. Director Dickerson stated she believes there is mitigated risk and if the dam had to be entirely rebuilt the expenditures would be much more costly. Director Muhammad stated the risk is the driver, so he was in favor of moving forward. Director Alexander asked if any other experts had inspected this dam. Mr. Ruggs responded an expert from Arizona had inspected it. Director Alexander stated Alabama Power has to have information that would be helpful. Director Lewis agreed. Foundation Seepage was discussed. Since the last grouting program in 1979-1980, seepage has increased from 1.5 million gallons per day (MGD) to approximately 7.6 MGD. PMF was discussed and Director Alexander asked how many times it has ever been on record that Alabama had 42 inches of rainfall in 72 hours. Director Dickerson responded that 7 inches is what is on record in 72 hours. Director Lewis asked Staff to find out what Alabama Power is doing to shore up their dams. Director King stated the seepage may be isolated and he believed it could be looked at as a separate issue. Director King stated everyone at the table is concerned about the HUB program and a black engineering firm could make money running this job. Director Munchus responded he agreed. Director Clark asked Sonny Jones if he could get with Alabama Power and get other engineering firms to come before the Committee. AGM Sonny Jones stated he could have a conversation with someone at Alabama Power regarding how they maintain their dams. Director Muhammad asked Chief Engineer Ben Sorrell if they were against moving this project forward. Mr. Sorrell stated they have a consensus agreement with ARCADIS to move forward. Director Lewis stated she wanted more information to make this decision, adding it is a lot of money to spend and it will impact the budget, which affects the ratepayers. Director Lewis stated this could surely be done in 30 days. Director Lewis stated TVA could be consulted as well. Director Muhammad stated it appears the Board does not trust this recommendation that has been worked on for the past two years. Director Alexander stated it has nothing to do with trust and Director Lewis agreed, adding this agenda item clearly states it is for discussion only. Director Mims made a motion to move the item to the full Board and Director Dickerson seconded the motion. Some discussion occurred regarding what motion the Board was moving forward with. Director Clark asked for other companies to be consulted on how they approach their dam safety and not to rush. Director King asked for a vote to sort through the item in a Board Meeting. On a motion duly made and seconded, the Committee agreed to move the item to the Board. Director Lewis opposed.

As there was no further business to be brought before the Committee, the meeting was adjourned at 12:55 p.m.

_____/s/_____
Michael Johnson
General Manager

_____/s/_____
Brenda J. Dickerson, Ph.D.
Second-Vice Chairwoman/Second Vice President

_____/s/_____
Brett A. King, Esq.
Director

_____/s/_____
Sherry W. Lewis
Director

_____/s/_____
Ronald A. Mims
Secretary-Treasurer