



# RIVANNA WATER & SEWER AUTHORITY

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## RWSA BOARD OF DIRECTORS Minutes of Regular Meeting February 25, 2008

A regular meeting of the Rivanna Water & Sewer Authority (RWSA) Board of Directors was held on Monday, February 25, 2008 at 2:00 p.m., in the Conference Room, Administration Building, 695 Moores Creek Lane, Charlottesville, Virginia.

**Board Members Present:** Mr. Gary Fern, Mr. Michael Gaffney – Presiding, and Mr. Robert Tucker.

**Board Members Absent:** Ms. Judith Mueller and Mr. Gary O’Connell.

**Authority Staff Present:** Mr. Bruce Edmonds, Mr. Tom Frederick, Mr. David Golladay, Mr. Chuck Kent, Ms. Mary Knowles, Mr. Cary Lang, Ms. Michelle Simpson, Ms. Andrea Terry, Mr. Justin Weiler, Dr. Robert Wichser, and Mr. Lonnie Wood.

**Also Present:** Ms. Janice Carroll – from Hazen and Sawyer, Mr. Kurt Krueger – RWSA Attorney, members of the public, and media representatives.

### **1.0 Call To Order**

The regular meeting of the RWSA Board of Directors was called to order by Mr. Michael Gaffney on Monday, February 25, 2008 at 2:00 p.m., and he noted that a quorum was present.

### **2.0 Minutes of Previous Board Meeting**

**Mr. Tucker moved that the Board of Directors vote to approve the minutes of the regular meeting of the Board held on January 28, 2008, seconded by Mr. Fern. The motion was approved by a 3 – 0 vote.**

### **3.0 Executive Director’s Report**

Mr. Frederick reported that at the January meeting the Board of Directors had asked that the Odor Control issue at the Moores Creek WWTP be continued for further discussion at today’s meeting. RWSA staff were also asked to schedule a meeting with the Woolen Mills Neighborhood. However, that meeting could not be accommodated by the neighborhood association until March. To permit the neighborhood meeting to precede the Board’s decision on this project, we are today requesting that the Odor Control discussion be further postponed until the March Board meeting.

Mr. Frederick next commented that Ms. Janice Carroll from Hazen and Sawyer will be presenting an update today on the Moores Creek WWTP Nutrient Upgrade. This report will include updated estimated project costs that were received after the Capital Improvement Fund (CIP) was prepared. In order to incorporate the information from this presentation, as well as the



Odor Control decisions now scheduled for March, he suggested that the CIP adoption also be postponed until March.

Mr. Frederick then stated that the operating budget for Fiscal Year 2008-09 will also be proposed today. The adoption of a preliminary rate resolution is needed in order to meet Virginia statutory requirements that wastewater rates be advertised 60 days prior to holding a public hearing during the May Board meeting.

Mr. Frederick also noted that the state permit to implement the Community Water Supply Plan was issued by the Department of Environmental Quality (DEQ) earlier this month. When the federal permit is issued, he felt that some type of public recognition to highlight this community accomplishment might be appropriate.

#### **4.0 Items from the Public**

There were no items from the public.

#### **5.0 Consent Agenda**

Mr. Gaffney asked if there were any items that the Board members would like to pull for questions or further discussion from the Consent Agenda.

- 5a) Staff Report on Finance
- 5b) Staff Report on Operations
- 5c) Staff Report on On-going Projects

**Mr. Tucker moved that the Board of Directors vote to approve Items 5a), b), and c) of the Consent Agenda, seconded by Mr. Fern. The motion was approved by a 3 – 0 vote.**

#### **6.0 Other Business**

In regards to **Item 6a), Introduction of Proposed Operating Budget for Fiscal Year 2008-09 and Call for Public Hearing**, Mr. Frederick stated that he would briefly summarize some of the key issues in the proposed operating budget for next year.

Mr. Frederick reported that the Authority continues in an upward cycle of capital improvements driven by tighter regulations at the state and federal level, the need to rehabilitate many areas of Rivanna's system that are at the end of their service life, and needed improvements to system capacity to support planned growth. Rivanna's operating budget carries the anticipated debt service needed to fund the CIP. For the Urban Water rate centers, this is accomplished by increasing the wholesale rate to the City by 2.65% and to ACSA by 2.44%. In the last several years, RWSA has developed a sound financial plan that allows revenues to be accumulated in preparation for future expenses, which is reflected in the rates being proposed today. The Urban Wastewater side is more challenging as system needs are still being identified through engineering studies. This year RWSA is continuing to fund what had been determined necessary in previous years for the Enhanced Nutrient Removal project for the Moores Creek WWTP. Some additional projects have also been identified during the last year within the wastewater

interceptor systems. Based on a study by the Authority's consultant, there are several interceptors, including Schenks Branch, Albemarle-Berkley, some sections of the Crozet Interceptor, and some sections of the Rivanna Interceptor, that are in need of extensive repairs. RWSA has already begun some investigations, which included smoke testing and closed circuit television (CCTV) inspections, to ensure regulatory compliance and to maintain systems in an environmentally correct manner. Capital improvements to address those system needs are reflected in the proposed wholesale rates.

Mr. Frederick also stated that another significant addition to the operating budget this year is the proposal to clean and remove sediment and solids from one of two large holding ponds at the Moores Creek WWTP that provide capacity for wet weather flows. These ponds have not been cleaned since the plant began operation in 1981, and there is a disposal cost associated with the removal of the accumulated material. These "housekeeping" items are part of Rivanna's continuing efforts to provide good hygiene and reduce odors.

Mr. Frederick next reported that two new positions out of the five requested by department managers are identified in the proposed budget, which includes an Information Systems Assistant Administrator. The Authority currently has one Information Systems Administrator, and an outside study in this area supports that more than one individual is needed to reliably maintain the size of the system that Rivanna is now required to operate. The second new position is an Administrative Office Technician in the Engineering Department. The Authority hopes that awarding this position will provide administrative support to all the engineering staff and enable them to be more productive in conducting their technical work.

Mr. Frederick then commented that the Authority recognizes that some adjustment to the 4% merit pool figure included in the draft budget might be needed before the final budget is adopted. The Authority requests that its final merit pool figure be competitive with what the other local governments adopt.

Mr. Frederick also stated that the proposed budget includes a new support department called the Maintenance Department. RWSA has historically had a maintenance staff for each of the Wastewater and Water Departments that were recently consolidated under a Maintenance Manager, and this request reflects that current practice. The proposed new department will have a neutral budget impact, but some line items might be significantly changed from past history to move maintenance support services from the water or wastewater departments to the new Maintenance Department.

Mr. Frederick further reported that a vehicle replacement fund is being created this year to receive transfers from the depreciation of vehicles, rolling stock, and equipment that will be charged to the departments and entered formally on an annual basis. Fleet replacements would be purchased out of this new fund instead of the department budgets, which should serve to "level out" future vehicle replacement expenditures in the Department budgets.

Mr. Frederick next addressed other miscellaneous budget items, which included the continued allowance for emergency pipeline repairs, as well as several requests to rehabilitate or replace old process equipment, and the provision for anticipated increases in electricity and chemicals as a

result of inflation, particularly fuel costs. One significant request that was deferred and not included in this budget is a new bathymetric survey for the South Fork Reservoir. The last study conducted in 2002 determined the sediment levels throughout the reservoir.

Mr. Frederick then concluded his discussion by thanking and expressing his appreciation to all staff who participated in the budget process, particularly Mr. Lonnie Wood and the employees of the Finance and Administration Department, as well as Dr. Robert Wichser and all the department managers.

Mr. Tucker commented that since both the City and the County, as well as possibly ACSA, will have finalized their budget processes by the May 19, 2008 public hearing date, the Authority will be able to assess the competitiveness of its merit pool figure with the numbers proposed by those localities. He further stated that he felt the creation of a vehicle replacement fund was a "good move" on the part of the Authority. He next inquired as to the amount of the bathymetric survey not included in this proposed budget. Dr. Wichser replied that \$150,000 is the cost for that item.

**As there were no further questions or discussion, Mr. Tucker moved, which was seconded by Mr. Gaffney, that the Board of Directors vote to approve the following resolution adopting the proposed water and wastewater rates as preliminary rates and authorizing the Rivanna Water & Sewer Authority to advertise the rates as preliminary rates for the required 60 days for the purposes of notification of a public hearing to be held on May 19, 2008 at 2:00 p.m. during the regularly scheduled Board of Directors meeting:**

**RESOLUTION**

**WHEREAS, the Rivanna Water & Sewer Authority Board of Directors has reviewed the proposed budget and associated rate changes for Fiscal Year 2009; and**

**WHEREAS, Section 15.2-5136 (G) of the Code of Virginia requires the adoption of the preliminary rate schedule for notification of a public hearing prior to any rate change; and**

**NOW, THEREFORE, BE IT RESOLVED that the Rivanna Water & Sewer Authority hereby approves the preliminary rate schedule for purposes of notification of a public hearing to be held on May 19, 2008 at 2:00 during regularly scheduled Board of Directors meeting.**

**WATER RATES**

**Urban Area  
City - \$2.285/1000 gal.  
ACSA - \$2.983/1000 gal.**

**Crozet - \$50,226/monthly  
Scottsville Water - \$31,421/monthly**

**WASTEWATER RATES**

**Urban Area  
City - \$2.466/1000 gal.  
ACSA - \$2.722/1000 gal.**

**Glenmore - \$24,606/monthly  
Scottsville Wastewater - \$25,968/monthly**

Prior to the vote, Mr. Fern made the following statement for the public records: "I must announce that I have a conflict with respect to voting for the rates but only the rates being

adopted for the Albemarle County Service Authority (“ACSA”). Because I am employed as the Executive Director of the ACSA with a salary over \$10,000 annually and the ACSA may realize a reasonably foreseeable direct or indirect benefit or detriment as a result of the setting of water and wastewater rates for the ACSA, I am disqualifying myself from participating in the vote to the extent such rates are concerned. In addition, I am requesting that this fact be recorded in the appropriate public records for a period of five years. I have no conflict with respect to voting for all of the other rates.”

Mr. Gaffney next asked if this resolution only approved advertising the preliminary rate schedule to meet the 60-day regulatory requirement and not the actual rates. Mr. Frederick responded in the affirmative and added that the rates could still be amended at the Board’s discretion.

**VOTE:**

**AYES:** Mr. Gaffney, Mr. Tucker, and Mr. Fern – who abstained with respect to the ACSA water and wastewater rate

**NAYS:** 0

**ABSENT DURING THE VOTE:** Ms. Mueller and Mr. O’Connell

**ABSENT DURING THE MEETING:** Ms. Mueller and Mr. O’Connell

[Copy of the Transactional Disclosure Statement required by Section 2.2-3115(E) of the Action signed by Mr. Fern is attached to these minutes.]

In regards to **Item 6b, Moores Creek ENR – Preliminary Design Conclusion and Updated Cost Estimates**, Ms. Janice Carroll with Hazen and Sawyer stated that she would be providing an update today on the Nutrient Removal project through a PowerPoint® presentation. The update will be centered around the cost estimates associated with the 30% design submittal, the decisions leading up to those costs, and factors that continue to impact costs.

Ms. Carroll next reported that the 30% design submittal cost estimate represents the first comprehensive update to the cost estimate in the 2006 Preliminary Engineering Report (PER). The 30% design cost estimate was prepared using greater detail through design up to 30% complete, which include drawings and specifications, as well as best available information related to labor, materials, and market factor pricing. The 30% design cost represents approximately a 20% increase over the PER cost, both at the project cost level and taking into account the state-allowed 10% contingency. There is no change in the engineering and administration cost. She noted that the total project cost estimate of approximately \$34.63 million developed from the PER process was updated to approximately \$41 million at the 30% design level.

Ms. Carroll next discussed some of the decisions made between the PER process and the 30% design phase and other potential factors that might impact future costs. The inclusion of ultraviolet disinfection (UV) to the project and identification of a need to significantly increase

the scope of electrical work were decisions that affected costs. The other potential cost impacts include an observation of increased influent nitrogen load and ongoing monitoring of construction market trends.

Ms. Carroll first addressed the UV cost impact. In November 2007, Hazen and Sawyer presented the advantages and costs associated with moving away from disinfection in the tertiary settling basins (after it was discovered a settling basin had structural settling problems) via chlorination/dechlorination to a UV disinfection process. The Board approved the addition of UV, increasing the total project cost to \$35.9 million.

Ms. Carroll next stated that the second decision made between the PER and 30% design phase was based largely on recognition of the need to provide substantially more work on the electrical system to supply ENR electrical needs than was conceptualized in the PER. Most of those needs related to the existing main switchgear at the Blower Building lacking sufficient space to feed the new equipment that will be installed as part of the upgrade. The existing stand-by generators have no reserve capacity for the proposed new loads, which are primarily related to nutrient removal in the aeration basins, the UV facility, and the tertiary filters located on the north side of the site.

Ms. Carroll then commented that recognizing that those electrical needs must be addressed as part of this project, but also recognizing the need for cost control, RWSA staff asked that Hazen and Sawyer identify options for reaching the end point. Three alternatives were identified, and each one was evaluated as follows:

- Alternative 1 is the most comprehensive or “Cadillac” option and includes all new 5 kV switchgear, in a main-tie-main configuration, which greatly enhances and increases the reliability and redundancy of the electrical distribution system. The existing fusible load center, which is located in the Blower Building and has insufficient capacity for expansion, would be replaced and centralized stand-by power would be provided for all plant facilities. The estimated cost for Alternative 1 is about \$6.4 million.
- Alternative 2 would be expandable to Alternative 1 in the future, but at this point it would be scaled back by providing new 5 kV switchgear, in a main-tie-main configuration, to feed new loads while retaining the existing fusible load center at the Blower Building to feed the existing loads. Centralized stand-by power would be provided for new loads only, and the existing five generators on-site would be retained to provide stand-by power for the loads it currently serves. The estimated cost of Alternative 2 is about \$5.25 million.
- Alternative 3 is similar to Alternative 2 in that it would have new 5 kV switchgear, in main-tie-main configuration, to feed new loads. However, a separate new utility feed would be set on the north side of the plant to power the new loads in that area, which includes the UV and the tertiary filters. Stand-by power for the new loads only would be centralized both on the north side and on the south side of the plant. The estimated cost for Alternative 3 is about \$5.25 million in addition to fees that would be levied by Dominion Power for setting the new service on the north side. At this time Hazen and

Sawyer has been unable to get that information from Dominion Power, but it was anticipated that it would be less than \$50,000.

Ms. Carroll next stated that Hazen and Sawyer recommends that RWSA proceed with Alternative 2, as it is marginally the lowest cost alternative and is anticipated to have lower future operational costs since there would be one service and more diversification of loads. Ms. Carroll then commented that an item that has not been fully quantified at this time as to its potential financial impacts is a result of an observation late in the summer of 2007 when the Moores Creek WWTP experienced an increase in influent ammonia load of 20-30%. A load is measured on a mass basis and is independent of any increase in concentration that is seen as a result of lower flows. Hazen and Sawyer observed an increase in mass above and beyond a concentration increase that would be due to low flows. The load increase can impact the nutrient removal design project by requiring additional treatment capacity, which then impacts the costs. Recognizing that this has a potential for a significant financial impact and also recognizing that the facilities must be designed so that RWSA can treat the load to meet the stringent permit requirements, additional nutrient sampling was recommended and was begun in early January 2008. Specifically, detailed nitrogen species sampling was recommended for the two influent pump stations, primary clarifier influent, primary clarifier effluent, plant effluent, and the in-plant clarifier effluent. This sampling will proceed for four to six months. To date Hazen and Sawyer has obtained data for one month, which indicates additional treatment capacity is warranted requiring the addition of a sixth aeration basin and additional blower capacity. At this point the estimated cost for those increases in treatment capacity is estimated at \$4.0 million. These additional facilities would be grant eligible at the same percentage as similar facilities included in the grant agreement, which equates to 60% or \$2.4 million. Hazen and Sawyer recommends that RWSA continue the sampling, proceed with the design of the sixth aeration basin and the additional blower capacity, and include or exclude those facilities in the bid package based on subsequent data.

Ms. Carroll next discussed the cost control measures that were incorporated into the 30% design cost estimate, as well as items that could not be avoided and contributed to a cost increase. For this project, the existing grit facilities and the primary clarifier mechanisms will be retained. The existing sludge pumping station will be optimized, which eliminated the need for a new building. An existing piping gallery will be utilized to route aeration basin influent piping. The existing final clarifiers can be reused on the north side of the plant for filter backwash supply and waste. Canopies over the bulk storage chemical tanks have been eliminated. The new electrical buildings have been consolidated for adjacent facilities to keep building costs low. As a result of meeting with the instrumentation staff at Rivanna, Hazen and Sawyer will provide a type of "thin client" remote access to operator workstations throughout the plant.

Ms. Carroll then reviewed the items that could not be changed to favorably affect costs, which included the previously discussed electrical work, insufficient room in the Solids Handling Building for polymer and ferric feed equipment on the north side of the plant requiring the construction of an additional bulk storage chemical facility, the need to replace safety equipment at digesters, and the issue of materials and labor costs escalation. She then referred to the cost index comparison graph in the slide presentation, which illustrated the unprecedented period of construction cost inflation currently being experienced.

Ms. Carroll further commented that DEQ's nutrient removal compliance schedule is adding additional pressures to this situation. There are approximately 90 wastewater treatment plants statewide that need to be updated and placed on a schedule to meet the nutrient removal goals by January 1, 2011. RWSA has an executed grant agreement whereby the Authority will be required to meet the treatment goals at the Moores Creek plant by 2013 with the purchase of credits from the 2011 to 2013 time frame. These pressures have created an insufficient labor force in this region, and few bidders are participating in wastewater treatment plant upgrade projects.

Ms. Carroll next commented that from the 30% design work forward Hazen and Sawyer will continue to observe those trends and report back as needed. There were some indications in December and in January that some "leveling out" of construction costs might be occurring, as project bids were coming in closer to the engineer's estimate than previously observed last year, and for at least smaller projects, there has been increased contractor interest.

Following up on Ms. Carroll's comments, Mr. Tucker stated that County staff have also observed those trends and felt that the current economic climate was beginning to impact the construction market. He further stated that he thought RWSA was a "step ahead" of several localities related to meeting state requirements for nutrient removal and inquired if that still was the case.

Mr. Frederick responded that RWSA was among the first 15 or so facilities to receive an executed grant agreement for this project. Mr. Gaffney then asked for clarification about the number of bidders for these plant upgrades. Ms. Carroll responded that prior to December 2007, Hazen and Sawyer had observed very few bidders for those projects. After that time there has been an increase in the number of bidders for smaller projects, which might not necessarily involve the same contractor pool because of the bonding capacity issue. Hazen and Sawyer will need to monitor those trends to see if it "extrapolates" out to the level required for the ENR upgrade projects.

Mr. Gaffney next asked if the estimated costs for this project include a 10% contingency. Ms. Carroll responded that the additional costs associated with UV disinfection, additional electrical work and treatment capacity, as well as the 10% contingency for each of those items, were included in the \$41 million figure.

Mr. Gaffney then asked about the cause for the increased ammonia load if it was not the result of drought flow conditions. Ms. Carroll stated that the purpose of the additional nitrogen sampling is to look at both influent pump stations and also the recycle stream to ensure that the increased ammonia load can be attributed to being a collection systems difference as opposed to an in-plant recycle operation. The increased ammonia load is being observed at some other wastewater treatment plants in addition to the Moores Creek facility. Sampling to date indicates a collection systems issue, but the cause has not yet been confirmed. Mr. Gaffney next inquired about the date of the last testing. Dr. Wichser stated that since the sampling began the first week in January 2008, the testing was being conducted on a weekly basis. At the end of February, Hazen and Sawyer recommended that the weekly sampling continue for an additional four to six months. Mr. Gaffney further questioned if this sampling had been conducted on a weekly basis prior to January. Dr. Wichser replied that the sampling was performed on a less frequent basis.

Ms. Carroll added that the PER was developed based on three to five years of data for similar factors, which resulted in the recommendation of five aeration basins. During the ongoing sampling that continued through the design phase, a change in the plant's influent load characteristics was detected that resulted in Hazen and Sawyer revisiting the capacity issue. Mr. Fern next inquired if RWSA should be looking in the collection systems for a significant discharger. Ms. Carroll commented that her recollection from the collected data is that the increased ammonia load was observed at both the Moores Creek WWTP and the Rivanna Pump Station, so she did not feel that a call for a special investigation was warranted at this time. Additional sampling may help in addressing those questions.

Mr. Fern next inquired if the \$4 million for the additional treatment capacity included sufficient electrical work to enable the blowers to handle the sixth aeration basin. Ms. Carroll replied in the positive.

Mr. Fern then commented that it was his understanding that one of the advantages for converting to the UV system was the ability to use the solids handling building for chemical storage, but it now appeared that there would not be enough space in that facility to accommodate the chemicals. Ms. Carroll stated that one of the "selling points" of the UV process is that the sludge pumping station could be used for chemical storage. The existing hypochlorite facilities will be partially decommissioned in the sludge pumping station and the remaining space used for the chlorination of the return activated sludge (RAS). The bisulphate facilities will be removed and converted to polymer facilities. The pumps that serve the existing Tertiary Settling Basins will be removed and the new RAS pumps to serve the new secondary clarifiers will be sited at that location, which will eliminate the need for a new RAS pumping station.

Mr. Gaffney next asked when the next project estimate would be presented to the Board.

Ms. Carroll stated that the next estimate would be presented at the 60% design level.

Mr. Gaffney then asked if Ms. Carroll foresaw any future savings that would mitigate the additional costs for this project. Ms. Carroll stated that as the project progresses through each cost estimate level, the Board could expect less change as more details become available. The progression from the PER process to the 30% design level represents the greatest "leap" in the project development, whereas moving from the 30% to the 60% design level entails working out smaller details.

Mr. Tucker then inquired as to when the 60% design cost estimates would be available.

Ms. Carroll stated that the cost estimates would be available in May 2008. Mr. Gaffney next asked about the date for the final cost estimate submittal. Ms. Carroll replied that a 90% submittal will go to DEQ in early September. If DEQ's review process follows the projected schedule, the project could be bid ready by the end of December 2008. Mr. Gaffney further questioned if 2013 is still the anticipated completion date for this project with RWSA purchasing credits between the 2011 and 2013 time frame. Ms. Carroll stated that it would depend upon the flows and the loads at the Moores Creek facility.

Mr. Fern next referred to the slide that listed the estimated project costs. He noted that the project cost increases by roughly \$5 million but inquired why there would no increase in engineering and administration costs. Ms. Carroll commented that if the additional elements

“come into play,” such as the additional aeration basins and additional blower capacity, there will be impacts to the engineering and administration costs. The costs associated with the UV disinfection process had already been included at the time the contract was negotiated. The other items related mainly to the electrical work, materials and cost escalation, which are not large impacts from a design perspective.

As there were no further questions or discussion, the Board members thanked Ms. Carroll for the Nutrient Removal Project update.

Dr. Wichser then noted that the cost presented today for a potential sixth aeration basin did not include any odor control expenses for the Moores Creek WWTP. Mr. Gaffney next inquired if odor control would be a component of this project or a separate item. Mr. Frederick stated that this issue would be discussed at the March Board meeting, but there is the potential for adding elements of the decision made next month to this project, as well as possibly placing some of the items out to bid separately.

In regards to **Item 6c), Capital Funding Request for Camelot WWTP**, Dr. Wichser stated that he would be reporting today on RWSA’s mid-year request to increase the FY 2008 CIP for improvements to the Camelot WWTP that the Authority operates in northern Albemarle County. RWSA was granted this plant in the early 1990s after it was designed, constructed, and financed by several nearby landowners in exchange for an agreement, to which both ACSA and RWSA were parties, reserving capacity for future use by these landowners. The Camelot WWTP was built with a rated capacity of 365,000 gallons per day for the treatment of domestic strength wastewater under the regulations and technology during that time period. The landowners were reserved up to 300,000 gallons per day. The plant currently operates at an average flow of approximately 120,000 gallons per day.

Dr. Wichser next commented that since assuming operation of the facility, two significant trends have occurred in the use of the ACSA wastewater collection system that feeds the Camelot plant. Changes in the hydraulic peaking have been observed, as well as an increase in the wastewater strength. These conditions add to the challenges in operating the Camelot plant to consistently achieve permit limits.

Dr. Wichser then reported that Hazen and Sawyer was retained in October 2007 to conduct a study on the treatment capacity of the Camelot plant based on the impacts from the hydraulic surges and increased wastewater strength. During the past year, there were a few months when the plant operated either very close to the permit limit or did not meet the permit limit. The engineering study was intended to help RWSA and ACSA better understand what would occur if additional flows were allocated to that plant from ACSA’s pending project expansions such as the Briarwood Subdivision, North Fork Research Park Office Complex, and the National Grounds Intelligence Center, which is scheduled to occur within the next two years.

Dr. Wichser next stated that Hazen and Sawyer completed the draft study in November 2007 and finalized the report in January 2008. Hazen and Sawyer concluded that without reductions in hydraulic surges or wastewater strength, the Camelot plant could not receive additional flow and reliably meet permit limits without some immediate capital improvements, which included the

installation of a separate “flow equalization” or holding tank and re-commissioning the existing treatment train currently being used as a holding tank. Hazen and Sawyer also suggested that adjustments be made to the aeration system.

Dr. Wichser then commented that ACSA has conducted an extensive analysis of the sewer collection system over the past few months in an effort to find the source of the hydraulic surges and high strength wastewater. ACSA has also concluded that to ensure the effective capacity for development currently underway, RWSA needed to proceed with the improvements recommended by Hazen and Sawyer as quickly as reasonably possible. A budget has been established for all activities related to this issue as listed below:

- Automation of Air Flow to Treatment Process - \$22,500 (Completed)
- Chemical Feed for Solids Settling - \$1,000 (Completed)
- Re-Commissioning of Second Treatment Train - \$3,500 (Completed)
- Hazen and Sawyer Engineering Study - \$15,000 (Completed)
- Engineering Services for Separate Flow Equalization Basin - \$40,000 (Initiated)
- Construction of Flow Equalization Basin - \$300,000 (Proposed)

The items listed as “Completed” were undertaken by RWSA in-house using operation and maintenance funds. The total budget being requested by staff is \$385,000.

Dr. Wichser also reported that in order to expedite the scheduling of these improvements, RWSA is requesting Board approval to amend the current CIP to add these budgeted funds to the current FY 2008 capital budget. If approved, this action would supersede the proposed “Interim Plant Maintenance” item identified in the proposed CIP in the amount of \$90,000 in FY 2009 and \$166,000 in FY 2010. The design and construction of the flow equalization basin need to proceed at a rapid pace in order to minimize the risk to Camelot’s VPDES permit.

Dr. Wichser next commented that ACSA is separately pursuing the planning, design, and construction of a new regional pump station/force main that will serve the future needs of the northern end of the County’s jurisdictional area through the Moores Creek WWTP, allowing the Camelot plant to be decommissioned within the next two to three years. ACSA’s goal is to have their project completed within the next 24 to 36 months. Therefore, the improvements recommended above are being designated only for approximately 24 to 36 months in order to provide the potential capacity to Camelot to meet the needs until ACSA’s project is completed. In the event that this plant is not decommissioned as currently scheduled, more extensive and costly rehabilitation of the Camelot WWTP would be required in a three to five year time horizon.

Dr. Wichser then stated that RWSA staff anticipates that ACSA will provide the funding for all of these capital projects, as the Camelot WWTP serves only the ACSA jurisdictional area.

Dr. Wichser next reported that RWSA respectfully requests that the Board of Directors authorizing the following:

- (1) Amend the capital budget for FY 2008 by the addition of \$385,000 for the Camelot Wastewater Treatment Plant; and

- (2) Authorize the Executive Director to execute Work Authorizations for the above-described engineering services through RWSA's existing Engineering Services Agreement with Hazen and Sawyer for wastewater treatment plant engineering, in the amount of \$55,000 plus contingency up to 10% as required at the discretion of the Executive Director.

Mr. Fern next commented that last Thursday the ACSA Board of Directors met and authorized that the capital projects for the Camelot WWTP would be funded entirely through ACSA as reported by Dr. Wichser.

Mr. Gaffney then clarified that in the requested Board action the \$55,000 for engineering services in No. 2 is part of the \$385,000 being requested in No. 1.

**Mr. Fern moved that the Board of Directors vote to amend the capital budget for FY 2008 by the addition of \$385,000 for the Camelot Wastewater Treatment Plant and also authorize the Executive Director to execute Work Authorizations for the above-described engineering services through RWSA's existing Engineering Services Agreement with Hazen and Sawyer for wastewater treatment plant engineering, in the amount of \$55,000 plus contingency up to 10% as required at the discretion of the Executive Director, seconded by Mr. Tucker. The motion was approved by a 3 – 0 vote.**

#### **7.0 Other Items from Board/Staff not on the Agenda**

There were no other items from the Board or staff not on the Agenda.

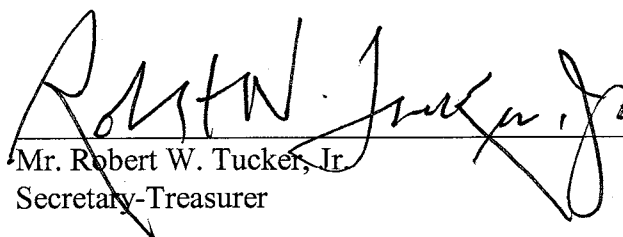
#### **8.0 Closed Meeting**

There was no need for a closed meeting.

#### **9.0 Adjournment**

**There being no further business, Mr. Tucker moved that the meeting be adjourned, seconded by Mr. Fern. All members voted aye, and the meeting was adjourned at 2:47 p.m.**

Respectfully submitted,

  
Mr. Robert W. Tucker, Jr.  
Secretary-Treasurer