

MEMORANDUM

TO: RIVANNA WATER & SEWER AUTHORITY
BOARD OF DIRECTORS

FROM: JENNIFER A. WHITAKER, CHIEF ENGINEER

REVIEWED BY: THOMAS L. FREDERICK, EXECUTIVE DIRECTOR

SUBJECT: DESIGN SERVICES FOR MOORES CREEK PUMP STATION
IMPROVEMENTS

DATE: MARCH 23, 2010

Background

At the January 2010 Board Meeting, the Board authorized RWSA to execute a work authorization with Hazen and Sawyer for the preliminary design analysis of the Moores Creek Pump Station Upgrade project which has been progressing on schedule. Initial findings on the study of the maximum hydraulic capacity which can be achieved in the Moores Creek Pump Station within the existing footprint have been determined to be approximately 28 to 32 MGD. The capacity upgrade would include channel and screening improvements, pump replacement, wet well modifications, electrical upgrades and a new parallel force main from the pump station to the screens at the WWTP head works. Easement acquisition is not anticipated considering all work is on RWSA waste water treatment plant property.

Recent meetings and correspondence with the City and ACSA have indicated that this pump station upgrade project needs to be expedited to accommodate larger peak flows from the collection systems. At a March 9, 2010 meeting, the City staff and ACSA staff agreed that a design between 28 to 30 MGD would satisfy currently projected needs for wet weather flow based on a 2-year storm. As such, we are working to fast track the design in parallel with the preliminary studies.

Design and Bidding Work:

RWSA staff is recommending that the Board authorize Hazen and Sawyer to begin the final design of the Moores Creek Pump Station and Force Main Upgrades which will include the following: development of final plans, contract documents and specifications suitable for bidding, subconsulting work for geotechnical investigations and survey, and permit applications including the VMRC JPA application. The total not to exceed fee for this design work is \$343,031. To expedite the bidding process at the completion of design, RWSA also recommends that the Board authorize Hazen and Sawyer to perform bidding services including assistance during bidding, attendance of the pre-bid conference, issuing addenda and evaluating bids. The total not to exceed fee for this bidding services work is \$34,274.

Additional Work:

Although the pump station structure can accommodate approximately 28 to 32 MGD, the existing generator can only be utilized up to flows of 28 MGD. Hazen and Sawyer has been asked to provide preliminary estimates for additional generation capacity to determine which end of this range is most cost-effective. If additional generator capacity is selected, additional design work would be authorized by RWSA only as necessary for an additional fee not to exceed \$25,956.

Furthermore, the funding source for this project has not been determined. If an SRLF loan is desired, additional submission and review time by DEQ will need to be factored into the project schedule. If project efficiency is determined to be most critical, then RWSA will need to pursue its own funding. If SRLF funding is selected, then RWSA recommends that Hazen and Sawyer be authorized to complete the SRF applications, DEQ submissions and administrative tasks as required. This task would be authorized by RWSA only if necessary for a fee not to exceed \$21,595.

Board Action Requested:

Staff respectfully requests that the Executive Director be authorized to execute a Work Authorization with Hazen and Sawyer for final design and bidding services for the Moores Creek Pump Station upgrades for a total fee not to exceed an amount of \$424,856 to be funded appropriately from the Moores Creek Pump Station & Force Main Upgrade budget as approved in March 2008. Staff also requests authorization for a 10% contingency for this work, to be used only if the Executive Director considers it necessary and authorizes in writing any increase of the original contract amount.