



DATE: October 18, 2013

TO: Construction/Engineering/Operations Committee and Board of Commissioners

THROUGH: Raymond J. Marshall, P.E.
Executive Director

FROM: Paul Nordstrom, P.E. Director of Operations and Engineering
Thomas Brueckner, P.E. Engineering Manager

SUBJECT: Review and Approval of Resolution **2013: 38**; Authorization to Procure Engineering Services for Contract 308.00 - Reevaluation of Phase III of the NBC CSO Program

Phase II of the CSO Program is currently under construction and is expected to be completed in 2015. NBC's Consent Agreement with RIDEM for the CSO Program requires NBC to complete preliminary design of the Phase III CSO facilities within one year of completion of construction of Phase II and final design one year after approval of the preliminary design.

The CSO facilities to be built in Phase III are described in a Conceptual Design Report Amendment (CDRA) approved by RIDEM in 1998. These facilities include a 13,000 foot long deep rock tunnel, five sewer separation projects and three CSO Interceptors to convey flow to the Phase III tunnel. Before beginning the preliminary design, NBC believes it would be beneficial to conduct a reevaluation of the Phase III facilities proposed in the CDRA. The purpose is to determine if there is a more cost effective approach that could either reduce the cost or extend the schedule of Phase III by employing new techniques and approaches that are now available, specifically Integrated Planning, Affordability Analysis and Green Technology.

The Reevaluation will consist of the following tasks:

- Development of a sewer hydraulic model for the Bucklin Point Service Area to be used in design of the Phase III facilities;
- For each overflow, evaluate if the recommended abatement method proposed in the CDRA is still the most cost effective, including an evaluation of green infrastructure alternatives, particularly where sewer separation is currently proposed, to reduce or eliminate storm water at its source;
- Evaluate changes in water quality since Phase I went on line to determine if Phase III is still necessary, and if so, to determine if the facilities required now to meet water quality standards could be reduced in scope;

- Develop a cost estimate for Phase III, evaluate the impact on sewer rates and conduct an affordability analysis based on EPA criteria and use an Integrated Planning Framework (IPF) approach to establish priorities
- Establish a Stakeholders Group to update them on progress to date and obtain input on the Phase III Reevaluation;
- Develop mapping of the project area to be used in design;
- Conduct geotechnical investigations as needed for the the Phase III facilities alternatives evaluation

NBC issued a Request for Qualifications and Proposals (RFQ/P) on August 5, 2013 to solicit proposals for engineering services to conduct the Phase III Reevaluation. The RFQ/P also states that if the Reevaluation is completed satisfactorily, the NBC may extend the contract to include design of the Phase III facilities and to provide engineering services during construction. During the design phase, the Selected Respondent will serve as the Program Manager supervising the work of Project Design Engineers.

Proposals were received from three firms:

CDM Smith

Louis Berger Group

MWH

In accordance with NBC Procurement Regulations, a Review Committee was established to review the proposals. The committee members were: Paul Nordstrom, Director of Operations and Engineering; Rich Bernier, Director of Construction Services; Thomas Brueckner, Engineering Manager; Phil Albert, Chief Environmental Engineer; and Kathryn Kelly, Principal Environmental Engineer.

The evaluations of the committee members rated the proposals essentially equal. The average scores and the cost of the proposals were as follows:

<u>Firm</u>	<u>Rating</u>	<u>Cost</u>
CDM Smith	92	\$1,299,253
MWH	92	\$1,490,779
LBG	91	\$1,767,977

Three of the reviewers had MWH as their highest ranked proposal and two of the reviewers had CDM as the highest ranked proposal.

One of the most important tasks in the Reevaluation is the Affordability Analysis and the use of an Integrated Planning Framework to establish priorities for projects required to be completed to attain water quality standards. This task may demonstrate that the impact of these projects on sewer use rates is so great that an extended schedule for completion of the Phase III facilities is justified. Another aspect of the Reevaluation that offers some promise for reducing the cost of both CSO control and storm water requirements is the evaluation of Green Infrastructure improvements (such as porous pavement, rain gardens and bioswales) to reduce runoff at its source. This approach, if feasible, could reduce the need for expenditures on grey infrastructure. Because MWH had the strongest proposal for these tasks it is recommended that MWH be selected to perform the Reevaluation for Phase III. It is further recommended that a 10% contingency be part of the authorized allocation to cover out of scope costs that may arise during the project. Additional project costs that will be incurred include NBC labor costs, police details and other miscellaneous costs.

Therefore, it is recommended that the Board approve Resolution **2013: 38** authorizing staff to negotiate a contract with MWH to provide engineering services to conduct a Reevaluation of the proposed Phase III CSO facilities for an amount not to exceed \$1,490,779 and that NBC's staff may negotiate additional expenditures during the project up to a total of \$1,640,000.