Exhibit A

CONSULTANT SERVICES AUTHORIZATION NO. 14

PALM BEACH COUNTY WATER UTILITIES DEPARTMENT
ENGINEERING/PROFESSIONAL SERVICES

SCOPE OF WORK
FOR

C-51 RESREVOIR PROJECT
INDEPENDENT TECHNICAL AND FINANCIAL ANALYSIS

INTRODUCTION

Palm Beach County (COUNTY) entered into an agreement entitled Contract for Engineering/ Professional Services - Palm Beach County Utilities Department Project No. WUD 11-003 (CONTRACT) with. MWH Americas, Inc. (CONSULTANT) to provide engineering services for various general activities on (Reference Document R2011-0632). This Consultant Service Authorization will be performed under that CONTRACT.

This Consultant Services Authorization encompasses providing services related to technical and financial review of documents prepared for the C-51 Reservoir by others.

BACKGROUND

Palm Beach County as a participant in the Regional Water Resources Advisory Board has agreed to serve as the lead government in providing an independent assessment of the C-51 reservoir. The Water Resources Advisory Board desires to have an independent analysis of the cost of the proposed reservoir as part of its due diligence in evaluating the alternative water supply options. PBCWUD will use its continuing services agreement with MWH, the County's Water Resources consultant, to perform the needed analysis.

SCOPE OF SERVICES

CONSULTANT shall perform the engineering Scope of Services as described herein.

Task

1. **Familiarize and review work performed by others**
    a. Palm Beach Aggregates
    b. SFWMD
    c. Palm Beach County
    d. Lake Worth Drainage District
    e. City of Fort Lauderdale (Federico, Lamb & Associates & Hazen and Sawyer)

2. Evaluate the Basis of Design Each Phase of the Reservoir

a. CONSULTANT will confirm the reservoir water balance and availability assumptions including analysis of Federico; Lamb and Associates work perform for "Conceptual Feasibility of a Sub-Regional Lower East Coast Water Supply Solution Phase 2A – Additional Investigations, Compilation of Technical Memoranda"; January 2010.

b. CONSULANT will review Conceptual Feasibility of a Sub-Regional Lower East Coast Water Supply Solution, prepared by Hazen and Sawyer in association with MacVicar, Federico and Lamb, February 2009.

c. CONSULTANT will review modeling work performed by SFWMD associated with L-8 and C-51. Section 4.2 of Task 2B - Direct Conveyance Alternatives Technical Memorandum prepared by Hazen and Sawyer and MFL mentions that "Based on an analysis by the District in 2008, the C-51 reservoir is capable of providing 120 MGD of water". The reference for this statement is a District presentation at the Utility Working Group Meeting, January 1, 2008. The back-up studies for this document will be reviewed to assure that there is sufficient water to meet the base-flow requirements of STA 1E, STA 1W, and Lake Worth Lagoon as well as supply 120 MGD to Broward County.

d. CONSULTANT will prepare a water balance for 1-10 year drought

e. CONSULTANT will prepare water balance for 1 in 100 year drought

3. Review Design of Reservoir (30% Design) and Assumptions

a. CONSULTANT will review the available design information and compare with the criteria identified in the South Florida Water Management District Design Criteria Memoranda (DCMs). Memoranda to be used in this evaluation include the following DCM-2 Wind and Precipitation Design Criteria for Freeboard; DCM-3, Spillway Capacity and Reservoir Drawdown Criteria; DCM-4, Minimum Dimensions of Embankments (Levees or Dams), Ramps, Pull-outs and Access Roads; DCM-7 Procedure for Development of Opinion of Probable Construction Costs; DCM-9, Dam Safety Instrumentation and Monitoring.

b. CONSULTANT will review the proposed operating strategy for the C-51 reservoir. Planned maximum and minimum operating levels will be reviewed for consistency with analyses performed of inflow and leakage from the site. Leakage calculations will be reviewed to confirm that reservoir operating levels and reservoir development phase were included in the assessment of potential losses from the site. Design evaluations will be reviewed to confirm potential impacts on the facility's water balance are characterized and included in the water balance evaluations.

c. CONSULTANT will review information developed by the project's design engineer regarding interaction between the L-8 Pumping Station and the C-51 reservoir facility for potential limitations imposed on the availability

of raw water supply to the C-51 reservoir. This review will include the proposed development and operating scheme for the facility as well as the identified operation levels for the site.

d. CONSULTANT will review available information such as basis of design and design assumptions in conjunction with the available subsurface information, design analysis and evaluations, as well as drawings and specifications. Anticipated performance will be evaluated in relation to similar seepage barriers designed and installed in the region. Seepage barrier design and wall type will be evaluated with respect to the construction phasing proposed for the site. Cost savings options and value added alternatives identified during this analysis will be noted.

e. CONSULTANT will review basis of design parameters used to select the inflow design flood (IDF), wind setup and wave run-up in comparison with the freeboard required based on the hazard potential classification of C-51 will be evaluated. Inflow design flood or design storm event will be reviewed for consistency with SFWMD design criteria and applicable state regulations. Proposed cross section of the perimeter embankment will be reviewed to identify crest elevation with respect to maximum flood pool and normal pool water surface elevation. Cost saving options and value added alternatives identified as part of this analysis will be noted.

f. CONSULTANT will review available information such as basis of design and design assumptions in conjunction with previously identified subsurface information, design analysis and evaluations, as well as drawings and specifications. Inflow design flood and flood routing will be reviewed for consistency with the criteria in DCM-3 for Spillway capacity and the IDF. Anticipated performance characterized for each phase of development will be reviewed and assessed. Penetrations though the embankment will be reviewed for material compatibility and piping potential. Roller Compacted Concrete (RCC) design will be reviewed for consistency with national and regional practice. Cost saving options and value added alternatives identified during this analysis will be noted.

g. CONSULTANT will review seepage assumptions approach used and the reasonableness of results reported. Exit gradients and factors of safety against uplift or piping predicted in the evaluations for the exterior perimeter berms as well as the interior cell berms will be reviewed versus standard practice and regional experience. Seepage control measures implemented for the exterior toe of the embankment will be reviewed for consistency with standard practice and regional experience.

h. CONSULTANT will review available information such as basis of design and design assumptions in conjunction with available subsurface information for consistency with DCM criteria. Stability evaluations performed during design will be reviewed to assess methods used and reasonableness of results obtained. Analyses performed for each phase of reservoir development as well as for each loading condition imposed

(built, operate and drawdown conditions) will be reviewed to assess methods used and reasonableness of results obtained. The design of the upstream slope protection layer will be reviewed to assess consistency with site conditions, predicted seepage quantities for the site as well as regional practice. Cost savings options identified during this analysis will be noted.

4. **Develop Costs for Reservoir Design and Construction**
    a. CONSULTANT will develop construction costs of the proposed reservoir following AACE International Recommended Practice No. 18R-97

    b. CONSULTANT will develop estimates for reasonable engineer design and engineering services during construction.

    c. CONSULTANT will include in the development of construction estimates, the impact of implementation of cost saving options identified through this analysis.

5. **Develop Land Cost Methodologies for Reservoir Site**
    a. CONSULTANT will, with advice from an appraiser familiar with area land values, prepare a cost range for land and appropriate appraisal methodologies to be factored into the price model.

6. **Develop Life Cycle Cost for Participants**
    a. Develop O&M Costs in concert with SFWMD for each phase
    b. Develop renewal and replacement Costs in concert with SFWMD
    c. Develop Life Cycle Costs per phase using the following
        i. LCC = I + R + OM
            1. LCC = Project Life Cycle Costs
            2. I = Initial investment including planning, engineering, design, land, permitting, construction and financing.
            3. R + Asset replacement costs
            4. OM = Annual operations and maintenance expense
    d. Conduct LLC sensitivity analysis by varying inputs over potential ranges
    e. Summarize the capacity (dependable) flows that can be provided by the Facility to meet customer demands
    f. Calculate the unit of water provided by the Reservoir and Conveyance Facilities and develop preliminary cost recovery / pricing strategy

7. **Review findings with the C-51 Governance and Finance Working Group**

8. **Prepare supporting documentation into a final study report.**

ASSUMPTIONS AND CLARIFICATIONS

CONSULTANT's scope of work is based on certain assumptions which determine the CONSULTANT's level of effort and therefore compensation, as follows:

- CONSULTANT will comply with the COUNTY's security requirements in force at the time this work order is signed.

- CONSULTANT will rely on information provided by Palm Beach Aggregates, SFWMD, Palm Beach County, Lake Worth Drainage District, Hazen and Sawyer, and Federico, Lamb and Associates.
- CONSULTANT will rely on property information records provide by Palm Beach County and the SFWMD
- CONSULTANT will not perform property appraisals as part of this work, but will consult with an appraiser for advice on computation methodology and price ranges.
- CONSULTANT will not conduct a formal value engineering workshop but will compile cost savings recommendations and value added alternatives developed during the analysis
- CONSULTANT assumes stored water level below grade making hazard analysis unnecessary and excluded.
- CONSULTANT assumes phase 1 spillway is adequate for future phases
- CONSULTANT will not evaluate liquefaction risks

COMPENSATION

The COUNTY shall pay the CONSULTANT a lump sum fee of $150,000 for providing the services described in this scope of work.