

PALM BEACH COUNTY
BOARD OF COUNTY COMMISSIONERS
AGENDA ITEM SUMMARY

Meeting Date: February 25, 2014 Consent [] Regular [X]
Public Hearing []
Department: Water Utilities Department

I. EXECUTIVE BRIEF

Motion and Title: Staff recommends motion to: 1) adopt a Joint Funding Agreement Related to a Third-Party Assessment of C-51 Reservoir Costs; and 2) approve Consultant Services Authorization (CSA) No. 14 to MWH Americas, Inc. (R2011-0632) for a C-51 Reservoir Project Independent Technical and Financial Analysis in the amount of \$150,000.

Summary: The BCC has been kept up to date by staff on the C-51 project and has given staff direction to monitor the C-51 project and bring back to the BCC any additional tasks for which expenditures are required. Several months ago the Joint Palm Beach/Broward County C-51 Reservoir Finance and Governance Committee was formed. It's first task is to conduct an independent cost estimate of the C-51 Reservoir Project, including land and construction costs. In order to expedite the cost evaluation Palm Beach County Water Utilities Department (WUD) was selected as the entity to manage the project. WUD already has an engineer, MWH Americas, Inc, (MWH), under contract (R2011-0632) to perform engineering water resources tasks. This Joint Funding Agreement, between five (5) Palm Beach County (PBC) parties and four (4) Broward County parties is the vehicle under which the \$150,000 cost of the study will be divided. This CSA with MWH will provide for and independent assessment of the C-51 Reservoir including review of existing design, development of construction costs for the reservoir, land valuation and life cycle cost. Under the terms of the Joint Funding Agreement, the County will pay \$28,125 of the total CSA cost while the other nine participating entities will pay the remaining \$121,875. The contract with MWH Americas, Inc. provides for SBE participation of 26% overall. This Authorization includes 12.66% overall participation. The cumulative SBE participation, including this Consultant Services Authorization, is 23.21% overall. MWH Americas, Inc. is a local company. One of the participating entities, the Lake Worth Drainage District (LWDD), has stricken the County's standard language relating to the Inspector General's audit authority. However, as a party doing business with the County, LWDD is still subject to the Inspector General's audit authority pursuant to Section 2-423 of the Palm Beach County Code. (WUD Project No. 14-029) District 6 (MJ)

Background and Justification: Water resources in South Florida are limited and are projected to be insufficient to meet long-term future demands. A major reason for this limitation is a lack of sufficient storage of regional water which is released to tide during the wet season; consequently causing environmental damage to estuaries. There is a section of land in Palm Beach County, currently being mined by its owners, which is uniquely suited geologically to store large amounts of water. The owners have proposed and designed a large reservoir known as the C-51 Reservoir to capture part of this excess water and to release it during the dry season. The concept of the C-51 Reservoir Project has been endorsed by both the County Commission and the Water Resource Task Forces of both Palm Beach and Broward Counties.

This reservoir would greatly benefit South Florida Water Utilities in Palm Beach and Broward Counties, who would be the main parties to bear its costs. The owners have released a cost estimate for the construction of the reservoir. The purpose of the proposed study is to develop an independent cost estimate for review by interested utilities to help staff and governing boards make a better informed decision as to whether or not to move the project forward.

- Attachments:**
- 1. Location Map
 - 2. One (1) Original Joint Funding Agreement
 - 3. Two (2) Original Work Authorizations No. 14

Recommended By: Brent Brantley 2/19/14
Department Director Date
Approved By: Sharon Q. Green 2/24/14
Assistant County Administrator Date

Attachment 1

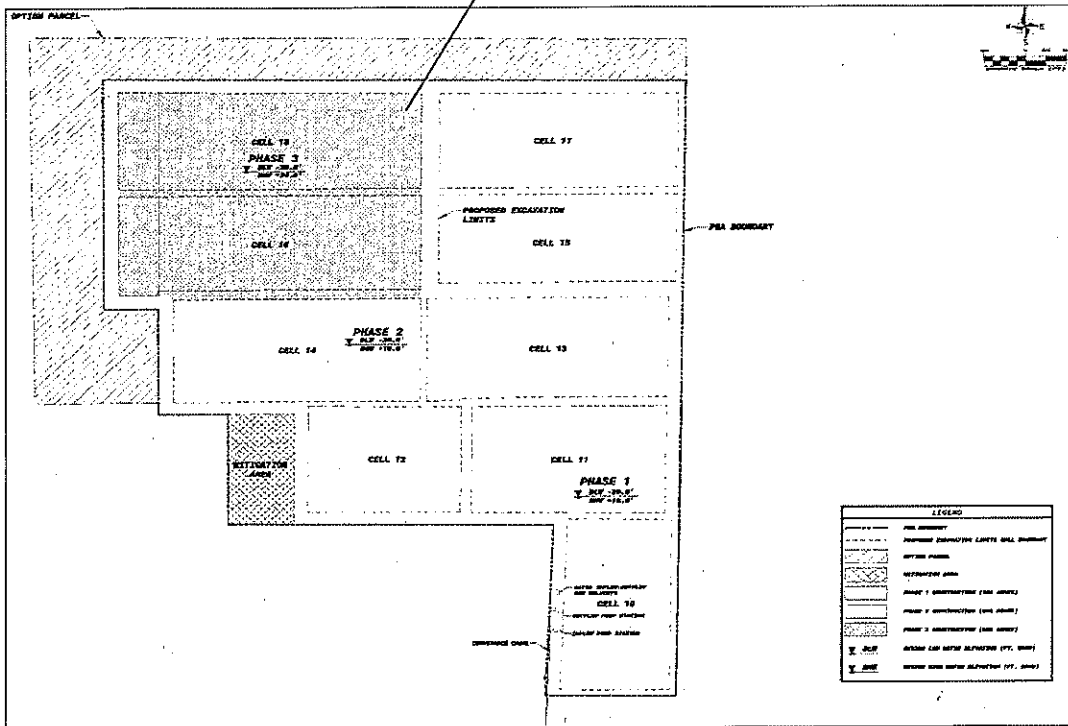
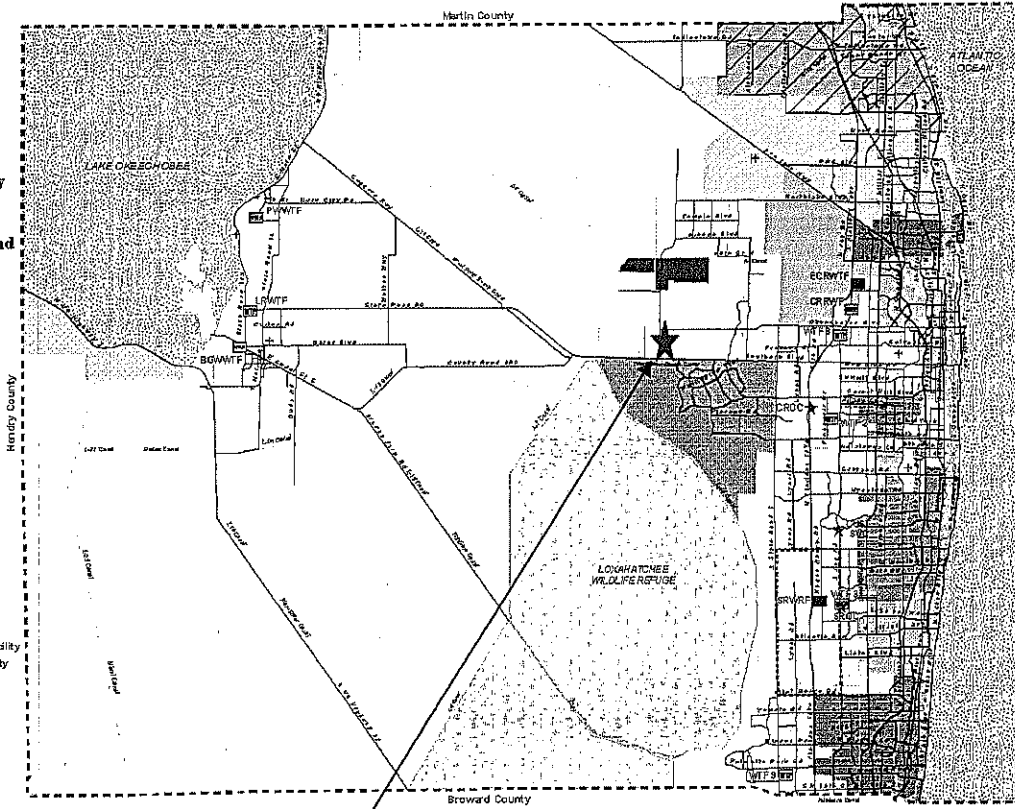
LOCATION MAP



**Palm Beach County
Water Utilities
Department
Service Area (SA) and
Major Facilities**

Legend

- ★ Administration
- Water Treatment Facility
- Reclamation Facility
- Wastewater Reclamation Facility
- Wastewater Treatment Facility
- Mandatory Reclaimed SA
- Palm Beach County Limits
- P.B.C.W.U.D. Service Area



**JOINT FUNDING AGREEMENT RELATED TO A THIRD-PARTY ASSESSMENT OF
C-51 RESERVOIR COSTS**

THIS AGREEMENT is made and entered into this _____ day of _____, _____, by and among **PALM BEACH COUNTY**, a political subdivision of the State of Florida ("Palm Beach County"), **BROWARD COUNTY**, a political subdivision of the State of Florida ("Broward County"), **CITY OF SUNRISE**, a municipal corporation located in Broward County, Florida, organized and existing under the State of Florida ("Sunrise"), **CITY OF FORT LAUDERDALE**, a municipal corporation located in Broward County, Florida, organized and existing under the State of Florida ("Fort Lauderdale"), **CITY OF HALLANDALE BEACH**, a municipal corporation located in Broward County, Florida, organized and existing under the State of Florida ("Hallandale Beach"), **TOWN OF DAVIE**, a municipal corporation located in Broward County, Florida, organized and existing under the State of Florida ("Davie"), **CITY OF BOCA RATON**, a municipal corporation located in Palm Beach County, Florida, organized and existing under the State of Florida ("Boca Raton"), **CITY OF WEST PALM BEACH**, a municipal corporation located in Palm Beach County, Florida, organized and existing under the State of Florida ("West Palm Beach") **LAKE WORTH DRAINAGE DISTRICT**, a water control district located in Palm Beach County, Florida, organized and existing pursuant to the laws of Florida ("LWDD"), and the **CITY OF BOYNTON BEACH**, a municipal corporation located in Palm Beach County, Florida, organized and existing under the State of Florida ("Boynton Beach") all of which are hereinafter sometimes referred to as the "Parties," or individually referred to as a "Party."

RECITALS

WHEREAS, water resources in South Florida are limited and are projected to be insufficient to meet the long term future demands of the environment, industry, agriculture and public water supply; and

WHEREAS, a major reason for this limitation is the natural weather cycle of dry and wet seasons, and the fact that the regional drainage system releases large amounts of fresh water to tide during the wet season which then becomes unavailable to supplement water supplies during the dry season; and

WHEREAS, there are sections of land in central Palm Beach County that may be capable of efficiently storing large amounts of fresh water due to the unique geological structure; and

WHEREAS, the owners of these sections of land are currently mining it for aggregate and have proposed and designed a large reservoir known as the C-51 Reservoir to store excess fresh water during the wet season (the "C-51 Reservoir project"), which reservoir is capable of mitigating much of the potentially unmet fresh water demand in Palm Beach and Broward Counties; and

WHEREAS, the Water Resource Task Forces of both Palm Beach and Broward Counties, the County Commissions of Palm Beach and Broward Counties, and a number of municipalities in both Counties have passed resolutions supporting the concept of building the C-51 Reservoir project; and

WHEREAS, the owners of the sections of land and mining operation as set forth above have performed a cost evaluation of both the capital and operating costs of the proposed C-51 Reservoir project; and

WHEREAS, public water suppliers would benefit from an independent cost evaluation study of the proposed C-51 Reservoir project (the "Study"), performed by a qualified engineering firm, to provide a reference point for potential negotiations; and

WHEREAS, Palm Beach County has agreed to be the lead governmental entity responsible for procuring and securing the services of a qualified engineering firm to perform the Study; and

WHEREAS, pursuant to the Consultant's Competitive Negotiations Act, Palm Beach County has engaged the firm of MWH Americas, Inc. (the "Study Engineer") to perform continuing general engineering services, and Palm Beach County intends to issue a task order to the Study Engineer to complete the Study; and

WHEREAS, the Parties agree to fund the costs of the independent cost evaluation (the "Study Costs") in accordance with this Agreement.

NOW, THEREFORE, in consideration of the mutual terms and conditions, promises, covenants and payments hereinafter set forth, the Parties hereby agree as follows:

1. Recitals. The foregoing statements are true and correct and are incorporated herein by reference.
2. Effective Date. This Agreement shall become effective upon approval and execution by all Parties.
3. Term. The Term of this Agreement shall commence on the Effective Date and continue until the completion of the Study and the reimbursement of the Study Costs by all Parties; provided, however, if the term of this Agreement extends beyond a single fiscal year of the Parties, the continuation of this Agreement beyond the end of any fiscal year shall be subject to the appropriation and availability of funds of each of the Parties.
4. Engagement of Study Engineer. Palm Beach County shall issue a task order to the Study Engineer to perform the Scope of Services set forth in **Exhibit "A,"** which is attached hereto and incorporated herein, not-to-exceed \$150,000.00. Palm Beach County shall not authorize any changes to the Scope of Work without first providing written notice to the Parties and receiving written authorization from the Parties, through each Party's Authorized Representative. A written

amendment to this Agreement is required to increase the not-to-exceed amount of the Study. Palm Beach County will reimburse the Study Engineer for the Study Costs in accordance with its own policies and procedures. It is understood and agreed that Palm Beach County will employ the Study Engineer to perform the Study and none of the other Parties shall have any contractual obligations to the Study Engineer.

5. Reimbursement of Study Costs. The Parties agree to reimburse Palm Beach County for the Study Costs proportionate to their allocated share of the Study Costs as set forth in **Exhibit "B,"** which is attached hereto and incorporated herein. Following the completion of the Study, Palm Beach will invoice each Party for their proportionate share of the Study Costs. Each Party agrees to pay its proportionate share of the Study Costs and make payment to Palm Beach County within thirty (30) days from the date the bill is received by each Party. A past due notice will be mailed by Palm Beach County to any delinquent Party after thirty (30) days. If payment has not been received after sixty (60) days from the date the original bill was received by the Party, a one percent (1%) per month interest charge will be assessed on the outstanding balance.

6. Notice/Authorized Representatives. All notices provided for herein shall be in writing and transmitted by mail or by courier to the Authorized Representatives of each Party at the addresses set forth below:

Palm Beach County:
Bevin Beaudet, Director
Palm Beach County Water Utilities Department
8100 Forest Hill Boulevard
P.O. Box 16097
West Palm Beach, FL 33416-6097

Broward County:
Alan Garcia, Director
Broward County Water and Wastewater Services
2555 W. Copans Road
Pompano Beach, FL 33069

Sunrise:
Tim Welch
777 Sawgrass Corporate Parkway
Sunrise, FL 33325

Fort Lauderdale:
Hardeep Anand
100 N. Andrews Avenue
Fort Lauderdale, FL 33301

Hallandale Beach:
Earl King
630 NW 2 Street
Hallandale Beach, FL 33009

Davie:

Don Bayler
7351 S.W. 30th Street
Davie, FL 33324

Boca Raton:

Chris Helfrich
1401 Glades Road
Boca Raton, FL 33431

West Palm Beach:

Scott D. Kelly
401 Clematis Street
P.O. Box 3366
West Palm Beach, FL 33402

LWDD:

Robert Brown
13081 Military Trail
Delray Beach, FL 33484

Boynton Beach:

Kofi Boateng
100 E. Boynton Beach Blvd
Boynton Beach, FL 33435

7. Indemnification and Insurance. The Parties acknowledge the waiver of sovereign immunity for liability in tort contained in Florida Statutes 768.28, the State of Florida's partial waiver of sovereign immunity, and acknowledge that such statute permits actions at law to recover damages in tort for money damages up to the limits set forth in such statute for death, personal injury or damage to property caused by the negligent or wrongful acts or omissions of an employee acting within the scope of the employee's office or employment. To the extent permitted by law, the Parties agree to be responsible for all such claims and damages, to the extent and limits provided in Florida Statutes Section 768.28, arising from the actions of their respective employees. The Parties acknowledge that the foregoing shall not constitute an agreement by either party to indemnify the other, nor a waiver of sovereign immunity, nor a waiver of any defense the parties may have under such statute, nor as consent to be sued by third parties. The Parties are entities subject to Section 768.28, Florida Statutes, and each shall furnish the other with written verification of liability protection in accordance with state law prior to final execution of this Agreement.

8. Force Majeure. In the event that the performance of this Agreement by any Party to this Agreement is prevented or interrupted in consequence of any cause beyond the control of any Party, including, but not limited to, Acts of God or of the public enemy, war, national emergency, allocation of or other governmental restrictions upon the use or availability of labor or materials, rationing, civil insurrection, riot, disorder or demonstration, terrorism, strike, embargo, flood, tidal

wave, fire, explosion, bomb detonation, nuclear fallout, windstorm, hurricane, earthquake, or other casualty or disaster or catastrophe or water plant failures and sewer main breaks, no Party shall be liable for such non-performance.

9. Remedies. This Agreement shall be governed by the laws of the State of Florida. Any and all legal action necessary to enforce the Agreement will be held in Palm Beach County. No remedy herein conferred is intended to be exclusive of any other remedy, and each and every such remedy shall be cumulative and shall be in addition to every other remedy given hereunder now or hereafter.

10. Successors and Assigns. Each Party binds itself and its partners, successors, executors, administrators and assigns to the other Parties and to the partners, successors, executors, administrators and assigns of such other Parties, in respect to all covenants of this Agreement. No Party shall assign, sublet, convey, or transfer its interest in this Agreement without prior written consent of the other Parties.

11. Waiver. The failure of any Party to insist on the strict performance of any of the agreements, terms, covenants and conditions hereof shall not be deemed a waiver of any rights or remedies that said Party may have for any subsequent breach, default, or non-performance, and said Party's right to insist on strict performance of this Agreement shall not be affected by any previous waiver of course or dealing.

12. Severability. If any term or provision of this Agreement, or the application thereof to any person or circumstances shall, to any extent, be held invalid or unenforceable by any court of competent jurisdiction, then the remainder of this Agreement, or the application of such terms or provision, to persons or circumstances other than those as to which it is held invalid or unenforceable, shall not be affected, and every other term and provision of this Agreement shall be deemed valid and enforceable to the extent permitted by law.

13. Amendment and Modification. This Agreement may only be amended, modified, changed, supplemented or discharged by an instrument in writing, executed by the Parties with the same formality and of equal dignity herewith.

14. Entirety of Agreement. Parties agree that this Agreement and any Exhibits hereto set forth the entire agreement among the Parties, and that there are no promises or understandings other than those stated herein. None of the provisions, terms and conditions contained in this Agreement may be added to, modified, superseded or otherwise altered, except by written instrument executed by the Parties.

15. Palm Beach County Office of the Inspector General. Pursuant to Palm Beach County Code, Sections 2-421 through 2-440, as amended, Palm Beach County's Office of Inspector General is authorized to have the power to review past, present and proposed County contracts, transactions, accounts and records. The Inspector General's authority includes, but is not limited to, the power to audit, investigate, monitor, and inspect the activities of entities contracting with the County, or anyone acting on their behalf, in order to ensure compliance with contract requirements and to detect corruption and fraud. Failure to cooperate with the Inspector General or interfering with or impeding any investigation shall be a violation of Palm Beach County

Code, Section 2-421 through 2-440, and punished pursuant to Section 125.69, Florida Statutes, in the same manner as a second degree misdemeanor.

16. No Third Party Beneficiary. No provision of this Agreement is intended to, or shall be construed to, create any third party beneficiary or to provide any rights to any person or entity not a Party to this Agreement, including but not limited to any citizen or employees of the Parties.

17. Non-Discrimination. Palm Beach County agrees and certifies that it shall comply with Title VII of the Civil Rights Act of 1964, as amended, and Palm Beach County Resolution No. R92-13, and shall not discriminate against any individual on the basis of their race, color, national origin, religion, ancestry, sex, age, marital status, familial status, sexual orientation, disability, or gender identity or expression, during their performance of this Agreement.

18. Incorporation by Reference. The attached Exhibits A and B are incorporated into and made a part of this Agreement.

19. Representation of Authority. Each individual executing this Agreement on behalf of a party hereto hereby represents and warrants that he or she is, on the date he or she signs this Agreement, duly authorized by all necessary and appropriate action to execute this Agreement on behalf of such party and does so with full and legal authority.

(THE REMAINDER OF THIS PAGE INTENTIONALLY LEFT BLANK)

AGREEMENT BY AND AMONG PALM BEACH COUNTY, BROWARD COUNTY, CITY OF SUNRISE, CITY OF FORT LAUDERDALE, CITY OF HALLANDALE BEACH, TOWN OF DAVIE, CITY OF BOCA RATON, and CITY OF WEST PALM BEACH, FOR JOINT FUNDING OF A THIRD-PARTY ASSESSMENT OF C-51 RESERVOIR COSTS

BROWARD COUNTY

ATTEST:

BROWARD COUNTY, by and through its Board of County Commissioners

Broward County Administrator, as
Ex-Officio Clerk of the Broward County
Board of County Commissioners

By _____
Mayor

_____ day of _____, 20__

Insurance requirements
approved by Broward County
Risk Management Division

Approved as to form by
Joni Armstrong Coffey
Broward County Attorney
Governmental Center, Suite 423
115 South Andrews Avenue
Fort Lauderdale, Florida 33301
Telephone: (954) 357-7600
Telecopier: (954) 357-7641

By _____
Signature (Date)

By _____
Al A. DiCalvo (Date)
Assistant County Attorney

Print Name and Title above

Michael J. Kerr
Chief Trial Counsel

IN WITNESS WHEREOF, the Parties have executed or have caused this Agreement, with the named Exhibits attached, to be duly executed in several counterparts, each of which counterpart shall be considered an original executed copy of this Agreement.

ATTEST:

**SHARON R. BOCK
CLERK AND COMPTROLLER**

**PALM BEACH COUNTY, BY ITS
BOARD OF COUNTY
COMMISSIONERS**

By: _____
Deputy Clerk

By: _____
_____, Mayor

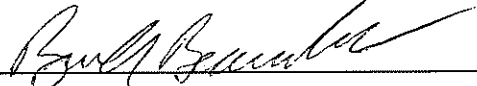
____ day of _____, 2013

(SEAL)

**APPROVED AS TO FORM AND TO
LEGAL SUFFICIENCY**

**APPROVED AS TO TERMS AND
CONDITIONS**

By: _____
County Attorney

By:  _____
Director of Water Utilities

[other parties to add their signature page]

CONSULTANT SERVICES AUTHORIZATION NO. 14

Project No. WUD 14-029
Budget Line Item No. 4001-720-2322-3120

Project Title C-51 Reservoir Project – Independent Technical and Financial Analysis

District No.: 6

THIS AUTHORIZATION #14 to the Contract for Consulting/Professional Services dated May 3, 2011 (R2011-0632), by and between Palm Beach County and the Consultant identified herein, is for the Consultant Services described in Item 3 of this Authorization. The Contract provides for 26% SBE participation overall. This Consultant Services Authorization includes 12.66% overall participation. The cumulative SBE participation, including this authorization is 23.21% overall. Additional authorization will be utilized to meet or exceed the stated overall participation goal.

1. CONSULTANT: MWH Americas, Inc.
2. ADDRESS: 100 S. Dixie Highway, Suite 300, West Palm Beach, FL 33401
3. Description of Services to be provided by the Consultant:
Professional services to provide an independent technical and financial analysis of the C-51 reservoir project.

See ATTACHMENT A.
4. Services completed by the Consultant to date (Summary and Status of Authorizations):

See ATTACHMENT E.
5. Consultant shall begin work promptly on the requested services.
6. The compensation to be paid to the Consultant for providing the requested services shall be:
 - A. Computation of time charges plus expenses, not to exceed \$N/A
 - B. Fixed price of \$150,000
7. This Authorization may be terminated by the County without cause or prior notice. In the event of termination not the fault of the Consultant, the Consultant shall be compensated for all services performed through the date of termination, together with reimbursable expenses (if applicable) then due.

Project No. WUD 14-029

Consultant Services Authorization No. 14

Project Title C-51 Reservoir Project – Independent Technical and Financial Analysis

8. As described in Section 7.5 of the CONTRACT, SBE participation is included in Attachment D under this Authorization. The attached Schedule 1 defines the SBE applied to this Authorization and Schedule 2 establishes the SBE contribution from each sub-consultant (Letter of Intent to perform as an SBE).
9. EXCEPT AS HEREBY AMENDED, CHANGED OR MODIFIED, all other terms, conditions and obligations of the Contract dated May 3, 2011 remain in full force and effect.

Project No. WUD 14-029

Consultant Services Authorization No. 14

Project Title C-51 Reservoir Project – Independent Technical and Financial Analysis

IN WITNESS WHEREOF, this Authorization is accepted, subject to the terms, conditions and obligations of the aforementioned Contract.

PALM BEACH COUNTY, A POLITICAL SUBDIVISION OF THE STATE OF FLORIDA

Sharon R. Bock, Clerk & Comptroller,
Palm Beach County

Palm Beach County,
Board of County Commissioners

ATTEST:

Signed: _____

Signed: _____
Priscilla A. Taylor, Mayor



Typed Name: _____
Deputy Clerk

_____ Date

Approved as to Form and Legal
Sufficiency

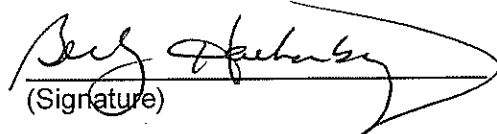
Signed: _____

Typed Name: _____
County Attorney

CONSULTANT: MWH Americas, Inc.

ATTEST:

Witness


(Signature)

Jessica Thompson, Administrator
(Name and Title)

Becky Hachenburg, Vice President
(Name and Title)

(CORPORATE SEAL)

December 31, 2013
Date

LIST OF ATTACHMENTS

Project No. WUD 14-029

Consultant Services Authorization No. 14

Project Title C-51 Technical and Financial

ATTACHMENT - A	Scope of Work
ATTACHMENT - B	Budget Summary
ATTACHMENT - C	Project Schedule
ATTACHMENT - D	SBE Schedule 1 and Schedule 2
ATTACHMENT - E	Authorization Status Report - Summary and Status of Authorizations
ATTACHMENT - F	Authorization Status Report – Summary of SBE/MWBE Tracking
ATTACHMENT - G	Location Map

ATTACHMENT 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. CONSULTANT 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 through 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.

ATTACHMENT - C

PROJECT SCHEDULE

The completion dates for this work will be as follows (starting from CONSULTANT'S receipt of Notice-to-Proceed).

<u>Engineering Services</u>	<u>Completion Date</u>
<u>Tasks 1-8 (From Receipt of Requested Information)</u>	<u>90 days</u>

ATTACHMENT D

SCHEDULE #1

LIST OF PROPOSED SBE-M/WBE PRIME/SUBCONSULTANTS

PROJECT NAME: C-51 Reservoir - Technical and Financialy Analysis PROJECT NUMBER: WUD 14-029

NAME OF PRIME BIDDER: MWH Americas, Inc. ADDRESS: 100 S. Dixie Highway, Suite 300, West Palm Beach, FL 3340

CONTACT PERSON: Becky Hachenburg PHONE NO. 561-650-0070 FAX NO. N/A

BID OPENING DATE: N/A DEPARTMENT Water Utilities

PLEASE IDENTIFY ALL APPLICABLE CATEGORIES

Name, Address and Telephone Number of Minority Consultant	(Check one or both Categories)		Dollar Amount				
	Minority Business	Small Business	Black	Hispanic	Women	Caucasian	Other (Please Specify)
ADA Engineering, Inc. 1800 Old Okeechobee Rd, Ste 202 West Palm Beach, FL 33409 561-615-8880	<input checked="" type="checkbox"/>	<input type="checkbox"/>		\$ 19,000.00			
	<input type="checkbox"/>	<input type="checkbox"/>					
	<input type="checkbox"/>	<input type="checkbox"/>					
	<input type="checkbox"/>	<input type="checkbox"/>					
	<input type="checkbox"/>	<input type="checkbox"/>					
PRIME CONSULTANT TO COMPLETE:		TOTAL		\$ 19,000.00			

BID PRICE: \$150,000.00 Total Value of SBE Participation: \$19,000.00

- NOTE:
1. The amount listed on this form for a Subconsultant must be supported by price or percentage included on Schedule 2 or a proposal from each Subconsultant listed in order to be counted toward goal attainment.
 2. Firms may be certified by Palm Beach County as an SBE and/or an M/WBE. If firms are certified as both an SBE and M/WBE, please indicate the dollar amount under the appropriate category.
 3. M/WBE information is being collected for tracking purposes only.

ATTACHMENT D

SCHEDULE 2

LETTER OF INTENT TO PERFORM AS AN SBE OR M/WBE SUBCONSULTANT

PROJECT NO. 14-029

PROJECT NAME: C-51 RESREVOIR PROJECT INDEPENDENT
TECHNICAL AND FINANCIAL ANALYSIS

TO: MWH Americas, Inc.

(Name of Prime Bidder)

The undersigned is certified by Palm Beach County as a(n) – (check one or more, as applicable):

Small Business Enterprise _____

Minority Business Enterprise X

Black _____ Hispanic X Women _____ Caucasian _____ Other (Please Specify) _____

Date of Palm Beach County Certification: N/A

The undersigned is prepared to perform the following described work in connection with the above project
(Specify in detail, particular work items or parts thereof to be performed):

Line Item/Lot No.	Item Description	Qty / Units	Unit Price	Total Price
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

Hydrologic modeling services to review modeling efforts completed to date as outlined in the scope of work.

at the following price
\$19,000.00

(Subconsultant's Quote)

And will enter into a formal agreement for work with you conditioned upon your execution of a contract with Palm Beach County.

If undersigned intends to sub-subcontract any portion of this subcontract to a non-certified SBE subconsultant, the amount of any such subcontract must be stated: \$0.

The undersigned subcontractor understands that the provision of this form to prime bidder does not prevent subcontractor from providing quotations to other bidders

A.D.A Engineering, Inc.
(Print Name of SBE/M/WBE Subconsultant)

By: [Signature]
(Signature)

Alex Vazquez / VICE PRESIDENT
(Print name/title of person executing on behalf of SBE-M/WBE Subconsultant)

Date: 12/31/2013

ATTACHMENT - E

AUTHORIZATION STATUS REPORT SUMMARY AND STATUS OF REQUESTS FOR AUTHORIZATIONS

Auth. No.	Description	Status	Project Total Amount	Date Approved	WUD No. Assigned	Consultant's Project No.
1	Miscellaneous Hydrogeology and Water Resources Services	Approved	\$30,026.00	08/30/11	WUD 11-141	1011867
2	Disinfection System Evaluation	Approved	\$90,813.00	07/20/11	WUD 11-117	1011641
3	Modification of Proposed System 8 and 3 Well Site Locations	Approved	\$72,261.00	09/07/11	WUD 11-137	1011957
4	WQBEL White Paper	Approved	\$9,915.00	09/02/11	WUD 11-147	1011856
5	New Water Treatment Plant 2 Production Wells 2W-8 and 2W-17	Approved	\$497,928.00	01/24/12	WUD12-006	10500004
5.1	Supplement to Authorization No. 5	Approved	\$12,373.40	01/24/12	WUD12-006	10502626
6	Water Treatment Plant 8 Wells Replacement and Rehabilitation	Approved	\$166,443.60	02/07/12	WUD12-008	1012730
7	Lake Region Water Treatment Plant Well 8 Construction Services	Approved	\$98,012.20	01/20/12	WUD 11-113	1012646
8	Pahokee Wastewater Treatment and Disposal Facility Lower Zone Monitoring Well	Approved	\$56,280.00	10/17/12	WUD 10-077	10501489
8.1	Supplement to Authorization No. 8	Approved	\$-	12/07/12	WUD 10-077	10501489
8.2	Supplement to Authorization No. 8	Approved	\$-	12/07/12	WUD 10-077	10501489
9	Deep Injection Lower Zone Monitoring Well Construction Services	Approved	\$99,070.40	6/19/13	WUD 10-077	10503014
10	New Water Treatment Plant 2, 3, and 8 Production Wells Engineering Services During Construction	Approved	\$328,273.20	8/13/13	WUD12-006	10503442
11	Water Treatment Plant 8 Wells Replacement and Rehabilitation Engineering Services During Construction	Approved	\$298,419.46	8/13/13	WUD12-008	10503444
12	Water Treatment Plant 3 and 9 Well Rehabilitation	Approved	\$195,637.00	10/1/2013	WUD13-080	10503578
13	Well Rehabilitation/ Replacement Prioritization Planning	Approved	\$99,824.50	10/30/2013	WUD 14-010	10503724
14	C-51 Reservoir Design Review	Pending	\$150,000.00	TBD	WUD 14-029	TBD
Total			\$2,205,276.76			

ATTACHMENT - F

AUTHORIZATION STATUS REPORT

SUMMARY OF SBE / MINORITY BUSINESS TRACKING

	Total	SBE
Current Proposal		
Value of Authorization No. 14	\$150,000.00	
Value of SBE - MWBE Letters of Intent	\$19,000.00	\$19,000.00
Actual Percentage	12.66%	12.66%
Signed Authorizations		
Total Value of Authorizations	\$2,055,276.76	
Total Value of SBE - MWBE Signed Subcontracts	\$492,950.00	\$492,950.00
Actual Percentage	23.98%	23.98%
Signed Authorizations Plus Current Proposal		
Total Value of Authorizations	\$2,205,276.76	
Total Value of Subcontracts & Letters of Intent	\$511,950.00	\$511,950.00
Actual Percentage	23.21%	23.21%
GOAL	26%	26%

ATTACHMENT - G

LOCATION MAP



**Palm Beach County
Water Utilities
Department
Service Area (SA) and
Major Facilities**

Legend

- ★ Administration
- Water Treatment Facility
- Reclamation Facility
- Wastewater Reclamation Facility
- Wastewater Treatment Facility
- Mandatory Reclaimed SA
- Palm Beach County Limits
- R.B.C.W.U.D. Service Area

