

PALM BEACH COUNTY  
BOARD OF COUNTY COMMISSIONERS  
AGENDA ITEM SUMMARY

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Meeting Date:	December 6, 2016	Consent [X] Public Hearing [ ]	Regular [ ]
Department:	Water Utilities Department		

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I. EXECUTIVE BRIEF

**Motion and Title:** Staff recommends motion to approve: a Contract for Professional Consultation/Engineering Services (Contract) with JLA Geosciences, Inc. for the System-wide Wellfield Improvements Hydrogeologic, Engineering Design and Construction Services (Project) in the amount of \$3,195,573.10.

**Summary:** This Contract will provide for hydrogeologic, engineering and construction services as part of a multi-year program for the rehabilitation of the Water Utilities Department (WUD) surficial production wells. This Contract will also provide optimization tools for deploying smart wellfield technology to improve wellfield operation thereby reducing future rehabilitation costs and increasing sustainability. The selected engineering firm was procured under the provisions of Florida Statutes 287.055 (Consultant Competitive Negotiation Act). The Small Business Enterprise (SBE) participation goal established by the SBE Ordinance (R2002-0064) is 15% overall. JLA Geosciences, Inc. has committed to SBE participation of 70.32% overall. JLA Geosciences, Inc. is a Palm Beach County company. (WUD Project No. 16-017) Districts 2 and 5 (MJ)

**Background and Justification:** WUD owns, operates and maintains over 100 surficial production wells within the wellfields that supply Water Treatment Plant Nos. 2, 3, 8 and 9. This Project is needed to restore production well capacity that naturally degrades over time as well as to increase pump efficiency and reduce energy consumption. The Contract has a term of four (4) years.

**Attachments:**

1. Location Map
2. Two (2) Original Contracts

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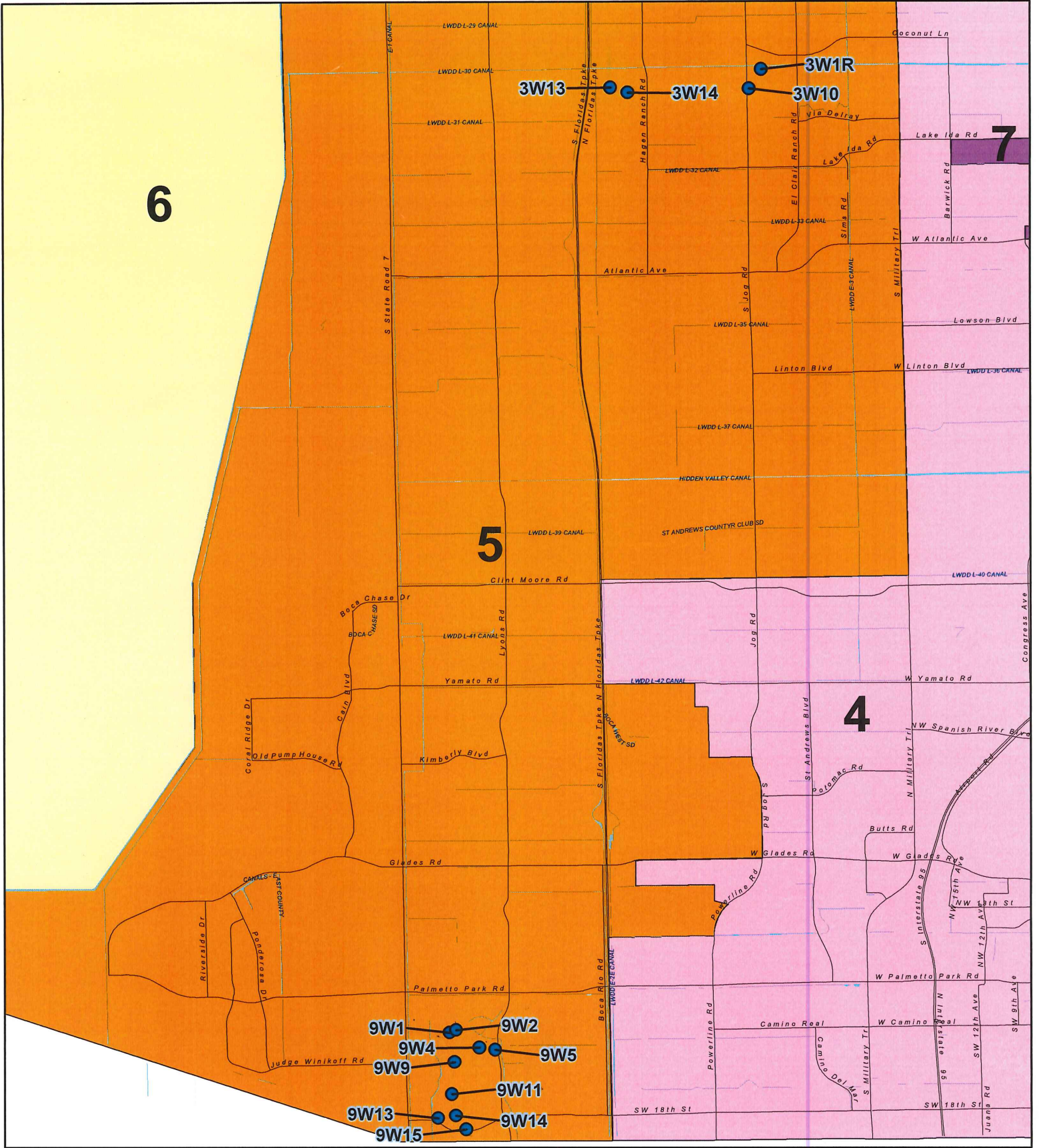
Recommended By:		11-22-16
	Department Director	Date

Approved By:		12-2-16
	Deputy County Administrator	Date





# Attachment 1




**Palm Beach County  
Water Utilities  
Department**

8100 Forest Hill Blvd.  
West Palm Beach, FL 33416  
(561) 740-4600

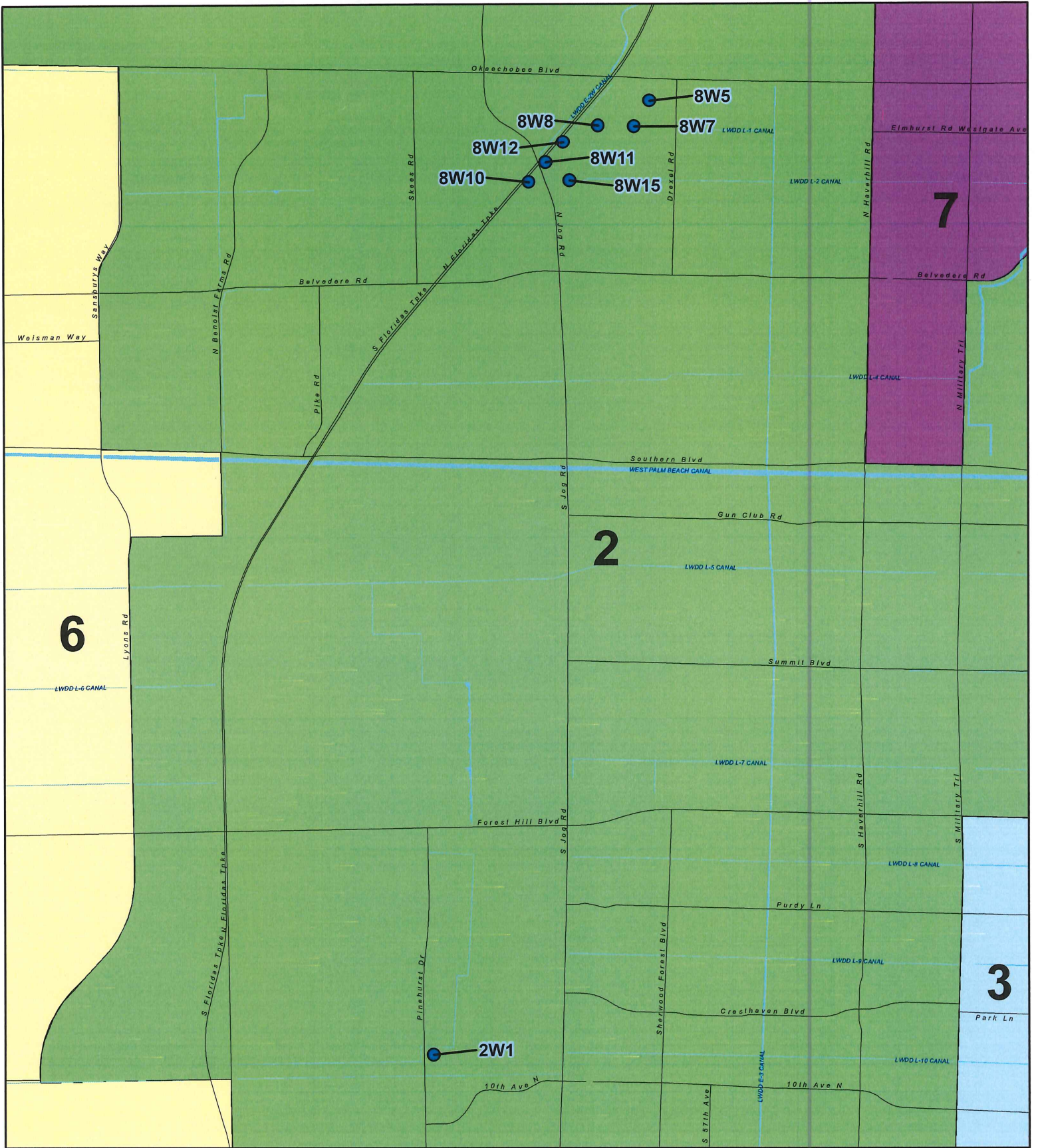
## Project Location Map - WUD 16-017 (Phase 1)

**Legend**

- WTP 3 and WTP 9 Wells (Phase 1)
- Commissioner District No. 6
- Commissioner District No. 5
- Commissioner District No. 4
- Commissioner District No. 7



# Attachment 1



## Palm Beach County Water Utilities Department

8100 Forest Hill Blvd.  
West Palm Beach, FL 33416  
(561) 740-4600

## Project Location Map - WUD 16-017 (Phase 2)

### Legend

- WTP 2 and WTP 8 Wells (Phase 2)
- Commissioner District No. 2
- Commissioner District No. 6
- Commissioner District No. 3
- Commissioner District No. 7

**CONTRACT FOR CONSULTING/PROFESSIONAL SERVICES  
SYSTEM-WIDE WELLFIELD IMPROVEMENTS  
HYDROGEOLOGIC, ENGINEERING DESIGN & CONSTRUCTION SERVICES  
PROJECT No. WUD 16-017, TR07**

This Contract is made as of the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_, by and between Palm Beach County, a Political Subdivision of the State of Florida, by and through its Board of Commissioners, hereinafter referred to as the COUNTY, and JLA Geosciences, Inc., authorized to do business in the State of Florida, hereinafter referred to as the CONSULTANT, whose Federal I.D. is 45-0496499.

In consideration of the mutual promises contained herein, the COUNTY and the CONSULTANT agree as follows:

**ARTICLE 1 - SERVICES**

The CONSULTANT'S responsibility under this Contract is to provide professional consultation/engineering services for the improvements to surficial aquifer production wells located at the COUNTY'S four (4) water treatment plants (No. 2, 3, 8, and 9) throughout the Palm Beach County Water Utilities Department (PBCWUD) service area, as more specifically set forth in the Scope of Work detailed in Exhibit "A".

The COUNTY'S representative/liaison during the performance of this Contract shall be *Hassan Hadjimiry, P.E.*, telephone no. *561-493-6000*.

The CONSULTANT'S representative/liaison during the performance of this Contract shall be *James L. Andersen, P.G.*, telephone no. *(561) 746-0228*.

**ARTICLE 2 - SCHEDULE**

It is intended that the Contract for the above described services be for a term of four (4) years, subject to an annual performance review by the Department.

Reports and other items shall be delivered or completed in accordance with the detailed schedule set forth in Exhibit "D".

**ARTICLE 3 - PAYMENTS TO CONSULTANT**

- A. The total Contract for lump sum and not to exceed shall be the amount of three million, one hundred ninety-five thousand, five hundred seventy-three dollars and ten cents (\$3,195,573.10). This Contract details an overall overhead and profit factor of 2.80. The labor rates, overhead and profit factors may be subject to audit. The scheduled range of hourly raw labor rates by labor category as set forth in Exhibit B is attached hereto and made a part hereof. These Rates may be adjusted after a period of one year from the effective date of the contract. The County's Department Director may authorize in writing annual increases to the hourly billing rates based on agreed upon percentages up to 3%.

The CONSULTANT shall notify the COUNTY's representative in writing when 90% of the "lump sum amount" has been reached. The CONSULTANT will bill the COUNTY on a monthly basis, or as otherwise provided, at the amounts set forth in Exhibit "B" for services rendered toward the completion of the Scope of Work. Where incremental billings for partially completed items are permitted, the total billings shall not exceed the estimated percentage of completion as of the billing date.

- B. Not to Exceed Method of Payment: The COUNTY agrees to pay the CONSULTANT compensation for services rendered based upon the established actual hourly raw labor rates for services rendered by personnel directly engaged on COUNTY projects, multiplied by an overall overhead and profit factor as listed in Exhibit C for Task 2.0, 7.0, and 13.0. The amount of not to exceed reimbursable cost of engineering services to be paid by the COUNTY under this Contract for all services and materials include, if applicable, "out of pocket" expenses (specified in the paragraph below) shall not exceed a total contract amount of one million, seven hundred fourteen thousand, forty-one dollars and twenty-five cents (\$1,714,041.25). The CONSULTANT shall notify the COUNTY's representative in writing when 90% of the "not to exceed amount" has been reached. The CONSULTANT will bill the COUNTY on a monthly basis, or as otherwise provided, at the amounts set forth in Exhibit "C" for services rendered toward the completion of the Scope of Work. Where incremental billings for partially completed items are permitted, the total billings shall not exceed the estimated percentage of completion as of the billing date.

"Out-of-pocket" expenses will be reimbursed up to an amount not to exceed ten thousand dollars (\$10,000.00) and in accordance with the list of the types and amounts of expenditures eligible for reimbursement as set forth in Exhibit "C". All requests for payment of "out-of-pocket" expenses eligible for reimbursement under the terms of this Contract shall include copies of paid receipts, invoices, or other documentation acceptable to the Palm Beach County Finance Department. Such documentation shall be sufficient to establish that the expense was actually incurred and necessary in the performance of the Scope of Work described in this Contract. Any travel, per diem, mileage, meals, or lodging expenses which may be reimbursable under the terms of this Contract will be paid in accordance with the rates and conditions set forth in Section 112.061, Florida Statutes.

- C. Lump Sum Method of Payment: Compensation set forth in Exhibit C, Tasks 1.0, 3.0, 4.0, 5.0, 6.0, 8.0, 9.0, 10.0, 11.0, 12.0, and 14.0 is lump sum. Should the COUNTY deem that a change in the scope of services is appropriate, then a decrease or increase shall be agreed to in writing. Prior to execution of the lump sum authorization, the CONSULTANT shall have submitted a detailed cost proposal including the estimated labor hours, labor rates, subcontractual services, out of pocket expenses and other related costs supporting the proposed work. Lump sum contracts shall include all services including labor, reimbursable, overhead and profit as part of the lump sum. The amount to be paid by the COUNTY under this Contract for all services and materials excluding "out of pocket" expenses shall be a lump sum amount of one million, four hundred eighty-one thousand, five hundred thirty-one dollars and eighty-four cents (\$1,481,531.84).

This contract shall allow for one (1) or more amendments for construction services or

supplemental design changes.

Invoices received from the CONSULTANT pursuant to this Contract will be reviewed and approved by the COUNTY's representative, to verify that services have been rendered in conformity with the Contract. Approved invoices will then be sent to the Finance Department for payment. Invoices will normally be paid within thirty (30) days following the COUNTY representative's approval.

- D. Final Invoice: In order for both parties herein to close their books and records, the CONSULTANT will clearly state "final invoice" on the CONSULTANT'S final/last billing to the COUNTY. This shall constitute CONSULTANT'S certification that all services have been properly performed and all charges and costs have been invoiced to Palm Beach County. Any other charges not properly included on this final invoice are waived by the CONSULTANT.

#### **ARTICLE 4 - TRUTH-IN-NEGOTIATION CERTIFICATE**

Signature of this Contract by the CONSULTANT shall also act as the execution of a truth-in-negotiation certificate certifying that the wage rates, over-head charges, and other costs used to determine the compensation provided for in this Contract are accurate, complete and current as of the date of the Contract and no higher than those charged the CONSULTANT'S most favored customer for the same or substantially similar service.

Said rates and costs shall be adjusted to exclude any significant sums should the COUNTY determine that the rates and costs were increased due to inaccurate, incomplete or noncurrent wage rates or due to inaccurate representations of fees paid to outside consultants. The COUNTY shall exercise its rights under this Article 4 within three (3) years following final payment.

#### **ARTICLE 5 - TERMINATION**

This Contract may be terminated by the CONSULTANT upon sixty (60) days' prior written notice to the COUNTY's representative in the event of substantial failure by the COUNTY to perform in accordance with the terms of this Contract through no fault of the CONSULTANT. It may also be terminated, in whole or in part, by the COUNTY, with or without cause, immediately upon written notice to the CONSULTANT. Unless the CONSULTANT is in breach of this Contract, the CONSULTANT shall be paid for services rendered to the COUNTY'S satisfaction through the date of termination. After receipt of a Termination Notice and except as otherwise directed by the COUNTY the CONSULTANT shall:

- A. Stop work on the date and to the extent specified.
- B. Terminate and settle all orders and subcontracts relating to the performance of the terminated work.
- C. Transfer all work in process, completed work, and other materials related to the terminated work to the COUNTY.



D. Continue and complete all parts of the work that have not been terminated.

#### **ARTICLE 6 - PERSONNEL**

The CONSULTANT represents that it has, or will secure at its own expense, all necessary personnel required to perform the services under this Contract. Such personnel shall not be employees of or have any contractual relationship with the COUNTY.

All of the services required hereinunder shall be performed by the CONSULTANT or under its supervision, and all personnel engaged in performing the services shall be fully qualified and, if required, authorized or permitted under state and local law to perform such services.

Any changes or substitutions in the CONSULTANT'S key personnel, as may be listed in Exhibit "A", must be made known to the COUNTY'S representative and written approval must be granted by the COUNTY's representative before said change or substitution can become effective.

The CONSULTANT certifies that all services shall be performed by skilled and competent personnel to the highest professional standards in the field.

All of the CONSULTANT'S personnel (and all Subcontractors), while on County premises, will comply with all COUNTY requirements governing conduct, safety and security.

#### **ARTICLE 7 - SUBCONTRACTING**

The COUNTY reserves the right to accept the use of a subcontractor or to reject the selection of a particular subcontractor and to inspect all facilities of any subcontractors in order to make a determination as to the capability of the subcontractor to perform properly under this Contract. The CONSULTANT is encouraged to seek additional small business enterprises for participation in subcontracting opportunities. If the CONSULTANT uses any subcontractors on this project the following provisions of this Article shall apply:

If a subcontractor fails to perform or make progress, as required by this Contract, and it is necessary to replace the subcontractor to complete the work in a timely fashion, the CONSULTANT shall promptly do so, subject to acceptance of the new subcontractor by the COUNTY.

The Palm Beach County Board of County Commissioners has established a minimum goal for SBE participation of 15% on all County solicitations. **The CONSULTANT agrees to a 70.32% SBE participation.**

The CONSULTANT agrees to abide by all provisions of the Palm Beach County Code establishing the SBE Program, as amended, and understands that failure to comply with any of the requirements will be considered a breach of contract.

The CONSULTANT understands that each SBE firm utilized on this Contract must be certified by Palm Beach County in order to be counted toward the SBE participation goal.



The CONSULTANT shall provide the COUNTY with a copy of the CONSULTANT's contract with any SBE subcontractor or any other related documentation upon request.

The CONSULTANT understands the requirements to comply with the tasks and proportionate dollar amounts throughout the term of this Contract as it relates to the use of SBE firms.

The CONSULTANT will only be permitted to replace a certified SBE subcontractor who is unwilling or unable to perform. Such substitutions must be done with another certified SBE in order to maintain the SBE percentages established in this Contract. Requests for substitutions of SBE's must be submitted to the COUNTY's representative and to the Office of Small Business Assistance.

The CONSULTANT shall be required to submit to the COUNTY Schedule 1 (Participation of SBE-M/WBE Contractors) and Schedule 2 (Letter of Intent) to further indicate the specific participation anticipated, where applicable. SBE participation is included in Exhibit E under this Contract. The attached Schedule 1 defines the SBE applied to this Contract and Schedule 2 establishes the SBE contribution from each subcontractor (Letter of Intent to perform as an SBE).

The CONSULTANT agrees to maintain all relevant records and information necessary to document compliance with the Palm Beach County Code and will allow the COUNTY to inspect such records.

#### **ARTICLE 8 - FEDERAL AND STATE TAX**

The COUNTY is exempt from payment of Florida State Sales and Use Taxes. The COUNTY will sign an exemption certificate submitted by the CONSULTANT. The CONSULTANT shall not be exempted from paying sales tax to its suppliers for materials used to fulfill contractual obligations with the COUNTY, nor is the CONSULTANT authorized to use the COUNTY'S Tax Exemption Number in securing such materials.

The CONSULTANT shall be responsible for payment of its own and its share of its employees' payroll, payroll taxes, and benefits with respect to this contract.

#### **ARTICLE 9 - AVAILABILITY OF FUNDS**

The COUNTY'S performance and obligation to pay under this contract for subsequent fiscal years are contingent upon annual appropriations for its purpose by the Board of County Commissioners.

#### **ARTICLE 10 - INSURANCE**

- A. CONSULTANT shall, at its sole expense, agree to maintain in full force and effect at all times during the life of this Contract, insurance coverages and limits (including endorsements), as described herein. CONSULTANT shall agree to provide the COUNTY with at least ten (10) day prior notice of any cancellation, non-renewal or material change to the insurance coverages. The requirements contained herein, as well as COUNTY'S review or acceptance of insurance maintained by CONSULTANT are not intended to and

shall not in any manner limit or qualify the liabilities and obligations assumed by CONSULTANT under the contract.

- B. **Commercial General Liability** CONSULTANT shall maintain Commercial General Liability at a limit of liability not less than **\$1,000,000** Each Occurrence. Coverage shall not contain any endorsement excluding Contractual Liability or Cross Liability unless granted in writing by County's Risk Management Department. CONSULTANT shall provide this coverage on a primary basis.
- C. **Business Automobile Liability** CONSULTANT shall maintain Business Automobile Liability at a limit of liability not less than **\$1,000,000** Each Accident for all owned, non-owned and hired automobiles. In the event CONSULTANT doesn't own any automobiles, the Business Auto Liability requirement shall be amended allowing CONSULTANT to agree to maintain only Hired & Non-Owned Auto Liability. This amended requirement may be satisfied by way of endorsement to the Commercial General Liability, or separate Business Auto coverage form. CONSULTANT shall provide this coverage on a primary basis.
- D. **Worker's Compensation Insurance & Employers Liability** CONSULTANT shall maintain Worker's Compensation & Employers Liability in accordance with Florida Statute Chapter 440. CONSULTANT shall provide this coverage on a primary basis.
- E. **Professional Liability** CONSULTANT shall maintain Professional Liability or equivalent Errors & Omissions Liability at a limit of liability not less than **\$2,000,000** Each Claim. When a self-insured retention (SIR) or deductible exceeds **\$10,000**, COUNTY reserves the right, but not the obligation, to review and request a copy of CONSULTANT'S most recent annual report or audited financial statement. For policies written on a "Claims-Made" basis, CONSULTANT shall maintain a Retroactive Date prior to or equal to the effective date of this Contract. The Certificate of Insurance providing evidence of the purchase of this coverage shall clearly indicate whether coverage is provided on an "occurrence" or "claims - made" form. If coverage is provided on a "claims - made" form the Certificate of Insurance must also clearly indicate the "retroactive date" of coverage. In the event the policy is canceled, non-renewed, switched to an Occurrence Form, retroactive date advanced, or any other event triggering the right to purchase a Supplement Extended Reporting Period (SERP) during the life of this Contract, CONSULTANT shall purchase a SERP with a minimum reporting period not less than 3 years. CONSULTANT shall provide this coverage on a primary basis.
- F. **Additional Insured** CONSULTANT shall endorse the COUNTY as an Additional Insured with a CG 2026 Additional Insured - Designated Person or Organization endorsement, or its equivalent, to the Commercial General Liability. The Additional Insured endorsement shall read "Palm Beach County Board of County Commissioners, a Political Subdivision of the State of Florida, its Officers, Employees and Agents." CONSULTANT shall provide the Additional Insured endorsements coverage on a primary basis.
- G. **Waiver of Subrogation** CONSULTANT hereby waives any and all rights of Subrogation

against the County, its officers, employees and agents for each required policy. When required by the insurer, or should a policy condition not permit an insured to enter into a pre-loss agreement to waive subrogation without an endorsement to the policy, then CONSULTANT shall agree to notify the insurer and request the policy be endorsed with a Waiver of Transfer of rights of Recovery Against Others, or its equivalent. This Waiver of Subrogation requirement shall not apply to any policy, which specifically prohibits such an endorsement, or which voids coverage should CONSULTANT enter into such an agreement on a pre-loss basis.

- H. **Certificate(s) of Insurance** Prior to execution of this Contract, CONSULTANT shall deliver to the COUNTY'S representative as identified in Article 26, a Certificate(s) of Insurance evidencing that all types and amounts of insurance coverages required by this Contract have been obtained and are in full force and effect. Such Certificate(s) of Insurance shall include a minimum ten (10) day endeavor to notify due to cancellation or non-renewal of coverage. The certificate of insurance shall be issued to

Palm Beach County  
Water Utilities Department  
c/o Insurance Tracking Services, Inc. (ITS)  
P.O. Box 20270  
Long Beach, CA 90801

Email: [psc@instracking.com](mailto:psc@instracking.com)  
Fax: (562) 435-2999

- I. **Umbrella or Excess Liability** If necessary, CONSULTANT may satisfy the minimum limits required above for Commercial General Liability, Business Auto Liability, and Employer's Liability coverage under Umbrella or Excess Liability. The Umbrella or Excess Liability shall have an Aggregate limit not less than the highest "Each Occurrence" limit for either Commercial General Liability, Business Auto Liability, or Employer's Liability. The COUNTY shall be specifically endorsed as an "Additional Insured" on the Umbrella or Excess Liability, unless the Certificate of Insurance notes the Umbrella or Excess Liability provides coverage on a "Follow-Form" basis.
- J. **Right to Review** COUNTY, by and through its Risk Management Department, in cooperation with the contracting/monitoring department, reserves the right to review, modify, reject or accept any required policies of insurance, including limits, coverages, or endorsements, herein from time to time throughout the term of this Contract. COUNTY reserves the right, but not the obligation, to review and reject any insurer providing coverage because of its poor financial condition or failure to operate legally.

#### **ARTICLE 11 - INDEMNIFICATION**

CONSULTANT shall indemnify and hold harmless the COUNTY, and its officers and employees, from liabilities, damages, losses, and costs, including, but not limited to, reasonable attorneys'



fees, to the extent caused by the negligence, recklessness, or intentionally wrongful conduct of the CONSULTANT and other persons employed or utilized by the CONSULTANT in the performance of the Contract.

**ARTICLE 12 - SUCCESSORS AND ASSIGNS**

The COUNTY and the CONSULTANT each binds itself and its partners, successors, executors, administrators and assigns to the other party and to the partners, successors, executors, administrators and assigns of such other party, in respect to all covenants of this Contract. Except as above, neither the COUNTY nor the CONSULTANT shall assign, sublet, convey or transfer its interest in this Contract without the prior written consent of the other.

**ARTICLE 13 - REMEDIES**

This Contract shall be governed by the laws of the State of Florida. Any legal action necessary to enforce the Contract will be held in a court of competent jurisdiction located in Palm Beach County, Florida. No remedy herein conferred upon any party 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 or now or hereafter existing at law or in equity, by statute or otherwise. No single or partial exercise by any party of any right, power, or remedy hereunder shall preclude any other or further exercise thereof.

No provision of this Contract 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 Contract, including but not limited to any citizen or employees of the COUNTY and/or CONSULTANT.

**ARTICLE 14 - CONFLICT OF INTEREST**

The CONSULTANT represents that it presently has no interest and shall acquire no interest, either direct or indirect, which would conflict in any manner with the performance of services required hereunder, as provided for in Chapter 112, Part III, Florida Statutes, and the Palm Beach County Code of Ethics. The CONSULTANT further represents that no person having any such conflict of interest shall be employed for said performance of services.

The CONSULTANT shall promptly notify the COUNTY's representative, in writing, by certified mail, of all potential conflicts of interest of any prospective business association, interest or other circumstance which may influence or appear to influence the CONSULTANT'S judgement or quality of services being provided hereunder. Such written notification shall identify the prospective business association, interest or circumstance, the nature of work that the CONSULTANT may undertake and request an opinion of the COUNTY as to whether the association, interest or circumstance would, in the opinion of the COUNTY, constitute a conflict of interest if entered into by the CONSULTANT. The COUNTY agrees to notify the CONSULTANT of its opinion by certified mail within thirty (30) days of receipt of notification by the CONSULTANT. If, in the opinion of the COUNTY, the prospective business association, interest or circumstance would not constitute a conflict of interest by the CONSULTANT, the COUNTY shall so state in the notification and the CONSULTANT shall, at its option, enter into

said association, interest or circumstance and it shall be deemed not in conflict of interest with respect to services provided to the COUNTY by the CONSULTANT under the terms of this Contract.

**ARTICLE 15 - EXCUSABLE DELAYS**

The CONSULTANT shall not be considered in default by reason of any failure in performance if such failure arises out of causes reasonably beyond the control of the CONSULTANT or its subcontractors and without their fault or negligence. Such causes include, but are not limited to, acts of God, force majeure, natural or public health emergencies, labor disputes, freight embargoes, and abnormally severe and unusual weather conditions.

Upon the CONSULTANT'S request, the COUNTY shall consider the facts and extent of any failure to perform the work and, if the CONSULTANT'S failure to perform was without it or its subcontractors fault or negligence, the Contract Schedule and/or any other affected provision of this Contract shall be revised accordingly, subject to the COUNTY'S rights to change, terminate, or stop any or all of the work at any time.

**ARTICLE 16 - ARREARS**

The CONSULTANT shall not pledge the COUNTY'S credit or make it a guarantor of payment or surety for any contract, debt, obligation, judgement, lien, or any form of indebtedness. The CONSULTANT further warrants and represents that it has no obligation or indebtedness that would impair its ability to fulfill the terms of this Contract.

**ARTICLE 17 - DISCLOSURE AND OWNERSHIP OF DOCUMENTS**

The CONSULTANT shall deliver to the COUNTY's representative for approval and acceptance, and before being eligible for final payment of any amounts due, all documents and materials prepared by and for the COUNTY under this Contract.

To the extent allowed by Chapter 119, Florida Statutes, all written and oral information not in the public domain or not previously known, and all information and data obtained, developed, or supplied by the COUNTY or at its expense will be kept confidential by the CONSULTANT and will not be disclosed to any other party, directly or indirectly, without the COUNTY'S prior written consent unless required by a lawful court order. All drawings, maps, sketches, programs, data base, reports and other data developed, or purchased, under this Contract for or at the COUNTY'S expense shall be and remain the COUNTY'S property and may be reproduced and reused at the discretion of the COUNTY.

All covenants, agreements, representations and warranties made herein, or otherwise made in writing by any party pursuant hereto, including but not limited to any representations made herein relating to disclosure or ownership of documents, shall survive the execution and delivery of this Contract and the consummation of the transactions contemplated hereby.

Notwithstanding any other provision in this Contract, all documents, records, reports and any other materials produced hereunder shall be subject to disclosure, inspection and audit, pursuant to the Palm Beach County Office of the Inspector General, Palm Beach County Code, Sections 2-421 - 2-440, as amended.

The CONSULTANT shall be allowed to retain a copy of its work for its record purposes.

#### **ARTICLE 18 - INDEPENDENT CONTRACTOR RELATIONSHIP**

The CONSULTANT is, and shall be, in the performance of all work services and activities under this Contract, an Independent Contractor, and not an employee, agent, or servant of the COUNTY. All persons engaged in any of the work or services performed pursuant to this Contract shall at all times, and in all places, be subject to the CONSULTANT'S sole direction, supervision, and control. The CONSULTANT shall exercise control over the means and manner in which it and its employees perform the work, and in all respects the CONSULTANT'S relationship and the relationship of its employees to the COUNTY shall be that of an Independent Contractor and not as employees or agents of the COUNTY.

The CONSULTANT does not have the power or authority to bind the COUNTY in any promise, agreement or representation.

#### **ARTICLE 19 - CONTINGENT FEES**

The CONSULTANT warrants that it has not employed or retained any company or person, other than a bona fide employee working solely for the CONSULTANT to solicit or secure this Contract and that it has not paid or agreed to pay any person, company, corporation, individual, or firm, other than a bona fide employee working solely for the CONSULTANT, any fee, commission, percentage, gift, or any other consideration contingent upon or resulting from the award or making of this Contract.

#### **ARTICLE 20 - ACCESS AND AUDITS**

The CONSULTANT shall maintain adequate records to justify all charges, expenses, and costs incurred in estimating and performing the work for at least three (3) years after completion or termination of this Contract. The COUNTY shall have access to such books, records, and documents as required in this section for the purpose of inspection or audit during normal business hours, at the CONSULTANT'S place of business.

Palm Beach County has established the Office of the Inspector General in Palm Beach County Code, Section 2-421 - 2-440, as may be amended. The Inspector General's authority includes but is not limited to the power to review past, present and proposed County contracts, transactions, accounts and records, to require the production of records, and to audit, investigate, monitor, and inspect the activities of the CONSULTANT, its officers, agents, employees, and lobbyists in order to ensure compliance with contract requirements and detect corruption and fraud.

Failure to cooperate with the Inspector General or interfering with or impeding any investigation



shall be in violation of Palm Beach County Code, Section 2-421 - 2-440, and punished pursuant to Section 125.69, Florida Statutes, in the same manner as a second degree misdemeanor.

**ARTICLE 21 - NONDISCRIMINATION**

The CONSULTANT warrants and represents that all of its employees are treated equally during employment without regard to race, color, religion, disability, sex, age, national origin, ancestry, marital status, familial status, sexual orientation, gender identity and expression, or genetic information.

CONSULTANT has submitted to COUNTY a copy of its non-discrimination policy which is consistent with the above paragraph, as contained in Resolution R-2014-1421, as amended, or in the alternative, if the CONSULTANT does not have a written non-discrimination policy or one that conforms to the COUNTY's policy, it has acknowledged through a signed statement provided to COUNTY that CONSULTANT will conform to the COUNTY's non-discrimination policy as provided in R-2014-1421, as amended.

**ARTICLE 22 - AUTHORITY TO PRACTICE**

The CONSULTANT hereby represents and warrants that it has and will continue to maintain all licenses and approvals required to conduct its business, and that it will at all times conduct its business activities in a reputable manner. Proof of such licenses and approvals shall be submitted to the COUNTY's representative upon request.

**ARTICLE 23 - SEVERABILITY**

If any term or provision of this Contract, or the application thereof to any person or circumstances shall, to any extent, be held invalid or unenforceable, the remainder of this Contract, 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 Contract shall be deemed valid and enforceable to the extent permitted by law.

**ARTICLE 24 - PUBLIC ENTITY CRIMES**

As provided in F.S. 287.132-133, by entering into this contract or performing any work in furtherance hereof, the CONSULTANT certifies that it, its affiliates, suppliers, subcontractors and consultants who will perform hereunder, have not been placed on the convicted vendor list maintained by the State of Florida Department of Management Services within the 36 months immediately preceding the date hereof. This notice is required by F.S. 287.133(3)(a).

**ARTICLE 25 - MODIFICATIONS OF WORK**

The COUNTY reserves the right to make changes in Scope of Work, including alterations, reductions therein or additions thereto. Upon receipt by the CONSULTANT of the COUNTY'S notification of a contemplated change, the CONSULTANT shall, in writing: (1) provide a detailed estimate for the increase or decrease in cost due to the contemplated change, (2) notify the

COUNTY of any estimated change in the completion date, and (3) advise the COUNTY if the contemplated change shall affect the CONSULTANT'S ability to meet the completion dates or schedules of this Contract.

If the COUNTY so instructs in writing, the CONSULTANT shall suspend work on that portion of the Scope of Work affected by a contemplated change, pending the COUNTY'S decision to proceed with the change.

If the COUNTY elects to make the change, the COUNTY shall initiate a Contract Amendment and the CONSULTANT shall not commence work on any such change until such written amendment is signed by the CONSULTANT and approved and executed on behalf of Palm Beach County.

#### **ARTICLE 26 - NOTICE**

All notices required in this Contract shall be sent by certified mail, return receipt requested, hand delivery or other delivery service requiring signed acceptance. If sent to the COUNTY, notices shall be addressed to:

Palm Beach County Water Utilities Department  
c/o Hassan Hadjimiry  
8100 Forest Hill Blvd  
West Palm Beach, FL 33413

With copy to:

Palm Beach County Attorney's Office  
301 North Olive Ave.  
West Palm Beach, Florida 33401

If sent to the CONSULTANT, notices shall be addressed to:

JLA Geosciences, Inc.  
1907 Commerce Lane, Suite 104  
Jupiter, Florida 33458

#### **ARTICLE 27 - ENTIRETY OF CONTRACTUAL AGREEMENT**

COUNTY and the CONSULTANT agree that this Contract sets forth the entire agreement between 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 Contract may be added to, modified, superseded or otherwise altered, except by written instrument executed by the parties hereto in accordance with Article 25- Modifications of Work.

Exhibit A: Scope of Work  
Exhibit B: Hourly Rates  
Exhibit C: Budget Summary

Exhibit D: Project Schedule  
Exhibit E: SBE Schedules 1, 2, 3, 4  
Exhibit F: Insurance Certificates  
Exhibit G: Corporate Resolution

**ARTICLE 28 - CRIMINAL HISTORY RECORDS CHECK**

If CONSULTANT'S employees or subcontractors are required under this contract to enter a "critical facility," as identified in Resolution R-2003-1274, the CONSULTANT shall comply with the provisions of Chapter 2, Article IX of the Palm Beach County Code ("Criminal History Records Check" section). The CONSULTANT acknowledges and agrees that all employees and subcontractors who are to enter a "critical facility" will be subject to a fingerprint based criminal history records check. Although COUNTY agrees to pay for all applicable FDLE/FBI fees required for criminal history record checks, the CONSULTANT shall be solely responsible for the financial, schedule, and staffing implications associated in complying with this section of the Palm Beach County Code.

**ARTICLE 29 - REGULATIONS; LICENSING REQUIREMENTS**

The CONSULTANT shall comply with all laws, ordinances and regulations applicable to the services contemplated herein, to include those applicable to conflict of interest and collusion. CONSULTANT is presumed to be familiar with all federal, state and local laws, ordinances, codes and regulations that may in any way affect the services offered.

**ARTICLE 30 - SCRUTINIZED COMPANIES (when contract value is greater than \$1 million)**

As provided in F.S. 287.135, by entering into this Contract or performing any work in furtherance hereof, the CONSULTANT certifies that it, its affiliates, suppliers, subcontractors and consultants who will perform hereunder, have not been placed on the Scrutinized Companies With Activities in Sudan List or Scrutinized Companies With Activities in The Iran Petroleum Energy Sector List created pursuant to F.S. 215.473, or on the Scrutinized Companies that boycott Israel List, or is engaged in a boycott of Israel, pursuant to F.S. 215.4725, or is engaged in business operations in Cuba or Syria.

If the County determines, using credible information available to the public, that a false certification has been submitted by CONSULTANT, this Contract may be terminated and a civil penalty equal to the greater of \$2 million or twice the amount of this Contract shall be imposed, pursuant to F.S. 287.135.

**ARTICLE 31 - PUBLIC RECORDS**

Notwithstanding anything contained herein, as provided under Section 119.0701, F.S., if the Consultant: (i) provides a service; and (ii) acts on behalf of the County as provided under Section



119.011(2) F.S., the Consultant shall comply with the requirements of Section 119.0701, Florida Statutes, as it may be amended from time to time. The Consultant is specifically required to:

- A. Keep and maintain public records required by the County to perform services as provided under this Contract.
- B. Upon request from the County's Custodian of Public Records, provide the County with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Chapter 119 or as otherwise provided by law. The Consultant further agrees that all fees, charges and expenses shall be determined in accordance with Palm Beach County PPM CW-F-002, Fees Associated with Public Records Requests, as it may be amended or replaced from time to time.
- C. Ensure that public records that are exempt, or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the contract term and following completion of the Contract, if the Consultant does not transfer the records to the public agency.
- D. Upon completion of the Contract the Consultant shall transfer, at no cost to the County, all public records in possession of the Consultant unless notified by County's representative/liaison, on behalf of the County's Custodian of Public Records, to keep and maintain public records required by the County to perform the service. If the Consultant transfers all public records to the County upon completion of the Contract, the Consultant shall destroy any duplicate public records that are exempt, or confidential and exempt from public records disclosure requirements. If the Consultant keeps and maintains public records upon completion of the Contract, the Consultant shall meet all applicable requirements for retaining public records. All records stored electronically by the Consultant must be provided to County, upon request of the County's Custodian of Public Records, in a format that is compatible with the information technology systems of County, at no cost to County.

Failure of the Consultant to comply with the requirements of this article shall be a material breach of this Contract. County shall have the right to exercise any and all remedies available to it, including but not limited to, the right to terminate for cause. Consultant acknowledges that it has familiarized itself with the requirements of Chapter 119, F.S., and other requirements of state law applicable to public records not specifically set forth herein.

**IF THE CONSULTANT HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONSULTANT'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, PLEASE CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT RECORDS REQUEST, PALM BEACH COUNTY**

**PUBLIC AFFAIRS DEPARTMENT, 301 N. OLIVE AVENUE, WEST  
PALM BEACH, FL 33401, BY E-MAIL AT  
RECORDSREQUEST@PBCGOV.ORG OR BY TELEPHONE AT 561-355-  
6680.**

**ARTICLE 32 – STANDARD OF CARE**

CONSULTANT has, during the selection and negotiation process which has preceded this Contract, represented to COUNTY that the CONSULTANT is possessed of that level of skill, knowledge, experience and expertise that is commensurate with consulting firms of national repute in the areas of practice required for this contract. CONSULTANT acknowledges that COUNTY has relied on CONSULTANT'S representations of skill, knowledge, experience and expertise. By executing this Contract, CONSULTANT agrees that CONSULTANT will exercise that degree of care, knowledge, skill and ability as other engineers possessing the degree of skill, knowledge, experience and expertise which CONSULTANT has claimed. CONSULTANT shall perform such duties as may be assigned without neglect. CONSULTANT accepts the relationship of trust and confidence established by this Contract, and covenants with COUNTY to cooperate with COUNTY and to utilize CONSULTANT's best skill, efforts and judgment in furthering the interests of the COUNTY. CONSULTANT agrees to perform each assignment in an efficient and economical manner consistent with the COUNTY'S interests.

CONSULTANT further contracts with COUNTY to furnish its professional skill and judgment with due care in accordance with applicable Federal, State and local laws, codes and regulations as amended and supplemented which are in effect on the date of this Contract first written. It is specifically understood that the Accessibility provisions of the Americans with Disabilities Act (ADA) shall be complied with and incorporated into the project.

*Remainder of page intentionally left blank.*

**SYSTEM-WIDE WELLFIELD IMPROVEMENTS  
HYDROGEOLOGIC, ENGINEERING DESIGN & CONSTRUCTION SERVICES  
WUD PROJECT No. 16-017, TR07**

**IN WITNESS WHEREOF**, the Board of County Commissioners of Palm Beach County, Florida has made and executed this Contract on behalf of the COUNTY and CONSULTANT has hereunto set its hand the day and year above written.

**ATTEST:  
SHARON R. BOCK  
CLERK AND COMPTROLLER**

**PALM BEACH COUNTY  
BOARD OF COUNTY COMMISSIONERS:**

By: \_\_\_\_\_  
Deputy Clerk

By: \_\_\_\_\_  
Paulette Burdick, Mayor

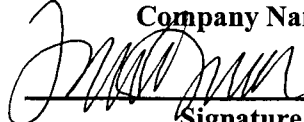
**WITNESS:**  
  
\_\_\_\_\_  
Signature

Ran K. Smith  
\_\_\_\_\_  
Name (type or print)

  
\_\_\_\_\_  
Signature

Cali Munzenriecher  
\_\_\_\_\_  
Name (type or print)

**CONSULTANT:**  
\_\_\_\_\_  
JLA Geosciences, Inc.  
Company Name

  
\_\_\_\_\_  
Signature

\_\_\_\_\_  
Jim Andersen, P.G.  
Typed Name

\_\_\_\_\_  
President  
Title

**APPROVED AS TO FORM  
AND LEGAL SUFFICIENCY**

(corp. seal)

By \_\_\_\_\_  
County Attorney

**APPROVED AS TO TERMS  
AND CONDITIONS**

By  \_\_\_\_\_  
Department Director

*zmc  
11/19/16*



**EXHIBIT "A"**

**SCOPE OF WORK  
SYSTEM-WIDE WELLFIELD IMPROVEMENTS  
HYDROGEOLOGIC, ENGINEERING DESIGN & CONSTRUCTION SERVICES  
WUD #16-017, TR07**

**INTRODUCTION**

This Scope of Work encompasses providing professional consultation/engineering services for the improvements to surficial aquifer production wells located at the COUNTY'S four (4) water treatment plants (No. 2, 3, 8, and 9) throughout the Palm Beach County Water Utilities Department (PBCWUD) service area.

A more detailed description of the scope is presented below.

**BACKGROUND**

On March 20, 2016 the COUNTY advertised for Hydrogeologic, Engineering Design and Construction Services for improvements to surficial aquifer production wells located at the COUNTY'S four (4) water treatment plants (No. 2, 3, 8 and 9) throughout the Palm Beach County Water Utilities Department (PBCWUD) service area. On July 7, 2016, JLA Geosciences and sub-consultants Kimley-Horn and Associates, Black & Veatch Corporation, Hillers Electrical Engineering, and Dennis J. Leavy and Associates were selected to perform the improvement scope of services. During an August 3, 2016, Well Rehab Workshop Meeting, the existing COUNTY Action Plan was reviewed and an anticipated scope of services was agreed upon for Fiscal Years 2017 and 2018. The scope of services for this contract includes the design, bidding, and construction phase services for up to twenty-one (21) rehabilitated wells at Water Treatment Plants 2, 3, 8 and 9. Of the 21 wells, 14 wells are planned be relocated and replaced and 7 wells are planned for in-place reconstruction (redrilling). A summary of anticipated wells and scope of works are presented below; however these wells are subject to change based results Task 2.0 (*Preliminary field investigations and review of historical data*).

<b>PHASE 1: WTP 3 &amp; 9 (FY 2017)</b>			
<b><u>WTP 3</u></b>			
<b>Well Name</b>	<b>Well Location (Lat/Long)</b>	<b>Existing Well Vaulted</b>	<b>Anticipated Scope of Work</b>
3W-1	26 29.021N 80 08.679W	No	Plug and abandon existing well; Construct new well minimum 20 feet from existing. Exact location shall be determined following preliminary design work.
3W-10	26 28.843N 80 08.809W	Yes	Reconstruct well in place; bring reconstructed well out of vault and up to land surface.

3W-13	26 28.816N 80 09.981W	Yes	Plug and abandon existing well; Construct new well minimum 20 feet from existing. New well to be constructed at land surface (no vault). Exact location shall be determined following preliminary design work.
3W-14	26 28.856N 80 10.139W	No	Plug and abandon existing well; Construct new well minimum 20 feet from existing. Exact location shall be determined following preliminary design work.

<b>WTP 9</b>			
Well Name	Well Location (Lat/Long)	Existing Well Vaulted	Anticipated Scope of Work
9W-1R	26 20.609N 80 11.765W	No	Plug and abandon existing well; Construct new well minimum 20 feet from existing. Exact location shall be determined following preliminary design work.
9W-2	26 20.642N 80 11.716W	No	Plug and abandon existing well; Construct new well minimum 20 feet from existing. Exact location shall be determined following preliminary design work.
9W-4	26 20.480N 80 11.489W	No	Plug and abandon existing well; Construct new well minimum 20 feet from existing. Exact location shall be determined following preliminary design work.
9W-5	26 20.466N 80 11.323W	No	Reconstruct well in place.
9W-9	26 20.370N 80 11.737W	No	Plug and abandon existing well; Construct new well minimum 20 feet from existing. Exact location shall be determined following preliminary design work.
9W-11	26 20.081N 80 11.735W	No	Reconstruct well in place
9W-13	26 19.866N 80 11.905W	No	Plug and abandon existing well; Construct new well minimum 20 feet from existing. Exact location shall be determined following preliminary design work.
9W-14	26 19.888N 80 11.720W	No	Plug and abandon existing well; Construct new well minimum 20 feet from existing. Exact location shall be determined following preliminary design work.
9W-15	26 19.777N 80 11.639W	No	Plug and abandon existing well; Construct new well minimum 20 feet from existing. Exact location shall be determined following preliminary design work.

PHASE 2: WTP 2 & 8 (FY 2018)			
<u>WTP 2</u>			
Well Name	Well Location (Lat/Long)	Existing Well Vaulted	Anticipated Scope of Work
2W-1	26 29.021N 80 08.679W	No	Plug and abandon existing well; Construct new well minimum 20 feet from existing. Exact location shall be determined following preliminary design work.

<u>WTP 8</u>			
Well Name	Well Location (Lat/Long)	Existing Well Vaulted	Anticipated Scope of Work
8W-5	26 42.341N 80 08.289W	No	Plug and abandon existing well; Construct new well minimum 20 feet from existing. Exact location shall be determined following preliminary design work.
8W-7	26 42.251N 80 08.351W	No	Reconstruct well in place
8W-8	26 42.238N 80 08.537W	No	Reconstruct well in place
8W-10	26 41.976N 80 08.892W	No	Plug and abandon existing well; Construct new well minimum 20 feet from existing. Exact location shall be determined following preliminary design work.
8W-11	26 42.072N 80 08.794W	Yes	Plug and abandon existing well; Construct new well minimum 20 feet from existing. New well to be constructed at land surface (no vault). Exact location shall be determined following preliminary design work.
8W-12	26 42.151N 80 08.717W	No	Reconstruct well in place
8W-15	26 42.008N 80 08.687W	Yes	Plug and abandon existing well; Construct new well minimum 20 feet from existing. New well to be constructed at land surface (no vault). Exact location shall be determined following preliminary design work.

Bid documents shall be separated into two packages to be executed in two phases: Phase 1 (FY2017) will include Water Treatment Plants 3 & 9; Phase 2 (FY2018) will include Water Treatment Plants 2 & 8. Preliminary site investigations shall be performed to assist in preparation of design documents and will include: survey, ground penetrating radar, well siting, historical review, geotechnical investigations, and Smart Wellfield investigations. Design phase services shall include 60% Design (60% Technical Specifications, OPC, project drawings); 90% Design (90% Technical Specifications, OPC, project drawings); 100% Design (100% Technical Specifications, project drawings); permitting assistance, and bidding assistance.

Services during Construction Phase shall include administration services, overall project management, hydrogeologic construction oversight, mechanical and electrical oversight assistance, and well completion reports. The anticipated construction schedule is based on 80 calendar days per well for Construction Contractor completion, estimating a 24-month construction for Phase 1 and 15-month construction for Phase 2. However, this schedule is likely to change based on the final design specifications.

Consultant will review and approve or take other appropriate action in respect to Shop Drawings and Samples and other data which the Contractor is required to submit, but only for conformance with the information given in the Contract Documents. Such review and approvals or other action will not extend to means, methods, techniques, equipment choice and usage, sequences, schedules, or procedures of construction or to related safety precautions and programs.

Consultant may recommend Change Orders to PBCWUD, and will review and make recommendations related to Change Orders submitted or proposed by the Contractor.

Consultant shall receive and review test data provided by the Contractor associated with the Palm Beach County Health Department clearance process as well as approvals required in the Contract Documents. Consultant's review of such data will be for the purpose of determining that the results certified indicate compliance with the Contract Documents and will not constitute an independent evaluation that the content or procedures of such inspections, tests, or approvals comply with the requirements of the Contract Documents. All testing shall be coordinated and provided under a separate contract between the City or the Contractor and an appropriate testing firm(s) of their choice. Consultant shall be entitled to rely on the results of such tests and the facts being certified.

Promptly after notice from the Contractor that the Contractor considers the entire Project ready for its intended use, in company with PBCWUD and the Contractor, the Consultant shall conduct a site visit to determine if the Work is substantially complete. Work will be considered substantially complete following satisfactory completion of all items with the exception of those identified on a final punch list. If after considering any objections of PBCWUD, the Consultant considers the Work substantially complete, the Consultant shall notify PBCWUD and the Contractor.

Consultant shall conduct a final site visit to determine if the completed Work of the Contractor is generally in accordance with the Contract Documents and the final punch list so that the Consultant may recommend, in writing, final payment to the Contractor. Accompanying the recommendation for final payment, the Consultant shall also provide a notice that the Work is generally in accordance with the Contract Documents to the best of the Consultant's knowledge, information, and belief and based on the extent of the services provided by the Consultant under this Work Authorization and based upon information provided to the Consultant upon which it is entitled to rely.

Consultant shall not be responsible for the acts or omissions of any Contractor, or of any of their subcontractors, suppliers, or of any other individual or entity performing or furnishing the Work.

Consultant will prepare project record drawings using information provided by the Contractor. An electronic copy in AutoCAD format and PDF format, and two sets of prints will be delivered to PBCWUD upon completion of the project.

## **SCOPE OF SERVICES**

CONSULTANT shall perform the Scope of Services as described herein and will be responsible for the following tasks:

### **PHASE 1: WATER TREATMENT PLANT NO. 3 AND 9**

#### **TASK 1.0 PROJECT MEETINGS AND ADMINISTRATIVE ASSISTANCE (LUMP SUM)**

- Task 1.1 Project Meetings and administrative assistance** – The CONSULTANT shall prepare for and attend up to 16 project meetings with PBCWUD staff including two (2) kickoff meetings, eight (8) design meetings, four (4) permitting regulatory meetings, and two (2) pre-bid meeting, including pre-bid site visits. Meetings shall also be attended by SUB-CONSULTANTS.
- Task 1.2 Sub-consultant coordination and communication** - The CONSULTANT shall coordinate with SUB-CONSULTANTS, provide communications with county, review and pay invoices for approved SUB-CONSULTANTS services.
- Task 1.0 – Deliverables
    - Meeting Agenda and Minutes for WTP 3 & 9: 60%, 90%, Final (if required)
    - Meeting Agenda and Minutes for WTP 2 & 8: 60%, 90%, Final (if required)
    - Permitting regulatory meeting agenda and minutes for up to four (4) meetings.
  - Task 1.0 – Assumptions
    - Bid related meetings, agenda and minutes as required, will be conducted by the County. Consultant will assist as needed.

#### **TASK 2.0 PRELIMINARY FIELD INVESTIGATIONS AND REVIEW OF HISTORICAL DATA (NOT TO EXCEED)**

- Task 2.1 Topographic Survey** – The CONSULTANT shall provide a topographical survey for up to twenty-one (21) well locations with a 100 foot radius from the wellhead of each selected well site. The survey shall include the following: Location of visible fixed improvements within the proposed project limits/right-of-way, including physical objects, drainage swales, native trees, signs, fences, power poles; Location of above ground existing utilities; Elevations obtained to indicate existing grades; location of PBC located U/G utilities – pipes, valves, etc.; and reference benchmarks.



- Task 2.2 Ground Penetrating Radar (GPR) Services** – The CONSULTANT shall provide professional services to locate and mark out any detectable subsurface anomalies at up to twenty (20) well locations and surrounding areas.
- Task 2.3 Well Siting** - The CONSULTANT shall provide assistance with identifying the locations of the easements for each well site to be relocated (14 total), raw water main and construction easement needed to perform anticipated scope of work for each well. The CONSULTANT shall review flood maps (FIRM) and flood control elevations within the wells being modified to determine 100-yr flood elevations for each wellsite and adjust pad and/or wellhead flange and piping to accommodate vertical separation required by FAC 62-532 Water Well Permitting and Construction Requirements.
- Task 2.4 Review of Historical Data** - The CONSULTANT shall review PBCWUD provided historical well construction information including well videos, well construction reports, County standard engineering details, and record drawings prior to preparing design specifications.
- Task 2.5 Geotechnical Investigations** - The CONSULTANT shall provide subsurface geotechnical borings at up to fourteen (14) well locations at various COUNTY wellfields for the purpose of preliminary well design. Geotechnical investigations shall include: construction of up to fourteen (14) 6-inch diameter boreholes to a maximum depth of 180 feet below land surface, including geophysical logging, collection of lithologic samples with depth, well boring abandonment and site restoration.
- Task 2.6 Smart Wellfield Investigation Review** - The CONSULTANT shall provide development of a Smart Wellfield Plan and Design support including the following: data collection and review; up to five project meetings for Smart Wellfield Plan development; evaluation of Smart Wellfield studies; data and sensors (system) evaluation; energy optimization and Smart Wellfield Operations analysis; Smart Wellfield dashboard concept development; development of opinion of cost and draft Smart Wellfield plan; Smart Wellfield workshop; and development of a final Smart Wellfield Plan.
- Task 2.7 Technical Memorandum** – The CONSULTANT shall provide a brief technical memorandum summarizing results of GPR and geotechnical subsurface investigations, topographic survey, and preliminary well siting recommendations.
- Task 2.8 Sub-consultant coordination and communication** - The CONSULTANT shall coordinate with SUB-CONSULTANTS, provide communications with county, review and pay invoices for approved SUB-CONSULTANTS services.
- Task 2.0 – Deliverables
    - Provide three (3) full size plots of the drawings signed and sealed registered land surveyor at 1" = 20' scale and a computer disk with survey and drawing information compatible with AutoCAD Civil3D Version 2016.
    - Provide four (4) hard copies and one (1) electronic copies of technical memorandum
  - Task 2.0 – Assumptions

- The COUNTY shall provide all available historical data and COUNTY standard engineering details to the CONSULTANT. A copy of available record drawings, in CAD format, depicting the layout construction and details of the existing wellfield, will be furnished by the COUNTY for the CONSULTANT'S use in preparing the design documents.
- Any temporary or permanent construction easements or easement agreements necessary for access to or construction of the work will be provided by the COUNTY. This contract scope of work does not include assistance with property or easement acquisition, including boundary surveys, Ownership and Encumbrances (O&E) Investigations, appraisals, or land negotiations.
- Following completion of Task 2.0 services, additional changes to the project design scope of service shall not be changed by the COUNTY
- All permit application fees shall be paid for by the COUNTY.

**TASK 3.0 PHASE 1: WTP 3 & 9: DESIGN PHASE SERVICES (LUMP SUM)**

**Task 3.1 Phase 1: WTP 3 & 9 - 60% Design Specifications, Project Drawings and Opinion of Probable Cost** – Following completion of COUNTY review 30% design work, the CONSULTANT shall prepare and submit to the COUNTY 60% design phase specifications and drawings. This task shall include 60% technical specifications, 60% electrical and mechanical project drawings, well construction specifications, electrical and instrumentation, Variable Frequency Drive (VFD) panels with input line reactors, output filters and air condition units, wellhead, pump selection and pump, wellhead piping, valves, smart wellfield instrumentation, raw water main connections, well pad and appurtenances. The CONSULTANT shall also prepare an OPC of construction cost estimates adequate for a budgetary estimate (Class 4) in accordance with AACE. The COUNTY shall review the 60% specifications and provide comments in electronic format. The CONSULTANT shall review and respond to the COUNTY comments and utilize the agreed upon changes for the 90% design.

**Task 3.2 Phase 1: WTP 3 & 9 - 90% Design Specifications, Project Drawings and Opinion of Probable Cost** - Following completion of COUNTY review 60% design work, the CONSULTANT shall prepare and submit to the COUNTY 90% design phase specifications and drawings. This task shall include 90% technical specifications including front-end specifications, 90% electrical and mechanical project drawings, well construction specifications, electrical and instrumentation, Variable Frequency Drive (VFD) panels with input line reactors, output filters and air condition units, wellhead, pump, wellhead piping, valves, smart wellfield instrumentation, raw water main connections, well pad and appurtenances. The CONSULTANT shall also prepare an OPC of construction cost estimate (Class 3) in accordance with AACE. The COUNTY shall review the 90% specifications and provide comments in electronic format. The CONSULTANT shall review and respond to the COUNTY comments and utilize the agreed upon changes for the 100% design.

**Task 3.3 Phase 1: WTP 3 & 9 - 100% Design Specifications, Project Drawings** - Following completion of COUNTY review 90% design work, the CONSULTANT shall prepare and submit to the COUNTY 100% design phase specifications and drawings. This task shall include 100% technical specifications including front-end specifications, 100% electrical and mechanical project drawings. The COUNTY shall review the 90% specifications and provide comments in electronic format. The CONSULTANT shall review and respond to the COUNTY comments and utilize the agreed upon changes for the conformed design (bid set).

**Task 3.4 Sub-consultant coordination and communication** - The CONSULTANT shall coordinate with SUB-CONSULTANTS and provide project design team management, provide communications with county, review and pay invoices for approved SUB-CONSULTANTS services.

- Task 3.0 – Deliverables

- 60% Design Specifications, OPC, and WTP 3 and WTP 9 Project Drawings – Including four (4) hard copies and one (1) electronic set of Project Specifications and OPC; four (4) half size (11” by 17”) drawing sets, and one electronic drawing set (WTP 3); and four (4) half size (11” by 17”) drawing sets and one electronic drawing set (WTP 9).
- 90% Design Specifications, OPC, and WTP 3 and WTP 9 Project Drawings – Seven (7) sets of Project Specifications; six (6) sets of full size drawings (24” by 36”) and one (1) set of half size drawing for WTP 3; six (6) sets of full size drawings (24” by 36”) and one (1) set of half size drawing for WTP 9.
- 100% Design Specifications, and WTP 3 and WTP 9 Project Drawings – Seven (7) sets of Project Specifications, six (6) sets of signed and sealed full size drawings (24” by 36”) and one (1) set of half size drawing for WTP 3; six (6) sets of signed and sealed full size drawings (24” by 36”) and one (1) set of half size drawing for WTP 9.

- Task 3.0 – Assumptions

- All Design Phase Deliverables shall be submitted to the PBCWUD Project Manager, Diana Rivera, P.E., PMP.
- Following PBCWUD review, requested changes to specific design phase specifications shall be implemented during the subsequent design phase.
- Electronic files exchanged between the COUNTY and the CONSULTANT will be in a format compatible with MS Office 2016, Adobe Acrobat, and AutoCAD.

**TASK 4.0 PHASE 1: WTP 3 & 9 PERMITTING ASSISTANCE (LUMP SUM)**

**Task 4.1 PBCHD Permitting Assistance** - The CONSULTANT shall prepare documents and permit applications (FAC 62-555.900(1) for each individual well and submit to PBCHRS. The CONSULTANT will provide up to five (5) full sized and one (1) half size signed/sealed copies of drawings and specifications. The CONSULTANT shall respond to up to two (2) reasonable requests for additional information from PBCHD.

- Task 4.2 Lake Worth Drainage District Permit Assistance** - The CONSULTANT shall communicate with Lake Worth Drainage District (LWDD) to coordinate discharge of development water for WTP 3 and 9.
- Task 4.3 South Florida Water Management Permit Assistance** - The CONSULTANT shall prepare one letter modification of the PBCWUD Water Use Permit (No. 50-00135-W) for well improvements at WTP 3 & 9. The letter modification shall address the relocation and proposed construction details of relocated wells in Phase 1. The modification will also address correcting "Table A" for other wells in WTP3 & 9 wellfields that have incorrect construction data in existing Table A.
- Task 4.4 Assistance with PBC Traffic/ROW/PZ&B permitting** - The CONSULTANT shall provide the COUNTY with exhibits and information needed to assist the COUNTY in acquiring PBC Traffic, ROW and/or PZ&B permits.
- Task 4.5 Sub-consultant coordination and communication** - The CONSULTANT shall coordinate with civil and electrical engineering SUB-CONSULTANTS, provide communications with county, review and pay invoices for approved SUB-CONSULTANTS services.
- Task 4.0 – Deliverables
    - Five (5) sets of signed and sealed full size drawings (24" by 36") and one (1) set of half size drawing for each WTP.
    - Letter modification of SFWMD permit No. 50-00135-W of relocated wells including updated Table A
  - Task 4.0 – Assumptions
    - All permit application fees shall be paid for by the COUNTY.
    - Groundwater flow modeling will not be performed for the modification of the SFWMD permit.
    - PBCHD permits: 2 full sized sets grouped by Water Treatment Plant to be submitted by the CONSULTANT.
    - Building permits: 2 full sized sets by well to be submitted by the CONSULTANT.
    - LWDD permits: 2 full sized sets grouped by Water Treatment Plant to be submitted by the CONSULTANT.
    - PBCWUD: 1 full and half sized sets grouped by Water Treatment Plant to be submitted by the CONSULTANT.

**TASK 5.0 PHASE 1: WTP 3 & 9: BIDDING ASSISTANCE (LUMP SUM)**

- Task 5.1 Bidding Assistance** - The CONSULTANT prepare conformed bid set documents for WTP 3 & 9 and shall assist the COUNTY with the bidding and award of the construction contract for the project. The CONSULTANT shall provide written responses for up to three (3) contractor requests for information (RFIs). The

CONSULTANT shall review submitted contractor bids and prepare a written award recommendation to the COUNTY.

**Task 5.2 Sub-consultant coordination and communication** - The CONSULTANT shall coordinate with SUB-CONSULTANTS, provide communications with county, review and pay invoices for approved SUB-CONSULTANTS services.

- Task 5.0 – Deliverables
  - Conformed Design Specifications; WTP 3 and WTP 9 Project Drawings Seven (7) sets of Project Specifications; six (6) sets of full size drawings (24" by 36") and one (1) set of half size drawing for WTP 3; six (6) sets of full size drawings (24" by 36") and one (1) set of half size drawing for WTP 9.
  - Review and provide responses for up to three (3) Requests for Information requests from Bidders.
  - Bid Award Recommendation letter.
- Task 5.0 – Assumptions
  - Electronic files exchanged between the COUNTY and the CONSULTANT will be in a format compatible with MS Office 2016, Adobe Acrobat, and AutoCAD.

**TASK 6.0 PHASE 1: WTP 3 & 9: CONSTRUCTION ADMINISTRATION SERVICES (LUMP SUM)**

**Task 6.1 Project Management** – The CONSULTANT shall provide project coordination with PBCWUD representatives and Construction Contractor and overall general project management during field services.

**Task 6.2 Preconstruction meeting** – The CONSULTANT and its sub-consultants shall prepare an agenda and attend one (1) preconstruction meeting and provide summarized preconstruction meeting minutes.

**Task 6.3 Progress Meetings** – The CONSULTANT shall prepare for and attend monthly progress meetings throughout the duration of the project (24 months) including summarized meeting minutes and agendas.

**Task 6.4 Contractor submittal review** - The CONSULTANT and its sub-consultants shall review contractor submitted shop drawings and submittals for hydrogeologic, electrical, instrumentation and all mechanical equipment with electrical and/or instrumentation interface and mechanical submittals (40 estimated).

**Task 6.5 Payment Application Review** – The CONSULTANT shall review and provide recommendations for the acceptance of the contractor submitted payment applications (24 estimated).

**Task 6.6 Record Drawings** – The CONSULTANT's sub-consultant (KHA) shall prepare, sign, and seal record drawings of wells.

**Task 6.7 Daily Work Reports** – The CONSULTANT shall prepare daily work reports and submit to the COUNTY on a weekly basis during well field construction activities.



**Task 6.8 Sub-consultant coordination and communication** – The CONSULTANT shall coordinate with SUB-CONSULTANTS, provide communications with county, review and pay invoices for approved SUB-CONSULTANTS services.

**Task 6.9 PLC Programming** – The SUBCONSULTANT (HEE) shall provide PLC programming including flow, level, pressure and speed control of VFD's; Coordination of HMI screens and tags with PBCWUD SCADA group; Provide PLC program documentation and training as requested by Plant staff.

- Task 6.0 – Deliverables

- Project meeting agendas, minutes, payment application reviews, and daily work reports shall be delivered in electronic format compatible with MS Office 2016 and Adobe Acrobat in accordance with the project schedule.
- One electronic copy in AutoCAD format and PDF format, and two sets of hard copy prints of project record shall be delivered to PBCWUD.

- Task 6.0 – Assumptions

- Electronic files exchanged between the COUNTY and the CONSULTANT will be in a format compatible with MS Office 2016, Adobe Acrobat, and AutoCAD.

**TASK 7.0 PHASE 1: WTP 3 & 9: CONSTRUCTION PHASE SERVICES (NOT TO EXCEED)**

**Task 7.1 Field Construction oversight** – The CONSULTANT and its sub-consultants shall provide construction oversight, development, testing during critical phases of rehabilitation for including: removal and replacement of well screen and gravel pack; completion interval drilling, review, and screen and gravel pack installation, pumping and water quality testing. The CONSULTANT shall observe well development; step drawdown testing, including performing water level measurements, specific capacity analysis and field water quality testing. This task will also include well construction field logs; water quality field data summaries; and copies of the geophysical logs provided by the Contractor. Digital photos will be taken of significant activities during well construction. The CONSULTANT's sub-consultants shall provide coordination and management of mechanical and electrical improvements, including field assistance during well start up, pump test results and providing recommendations for permanent pump setting depth and recommended in service pumping rate.

**Task 7.2 Construction Data Review** – The CONSULTANT shall review geophysical logging, provide recommendation for screen slots sizes and gravel pack, and formation water discharge plan review. This task shall also include vibration monitoring, performed by the CONSULTANT, at each well site during construction activities. Monitoring will be performed from contractor mobilization to demobilization with the use of a vibration seismograph at up to 3 well sites simultaneously over an estimated 24 month project duration. Compliance with vibration standards shall remain the responsibility of the Contractor. Following Contractor demobilization, the

CONSULTANT shall provide a signed and sealed report detailing vibration monitoring results for each well site.

**Task 7.3 Sub-consultant coordination and communication** – The CONSULTANT shall coordinate with SUB-CONSULTANTS, provide communications with county, review and pay invoices for approved SUB-CONSULTANTS services.

- Task 7.0 – Deliverables
  - Project meeting agendas, minutes, payment application reviews, and daily work reports shall be delivered in electronic format compatible with MS Office 2016 and Adobe Acrobat in accordance with the project schedule.
  - One electronic copy in AutoCAD format and PDF format, and two sets of hard copy prints of project record shall be delivered to PBCWUD.
- Task 7.0 – Assumptions
  - Construction oversight is based on 80 calendar days per well for Construction Contractor completion schedule (approximately 24 months). The CONSULTANT shall be onsite during critical phases of well construction only.
  - No permitting costs or laboratory water quality testing costs are included in this Task.

**TASK 8.0 PHASE 1: WTP 3 & 9: WELL COMPLETION AND TESTING REPORT (LUMP SUM)**

**Task 8.1 Well Completion Report** – The CONSULTANT shall prepare a well completion report summarizing well construction details and methods including review well construction field logs and compile summary; complete analysis of all hydrologic and water quality field data; geophysical log analysis, summarize pumping test methods and results, and recommendations for well pumping rates and wellfield operations.

- Task 8.0 – Deliverables
  - One (1) electronic draft copy of the report shall be submitted to the COUNTY for review. Following incorporation of COUNTY comments, five (5) final hard copies shall be submitted to the COUNTY, including one (1) electronic PDF copy.
- Task 8.0 – Assumptions
  - Electronic files exchanged between the COUNTY and the CONSULTANT will be in a format compatible with MS Office 2016 and Adobe Acrobat.

**PHASE 2: WATER TREATMENT PLANT NO. 2 AND 8**

**TASK 9.0 PHASE 2: WTP 2 & 8: DESIGN PHASE SERVICES (LUMP SUM)**

- Task 9.1 Phase 2: WTP 2 & 8 - 60% Design Specifications, Project Drawings and Opinion of Probable Cost** – Following completion of COUNTY review 30% design work, the CONSULTANT shall prepare and submit to the COUNTY 60% design phase specifications and drawings. This task shall include 60% technical specifications, 60% electrical and mechanical project drawings, well construction specifications, electrical and instrumentation, Variable Frequency Drive (VFD) panels with input line reactors, output filters and air condition units, wellhead, pump selection and pump, wellhead piping, valves, smart wellfield instrumentation, raw water main connections, well pad and appurtenances. The CONSULTANT shall also prepare an OPC of construction cost estimates adequate for a budgetary estimate (Class 4) in accordance with AACE. The COUNTY shall review the 60% specifications and provide comments in electronic format. The CONSULTANT shall review and respond to the COUNTY comments and utilize the agreed upon changes for the 90% design.
- Task 9.2 Phase 2: WTP 2 & 8 - 90% Design Specifications, Project Drawings and Opinion of Probable Cost** - Following completion of COUNTY review 60% design work, the CONSULTANT shall prepare and submit to the COUNTY 90% design phase specifications and drawings. This task shall include 90% technical specifications including front-end specifications, 90% electrical and mechanical project drawings, well construction specifications, electrical and instrumentation, Variable Frequency Drive (VFD) panels with input line reactors, output filters and air condition units, wellhead, pump, wellhead piping, valves, smart wellfield instrumentation, raw water main connections, well pad and appurtenances. The CONSULTANT shall also prepare an OPC of construction cost estimate (Class 3) in accordance with AACE. The COUNTY shall review the 90% specifications and provide comments in electronic format. The CONSULTANT shall review and respond to the COUNTY comments and utilize the agreed upon changes for the 100% design (bid set).
- Task 9.3 Phase 2: WTP 2 & 8 - 100% Design Specifications, Project Drawings** - Following completion of COUNTY review 90% design work, the CONSULTANT shall prepare and submit to the COUNTY 100% design phase specifications and drawings. This task shall include 100% technical specifications including front-end specifications, 100% electrical and mechanical project drawings. The COUNTY shall review the 100% specifications and provide comments in electronic format. The CONSULTANT shall review and respond to the COUNTY comments and utilize the agreed upon changes for the conformed design (bid set).
- Task 9.4 Sub-consultant coordination and communication** - The CONSULTANT shall coordinate with SUB-CONSULTANTS, provide communications with county, review and pay invoices for approved SUB-CONSULTANTS services.
- Task 9.0 – Deliverables
    - 60% Design Specifications, OPC, and WTP 2 and WTP 8 Project Drawings – Including four (4) hard copies and one (1) electronic set of Project Specifications and OPC; four (4) half size (11” by 17”) drawing sets, and one electronic drawing set (WTP 2); and four (4) half size (11” by 17”) drawing sets and one electronic drawing set (WTP 8).

- 90% Design Specifications, OPC, and WTP 2 and WTP 8 Project Drawings – Seven (7) sets of Project Specifications; six (6) sets of full size drawings (24” by 36”) and one (1) set of half size drawing for WTP 2; six (6) sets of full size drawings (24” by 36”) and one (1) set of half size drawing for WTP 8.
- 100% Design Specifications, and WTP 2 and WTP 8 Project Drawings – Seven (7) sets of Project Specifications, six (6) sets of full size drawings (24” by 36”) and one (1) set of half size drawing for WTP 2; six (6) sets of full size drawings (24” by 36”) and one (1) set of half size drawing for WTP 8.
- Task 6.0 – Assumptions
  - All Design Phase Deliverables shall be submitted to the PBCWUD Project Manager, Diana Rivera, P.E., PMP.
  - Following PBCWUD review, requested changes to specific design phase specifications shall be implemented during the subsequent design phase.
  - Electronic files exchanged between the COUNTY and the CONSULTANT will be in a format compatible with MS Office 2016, Adobe Acrobat, and AutoCAD.

**TASK 10.0 PHASE 2: WTP 2 & 8 PERMITTING ASSISTANCE (LUMP SUM)**

- Task 10.1 PBCHD Permitting Assistance** - The CONSULTANT shall prepare documents and permit applications (FAC 62-555.900(1) for each individual well and submit to PBCCHRS. The CONSULTANT will provide up to five (5) full sized and one (1) half size signed/sealed copies of drawings and specifications. The CONSULTANT shall respond to reasonable requests for additional information from PBCHD.
- Task 10.2 Lake Worth Drainage District Permit Assistance** - The CONSULTANT shall communicate with LWDD to coordinate discharge of development water for WTP 2 and 8. The Turnpike Canal is maintained by Northern Palm Beach County Improvement District (Northern) and if discharge is to be directed directly into a canal under Northern’s control, coordination with Northern will be performed by Consultant.
- Task 10.3 South Florida Water Management Permit Assistance** - The CONSULTANT shall prepare one letter modification of the PBCWUD Water Use Permit (No. 50-00135-W) for well improvements at WTP 2 & 8. The letter modification shall address the relocation and proposed construction details of relocated wells in Phase 1. The modification will also address correcting “Table A” for other wells in WTP 2 & 8 wellfields that have incorrect construction data in existing Table A.
- Task 10.4 Assistance with PBC Traffic/ROW/PZ&B permitting** – The CONSULTANT shall provide the COUNTY with exhibits and information needed to assist the COUNTY in acquiring PBC Traffic, ROW and/or PZ&B permits.
- Task 10.5 Sub-consultant coordination and communication** - The CONSULTANT shall coordinate with civil and electrical engineering SUB-CONSULTANTS, provide communications with county, review and pay invoices for approved SUB-CONSULTANTS services.

- Task 10.0 – Deliverables
  - Five (5) sets of signed and sealed full size drawings (24” by 36”) and one (1) set of half size drawing for each WTP.
  - Letter modification of SFWMD permit No. 50-00135-W of relocated wells including updated Table A
- Task 10.0 – Assumptions
  - All permit application fees shall be paid for by the COUNTY.
  - Groundwater flow modeling will not be performed for the modification of the SFWMD permit.
  - PBCHD permits: 2 full sized sets grouped by Water Treatment Plant to be submitted by the CONSULTANT.
  - Building permits: 2 full sized sets by well to be submitted by the CONSULTANT.
  - LWDD permits: 2 full sized sets grouped by Water Treatment Plant to be submitted by the CONSULTANT.
  - PBCWUD: 1 full and half sized sets grouped by Water Treatment Plant to be submitted by the CONSULTANT.

**TASK 11.0 PHASE 2: WTP 2 & 8: BIDDING ASSISTANCE (LUMP SUM)**

**Task 11.1 Bidding Assistance** - The CONSULTANT prepare conformed bid set documents for WTP 2 & 8 and shall assist the COUNTY with the bidding and award of the construction contract for the project. The CONSULTANT shall provide written responses for up to three (3) contractor requests for information (RFIs). The CONSULTANT shall review submitted contractor bids and prepare a written award recommendation to the COUNTY.

**Task 11.2 Sub-consultant coordination and communication** - The CONSULTANT shall coordinate with SUB-CONSULTANTS, provide communications with county, review and pay invoices for approved SUB-CONSULTANTS services.

- Task 11.0 – Deliverables
  - Conformed Design Specifications; WTP 2 and WTP 8 Project Drawings Seven (7) sets of Project Specifications; six (6) sets of full size drawings (24” by 36”) and one (1) set of half size drawing for WTP 2; six (6) sets of full size drawings (24” by 36”) and one (1) set of half size drawing for WTP 8.
  - Review and provide responses for up to three (3) Requests for Information requests from Bidders.
  - Bid Award Recommendation letter
- Task 11.0 – Assumptions



- Electronic files exchanged between the COUNTY and the CONSULTANT will be in a format compatible with MS Office 2016, Adobe Acrobat, and AutoCAD.

**TASK 12.0 PHASE 2: WTP 2 & 8: CONSTRUCTION ADMINISTRATION SERVICES (LUMP SUM)**

- Task 12.1 Project Management** – The CONSULTANT shall provide project coordination with PBCWUD representatives and Construction Contractor and overall general project management during field services.
- Task 12.2 Preconstruction meeting** – The CONSULTANT and its sub-consultants shall prepare an agenda and attend one (1) preconstruction meeting and provide summarized preconstruction meeting minutes.
- Task 12.3 Progress Meetings** – The CONSULTANT shall prepare for and attend monthly progress meetings throughout the duration of the project (15 months) including summarized meeting minutes and agendas.
- Task 12.4 Contractor submittal review** - The CONSULTANT and its sub-consultants shall review contractor submitted shop drawings and submittals for hydrogeologic, electrical, instrumentation and all mechanical equipment with electrical and/or instrumentation interface and mechanical submittals (40 estimated).
- Task 12.5 Payment Application Review** – The CONSULTANT shall review and provide recommendations for the acceptance of the contractor submitted payment applications (15 estimated).
- Task 12.6 Record Drawings** – The CONSULTANT’s sub-consultant (KHA) shall prepare, sign, and seal record drawings of wells.
- Task 12.7 Daily Work Reports** – The CONSULTANT shall prepare daily work reports and submit to the COUNTY on a weekly basis during well field construction activities.
- Task 12.8 Sub-consultant coordination and communication** – The CONSULTANT shall coordinate with SUB-CONSULTANTS, provide communications with county, review and pay invoices for approved SUB-CONSULTANTS services.
- Task 12.9 PLC Programming** – The SUBCONSULTANT (HEE) shall provide PLC programming including flow, level, pressure and speed control of VFD’s; Coordination of HMI screens and tags with PBCWUD SCADA group; Provide PLC program documentation and training as requested by Plant staff.

- Task 12.0 – Deliverables

- Project meeting agendas, minutes, payment application reviews, and daily work reports shall be delivered in electronic format compatible with MS Office 2016 and Adobe Acrobat in accordance with the project schedule.
- One electronic copy in AutoCAD format and PDF format, and two sets of hard copy prints of project record shall be delivered to PBCWUD.

- Task 12.0 – Assumptions

- Electronic files exchanged between the COUNTY and the CONSULTANT will be in a format compatible with MS Office 2016, Adobe Acrobat, and AutoCAD.

**TASK 13.0 PHASE 2: WTP 2 & 8: CONSTRUCTION PHASE SERVICES (NOT TO EXCEED)**

**Task 13.1 Field Construction oversight** – The CONSULTANT and its sub-consultants shall provide construction oversight, development, testing during critical phases of rehabilitation for including: removal and replacement of well screen and gravel pack; completion interval drilling, review, and screen and gravel pack installation, pumping and water quality testing. The CONSULTANT shall observe well development; step drawdown testing, including performing water level measurements, specific capacity analysis and field water quality testing. This task will also include well construction field logs; water quality field data summaries; and copies of the geophysical logs provided by the Contractor. Digital photos will be taken of significant activities during well construction. The CONSULTANT’s sub-consultants shall provide coordination and management of mechanical and electrical improvements, including field assistance during well start up, pump test results and providing recommendations for permanent pump setting depth and recommended in service pumping rate.

**Task 13.2 Construction Data Review** – The CONSULTANT shall review geophysical logging, provide recommendation for screen slots sizes and gravel pack, and formation water discharge plan review. This task shall also include vibration monitoring, performed by the CONSULTANT, at each well site during construction activities. Monitoring will be performed from contractor mobilization to demobilization with the use of a vibration seismograph at up to 3 well sites simultaneously over an estimated 15 month project duration. Compliance with vibration standards shall remain the responsibility of the Contractor. Following Contractor demobilization, the CONSULTANT shall provide a signed and sealed report detailing vibration monitoring results for each well site.

**Task 13.3 Sub-consultant coordination and communication** – The CONSULTANT shall coordinate with SUB-CONSULTANTS, provide communications with county, review and pay invoices for approved SUB-CONSULTANTS services.

- Task 13.0 – Deliverables

- Project meeting agendas, minutes, payment application reviews, and daily work reports shall be delivered in electronic format compatible with MS Office 2016 and Adobe Acrobat in accordance with the project schedule.
- One electronic copy in AutoCAD format and PDF format, and two sets of hard copy prints of project record shall be delivered to PBCWUD.

- Task 13.0 – Assumptions

- Construction oversight is based on 80 calendar days per well for Construction Contractor completion schedule (approximately 15 months).

The CONSULTANT shall be onsite during critical phases of well construction only.

- No permitting costs or laboratory water quality testing costs are included in this Task.

**TASK 14.0 PHASE 2: WTP 2 & 8: WELL COMPLETION AND TESTING REPORT (LUMP SUM)**

**Task 14.1 Well Completion Report** – The CONSULTANT shall prepare a well completion report summarizing well construction details and methods including review well construction field logs and compile summary; complete analysis of all hydrologic and water quality field data; geophysical log analysis, summarize pumping test methods and results, and recommendations for well pumping rates and wellfield operations.

- Task 14.0 – Deliverables

- One (1) electronic draft copy of the report shall be submitted to the COUNTY for review. Following incorporation of COUNTY comments, five (5) final hard copies shall be submitted to the COUNTY, including one (1) electronic PDF copy.

- Task 14.0 – Assumptions

- Electronic files exchanged between the COUNTY and the CONSULTANT will be in a format compatible with MS Office 2016 and Adobe Acrobat.

**EXHIBIT "B"**  
**HOURLY RATES**  
**JLA GEOSCIENCES, INC.**

(OVERHEAD RATE MULTIPLIER = 2.80)

<b>Labor Classification</b>	<b>Hourly Billing Rate</b>	<b>Direct Labor Rate</b>
Project Manager/Principal Hydrogeologist	\$165.00	\$58.93
Professional Geologist	\$150.00	\$53.57
Senior Hydrogeologist II	\$135.00	\$48.21
Senior Hydrogeologist I	\$120.00	\$42.86
Geologist/Hydrogeologist II	\$100.00	\$35.71
Geologist/Hydrogeologist I	\$80.00	\$28.57
Hydrologic Technician	\$60.00	\$21.43
Administrative	\$60.00	\$21.43

These Rates may be adjusted after a period of one year from the effective date of the contract. The County's Department Director may authorize in writing annual increases to the hourly billing rates based on agreed upon percentages up to 3%.



**EXHIBIT "D"**  
**PROJECT SCHEDULE**

<b>Consulting Services</b>	<b>Completion Date from Notice to Proceed</b>
TASK 1.0 PROJECT MEETINGS AND ADMINISTRATIVE ASSISTANCE	365 days from NTP
TASK 2.0 PRELIMINARY FIELD INVESTIGATIONS AND REVIEW OF HISTORICAL DATA	365 days from NTP
TASK 3.0, 4.0, 5.0 PHASE 1 DESIGN PHASE, PERMITTING, AND BIDDING SERVICES	183 days from NTP
TASK 6.0, 7.0, 8.0 PHASE 1 CONSTRUCTION PHASE SERVICES	1116 days from NTP
TASK 9.0, 10.0, 11.0 PHASE 2 DESIGN PHASE, PERMITTING, AND BIDDING SERVICES	365 days from NTP
TASK 12.0, 13.0, 14.0 PHASE 2 CONSTRUCTION PHASE SERVICES	1116 days from NTP



**EXHIBIT E**

SCHEDULE #1

LIST OF PROPOSED SBE-M/WBE CONSULTANT/SUBCONSULTANTS

PROJECT NAME: SYSTEM-WIDE WELLFIELD IMPROVEMENTS PROJECT NUMBER: WUD 16-017, TR07  
HYDROGEOLOGIC, ENGINEERING DESIGN & CONSTRUCTION SERVICES  
PROJECT No. WUD 16-017, TR07

NAME OF PRIME BIDDER: JLA Geosciences, Inc ADDRESS: 1907 Commerce Lane, Suite 104, Jupiter Florida 33458  
 CONTACT PERSON: James L. Andersen, P.G. PHONE NO. 561 746-0228 FAX NO. 561 746-0119  
 DESCRIPTION OF SERVICES \_\_\_\_\_

PLEASE LIST THE DOLLAR AMOUNT AND PERCENTAGE OF WORK TO BE COMPLETED BY THE PRIME ON THIS PROJECT.  
 PLEASE ALSO LIST THE DOLLAR AMOUNT AND PERCENTAGE OF WORK TO BE COMPLETED BY ALL SUB-CONSULTANTS ON THIS PROJECT.  
 IDENTIFY ALL APPLICABLE CATEGORIES OF CONSULTANT/SUBCONSULTANTS

Name, Address and Telephone	(Check one or both Categories)		Consultant/Sub-consultant Dollar Amount and Percentage of Services				
	Minority Business	Small Business	Black	Hispanic	Women	Caucasian	Other (Please Specify)
JLA Geosciences, Inc 1907 Commerce Ln, Ste 104, Jupiter FL 33458 (561) 746-0228	<input type="checkbox"/>	<input checked="" type="checkbox"/>	\$	\$	\$	\$	1,350,234.25 \$
Hillers Electrical Engineering 23257 State Road 7, Suite 100, Boca Raton, FL 33428	<input type="checkbox"/>	<input checked="" type="checkbox"/>	\$	\$ 635,527.06	\$	\$	\$
Dennis J. Leavy 460 Business Park Way, Suite B, Royal Palm Beach, Florida 33411 (561) 753-0650	<input type="checkbox"/>	<input checked="" type="checkbox"/>	\$	\$	\$	\$	\$63,000.00 \$
All Webbs Enterprises 309 Commerce Way, Jupiter, FL 33458 (561)746-2079	<input type="checkbox"/>	<input checked="" type="checkbox"/>	\$	\$	\$	\$	198,660.00 \$
	<input type="checkbox"/>	<input type="checkbox"/>	\$	\$	\$	\$	\$
<b>TOTAL</b>			\$	\$ - \$ 635,527.06	\$	\$ - \$	1,611,894.25 \$

Total SBE-M/WBE Participation: \$2,247,421.31

- NOTE:
- The percentages listed on this form must be supported by the sub-consultant included on Schedule 2 in order to be counted toward goal attainment.
  - Firms may be certified by Palm Beach County as an SBE and/or M/WBE

**EXHIBIT "E"**  
**OSBA SCHEDULE 2**  
**LETTER OF INTENT TO PERFORM AS AN SBE-M/WBE CONSULTANT/SUBCONSULTANT**

This document must be completed by ALL SBE-M/WBE's and submitted with this CSA. Specify in detail, the particular consulting services to be performed and the dollar amount and/or percentage for each services. SBE credit will only be given for services which the SBE-M/WBE's is certified to perform. Failure to properly complete Schedule 2 will result in your SBE participation not being counted.

PROJECT NUMBER: 16-017 PROJECT NAME: SYSTEM-WIDE WELLFIELD IMPROVEMENTS  
HYDROGEOLOGIC, ENGINEERING DESIGN & CONSTRUCTION SERVICES  
TO: JLA Geosciences, Inc.  
(Name of Prime CONSULTANT)

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

Small Business Enterprise   X   Minority Business Enterprise \_\_\_\_\_  
Black \_\_\_\_\_ Hispanic \_\_\_\_\_ Women \_\_\_\_\_ Caucasian   X   Other (Please Specify) \_\_\_\_\_

Date of Palm Beach County Certification: April 4, 2014

The undersigned is prepared to perform the following described consulting services in connection with the above project and will enter into a formal agreement for work with you, conditioned upon execution of a contract with Palm Beach County.

Additional Sheets May Be Used As Necessary

(Specify in detail the particular consulting services thereof to be performed)

The CONSULTANT shall provide professional consultation/engineering services for the improvements to surficial aquifer production wells located at the COUNTY'S four (4) water treatment plants (No. 2, 3, 8, and 9) throughout the Palm Beach County Water Utilities Department (PBCWUD) service area.

Total SBE-M/WBE Participation   70.32%  

If undersigned intends to sub-subcontract any portion of this job to a certified SBE-M/WBE or a non-SBE sub-CONSULTANT, please list the name of that sub-CONSULTANT and the amount below.

Price or Percentage \_\_\_\_\_  
(Name of Sub-CONSULTANT)

The Prime CONSULTANT affirms that it will monitor the SBE-M/WBE listed to ensure the SBE-M/WBE perform the services with their own work force. The undersigned SBE-M/WBE Prime or SBE-M/WBE sub-CONSULTANT affirms that it has the resources necessary to perform the work listed without subcontracting to a non-certified SBE or any other certified SBE sub-CONSULTANTs except as noted above.

The undersigned sub-CONSULTANT understands that the provision of this form to the Prime CONSULTANT does not prevent sub-CONSULTANT from providing quotations to other.

JLA Geosciences, Inc.  
Print name of  
SBE-M/WBE Sub-CONSULTANT  
By: \_\_\_\_\_  
(Signature)  
James L. Andersen  
Print name/title of person executing on behalf  
of SBE-M/WBE  
Date: 11/15/2016

**EXHIBIT "E"**  
**OSBA Schedule 3(A)**  
**PROFESSIONAL SERVICES ACTIVITY REPORT**

Project No.: \_\_\_\_\_  
Task Authorization No: \_\_\_\_\_

REPORTING PERIOD: \_\_\_\_\_

Prime CONSULTANT Address: \_\_\_\_\_  
City/State: \_\_\_\_\_ Zip \_\_\_\_\_  
Contact Person: \_\_\_\_\_ Phone # \_\_\_\_\_  
Contract Name: \_\_\_\_\_  
Contract Term: \_\_\_\_\_ Contract Amount\$ \_\_\_\_\_  
Total Percentage performed by the Prime's Firm: \_\_\_\_\_ SBE-M/WBE Firm: \_\_\_\_\_  
Service Type: Architectural \_\_\_\_\_ Engineering \_\_\_\_\_ Surveying \_\_\_\_\_  
Other (Specify) \_\_\_\_\_  
Have Sub-CONSULTANTS completed work with its own workforce for this application?  
Yes \_\_\_\_\_ No \_\_\_\_\_

Note: If yes, complete below:

**SUB-CONSULTANTS**

1. Firms Name: \_\_\_\_\_  
Address/Tel: \_\_\_\_\_  
Estimated Start Date: \_\_\_\_\_ Contract Amount: \_\_\_\_\_  
SCOPE OF WORK: \_\_\_\_\_  
Percentage/Hrs Completed: \_\_\_\_\_ Amount Paid To Date \_\_\_\_\_
2. Firm's Name: \_\_\_\_\_  
Address//Tel: \_\_\_\_\_  
Estimated Start Date: \_\_\_\_\_ Contract Amount: \_\_\_\_\_  
SCOPE OF WORK: \_\_\_\_\_  
Percentage/Hrs Completed: \_\_\_\_\_ Amount Paid To Date \_\_\_\_\_
3. Firm's Name: \_\_\_\_\_  
Address/Tel: \_\_\_\_\_  
Estimated Start Date: \_\_\_\_\_ Contract Amount \_\_\_\_\_  
SCOPE OF WORK: \_\_\_\_\_  
Percentage/Hrs Completed: \_\_\_\_\_ Amount Paid To Date \_\_\_\_\_

I certify that the above is true to the best of my knowledge

\_\_\_\_\_  
Signature/Title

EXHIBIT "E"

OSEA SCHEDULE 4 - SBE-M/WBE PAYMENT CERTIFICATION

The Prime Contractor is to submit Schedule 4 with its Monthly Payment Request to Palm Beach County to reflect actual payments made to the SBE-M/WBE Subcontractor. The Prime Contractor is not to request signature from an SBE-M/WBE Subcontractor unless it has made a payment to the SBE-M/WBE Subcontractor. The SBE-M/WBE Subcontractor is not to complete and sign this form unless it has received a payment from the Prime Contractor for services actually performed by the SBE-M/WBE Subcontractor. A separate Schedule 4 is required for each SBE-M/WBE Subcontractor payment.

This is to certify that \_\_\_\_\_ received  
(SBE or M/WBE Subcontractor Name)

(Monthly) or (Final) payment of \$ \_\_\_\_\_ . \_\_\_\_\_

On \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ from \_\_\_\_\_  
MM DD YYYY (Prime Contractor Name)

For labor and/or materials used on \_\_\_\_\_ / \_\_\_\_\_  
(Project Name) (Work Order)

DEPT.: \_\_\_\_\_ PROJECT NO.: \_\_\_\_\_

PRIME CONTRACTOR VENDOR CODE: \_\_\_\_\_

SBE OR M/WBE SUBCONTRACTOR VENDOR CODE: \_\_\_\_\_

If the SBE Subcontractor intends to disburse any funds associated with this payment to any Subcontractor for labor provided on this project, please provide the following information:

\*Subcontractor Name: \_\_\_\_\_ Amount to be paid: \_\_\_\_\_

\*Note: If the subcontractor listed in this section is an SBE or M/WBE a separate schedule 4 is required to verify payment.

By: \_\_\_\_\_  
(Signature of Subcontractor) (Print Name & Title of Person executing on behalf of Subcontractor)

STATE OF FLORIDA  
COUNTY OF \_\_\_\_\_

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_\_

By: \_\_\_\_\_

\_\_\_\_\_  
Notary Public, State of Florida

\_\_\_\_\_  
Print, Type or Stamp Commissioned Name of Notary

Personally Known \_\_\_\_\_ OR Produced Identification \_\_\_\_\_ Type of Identification \_\_\_\_\_

**EXHIBIT "F"**  
**INSURANCE CERTIFICATE**



**CERTIFICATE OF LIABILITY INSURANCE**

DATE (MM/DD/YYYY)  
8/31/2016

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

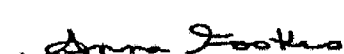
<b>PRODUCER</b> Park & Associates Inc 5255 North Federal Highway 2nd Floor Boca Raton FL 33487-4907		<b>CONTACT NAME:</b> Anna Fookes <b>PHONE (A/C, No. Ext):</b> (561) 994-0880 <b>FAX (A/C, No.):</b> (561) 994-1740 <b>E-MAIL ADDRESS:</b> afookes@parkassociates.com	
<b>INSURED</b> JLA Geosciences Inc 1907 Commerce Lane Suite 104 Jupiter FL 33458		<b>INSURER(S) AFFORDING COVERAGE</b> INSURER A: Crum & Forster Indemnity Company 31348 INSURER B: Wesco Insurance Company 25011 INSURER C: Associated Industries Insurance 23140 INSURER D: INSURER E: INSURER F:	

**COVERAGES** CERTIFICATE NUMBER: 16/17 Liab updated REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

WBR LTR	TYPE OF INSURANCE	ADD'L INSRD	INSRD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER <input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:	X	Y	EZK112088	4/22/2016	4/22/2017	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (EA Occurrence) \$ 50,000 MED EXP (Any one person) \$ 5,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 1,000,000 PRODUCTS - COM/PROP AGG \$ 1,000,000
B	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS			WZF114918702	4/22/2016	4/22/2017	COMBINED SINGLE LIMIT (EA accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
A	UMBRELLA LIAB <input checked="" type="checkbox"/> EXCESS LIAB <input type="checkbox"/> RETENTION \$			EZK105257	4/22/2016	4/22/2017	EACH OCCURRENCE \$ 2,000,000 AGGREGATE \$
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (MANDATORY IN RI) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N	N/A	ANC1063256	5/8/2016	5/8/2017	<input type="checkbox"/> PER STATUTE <input checked="" type="checkbox"/> OTHER EL EACH ACCIDENT \$ 1,000,000 EL DISEASE - EA EMPLOYEE \$ 1,000,000 EL DISEASE - POLICY LIMIT \$ 1,000,000
A	Professional Liability Pollution Liability			EZK112088 EZK112088	4/22/2016 4/22/2016	4/22/2017 4/22/2017	Each Occurrence/Aggregate 1,000,000 Each Occurrence/Aggregate 1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)  
 Per Policy Terms and Conditions. As indicated by "X" in the "ADD'L INSRD" column, certificate holder is added as additional insured and waiver of subrogation by written contract or written agreement, subject to terms, conditions and exclusions of the policy. Excess liability is a follow form.

<b>CERTIFICATE HOLDER</b>  Palm Beach County Water Utilities Dept C/O Insurance Tracking Services Inc PO Box 20270 Long Beach, CA 90801	<b>CANCELLATION</b>  SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.  AUTHORIZED REPRESENTATIVE  Anna Fookes/AF 
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**EXHIBIT "G"**  
**CORPORATE RESOLUTION**

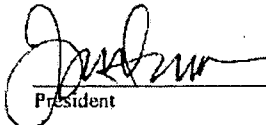
JLA GEOSCIENCES, INC.  
CORPORATE AUTHORIZATION RESOLUTION

Resolved, that James L. Andersen, President and Paul M. Stout, Principal of the Corporation, be and are hereby authorized and empowered to sign any and all documents on behalf of said Corporation, and to take such steps, and do such other acts and things, as in their judgment may be necessary, appropriate or desirable in connection with any proposal submitted to, or contract entered into with Palm Beach County for: SYSTEM-WIDE WELLFIELD IMPROVEMENTS - HYDROGEOLOGIC, ENGINEERING DESIGN & CONSTRUCTION SERVICES PROJECT No. WUD 16-017, TR07

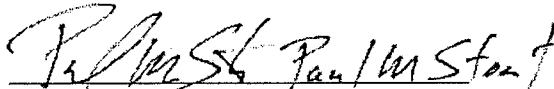
and,

Resolved, that any and all transactions by and of the officers or representatives of the Corporation, in its name and for its account, with Palm Beach County for the following contract: SYSTEM-WIDE WELLFIELD IMPROVEMENTS HYDROGEOLOGIC, ENGINEERING DESIGN & CONSTRUCTION SERVICES PROJECT No. WUD 16-017, TR07 prior to the adoption of these resolutions be, and they are hereby, ratified and approved for all purposes.

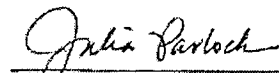
Witness my hand and seal of the Corporation this 28 day of September, 2016.

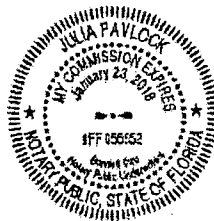
  
\_\_\_\_\_  
President

(Corporate Seal)

  
\_\_\_\_\_  
Principal

Sworn before me this 28<sup>th</sup> day of September, 2016

  
\_\_\_\_\_  
Notary Public





November 16, 2016

Mr. Jim Andersen, P.G.  
JLA Geosciences, Inc.  
1931 Commerce Lane, Suite 3  
Jupiter, FL 33458

**RE: CONTRACT FOR CONSULTING/PROFESSIONAL SERVICES  
SYSTEM-WIDE WELLFIELD IMPROVEMENTS  
ENGINEERING DESIGN SERVICES  
PROJECT No. WUD 16-017, TR07**

Dear Mr. Andersen:

We are pleased to provide this proposal for professional services for the development of bidding documents for improvements to surficial aquifer production wells located at the COUNTY'S four (4) water treatment plants (No. 3, 9, 2, and 8) throughout the Palm Beach County Water Utilities Department (PBCWUD) service area.

#### **BACKGROUND**

On March 20, 2016 the COUNTY advertised for Hydrogeologic, Engineering Design and Construction Services for improvements to surficial aquifer production wells located at the COUNTY'S four (4) water treatment plants (No. 3, 9, 2, and 8) throughout the Palm Beach County Water Utilities Department (PBCWUD) service area. On July 7, 2016, JLA Geosciences and sub-consultants Kimley-Horn and Associates, Black & Veatch Corporation, Hillers Electrical Engineering, and Dennis J. Leavy and Associates were selected to perform the improvement scope of services. During an August 3, 2016 Well Rehab Workshop Meeting, the existing COUNTY Action Plan was reviewed and an anticipated scope of services was agreed upon for Fiscal Years 2017 and 2018.

The scope of services for this contract includes the design and bidding of up to twenty-one (21) rehabilitated wells at Water Treatment Plants 2, 3, 8 and 9. Bid documents shall be separated into two bid packages: Water Treatment Plants 3 & 9 (FY 2017) and Water Treatment Plants 2 & 8 (FY 2018). Preliminary site investigations shall be performed to assist in preparation of design documents and will include: survey, ground penetrating radar, well siting, historical review, geotechnical investigations, and Smart Wellfield investigations. Design phase services shall include 60% Design (60% Technical Specifications, OPC, project drawings); 90% Design (90% Technical Specifications, OPC, project drawings); 100% Design (100% Technical Specifications, project drawings); permitting assistance, and bidding assistance.

[kimley-horn.com](http://kimley-horn.com)

1920 Wekiva Way Suite 200 West Palm Beach, FL 33411

561-845-0665

Construction phase will be provided in two phases, following successful bidding of each design and permitting phase 1 and phase 2. Construction phase will consist of meeting attendance, submittal review, payment application review, coordination and answering contractor questions, field construction observation, and certification of completion of each phase with the Palm Beach County Health Department.

## SCOPE OF SERVICES

CONSULTANT, Kimley-Horn and Associates, Inc. (KHA) serving as a SUBCONSULTANT to JLA Geosciences, Inc, the PRIME CONSULTANT (JLA), shall perform the Scope of Services as described herein and will be responsible for the following tasks:

### PHASE 1 – YEAR 1

#### TASK 1.0 – PROJECT MEETINGS AND ADMINISTRATIVE ASSISTANCE

**Task 1.1 Project Meetings and administrative assistance** – The CONSULTANT shall prepare for and attend up to 16 project meetings with PBCWUD staff including two (2) kickoff meetings, eight (8) design meetings, four (4) permitting regulatory meetings, and two (2) pre-bid meeting, including pre-bid site visits. Meetings shall also be attended by SUB-CONSULTANTS.

**Task 1.2 Coordination and communication** - The CONSULTANT shall coordinate with JLA and JLA's SUB-CONSULTANTS, and provide communications with county.

Consultant will review meeting agendas and minutes for WTP3 & 9: PDR, 60%, 90%, Final (if required), as prepared by JLA.

Consultant will review meeting agendas and minutes for WTP2 & 8: PDR, 60%, 90%, Final (if required) as prepared by JLA.

Consultant will review permitting regulatory meeting agenda and minutes for up to four (4) meetings, as prepared by JLA.

#### **Task 1.0 – Assumptions**

- o Bid related meetings, agenda and minutes as required, will be conducted by the County. Consultant will assist as needed.

#### TASK 2.0 – PRELIMINARY FIELD INVESTIGATIONS AND REVIEW OF HISTORICAL DATA

**Task 2.1 Topographic Survey (Provided by JLA)** – JLA's SUBCONSULTANT shall provide a topographical survey for up to twenty-one (21) well locations with a 100 foot radius from the wellhead of each selected well site. The survey shall include the following: Location of visible fixed improvements within the proposed project limits/right-of-way, including physical objects, drainage swales, native trees, signs, fences, power poles; Location of above ground existing utilities; Elevations obtained to indicate existing grades; location of PBC located U/G utilities – pipes, valves, etc.; and reference benchmarks.



KHA will review survey information and provide coordination through JLA.

- Task 2.2 Ground Penetrating Radar (GPR) Services (Provided by JLA)** – JLA's SUBCONSULTANT shall provide professional services to locate and mark out any detectable subsurface anomalies at up to twenty (20) well locations and surrounding areas.

KHA will review GPR results and information and provide coordination through JLA.

- Task 2.3 Well Siting** - KHA shall provide assistance with identifying the locations of the easements for each well site to be relocated (14 total), raw water main and construction easement needed to perform anticipated scope of work for each well. KHA shall review flood maps (FIRM) and flood control elevations within the wells being modified to determine 100-yr flood elevations for each wellsite and adjust pad and/or wellhead flange and piping to accommodate vertical separation required by FAC 62-532 Water Well Permitting and Construction Requirements.

- Task 2.4 Review of Historical Data** - KHA shall review PBCWUD provided historical well construction information including well videos, well construction reports, County standard engineering details, and record drawings prior to preparing design specifications.

- Task 2.5 Geotechnical Investigations (Provided by JLA)** – JLA's SUBCONSULTANT shall provide subsurface geotechnical borings at up to fourteen (14) well locations at various COUNTY wellfields for the purpose of preliminary well design. Geotechnical investigations shall include: construction of up to fourteen (14) 6-inch diameter boreholes to a maximum depth of 180 feet below land surface, including geophysical logging, collection of lithologic samples with depth, well boring abandonment and site restoration.

KHA will review geotechnical boring results and information and provide review comments to JLA.

- Task 2.6 Smart Wellfield Investigation Review – PROVIDED BY OTHERS**

## **TASK 3.0 – BID PACKAGE 1: WTP 3 & 9: DESIGN PHASE SERVICES**

- Task 3.1 Bid Package 1: WTP 3 & 9 - 60% Design Specifications, Project Drawings and Opinion of Probable Cost** – KHA shall prepare and submit to the COUNTY 60% design phase specifications and drawings. This task shall include 60% technical specifications, 60% mechanical project drawings, OPC for well construction, wellhead, pump, wellhead piping, valves, instrumentation, well pad and appurtenances. KHA shall also prepare an OPC of construction cost estimates adequate for a budgetary estimate (Class 4) in accordance with AACE. The COUNTY shall review the 60% specifications and provide comments in electronic format. KHA shall review and respond to the COUNTY comments and utilize the agreed upon changes for the 90% design.

**Task 3.2 Bid Package 1: WTP 3 & 9 - 90% Design Specifications, Project Drawings and Opinion of Probable Cost** - Following completion of COUNTY review 60% design work, KHA shall prepare and submit to the COUNTY 90% design phase specifications and drawings. This task shall include 90% technical specifications including front-end specifications, 90% mechanical project drawings, OPC for well construction, wellhead, pump, wellhead piping, valves, instrumentation, well pad and appurtenances. KHA shall also prepare an OPC of construction cost estimate (Class 3) in accordance with AACE. The COUNTY shall review the 90% specifications and provide comments in electronic format. KHA shall review and respond to the COUNTY comments and utilize the agreed upon changes for the 100% design.

**Task 3.3 Bid Package 1: WTP 3 & 9 - 100% Design Specifications, Project Drawings** - Following completion of COUNTY review 90% design work, KHA shall prepare and submit to the COUNTY 100% design phase specifications and drawings. This task shall include 100% technical specifications including front-end specifications, 100% mechanical project drawings. The COUNTY shall review the 90% specifications and provide comments in electronic format. KHA shall review and respond to the COUNTY comments and utilize the agreed upon changes for the conformed design (bid set).

**Task 3.0 – Deliverables**

- 60% Design Specifications, OPC, and WTP 3 and WTP 9 Project Drawings – Including four (4) hard copies and one (1) electronic set of Project Specifications and OPC; four (4) half size (11" by 17") drawing sets, and one electronic drawing set (WTP 3); and four (4) half size (11" by 17") drawing sets and one electronic drawing set (WTP 9).
- 90% Design Specifications, OPC, and WTP 3 and WTP 9 Project Drawings – Seven (7) sets of Project Specifications; six (6) sets of full size drawings (24" by 36") and one (1) set of half size drawing for WTP 3; six (6) sets of full size drawings (24" by 36") and one (1) set of half size drawing for WTP 9.
- 100% Design Specifications, and WTP 3 and WTP 9 Project Drawings – Seven (7) sets of Project Specifications, six (6) sets of signed and sealed full size drawings (24" by 36") and one (1) set of half size drawing for WTP 3; six (6) sets of signed and sealed full size drawings (24" by 36") and one (1) set of half size drawing for WTP 9.

**Task 3.0 – Assumptions**

- Following PBCWUD review, requested changes to specific design phase specifications shall be implemented during the subsequent design phase.
- Electronic files exchanged between the JLA, COUNTY and KHA will be in a format compatible with MS Office 2007, Adobe Acrobat, and AutoCAD.
- This Contract does not include Construction Phase Services and final certifications.

## **TASK 4.0 – BID PACKAGE 1: WTP 3 & 9 PERMITTING ASSISTANCE**

- Task 4.1 PBCHD Permitting Assistance** - KHA shall prepare KHA prepared documents and permit applications (FAC 62-555.900(1)) for each well and submit to PBCHRS. KHA will provide up to five (5) full sized and one (1) half size signed/sealed copies of drawings and specifications. KHA shall respond to up to two (2) reasonable requests for additional information from PBCHD.
- Task 4.2 Lake Worth Drainage District Permit Assistance** - JLA shall communicate with Lake Worth Drainage District to coordinate discharge of development water for WTP 3. KHA will provide supporting information including wellsite plans, and information to JLA.
- Task 4.3 South Florida Water Management Permit Assistance (Provided by JLA)** - JLA shall prepare one letter modification of the PBCWUD Water Use Permit (No. 50-00135-W) for well improvements at WTP 3 & 9. The letter modification shall address the relocation and proposed construction details of relocated wells in Bid Package 1. The modification will also address correcting "Table A" for other wells in WTP3 & 9 wellfields that have incorrect construction data in existing Table A.
- Task 4.4 Assistance with PBC Traffic/ROW/PZ&B permitting** – KHA will assist JLA and shall provide the COUNTY with exhibits and information needed to assist the COUNTY in acquiring PBC Traffic, ROW and/or PZ&B permits.

### **Task 4.0 – Deliverables**

- Five (5) sets of signed and sealed full size drawings (24" by 36") and one (1) set of half size drawing for each WTP.

### **Task 4.0 – Assumptions**

- All permit application fees shall be paid for by the COUNTY.

## **TASK 5.0 – BID PACKAGE 1: WTP 3 & 9: BIDDING ASSISTANCE**

- Task 5.1 Bidding Assistance** – KHA will prepare conformed bid set documents for WTP 3 & 9 and shall assist the JLA and the COUNTY with the bidding and award of the construction contract for the project. KHA shall provide written responses for up to two (2) contractor requests for information (RFIs). KHA shall review submitted contractor bids and prepare a written award recommendation to the COUNTY.

### **Task 5.0 – Deliverables**

- Conformed Design Specifications; WTP 3 and WTP 9 Project Drawings Seven (7) sets of Project Specifications; six (6) sets of full size drawings (24" by 36") and one (1) set of half size drawing for WTP 3; six (6) sets of full size drawings (24" by 36") and one (1) set of half size drawing for WTP 9.
- Review and provide responses for up to three (3) Requests for Information requests from Bidders.

- o Bid Award Recommendation letter.
- o Estimated Number of Drawings – Bid Package 1:
 

Cover Sheet	1
General Notes and Legend	1
WTP 3 Exist. Location Map & Scope	1
WTP 9 Exist. Location Map & Scope	1
WTP 3 Staging and Discharge Locations Map	1
WTP 9 Staging and Discharge Locations Map	1
WTP 3 Proposed Well Locations Map	1
WTP 9 Proposed Well Locations Map	1
Site Plan	13
Demolition (Mechanical)	13
Improvements (Mechanical)	13
Mechanical Details	4
Construction Details	2
<u>Well Construction Related Drawings</u>	<u>4</u>
<b>TOTAL # of Drawings</b>	<b>57</b>

**Task 5.0 – Assumptions**

- o Electronic files exchanged between the COUNTY and the JLA will be in a format compatible with MS Office 2007, Adobe Acrobat, and AutoCAD.

**PHASE 1 – YEAR 2**

**TASK 6.0 – WTP 3 & 9: CONSTRUCTION PHASE SERVICES - ADMINISTRATIVE**

KHA Consultant will attend up to one (1) preconstruction meeting with PBCWUD and the selected Contractor. Consultant will attend monthly progress meetings, up to twelve (12) meetings with PBCWUD and the Contractor during the anticipated construction process. Consultant will provide bullet meeting minute items to be formalized by JLA.

Consultant will review and approve or take other appropriate action in respect to Shop Drawings and Samples and other data which the Contractor is required to submit, but only for conformance with the information given in the Contract Documents. Such review and approvals or other action will not extent to means, methods, techniques, equipment choice and usage, sequences, schedules, or procedures of construction or to related safety precautions and programs.

Consultant may recommend Change Orders to PBCWUD, and will review and make recommendations related to Change Orders submitted or proposed by the Contractor.

Consultant shall receive and review test data provided by the Contractor associated with the Palm Beach County Health Department clearance process as well as approvals required in the Contract Documents. Consultant's review of such data will be for the purpose of determining that the results certified indicate compliance with the Contract Documents and will not constitute an independent evaluation that the content or procedures of such inspections, tests, or approvals comply with the requirements of the Contract Documents. All testing shall be coordinated and provided under a separate contract between the City or the Contractor and an appropriate testing firm(s) of their choice. Consultant shall be entitled to rely on the results of such tests and the facts being certified.

Promptly after notice from the Contractor that the Contractor considers the entire Project ready for its intended use, in company with PBCWUD and the Contractor, the Consultant shall conduct a site visit to determine if the Work is substantially complete. Work will be considered substantially complete following satisfactory completion of all items with the exception of those identified on a final punch list. If after considering any objections of PBCWUD, the Consultant considers the Work substantially complete, the Consultant shall notify PBCWUD and the Contractor.

Consultant shall conduct a final site visit to determine if the completed Work of the Contractor is generally in accordance with the Contract Documents and the final punch list so that the Consultant may recommend, in writing, final payment to the Contractor. Accompanying the recommendation for final payment, the Consultant shall also provide a notice that the Work is generally in accordance with the Contract Documents to the best of the Consultant's knowledge, information, and belief and based on the extent of the services provided by the Consultant under this Work Authorization and based upon information provided to the Consultant upon which it is entitled to rely.

Consultant shall not be responsible for the acts or omissions of any Contractor, or of any of their subcontractors, suppliers, or of any other individual or entity performing or furnishing the Work.

Consultant will prepare project record drawings using information provided by the Contractor. An electronic copy in AutoCAD format and PDF format, and two sets of prints will be delivered to PBCWUD upon completion of the project.

## **PHASE 2 – YEAR 2**

### **TASK 7.0 – WTP 3 & 9: CONSTRUCTION PHASE SERVICES – ONSITE OBSERVATIONS**

Consultant will review provide field assistance during well start up, pump test results and provide recommendations for permanent pump setting depth and

recommended in service pumping rate for thirteen (13) wells at WTP 3 and 9 receiving new pumps and motors.

Consultant will make onsite visits for each of the existing wells at PBCWUD WTP 3 and 9 to receive mechanical improvements under WUD 16-017 to observe the performance of the Contractor. This scope of services anticipates the Consultant visit the site up to two (2) hours per week for a 52 week construction duration.

Visits and observations by the Consultant are not intended to be exhaustive or to extend to every aspect of the Contractor's work in progress. Observations are to be limited to spot checking, selective measurement, and similar methods of general observation of the Work based on the Consultant's exercise of professional judgment. Based on information obtained during such visits and such observations, the Consultant will determine if the Contractor's work is generally proceeding in accordance with the Contract Documents, and the Consultant shall keep the PBCWUD and JLA informed of the general progress of the Work.

The purpose of the Consultant's visits to the site will be to enable the Consultant to better carry out the duties and responsibilities assigned in this Agreement to the Consultant during the construction phase by PBCWUD and JLA, and, in addition, by the exercise of the Consultant's efforts, to provide PBCWUD a greater degree of confidence that the completed Work will conform in general to the Contract Documents and that the integrity of the design concept of the completed Project as a functioning whole as indicated in the Contract Documents has been implemented and preserved by the Contractor. The Consultant shall not, during such visits or as a result of such observations of the Contractor's work in progress, supervise, direct, or have control over the Contractor's work, nor shall the Consultant have authority over or responsibility for the means, methods, techniques, equipment choice and usage, sequences, schedules, or procedures of construction selected by the Contractor, for safety precautions and programs incident to the Contractor's work, nor for any failure of the Contractor to comply with laws and regulations applicable to the Contractor's furnishing and performing the Work. Accordingly, the Consultant neither guarantees the performance of any Contractor nor assumes responsibility for any Contractor's failure to furnish and perform its work in accordance with the Contract Documents.

Consultant shall recommend to PBCWUD that the Contractor's work be disapproved and rejected while it is in progress if, on the basis of such observations, the Consultant believes that such work will not produce a completed Project that conforms generally to the Contract Documents or that it will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated in the Contract Documents. The Consultant shall not have the authority or responsibility to stop the work of any Contractor.

Consultant will respond to reasonable and appropriate Contractor requests for information and issue necessary clarifications and interpretations of the Contract Documents to the City as appropriate to the orderly completion of the Contractor's work. Any orders authorizing variations from the Contract Documents will be made by City.

## TASK 8.0 – WELL TESTING REPORTS – BY JLA

## TASK 9.0 – BID PACKAGE 2: WTP 2 & 8: DESIGN PHASE SERVICES

**Task 9.1 Bid Package 2: WTP 2 & 8 - 60% Design Specifications, Project Drawings and Opinion of Probable Cost** – KHA shall prepare 60% design phase specifications and drawings and submit to JLA and COUNTY. This task shall include 60% technical specifications, 60% mechanical project drawings, OPC for well construction, wellhead, pump, wellhead piping, valves, instrumentation, well pad and appurtenances. KHA shall also prepare an OPC of construction cost estimates adequate for a budgetary estimate (Class 4) in accordance with AACE. The COUNTY shall review the 60% specifications and provide comments in electronic format. KHA shall review and respond to the COUNTY comments and utilize the agreed upon changes for the 90% design.

**Task 9.2 Bid Package 2: WTP 2 & 8 - 90% Design Specifications, Project Drawings and Opinion of Probable Cost** - Following completion of COUNTY review 60% design work, KHA shall prepare and submit to the COUNTY 90% design phase specifications and drawings. This task shall include 90% technical specifications including front-end specifications, 90% mechanical project drawings, OPC for well construction, wellhead, pump, wellhead piping, valves, instrumentation, well pad and appurtenances. KHA shall also prepare an OPC of construction cost estimate (Class 3) in accordance with AACE. The COUNTY shall review the 90% specifications and provide comments in electronic format. KHA shall review and respond to the COUNTY comments and utilize the agreed upon changes for the 100% design (bid set).

**Task 9.3 Bid Package 2: WTP 2 & 8 - 100% Design Specifications, Project Drawings** - Following completion of COUNTY review 90% design work, KHA shall prepare and submit to the COUNTY 100% design phase specifications and drawings. This task shall include 100% technical specifications including front-end specifications, 100% mechanical project drawings. The COUNTY shall review the 100% specifications and provide comments in electronic format. KHA shall review and respond to the COUNTY comments and utilize the agreed upon changes for the conformed design (bid set).

### **Task 9.0 – Deliverables**

- 60% Design Specifications, OPC, and WTP 2 and WTP 8 Project Drawings – Including four (4) hard copies and one (1) electronic set of Project Specifications and OPC; four (4) half size (11" by 17") drawing sets, and one electronic drawing set (WTP 2); and four (4) half size (11" by 17") drawing sets and one electronic drawing set (WTP 8).
- 90% Design Specifications, OPC, and WTP 2 and WTP 8 Project Drawings – Seven (7) sets of Project Specifications; six (6) sets of full size drawings (24" by 36") and one (1) set of half size drawing for WTP 2; six (6) sets of

- full size drawings (24" by 36") and one (1) set of half size drawing for WTP 8.
- o 100% Design Specifications, and WTP 2 and WTP 8 Project Drawings – Seven (7) sets of Project Specifications, six (6) sets of full size drawings (24" by 36") and one (1) set of half size drawing for WTP 2; six (6) sets of full size drawings (24" by 36") and one (1) set of half size drawing for WTP 8.

## **Task 9.0 – Assumptions**

- o All Design Phase Deliverables shall be submitted through JLA to the PBCWUD Project Manager, Diana Rivera, P.E., PMP.
- o Following PBCWUD review, requested changes to specific design phase specifications shall be implemented during the subsequent design phase.
- o Electronic files exchanged between the COUNTY, JLA, and KHA will be in a format compatible with MS Office 2007, Adobe Acrobat, and AutoCAD.
- o This Contract does not include Construction Phase Services and final certifications.

## **TASK 10.0 – BID PACKAGE 2: WTP 2 & 8 PERMITTING ASSISTANCE**

**Task 10.1 PBCHD Permitting Assistance** - KHA shall prepare documents and permit applications (FAC 62-555.900(1)) for each well and submit to PBCHRS. KHA will provide up to five (5) full sized and one (1) half size signed/sealed copies of drawings and specifications. KHA shall respond to reasonable requests for additional information from PBCHD.

**Task 10.2 Lake Worth Drainage District Permit Assistance** - JLA shall communicate with Lake Worth Drainage District to coordinate discharge of development water for WTP 2 and 8. The Turnpike Canal is maintained by Northern Palm Beach County Improvement District (Northern) and if discharge is to be directed directly into a canal under Northern's control, coordination with Northern will be performed by Consultant. KHA will provide supporting information including wellsite plans, and information to JLA.

**Task 10.3 South Florida Water Management Permit Assistance (Provided by JLA)** - JLA shall prepare one letter modification of the PBCWUD Water Use Permit (No. 50-00135-W) for well improvements at WTP 2 & 8. The letter modification shall address the relocation and proposed construction details of relocated wells in Bid Package 1. The modification will also address correcting "Table A" for other wells in WTP2 & 8 wellfields that have incorrect construction data in existing Table A

**Task 10.4 Assistance with PBC Traffic/ROW/PZ&B permitting** – KHA will assist JLA who shall provide the COUNTY with exhibits and information needed to assist the COUNTY in acquiring PBC Traffic, ROW and/or PZ&B permits.

## **Task 10.0 – Deliverables**



- Five (5) sets of signed and sealed full size drawings (24" by 36") and one (1) set of half size drawing for each WTP.

**Task 10.0 – Assumptions**

- All permit application fees shall be paid for by the COUNTY.

**TASK 11.0 – BID PACKAGE 2: WTP 2 & 8: BIDDING ASSISTANCE**

**Task 11.1 Bidding Assistance** – KHA will prepare conformed bid set documents for WTP 2 & 8 and shall assist JLA and the COUNTY with the bidding and award of the construction contract for the project. KHA shall provide written responses for up to three (3) contractor requests for information (RFIs). KHA shall review submitted contractor bids and prepare a written award recommendation to the COUNTY.

**Task 11.0 – Deliverables**

- Conformed Design Specifications; WTP 2 and WTP 8 Project Drawings Seven (7) sets of Project Specifications; six (6) sets of full size drawings (24" by 36") and one (1) set of half size drawing for WTP 2; six (6) sets of full size drawings (24" by 36") and one (1) set of half size drawing for WTP 8.
- Review and provide responses for up to two (2) Requests for Information requests from Bidders.
- Bid Award Recommendation letter
- Estimated Number of Drawings – Bid Package 2:

Cover Sheet	1
General Notes and Legend	1
WTP 2 Exist. Location Map & Scope	1
WTP 8 Exist. Location Map & Scope	1
WTP 2 Staging and Discharge Locations Map	1
WTP 8 Staging and Discharge Locations Map	1
WTP 2 Proposed Well Locations Map	1
WTP 8 Proposed Well Locations Map	1
Site Plan	8
Demolition (Mechanical)	8
Improvements (Mechanical)	8
Mechanical Details	4
Construction Details	2
<u>Well Construction Related Drawings</u>	<u>4</u>

**Task 11.0 – Assumptions**

- o Electronic files exchanged between the COUNTY, JLA, and KHA will be in a format compatible with MS Office 2007, Adobe Acrobat, and AutoCAD.

**PHASE 2 – YEAR 3****TASK 12.0 – WTP 2 & 8: CONSTRUCTION PHASE SERVICES - ADMINISTRATIVE**

KHA Consultant will attend up to one (1) preconstruction meeting with PBCWUD and the selected Contractor. Consultant will attend monthly progress meetings, up to twelve (12) meetings with PBCWUD and the Contractor during the anticipated construction process. Consultant will provide bullet meeting minute items to be formalized by JLA.

Consultant will review and approve or take other appropriate action in respect to Shop Drawings and Samples and other data which the Contractor is required to submit, but only for conformance with the information given in the Contract Documents. Such review and approvals or other action will not extend to means, methods, techniques, equipment choice and usage, sequences, schedules, or procedures of construction or to related safety precautions and programs.

Consultant may recommend Change Orders to PBCWUD, and will review and make recommendations related to Change Orders submitted or proposed by the Contractor.

Consultant shall receive and review test data provided by the Contractor associated with the Palm Beach County Health Department clearance process as well as approvals required in the Contract Documents. Consultant's review of such data will be for the purpose of determining that the results certified indicate compliance with the Contract Documents and will not constitute an independent evaluation that the content or procedures of such inspections, tests, or approvals comply with the requirements of the Contract Documents. All testing shall be coordinated and provided under a separate contract between the City or the Contractor and an appropriate testing firm(s) of their choice. Consultant shall be entitled to rely on the results of such tests and the facts being certified.

Promptly after notice from the Contractor that the Contractor considers the entire Project ready for its intended use, in company with PBCWUD and the Contractor, the Consultant shall conduct a site visit to determine if the Work is substantially complete. Work will be considered substantially complete following satisfactory completion of all items with the exception of those identified on a final punch list. If after considering any objections of PBCWUD, the Consultant considers the Work substantially complete, the Consultant shall notify PBCWUD and the Contractor.

Consultant shall conduct a final site visit to determine if the completed Work of the Contractor is generally in accordance with the Contract Documents and the final punch list so that the Consultant may recommend, in writing, final payment to the Contractor. Accompanying the recommendation for final payment, the Consultant shall also provide a notice that the Work is generally in accordance with the Contract Documents to the best of the Consultant's knowledge, information, and belief and based on the extent of the services provided by the Consultant under this Work Authorization and based upon information provided to the Consultant upon which it is entitled to rely.

Consultant shall not be responsible for the acts or omissions of any Contractor, or of any of their subcontractors, suppliers, or of any other individual or entity performing or furnishing the Work.

Consultant will prepare project record drawings using information provided by the Contractor. An electronic copy in AutoCAD format and PDF format, and two sets of prints will be delivered to PBCWUD upon completion of the project.

## **TASK 13.0 – WTP 3 & 9: CONSTRUCTION PHASE SERVICES – ONSITE OBSERVATIONS**

Consultant will review provide field assistance during well start up, pump test results and provide recommendations for permanent pump setting depth and recommended in service pumping rate for thirteen (13) wells at WTP 3 and 9 receiving new pumps and motors.

Consultant will make onsite visits for each of the existing wells at PBCWUD WTP 3 and 9 to receive mechanical improvements under WUD 16-017 to observe the performance of the Contractor. This scope of services anticipates the Consultant visit the site up to two (2) hours per week for a 52 week construction duration.

Visits and observations by the Consultant are not intended to be exhaustive or to extend to every aspect of the Contractor's work in progress. Observations are to be limited to spot checking, selective measurement, and similar methods of general observation of the Work based on the Consultant's exercise of professional judgment. Based on information obtained during such visits and such observations, the Consultant will determine if the Contractor's work is generally proceeding in accordance with the Contract Documents, and the Consultant shall keep the PBCWUD and JLA informed of the general progress of the Work.

The purpose of the Consultant's visits to the site will be to enable the Consultant to better carry out the duties and responsibilities assigned in this Agreement to the Consultant during the construction phase by PBCWUD and JLA, and, in addition, by the exercise of the Consultant's efforts, to provide PBCWUD a greater degree of confidence that the completed Work will conform in general to the Contract Documents and that the integrity of the design concept of the completed Project as a functioning whole as indicated in the Contract Documents has been implemented and preserved by the Contractor. The Consultant shall not, during such visits or as a result of such observations of the Contractor's work in progress,

supervise, direct, or have control over the Contractor's work, nor shall the Consultant have authority over or responsibility for the means, methods, techniques, equipment choice and usage, sequences, schedules, or procedures of construction selected by the Contractor, for safety precautions and programs incident to the Contractor's work, nor for any failure of the Contractor to comply with laws and regulations applicable to the Contractor's furnishing and performing the Work. Accordingly, the Consultant neither guarantees the performance of any Contractor nor assumes responsibility for any Contractor's failure to furnish and perform its work in accordance with the Contract Documents.

Consultant shall recommend to PBCWUD that the Contractor's work be disapproved and rejected while it is in progress if, on the basis of such observations, the Consultant believes that such work will not produce a completed Project that conforms generally to the Contract Documents or that it will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated in the Contract Documents. The Consultant shall not have the authority or responsibility to stop the work of any Contractor.

Consultant will respond to reasonable and appropriate Contractor requests for information and issue necessary clarifications and interpretations of the Contract Documents to the City as appropriate to the orderly completion of the Contractor's work. Any orders authorizing variations from the Contract Documents will be made by City.

## PROJECT SCHEDULE

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

TASK 1.0 PROJECT MEETINGS AND ADMINISTRATIVE ASSISTANCE	104 weeks from NTP
TASK 2.0 PRELIMINARY FIELD INVESTIGATIONS AND REVIEW OF HISTORICAL DATA	26 weeks from NTP
TASK 3.0, 4.0, 5.0 BID PACKAGE 1 DESIGN PHASE, PERMITTING, AND BIDDING SERVICES	52 weeks from NTP
TASK 6.0, 7.0, 8.0 BID PACKAGE 1 <b>CONSTRUCTION PHASE SERVICES</b>	52 - 104 weeks from NTP
TASK 9.0, 10.0, 11.0 BID PACKAGE 2 DESIGN PHASE, PERMITTING, AND BIDDING SERVICES	78 weeks from NTP

TASK 12.0, 13.0, 14.0  
BID PACKAGE 2  
**CONSTRUCTION PHASE SERVICE**

104-130 weeks from NTP

## ITEMS PROVIDED BY OTHERS & NOT INCLUDED

1. Copies of certified pump curves for each well pump
2. Record drawings of wells and wellheads.
3. Raw watermain hydraulic model results
4. Wellsite surveys
5. Geotechnical information
6. Permit fees
7. Wellfield condition assessment.

### **Compensation**

The services included in this proposal are intended to be lump sum for each of the following tasks with a total value of \$737,533.27. Attached is the fee schedule by phases and tasks.

KHA will provide these services in accordance with the Contract, Project WUD 16-017, TR07 made executed by and between Palm Beach County, a Political Subdivision of the State of Florida, by and through its Board of Commissioners, hereinafter referred to as the COUNTY, and JLA Geosciences, Inc., authorized to do business in the State of Florida, hereinafter referred to as the CONSULTANT, whose Federal I.D. is 45-0496499, with the exception of Article 32 – Standard of Care with the replacement of “*superior level of skill*”, with “*skill that is commensurate with engineering firms of national repute in the areas of practice required for this contract*”.

Please call if you have any questions.

Sincerely,



Mark D. Miller, P.E.  
Vice President



Gary Ratay, P.E.  
Senior Associate

Attachment: **FEE SCHEDULE**

**FEE SCHEDULE**

Project Total - YEAR 1 (Tasks 1 through 5) WTP 3 AND 9 WELLS - 7 new wells, 6 Rehab	J/A Task	Senior		Project		Analyst/ Intern		Snr Support Staff	Total	
		Principal	Pr. Mgr	Engineer	Designer	Engineer	Staff		Labor	EXPENSES
<b>1. Survey and Easement:</b>										
a) Additional investigation work to finalize well scope of work		0	12	0	12	0	4		\$4,426.31	
b) Survey (by others, review & coord)	2.1,2.2	0	8	0	10	16	4		\$4,980.52	
c) Geotechnical and subsurface utility location required ("")	2.5	0	8	0	10	16	4		\$4,980.52	
d) Easements										
i. Title searches										
ii. Legal sketch preparation										
iii. Meetings with property owners										
iv. Easement tracking										
e) Well siting	2.3	4	6	6	6	6	6		\$5,056.07	
										\$19,443.41
<b>2. Design:</b>										
a) Design and drawing/technical specification preparation										
ii. 60%	3.2									
Design		6	20	20	0	40	0		\$13,224.22	
New wells (12 hrs/sht) #REF!		0	10	24	144	20	16		\$26,998.96	
Rehab wells (8 hrs/sht) 5		0	10	30	48		12		\$13,795.09	
specifications		6	6	12	0	12	20		\$7,489.54	
Coord w/ subs	1.2,2.7,3.5	0	4	4	4	4	4		\$2,743.20	
Submittals		0	6	0	10	12	12		\$4,756.64	\$1,000
iii. 90%	3.3									
Design		6	10	10	0	20	0		\$7,318.07	
New wells (6 hrs/sht) #REF!		0	10	30	120	12	16		\$24,178.18	
Rehab wells (6 hrs/sht) #REF!		6	10	28	54		12		\$15,622.83	
specifications		0	6	8	0	0	8		\$3,228.34	
Coord w/ subs	1.2,2.7,3.5	0	4	4	4	4	4		\$2,743.20	
Submittals		0	6	0	10	12	12		\$4,756.64	\$1,000
iv. 100%	3.4									
Design		6	20	30	0	30	0		\$13,731.24	
New wells (4 hrs/sht) #REF!		6	8	20	88	50	16		\$23,634.01	
Rehab wells (4 hrs/sht) #REF!		0	8	16	40	19	16		\$12,483.41	
specifications		6	4	0	0	0	24		\$4,200.14	
Coord w/ subs	1.2,2.7,3.5	6	8	10	12	4	4		\$6,967.76	
Submittals		0	6	0	10	12	12		\$4,756.64	\$1,000
b) Compilation (conforming) of final documents for bidding	5.1-5.2	0	10	16	40	0	18		\$11,067.67	\$2,000
c) Provide a drawing index or list of drawings in the scope write-up		0	4	4	4	0	4		\$2,323.44	\$0
d) Cost estimating at each stage of design per recognized estimating guidelines	3.1,3.2,3.3	0	12	16	24	0	10		\$8,914.94	\$219,934.16
e) Asset management data collection planning										
f) Permit support										
i. Preparation of permit applications	4.1	2	8	10	18	12	10		\$8,076.82	
ii. Attendance at meetings with regulatory agencies as needed to secure permits 2 mtgs	1.1	0	8	0	10	0	4		\$3,301.48	
iii. Permit tracking, coord with subs/owner		4	8	8	8	0	10		\$5,747.15	
iv. Respond to RAI		0	8	10	16	0	12		\$6,261.29	
		0	0	0	0	0	0		\$0.00	\$23,386.74
<b>3. Bid Phase Support:</b>										
a) Attendance at pre-bid meetings 2 mtgs	1.1,5.0	0	8	0	10	0	4		\$3,301.48	
b) Preparation of draft responses to RFIs	5.1	0	8	8	16	0	16		\$6,261.29	
c) Preparation of draft addenda as needed	5.1	0	4	8	16	0	16		\$5,381.07	
d) Review and analysis of bids along with a written recommendation for contract award(s)	5.1	4	6	0	6	0	6		\$3,472.43	
		0	0	0	0	0	0		\$0.00	\$18,416.27
<b>4. Community Outreach Support:</b>										
a) Attendance at public meetings/meeting with property owners	4.4								\$0.00	
b) Preparation of materials for meetings or outreach activities as needed									\$0.00	
									\$0.00	\$0.00
<b>5. Project Management:</b>										
a) Meeting attendance - in addition to meetings/workshops mentioned above, plan on attending:		0	0	0	0	0	0		\$0.00	
i. Project kick-off meetings 2 mtgs	1.1	2	6	0	8	0	4		\$3,087.40	
ii. Design review meetings		0	0	0	0	0	0		\$0.00	
60% 2 mtgs	1.1	2	6	0	8	0	4		\$3,087.40	
90% 3 mtgs	1.1	2	6	0	8	0	4		\$3,087.40	\$9,262.20
b) Planning, coordination and conducting one or more workshops with O&M to finalize the list of wells to be rehabbed. 4 mtgs		8	16	0	20	0	8		\$8,485.51	\$8,485.51
c) Schedule preparation and maintenance (monthly updates) throughout the life of the project		0	0	0	0	0	0		\$0.00	
d) Prepare and submit a monthly activity report throughout the life of the project		0	0	0	0	0	0		\$0.00	
<b>BY OTHERS</b>										
<b>HOURLY</b>										
Labor Subtotal Hours		76	308	332	794	302	336		2148	\$5,000
ANNUAL ESCALATOR		0%	0%	0%	0%	0%	0%			
Labor Raw Costs		\$74.00	\$69.20	\$50.00	\$38.46	\$33.00	\$25.00			
Labor Multiplier/Rate	3.00	\$222.00	\$207.60	\$150.00	\$115.38	\$99.00	\$75.00			
Labor SubTotal		\$16,872	\$63,941	\$49,800	\$91,612	\$29,866	\$25,200		\$277,290.84	
Raw - Current		\$74.00	\$69.20	\$50.00	\$38.46	\$33.00	\$25.00		\$293,928	\$298,928

FEE SCHEDULE

Project Total - YEAR 2 (Tasks 1, 6 through 11) WTP 2 AND 8 WELLS (8 TOTAL)	JLA Task	Senior		Project		Analyst/ Intern		Snr Support Staff	Total		
		Principal	Pr. Mgr	Engineer	Designer	Engineer	Staff		Labor	EXPENSES	
<b>1. Survey and Easement:</b>											
a) Additional investigation work to finalize well scope of work										\$0.00	
b) Survey (by others, review & coord)										\$0.00	
c) Geotechnical and subsurface utility location required ("										\$0.00	
d) Easements											
i. Title searches											
ii. Legal sketch preparation											
iii. Meetings with property owners											
iv. Easement tracking											
e) Wellsiting										\$0.00	
<b>2. Design:</b>											
a) Design and drawing/technical specification preparation											
ii. 60%	9.1										
Design		6	20	20	0	40	0			\$13,224.22	\$0
New wells (12 hrs/sht)	0			20	96		16			\$16,193.07	\$0
Rehab wells (8 hrs/sht)	5			25	40		12			\$9,752.74	\$0
specifications		6		8			8			\$3,228.34	\$0
Coord w/ subs	9.4	4	4	4	4	4	4			\$2,743.20	\$0
Submittals		6			10	12	12			\$4,756.64	\$1,000
iii. 90%	9.2										
Design		6	10	10		20	0			\$7,318.07	\$0
New wells (6 hrs/sht)	0	0	0	20	96	20	16			\$18,291.87	\$0
Rehab wells (6 hrs/sht)	0	6	12	21	42	20	12			\$15,590.65	\$0
specifications		6	6	16		12	20			\$8,125.54	\$0
Coord w/ subs	9.4	0	4	4	4	4	4			\$2,743.20	\$0
Submittals		0	6	0	10	12	12			\$4,756.64	\$1,000
iv. 100%	9.3										
Design										\$0.00	\$0
New wells (4 hrs/sht)	0	6	30	45	72	45	16			\$29,915.91	\$0
Rehab wells (4 hrs/sht)	0	8	10	32	10	12	12			\$9,267.54	\$0
specifications		4					24			\$2,788.22	\$0
Coord w/ subs	9.4	6	8	10		4	4			\$5,500.13	\$0
Submittals		6			10	12	12			\$4,756.64	\$1,000
b) Completion (conforming) of final documents for bidding	11.1-11.2		10	10	24		18			\$8,156.83	\$2,000
c) Provide a drawing index or list of drawings in the scope write-up			4	4	4		4			\$2,323.44	\$0
d) Cost estimating at each stage of design per recognized estimating guidelines	9.1,9.2,9.3	0	10	8	16	0	10			\$6,224.40	\$0
e) Asset management data collection planning											
f) Permit support											
i. Preparation of permit applications	10.1	2	8	10	18	12	10			\$8,076.82	\$0
ii. Attendance at meetings with regulatory	2 mtgs		8		10		4			\$3,301.48	\$0
iii. Permit tracking, coord with subs/owner	1.1	4	8	8	8		10			\$5,747.15	\$0
iv. Respond to RAI			8	10	16		12			\$6,261.29	\$0
<b>3. Bid Phase Support:</b>											
a) Attendance at pre-bid meetings	2 mtgs									\$0.00	\$0
b) Preparation of draft responses to RFIs	1.1, 5.0		8		10		4			\$3,301.48	\$0
c) Preparation of draft addenda as needed	10.1		4	8	16		16			\$5,381.07	\$0
d) Review and analysis of bids along with a written recommendation for	10.1	4	6		6		6			\$3,472.43	\$0
<b>4. Community Outreach Support:</b>											
a) Attendance at public meetings/meeting with property owners										\$0.00	\$0
b) Preparation of materials for meetings or outreach activities as needed										\$0.00	\$0
<b>5. Project Management:</b>											
a) Meeting attendance – in addition to meetings/workshops mentioned above, plan on attending:										\$0.00	\$0
i. Project kick-off meetings	2 mtgs	1.1	2	6		8	4			\$3,087.40	\$0
ii. Design review meetings										\$0.00	\$0
60%	2 mtgs	1.1	2	6		8	4			\$3,087.40	\$0
90%	3 mtgs	1.1	2	6		8	4			\$3,087.40	\$0
b) Planning, coordination and conducting one or more	4 mtgs		8	16		20	8			\$8,485.51	\$0
c) Schedule preparation and maintenance (monthly updates) throughout the life of the project										\$0.00	\$0
d) Prepare and submit a monthly activity report throughout the life of the project										\$0.00	\$0
<b>BY OTHERS</b>											
<b>HOURLY</b>											
Labor Subtotal Hours		60	242	278.43	604	227	314		1726	\$5,000	\$239,327.78
<b>ANNUAL ESCALATOR</b>											
Labor Raw Costs		\$74.00	\$69.20	\$50.00	\$38.46	\$33.00	\$25.00				
Labor Multiplier/Rate	3.00	\$222.00	\$207.60	\$150.00	\$115.38	\$99.00	\$75.00		\$144.83		
Labor SubTotal		\$13,320	\$50,239	\$41,765	\$69,690	\$22,501	\$23,550		\$221,063.94		
Raw - YEAR 1		\$74.00	\$69.20	\$50.00	\$38.46	\$33.00	\$25.00		\$234,328	\$239,328	

PBCWUD 16-017 CSA #1 - PHASE I Construction Phase - YEAR 2 RATES

ATTACHMENT - B										
BUDGET SUMMARY										
WTP 3 & 9										
Labor Classification and Hourly Rate										
Task	Number	Task Description	Principal	Senior	Project	Analyst	Snr Support Staff	Total	Sub	
			Pr. Engineer	Engineer	Designer	Intern Engineer	Labor		Consultant	
<b>6.0 Construction Phase Services</b>										
		Project Management	24					24	\$7,128	
		Preconstruction meeting (1 estimated), including meeting minutes, agenda.		4			6	4	\$1,724	
		Prepare and attend monthly progress meetings (12 estimated)	24		38		24	24	\$14,904	
		Contractor submittal review (12 estimated)		16	26		20	20	\$10,702	
		Answer contractor questions		14	24		18	18	\$9,834	
		Payment Application Review (12 estimated)			24		12	12	\$5,688	
		HD Certification of completion		10	24			6	\$6,276	
		Record Drawings		6	30	10		4	\$7,189	
		Provide field construction oversight during rehabilitation, abandonments, mechanical, and electrical improvements for 13 wells (52 weeks)		30	60		124	24	\$29,304	
		<b>Subtotal Task 1</b>	<b>48</b>	<b>80</b>	<b>224</b>	<b>10</b>	<b>204</b>	<b>136</b>	<b>\$92,664</b>	<b>\$0</b>
		Labor Subtotal Hours	48	80	224	10	204	136		704
		ANNUAL ESCALATOR	0%	0%	0%	0%	0%	0%		
		Labor Raw Costs	\$74.00	\$69.20	\$50.00	\$38.46	\$33.00	\$25.00		
		Labor Multiplier	3.0	3.0	3.0	3.0	3.0	3.0		
		Labor SubTotal	222.00	207.60	150.00	115.38	99.00	75.00		
		Labor Total	\$10,656.00	\$16,608.00	\$33,600.00	\$1,153.80	\$20,196.00	\$10,350.00	\$2,584	
		Raw - YEAR 1	\$74.00	\$69.20	\$50.00	\$38.46	\$33.00	\$25.00	\$2,584	
		Subconsultant Labor Total	\$							\$0
		Subconsultant Multiplier								1
		Subcontract Total	\$							\$0
										\$4,500
		Project Total							\$97,063.80	

PBCWUD 16-017 CSA #2 - PHASE II Construction Phase - YEAR 3 RATES

ATTACHMENT - B										
BUDGET SUMMARY										
Labor Classification and Hourly Rate										
Task	Number	Task Description	Principal	Senior	Project	Analyst	Snr Support Staff	Total	Sub	
			Pr. Engineer	Engineer	Designer	Intern Engineer	Labor		Consultant	
<b>12.0 Construction Phase Services</b>										
		Project Management	24					24	\$7,128	
		Preconstruction meeting (1 estimated), including meeting minutes, agenda.		4			6	4	\$1,724	
		Prepare and attend monthly progress meetings (15 estimated)	48		24		96	24	\$26,942	
		Contractor submittal review (12 estimated)		16	26		20	20	\$10,702	
		Answer contractor questions			12	20	18	18	\$8,275	
		Payment Application Review (12 estimated)			24		12	12	\$5,688	
		HD Certification of completion		10	24			6	\$6,276	
		Record Drawings		6	30	10		4	\$7,189	
		Provide field construction oversight during rehabilitation, abandonments, mechanical, and electrical improvements for 8 wells (48 weeks)		24	50		104	20	\$24,278	
		<b>Subtotal Task 1</b>	<b>72</b>	<b>86</b>	<b>174</b>	<b>10</b>	<b>254</b>	<b>132</b>	<b>\$98,213</b>	<b>\$0</b>
		Labor Subtotal Hours	72	86	174	10	254	132		736
		ANNUAL ESCALATOR	0%	0%	0%	0%	0%	0%		
		Labor Raw Costs	\$74.00	\$69.20	\$50.00	\$38.46	\$33.00	\$25.00		
		Labor Multiplier	3.0	3.0	3.0	3.0	3.0	3.0		
		Labor SubTotal	222.00	207.60	150.00	115.38	99.00	75.00		
		Labor Total	\$15,984.00	\$19,929.60	\$26,100.00	\$1,153.80	\$25,146.00	\$9,900.00	\$6,213	
		Raw - YEAR 2	\$74.00	\$69.20	\$50.00	\$38.46	\$33.00	\$25.00	\$6,213	
		Subconsultant Labor Total	\$							\$0
		Subconsultant Multiplier								1
		Subcontract Total	\$							\$0
										\$4,000
		Project Total							\$97,063.80	\$102,213.40





HILLERS ELECTRICAL ENGINEERING, INC.

September 19, 2016

Jim Andersen, P.G.  
JLA Geosciences, Inc.  
1907 Commerce Lane, Suite 104  
Jupiter, FL 33458

Subject: PBCWU WTP 2, 3, 8 & 9 Wellfield Rehabilitation

Dear Jim:

Hillers Electrical Engineering, Inc. (HEE) is pleased to provide JLA Geosciences, Inc. (JLA) a proposal and accompanying spreadsheet for the electrical and instrumentation design and construction phase services associated with the above referenced project. The scope of services is as follows:

- Project meetings and administration assistance (LS)
- Preliminary field investigation and review of historical data (T&M)
- Phase 1: WTP 3 & 9 design phase services (LS)
- Phase 1: WTP 3 & 9 permitting assistance (LS)
- Phase 1: WTP 3 & 9 bidding assistance (LS)
- Phase 1: WTP 3 & 9 construction administration services (LS)
- Phase 1: WTP 3 & 9 construction phase services (T&M)
- Phase 1: WTP 3 & 9 well construction and testing report (LS)
- Phase 2: WTP 2 & 8 design phase services (LS)
- Phase 2: WTP 2 & 8 permitting assistance (LS)
- Phase 2: WTP 2 & 8 bidding assistance (LS)
- Phase 2: WTP 3 & 9 construction administration services (LS)
- Phase 2: WTP 3 & 9 construction phase services (T&M)
- Phase 2: WTP 3 & 9 well construction and testing report (LS)
- Design the Variable Frequency Drive (VFD) panels with input line reactors, output filters and air condition units. (LS)

The wells identified are as follows:

- WTP 2: 2W-1
- WTP 3: 3W-1,10,13,14
- WTP 8: 8W-5,7,8,10,11,12,15
- WTP 9: 9W-1R,2,4,5,9,11,13,14,15

Our estimated total sheets for the electrical and instrumentation design is 117 and the following is a breakdown:

- E-1, electrical legend
- E-2, electrical notes
- E-3, WTP2 Site Plan
- E-4, well 2W-1 plan
- E-5, well 2W-1 one line diagram
- E-6, well 2W-1 schematic diagram
- E-7, well 2W-1 riser diagram
- E-8, well 2W-1 P&ID
- E-9, WTP3 Site Plan
- E-10, well 3W-1 plan
- E-11, well 3W-1 one line diagram
- E-12, well 3W-1 schematic diagram
- E-13, well 3W-1 riser diagram
- E-14, well 3W-1 P&ID
- E-15, well 3W-10 plan
- E-16, well 3W-10 one line diagram
- E-17, well 3W-10 schematic diagram
- E-18, well 3W-10 riser diagram
- E-19, well 3W-10 P&ID
- E-20, well 3W-13 plan
- E-21, well 3W-13 one line diagram
- E-22, well 3W-13 schematic diagram
- E-23, well 3W-13 riser diagram
- E-24, well 3W-13 P&ID
- E-25, well 3W-14 plan
- E-26, well 3W-14 one line diagram
- E-27, well 3W-14 schematic diagram
- E-28, well 3W-14 riser diagram
- E-29, well 3W-14 P&ID
- E-30, WTP8 Site Plan
- E-31, well 8W-5 plan
- E-32, well 8W-5 one line diagram
- E-33, well 8W-5 schematic diagram
- E-34, well 8W-5 riser diagram
- E-35, well 8W-5 P&ID
- E-36, well 8W-7 plan
- E-37, well 8W-7 one line diagram
- E-38, well 8W-7 schematic diagram
- E-39, well 8W-7 riser diagram
- E-40, well 8W-7 P&ID
- E-41, well 8W-8 plan
- E-42, well 8W-8 one line diagram
- E-43, well 8W-8 schematic diagram
- E-44, well 8W-8 riser diagram
- E-45, well 8W-8 P&ID
- E-46, well 8W-10 plan

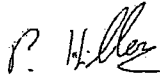
E-47, well 8W-10 one line diagram  
E-48, well 8W-10 schematic diagram  
E-49, well 8W-10 riser diagram  
E-50, well 8W-10 P&ID  
E-51, well 8W-11 plan  
E-52, well 8W-11 one line diagram  
E-53, well 8W-11 schematic diagram  
E-54, well 8W-11 riser diagram  
E-55, well 8W-11 P&ID  
E-56, well 8W-12 plan  
E-57, well 8W-12 one line diagram  
E-58, well 8W-12 schematic diagram  
E-59, well 8W-12 riser diagram  
E-60, well 8W-12 P&ID  
E-61, well 8W-15 plan  
E-62, well 8W-15 one line diagram  
E-63, well 8W-15 schematic diagram  
E-64, well 8W-15 riser diagram  
E-65, well 8W-15 P&ID  
E-66, WTP9 Site Plan  
E-67, well 9W-1R plan  
E-68, well 9W-1R one line diagram  
E-69, well 9W-1R schematic diagram  
E-70, well 9W-1R riser diagram  
E-71, well 9W-1R P&ID  
E-72, well 9W-2 plan  
E-73, well 9W-2 one line diagram  
E-74, well 9W-2 schematic diagram  
E-75, well 9W-2 riser diagram  
E-76, well 9W-2 P&ID  
E-77, well 9W-4 plan  
E-78, well 9W-4 one line diagram  
E-79, well 9W-4 schematic diagram  
E-80, well 9W-4 riser diagram  
E-81, well 9W-4 P&ID  
E-82, well 9W-5 plan  
E-83, well 9W-5 one line diagram  
E-84, well 9W-5 schematic diagram  
E-85, well 9W-5 riser diagram  
E-86, well 9W-5 P&ID  
E-87, well 9W-9 plan  
E-88, well 9W-9 one line diagram  
E-89, well 9W-9 schematic diagram  
E-90, well 9W-9 riser diagram  
E-91, well 9W-9 P&ID  
E-92, well 9W-11 plan  
E-93, well 9W-11 one line diagram  
E-94, well 9W-11 schematic diagram  
E-95, well 9W-11 riser diagram

E-96, well 9W-11 P&ID  
E-97, well 9W-13 plan  
E-98, well 9W-13 one line diagram  
E-99, well 9W-13 schematic diagram  
E-100, well 9W-13 riser diagram  
E-101, well 9W-13 P&ID  
E-102, well 9W-14 plan  
E-103, well 9W-14 one line diagram  
E-104, well 9W-14 schematic diagram  
E-105, well 9W-14 riser diagram  
E-106, well 9W-14 P&ID  
E-107, well 9W-15 plan  
E-108, well 9W-15 one line diagram  
E-109, well 9W-15 schematic diagram  
E-110, well 9W-15 riser diagram  
E-111, well 9W-15 P&ID  
E-112, electrical details sheet 1  
E-113, electrical details sheet 2  
E-114, electrical details sheet 3  
E-115, electrical details sheet 4  
E-116, instrumentation details sheet 1  
E-117, instrumentation details sheet 2

Our proposed total electrical and instrumentation design, construction services and PLC programming fee is \$ 635,527.06, see attached breakdown.

If you have any questions, please do not hesitate to call me.

Sincerely,



Paul Hillers

EXHIBIT C

HILLERS ELECTRICAL ENGINEERING BUDGET SUMMARY

Task Number	Task Description	Labor Classification and Hourly Rate										TASK TOTAL
		Project Manager	Project Engineer	Engineer	Design	Construction	Other	Total Labor	Material	ODC	Sub-consultant	
<b>PHASE 1</b>												
1.0	Project Meetings and Administrative Assistance (L3)											
1.1	Prepare for and attend up to 18 project meetings with PBC/WUD staff	11	44									
1.2	Sub-consultant coordination and communication	11	44	0	0	0	0	0	0	0	0	0
	Subtotal Task 1	22	88	0	0	0	0	0	0	0	0	0
2.0	Preliminary Field Investigations and Review of Historical Data (T&M)											
2.1	Perform up to 21 topographic site surveys											
2.2	Perform up to 20 ground penetrating radar (GPR) services											
2.3	Provide assistance in Well Boring for up to 14 rebarbed wells											
2.4	Review of Historical Data											
2.5	Construction Investigations - Perform up to 14 subsurface geotechnical borings including geophysical logging and abandonment											
2.6	Soil/Water Investigation											
2.7	Technical Memorandum summarizing preliminary field investigation results	40	80									
2.8	Sub-consultant coordination and communication	40	80	0	0	0	0	0	0	0	0	0
	Subtotal Task 2	80	160	0	0	0	0	0	0	0	0	0
3.0	Phase 1: WTP 3 & 9 Design Phase Services (L3)											
3.1	30% Design Technical Specifications; Option of Probable Cause; Project Drawings											
3.2	60% Design Technical Specifications; Option of Probable Cause; Project Drawings											
3.3	100% Design Technical Specifications; Project Drawings											
3.4	Sub-consultant coordination and communication	120	365	235		24						
	Subtotal Task 3	120	365	235	0	24	0	0	0	0	0	0
4.0	Phase 1: WTP 3 & 9 Permitting Assistance (L3)											
4.1	PBCHD Permitting Assistance											
4.2	Lake Worth Drainage District Permit Assistance											
4.3	South Florida Water Management District Permit Assistance											
4.4	Assistance with PBC T&E/ROW/PE&B permitting	12	12									
4.5	Sub-consultant coordination and communication	12	12	0	0	0	0	0	0	0	0	0
	Subtotal Task 4	24	24	0	0	0	0	0	0	0	0	0
5.0	Phase 1: WTP 3 & 9 Bidding Assistance (L3)											
5.1	Prepare completed bid set documents; prepare up to 3 RFI responses; review BIC; prepare bid recommendations	12	40	8		4						
5.2	Sub-consultant coordination and communication	12	40	8	0	4	0	0	0	0	0	0
	Subtotal Task 5	24	80	16	0	8	0	0	0	0	0	0
6.0	Phase 1: WTP 3 & 9 Construction Administration Services (L3)											
6.1	Project Management	32										
6.2	Procurement meeting (1 estimated), including meeting minutes, agenda		4									
6.3	Prepare and attend monthly progress meetings (24 estimated)		32									
6.4	Contractor submittal review (16 estimated)		160									
6.5	Payment Application Review (24 estimated)		4									
6.6	Record Drawings		34									
6.7	Daily Work Report, Project Summary updates	20	0									
6.8	PLC Programming (P&E)	20	0									
	Subtotal Task 6	52	84	0	0	0	0	0	0	0	0	0
7.0	Phase 1: WTP 3 & 9 Construction Phase Services (T&M)											
7.1	Provide field construction oversight during installation, abandonment, mechanical, and electrical improvements for 13 wells	82	234		208							
7.2	Review geophysical log; prepare screen and gravel recommendations; review vibration data analyzer; formation water discharge plan review											
	Subtotal Task 7	82	234	0	208	0	0	0	0	0	0	0
8.0	Phase 1: WTP 3 & 9 Well Construction and Testing Report (L3)											
8.1	Prepare Summary Report, including Lithology Log Prep, Data, data analysis, figures, summaries and recommendations	0	0	0	0	0	0	0	0	0	0	0
	Subtotal Task 8	0	0	0	0	0	0	0	0	0	0	0
<b>PHASE 2</b>												
9.0	Phase 2: WTP 2 & 8 Design Phase Services (L3)											
9.1	30% Design Technical Specifications; Option of Probable Cause; Project Drawings											
9.2	60% Design Technical Specifications; Option of Probable Cause; Project Drawings											
9.3	100% Design Technical Specifications; Project Drawings											
9.4	Sub-consultant coordination and communication	70	370	130		15						
	Subtotal Task 9	70	370	130	0	15	0	0	0	0	0	0
10.0	Phase 2: WTP 2 & 8 Permitting Assistance (L3)											
10.1	PBCHD Permitting Assistance											
10.2	Lake Worth Drainage District Permit Assistance											
10.3	South Florida Water Management District Permit Assistance											
10.4	Assistance with PBC T&E/ROW/PE&B permitting	8	8									
10.5	Sub-consultant coordination and communication	8	8	0	0	0	0	0	0	0	0	0
	Subtotal Task 10	16	16	0	0	0	0	0	0	0	0	0
11.0	Phase 2: WTP 2 & 8 Bidding Assistance (L3)											
11.1	Prepare completed bid set documents; prepare up to 3 RFI responses; review BIC; prepare bid recommendations	8	30	0		3						
11.2	Sub-consultant coordination and communication	8	30	0	0	3	0	0	0	0	0	0
	Subtotal Task 11	16	60	0	0	6	0	0	0	0	0	0
12.0	Phase 2: WTP 2 & 8 Construction Administration Services (L3)											
12.1	Project Management	20										
12.2	Procurement meeting (1 estimated), including meeting minutes, agenda		4									
12.3	Prepare and attend monthly progress meetings (16 estimated)		24									
12.4	Contractor submittal review (10 estimated)		80									
12.5	Payment Application Review (16 estimated)		2									
12.6	Record Drawings		16									
12.7	Daily Work Report, Project Summary updates	18	0									
12.8	PLC Programming (P&E)	18	0									
	Subtotal Task 12	38	94	0	0	0	0	0	0	0	0	0
13.0	Phase 2: WTP 2 & 8 Construction Phase Services (T&M)											
13.1	Provide field construction oversight during installation, abandonment, mechanical, and electrical improvements for 8 wells	32	170		128							
13.2	Review geophysical log; prepare screen and gravel recommendations; review vibration data analyzer; formation water discharge plan review											
	Subtotal Task 13	32	170	0	128	0	0	0	0	0	0	0
14.0	Phase 2: WTP 2 & 8 Well Construction and Testing Report (L3)											
14.1	Prepare Summary Report, including Lithology Log Prep, Data, data analysis, figures, summaries and recommendations	0	0	0	0	0	0	0	0	0	0	0
	Subtotal Task 14	0	0	0	0	0	0	0	0	0	0	0
Labor Subtotal Hours		488	2911	379	338	48	0	0	0	0	0	0
Labor Hourly Billing Rates		\$ 212.38	\$ 154.89	\$ 114.80	\$ 114.80	\$ 83.14						
Labor Raw Costs		\$ 74,000	\$ 44,980	\$ 43,500	\$ 38,864	\$ 4,000						
Labor Multiplier		2.87	2.87	2.87	2.87	2.87						
Labor SubTotal		\$ 212,380	\$ 128,140	\$ 108,000	\$ 111,500	\$ 11,600						
Material												
Miscellaneous												
Subconsultant Total												
Project Total		\$ 212,380	\$ 128,140	\$ 108,000	\$ 111,500	\$ 11,600						\$ 581,620

September 19, 2016

JLA Geosciences, Inc.  
1907 Commerce Lane, Suite 104  
Jupiter, Florida 33458

Attention: Jim Andersen, PG

Subject: System-Wide Wellfield Improvements, Hydrogeologic, Engineering Design & Construction Services – Smart Wellfield Plan and Design

Thank you for the opportunity to develop this scope of work (SOW) and budget to support JLA Geosciences, Inc. (JLA) under the System-Wide Wellfield Improvements, Hydrogeologic, Engineering Design & Construction Services contract with Palm Beach County Water Utilities Department (PBCWUD). The SOW presented below comprises the effort to be undertaken by Black & Veatch, as Task 2.6, in JLA's SOW to PBCWUD for the development of a Smart Wellfield Plan and Design support.

### SCOPE OF WORK

The following Scope of Work (SOW) should be added to JLA's SOW to PBCWUD as part of Task 2.6, to be executed by Black & Veatch.

**Task 2.6 Smart Wellfield Plan and Design** – CONSULTANT shall develop a Smart Wellfield Plan for the identification and development of smart wellfield capabilities relevant to all wells at four PBCWUD wellfields that supply raw water to WTP 3, WTP 9, WTP 2 and WTP 8. The Smart Wellfield Plan will be developed in support of PBCWUD's Environment and Infrastructure Initiatives to become a Smart Utility. The development of the Plan will include the following activities:

Sub-task 1: Data Collection and Review – Preparation of a detailed data request to PBCWUD and submittal prior to the project kickoff meeting. The data request may include the following information: existing wellfields system infrastructure and equipment, historical wellfields operating data, well data for wells (e.g. well construction plans, water quality data, drawdown information, production rates, etc.), permits, commercial power costs/rates, current SCADA and Instrumentation & Controls systems, information on planned smart wellfield improvements, and conveyance system data for each wellfield such as raw-water transmission system models.

Sub-task 2: Project meetings – CONSULTANT shall prepare for up to five project meetings with PBCWUD staff, including a kickoff meeting, three planning meetings, and one final workshop meeting.

Sub-task 3: Evaluation of Smart Wellfield Studies – Evaluation of the smart wellfield studies completed for WTP 3, WTP 9, WTP 2 and WTP 8. The studies include recommendations for SCADA communications and operations, such as identification of instruments and operation equipment. The evaluation of these studies will be limited to the identification of gaps on the infrastructure recommendations identified for smart wellfield operations.

Sub-task 4: Data and Sensors (System) Evaluation – Evaluation of the data connectivity of the sensors identified at the wellfields for WTP 3, WTP 9, WTP 2 and WTP 8. CONSULTANT will evaluate the sensors and instrumentation as it relates to calculating real-time key performance indicators (KPIs) around energy consumption and well performance. CONSULTANT will specify and provide installation details for new sensors required. Per discussions with PBCWUD, it is expected that most sensors required have been identified. CONSULTANT effort for this task will be limited to the identification of gaps on the sensors identified for smart wellfield operations.

Sub-task 5: Energy Optimization and Smart Wellfield Operations Analyses – This task involves the identification of the wellfield operating rules that will allow for smart wellfield operations resulting in energy optimization and improved wellfield performance. Planning meetings (identified in Sub-task 2) will be conducted with PBCWUD staff to discuss the operating rules that best align with PBCWUD operational schemes and that will support smart wellfield operations.

Energy optimization analyses for each wellfield that will consider parameters, such as groundwater level and drawdown, time-of-use energy rates applicable at the WTPs for PBCWUD, storage available at the WTPs, demand projections, and best-efficiency point operation of the pumps for all the wells. Analyses will include performing a power cost rate structure evaluation for WTP 3, WTP 9, WTP 2, and WTP 8 to evaluate the relationship of time-of-day power use requirements versus the commercial power provider's rate structures. The evaluation will help identify optimized operating strategies to lower energy consumption.

Smart wellfield operations analyses will consider hydrogeologic and operating parameters that will allow for real-time information on aquifer performance. This information will be factored into well-operations decisions and optimization of wellfield operations.

Sub-task 6: Smart Wellfield Dashboard Concept – Concept evaluation for a Smart Wellfield dashboard to monitor operations and illustrate wellfield performance. Concepts will include operational information, KPIs, and format for displaying results in an easy to read dashboard. A Planning Meeting (identified in Sub-task 2) will be conducted with PBCWUD staff to gather input on dashboard preferences and develop a preferred dashboard template that will support PBCWUD smart wellfield operations.

Sub-task 7: Development of Opinion of Cost and Draft Smart Wellfield Plan – Development of an opinion of probable construction for the smart wellfield recommendations identified in the Smart Wellfield Plan.

Development of a draft Smart Wellfield Plan to be submitted in electronic format for PBCWUD to review and comment. Draft Smart Wellfield Plan will be submitted 24 weeks after the project commencement date.

Sub-task 8: Smart Wellfield Workshop – Presentation of a workshop to review the draft Smart Wellfield Plan and recommendations.

Sub-task 9: Final Smart Wellfield Plan – Incorporation of PBCWUD comments on the draft Smart Wellfield Plan and submittal of a final Smart Wellfield Plan. The final Smart Wellfield Plan will be submitted in electronic format (i.e. PDF) together with 3 hard copies. Final Smart Wellfield Plan will be submitted 2 weeks after receipt of comments from PBCWUD.

### PROJECT SCHEDULE

Based on this SOW, we estimate that project execution should not exceed 24 weeks or 6 months. We will work closely with JLA and PBCWUD to minimize project duration as much as practical.

### PROJECT COST

The level of effort for the described SOW is a lump sum amount of \$183,118.52 as detailed in the table below. Monthly invoices that will be submitted to JLA based on project progress.

Task	Cost
Sub-task 1: Data Collection and Review	\$12,892.13
Sub-task 2: Project Meetings	\$36,468.13
Sub-task 3: Evaluation of Smart Wellfield Studies	\$3,890.32
Sub-task 4: Data and Sensors (System) Evaluation	\$11,409.29
Sub-task 5: Energy Optimization and Smart Wellfield Operations Analyses	\$36,937.87
Sub-task 6: Smart Wellfield Dashboard Concept	\$19,713.92
Sub-task 7: Development of Opinion of Cost and Draft Smart Wellfield Plan	\$29,929.50
Sub-task 8: Smart Wellfield Workshop	\$20,945.17
Sub-task 9: Final Smart Wellfield Plan	\$10,932.19
<b>Total</b>	<b>\$183,118.52</b>



We look forward to the opportunity to assist JLA with this innovative and important project in support of wellfield improvements and Smart Utility initiative. Please, feel free to contact me with any questions at (954) 465-6872.

Very truly yours,

BLACK & VEATCH CORPORATION

A handwritten signature in black ink, appearing to read 'Rafael E. Frias III', written over a horizontal line.

Rafael E. Frias III, PE  
Client Director

RF

Palm Beach County Water Utilities Department, FL  
 System-Wide Wellfield Improvements, Hydrogeologic, Engineering Design & Construction Services  
 Smart Wellfield Plan and Design - Budget Summary



Task Description	Project Director	Sr. Technical Specialist	Technical Specialist	Senior Project Manager	Staff Engineer III	Sr. Engineering Technician	Senior Engineer	Senior Administrator	Expenses		Totals	
									All Other	Total	Hours	Cost
<b>Task 2.6 - Smart Wellfield Plan and Design</b>												
Sub-task 1 Data Collection and Review	12		40	16				4		\$0.00	72	\$12,892.13
Sub-task 2 Project Meetings	56	8	72						\$8,000.00	\$8,000.00	136	\$36,468.13
Sub-task 3 Evaluation of Smart Wellfield Studies			24							\$0.00	24	\$3,890.32
Sub-task 4 Data and Sensors (System) Evaluation	4		48			24				\$0.00	76	\$11,409.29
Sub-task 5 Energy Optimization and Smart Wellfield Operations Analyses	42	4	104	16	32		12			\$0.00	210	\$36,937.87
Sub-task 6 Smart Wellfield Dashboard Concept	34	4	60							\$0.00	98	\$19,713.92
Sub-task 7 Development of Opinion of Cost and Draft Smart Wellfield Plan	28	4	96	16	4		4	24		\$0.00	176	\$29,929.50
Sub-task 8 Smart Wellfield Workshop	28	16	28	4				4	\$4,000.00	\$4,000.00	80	\$20,945.17
Sub-task 9 Final Smart Wellfield Plan	12	4	24	8	4			12		\$0.00	64	\$10,932.19
<b>Subtotal</b>	<b>216</b>	<b>40</b>	<b>496</b>	<b>60</b>	<b>40</b>	<b>24</b>	<b>16</b>	<b>44</b>	<b>\$12,000.00</b>	<b>\$12,000.00</b>	<b>936</b>	<b>\$183,118.52</b>
<b>Totals</b>	<b>216</b>	<b>40</b>	<b>496</b>	<b>60</b>	<b>40</b>	<b>24</b>	<b>16</b>	<b>44</b>	<b>\$12,000.00</b>	<b>\$12,000.00</b>	<b>936</b>	<b>\$183,118.52</b>
Multiplier, per Contract	3.0											
Average Billing Rate	\$254.92	\$245.19	\$162.10	\$180.30	\$101.61	\$107.04	\$153.00	\$86.10				
<b>Project Total</b>	<b>\$57,223.20</b>	<b>\$9,807.60</b>	<b>\$80,399.96</b>	<b>\$10,818.00</b>	<b>\$4,064.40</b>	<b>\$2,568.96</b>	<b>\$2,448.00</b>	<b>\$3,788.40</b>	<b>\$12,000.00</b>	<b>\$12,000.00</b>	<b>936</b>	<b>\$183,118.52</b>



# DENNIS J. LEAVY & ASSOC.

LAND SURVEYORS • MAPPERS

August 12, 2016

via Email: [rsmith@ilageosciences.com](mailto:rsmith@ilageosciences.com)

JLAGeosciences, Inc.

Ms. Rani Smith

1907 Commerce Lane, Suite 104

Jupiter, FL 33458



**RE: PROFESSIONAL LAND SURVEYING SERVICES – PALM BEACH COUNTY WATER UTILITIES DEPARTMENT, SYSTEM-WIDE WELLFIELD IMPROVEMENT PROJECT, WUD No. 16-017 TR07, PALM BEACH COUNTY, FLORIDA. (DJLA #16-134-001)**

**WTP 2 WELLS: 2W-1**

**WTP 3 WELLS: 3W-1, 3W-10, 3W-13 AND 3W-14**

**WTP 8 WELLS: 8W-5, 8W-7, 8W-8, 8W-10, 8W-11, 8W-12 AND 8W-15**

**WTP 9 WELLS: 9W-1R, 9W-2, 9W-4, 9W-5, 9W-9, 9W-11, 9W-13, 9W-14 AND 9W-15**

**21 WELL SITES TOTAL**

Ms. Smith:

In response to your request for professional land surveying services, we are pleased to offer the following tasks and their respective fees.

**I. TOPOGRAPHIC SURVEY:**

- A. Obtain horizontal and vertical control utilizing Florida state plane 83/90 adjustment Horizontal Datum and NAVD 88 Vertical Datum.
- B. Prepare a Topographic Survey as defined in Rule 5J-17.050 (10)(k) of the Minimum Technical Standards adopted by the Board of Professional Surveyors and Mappers. In particular, the survey will depict the following information:
  - 1. Topography at major ground elevation changes to depict existing ground profile at proposed project area (100' radius from the existing wellhead at each site). Which shall include the following:
    - a. Location of visible fixed improvements within the proposed project limits/ right-of-way, including physical objects, drainage swales, native trees, signs, fences, power poles.
    - b. Location of above ground existing utilities: FP&L, BellSouth, Cable TV, Natural Gas, Potable Water (valves, fire hydrants, and meters), Force Mains (valves), Sanitary Sewer, Reclaimed Water Mains (valves), Storm Sewers. Including invert elevations, pipe size, type and direction for storm and sanitary infrastructure.

- c. Elevations shall be obtained to indicate existing grades. Intermediate grades shall be indicated at all significant grade breaks.
  - d. Provide and reference benchmarks. Elevations to be referenced to an existing established City or County Benchmark.
2. Provide three (3) plots of the drawings signed and sealed registered land surveyor at 1" = 20' scale and a computer disk with survey and drawing information compatible with AutoCAD Civil 3D Version 2016.

**FEE FOR THE ABOVE SERVICES:.....\$ 63,000.00**

**It is the contractors/owners responsibility to review the scope of services proposed within this contract to insure that the services required to successfully complete this project will be provided.**

**The following statement is required by the State of Florida Statutes:**

**PURSUANT TO SECTION 558.0035 OF THE FLORIDA STATUTES, AS AMENDED, AN INDIVIDUAL EMPLOYEE OR AGENT OF DENNIS J. LEAVY & ASSOCIATES, INC. MAY NOT BE HELD INDIVIDUALLY LIABLE FOR NEGLIGENCE.**

**The above fee is subject to the following conditions:**

1. This proposal is **valid for ninety (90) calendar days** from the date which first appears on this proposal. After ninety (90) days, Dennis J. Leavy & Associates, Inc. reserves the right to review and modify the fee(s) and/or time schedule(s) stated in this proposal and re-present a revised proposal for final acceptance.

These fees do not include the cost of any governmental agency submittal fee or hard costs for printing, reproductions or fees for full-time construction supervision. Representation before public bodies, review agencies, etc. will be done at applicable hourly rates. This includes, but is not limited to, any administrative processing that may be required for submittal to the various municipal and county agencies. Payment is due upon receipt of the invoice and will be considered delinquent if payment is not received within thirty (30) days of the date of said invoice. A late payment finance charge will be assessed at the rate of 1.5% per month (18% annual percentage) if payment is not received within thirty (30) days of the invoice date.

The obligation to provide services under this agreement may be terminated by either party upon receipt of written notice within seven (7) days in the event of a substantial failure by the other party to perform in accordance with the terms thereof through no fault of the terminating party. In the event of termination, Dennis J. Leavy & Associates, Incorporated shall be paid for all services rendered to the date of termination including all reimbursable expenses and termination expenses. Liability of this contract is limited to not exceed the fees stated herein. Revisions and/or additional services required outside of this agreement will be invoiced as an addendum to this contract. Fees for revisions and/or additional services will be invoiced based on our current hourly/unit rates.

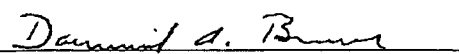
This agreement, consisting of four (4) pages, represents the entire understanding between **Dennis J. Leavy & Associates, Incorporated** and **JLA Geosciences, Inc.**, with respect to the project and may only be modified in writing, signed by all parties.

Thank you in giving us the opportunity to bid this project. We hope to hear from you shortly. If the terms and conditions contained herein are acceptable, please sign and return a copy of this proposal to our office.

Should you have any questions regarding the above, please do not hesitate to contact me.

Sincerely,

DENNIS J. LEAVY & ASSOCIATES, INC.

  
David A. Bower, P.S.M.  
Vice President

ACCEPTANCE OF PROPOSAL: The fees, terms and conditions, and specifications contained herein are satisfactory and are hereby accepted. Dennis J. Leavy & Associates, Incorporated is authorized to perform the work as specified.

**RE:   *PROFESSIONAL LAND SURVEYING SERVICES – PALM BEACH COUNTY WATER UTILITIES DEPARTMENT, SYSTEM-WIDE WELLFIELD IMPROVEMENT PROJECT, WUD No. 16-017 TR07, PALM BEACH COUNTY, FLORIDA. (DJLA #16-134-001)***

**PROPOSAL ACCEPTED BY:**

\_\_\_\_\_  
Name and Title

\_\_\_\_\_  
Firm Name

\_\_\_\_\_  
Date of Acceptance

---

**PALM BEACH COUNTY SBE CERTIFICATE**

**Palm Beach County  
Office of Small Business Assistance**

Certifies That

**DENNIS J. LEAVY & ASSOCIATES, INC.**

Vendor # DENN0013

*is a Small Business Enterprise as prescribed by section 2-80.21 – 2-80.35 of the Palm Beach  
County Code for a three year period from February 25, 2016 to February 24, 2019*

The following Services and/or Products are covered under this certification:

**MAPPING SERVICES (INCLUDING CARTOGRAPHY AND SURVEYING SERVICES, NOT AERIAL);  
SURVEYOR SERVICES, LAND.**

Palm Beach County Board of County Commissioners

Mary Lou Berger, Mayor  
Hal R. Valeche, Vice Mayor  
Paulette Burdick  
Shelley Vann  
Steven L. Abrams  
Melissa McKinlay  
Pricilla A. Taylor

County Administrator  
Verdellia C. Baker

  
Allen F. Gray, Manager

1/11/2016





A Professional Utility Locating Service

August 10, 2016

Rani Smith  
JLA Geosciences, Inc.  
1907 Commerce Lane, Suite 104  
Jupiter, Florida 33458  
(561) 746-0228, ext. 102  
[rsmith@jlageosciences.com](mailto:rsmith@jlageosciences.com)

Re: "PBC Water Utilities Raw Water Well Void Detection"

Ms. Smith,

Ground Hound Detection Services, Inc. (GHD) is pleased to provide the following proposal for locating services. Based on our conversation on August 10, 2016, Ground Penetrating Radar (GPR) methods will be used to identify any detectable anomalies consistent with voids. Areas described as within **two well sites per day** in Palm Beach County and specified by the client.

#### DESCRIPTION OF SERVICES:

Ground Penetrating Radar (GPR) Ground Penetrating Radar (GPR) method transmits electromagnetic waves, which are pulsed at discrete distance/time intervals. The transmitted pulse radiates through the earth whereby a portion of the energy is reflected from interfaces of contrasting electrical properties (e.g. pavement and soil interface, soil stratigraphic changes and buried metallic and non-metallic objects) while the remaining energy continues until reaching additional reflectors where the process is repeated. Reflected energy is received by the antennae and recorded for later processing and interpretation. Factors such as soil moisture, clay content, and variations in the dielectric constants of materials control the effectiveness of the GPR method. Wet conductive materials severely attenuate GPR signals and thus the effective depth of exploration. The presence of foreign product leached into the soil can eschew the data collected. GPR energy cannot transmit through ferrous objects since metal acts as a pure reflector. Pan decking, freshly-poured concrete (less than 60 days), concrete containing metal fibers, fine-mesh screenings beneath tile, Foil-back insulation/Styrofoam board between floors or roof slabs composed of lightweight concrete can inhibit the effective permeability and accuracy of GPR. In addition, objects within ¼" of the surface may not be imaged due to the nature of the GPR technology. In order to be accurate, radar scans must be made across the target area. Confined or obstructed areas that restrict an even scanning pattern can impede the data collected and reduce the accuracy of the final results. GPR does not measure diameter of objects and approximates/estimates depths of objects, only their horizontal location(s). **A stand-off margin of at least 2.0 feet** from surface markings is required for best safety practices when cutting or drilling in close proximity to markings referencing subsurface utilities or structural objects.

2930 NW Commerce Park Dr. Suite 1 Boynton Beach, FL 33424-4736  
PHONE: (561)737.9800 FAX: (561)737.1742 WEB: [www.groundhound.com](http://www.groundhound.com) EMAIL: [info@groundhound.com](mailto:info@groundhound.com)



Locating subsurface utilities/objects is not an exact science. Therefore, Ground Hound Detection Services, Inc. (GHD) expresses no guarantees that using one or any of the available technologies for identifying utilities/structures will identify all utilities/objects and/or meet the objective of this or any individual project. **JLA Geosciences, Inc.** understands that limitations within the available technology, the complexity of site conditions and circumstances beyond the control of GHD may limit the performance/results of the GHD's services. Project Owners, **JLA Geosciences, Inc.** and any of its Subcontractors shall hold harmless and indemnify GHD against any and all losses as a result of inability to locate or mislocate due to limitations within the available technology, the complexity of site conditions and circumstances beyond its control, but not against negligence on the part of GHD or its employees. The services provided by GHD shall be performed in accordance with generally accepted professional practices as related to the nature of services performed. Payment to GHD shall not be contingent upon its performance or results due to any limiting condition as described. Hand digging is required in all situations when excavating within 24" of GHD's markings (where applicable).

**This proposal constitutes the entire agreement between the parties. The agreement may not be altered, modified or conditioned in any respect without the prior written consent of all parties. Documents such as but not limited to "change orders", "purchase orders", sub-contract agreements, and statements of terms and conditions of work shall require prior written acceptance by GHD to be binding. Payment to GHD for work performed pursuant to this proposal shall not be contingent upon GHD's consent to any proposed alteration, modification or condition to the agreement. If any legal action or other proceeding is brought for the enforcement of this contract, or because of an alleged dispute, breach, default or misrepresentation in connection with any provisions of this Contract, the successful or prevailing party or parties shall be entitled to recover reasonable attorney's fees, expenses and court costs, including appellate fees incurred in the action or proceeding, in addition to any other relief to which such party or parties may be entitled.**

CONDITIONS: Locating subsurface anomalies for forensic purposes:

- Subsurface anomalies locations are being provided in an attempt to verify the existence of voids.
- **Any available as-builts, engineered or other record drawings must be supplied to GHD prior to commencement of field work.**
- Areas to be surveyed must be relatively level and free of obstructions.
- Limitations include maximum scan limit of up to 4.0 inches from a wall, protruding object (vertical impediment) or edge of scanned surfaces.
- Results are dependent upon field conditions at the time of survey services
- GHD's inability to complete the project due to delays, conditions outside GHD's control does not void this contract
- If GHD is to produce a map (optional, additional fee), client is responsible for providing an electronic file for GHD to map its discoveries. If a file is not available, additional costs and time to produce the drawing are likely
- Maps produced by GHD (optional, additional fee) are not considered to be "survey grade" drawings. GHD will include dimensions from a fixed feature in the field/drawing to the horizontal position of the object being depicted. Drawings are not prepared by a licensed Engineer, Surveyor or Draftsman. In addition, drawings are not prepared to any State survey or drafting standard.
- The performance of GHD's services is limited to full and unobstructed access. Full cooperation from the on-site personnel and/or facility owner is necessary to perform a complete investigation.
- Appropriate access (ladders, scaffold, etc.) required to access areas worked will be supplied by the client.
- Typical construction crayon, chalk, pencil, ink or paint will be used for marking discoveries on the scanned surface.
- GHD is not responsible for, moved, altered, obliterated or maintaining marks and will impose an additional fee to relocate/remark discoveries.
- If subsurface facilities are damaged, it is your obligation to notify a representative of GHD immediately at the time of damage.

COST ESTIMATE:

GPR Investigation

- Perform/verify locations of existing detectable anomalies consistent with voids using GPR techniques.
- Mark selected targets on the surface as necessary.
- Review all site discoveries with on site personnel.
- Summary report of discoveries

GPR Void Investigation with Summary Report of discoveries **Two Well Sites** (lump sum/day) \$2,500.00  
**COST ESTIMATE: \$2,500.00**

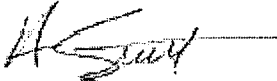
GPR Void Investigation with Summary Report of discoveries **One Well Site** (lump sum/day) \$1,600.00  
**COST ESTIMATE: \$1,600.00**

*The above cost is effective for 2 years from the date of this proposal. Costs are subject to change upon unforeseen conditions, any changes will be negotiated accordingly.*

*In no event shall payment to GHD be made later than 45 days from submission of its invoice, irrespective of Contractor's receipt of payment from Owner.*

Ms. Smith, thank you for allowing us to present this proposal. Should you have any questions please contact me at: 561-737-9800.

Sincerely,



Adam Smith  
Ground Hound Detection Services, Inc.

\_\_\_\_\_  
Accepted by

\_\_\_\_\_  
Title/Company

\_\_\_\_\_  
Print Name of Signer

\_\_\_\_\_  
Date

Re: JLA Geosciences, Inc. "PBC Water Utilities Raw Water Well Void Detection"

# Centerline Drilling, Inc.

1696 Old Okeechobee Road  
 Suite 3-C  
 West Palm Beach, FL 33409  
 Water Well Contractor License #11132

# Estimate

Date	Estimate #
8/15/2016	53

Name / Address
JLA Geosciences, Inc. 1907 Commerce Lane, Suite 104 Jupiter, Florida 33458

Project
PBCWUD 16-017TR07

Description	Qty	Rate	Total
6" by 180' borehole, Geophysical logs, Abandonment, Site clean up, restore, Mobilization, and Demobilization.  Abandonment is based on 31 bags at \$75.00 per bag. Any additional bags will be billed at \$75.00 per bag.  No permits fees included if needed	10	15,385.00	153,850.00

**Thank you for the opportunity to bid this job.**

Phone #	Fax #	E-mail
(561) 615-0988	(561) 615-3651	CTRLINEDRILLING@AOL.COM

**Total \$153,850.00**

**Rani K. Smith**

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**From:** David Webb Jr <davidwebbjr@allwebbs.com>  
**Sent:** Friday, September 2, 2016 12:53 PM  
**To:** rsmith@jlageosciences.com  
**Subject:** FW: All Webb's Unit Price Estimate for 6" Test Well

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**From:** David Webb Jr  
**Sent:** Tuesday, August 23, 2016 5:45 PM  
**To:** Rani Smith  
**Subject:** All Webb's Unit Price Estimate for 6" Test Well

Rani,

Based on the verbal description of the 6 inch test holes with logging in Palm Beach County, we offer the following estimate.

Price per well

Description	Qty	Unit Price	Total
Mobilization	1	\$ 2,500.00	\$ 2,500.00
Drill 6"	180	\$ 20.00	\$ 3,600.00
Log	1	\$ 3,500.00	\$ 3,500.00
Abandonment	180	\$ 10.00	\$ 1,800.00
Demobilization	1	\$ 1,500.00	\$ 1,500.00
<b>Total</b>			<b>\$ 12,900.00</b>

David Webb, Jr.  
**All Webb's Enterprises, Inc.**  
309 Commerce Way  
Jupiter, FL 33458  
O : 561.746.2079  
Cell:561.718.5092  
Fax:561.746.4199  
www.allwebbs.com

**Palm Beach County  
Office of Small Business Assistance**

Certifies That

**All Webbs Enterprises, Inc.**

Vendor # VC0000125561

***is a Small Business Enterprise as prescribed by section 2-80.21 – 2-80.35 of the Palm  
Beach County Code for a three year period from***

***June 9, 2016 to June 8, 2019***

The following Services and/or Products are covered under this certification:

**Well Services (Including Oil, Gas, and Water):  
Drilling, Plugging, Consulting, Maintenance, Repair, Etc.**

**Palm Beach County Board of County Commissioners**

Mary Lou Berger, Mayor  
Hal R. Valeche, Vice Mayor  
Paulette Burdick  
Shelley Vana  
Steven L. Abrams  
Melissa McKinlay  
Priscilla A. Taylor

**County Administrator  
Verdenia Baker**



**Allen F. Gray, Manager**

06/13/2016

