

JLA Geosciences, Inc.

HYDROGEOLOGIC CONSULTANTS

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December 11, 2024,

Via Electronic Mail

Gustavo Vergara, CPRE
Parks, Recreation & Conservation
Operations and Programs Assistant Director
1590 9th St SW
Vero Beach, FL 32962

RE: *Proposal for Indian River County, Parks, Recreation & Conservation Department, North County Pool Heat Exchange System UFA Replacement Supply Well Siting, Design, and Construction Oversight Services*

Dear Mr. Vergara:

JLA Geosciences, Inc. (JLA) is pleased for the opportunity to assist Indian River County Parks, Recreation and Conservation Department (IRC) with hydrogeologic consulting services. The IRC North County Aquatic Complex (NCAC) operates a closed loop heat exchange system to regulate water temperature utilizing water from the Upper Floridan Aquifer (UFA). Recently the UFA supply well started producing substantial quantities of sand and has made the heat exchange system inoperable. A recent downhole investigatory video and testing scope identified multiple failures in the supply well casing. It was determined that the well could not be repaired and needs to be immediately abandoned. A replacement UFA supply well is needed to restore operation of the heat exchange system.

Outlined below are the specific tasks included in our proposed scope of work, along with the associated costs for your thorough review and consideration. Our dedicated team is committed to delivering outstanding results, ensuring the project maintains the highest standards of quality.

1.0 **NCAC UFA Replacement Supply Well Siting and Design** – Provide hydrogeologic services, for siting and well design of replacement UFA heat exchange system supply well at the IRC NCAC.

- Well siting will include desktop review of existing site plans to be provided by IRC to identify potential locations for a replacement UFA supply well and a replacement UFA return well if needed for future planning purposes. Following the desktop review and identification of potential locations, JLA will meet with IRC staff onsite to finalize the new well location(s). Replacement well siting will take into account site access, pipeline re-routing and site constructability by a State of Florida certified water well drilling contractor.

- JLA will develop a well construction sequence and design criteria for one (1) replacement UFA supply well to generate pricing. Design and pricing will be based off of the Town of Jupiter (TOJ) Well Rehabilitation and Maintenance contract that has been Piggybacked by IRC to complete this work.

2.0 Construction Phase Services – Provide hydrogeologic observation services, hydrogeologic direction and well design/construction implementation during construction of one (1) replacement UFA heat exchange system supply well at the IRC NCAC.

- A JLA hydrogeologist will be present at the well site during critical phases of well construction including: pilot hole drilling, geophysical logging, casing installation and cement grouting, completion interval drilling, flow and water quality testing, well development, and pump testing. JLA will observe and log drilling and collect lithologic samples during drilling.
- JLA will provide recommendations for the constructed depths of bore holes and casing, and will direct step drawdown testing, perform water level measurements and well specific capacity analysis. This task will include providing the client with typed geologist’s lithologic logs, water quality field data summaries, and copies of the geophysical logs. The proposed budget is based on a 60-day construction schedule for the contractor to complete drilling development and testing of the well. The estimate of labor hours is based on the attached summary.
- JLA will prepare a well tech memo report to be submitted electronically summarizing construction and testing of the UFA supply well including figures, data tables, geophysical logs, pump test data, field water quality data, lithologic logs, geologic interpretations and recommendations.

Outlined below are the specific tasks included in our proposed scope of work, along with the associated costs for your thorough review and consideration.

TASK	COST
1.0- UFA WELL SITING AND DESIGN	\$8,830.00
2.0- UFA WELL CONSTRUCTION OVERSIGHT AND REPORTING	\$29,575.00
PROJECT TOTAL	\$38,405.00

Schedule

JLA understands the importance of expediting this evaluation. As such, following authorization, JLA will begin immediately with the well siting and design to facilitate the start of well construction. Task 1 well siting and design will be provided within 30 days of authorization. Task 2 well construction schedule will depend on Contractors crew and equipment availability.

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Assumptions

- Existing Town of Jupiter Wellfield Rehabilitation and Maintenance contract with Centerline Drilling will be piggybacked by the IRC to perform the proposed well construction work.
- JLA will provide up to 140 hours of onsite hydrogeological services for the new replacement well assuming a 60-day construction schedule to fully complete drilling, testing, development and construction.
- Permitting costs if required are not included in this scope of work.
- Certifications by a State of Florida Professional Engineer if required are not included in this scope of work.

This proposal has been carefully prepared using the information provided and our understanding of the project. If there are any additional details or specific requirements that we may have inadvertently overlooked, we would be more than happy to review any additional information provided. Our aim is to ensure that the scope of work and associated costs align with your expectations and project goals.

Thank you once again for considering our services. We look forward to continuing our collaboration with you on this project.

Sincerely,
JLA Geosciences, Inc.



Jon Friedrichs, P.G.
Principal Hydrogeologist

**ATTACHMENT A
BUDGET SUMMARY**

Client: Indian River County Parks, Recreation & Conservation
Consultant: JLA Geosciences, Inc.
Project Title: North County Aquatic Complex Floridan Well Relocation, Design and Construction Phase Services

Task No.	Task Description	Labor Classification and Hourly Rate											Mileage (\$0.67/mi)	ODC	Sub Consultant Services	TASK TOTAL	
		President	Prin./Hydro Corp. Officer	Prj. Manager Sr Hydro III	Senior Hydro II	Senior Hydro I	Hydro III	Hydro II	Hydro I	Hydro Tech	Admin / Tech	Total Labor					
1.0	Replacement well Siting and Design																
	Coordination, planning and meetings with IRC and Well contractor. Identify locations for replacement UFA supply well and return well.		8.0		16.0								\$ 146.00				\$ 5,202.00
	Replacement well design scope and sequence of work.		2.0		16.0												\$ 3,628.00
	Subtotal Task 1.0	0.0	10.0	0.0	32.0	0.0	0.0	0.0	0.0	0.0	0.0	42.0	\$ 146.00	\$ -	\$ -	\$ 8,830.00	
2.0	Construction Phase Services																
	Well construction oversight		24.0						140.0				\$ 2,943.00				\$ 26,575.00
	Well construction tech memo		4.0						16.0								\$ 3,000.00
	Subtotal Task 2.0	0.0	28.0	0.0	0.0	0.0	0.0	0.0	156.0	0.0	0.0	184.0	\$ 2,943.00	\$ -	\$ -	\$ 29,575.00	
	Labor Subtotal Hours	0.0	38.0	0.0	32.0	0.0	0.0	0.0	156.0	0.0	0.0						
	Labor Hourly Billing Rates	\$ 249.00	\$ 238.00	\$ 214.00	\$ 197.00	\$ 162.00	\$ 151.00	\$ 139.00	\$ 128.00	\$ 112.00	\$ 92.00						
	Labor Subtotal	\$ -	\$ 9,044.00	\$ -	\$ 6,304.00	\$ -	\$ -	\$ -	\$ 19,968.00	\$ -	\$ -						
	Labor Total																\$35,316.00
	Mileage/ODC																\$3,089.00
	Subconsultant Total																\$0.00
	Project Total																\$38,405.00

Please be advised that the rates outlined in this proposal are valid for a duration of 90 days from the date of this proposal's issuance. After this period, adjustments to the rates may occur to accommodate annual rate increases