

**PEACE RIVER MANASOTA REGIONAL WATER SUPPLY AUTHORITY BOARD OF DIRECTORS MEETING**

**March 31, 2021**

**CONSENT AGENDA**

**ITEM 8**

**ASR Monitor Wells Sampling and Purge Water Modifications Project**

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**Recommended Action -**

**Motion** to approve and authorize Executive Director to execute a work order with Progressive Water Resources for the installation of ASR system monitor wells sampling and purge water modifications for an amount not to exceed \$126,484.

The Peace River Facility ASR System Operations Permit includes a total of 24 monitor wells used to monitor the changes in aquifer water quality and water levels over time during the recharge, storage and recovery of the ASR production wells. Water quality sampling protocol requires these wells to be pumped or flowed for a certain amount of time to enable collection of a representative water sample from the aquifer. That monitor well purge water from this process has historically been discharged to the ground. After a recent FDEP inspection of the ASR system, the FDEP notified the Authority that monitor well discharge on the ground must cease. Purge water would need to be discharged into the reservoir system, a sanitary sewer, or otherwise collected and disposed of in an approved manner.

In response to this directive, staff developed a program that will involve installation of low-volume electric pumps on small diameter tubing set deep in the wells which will allow collection of representative water samples without requiring the purge of large quantities of water. Resulting small volumes of purge water will be collected in totes in the field sampling truck and emptied into the reservoir system. Existing pumps in any monitor well so equipped will be removed as part of this new program. The FDEP has approved of the proposed new sampling process and they have also authorized reducing the number of monitor wells requiring water quality sampling from 24 to 17.

Staff recommends approval of a work order to Progressive Water Resources LLC under the continuing professional services contract for the installation of the new ASR system monitor wells sampling/purge water system for an amount not to exceed \$126,484 which includes a \$10,000 owner's allowance for any unforeseen conditions with approval of the Executive Director. Funding for the project will be from R&R.

**Budget Action:** No action required.

**Attachments:**

Progressive Water Resources Installation of ASR Monitor Wells Purge Water Modifications Proposal



**Progressive Water Resources**  
Integrated Water Resource Consultants

6561 Palmer Park Circle Suite D Sarasota, Florida 34238 (941) 552-5657

## **Agreement for General Hydrologic Services ASR Monitoring Wells Purge Water Project**

**Client:** PRMRWSA  
Attn: Daniel Roberts  
8998 SW County Road 769  
Arcadia, FL 34269

**Date:** March 18, 2021  
**Project Name:** Installation of ASR Monitor Well Purge Mods

### **Project Description/Location:**

The Peace River Manasota Regional Water Supply Authority (Authority or OWNER) has requested Progressive Water Resources, LLC (PWR or CONSULTANT) provide a Scope of Services for the proposed installation of ASR Monitoring Well Purge Water Mods. In general, the project entails removal of existing submersible pumps on twelve (12) monitor wells and removal and replacement of existing above-ground wellhead infrastructure on seventeen (17) monitor wells. Seventeen (17) new 2-inch diameter submersible pumps with flexible polyethylene suction and discharge tubing will then be installed along with new 1-inch diameter PVC stilling tubes used for installing existing water level monitoring probes.

PWR will perform oversight and supervision of the CONTRACTOR (Mudd's Power and Pumps) that will perform the work-related efforts outlined below.

### **Scope of Services:**

#### **Task 1- Demolition of Existing Infrastructure**

- A. CONTRACTOR will remove and disassemble twelve (12) existing monitor well submersible pumps and associated drop-pipes, wiring, safety cables, etc. and transport the removed pumping equipment to an onsite location stipulated by the OWNER.
- B. CONTRACTOR will remove existing water level probes (transducers) and provide to the OWNER.
- C. CONTRACTOR will remove all existing water level probe PVC stilling tubes and will be transported and stored at an onsite location stipulated by the OWNER.
- D. CONTRACTOR will remove aboveground piping and associated infrastructure from seventeen (17) existing monitor well risers that occurs above the respective monitor well base flanges (where present), including existing discharge piping, sample taps, butterfly/gate valves, etc., as directed by the OWNER. All aboveground monitor well infrastructure that is removed will be transported and stored at an onsite location stipulated by the OWNER.

#### **Task 2- Installation of New Wellhead Risers and Submersible Pumps**

- A. CONTRACTOR will assemble and install new PVC wellhead risers supplied by the OWNER (6-inch or 12-inch double flanged spool pieces as applicable) on seventeen (17) monitor wells. All existing stainless-steel bolts, washers and nuts will be reused to attach the PVC wellhead risers. If new hardware is required, it will be

provided by the OWNER. New “red” gaskets shall be installed where required and be provided by CONTRACTOR.

- B. CONTRACTOR will modify and assemble (modify) blind flange wellhead caps for seventeen (17) monitor wells as required to accommodate reinstallation monitor well infrastructure as directed by the OWNER.
- C. CONTRACTOR will install new, 2-inch diameter submersible pumps with safety cables and flexible polyethylene suction and discharge tubing supplied by the OWNER in seventeen (17) monitor wells. All new submersible pumps provided by the OWNER will be installed at 100 feet below the top of the new blind flange wellhead caps. Suction tubing and weights will extend below the submersible pumps to the top of the monitor well collection zone, i.e., bottom of monitor well casing. It is anticipated that the lengths of the intake tubing will vary based on monitor well construction.
- D. CONTRACTOR will provide and install 60 feet of new 1-inch diameter, bell-end, PVC stilling tube for subsequent reinstallation of water level probes for seventeen (17) monitor wells.
- E. Contractor will install fittings, pressure gages, air release valves, etc. supplied by the OWNER to the blind flange wellhead caps for seventeen (17) monitor wells.

### **Task 3- Atypical Wellhead Conditions and Related Work Efforts**

- A. Monitor well T-2 is 4-inches in diameter and will require the CONTRACTOR to install a reducer coupling to accommodate the new 6-inch diameter PVC flange and wellhead riser. Reducer coupling and hardware will be provided by the OWNER.
- B. Monitor Well M-8 is 12-inches in diameter and will require the CONTRACTOR to install a reducer coupling(s) to accommodate the new 6-inch diameter PVC flange and wellhead riser. CONTRACTOR will also have to create a wooden form and place concrete around the well head casing from ground level to new spool piece. Reducer coupling(s) and hardware will be provided by the OWNER.

A generalized summary of work efforts per monitor well is provided in the table below.

**Summary Table of Efforts Included in the Scope of Services**

Monitor Well	Installation of Wellhead Riser "Spool Piece"	Wellhead Riser (Spool Piece) Length	Removal of Existing Submersible Pump/Infrastructure	Installation of New Submersible Pump	4 in. to 6 in. Reducer Coupling	12 in. to 6 in. 6" Reducer Coupling(s)
I-7	1	12 inches		1		
I-8	1	12 inches	1	1		
M-2	1	N/A		1		
M-7	1	12 inches		1		
M-8	1	Custom	1	1		1
M-11	1	12 inches	1	1		
M-14	1	12 inches	1	1		
M-15	1	12 inches	1	1		
M-17	1	12 inches	1	1		
M-18	1	12 inches	1	1		
M-19	1	12 inches	1	1		
M-20	1	12 inches	1	1		
M-21	1	12 inches	1	1		
T-2	1	Custom		1	1	
T-7	1	12 inches		1		
T-8	1	12 inches	1	1		
T-11	1	12 inches	1	1		
<b>TOTALS</b>	<b>17</b>		<b>12</b>	<b>17</b>	<b>1</b>	<b>1</b>

**Schedule**

Work is estimated to take no more than 34 days to complete and will be initiated within 5-days of project approval and issuance of purchase order. Work will be completed by May 31, 2021.

**Deliverables**

All seventeen (17) monitor wells will be modified by the CONTRACTOR as described above. Upon completion of field efforts, PWR will provide a typical well schematic indicating the generalized configuration of the newly installed wellheads and submersible pumps. A detailed summary table will also be provided with per well specifications.

**Fee Agreement:**

Installation of ASR Monitor Well Purge Mods efforts will be provided on a not to exceed Time and Materials basis for a total of **\$126,484**, to be invoiced monthly on a time and materials basis and will not be exceeded without the OWNER'S prior authorization. Given the nature of the proposed work efforts a \$10,000 Owner's allowance has been included and is only accessible following prior written approval from the Authority. The quoted Time and Materials fee is based upon the best information available to PWR as of the date this Scope was written, and based on professional experience and judgment of planned activities that should be undertaken to support the

tasks outlined herein. This fee included in this agreement is valid within 30 days of the date of the Scope of Services.

Cost Summary Breakdown

Work efforts assume a maximum of 34 days (average of 2-days for each of the 17 monitor wells) to complete Tasks 1, 2, and 3.

Task 1. CONTRACTOR daily rate of \$2,200 per 8-hour day x 34 days	= \$74,800.00
Task 2. PWR daily rate of \$920 (assumes \$115 per hour, per 8-hour day including travel) x 34 days	= \$31,280.00
Task 3. Wellhead modifications (fabrications), PVC stilling tubes, etc., \$500 x 17 wells	= \$8,500.00
Task 4. PWR Mileage: 100 miles per day x 34 days @ \$0.56/mile	= \$1,904.00
Owner's Allowance	= \$10,000.00
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<b>Total Estimated Time and Materials Cost</b>	<b>= \$126,484.00</b>

Assumptions:

- CONTRACTOR will contract directly with PWR and shall be responsible for completion of their contracted work activities and deliverables, respectively.
- CONTRACTOR will maintain full responsibility for a safe working environment. Any damage caused by their actions or equipment is solely the CONTRACTOR's responsibility.
- All fittings, equipment, valves, air releases, pressure gages, etc. needed above the wellhead riser cap will be purchased and provided by the OWNER.
- If conditions warrant additional monitor well casing modifications beyond that envisioned by this Scope, then Additional Services will be required, but will not be performed without the Authority's approval.
- OWNER will furnish all parts and hardware necessary to complete work efforts with the exception of the 1-inch PVC stilling tubes.

Services Not Included/Additional Services:

- Any services not specifically identified within this Scope are not part of this Agreement and will be considered Additional Services. However, Additional Services can be provided at a fee to be determined if deemed necessary and approved by the Client.

**This Work Order agreement contains our understanding and expectations regarding this project.**

_____ Signature	_____ Date	_____ Signature	_____ Date
<u>David J. Brown, P.G.</u> Name/Title		_____ Name/Title (please print)	
<u>Progressive Water Resources, LLC</u> Legal Entity Name		_____ Legal Entity Name	