

**WORK ASSIGNMENT NO. 1 PURSUANT TO  
THE July 13, 2010 AGREEMENT BETWEEN THE  
CITY OF VENICE, FLORIDA AND JOHNSON ENGINEERING, INC.**

WHEREAS, on **July 13, 2010** the parties entered into an Agreement whereby the **CONSULTANT** would perform professional services for the OWNER pursuant to an executed Work Assignment; and

WHEREAS, the OWNER wishes to authorize the **CONSULTANT** to perform professional services concerning the **CITY OF VENICE'S REVERSE OSMOSIS WATER TREATMENT PLANT SUPPLY WELL** as more particularly described in the Scope of Services contained herein; and

WHEREAS, the **CONSULTANT** wishes to perform such professional services.

NOW THEREFORE, in consideration of the premises and mutual covenants contained in the **July 13, 2010** Agreement and in this Work Assignment, the parties agree as follows:

1. General description of the project. A priority project at this time for the City of Venice (OWNER) is the evaluation of potential potable water supply well sites to determine a preferred well site and evaluate the Floridan aquifer as a raw water source.
2. Scope of services to be performed. CONSULTANT shall perform the services described in the scope of services attached as Attachment "A".
3. Compensation to be paid. City shall pay the CONSULTANT the sum of \$44,375 for performance of the professional services specified in this work assignment.
4. Time for completion. CONSULTANT shall complete the professional services specified in this work assignment within 140 days from the date of this work assignment.
5. Any special conditions. Water quality evaluation is based on available data.

IN WITNESS WHEREOF, the parties have executed this work assignment on the \_\_\_\_\_ day of \_\_\_\_\_, 2013.

**Johnson Engineering, Inc.**



**CITY OF VENICE, FLORIDA**

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

**Mayor**

**ATTEST:**

\_\_\_\_\_  
**City Clerk**

## **Attachment "A" – Scope of Services**

### **City of Venice**

#### **CITY OF VENICE'S REVERSE OSMOSIS WATER TREATMENT PLANT SUPPLY WELL**

##### **1.0 INTRODUCTION**

A priority project at this time for the OWNER is the design and construction of a new raw water supply well for the City's Reverse Osmosis (RO) Water Treatment Plant. The OWNER's current water use permit includes a proposed well constructed in the Intermediate aquifer and having a surface diameter of 12 inches, with a minimum casing depth of 220 feet, drilled to an estimated total depth of 320 feet. The OWNER recognizes that the Floridan aquifer may be a viable and cost effective alternative water source for their current supply. The following scope of services is for assisting the OWNER with preliminary design, site selection and evaluation of the Floridan aquifer as a supply source for the proposed well.

##### **2.0 SCOPE OF SERVICES**

###### **Task 1 – Data Collection**

CONSULTANT will review readily available information related to proposed well RO- 8E (District ID No. 79) of SWFWMD water use permit number 20005393.009. Data sources for the review will include SWFWMD permit files, FDEP permit files, United States Geological Survey (USGS) reports, municipal documents, and City of Venice Utilities Department files. This review will concentrate on the aspects needed for proper well location and design, regardless of aquifer.

###### **Task 2 – Well Site Location**

CONSULTANT shall assist the OWNER with the selection of appropriate well site location for proposed well RO-8E. The CONSULTANT will utilize GIS techniques and methodology along with public records/data from state, regional, and local agencies to assist in the process of site selection. The evaluation will include up to six other sites that the OWNER or CONSULTANT identify. The GIS analysis will include datasets including parcels, land use status, zoning, wellhead protection zones, utilities, wetland and conservation areas, water use permit criteria, ownership information and relative construction cost estimates to compare between sites. The analysis process will include the development of a matrix in conjunction with the OWNER, to be used to develop a GIS model that ranks specific parcels based on the matrix. The matrix will include rankings to weight the various selection criteria approved by the OWNER.



Map exhibits will be prepared to depict the selection alternates utilizing ESRI ArcGIS v10 and exhibits will be prepared both in hardcopy and PDF format for ease of transmittal and printing. The exhibits will be presented in multiple meetings to be held during the GIS analysis process, to determine which alternates have the best potential for success. This work will include developing a conceptual well site layout with cost estimates for up to three locations. The cost estimates will include all improvements necessary to bring the well online and include, but are not limited to, the well, discharge piping, site procurement, site work, electric service, electrical work, instrumentation, raw water main, and raw water main connection.

### **Task 3 – Evaluation of Floridan aquifer**

CONSULTANT will review readily available data to assess the feasibility, from a technical (raw water quality, quantity, and permeate recovery) and a permitting perspective, of the Floridan aquifer as a water supply source. CONSULTANT will coordinate with OWNER's other consultants and RO membrane supplier to evaluate potential impact to the existing and/or proposed treatment system. This effort will include coordination and one meeting with SWFWMD to discuss use of the Floridan aquifer by the OWNER. A letter report will be prepared to present the findings of the evaluation and the matrix prepared in Task 2 will be updated to incorporate this information.

### **3.0 FEE PROPOSAL**

The proposal fee for the above scope of work will be charged as a lump sum and will be invoiced monthly based on percentage completion of each task. The following table shows the fee by task.

This Work Assignment includes an Owner's Allowance of \$5,000 for unforeseen tasks required to complete the project, which will be used only with the written approval of the City. A scope description and fee breakdown will be provided to the City for any proposed use of the Owner's Allowance.

<b>Fee Proposal</b>			
<b>Task</b>	<b>Description</b>	<b>Basis</b>	<b>Fee</b>
1	Data Collection	LS	\$8,890
2	Well Site Location	LS	\$19,690
3	Evaluation of Floridan Aquifer	LS	\$10,795
4	Owner's Allowance	TM	\$5,000
	<b>Total</b>	<b>LS/TM</b>	<b>\$44,375</b>

#### **4.0 SCHEDULE**

The project schedule is outlined below. The schedule provides time from start to completion of each task in calendar days from notice to proceed. The notice to proceed will be effective the date this Work Assignment is approved by the City.

<b>Project Schedule</b> <b>(Calendar Days from Date of Work Assignment)</b>			
<b>Task</b>	<b>Description</b>	<b>Start</b>	<b>Complete</b>
1	Data Collection	28	56
2	Well Site Location	70	98
3	Evaluation of Floridan Aquifer	112	140
4	Owner's Allowance	Per City Schedule	

End of Attachment "A"





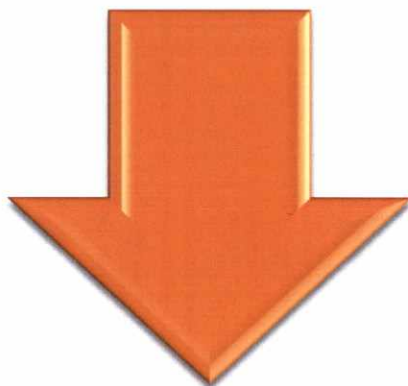
# REVERSE OSMOSIS (RO) WATER TREATMENT PLANT SUPPLY WELL

Johnson Engineering Inc. Work Assignment No. 1

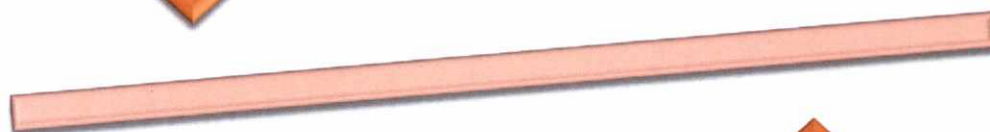
# Priority Project –

## New Raw Water Supply Well

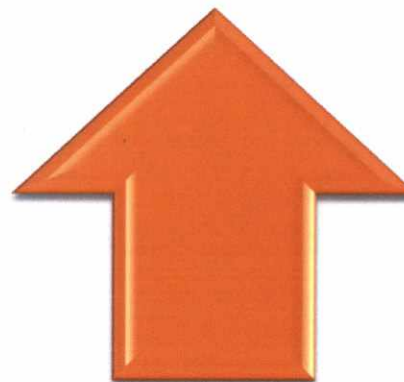
City's current  
water use  
permit includes  
the proposed  
construction of  
new raw water  
supply well



Floridan  
Aquifer is a  
viable and  
cost effective  
water source



Proposed  
depth of well  
drilled to 320  
feet







# Scope of Services

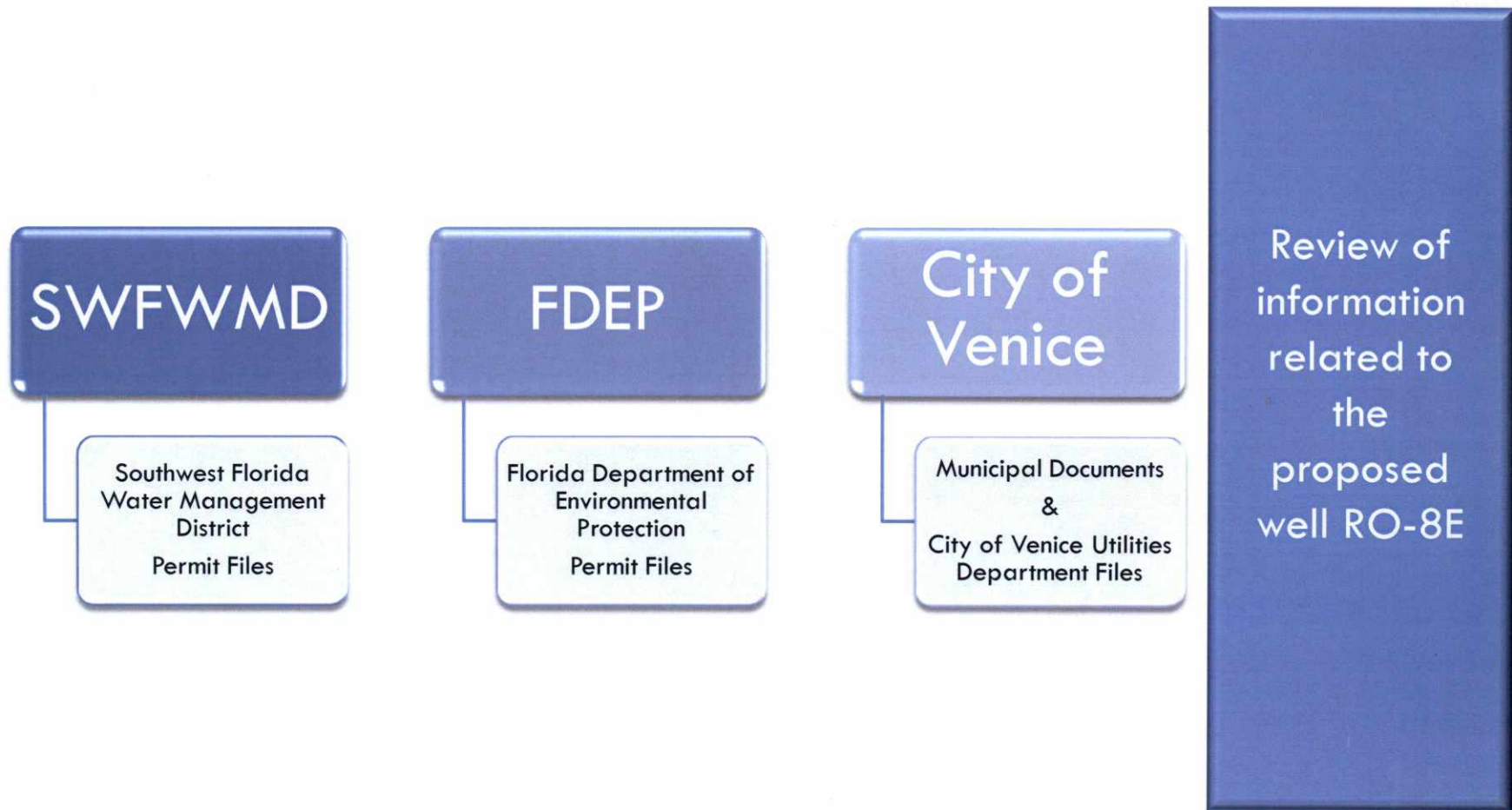
Data Collection

Well Site GIS Analysis

Preliminary Design

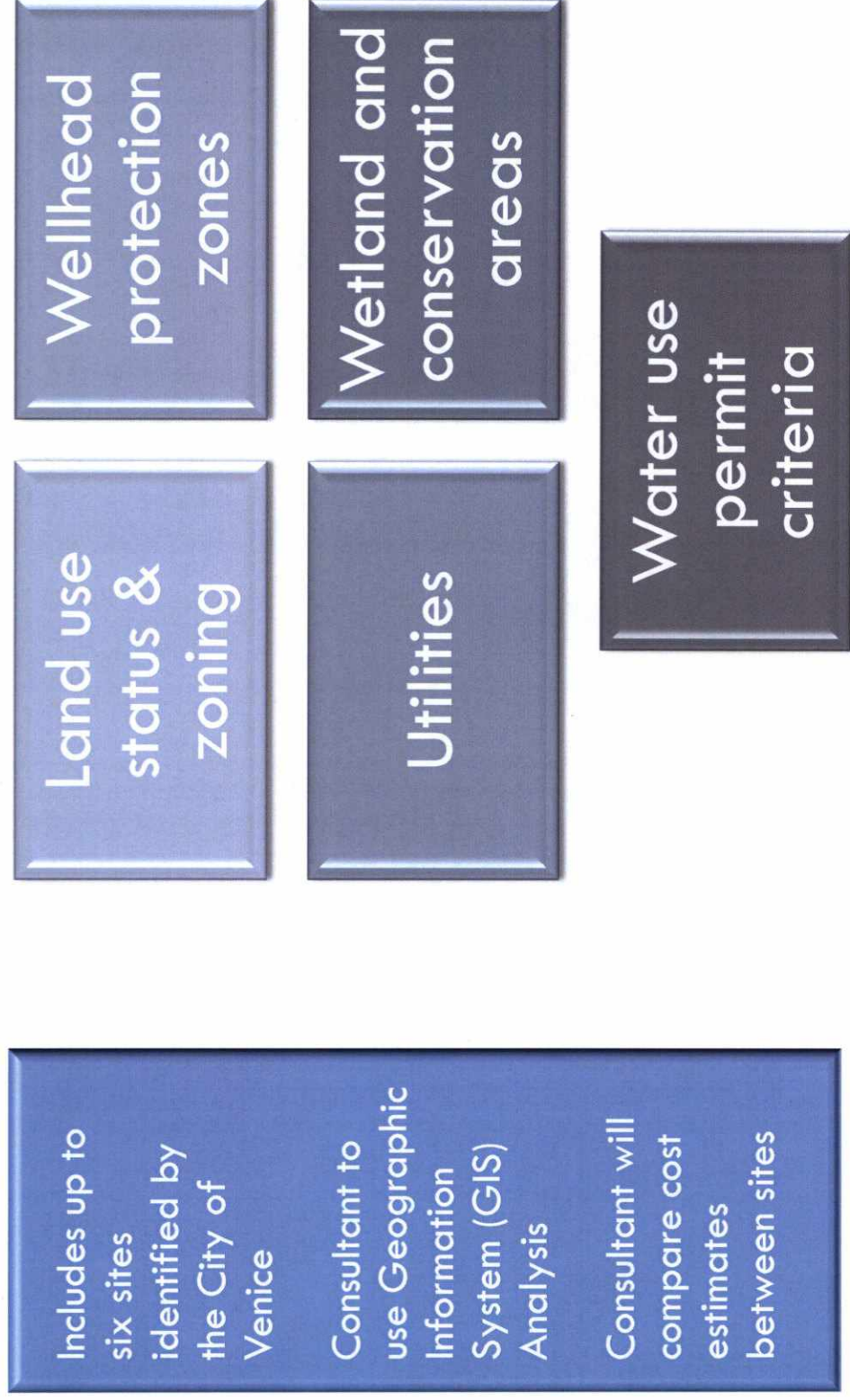
Evaluation of the Floridan Aquifer

# Data Collection – Sources & Review





# Well Site GIS Analysis



# Preliminary Design with Cost Estimates

## Preliminary Design

- ☐ The well & discharge piping
- ☐ Site procurement & site work
- ☐ Electrical & instrumentation work
- ☐ Raw water main connection

## Cost Estimates

- ☐ Up to three locations
- ☐ Estimate cost of all improvements required to bring well online

# Evaluation of Floridan Aquifer



Consultant to assess feasibility of Florida Aquifer as a water supply source from these perspectives:

## Technical

- Raw Water quality & quantity
- Permeate Recovery

## Permitting

- SWFWMD
- FDEP



# Time and Cost

