

## MEMORANDUM

**TO:** FPUA Board  
**FROM:** Clayton W. Lindstrom, P.E., Director of Utilities  
**DATE:** October 14, 2016  
**SUBJECT:** Water/Wastewater Regionalization Project Study



### **RECOMMENDATION:**

POA 16-60: Approve:

- a. FPUA's contribution of one-half of the total cost of a proposed Regionalization Study to be performed by Public Resources Management Group, Inc. (PRMG), of Maitland, Florida, in an amount not to exceed \$36,675, contingent upon St. Lucie County agreeing to pay the other half.
- b. Budget Transfer Request in the amount of \$36,675.

### **SUMMARY/SUPPORTING INFORMATION**

St. Lucie County (SLC) and Fort Pierce Utilities Authority (FPUA) are currently evaluating water and wastewater capacity needs and objectives to meet the future demands of the region. In order to facilitate the wastewater service area needs, SLC and FPUA formed a wastewater plant relocation committee to develop wastewater plant relocation options and identify funding mechanisms. Recently one of the Committee members developed and presented to the committee an alternative plan to relocate the Island Water Reclamation Facility to a site on the mainland (referred to as the Mainland Wastewater Reclamation Facility or "MWRF"). SLC and FPUA would like to evaluate additional regional wastewater service scenarios regarding the wastewater plant relocation as well as water regionalization alternatives to collectively identify cost effective regional options available. PRMG has put together the attached "draft" scope of services for this Regionalization Project.

St. Lucie County wants a commitment from FPUA that we will pay for 1/2 of the study.

### **ALTERNATIVES (IF ANY):**

Do not proceed with this project.

### **ATTACHMENTS:**

Regionalization Project Scope  
Regionalization Study Cost Estimate  
Budget Transfer Request

Fort Pierce Utility Authority / St. Lucie County, Florida  
Proposed Regionalization Project

Cost Estimate for Phase 1 - Option Identification and Cost Analysis

Line No.	Direct Labor Rates	Public Resources Management Group, Inc.							Total
		Project Managers		Associate	Senior Consultant	Senior Rate Analyst	Administrative and Clerical		
		Principal Robert Orr	Principal Henry Thomas						
1	\$ 190.00	\$ 190.00	\$ 150.00	\$ 115.00	\$ 85.00	\$ 55.00			
<b>Task 1-1: Data Compilation</b>									
2		1	1	4	-	4	2	12	
3		6	6	8	-	-	-	20	
4		7	7	12	-	4	2	32	
5	\$ 1,330	\$ 1,330	\$ 1,800	\$ -	\$ 340	\$ 110	\$ 4,910		
<b>Task 1-2: Service Area Demand Forecast</b>									
6	2	2	8	-	16	-	-	28	
<b>Task 1-3: FPUA System Base Cost and Life Cycle Cost Analysis</b>									
7	2	2	8	-	16	-	-	28	
8	\$ 360	\$ 360	\$ 1,200	\$ -	\$ 1,360	\$ -	\$ 3,320		
9	1	1	2	-	6	-	-	10	
10	1	1	2	-	6	-	-	10	
11	1	1	6	-	12	-	-	20	
12	1	1	2	-	6	-	-	10	
13	1	1	6	-	12	-	-	20	
14	1	1	4	-	8	-	-	14	
15	6	6	22	-	50	-	-	84	
16	\$ 1,140	\$ 1,140	\$ 3,300	\$ -	\$ 4,250	\$ -	\$ 9,830		
<b>Task 1-4: County System Base Cost and Life Cycle Cost Analysis</b>									
17	1	1	2	-	6	-	-	10	
18	1	1	2	-	6	-	-	10	
19	1	1	6	-	12	-	-	20	
20	1	1	2	-	6	-	-	10	
21	1	1	6	-	12	-	-	20	
22	1	1	4	-	8	-	-	14	
23	6	6	22	-	50	-	-	84	
24	\$ 1,140	\$ 1,140	\$ 3,300	\$ -	\$ 4,250	\$ -	\$ 9,830		
<b>Task 1-5: Consolidated Service Option Capital Evaluation (2 Options Assumed)</b>									
25	6	6	10	-	8	-	-	30	
26	4	4	10	-	8	-	-	26	
27	10	10	20	-	16	-	-	56	
28	\$ 1,900	\$ 1,900	\$ 3,000	\$ -	\$ 1,360	\$ -	\$ 8,160		
<b>Task 1-6: Consolidated Utility Operation and Maintenance Cost Evaluation (1 Option Assumed)</b>									
29	2	2	8	-	16	-	-	28	
30	2	2	8	-	4	-	-	16	
31	4	4	16	-	20	-	-	44	
32	\$ 760	\$ 760	\$ 2,400	\$ -	\$ 1,700	\$ -	\$ 5,620		



**FORT PIERCE UTILITY AUTHORITY / ST. LUCIE COUNTY, FLORIDA**

**SCOPE OF SERVICES – REGIONALIZATION PROJECT**

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**GENERAL**

St. Lucie County (the "County") and the Fort Pierce Utility Authority ("FPUA" and collectively with the County, the "Parties") are currently evaluating water and wastewater capacity needs and objectives to meet the future demands of the region.

In order to facilitate the wastewater service area needs, the Parties formed a wastewater plant relocation committee to develop wastewater plant relocation options and identify funding mechanisms. Recently one of the Committee members developed and presented to the committee an alternative plan to relocate the Island Water Reclamation Facility ("IWRF") to a site on the mainland (referred to as the Mainland Wastewater Reclamation Facility or "MWRF"). The Parties would like to evaluate additional regional wastewater service scenarios regarding the wastewater plant relocation as well as water regionalization alternatives to collectively identify cost effective regional options available to the Parties.

The objectives of this evaluation include, but are not limited to, the following: i) the relocation of the FPUA IWRF to a site or sites located on the mainland; ii) developing a water capacity plan that addresses the long-term water supply needs of the region; iii) serving increased water and wastewater growth and service demands of the region; iv) limiting the redundant water and wastewater utility plant investment that may occur due to the construction of capacity by the individual Parties in order to meet their individual service area demands; v) promote economies of scale in the operation of the water and wastewater utility plants for the benefit of the Parties; and vi) provide for the orderly and planned growth of the region.

The purpose of this scope of services is to assist the Parties in evaluating alternative service options as identified by the Parties to evaluate the cost of water and wastewater capacity alternatives. The evaluation will be considered as a preliminary "desk top" analysis and will not entail a comprehensive evaluation; the purpose being to identify possible service options and to determine if the options should be evaluated in greater detail. Alternative options associated with the relocation of the IWRF to the mainland and for providing regional water and wastewater capacity to the region may include options such as joint ownership of regional facilities and the potential creation of a Chapter 163 water and sewer authority made up of the Parties that would provide wholesale water and wastewater treatment and primary conveyance capacity to the Parties.

Based on the above objectives, the Parties requested that Public Resources Management Group, Inc. ("PRMG") assist in the preliminary evaluation of the financial impacts to the individual Parties and the region based on different capacity ownership and service delivery concepts. The following is the scope of services to be performed by PRMG relative to reviewing the service area options identified by the Parties.

## PROJECT PHASES

Based on the ultimate plan that the Parties select in order to meet the regional goals the following project phases were identified:

Phase 1 – Option Identification and Cost Determination. This phase would encompass identification of the options to be considered and the corresponding costs for each service option. This analysis would identify the existing water and wastewater fixed assets of the Parties that would be either abandoned or consolidated for the selected option, identify the capital costs required to move the IWRf, including replacement wastewater treatment facilities and decommissioning of the IWRf, and any new water supply and treatment facilities to serve the region, identify the estimated operating and maintenance costs, estimate the life cycle costs of the identified options, and identify the advantages and disadvantages of each option. This phase would also include the determination of a preliminary acquisition value for the purchase of utility plant by the Regional Authority.

This phase would also include a comparison of the service area issues and the performance of an analysis to identify the preferred service option that meets the need for the Parties. This comparison and analysis will be presented to the Parties for consideration and would include a discussion of each option's advantages and disadvantages.

Phase 2 – Create Regional Authority or Utility Agreements. This phase is dependent on the results of the first phase and would modify the existing or create a new governance structure if the establishment of a Regional Authority is the preferred option. The tasks under this phase may include: i) development of wholesale water and / or wastewater service agreements; ii) development of capacity entitlement agreements; iii) interlocal agreements to create the Regional Authority and to identify management and operational responsibilities; and iv) the basis for the billing or sharing of costs for water and wastewater treatment capacity.

Phase 3 – Financing of Capital Plan. It is anticipated that even under a "status quo" scenario, there may be a need to issue utility bonds to finance the cost of relocating the FPUA IWRf and / or to construct new water treatment plant facilities. If required, this phase would include the development of the disclosure reports and documentation in support of the issuance of bonds by the Regional Authority or for the individual Parties for the construction of new utility plant and as required for the acquisition and regionalization of the primary facility assets (construction of facilities that would consist of a stand-alone issue for the FPUA is not contemplated in this scope since it would be solely at the option of the FPUA).

Phase 4 – Transition Services. To the extent that the assets were transferred to a Regional Authority or other form of governance, there may be certain transition services that may be required. This could include verification of accounts receivable, development of service and operations policies, development of financial policies, etc. in order to complete the transactions.

For the purposes of this scope of services, only the Phase 1 activities are currently being considered since it is unknown if the other phases will be required.

## Phase 1 Activities

The tasks to be performed under this phase of the project and are highly dependent on the availability of information to be provided by the Parties. This scope assumes the evaluation of the FPUA and County on a standalone basis and two additional water and / wastewater service options or scenarios as determined by the Parties. The tasks for this phase of the scope of services are summarized below:

Task 1-1: Data Compilation. This task will include obtaining general information regarding the operations of the FPUA water and wastewater systems and the County water and wastewater systems. Information will include, but not be limited to, recent historical financial reports and supporting documentation, monthly operating reports filed by the respective Parties to the Florida Department of Environmental Protection ("FDEP"), plant operating permits, customer statistical data and forecasts of needs, fixed asset records, detailed operating budgets by cost center or division (and by utility plant), capital improvement plans and budgets, outstanding debt allocable to the Party's utility systems, and other information. PRMG will prepare an information request to initiate the data compilation process and will use any available information obtain from previous studies prepared for the Parties, where applicable.

Task 1-2: Service Area Demand Forecast. Based on information provided by the Parties, population projections assumed for the region, historical trends and discussions with individual Party representatives, PRMG will prepare or compile water and wastewater forecasts of the capacity needs or demands for the service area. The analysis will be prepared on a FPUA-specific, County-specific, and combined regional approach (will be on a consolidated service area basis and not by specific water or wastewater plant facility). The forecast will be for a thirty-year planning period (or other period as deemed reasonable by the Parties, not to exceed thirty years, referred to as the "planning period") and will include: i) for the water system, average annual day water production (expressed on a million gallons per day or "MGD" basis), total annual finished water produced (thousands of gallons), and annual maximum daily demands (per MGD); and ii) for the wastewater system, average annual day wastewater treatment (expressed on a per MGD basis) and the total annual wastewater treated (thousands of gallons).

Task 1-3: FPUA System Base Cost and Life Cycle Cost Analysis. In order to identify service options that recognize certain FPUA facilities to be included as a component of the Regional Authority, an analysis to identify the estimated direct operating and capital (both near term and an allowance for ongoing renewals and replacements) costs for the FPUA water and wastewater treatment facilities will be performed. This evaluation will include the relocation of the IWRF to the mainland and will include any cost increases or reductions as a result of the relocation of facilities and any additional water supply and treatment facilities, as may be identified. PRMG will prepare a life-cycle cost analysis for the planning period to evaluate the net present value of the direct cost to construct and provide water production and wastewater treatment service (start date anticipated to begin when the IWRF is relocated). Based on the projected water production and wastewater flows, a "unit cost per gallon" will be calculated for the near term (up to five-years).

In the determination of the annual cash flow needs, it is assumed that the capital needs for the relocation of the IWRF, including construction of replacement wastewater facilities, or

construction of a new water treatment plant will be financed through the issuance of utility revenue bonds. PRMG will work with the Parties selected financial advisor or use assumptions developed with the Parties in the determination of the debt repayment schedules that are consistent in structure and cost for all scenarios that are evaluated. Additionally, based on the direction of the Parties, consideration of the proceeds from the sale of the IWRP property may be considered in the evaluation.

As part of this analysis, the estimated capital costs that have been invested by the FPUA (i.e., utility plant in service or under construction) that may become part of the regional system will be identified since this is a cost that may need to be recovered under any other service option.

Task 1-4: County System Base Cost and Life Cycle Cost Analysis. In order to identify service options that recognize certain County facilities to be included as a component of the Regional Authority services, an analysis to identify the estimated direct operating and capital (both near term and an allowance for ongoing renewals and replacements) costs for the County water and wastewater treatment facilities will be performed. PRMG will prepare a life-cycle cost analysis for the planning period to evaluate the net present value of the direct cost to construct and provide water production and wastewater treatment service. Based on the projected water production and wastewater flows, a "unit cost per gallon" will be calculated for the near term (up to five-years).

As part of this analysis, the estimated capital costs that have been invested by the County (i.e., utility plant in service or under construction) that may become a part of the regional system will be identified since this is a cost that may need to be recovered under any other service option.

Task 1-5: Consolidated Service Option Capital Evaluation. The Parties will need to provide to PRMG the capital costs associated with any service option scenario that is to be evaluated. For each service option, PRMG will work with the Parties to identify the costs associated with the construction of certain capital / utility plant to provide for the conveyance (including pumping and storage), metering, and production of potable water for delivery to the Parties' respective retail service areas and for the conveyance (including pumping), metering, treatment and disposal (biosolids and effluent) of wastewater received from the Party's respective retail service areas. This will include the identification of capacity needs over the life-cycle planning horizon (includes actual service, capacity reservations and margins for growth or unanticipated conditions in the determination of the capacity to be constructed).

Task 1-6: Consolidated Utility Operation and Maintenance Cost Evaluation. Assuming the consolidation of the assets through joint ownership or creation of an authority or the sale of assets to another party, an analysis to identify the costs to operate and manage the water and / or wastewater utility assets of the regional system will be required. The Regional Authority option would require staff for administration of the consolidated utilities and that the operating expenses identified in the Task 1 activities would be incurred by the consolidated utility. An analysis will be prepared to: i) identify any FPUA and County operating expenses determined in the Task 1 activities that would not be considered as an operating expense of the authority; ii) identify the

FPUA and County costs that would no longer be required as a result of formation of the consolidated utility; iii) identify any capital costs that may no longer be required; and iv) identify additional costs associated with the creation of the authority or consolidated utility (examples may include governance costs, professional costs such as legal, annual disclosure, etc.).

Task 1-7: Consolidated Capital and Utility Cost Life Cycle Analysis by Service Option. Based on the above referenced tasks, PRMG will prepare a life-cycle cost analysis of the applicable operating and capital expenditures to provide water production and wastewater treatment by alternative service scenario. The analysis will be based on the base cost evaluations conducted in prior tasks adjusted for changes in operating expenses and capital expenditure requirements.

Task 1-8: Comparison of Alternatives. Based on the results of the prior tasks, PRMG will prepare a summary comparison of the service option costs and summarize or identify any advantages and disadvantages of each option for consideration by the Parties.

Task 1-9: Prepare Report. PRMG will prepare a report that will document the assumptions and results of the analyses for consideration by the Parties.

Task 1-10: Meetings. During the course of the project, it is anticipated that PRMG will attend several meetings with the Parties management and staff and its consultants / advisors to develop assumptions, review analyses, and identify issues associated with the consolidation of service and the corresponding financial forecasts. For the purposes of this scope of services, it is recognized that PRMG will attend four (4) meetings. The meetings may be attended by teleconferences or by actual site visits, depending on need and contract budget. The meetings identified in this scope of services include:

	Number of Meetings
Data Review / Kickoff Meeting	1
Assumption Development / Analytical Meeting / Review Results	2
Present to Wastewater Relocation Committee	<u>1</u>
Total Number of Meetings	<u>4</u>