



## City of Hallandale Beach City Commission Agenda Cover Memo

<b>Meeting Date:</b>	March 21, 2018		<b>Item Type:</b>	<b>X</b>	<b>Resolution</b>	<b>Ordinance</b>	<b>Other</b>
<b>Fiscal Impact:</b> <i>(Enter X in box)</i>	<b>Yes</b>	<b>No</b>	<b>Ordinance Reading:</b> <i>(Enter X in box)</i>	<b>1<sup>st</sup> Reading</b>		<b>2<sup>nd</sup> Reading</b>	
	<b>X</b>			<b>Public Hearing:</b> <i>(Enter X in box)</i>	<b>Yes</b>	<b>No</b>	<b>Yes</b>
<b>Funding Source:</b>	490-3320W-531010 (Consultants/Professional Services)		<b>Advertising Requirement:</b> <i>(Enter X in box)</i>		<b>Yes</b>		<b>No</b>
<b>Account Balance:</b>	490-3320W-531010 (P1606) \$300,000		<b>Quasi-Judicial:</b> <i>(Enter X in box)</i>	<b>Yes</b>		<b>No</b>	
<b>Project Number :</b>	P1606		<b>RFP/RFQ/Bid Number:</b>	RFP # FY 2015-2016-025 Design High Service Pumps and Transfer Pumps			
<b>Contract/P.O. Required:</b> <i>(Enter X in box)</i>	<b>Yes</b>	<b>No</b>	<b>Strategic Plan Priority Area:</b> <i>(Enter X in box)</i>				
	<b>X</b>						
<b>Sponsor Name:</b>	Roger M. Carlton, City Manager		<b>Department:</b> Public Works	Steven F. Parkinson, P.E., PWLF, Assistant City Manager, Director of Public Works			

**Short Title:**

**A RESOLUTION OF THE MAYOR AND CITY COMMISSION OF THE CITY OF HALLANDALE BEACH, FLORIDA, AUTHORIZING THE CITY MANAGER TO EXECUTE AN AGREEMENT WITH HAZEN AND SAWYER, INC., FOR THE SCOPE OF SERVICES PROVIDED IN EXHIBIT 7 FOR DESIGN, PERMITTING, BID SERVICES, AND CONSTRUCTION OVERSIGHT ASSISTANCE FOR THE REPLACEMENT OF THE WATER TREATMENT PLANT TRANSFER PUMPS (PHASE 2) FOR AN AMOUNT NOT**

**TO EXCEED TWO HUNDRED NINETY-NINE THOUSAND,  
SEVEN HUNDRED DOLLARS (\$299,700); FURTHER  
AUTHORIZING THE CITY MANAGER TO EXECUTE ALL  
RELATED DOCUMENTS TO EFFECTUATE THE PROJECT;  
AND PROVIDING FOR AN EFFECTIVE DATE.**

### **Staff Summary:**

#### **Background:**

The City of Hallandale Beach has successfully maintained the water treatment plant's transfer pumps (TPs) since 1968. Staff reports that two (2) of the three (3) transfer pumps were installed in 1968 and the third pump was installed at a later date. All three transfer pumps discharge water from the clear well (storage and disinfection) to a common pipe. Some of this water is then stored in above ground storage tanks and some of this water supplies backwash water to the City's filters. Filter backwashing occurs when water is pumped backwards over the filter. This acts as preventative filter maintenance and extends the life of the filter.

All three pumps are at or beyond the end of their normal economic lives (typically 20-30 years). City staff has reported that current pump capacities have decreased to approximately 80% of their original design capacities. The transfer pumps are also experiencing deficiencies in filter backwashing. Total transfer pumping capacity is currently less than the water treatment plant's rated capacity of 16.0 MGD. The water treatment plant has the capacity to produce 16 million gallons of water per day. Demand in the City does not currently warrant this production, however if the City were to have to produce this much water it would not have the capacity to do so because the transfer pumps have outlived their useful lives.

The City previously retained Hazen and Sawyer to complete the conceptual evaluation for the replacement of the TPs (Exhibit 2). This evaluation also presented the annual savings associated with the proposed configuration. The proposed pumps are expected to consume 15% less electrical energy than the existing pumps and are associated with an annual savings of approximately \$4,000. As recommended in this evaluation, the City has decided to install three TPs equipped with variable frequency drives (VFDs). VFDs will allow the pumps to operate more efficiently. Pumps will operate at a reduced speed when the water storage tank is partially full and at a higher speed when the storage tank is full.

During the January 25, 2017 City Commission meeting the City Commission awarded RFP # FY2015-2016-025 (CCNA) to Hazen and Sawyer for the design of high service pumps and transfer pumps at the City of Hallandale Beach Water Treatment Plant, via Resolution 2017-006 (Exhibit 3). The City Commission approved the negotiated agreement, for the design and permitting of the high service pumps (Phase 1) in an amount not to exceed \$399,949, during the March 15, 2017 meeting (Exhibit 4). The scope of work for this agreement can be seen in Exhibit 5 and the executed contract can be seen in Exhibit 6.

**Current Situation:**

The City is now bringing forth this item to recommend that the City Commission approve a similar agreement for Hazen and Sawyer to provide the design, permitting, assistance with bidding and construction oversight assistance for the replacement of the aforementioned transfer pumps. This represents Phase II of the project. (Phase I includes the replacement of the high service pumps at the water treatment plant).

Exhibit 7 includes the full scope of work for these services. A breakdown of the scope of work can be seen below:

1. Design services – prepare detailed design drawings and technical specifications that detail the character and extent of the project. The design will be based on removing all of the transfer pumps from the building and installing new pumps. During the installation process, the City will maintain transfer service pumping through using additional rented transfer pumping equipment.
2. Permitting – prepare applications and obtain the required permits from Broward County Environmental and Growth Management (BCEPGMD), Broward County Health Department and the City of Hallandale Beach Building Department.
3. Bid services – assist the City during the bid process
4. Construction oversight assistance – construction phase coordination, contract interpretation, request for information, change orders, submittals, discipline observations, control system field testing, meetings, record drawings etc.

This Phase II design, permitting, assistance with bidding and construction oversight assistance will require an expenditure in an amount not to exceed \$299,700.

**Proposed Schedule**

Task	Description	Duration for task/subtask (days)	Calendar Days From Notice To Proceed
1	Design		
	• 50% Design	120	120
	• City Review of 50% Design	20	140
	• 90% Design	100	240

	<ul style="list-style-type: none"> <li>• City Review of 90% Design</li> <li>• 100% Design</li> </ul>	20	260
2	Permitting	80	360
3	Bid Services	60	420
4	Construction Oversight Assistance	230	650

**Fiscal Impact**

Funding is currently available for design services in Project # P1606, High Service and Transfer Pumps, (490-3320W-531010) in the amount of \$300,000 for this project (Phase II).

The preliminary construction cost for Phase II (construction of transfer pumps) is \$1.37 million. This figure is based on a 5% yearly increase from the initial cost estimate (2014) from Hazen and Sawyer (Exhibit 2). The necessary funding will be split over two fiscal year budgets: staff is requesting \$685,000 during FY18/19 and another \$685,000 in FY19/20.

It should be noted that projects of this magnitude and need may require a rate adjustment. There will be more detail on this in the FY18/19 budget proposal utilizing data from the rate study currently underway.

**Why Action is Necessary:**

Pursuant to Chapter 23, Section 23-4, Competitive Bidding Required, all purchases of and contracts for equipment, supplies and contractual services, when the estimated cost shall exceed \$50,000 shall be based on competitive bids. Furthermore, pursuant to Chapter 23, Section 23-6, Award of Contract, the City Manager, shall have the authority to recommend to the City Commission award of contracts.

**Proposed Action:**

Staff recommends that the City Commission adopt the attached resolution authorizing the City Manager to approve the Scope of Work for the Water Treatment Plant Transfer Pumps Replacement (Phase II) to Hazen and Sawyer, Inc., providing for all items included in Exhibit 7 for a total amount not to exceed \$299,700.

**Attachment(s):**

- Exhibit 1 – Resolution
- Exhibit 2 – Transfer Pump Evaluation
- Exhibit 3 – Resolution 2017-006
- Exhibit 4 – Resolution 2017-032

Exhibit 5 – High Service Pumps Replacement Scope of Work  
Exhibit 6 – Agreement for RFP FY2015-2016-025  
Exhibit 7 – Transfer Pumps Scope of Work

Prepared by:

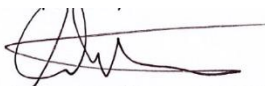
  
Adeel Abdool-Ghany, Engineer III

and

Susan Fassler, Green Initiatives Coordinator

Approved by:





Steven F. Parkinson, PE, PWLF  
Assistant City Manager and Director of Public Works