

REQUEST FOR CITY COUNCIL CONSIDERATION

Meeting Date: January 22, 2007

Agenda Item: 5 (B)	Prepared By: Dr. Bruce Weinstein, Senior Project Mgr Date: January 16, 2007
Agenda Section: Business:	
Subject: Wastewater Plant Upgrade Modifications	Department: Utilities

BACKGROUND:

Council is asked to authorize an amendment to the Wastewater Treatment Plant construction contract.

On May 1, 2006, Council approved the award of the construction contract for Wastewater Treatment Plant improvements to D.N. Higgins, Inc. in the amount of \$8,943,000. The scope of work did not include certain components pending further review and analysis of the on-site pipe system that connects to the treatment process.

Currently wastewater flows into the Marco Island Wastewater Treatment Plant through four separate force mains: the 16" diameter force main from Collier Boulevard, the 8" diameter force main from North Marco (includes the flow from North Marco Utilities), the 8" diameter force main from the lift station at the Post Office, and the 6" Mulberry force main. All these force mains enter the plant from different directions and follow circuitous routes till they enter the primary 16" line that flows to the headworks in the plant. The headworks consist of an elevated platform with rotating screens that remove large debris from the wastewater before flowing into one of two equalization tanks. From the tanks the wastewater is pumped to the treatment units.

To accommodate wastewater flows the force main from Collier Boulevard is being increased from 16" to a 24" diameter, and the 8" force main from North Marco is being increased from 8" to 10" diameter. These two new larger force mains along with the force mains from the Post Office lift station and Mulberry Court will be piped together just outside the plant at Windward Drive and Elkcam Circle.

The existing 16" force main that enters the plant and goes to the headworks, a distance of approximately 500 feet, needs to be upgraded to a 24" diameter pipe to accommodate the larger force mains at the entrance to the plant and the higher flow rates.

The principal scope of work (estimated to cost \$240,000) is to install the approximate 500 feet of new 24" ductile iron pipe from Elkcam Circle to the existing 24" header pipe at the headworks. Given the unknown conditions under the ground it is possible that some planned piping modification may be needed to install the 24" pipe. For this reason a contingency of 10% or \$24,000 will be added to the cost estimate.

To provide a by-pass for the 24" pipe header, a piping modification just upstream of the headworks it is required to connect the new 24" force main just upstream of the 24" header to the 16" pipe. Within the same excavation it is also proposed to provide a temporary connection for the Post Office force main and the North Marco force main into the existing 16" pipe. The estimated cost for this work is \$30,000.

Two additional contract amendments are proposed to improve operator efficiency. The first is to modify headwork screen controllers to automatically operate influent valves (\$4,000). And the second is to add a stairway to access elevated flow meters (\$2,000).

Funding for these changes is included in FY07 CIP Item 16. The proposed pipe modifications will be completed on a time and material cost basis.

RECOMMENDED ACTION:

Authorize the City Manager to execute a change order with D.N. Higgins, Inc. to implement the scope described herein for a not-to-exceed cost of \$300,000.

Reviewed by Department Director

Reviewed by City Manager

Council Action: Motion by:

Second by: