#15-1203

TO: Honorable Mayor & Members of the

Fort Lauderdale City Commission

FROM: Lee R. Feldman, ICMA-CM, City Manager

DATE: November 17, 2015

TITLE: Canal Dredging Master Plan Presentation

The purpose of this presentation is to provide an update on the Canal Dredging Master Plan, following the completion of survey work on 78% of City-owned canals and staff's presentation to the Marine Advisory Board (MAB). This presentation outlines the costs associated with maintaining City-owned canals, addresses funding concerns, and provides options for moving forward with the master plan.

In an effort to develop a Comprehensive Canal Dredging Master Plan and to identify funding needs, on February 12, 2014, the City Commission authorized staff to conduct canal surveys and engineering assessments of the overall maintenance dredging needs for City-owned canals in fiscal year 2015 (CAM 14-0280).

During the assessment, it was determined that there are 115 miles of manmade canals within the City limits, of which 65 miles are City-owned. Throughout fiscal year 2015, the City's Public Works Department completed canal surveys of approximately 78% of City-owned canals (51 miles). The survey cost for the remaining 22% (14 miles) of City-owned canals is estimated to cost \$500,000 if outsourced, and \$250,000 if performed in-house.

Using the survey information available, staff conducted a dredging evaluation and developed a preliminary dredging master plan. Based on the survey findings and the City's minimum canal dredging criteria, the evaluation staff determined that 15% of Cityowned canals (10 miles) require dredging work. The estimated cost to complete the dredging is \$4.7 million. Additionally, it is estimated that 40% of the remaining unsurveyed canals (5.6 miles) will require dredging at an estimated cost of \$3.3 million.

The location of canals with immediate dredging needs have been mapped and prioritized in accordance with the following factors:

- Canal condition magnitude of dredging need;
- Canal dredging complaints;
- Canal location and constructability logistics; and
- A 7-year maintenance dredging cycle.

The cost of implementing the proposed plan is \$8 million over 7 years with an average annual cost of \$1.14 million per year. The intent is that drainage canals will be funded from the Stormwater Fund while navigable canals will be funded through assessments.

Since a funding mechanism has not been identified for this master plan, staff proposes the following recommendations to further the program:

- 1. Perform a rate study to establish a specific funding mechanism, assessment rate or fee, and implementation process
 - Estimated cost \$60,000 which can be funded through unused funds rolled over from the 2015 CIP for this task
- 2. Perform a survey and assessment of the remaining 14 miles of navigable and drainage canals
 - Navigable canal surveys can be funded through roll over funds from the 2015 CIP
 - Drainage canal surveys can be funded from utility fees
- 3. Implement selected funding mechanisms (billing, collection and public notices)
 - Estimated cost \$60,000
- 4. Create a Budget for specific design and environmental permitting
 - Estimated cost \$1.5 million
- 5. Create a Budget for construction
 - Estimated cost \$6 million

Strategic Connections:

This item is a *Press Play Fort Lauderdale Strategic Plan 2018* initiative, included within the Infrastructure Cylinder of Excellence, specifically advancing:

- Goal 2: Be a sustainable and resilient community;
- Objective 1: Proactively maintain our water, wastewater, road, and bridge infrastructure:
- Initiative 3: Conduct an analysis of canal dredging needs and examine funding scenarios.

This item advances the Fast Forward Fort Lauderdale 2035 Vision Plan: We Are Ready

Attachments:

Exhibit 1 – Presentation

Exhibit 2 - Canal Dredging Master Plan

Prepared by: Annalise Mannix, P.E., Senior Project Manager – Engineering

Elkin Diaz, P.E., Project Manager II - Engineering

Department Director: Paul Berg, Acting Public Works Director