



CITY OF FORT LAUDERDALE
City Commission Agenda Memo
REGULAR MEETING

#16-1406

TO: Honorable Mayor & Members of the
Fort Lauderdale City Commission

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

DATE: November 15, 2016

TITLE: Resolution Authorizing the issuance of a Letter of Support for the C-51
Reservoir Project

Recommendation

It is recommended that the City Commission adopt a Resolution to issue a letter of support for the C-51 Reservoir Project to be addressed to the South Florida Water Management District's (SFWMD) Governing Board.

Background

In 2006, water district managers and water utility directors representing entities in Palm Beach and Broward County began to jointly explore the feasibility of a regional reservoir as a strategy for meeting increased urban water supply needs and achieving water quality objectives, as described in the Comprehensive Everglades Restoration Plan. This project later became known as the C-51 Reservoir Project, due to its proposed location being adjacent to the C-51 Canal in Palm Beach County.

The Broward Water Resources Task Force (WRTF) was convened in 2008 to consider opportunities for regional collaboration in alternative water supply development. The WRTF identified the C-51 Reservoir Project as a priority within the Broward WRTF Report (August 2010).

Instead of continuing with conventional methods of pumping stormwater into tidal discharge canals, the project's objective is to intercept stormwater and re-route it from the proposed C-51 reservoir through stormwater pumping stations and canal networks. Originally planned for a single-phase delivery of approximately 75,000 acre-feet of water in volume, this will allow for an increased capacity and delivery of water to Palm Beach, Broward and Miami-Dade Counties, and will provide increased recharge of the Biscayne Aquifer.

Palm Beach Aggregates, LLC (PBA), a rock mining company, was developing this reservoir and had proposed a transition of use from a rock mining operation to a water supply reservoir. PBA contracted for a preliminary design and cost estimate report for this new purpose in January 2012. Their report estimated the reservoir can supply about

200 million gallons of water per day (MGD) at a cost ranging from \$755 million to \$1.05 Billion (or \$3.78 per gallon to \$5.25 per gallon) for capital construction and about 3 cents per thousand gallons in operating cost. Recognizing water demands have reduced significantly from peak demand years of 2008 to 2010, PBA revised their approach to deliver the reservoir in four phases, with the first phase providing 35 MGD. With this phased approach, costs were re-estimated at approximately \$4.00 to \$4.50 per gallon for capital construction and 4 cents per thousand gallons to operate, with operations being run by the SFWMD.

In 2013, the City Commission adopted a resolution to enter into a joint funding Inter-local Agreement (ILA) for a Third-Party Assessment of C-51 Reservoir costs, to be performed by MWH Americas, Inc. and overseen by Palm Beach County. This assessment, upon consideration of comments made by the SFWMD, estimated that the reservoir can supply 132.5 MGD and the cost per gallon capital would be between \$4.34 and \$5.09, with an operating cost between \$1.18 and \$1.37 per thousand gallons.

In addition to expansion of the regional water supply, the project is also expected to improve regional water quality, as the Biscayne Aquifer is the source of the highest quality water in South Florida and requires the least amount of treatment, and cost, prior to delivery. The utilities participating in the C-51 project would purchase capacity from the reservoir and presumably receive increased allocations for longer durations within modified Water Use Permits from the SFWMD. In combination with increased control of stormwater discharges, the reservoir could supply the City of Fort Lauderdale with a more environmentally sustainable and lower cost water supply, as compared to current available alternatives. Additional benefits include a lower carbon footprint relative to other alternative water sources and the ability to mitigate saltwater intrusion as the sea level rises.

City staff has evaluated multiple alternative water supplies and has determined that this is the most cost effective option for the City at this time.

Resource Impact

There is no fiscal impact associated with this action.

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, and bridge infrastructure.
- Objective 3: Improve climate change resiliency by incorporating local, regional and mega-regional plans.
- Objective 6: Secure our community's water supply.

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

Attachment(s)

Exhibit 1 – Letter of Support

Prepared by: Alan Dodd, Public Works

Department Director: Paul Berg, Public Works