

**Program Name:** Flood Protection  
**Project Name:** C-4 Flood Mitigation Projects  
**Project ID:** 3600  
**Lead Agency:** South Florida Water Management District  
**Authority:** FEMA/DCA

**Strategic Plan Goal(s) Addressed:** 3.B.1

**Measurable Output(s):** Improve conveyance and level of service protection in the C-4 Basin

**Project Synopsis:**

**Sweetwater Gravity Wall:** This work involves the construction of a gravity wall along the north side of the C-4 Canal from SW 107<sup>th</sup> Ave. to SW 97<sup>th</sup> Ave. The north berm will be raised from a low elevation of 6.0 feet (NGVD) to an elevation of 8.0 feet (NGVD). This will prevent canal overflows into the city during high canal stages and allow for a pumping system being implemented by the city to provide flood protection. The project area is from SW 97<sup>th</sup> Avenue to SW 107<sup>th</sup> Avenue.

**Belen Phase 2 Gravity Wall:** This work involves the construction of a gravity wall along the north side of the C-4 Canal from SW 132<sup>nd</sup> Ave. to SW 122<sup>nd</sup> Ave. The north berm will be raised to elevation 8.0 feet (NGVD). This will prevent canal overflows into the adjacent area during high canal stages and allow for a pumping system being implemented by Miami-Dade County to provide flood protection.

**Miami-Dade Gravity Wall** (aka. Palmetto Floodwall): This work involves the construction of a gravity wall along the north side of the C-4 Canal from SW 97<sup>th</sup> Ave to the Palmetto Expressway. The north berm will be raised to elevation 8.0 feet (NGVD). This will prevent canal overflows into the adjacent area during high canal stages and allow for a pumping system being implemented by Miami-Dade County to provide flood protection. This adjacent area, a two-mile segment, was identified as having low canal bank elevations that would need to be improved for the above improvements to be utilized. This two-mile segment has been surveyed to determine the specific areas where a gravity wall will be needed. The segment was not originally included in the C-4 Flood Mitigation Plan.

The portion of this project between 94<sup>th</sup> Ave. and 92<sup>nd</sup> Ave. has been labeled the "Quick Start" component, because there are very few right-of-way encroachments along this portion of the canal bank and construction of the floodwall within this area can, therefore, easily be expedited.

**C-4 Canal Conveyance Improvements Upstream & Downstream of S-25B:** This work involves dredging two segments of the C-4 Canal. The first segment is between the NW 14<sup>th</sup> St. bridge and the S-25B Spillway Structure. The second segment is between the S-25B Spillway Structure and the where the C-4 Canal connects to the C-6 Canal (Miami River). The dredging will increase the conveyance capacity of the C-4 and as a result reduce the extent of flooding along the canal banks during major storm events.

**Updated C-4 Basin Model:** The Miami River Model originally developed in 2002 is being updated to include surface/groundwater interactions. Additionally, the updated model results will be utilized to determine operations criteria for the two impoundment pump stations, the municipal pump stations, and the S-25B Forward Pump Station.

**Current Status:** The following projects are complete:

S-25B Forward Pump Station  
S-26 Forward Pump Station  
C-4 Phase 1 Impoundment (G-420 & G-421)  
C-4 Phase 2 Impoundment (G-422)

*Project 3600 C-4 Flood Mitigation Projects Page 1 of 2*

Sweetwater Linear Berm and Safety Fence  
 Belen Conveyance Improvements  
 Belen Phase 1 Floodwall (SW 122<sup>nd</sup> Ave. to the Florida Turnpike)

The following projects are scheduled in near future (Phase 3):  
Sweetwater Gravity Wall (Land acquisition complete)  
 Construction scheduled to begin March 2011 and completed by March 2012.

Belen Phase 2 Gravity Wall (Land acquisition complete)  
 Design begins in September 2010 with construction starting in September 2011 and completed by September 2012.

Miami-Dade Gravity Wall (Initial survey complete)  
 The Quick Start Gravity Wall (Contract 1 of the Miami-Dade Gravity Wall) construction is scheduled to begin January 2011 and be completed by August 2011.

The design of Contract 2 of the Miami-Dade Gravity Wall is scheduled to begin in July 2011, with construction beginning in September 2012 and completed by November 2013.

C-4 Canal Conveyance Improvements Upstream & Downstream of S-25B  
 The design of the C-4 Canal Conveyance Improvements dredging project is scheduled to begin in October 2010, with construction beginning in May 2012 and completed by May 2013.

Updated C-4 Basin Model

**Project Schedule:**

Start Date: January 2005  
 Finish Date: December 2013

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Planning & Design											
Real Estate											
Construction											

**Actual Expenditures To Date by SFWMD**

	Exp thru 2005	2006	2007	2008	2009	2010	2011	2010	2013	2014	2015
Federal	140	45	4,083	600	0	32,000					
SFWMD											
<b>Total</b>	<b>140</b>	<b>45</b>	<b>4,083</b>	<b>600</b>	<b>0</b>	<b>32,000</b>					

**Contact:** Jorge Jaramillo, SFWMD, 561-242-5520, Ext. 4021