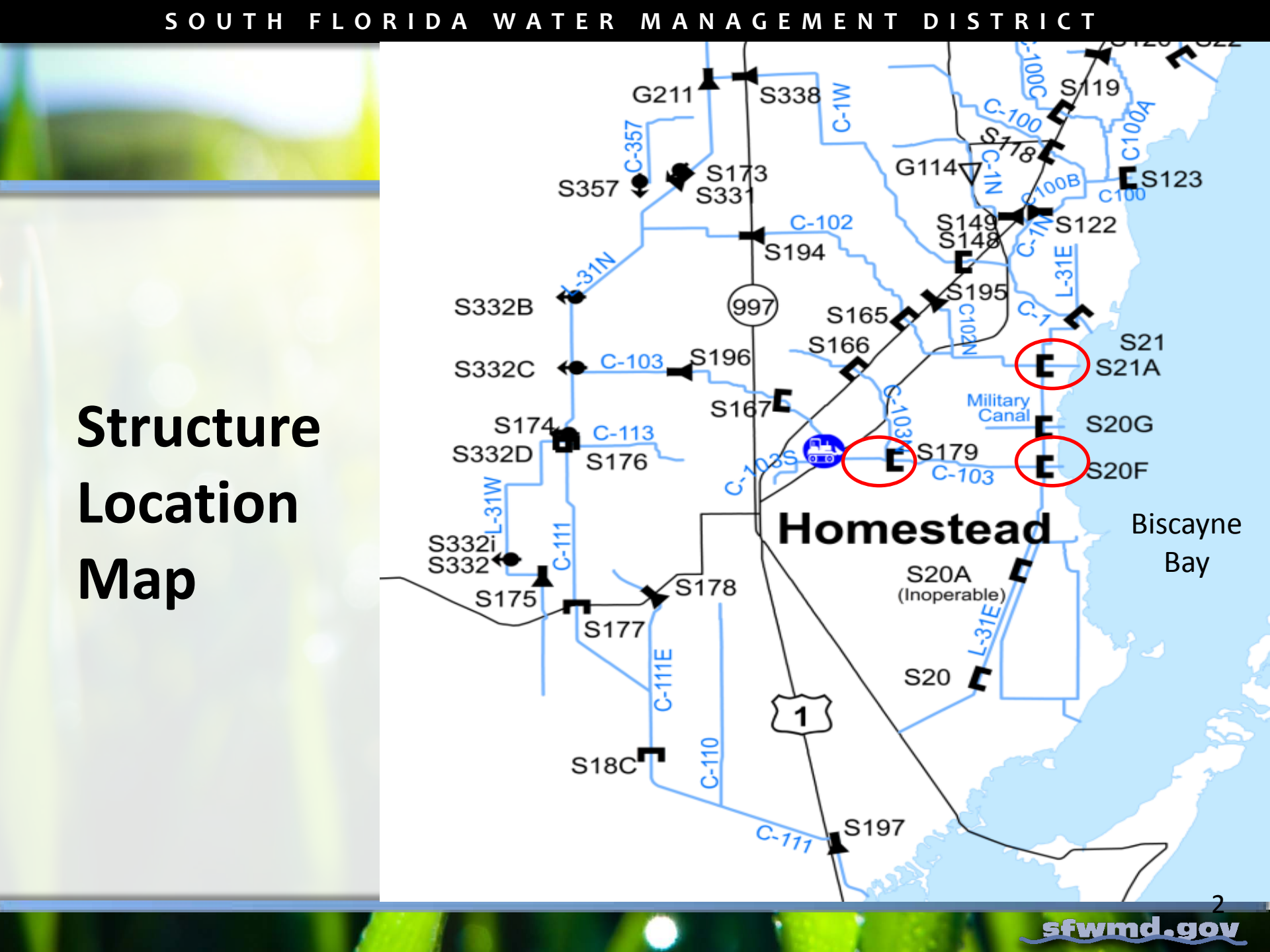


FY 2010/2011 SEASONAL OPERATIONS

South Miami-Dade Water Issues Coordination Roundtable Discussion – March 1, 2011

*Maura Merkal, Project Manager
Project Coordination Division,
Everglades Restoration and Capital Projects*

[illegible]

S-21A Operations

**S-21A (Canal 102)
water elevation ranges
(feet NGVD):**



High:	2.2' - 1.8'
Intermediate:	1.8' - 1.4'
Low:	1.4' - 1.0'

S-20F Operations

**S-20F (Canal 103)
water elevation ranges
(feet NGVD):**

High:	2.2' - 1.8'
Intermediate:	1.7' - 1.3'
Low:	1.4' - 1.0'



S-179 Operations

**S-179 (Canal 103)
water elevation ranges
(feet NGVD):**

High: 3.9' – 3.1'
Low: 3.1' - 2.7'



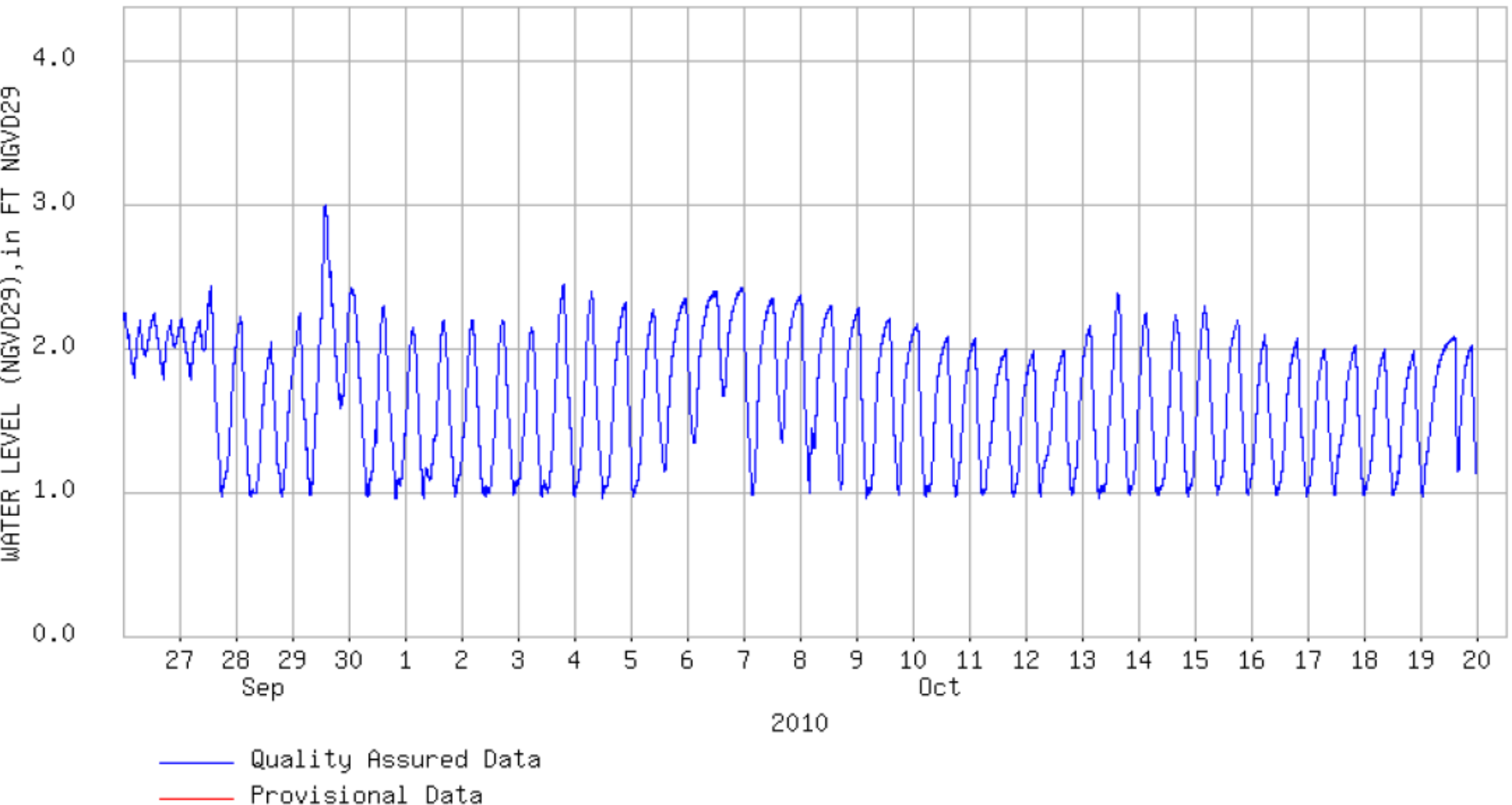
Operational Constraints

- Operational Range Protocol (Headwater)
 - Ex. Low Range: Gate Opens 1.4', Closes 1.0'
- Tidal Influences (Tailwater)
 - When tides are high, the gates operate to prevent saltwater intrusion sometimes allowing the canal levels to rise higher than the operational gate open criteria
 - During low tides, the gates can open/close based on operational protocol

S-20F Headwater Elevations September 29 to October 19, 2010

S-20F SPILLWAY ON CANAL C-103 NEAR TIDEWATER (HEADWATER)

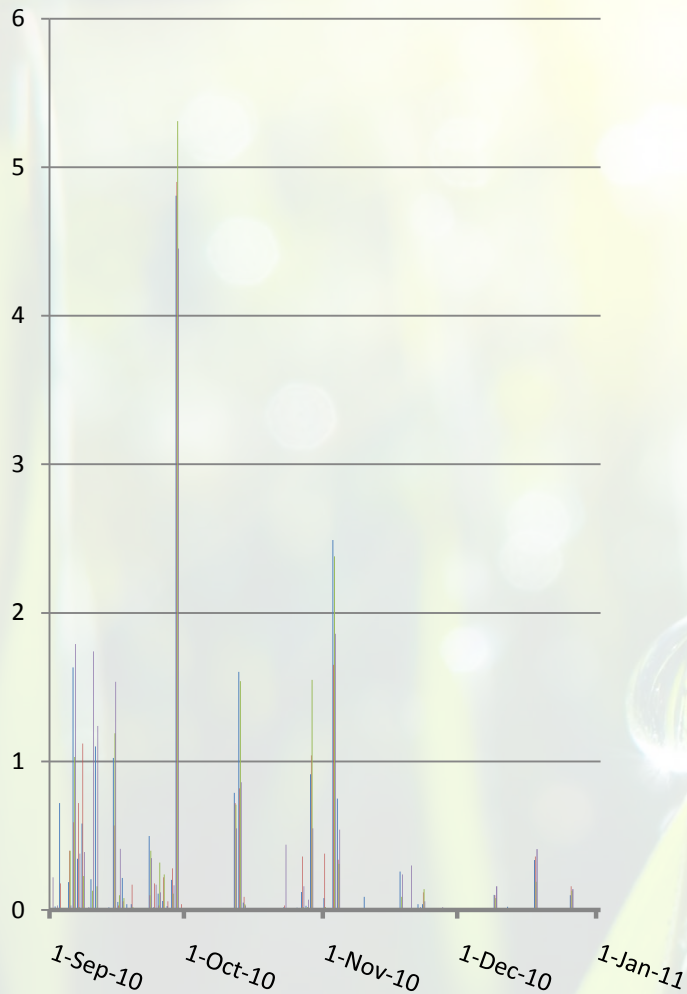
Station: S20F_H Freq: BK DataType: STG Stat: INST Agency: WMD Recorder: TELE opNum: Dbkey: 06572



Field Conditions Assessment

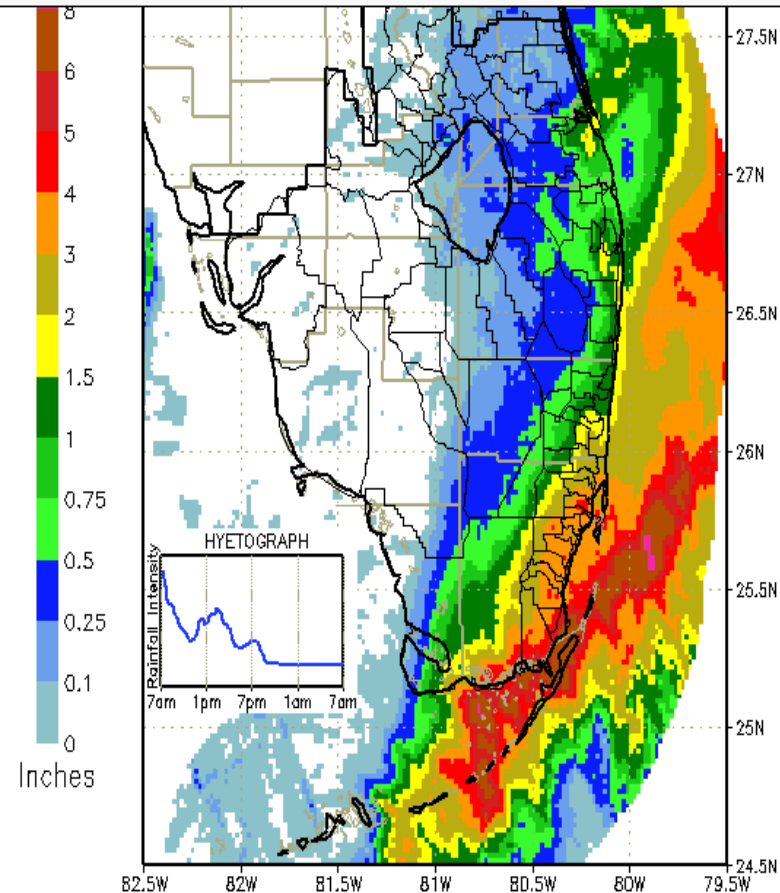
- **Rainfall**
 - Daily and Forecast
- **Field Inspections**
 - Weekly
 - Four locations
- **Communications**
 - Homestead Field Station
 - Operations Manager - Control Room

Rainfall



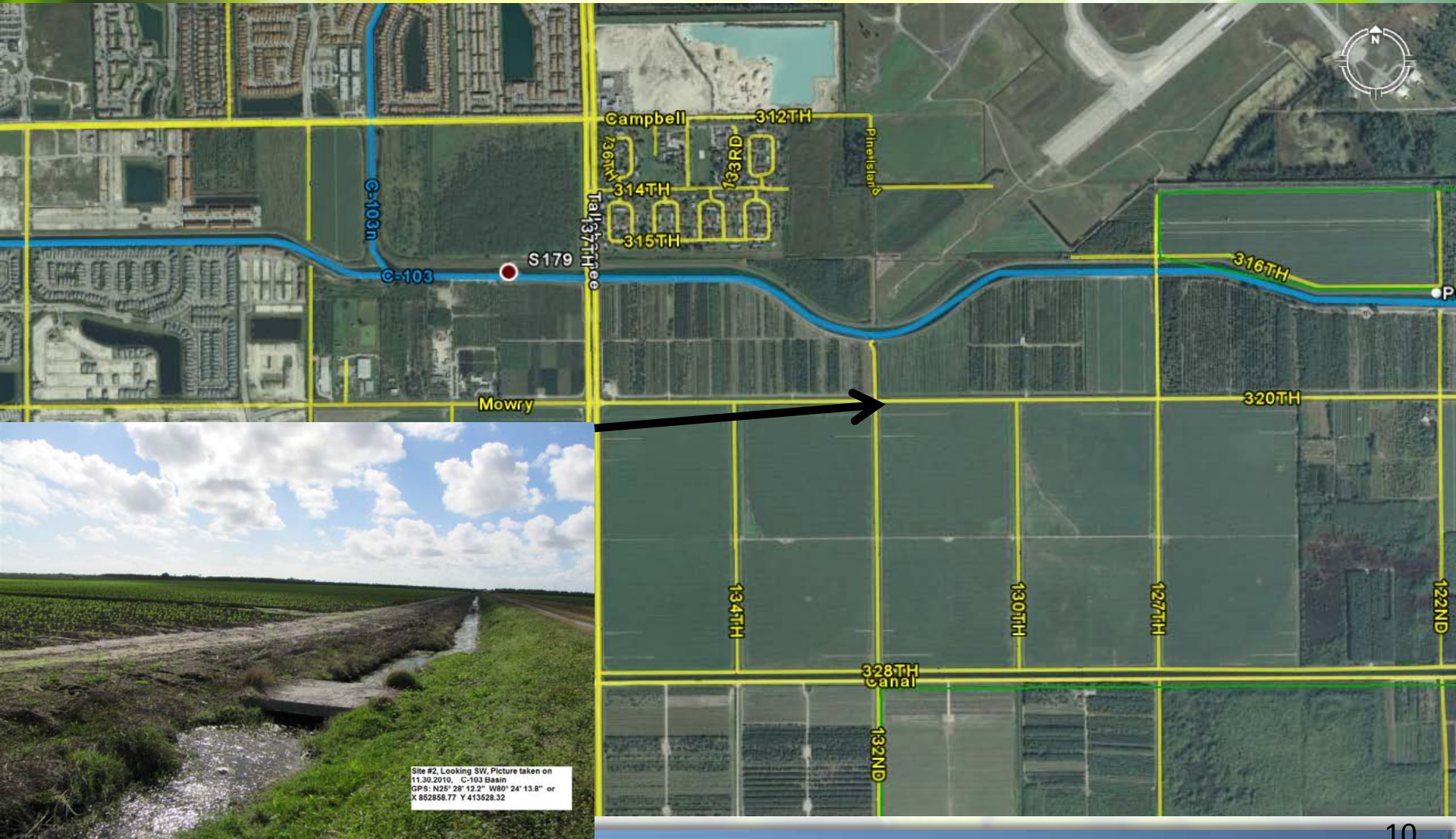
Select: 2010 September 29 Show

Daily data is available for 1999 to today's date.



DISTRICT-WIDE RAINFALL ESTIMATE: 0.367"

Weekly Field Inspections

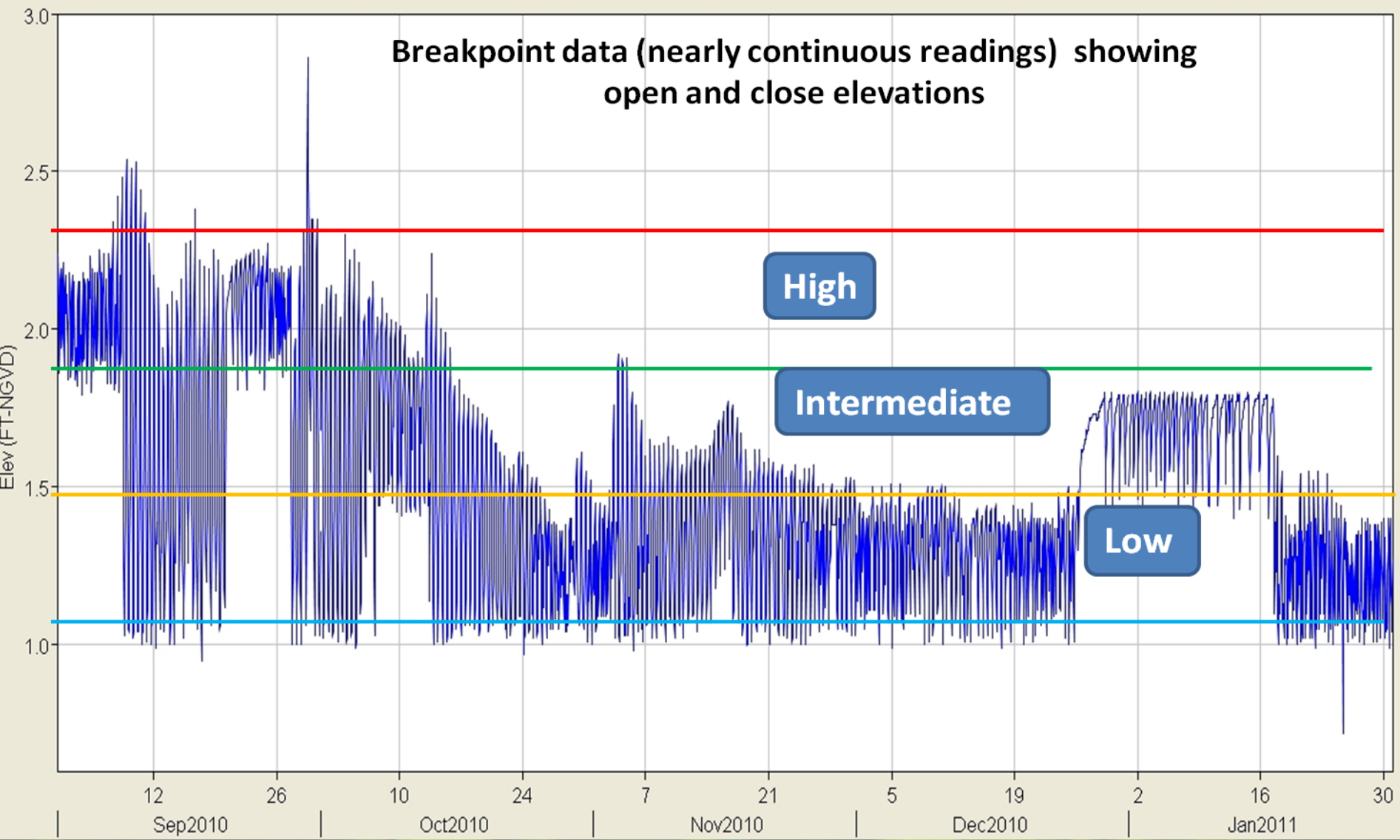


2010-2011 Operations

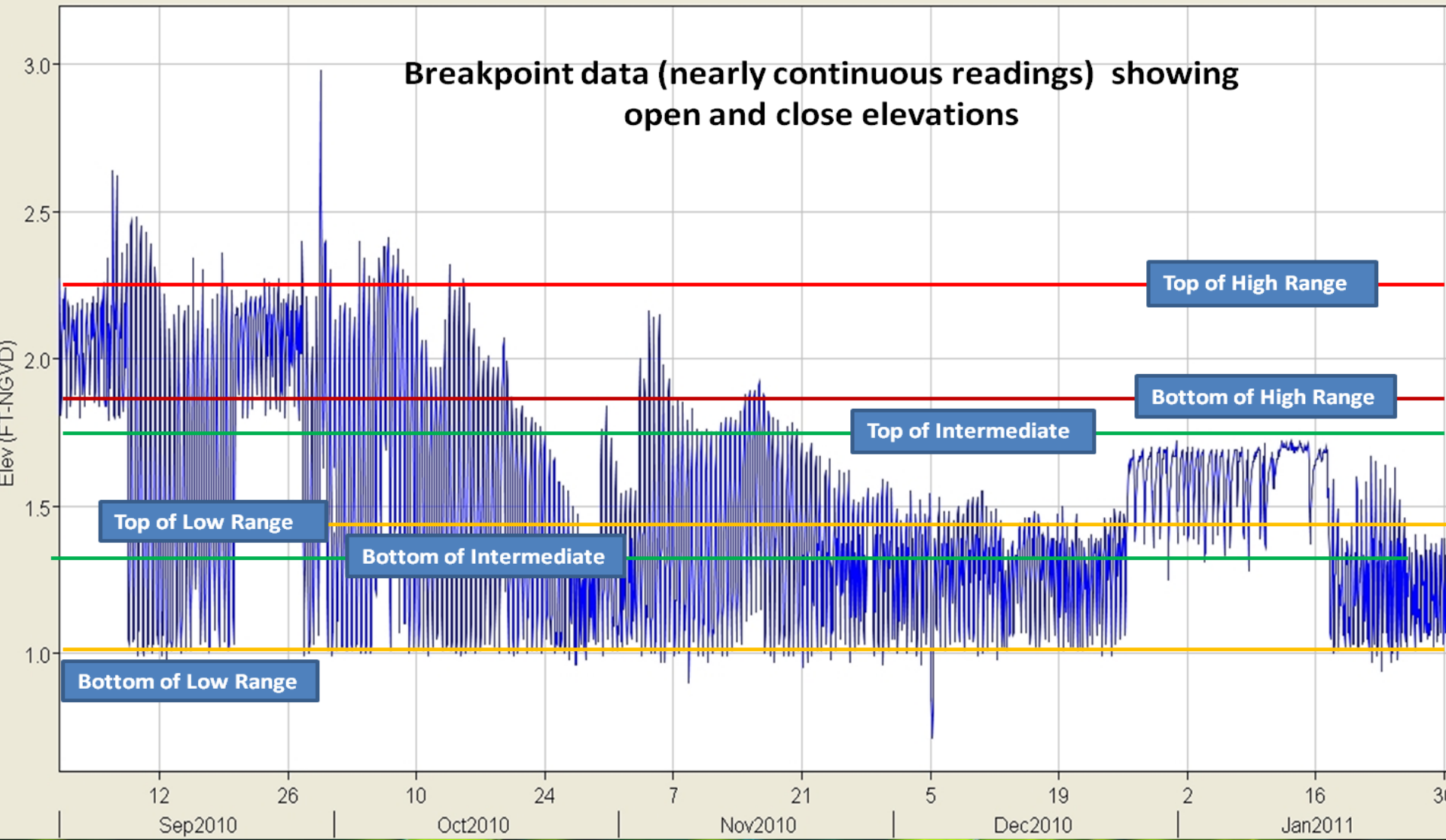
Structures S-20F, S-21A and S-179

Date	S-21A	S-20F	S-179
9/27/2010	Low	Low	Low
12/26/2011	Intermediate	Intermediate	"
1/17/2011	Low	Low	"
2/14/2011	Intermediate	Intermediate	"

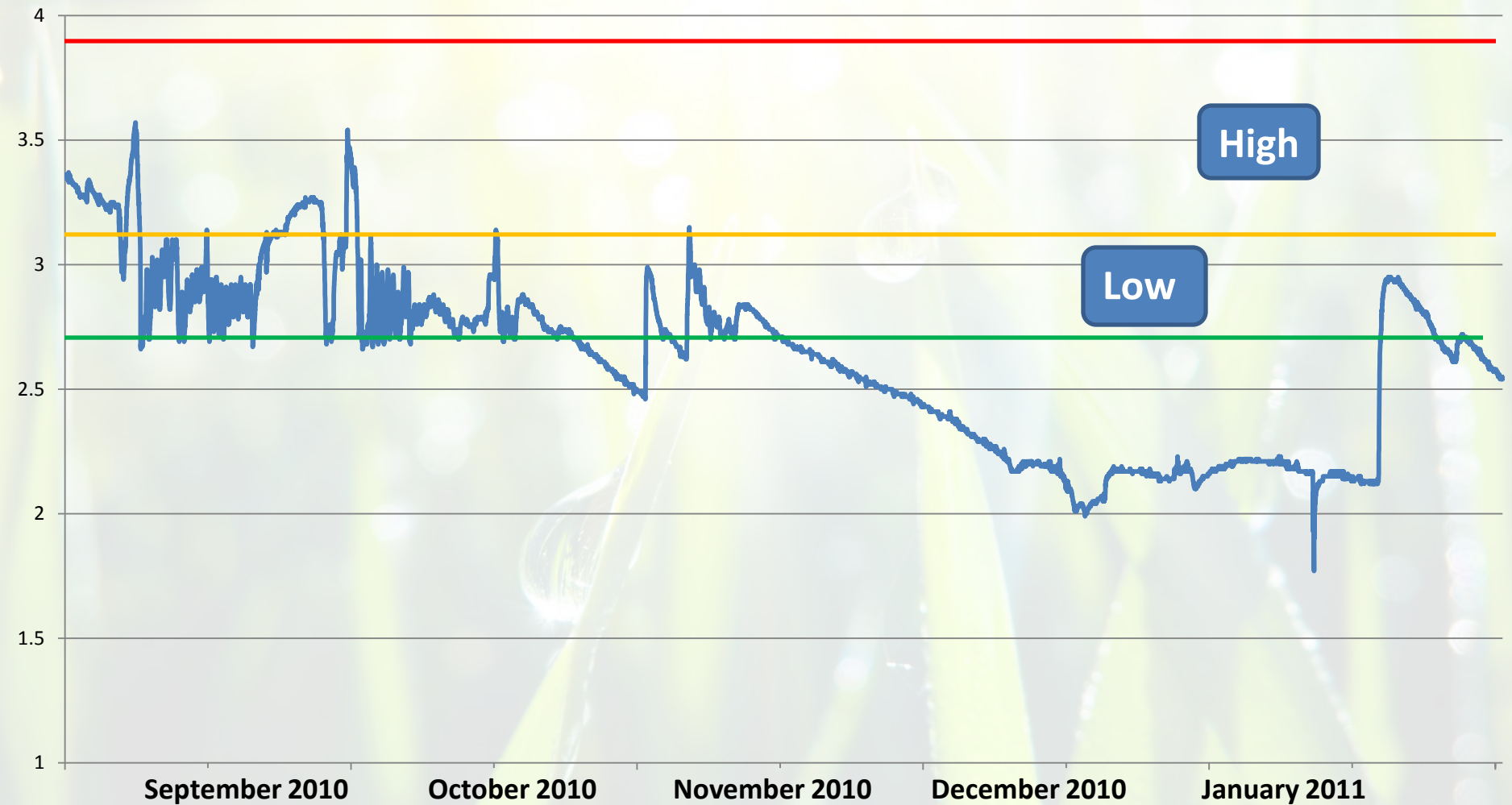
S-21A Headwater Elevations



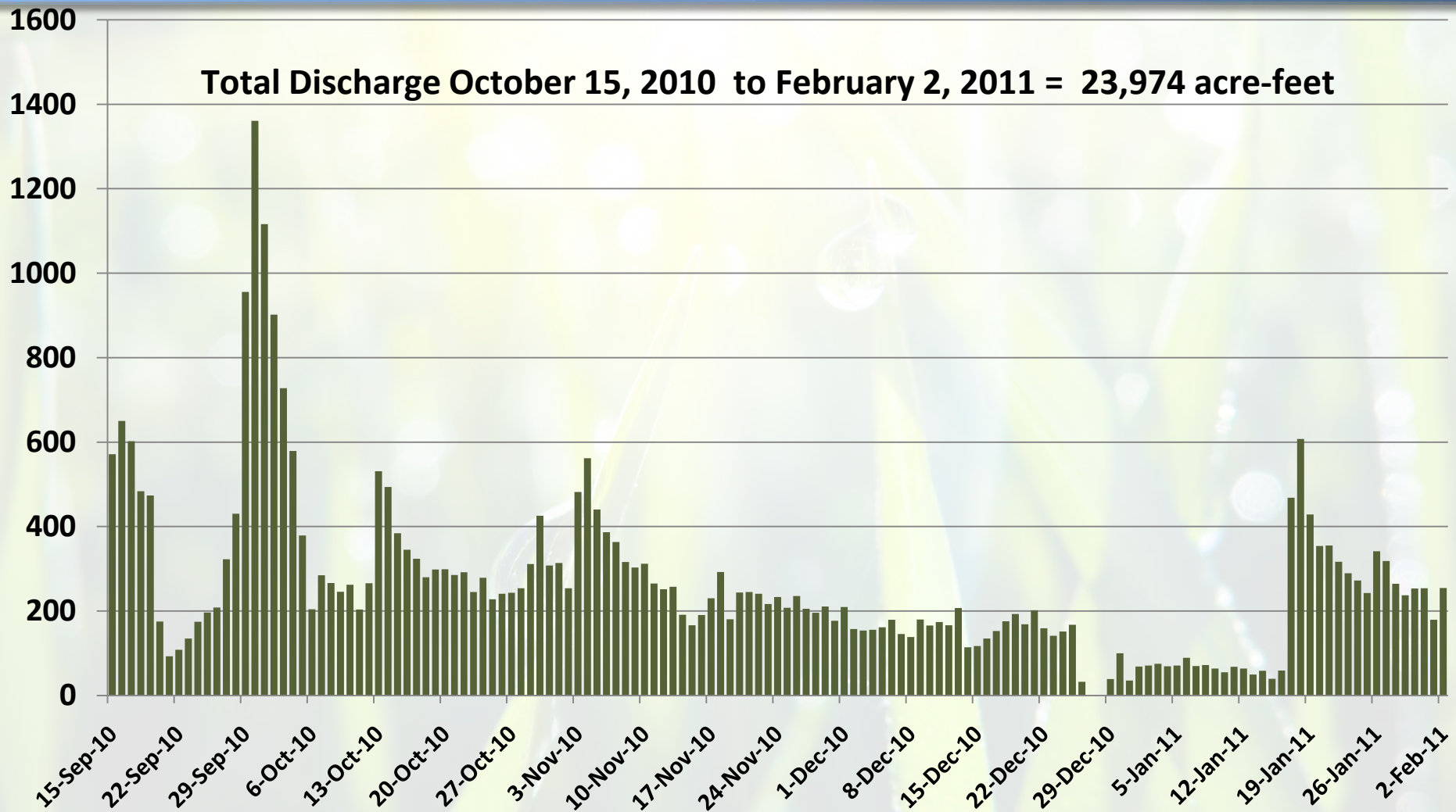
S-20F Headwater Elevations



S-179 Headwater

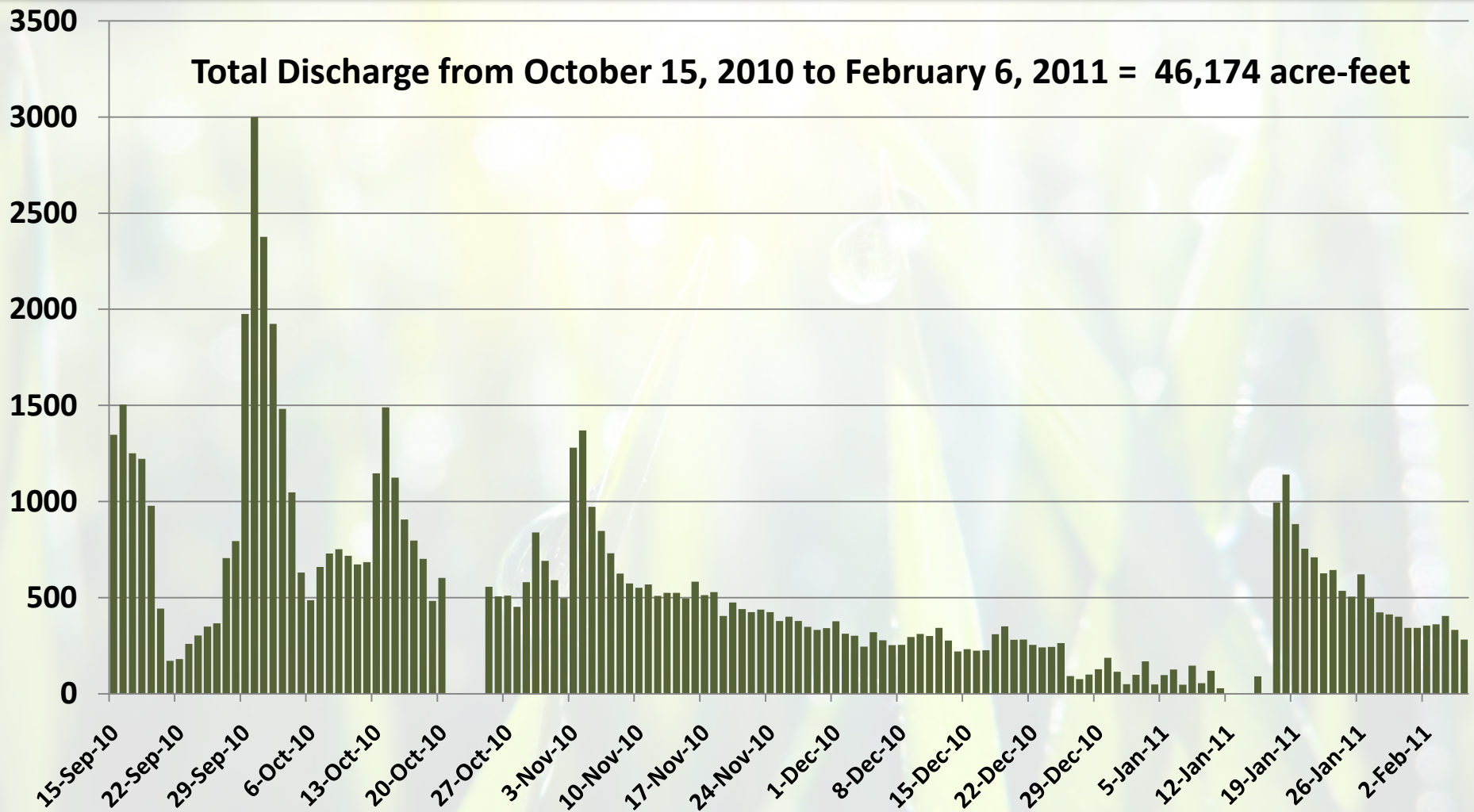


S-21A Daily Discharge Volume (Acre-feet)




S-20F Daily Flow Volume (Acre-feet)

Total Discharge from October 15, 2010 to February 6, 2011 = 46,174 acre-feet



Seasonal Operations Teleconferences


sfwmd.gov


SOUTH FLORIDA
 WATER MANAGEMENT DISTRICT

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Miami-Dade Service Center

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The Miami-Dade Service Center facilitates partnerships with local governments and community groups, provides direct and responsive access to agency functions, implements District-wide and local water resource initiatives and creates a better understanding of local water resource issues through outreach and education activities.

The service area of this office includes all of Miami-Dade County. Staff work in administration, planning, environmental permitting, right-of-way permitting and operations and maintenance. Tasks related to Comprehensive Everglades Restoration Plan (CERP) project management, including Everglades and Florida Bay restoration, are also conducted in this office.


ADDRESSES

- ▶ [Miami-Dade Service Center](#)

In the News

- ▶ [Wet January Welcome but Water Shortage Concerns Remain \(Feb 07\)](#)
- ▶ [Jupiter Jubilee Encourages Conservation \(Feb 01\)](#)
- ▶ [SFWMD Offering Training for Prospective Florida Water Star Certifiers \(Jan 31\)](#)
- ▶ [Front Provides Spike in January Rainfall Amounts \(Jan 20\)](#)
- ▶ [Work is Play at Little River Day \(Jan 21\)](#)

[NEWS ARCHIVE](#)



Protecting our Water Supply
 Planning, conservation and the use of alternative water supplies to ensure the state's water future.

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SEASONAL DRAWDOWN OPERATIONS

Reports and Documents

- ▶ [Report of the South Miami-Dade Seasonal Operations October 2009 - April 2010 \[PDF\]](#)
- ▶ [AECOM Report - November 2010 \[PDF\]](#)
- ▶ [Statistical Analysis - Statement of Work \[PDF\]](#)

Presentations

- ▶ [November 22, 2010 – Water Conditions and Operations Summary \[PDF\]](#)
- ▶ [October 13, 2010 – SFWMD Governing Board Presentation: Seasonal Drawdown Operations \[PDF\]](#)
- ▶ [September 8, 2010 – SFWMD Governing Board Presentation: Seasonal Drawdown Operations Overview \[PDF\]](#)

Water Conditions and Operations Teleconference Notes

- ▶ [Seasonal Operations Conditions Report Teleconference Notes, January 20, 2011 \[PDF\]](#)
- ▶ [Seasonal Operations Conditions Report Teleconference Notes, January 6, 2011 \[PDF\]](#)
- ▶ [Seasonal Operations Conditions Report Teleconference Notes, December 16, 2010 \[PDF\]](#)
- ▶ [Seasonal Operations Conditions Report Teleconference Notes, December 2, 2010 \[PDF\]](#)
- ▶ [Seasonal Operations Conditions Report Teleconference Notes, November 18, 2010 \[PDF\]](#)
- ▶ [Seasonal Operations Conditions Report Teleconference Notes, November 4, 2010 \[PDF\]](#)
- ▶ [Seasonal Operations Conditions Report Teleconference Notes, October 21, 2010 \[PDF\]](#)
- ▶ [Seasonal Operations Conditions Report Teleconference Notes, October 7, 2010 \[PDF\] \(revised\)](#)

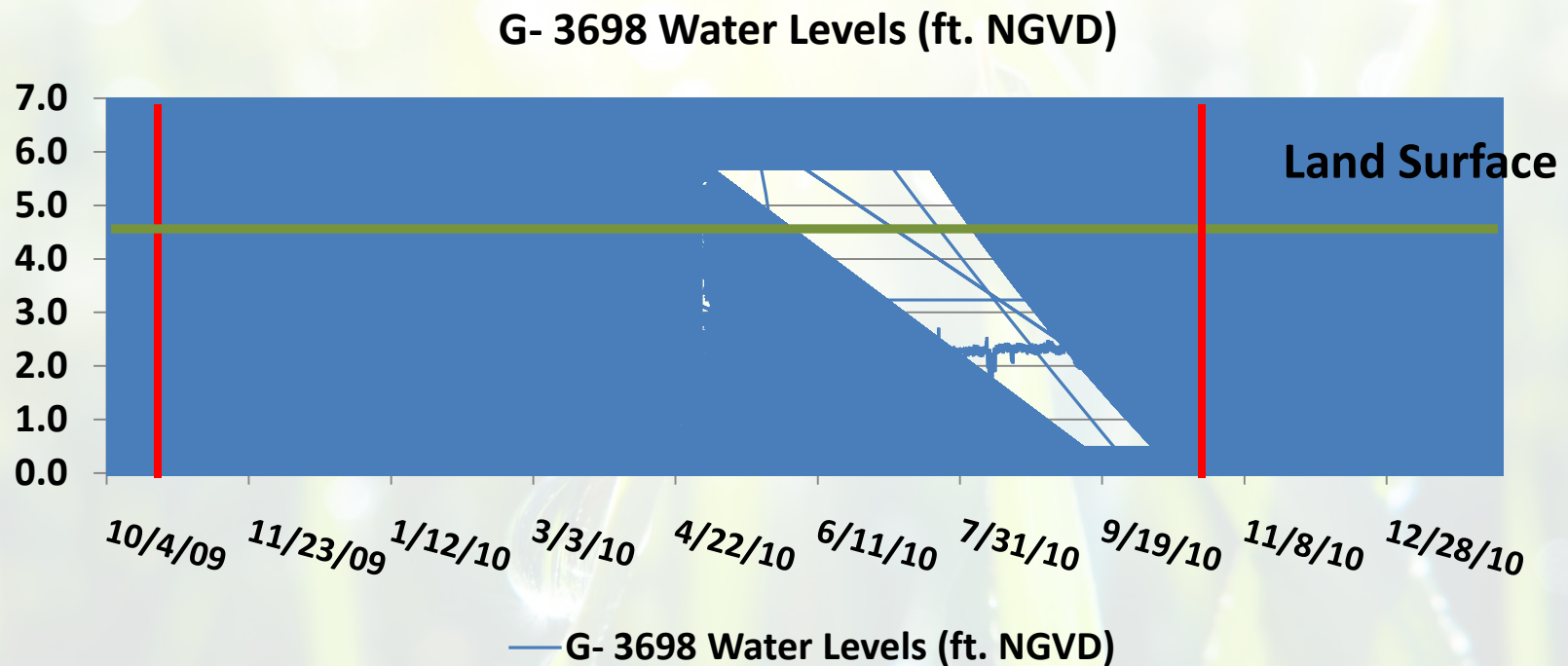
2010-2011 Operations Report

- Overview of South Miami-Dade Seasonal Operations October 2010 through April 2011
 - USACE Master Water Control Plan
 - Structure operations
 - Coastal salinity structures S-20F and S-21A
 - Coastal ridge structures S-179
 - Field conditions assessment procedures
- 2010/2011 Hydrologic and Operational Summary
 - Rainfall, canal/groundwater stage data, operations
- Changes and Enhancements
 - Monitoring- staff gauges
 - Structural /Operational
 - Biscayne Bay supplemental freshwater delivery feasibility investigation
 - North Canal re-connection
 - Florida Cities Canal water control structure
- Outreach
 - Bi-weekly water conditions/operations teleconference
 - REPORT DUE JULY 2011

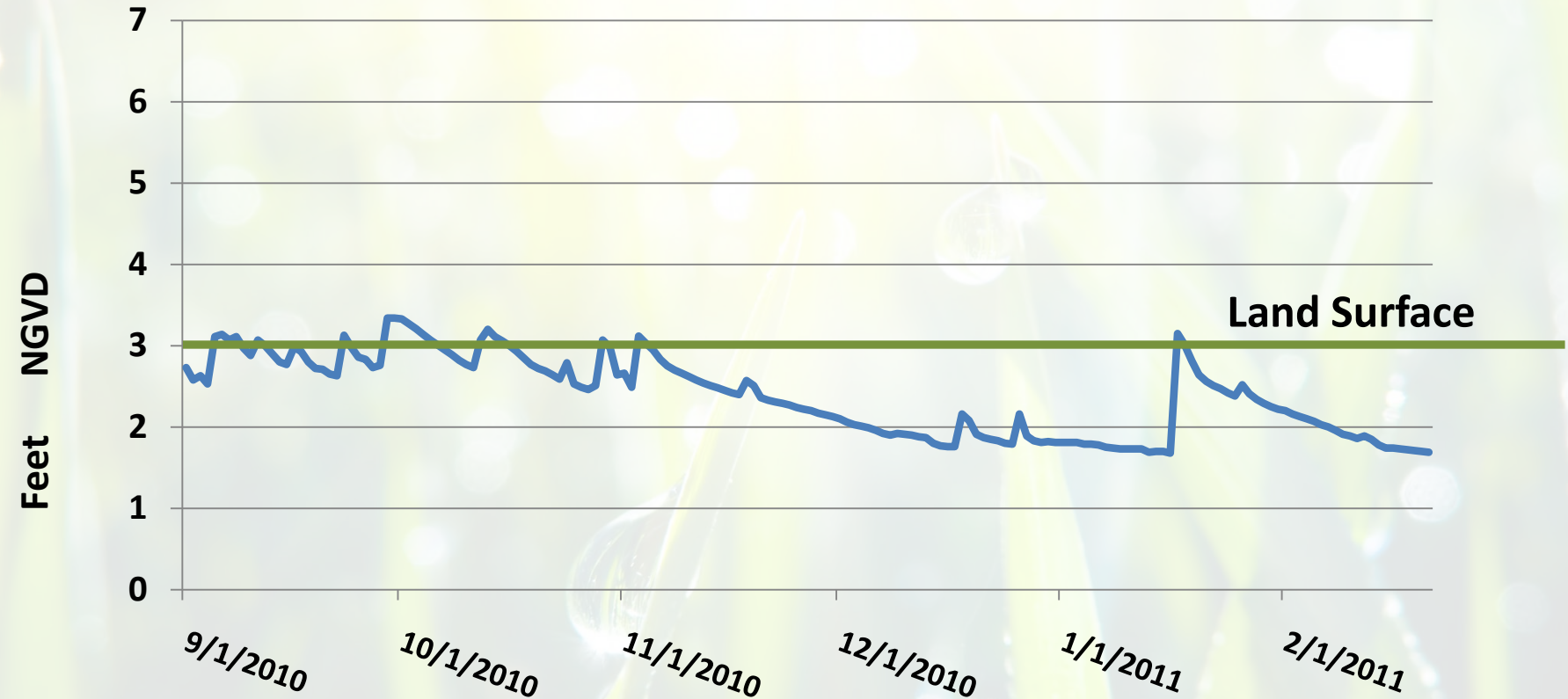


ENHANCED GROUNDWATER MONITORING TASK

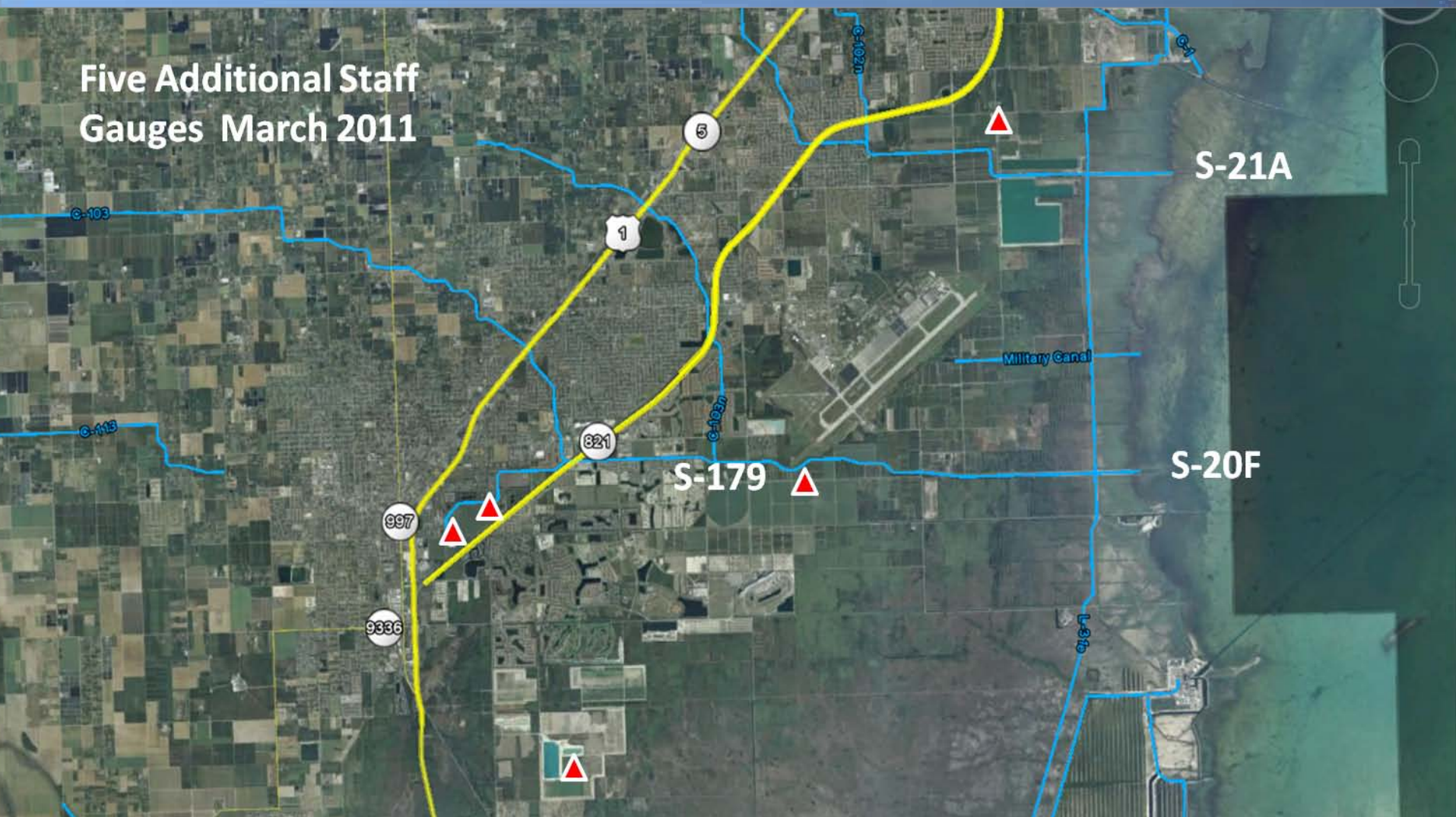
USGS Well G-3698 Water Levels (ft. NGVD) C-103 Basin



USGS Well G-3356 Groundwater Levels (feet NGVD)



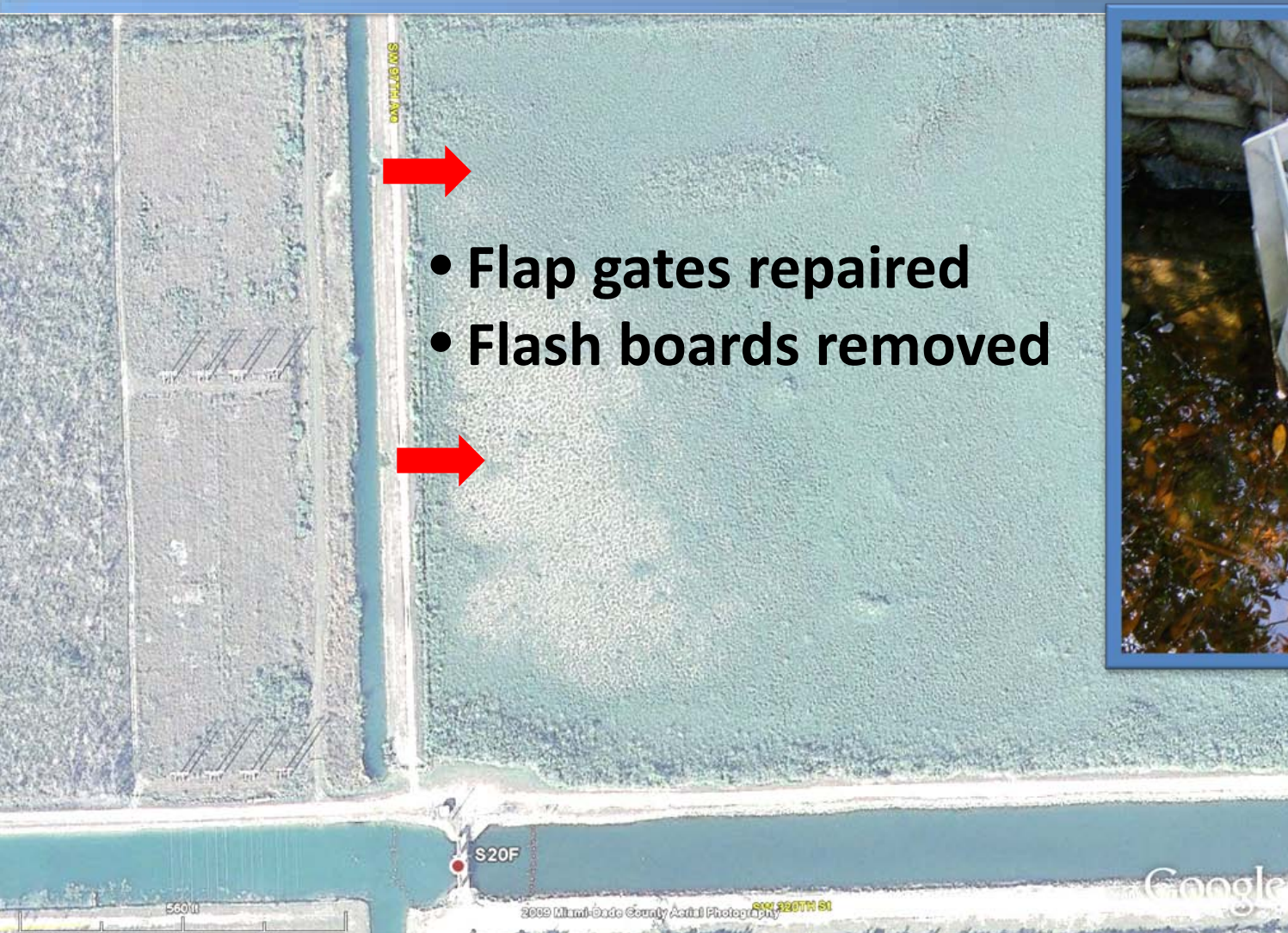
Staff Gauges Deployment



Florida City Canal Water Control Structure

Upcoming Activities	Timeframes
Intergovernmental Agreement - County Approval	April 2011
Intergovernmental Agreement - SFWMD GB Approval	April 2011
Design/Permitting	Aug 2011 – Feb 2012
Construction	March 2012 – Feb 2013

L-31E Culvert Flap Gate Repair



- Flap gates repaired
- Flash boards removed





Miami-Dade County Card Sound Road Plug

Upcoming Activities

Timeframes

Bid

March 2011

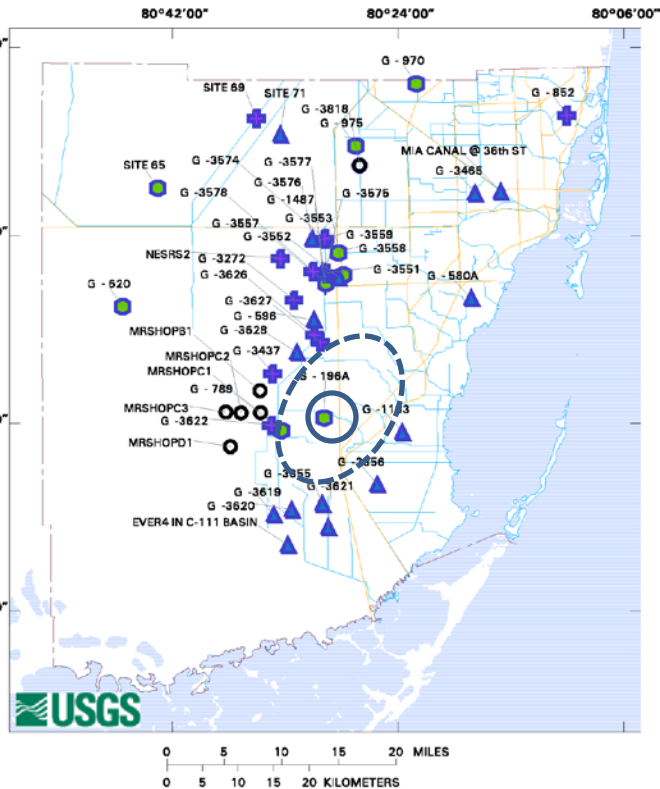
Award Construction Contract

May 2011

A close-up photograph of several green palm fronds. The fronds are long, narrow, and pointed, with visible veins. They are arranged in a dense, overlapping pattern. Bright sunlight creates sharp, dark shadows of the fronds on each other, creating a rhythmic pattern of light and dark bands across the image. The overall color is a vibrant green, with the shadows adding depth and contrast.

Questions?

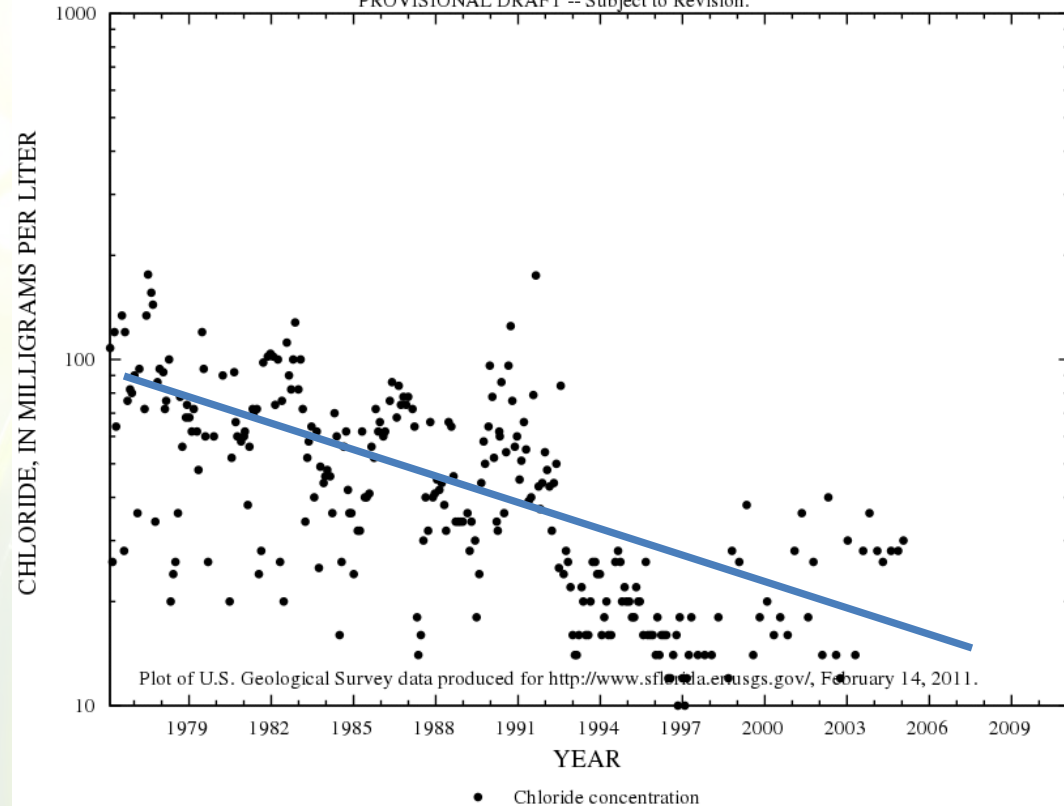
PROVISIONAL DRAFT -- Subject to Revision



- Rivers and canals
- Roads and highways
- County boundaries
- Telemetry site
- Water level compared to historical data, after long-term trends are removed:
- Insufficient information available to compute water-level statistics
- In lowest 10 percent of past water elevations
- Within lowest 10 to 30 percent of past water elevations
- Within 20 percent of the median of past water elevations
- Within highest 10 to 30 percent of past water elevations
- + In highest 10 percent of past water elevations

Water levels at selected sites in Miami-Dade County, Florida.
Based on PROVISIONAL DATA, as of September 13, 2010.

Chloride measurements from the past 35 years at G -1183 (252918080234201)
PROVISIONAL DRAFT -- Subject to Revision.



USGS Well G-1183 – Chlorides, 30 Year Period of Record