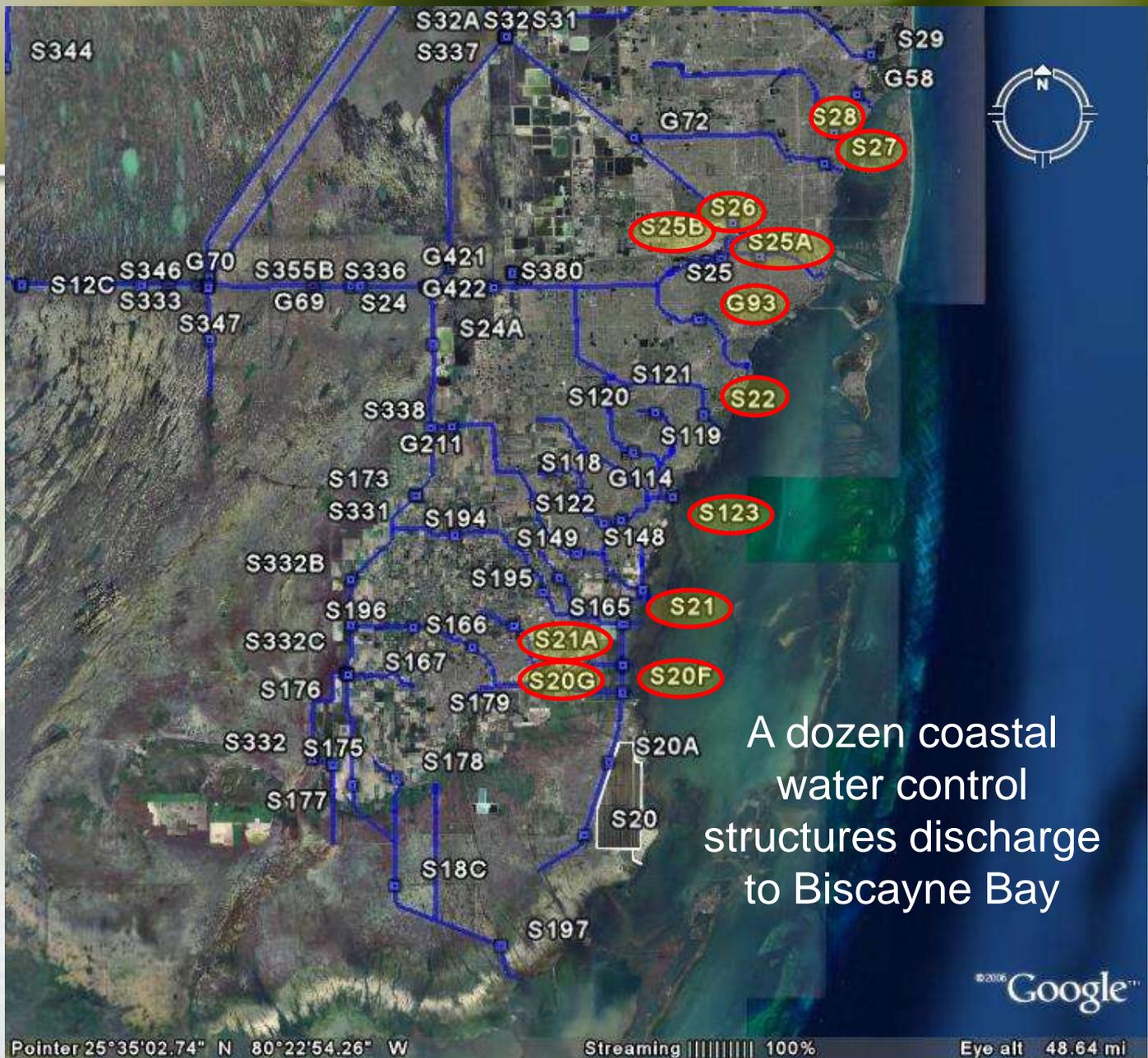


Operations of C&SF Water Control Structures Discharging to Biscayne Bay

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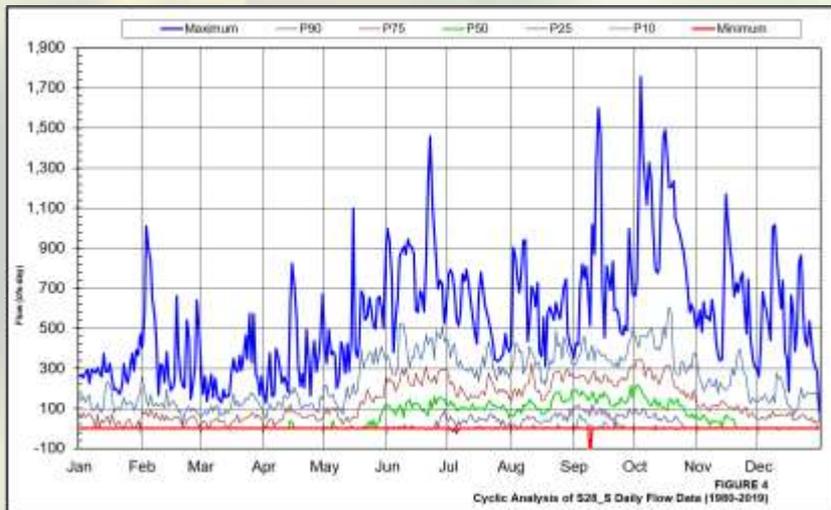


A dozen coastal water control structures discharge to Biscayne Bay

C&SF Operations

- Water Control Structures discharging to Biscayne Bay are part of the Lower East Coast Canals system of the Central & Southern Florida (C&SF) Project that was designed and built by USACE from 1954 to 1965.
- These structures are designed to
 - pass the design flood (40 to 100 percent of the Standard Project Flood) without exceeding upstream flood design stage, and
 - restrict downstream flood stages and discharge velocities to non-damaging levels; and
 - prevent saltwater intrusion

S28 Operations

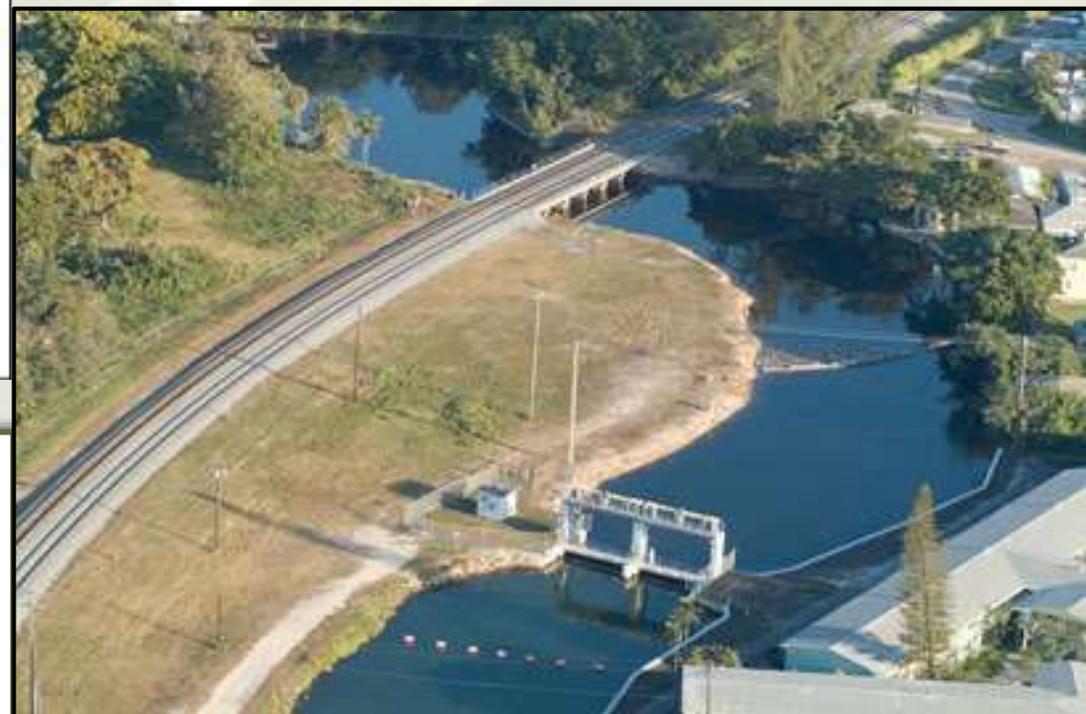
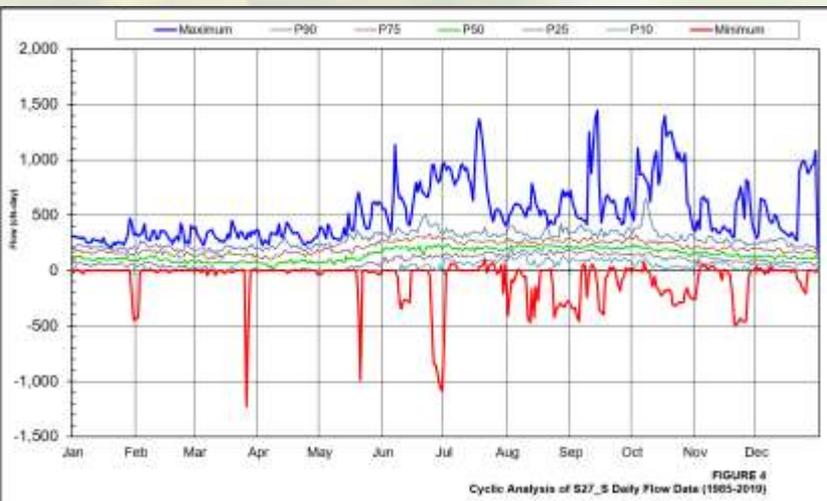


S28 (Canal 8)
water elevation ranges
(feet NGVD):

High: 2.1' - 1.5'

Low: 1.0' - 0.5'

S27 Operations

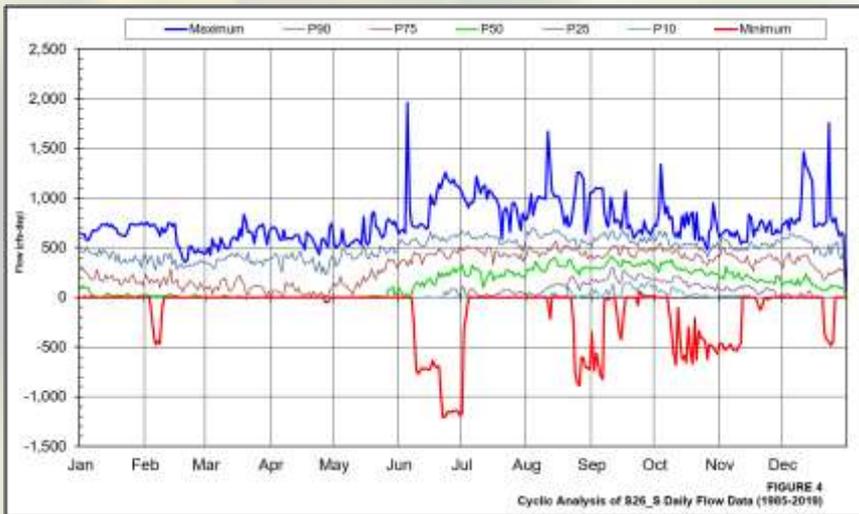


**S27 (Canal 7)
water elevation ranges
(feet NGVD):**

High: 1.9' - 1.0'

Low: 1.0' - 0.3'

S26 Operations



S26 (Canal 6)
water elevation ranges
(feet NGVD):

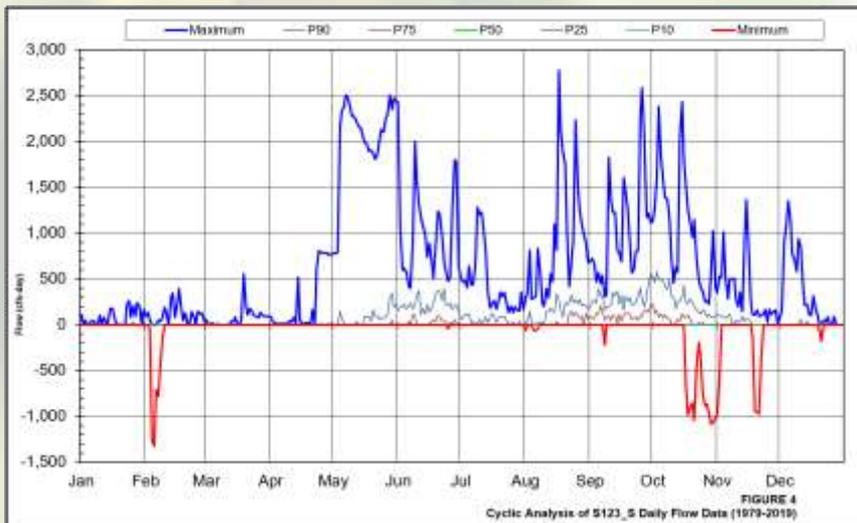
High: 2.8' - 2.3'

Low: 1.7' - 1.2'

Very Wet: 1.0' - 0.0'



S123 Operations

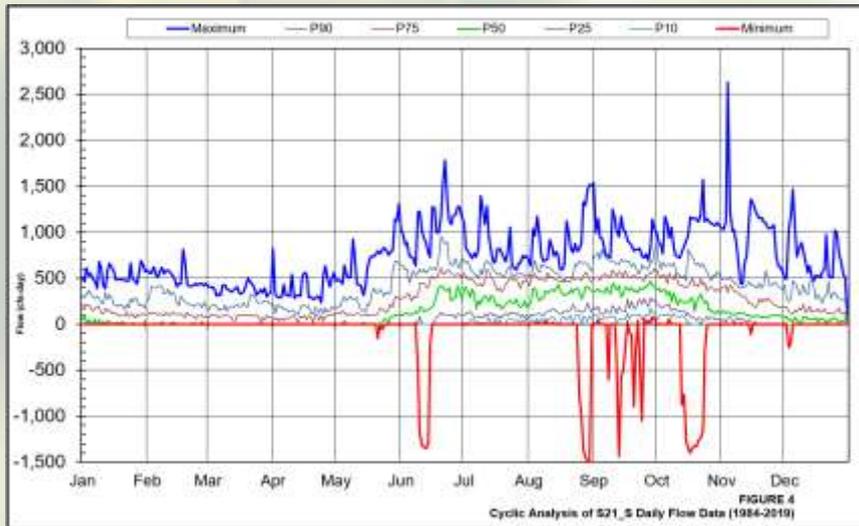


**S123 (Canal 100B)
water elevation ranges
(feet NGVD):**

High: 3.5' - 2.5'

Low: 2.4' - 1.6'

S21 Operations

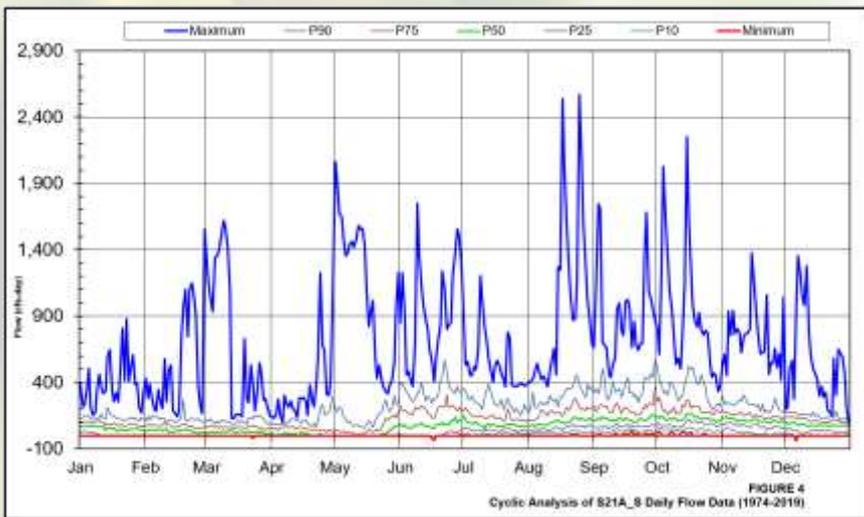


**S21 (Canal 1)
water elevation ranges
(feet NGVD):**

High: 2.4' - 1.5'

Low: 2.0' - 1.0

S21A Operations



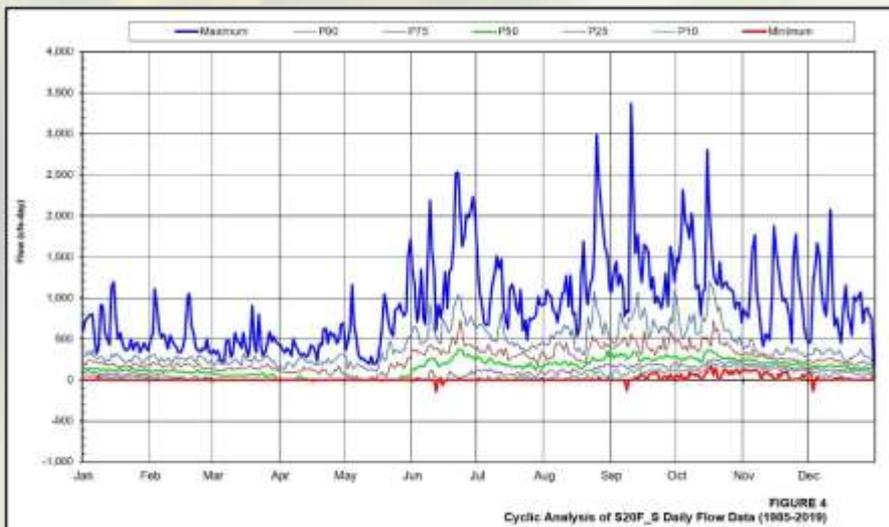
**S21A (Canal 102)
water elevation ranges
(feet NGVD):**

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'

Low: 1.4' - 1.0'

Summary of Operations

Operation Ranges (feet NGVD)				
Structure	High	Intermediate	Low	Very Wet
S28	2.1 - 1.5	-	1.0 - 0.5	-
S27	1.9 - 1.0	-	1.0 - 0.3	-
S26	2.8 - 2.3	-	1.7 - 1.2	1.0 - 0.0
S25B	3.0 - 2.0	-	2.0 - 1.0	1.0 - 0.0
G93	3.0 - 2.1	-	2.3 - 1.0	1.0 - 0.0
S22	3.5 - 2.5	-	2.5 - 1.5	1.0 - 0.0
S123	3.5 - 2.5	-	2.4 - 1.6	-
S21	2.4 - 1.5	-	2.0 - 1.0	-
S21A	2.2 - 1.8	1.8 - 1.4	1.4 - 1.0	-
S20G	2.2 - 1.8	1.8 - 1.4	1.4 - 1.0	-
S179	3.0 - 3.1	-	3.1 - 2.7	-
S20F	2.2 - 1.8	-	1.4 - 1.0	-
S20	2.4 - 1.8	-	1.4 - 1.0	-

How Operations are Implemented

Homestead Field Station

- conducts regular site visits and field condition assessments
- Identifies hydrologic conditions, cultivation and planting activities
- Recommends appropriate actions

Water Control Operations managers (Water Managers)

- Analyzes weather conditions, tides, and water elevations
- directs operational changes as necessary



2020 Seasonal Agricultural Drawdown

Based on October field inspection, and communication with local farmers, SFWMD implemented canal drawdown, in South Dade County, according to the following schedule:

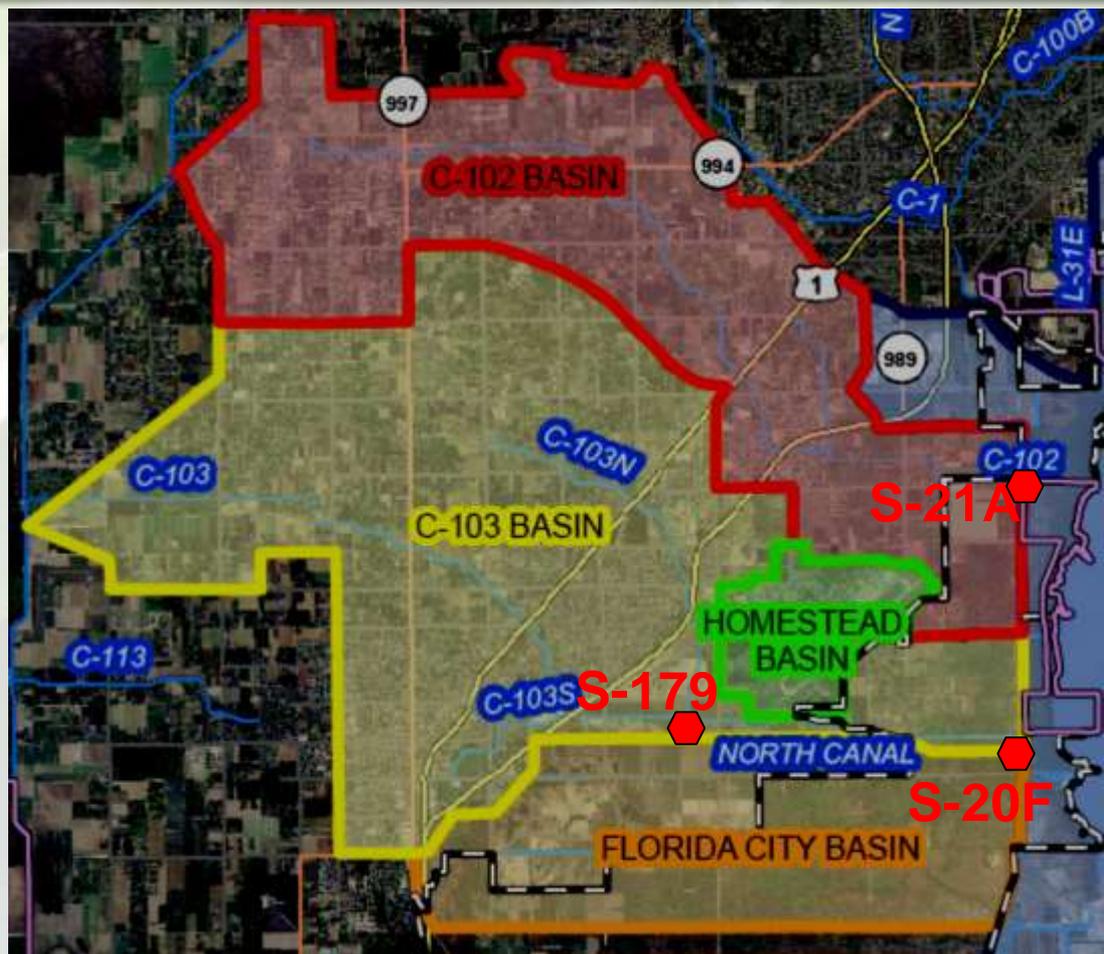
C-102 Basin:

change structure S-21A to Low range;
open at 1.4 ft., close at 1.0 ft.

C-103 Basin:

change structure S-20F to Low Range;
open at 1.4 ft., close at 1.0 ft.

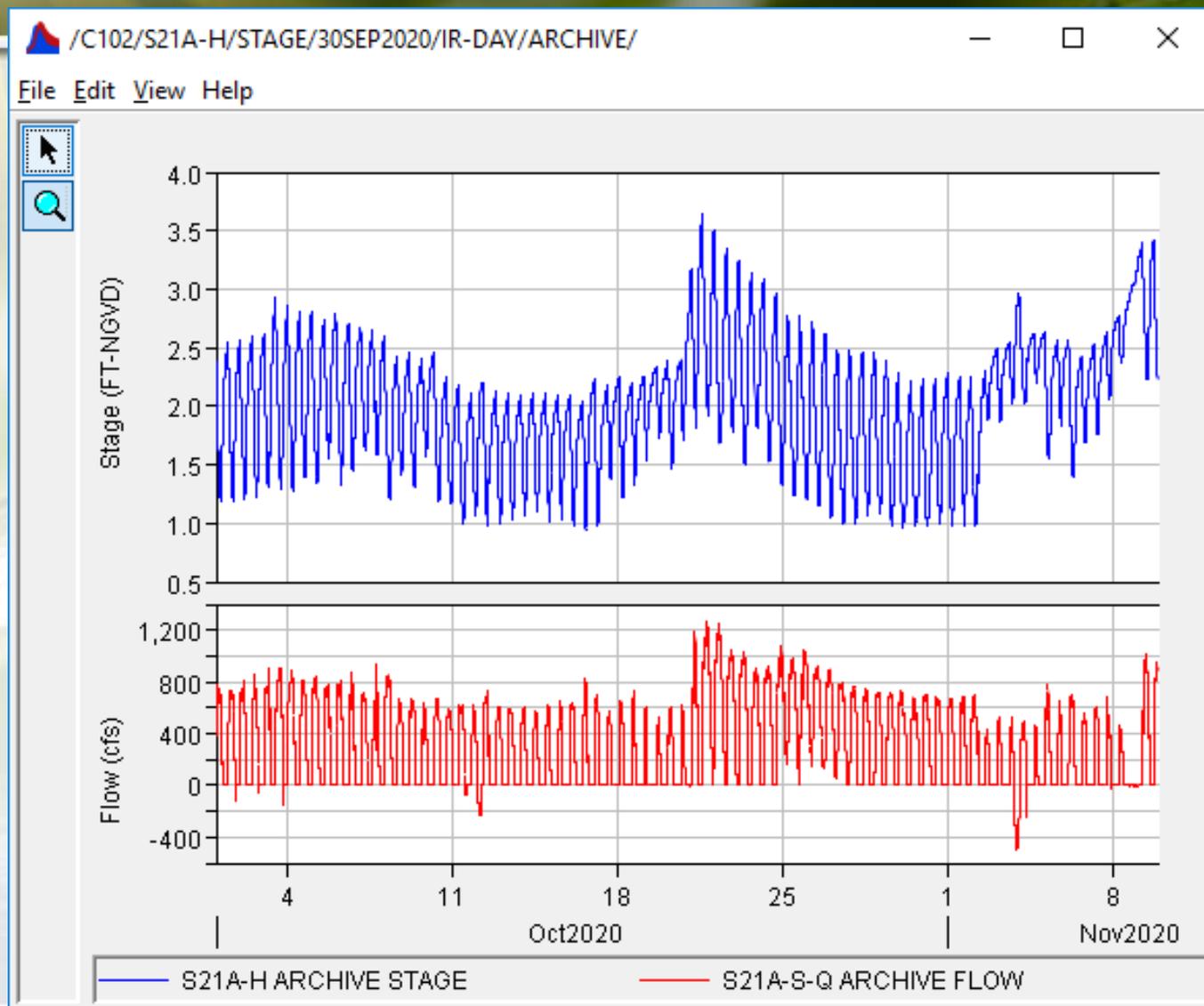
Change S-179 to Low range;
open at 3.1 and close at 2.7



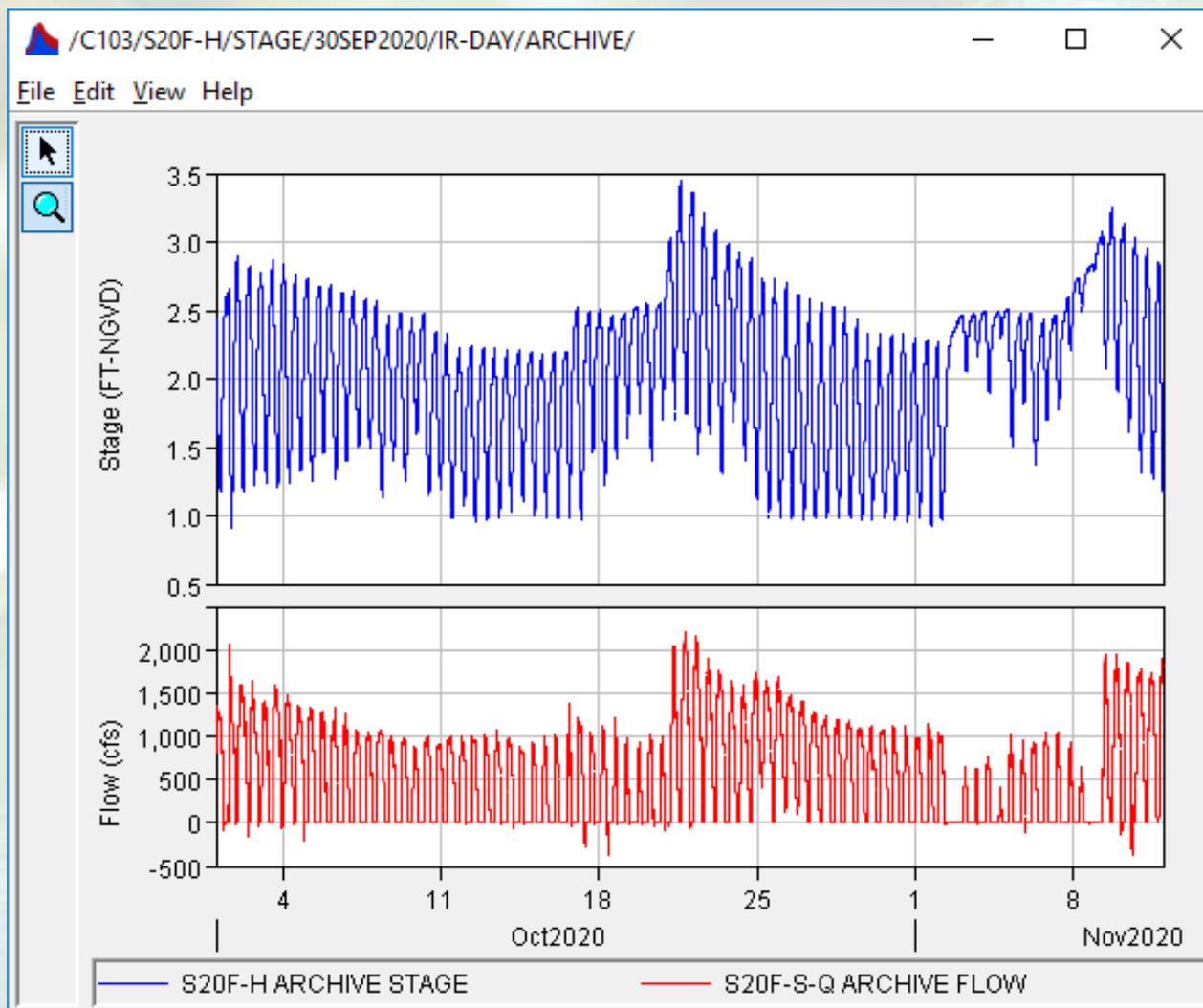


Questions?

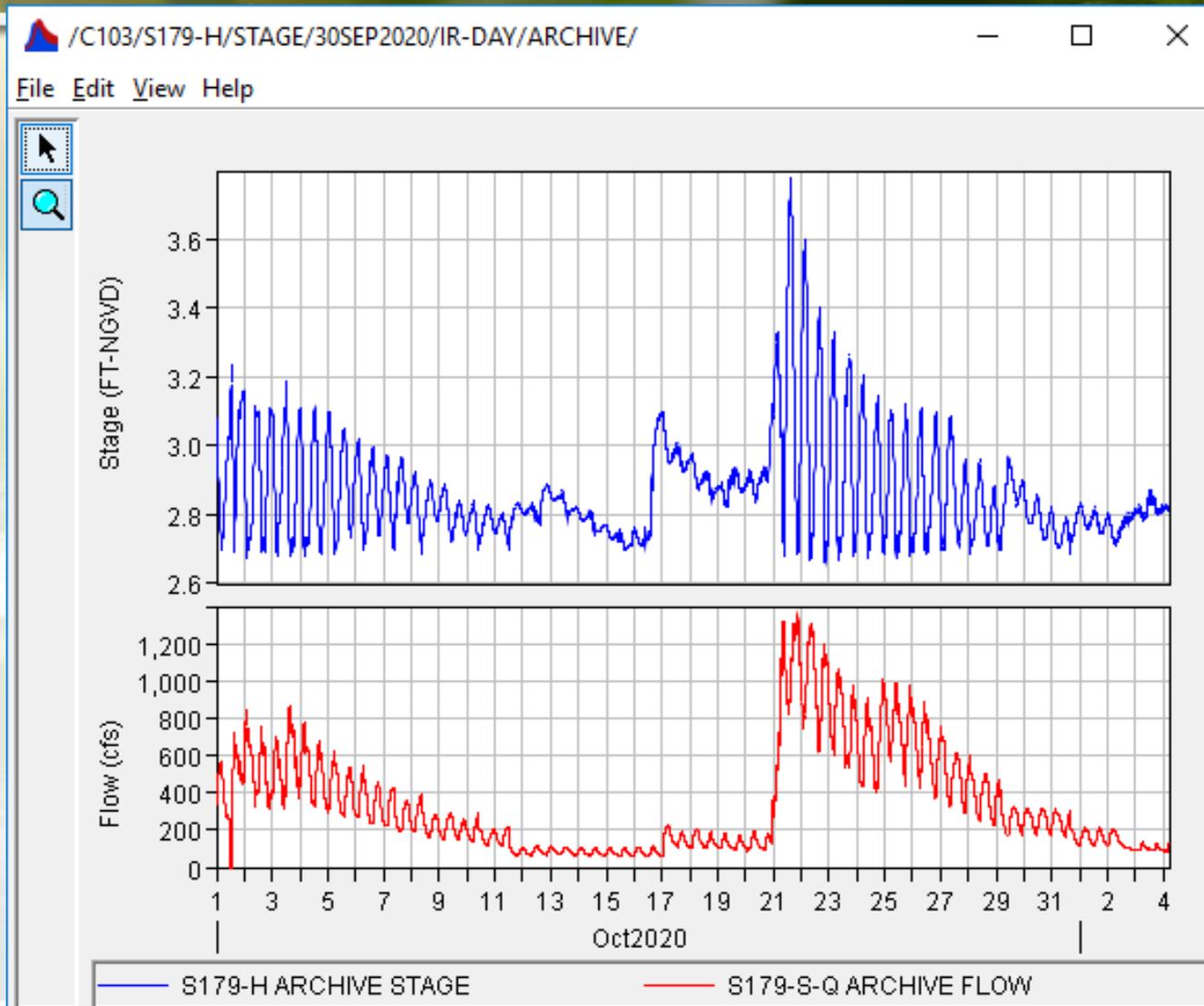
S21A – Oct-Nov 2020



S20F – Oct-Nov 2020

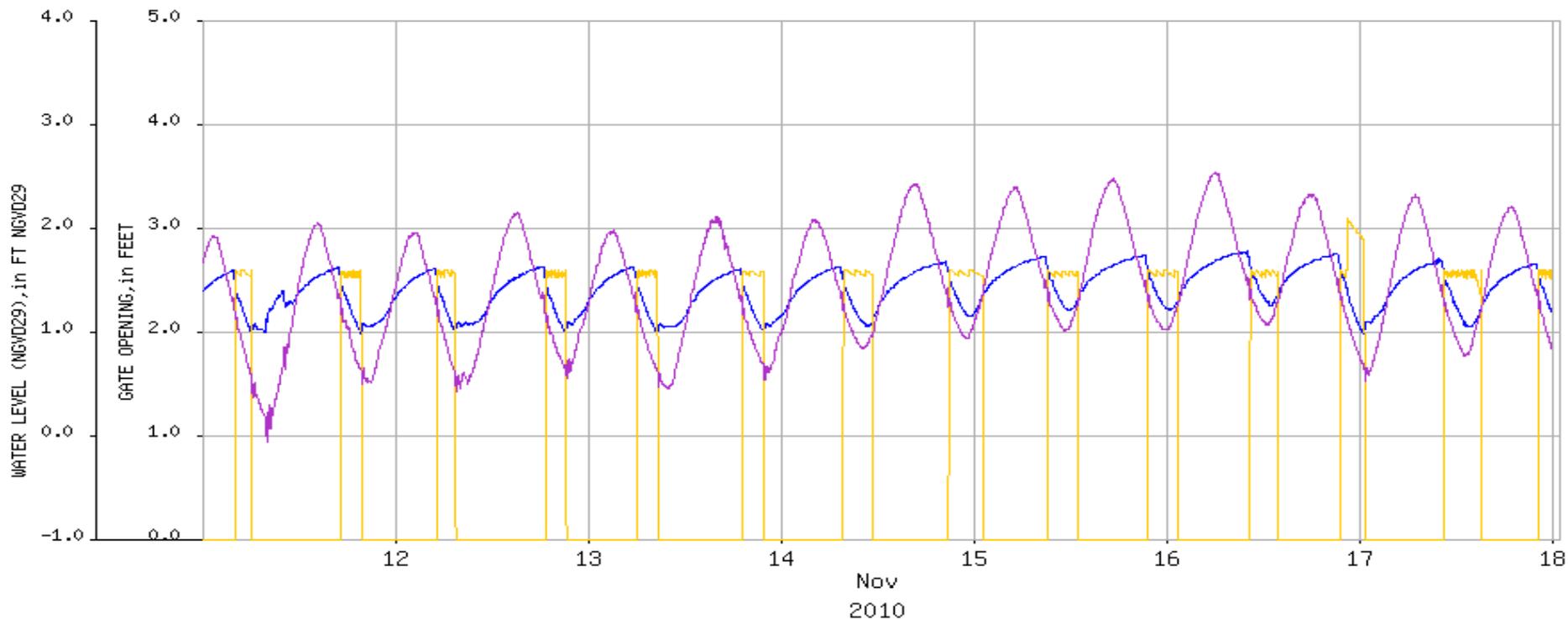


S179 – Oct-Nov 2020



Operational Constraints (cont.)

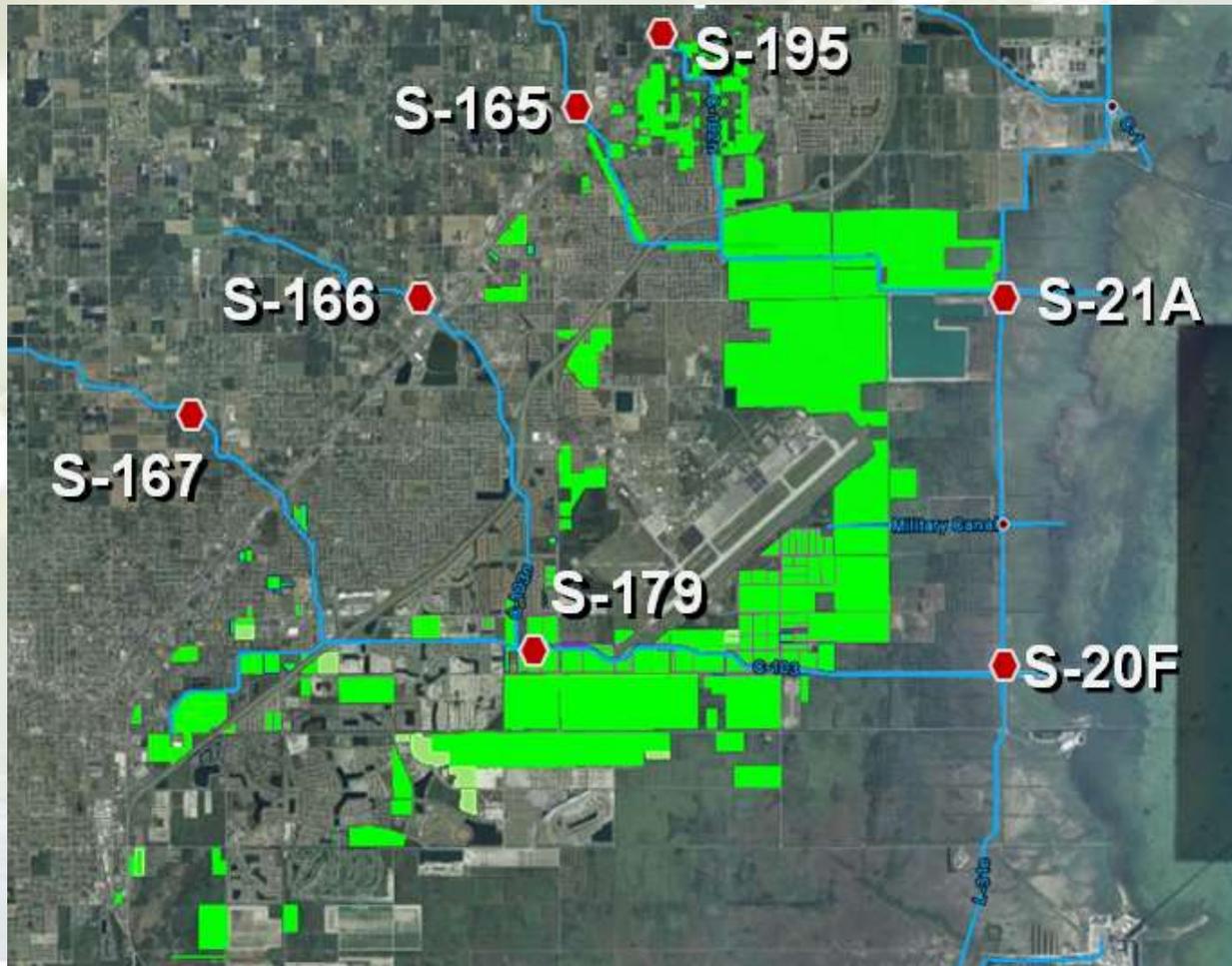
Headwater/Tailwater Relationship at S21A



	Station	Freq	Data Type	Statistic	Agency	Recorder	OpNum	DBKEY	Provisional Data After
—	S21A_H	BK	STG	INST	WMD	TELE		06603	17-NOV-2010 23:59
—	S21A_S	BK	GATE	INST	WMD	TELE	1	LT194	17-NOV-2010 23:59
—	S21A_T	BK	STG	INST	WMD	TELE		06604	17-NOV-2010 23:59

Agricultural Land Use

- Type of agricultural land use is predicated on market conditions

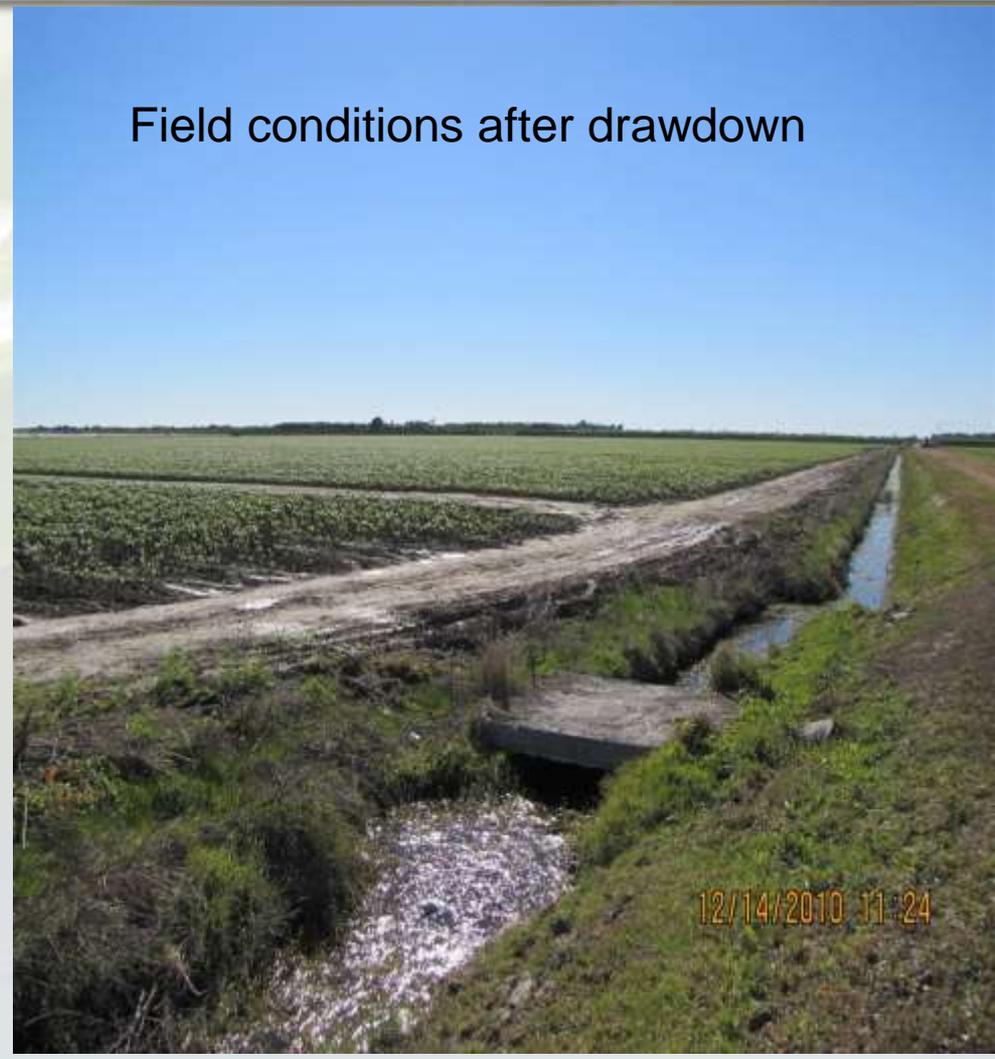


C-103 Basin Pre and Post Drawdown

Field conditions before drawdown



Field conditions after drawdown



C-103 Basin, dry season rainfall event; 1/18/11



01/18/2011 09:24