

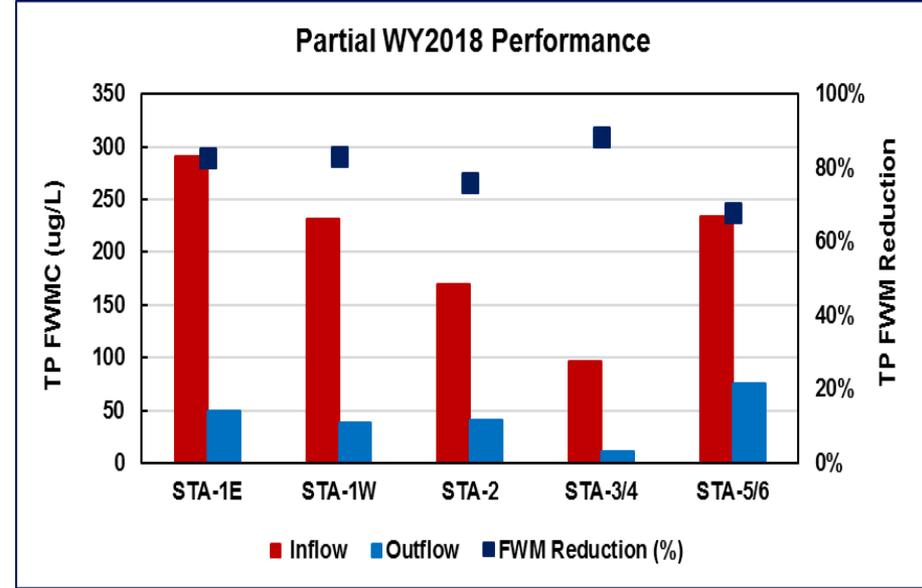
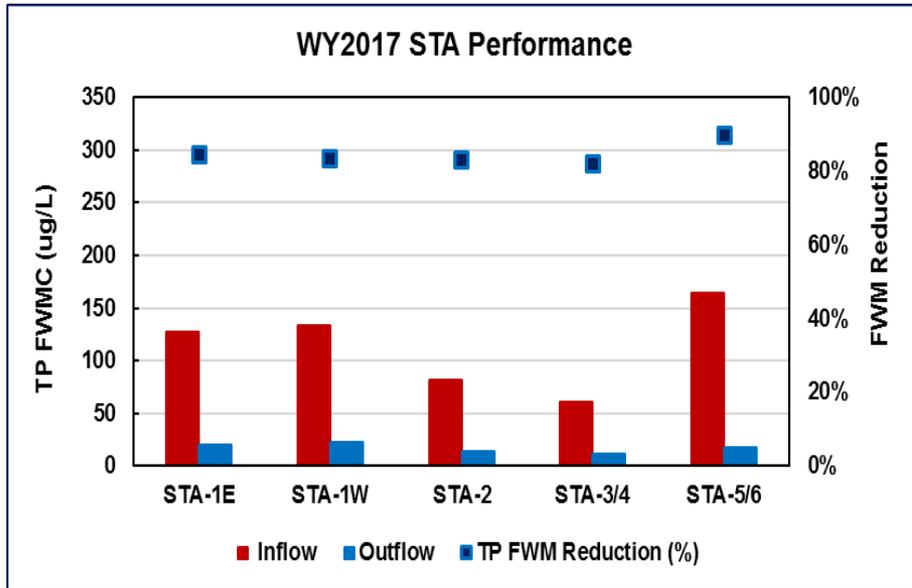
**15th Annual Public Meeting on the Long-Term Plan for Achieving
Water Quality Goals for Everglades Protection Area Tributary Basins**

February 23, 2018

Everglades Stormwater Treatment Areas Performance Update

**Hongying Zhao, Ph.D., P.E.
Applied Sciences Bureau**

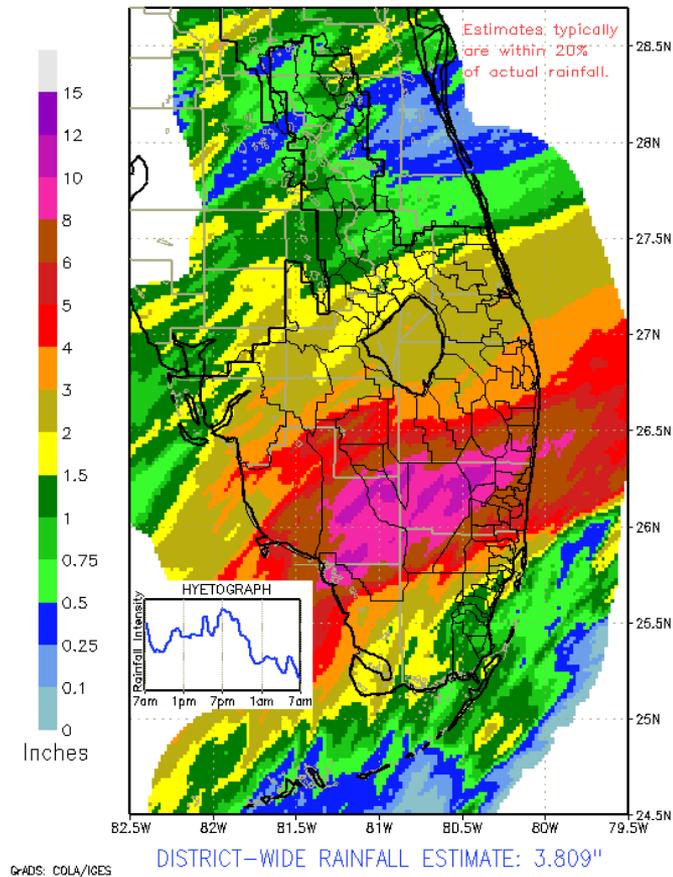
WY2017 and Partial WY2018



	WY2017	Partial WY2018 (05/01/2017 ~ 12/31/2017)
Total inflow (x10 ⁶ ac-ft)	1.1	1.5
TP FWM (inflow/outflow) (µg/L)	96/15	172/38
TP load (inflow/outflow) (t)	129/20	321/80
Reduction % (FWM, Load)	(84%, 84%)	(78%, 75%)

June 2017 Rainfall

SFWMD PROVISIONAL RAINDAR EOD DAILY RAINFALL ESTIMATES
FROM: 0700 EST, 06/06/2017 THROUGH: 0700 EST, 06/07/2017



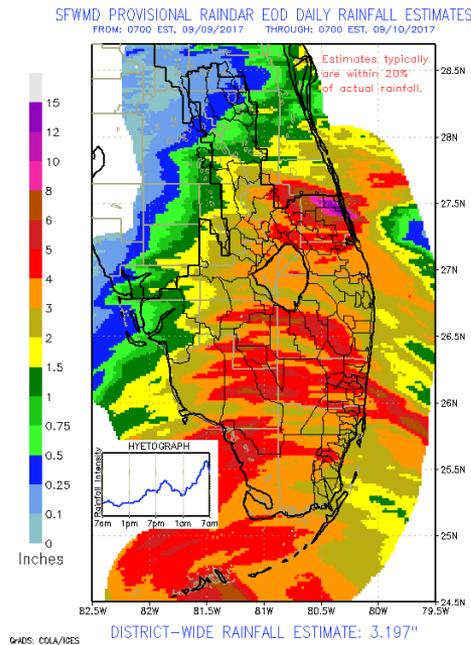
- June rainfall on EAA and C-139 Basins: 17 inches
- Wettest June since 2005
- Intensified rainfall during 3-day period from June 5 - 7, 2017: about 8 inches

06/06/2017 – 06/07/2017

September 2017 Rainfall

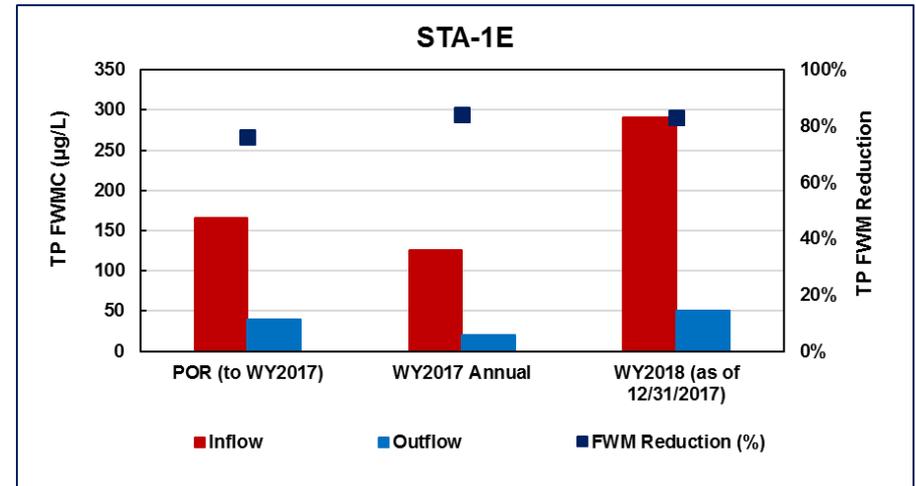
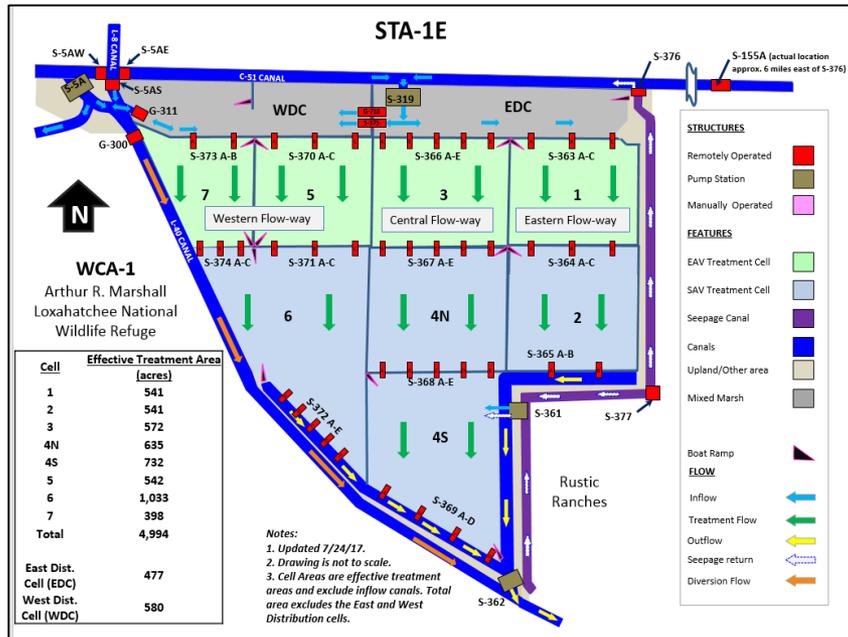


- September rainfall on EAA and C-139 Basins: 13 inches
- Wettest September since 1971
- Hurricane Irma: More than 6 inches occurred during 2-day period from September 9-10, 2017



09/09/2017 – 09/10/2017

STA-1E Performance



WY2018 performance (as of 12/31/2017)

- STA-1E: 50 µg/L, 83% reduction
- E. Flowway: 15 µg/L, 85% reduction
- C. Flowway: 78 µg/L, 63% reduction
- W. Flowway: 143 µg/L, 41% reduction

STA-1E Post Hurricane Irma

Cell 2 SE



Western Distribution Cell



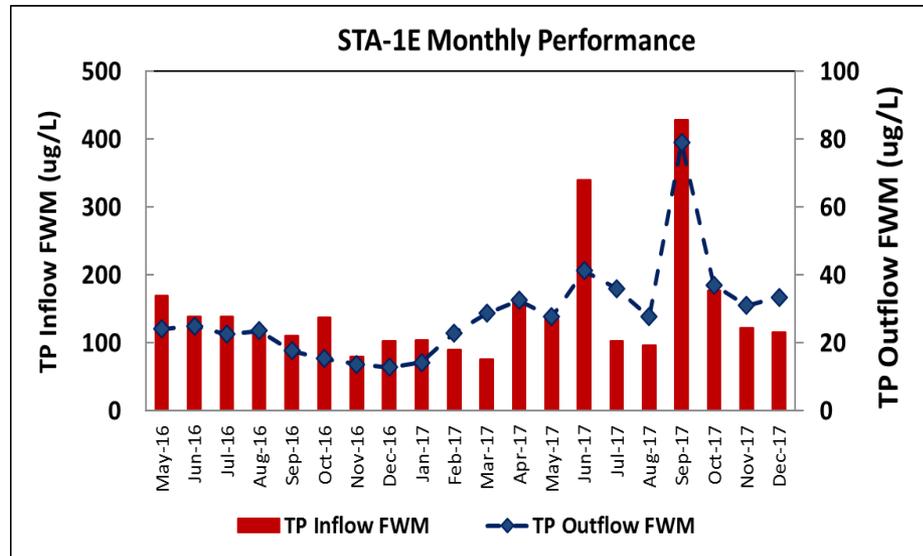
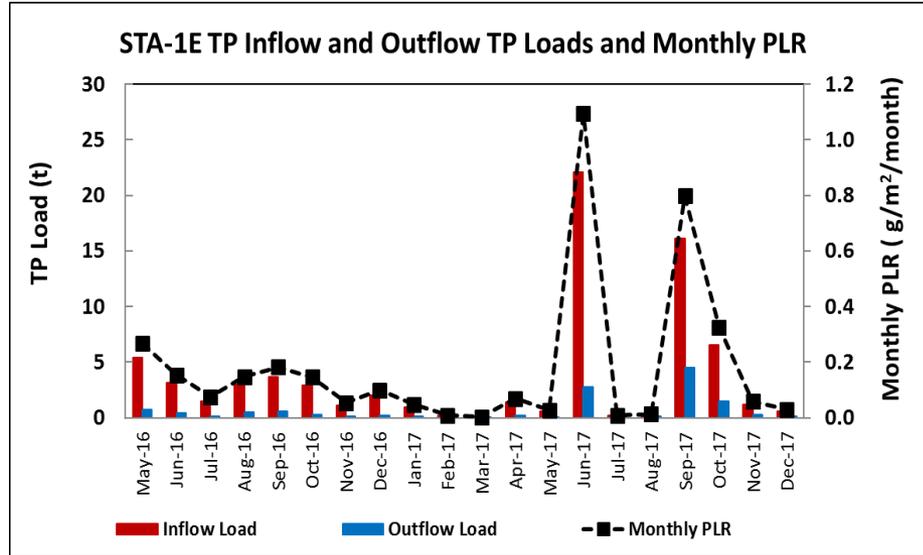
Cell 5



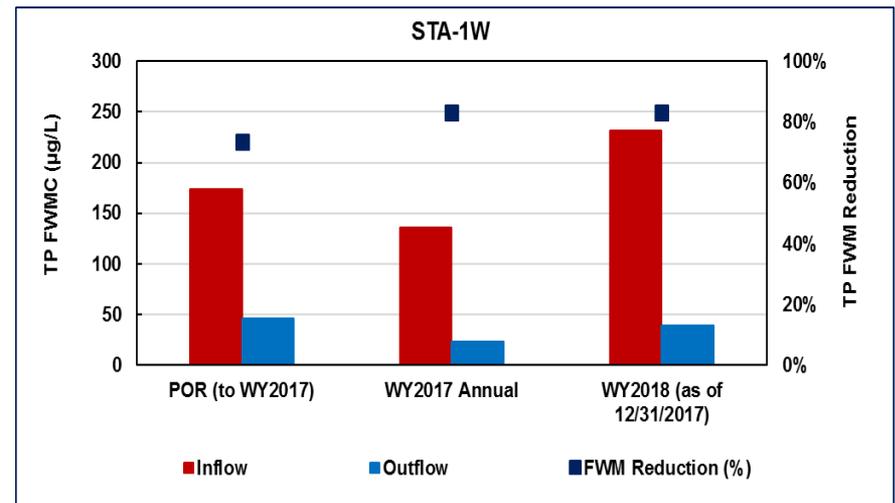
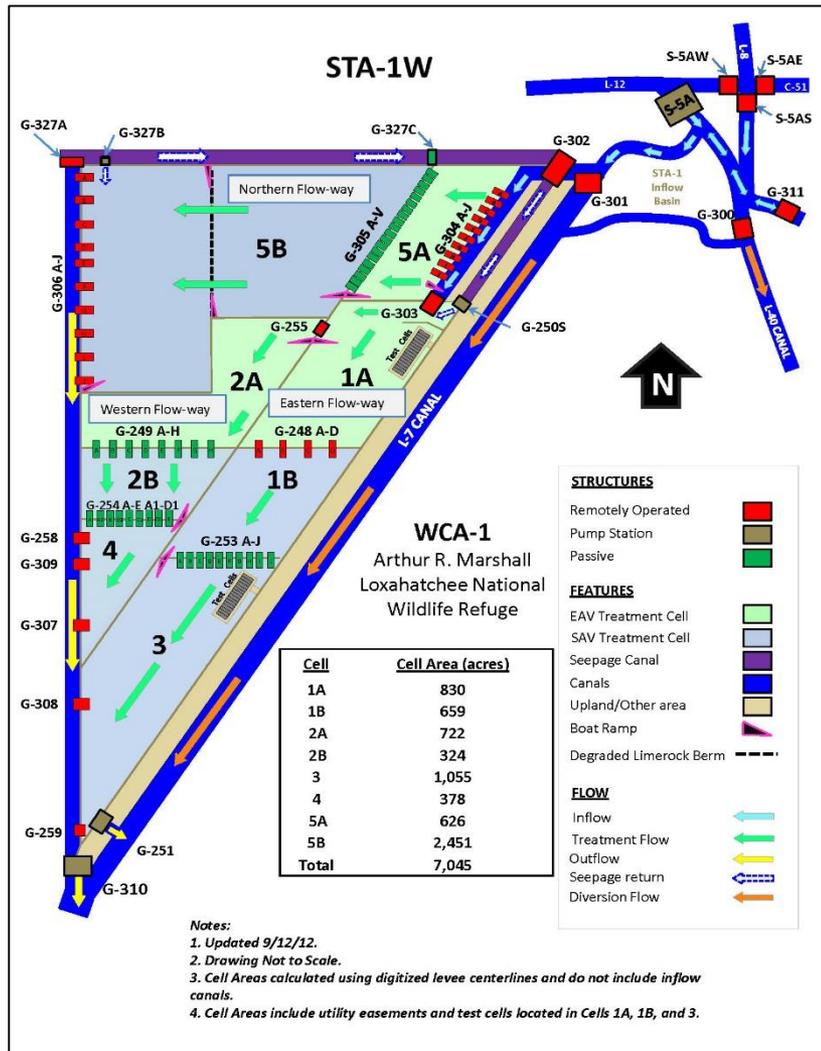
Cells 5/6/7



STA-1E Monthly TP Load, PLR, and FWM



STA-1W Performance



WY2018 Performance (as of 12/31/2017)

- STA-1W: 38 µg/L, 83% reduction
- E. Flowway: 33 µg/L, 85% reduction
- W. Flowway: 24 µg/L, 87% reduction
- N. Flowway: 35 µg/L, 85% reduction

STA-1W Post Hurricane Irma

G310 Pump Station



Cell 5A



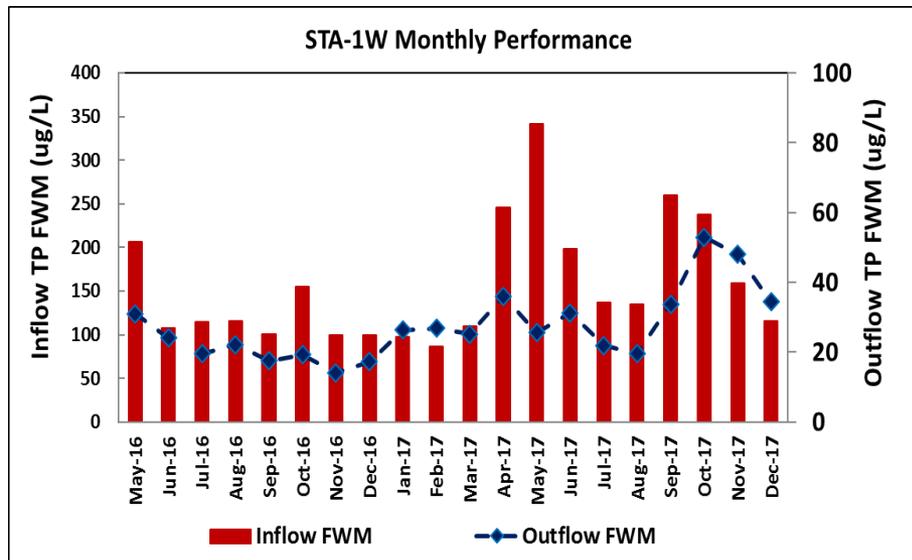
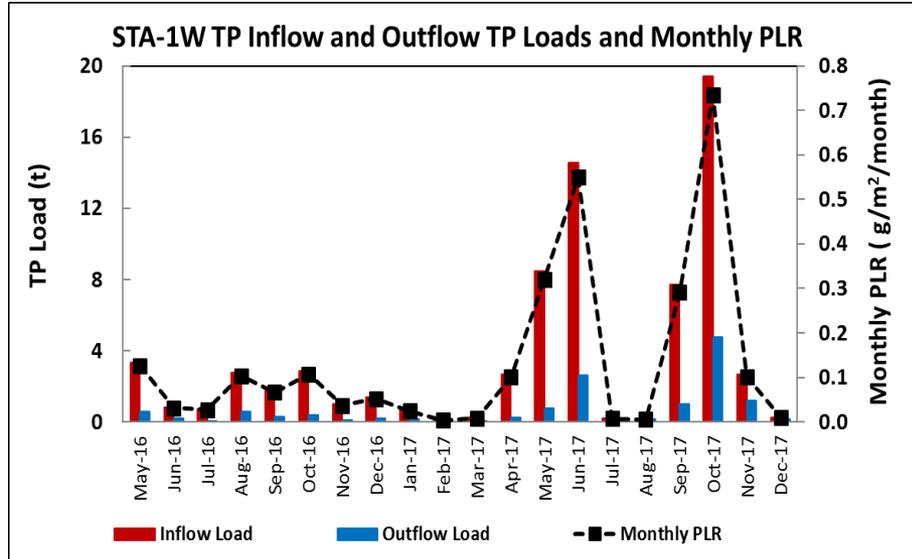
Cell 4



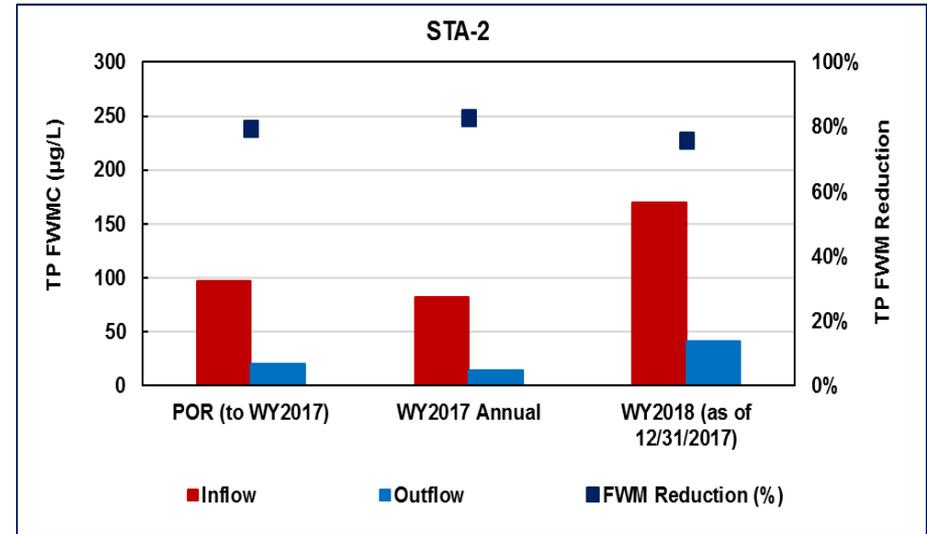
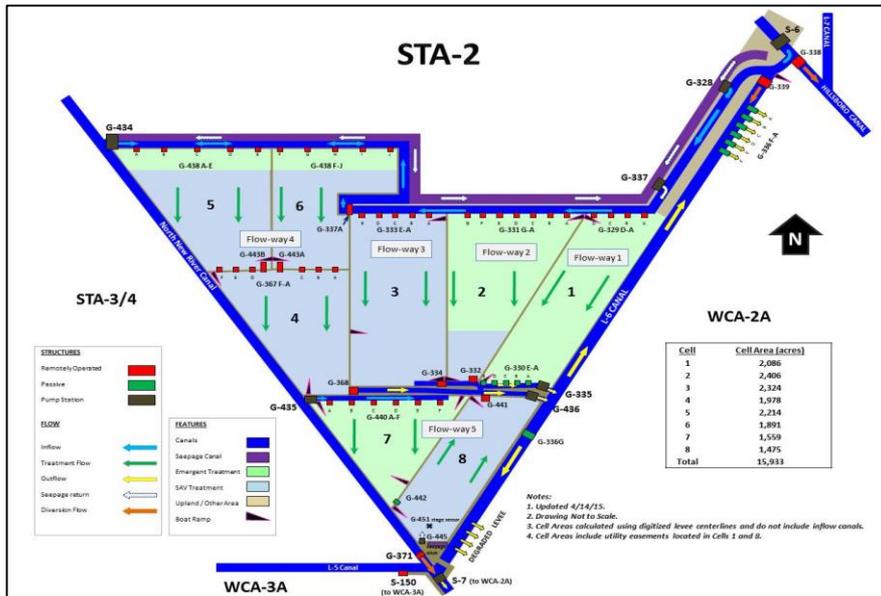
Cell 5B



STA-1W Monthly TP Load, PLR, and FWM



STA-2 Performance



WY2018 Performance (as of 12/31/2017)

- STA-2: 41 µg/L, 76% reduction
- Flowway 1: 9 µg/L, 95% reduction
- Flowway 2: 89 µg/L, 55% reduction
- Flowway 3: 67 µg/L, 61% reduction
- Flowway 4: 14 µg/L, 90% reduction
- Flowway 5: 10 µg/L, 76% reduction

STA-2 Post Hurricane Irma



Leaning power poles



Cell 3



Cell 6

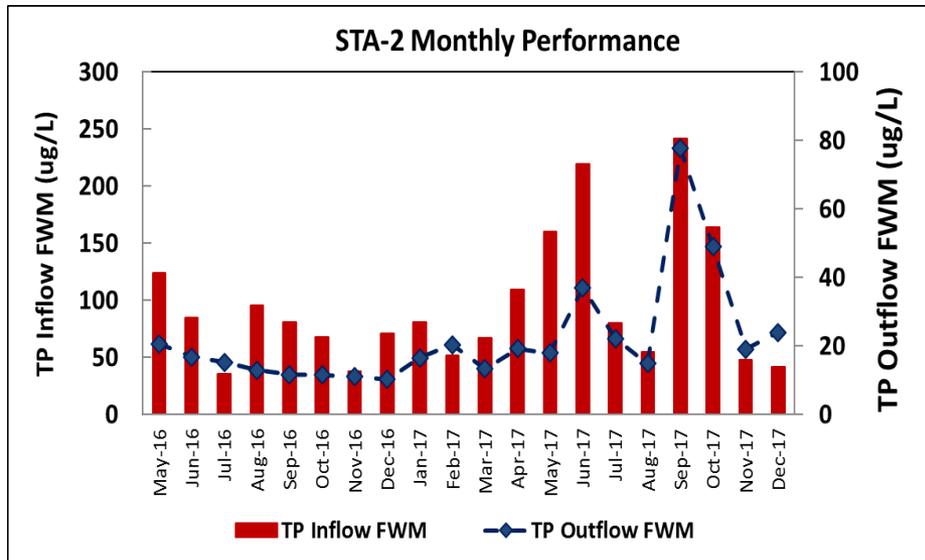
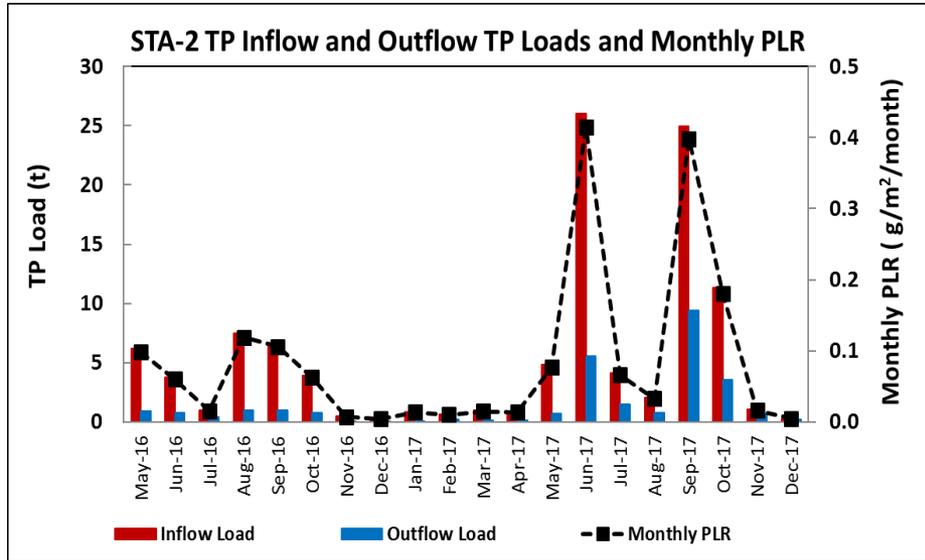
09/12/2017



Discharge Canal

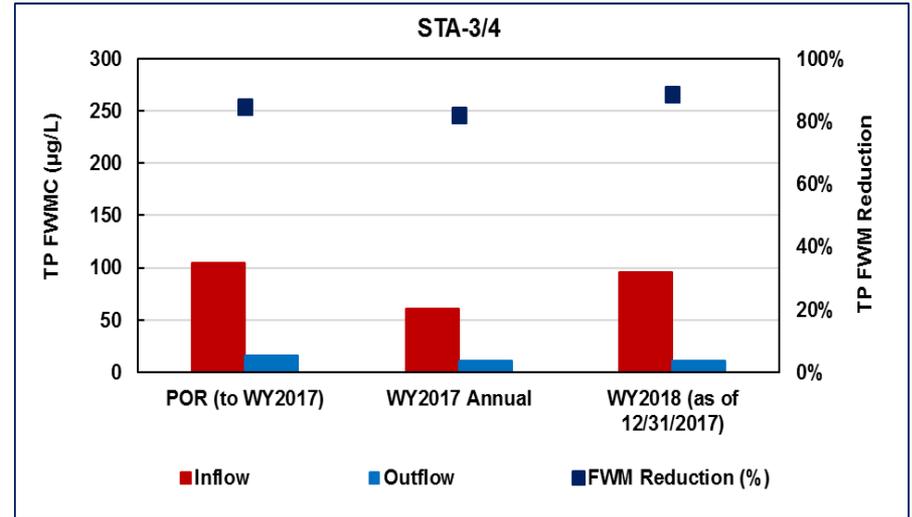
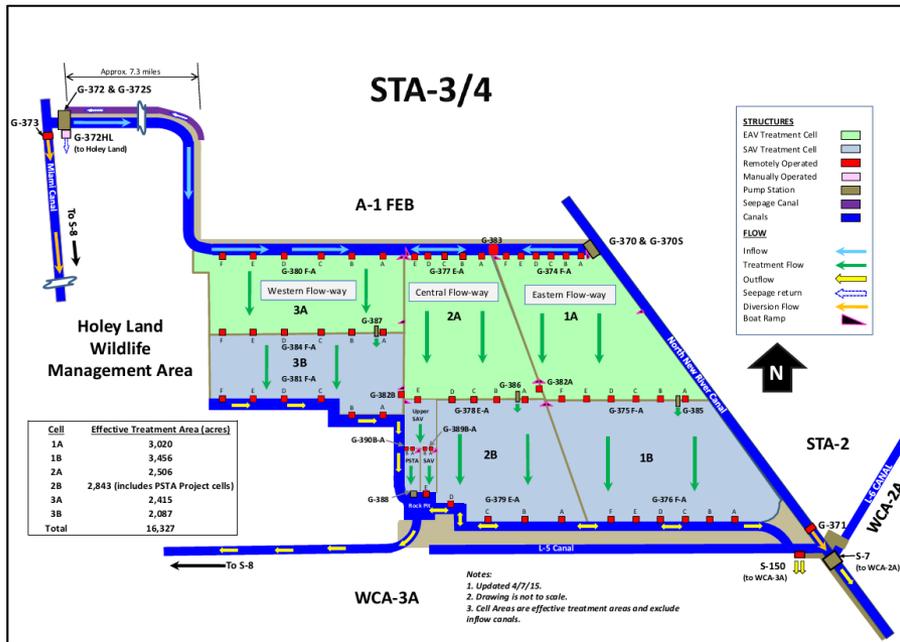
09/12/2017

STA-2 Monthly TP Load, PLR, and FWM



Includes preliminary data

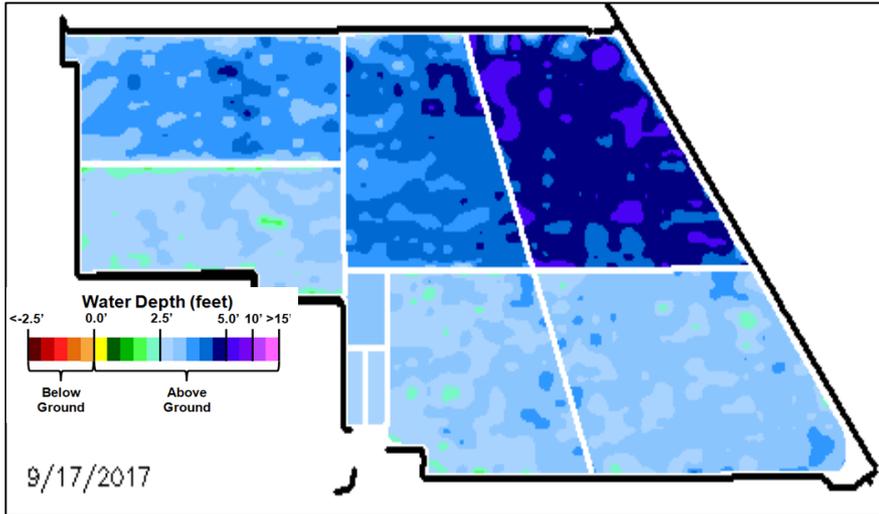
STA-3/4 Performance



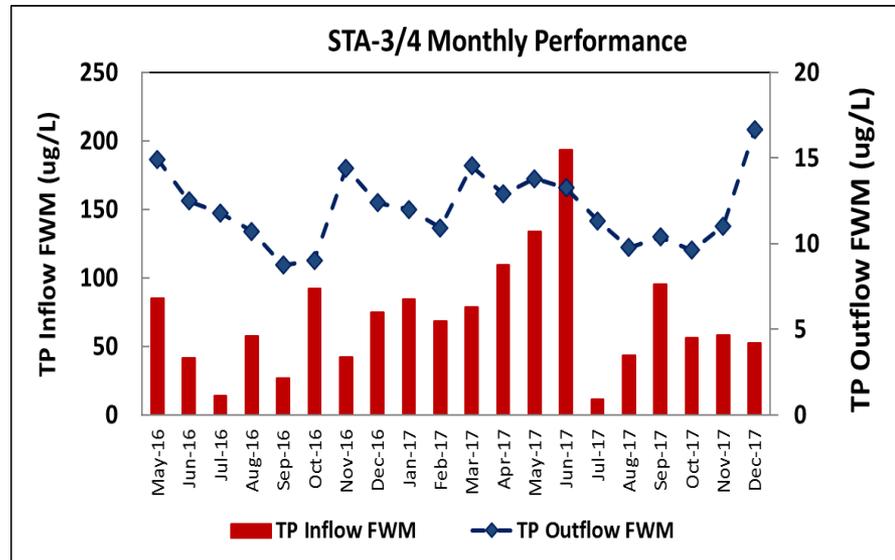
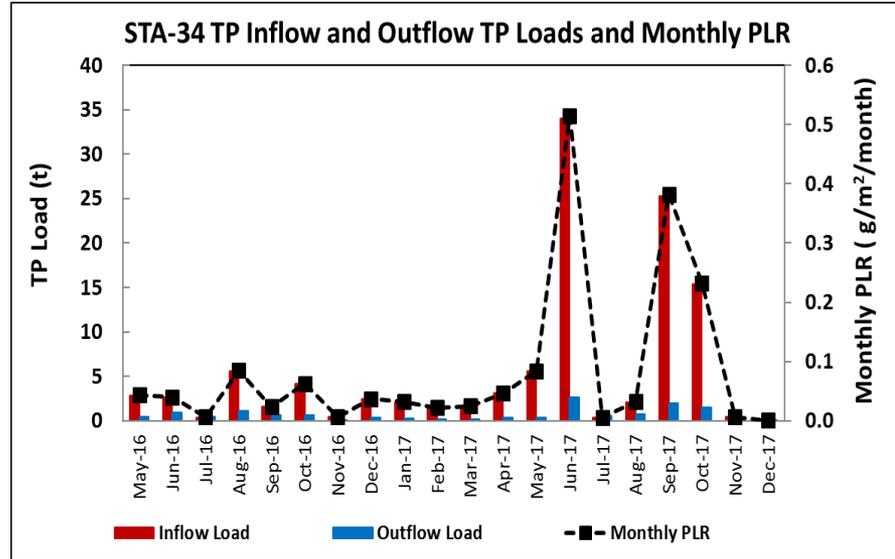
WY2018 Performance (as of 12/31/2017)

- STA-3/4: 11 µg/L, 89% reduction
- E. Flowway: 10 µg/L, 85% reduction
- C. Flowway: 11 µg/L, 89% reduction
- W. Flowway: 13 µg/L, 87% reduction

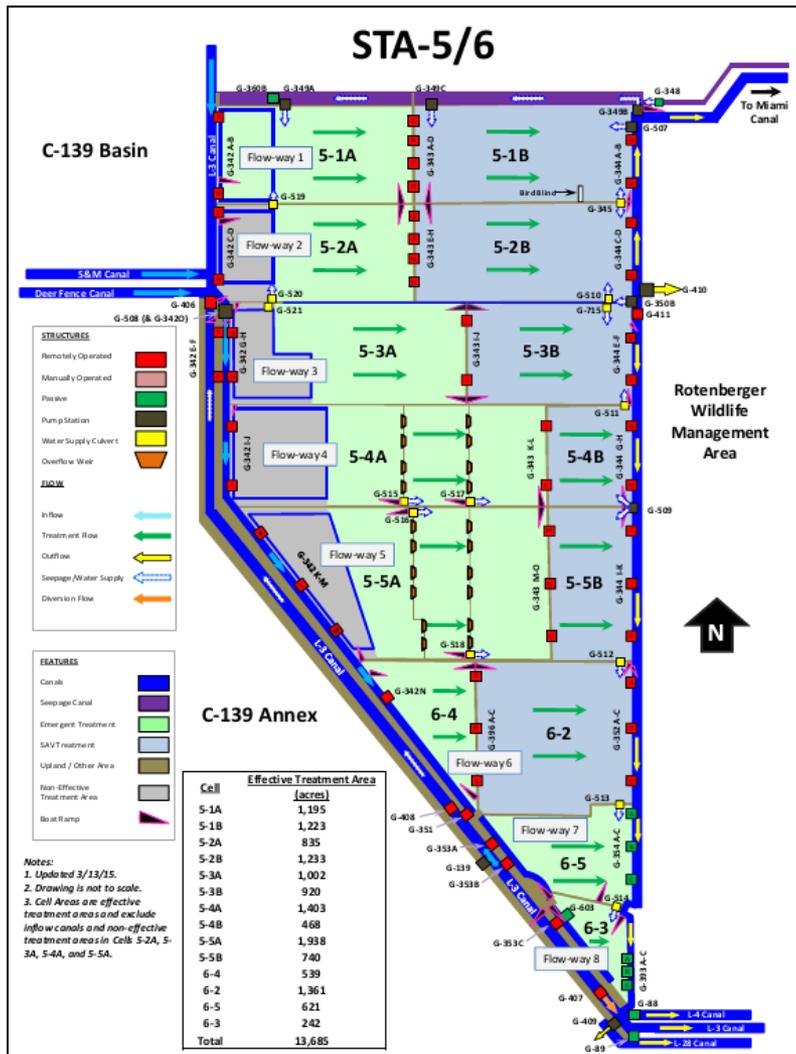
STA-3/4 Post Hurricane Irma



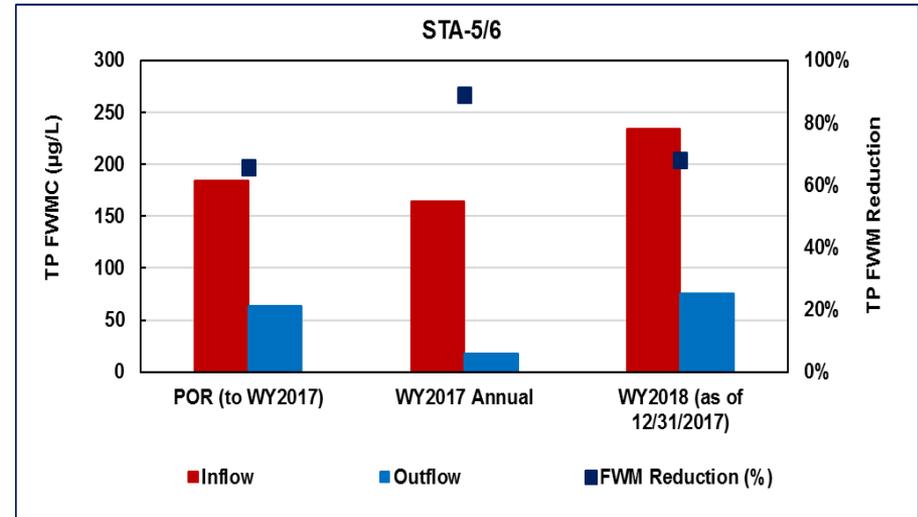
STA-3/4 Monthly TP Load, PLR, and FWM



STA-5/6 Performance



Includes preliminary data



WY2018 Outflow (as of 12/31/2017)

- STA-5/6: 75 µg/L, 68% reduction
- Flowway 1: 42 µg/L, 82% reduction
- Flowway 2: 106 µg/L, 64% reduction
- Flowway 3: 50 µg/L, 77% reduction
- Flowway 4: 44 µg/L, 79% reduction
- Flowway 5: 73 µg/L, 67% reduction
- Flowway 6: 125 µg/L, 62% reduction
- Flowway 7: 121 µg/L, 42% reduction
- Flowway 8: 185 µg/L, 26% reduction

STA-5/6 Post Hurricane Irma

Cell 1B



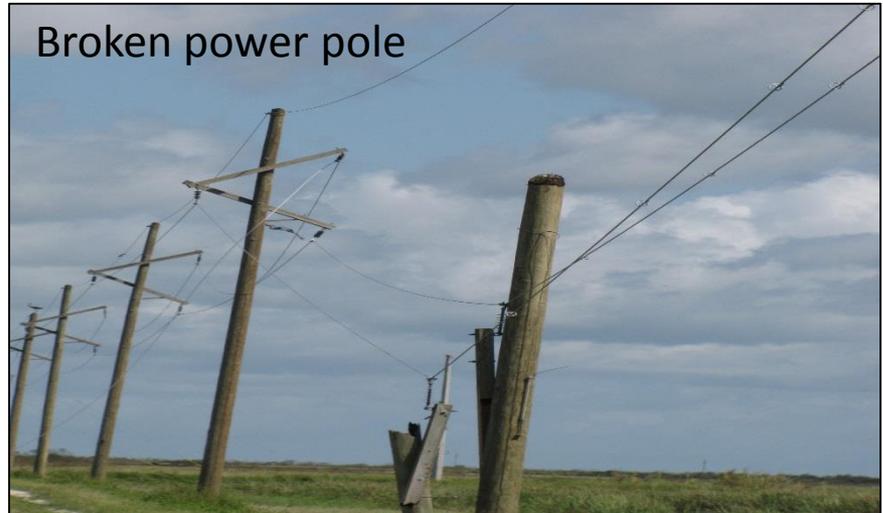
G508



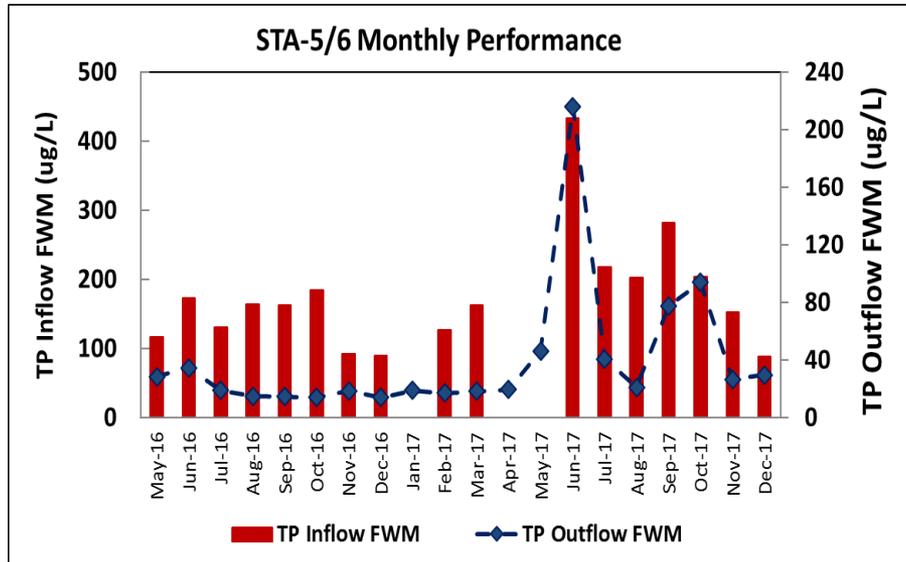
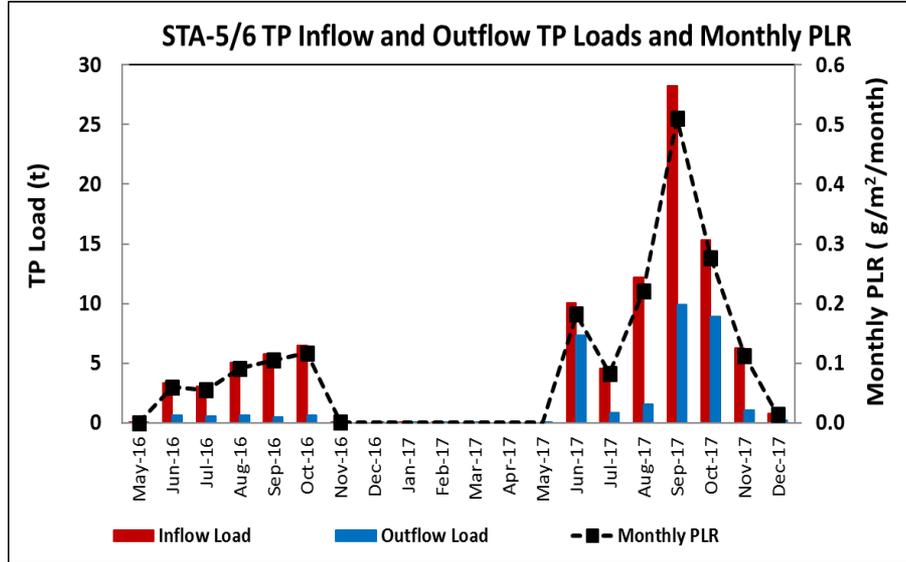
Cell 2B



Broken power pole



STA-5/6 Monthly TP Load, PLR, and FWM



Summary

- Both the June 2017 storm and September Hurricane (September 2017) loaded STAs heavily and impacted STA performance
- Flowways currently performing very well
 - STA-1E: Eastern flowway
 - STA-2: Flowways 1, 4 and 5
 - STA-3/4: All three flowways
- Flowways continuing to have impacted performance
 - STA-1E: Western and Central Flowways
 - STA-2: Flowways 2 and 3
 - STA-5/6: All 8 flowways
- Most of the flowways are showing improved performance in the last three months

Questions?

NOAA

