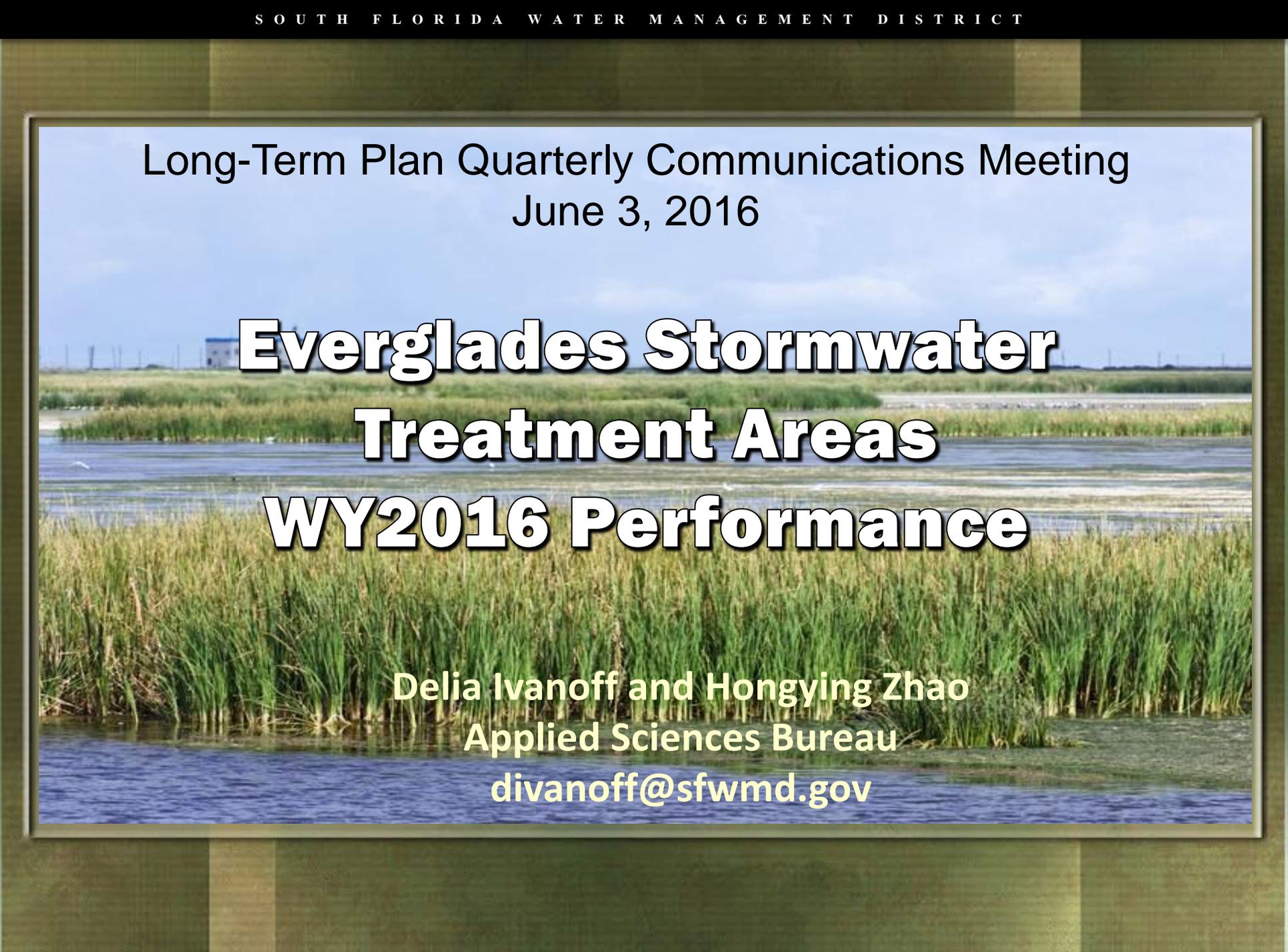


Long-Term Plan Quarterly Communications Meeting
June 3, 2016

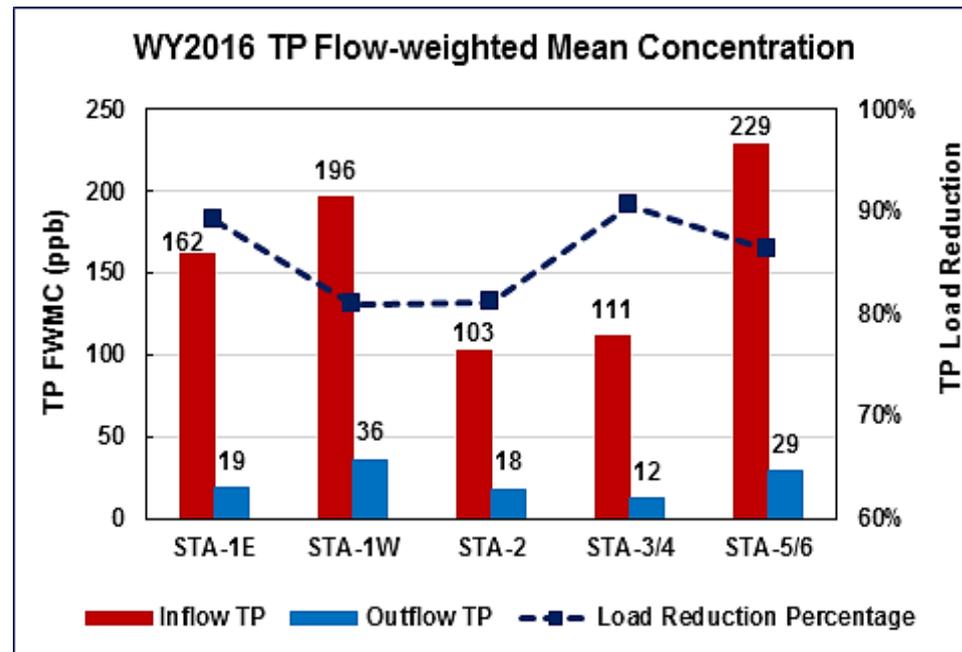


**Everglades Stormwater
Treatment Areas
WY2016 Performance**

Delia Ivanoff and Hongying Zhao
Applied Sciences Bureau
divanoff@sfwmd.gov

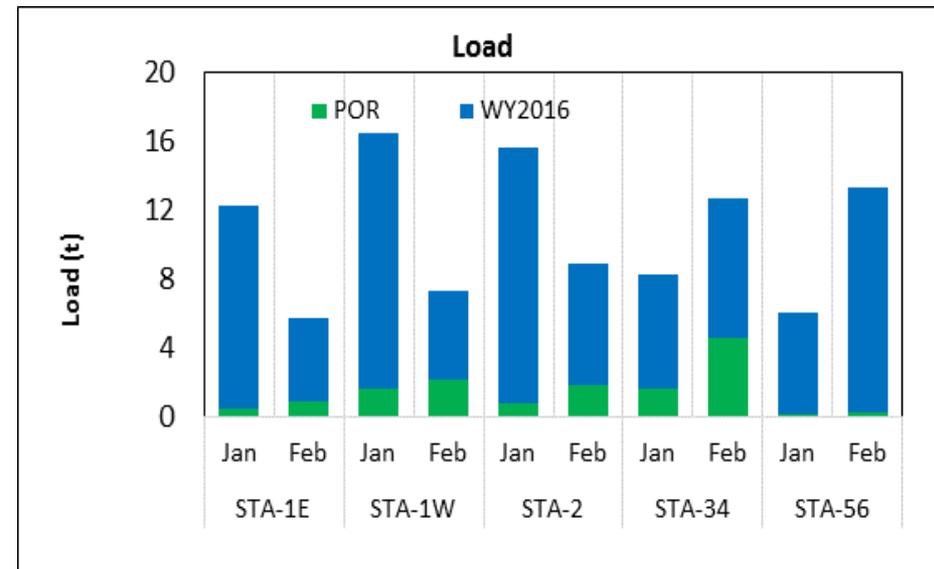
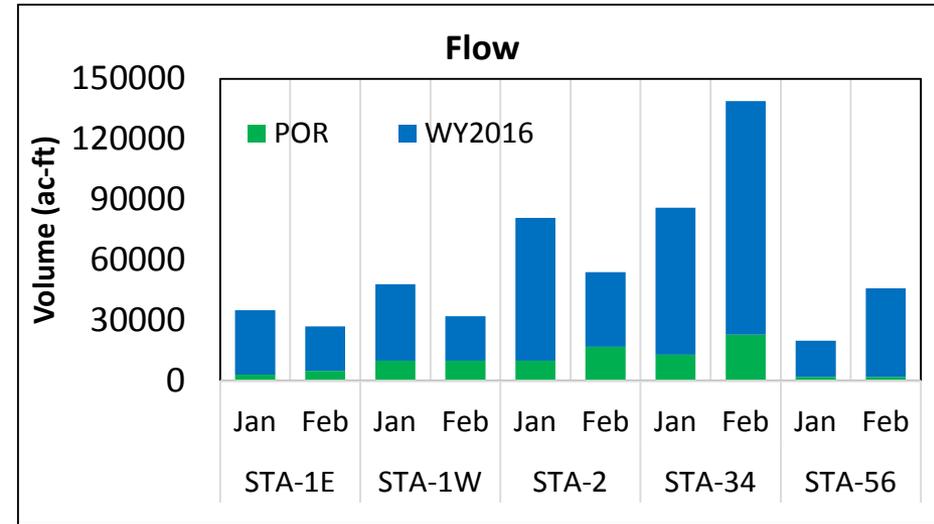
WY 2016 Overall STA Highlights

- Total inflow volume: ~1,368,000 acre-feet
 - 13% from Lake Okeechobee Regulatory releases
 - Significant high inflows in dry season (Jan - Feb 2016)
- Annual FWM TP concentrations:
 - Inflow: 103-229 ppb
 - Outflow: 12-36 ppb
 - 85% concentration reduction
- Annual TP load:
 - Inflow: 234 t
 - Outflow: 33 t
 - 86% load reduction



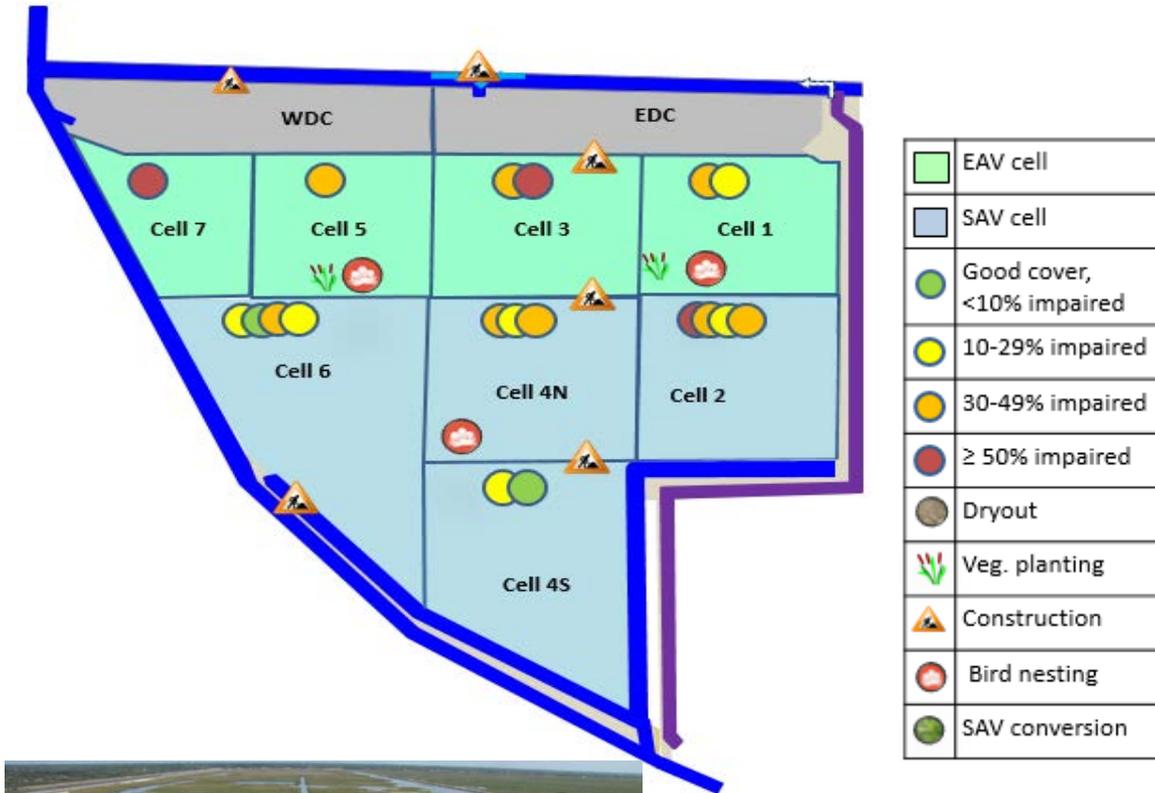
High Inflows during the Dry Season

- January 2016 regional rainfall was over 300% of average and was the highest rainfall amount on record since 1957
- Flows and TP loads during January and February 2016 were much higher than POR.



STA-1E WY2016 Operational Highlights

- EAV condition poor in Cells 3 & 7, and in some areas of Cell 5
- Loss of SAV in Cells 2, 4N, & 6 during part of water year
- Vegetation planting in Cells 1 & 5
- Bird nesting in Cells 1, 4N, & 5

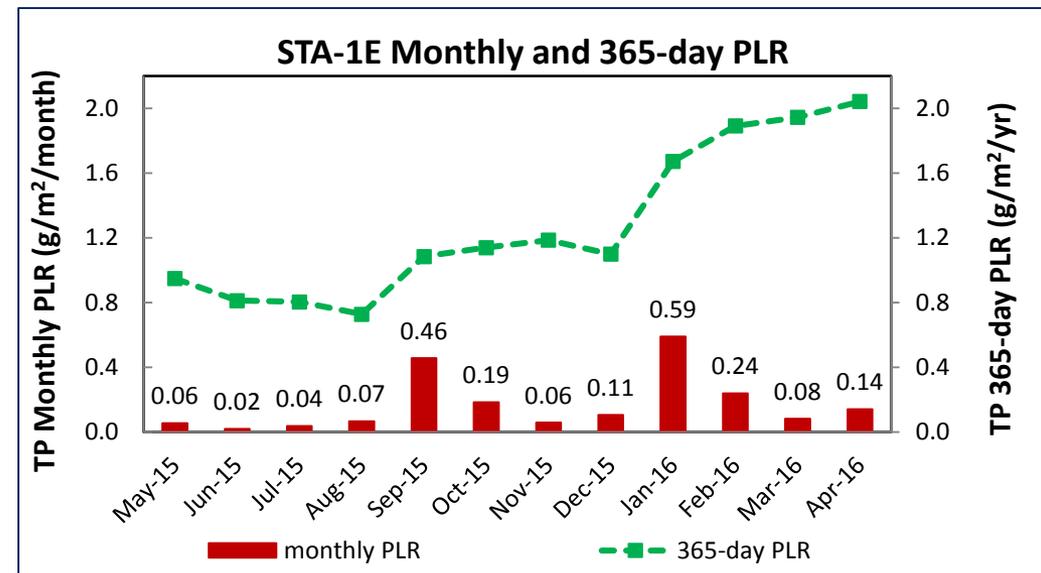
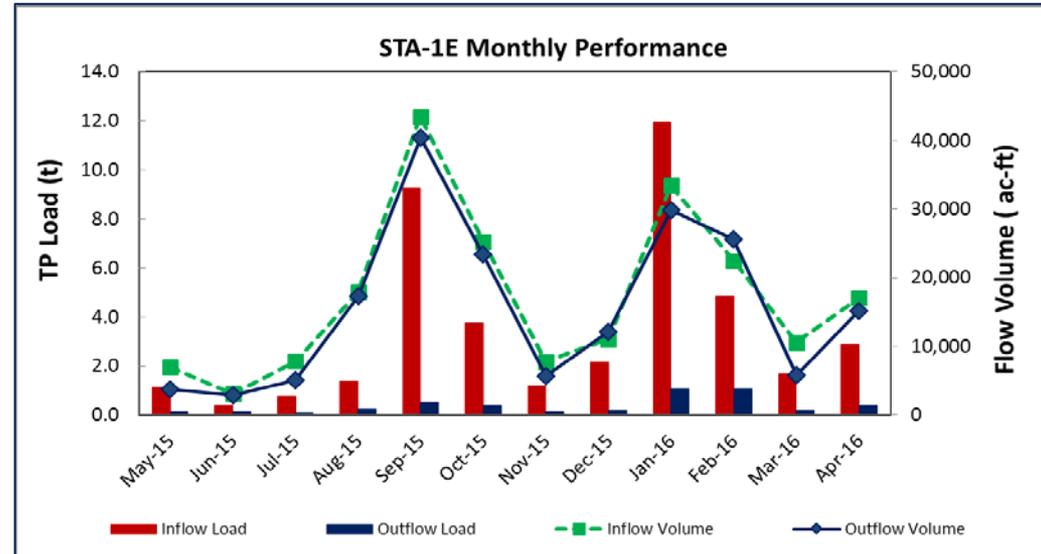


G-716 construction

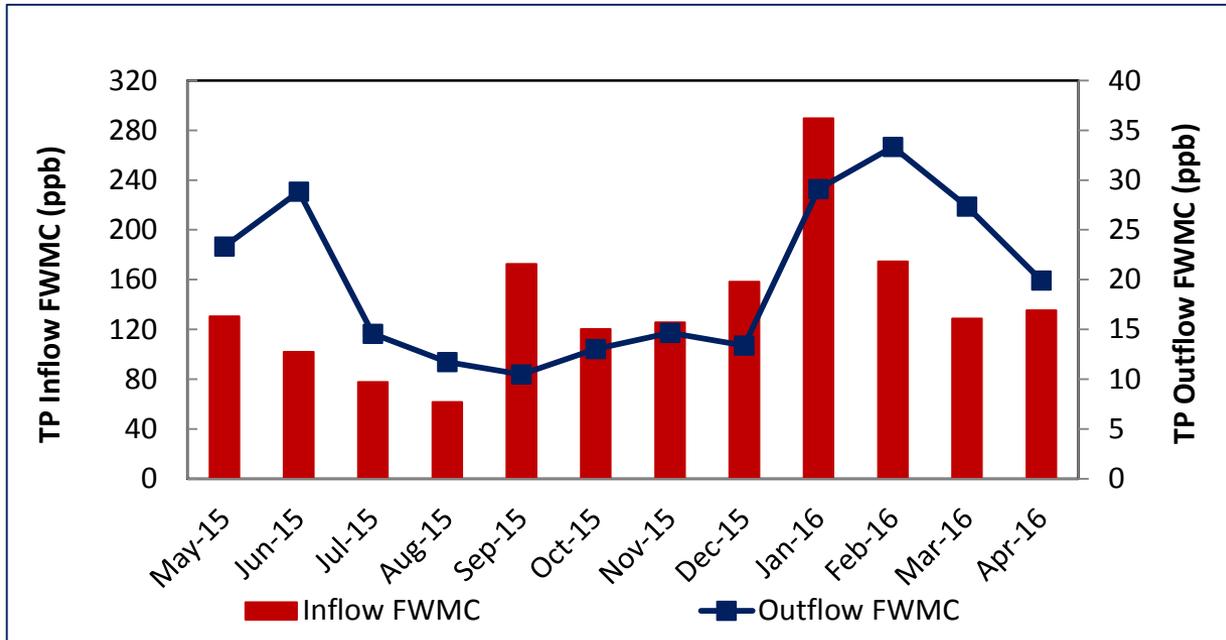
STA-1E WY2016 Operational Highlights

Total Inflow volume	206,961 ac-ft
From Lake releases (26%)	54,500 ac-ft
Inflow TP load	41.3 t
Outflow TP load	4.4 t
% TP load removal	89%
365-day P Loading Rate (PLR)	2.0 g/m ² /yr

Includes preliminary data



STA-1E WY2016 Performance



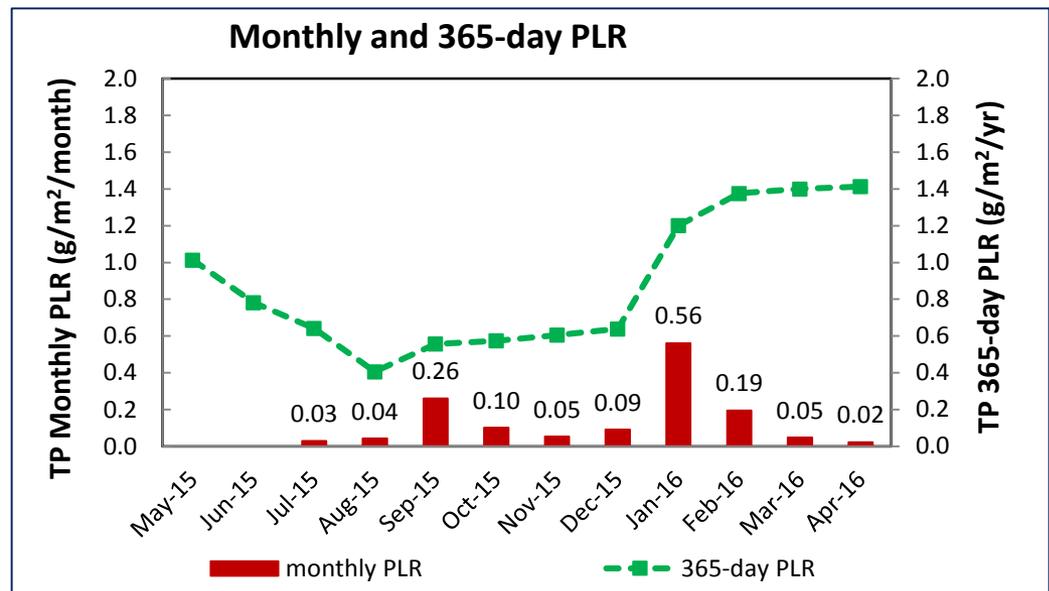
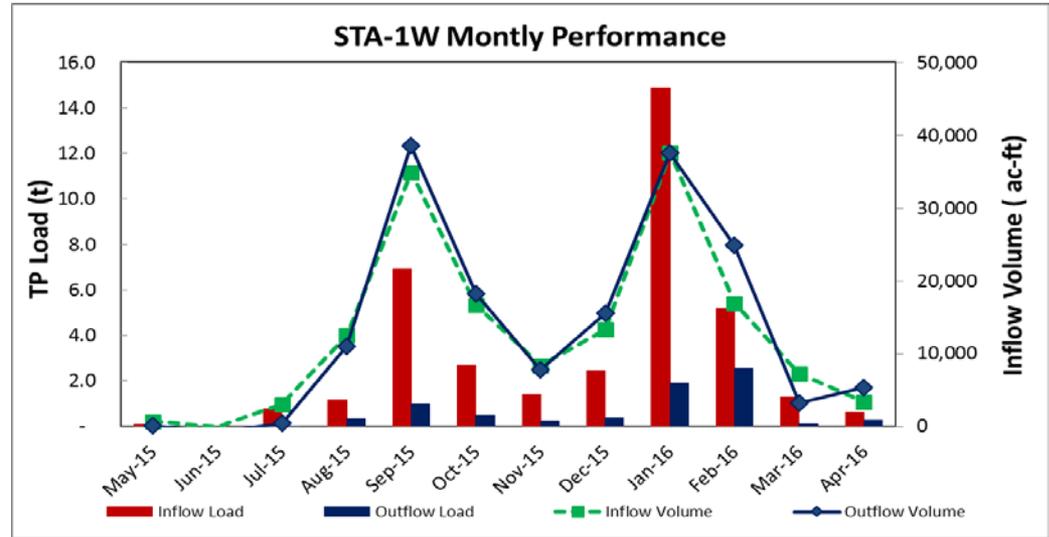
Time period	TP FWM Concentration, ppb	
	Inflow	Outflow
Monthly	62-290	10-33
WY2016 Annual	162	19
WY2015 Annual	142	21
POR (to WY2015)	173	47

Includes preliminary data

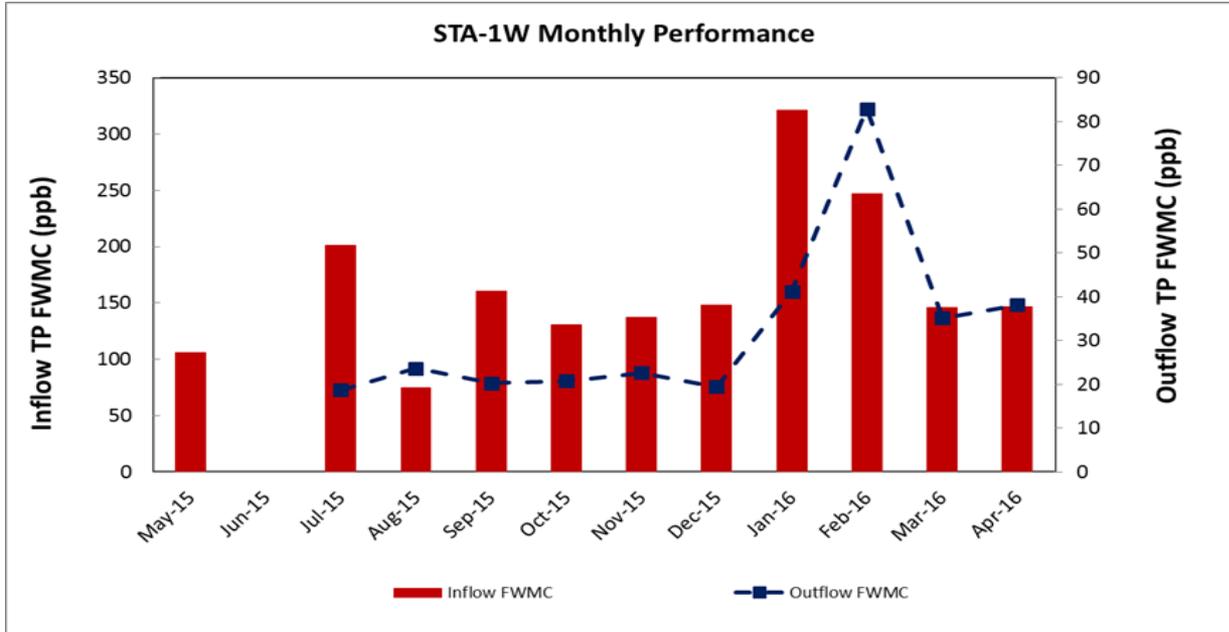
STA-1W WY2016 Operational Highlights

Total Inflow volume	154,827 ac-ft
From Lake releases	26,000 ac-ft (16%)
Inflow TP load	37.4 t
Outflow TP load	7.1 t
% TP load removal	81%
365-day P Loading Rate (PLR)	1.6 g/m ² /yr

Includes preliminary data



STA-1W WY2016 Performance

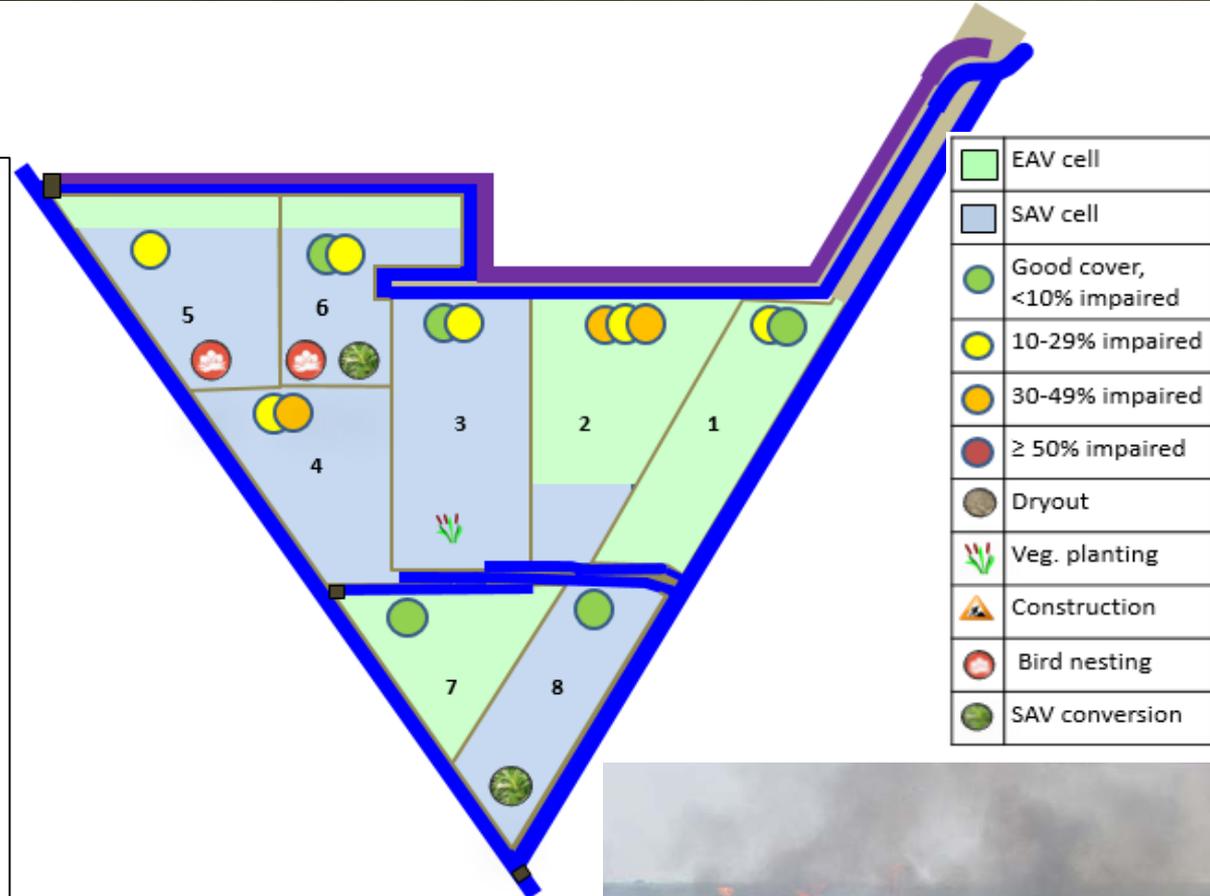


Includes preliminary data

Time period	TP FWM Concentration, ppb	
	Inflow	Outflow
Monthly	75-321	19-83
WY2016 Annual	196	36
WY2015 Annual	157	19
POR (to WY2015)	174	47

STA-2 WY2016 Operational Highlights

- Vegetation condition generally good except for in some SAV loss in Cells 2 & 4.
- Vegetation conversion in Cells 6 & 8
- Vegetation strip planting in Cell 3
- Bird nesting in Cells 5 & 6



Fire at Cell 1, 7/2015

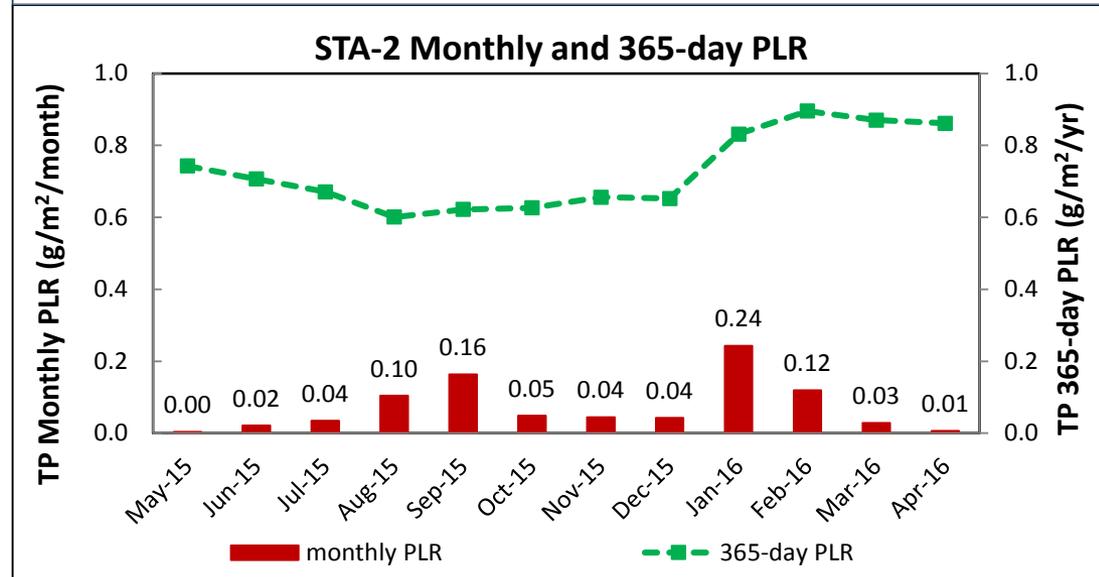
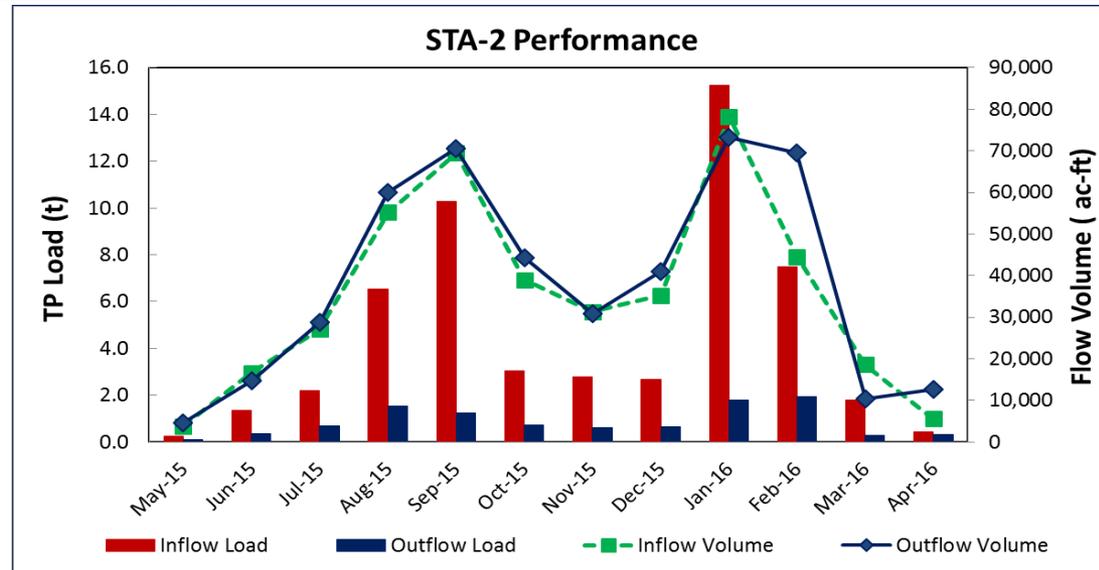


STA-2 WY2016 Operational Highlights

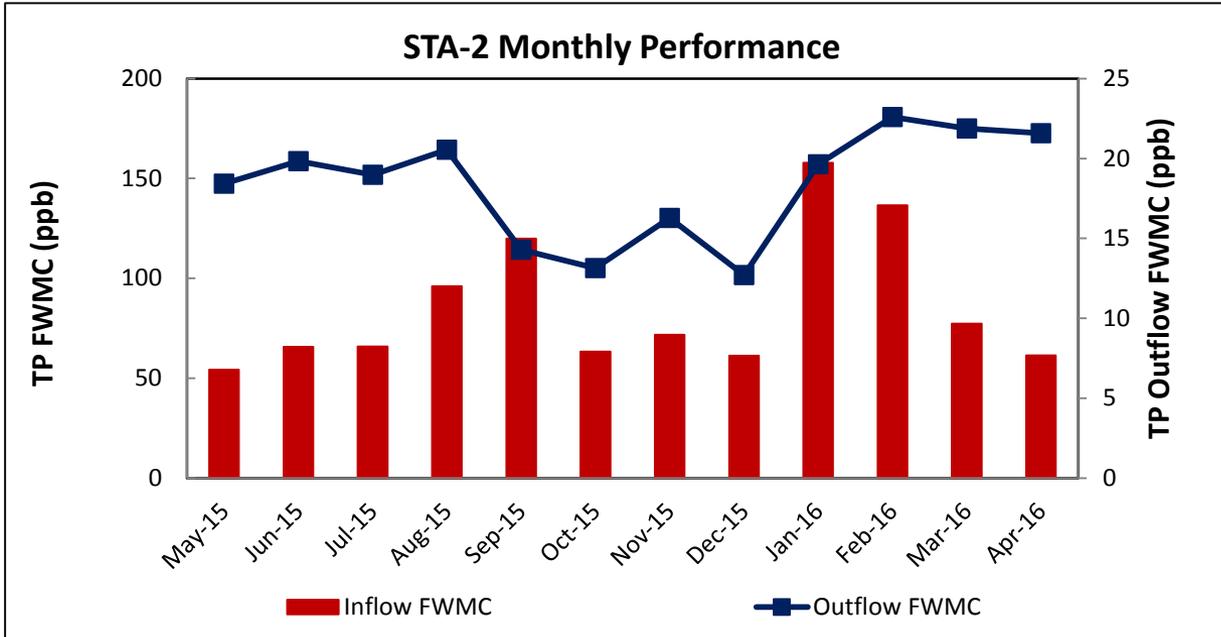
Total Inflow volume	424,654 ac-ft
From Lake releases	70,500 ac-ft (17%)
Inflow TP load	54.0 t
Outflow TP load	10.2 t
% TP load removal	81%
365-day P Loading Rate (PLR)	0.9 g/m ² /yr

A-1 FEB first discharged into North New River/STA-2 via G-722 on 11/24/2015

Includes preliminary data



STA-2 WY2016 Performance

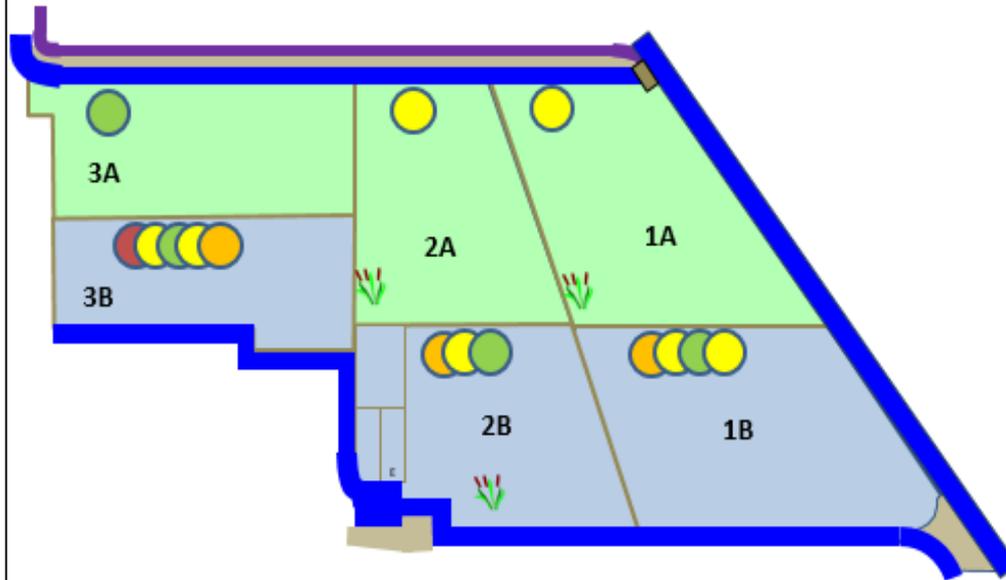


Includes preliminary data

Time period	TP FWM Concentration, ppb	
	Inflow	Outflow
Monthly	54-158	13-23
WY2016 Annual	103	18
WY2015 Annual	72	16
POR (to WY2015)	97	21

STA-3/4 WY2016 Operational Highlights

- EAV condition generally good except for in some areas in Cells 1A & 2A
 - Vegetation planting in these two cells
- Loss in SAV during part of the water year.



	EAV cell
	SAV cell
	Good cover, <10% impaired
	10-29% impaired
	30-49% impaired
	≥ 50% impaired
	Dryout
	Veg. planting
	Construction
	Bird nesting
	SAV conversion

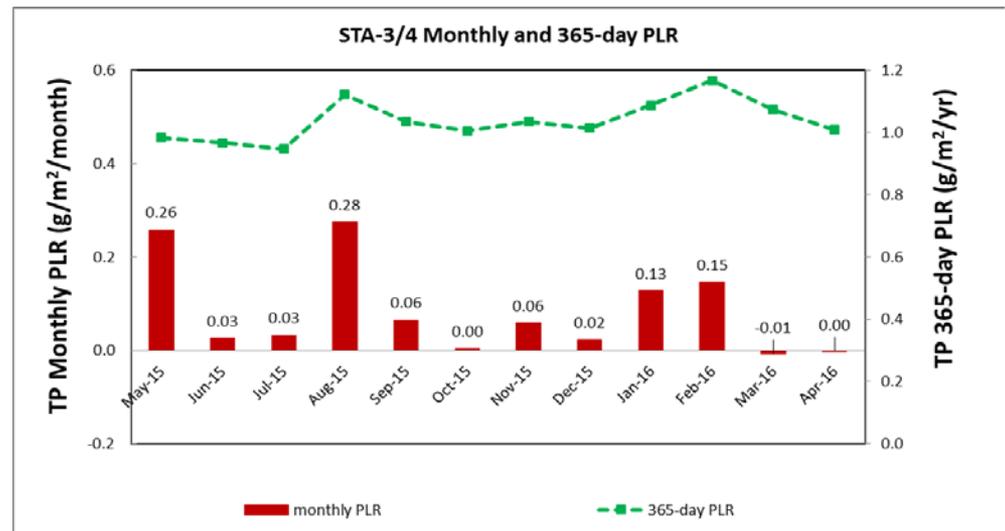
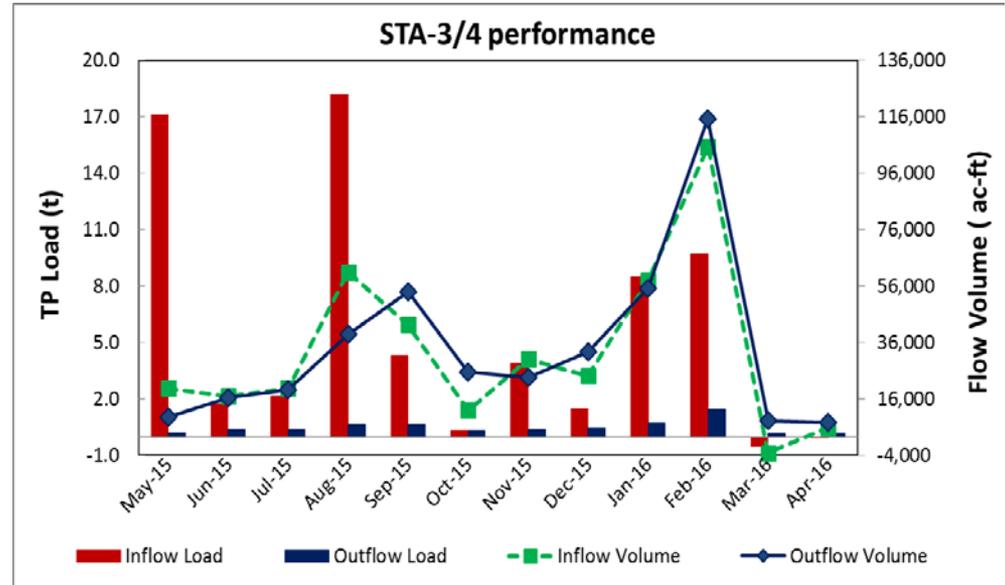


Cell 1A
Vegetation
Rehabilitation

STA-3/4 WY2016 Operational Highlights

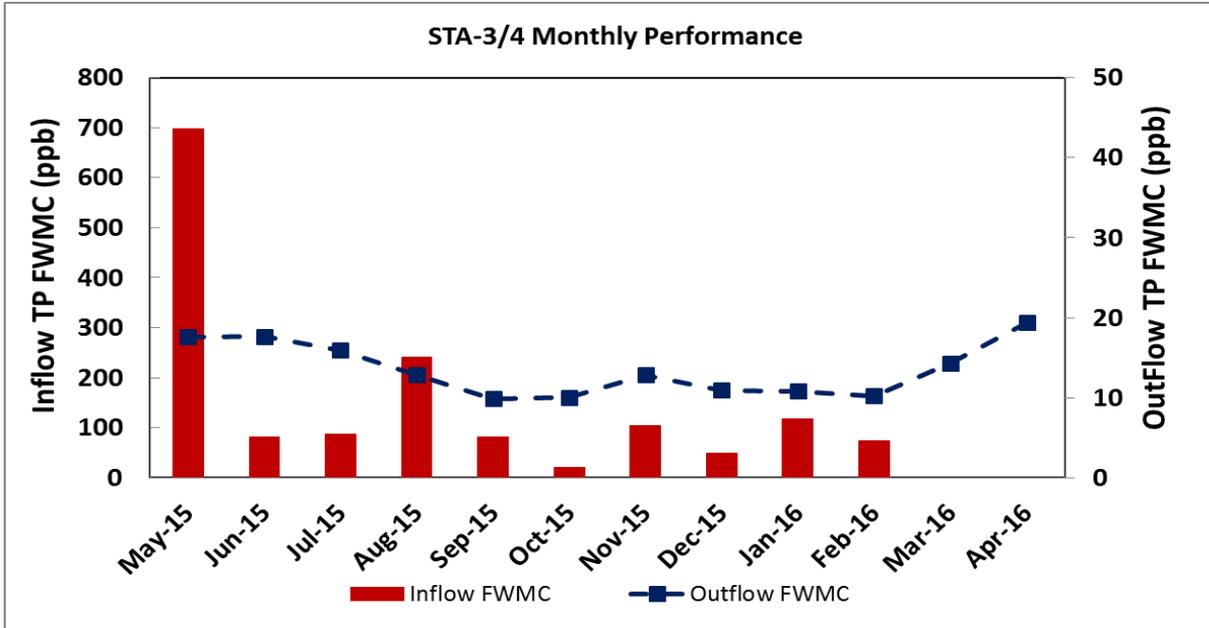
Total Inflow volume	392,881 ac-ft
From Lake releases (14%)	54,700 ac-ft
Inflow TP load	66.7 t
Outflow TP load	5.9 t
% TP load removal	91%
365-day P Loading Rate	0.9 g/m ² /yr

Received inflows from A-1FEB beginning 11/24/15.



Includes preliminary data.

STA-3/4 WY 2016 Performance

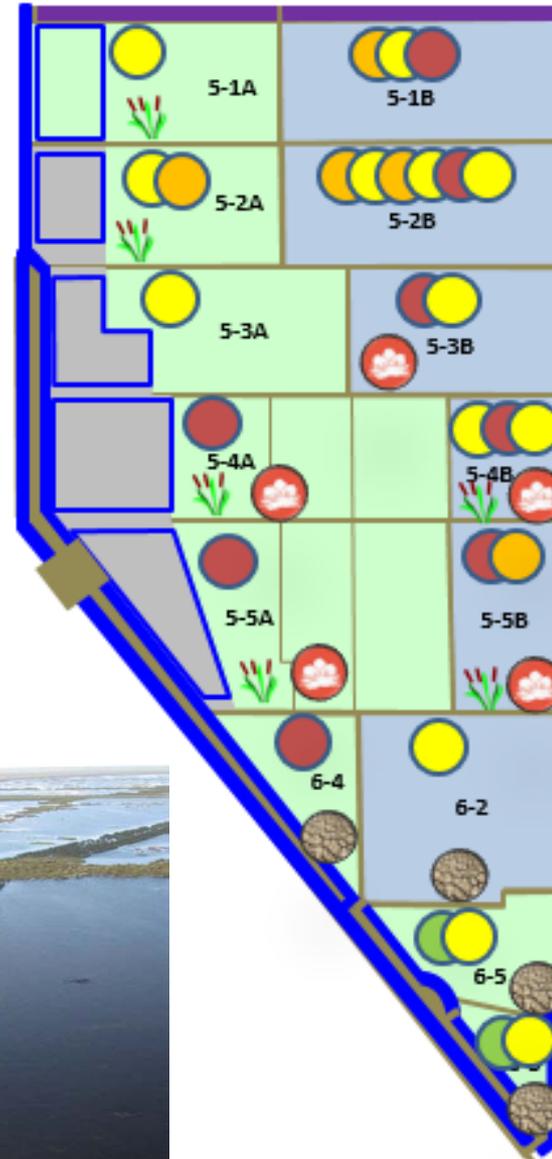


Time period	TP FWM Concentration, ppb	
	Inflow	Outflow
Monthly	20-699*	10-19
WY2016 Annual	111	12
WY2015 Annual	79	15
POR (to WY2015)	106	17

Includes preliminary data

STA-5/6 WY2016 Operational Highlights

- EAV condition generally poor in Cells 4A, 5A, & 6-4
 - Vegetation planting in Cells 4A & 5A
- Primrose willow expansion in Cells 1A, 2A, 6-3, & 6-5
- Loss in SAV during part of the water year.
- Dry out in some cells



	EAV cell
	SAV cell
	Good cover, <10% impaired
	10-29% impaired
	30-49% impaired
	≥ 50% impaired
	Dryout
	Veg. planting
	Construction
	Bird nesting
	SAV conversion

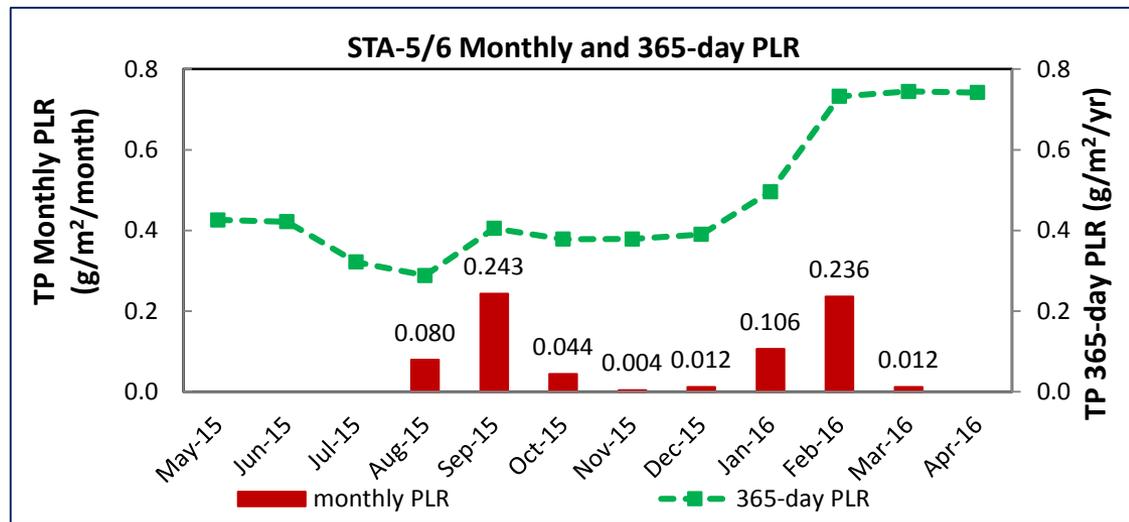
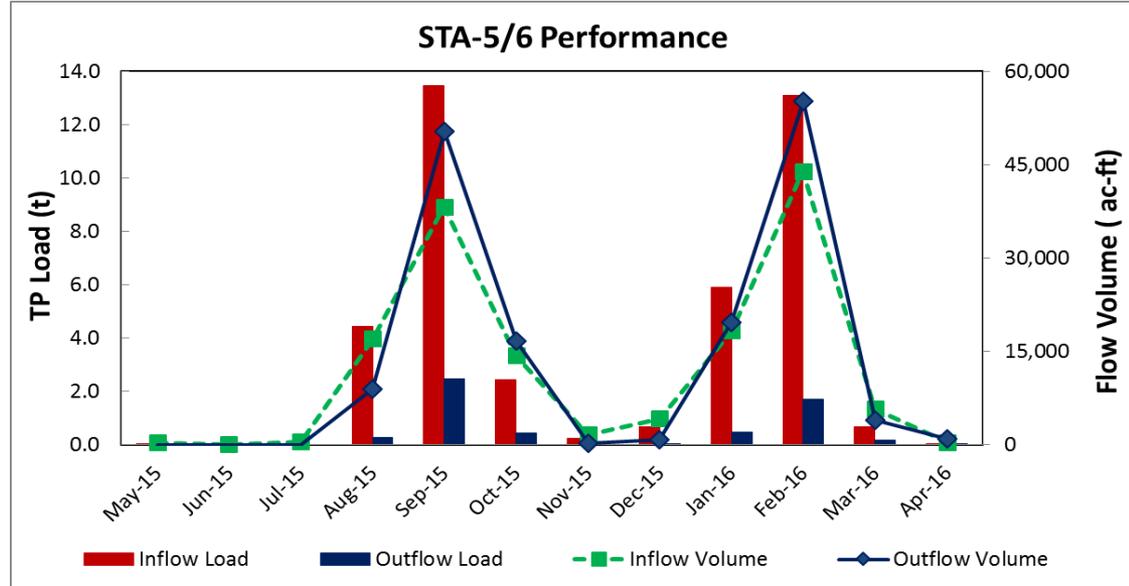
Bulrush vegetation strip, Cell 4A



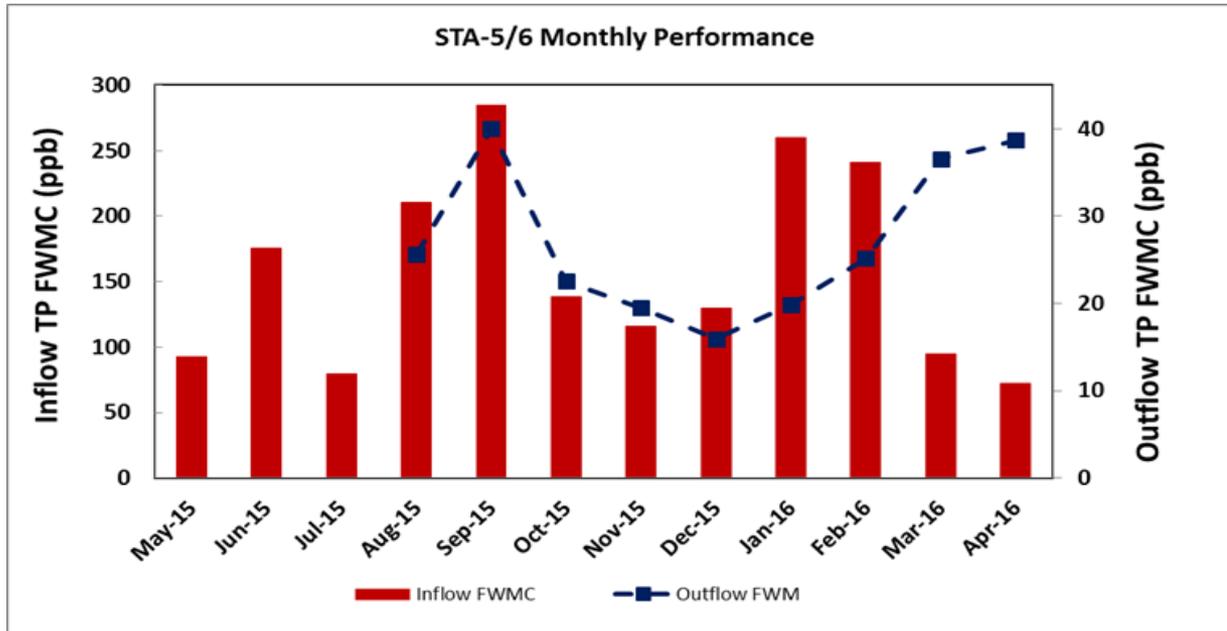
STA-5/6 WY2016 Operational Highlights

Total Inflow volume	145,302 ac-ft
Inflow TP load	41.0 t
Outflow TP load	5.7 t
% TP load removal	86%
365-day P Loading Rate (PLR)	0.7 g/m ² /yr

Includes preliminary data



STA-5/6 WY2016 Performance

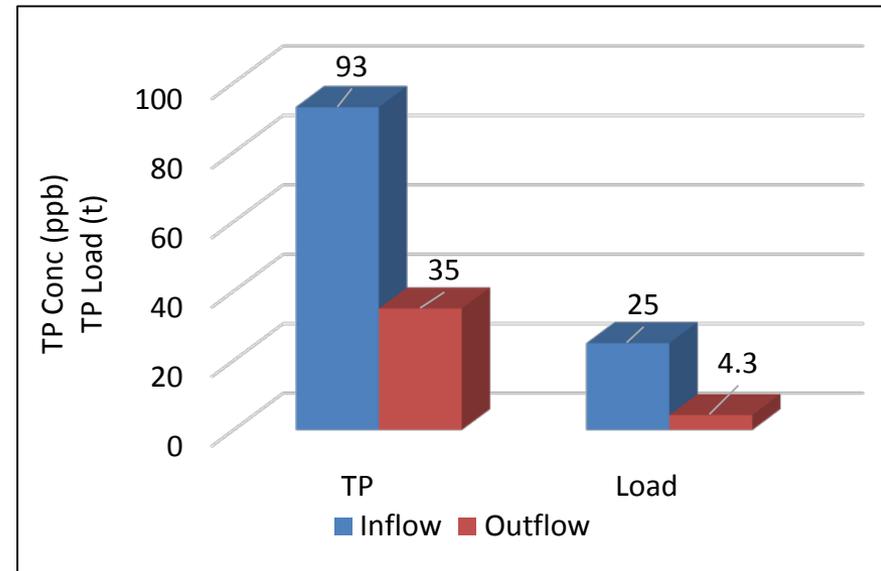
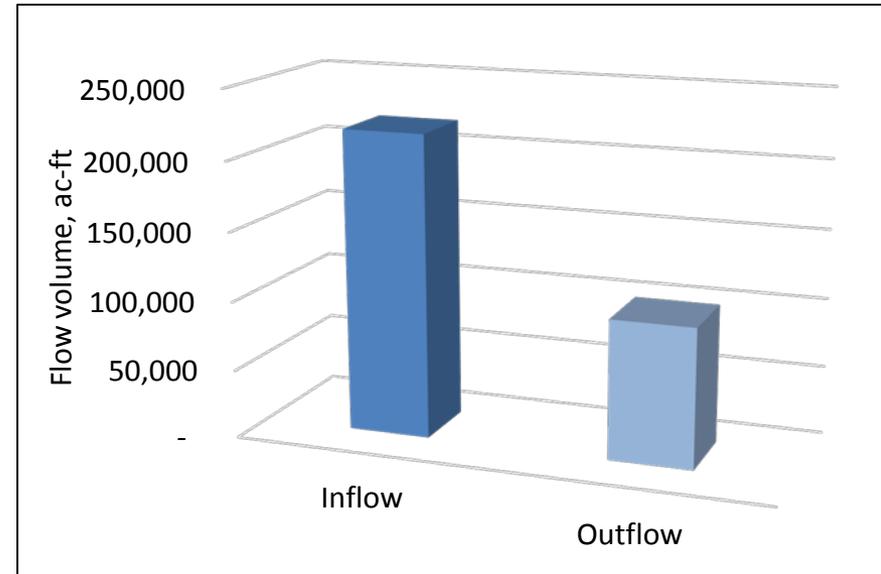


Includes preliminary data

Time period	TP FWM Concentration, ppb	
	Inflow	Outflow
Monthly	72-282	19-40
WY2016 Annual	229	29
WY2015 Annual	230	32
POR (to WY2015)	182	69

A-1 FEB

- Inflow
 - Volume: 219,000 ac-ft
 - From Lake releases: 54,700 ac-ft (25% of total inflow)
 - TP FWM Concentration: 93 ppb
 - P Load: 25 t
- Outflow
 - Volume: 101,000 ac-ft
 - TP FWM Concentration: 35 ppb
 - P load: 4.3 t
- Reduction
 - Concentration: 62%
 - Load: 83%



Questions?

