Quarterly Communications Meeting on the Long-Term Plan For Achieving Water Quality Goals for Everglades Protection Area Tributary Basins

MAY 23, 2012

## WY2012 STA and Selected Flow-way Performance (preliminary)

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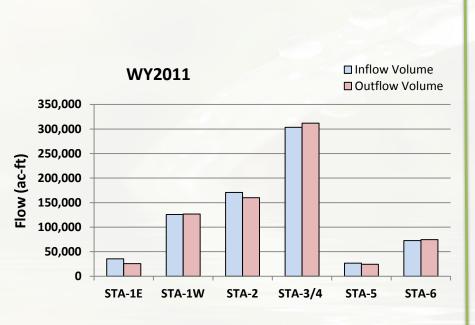
Sr. Env. Scientist

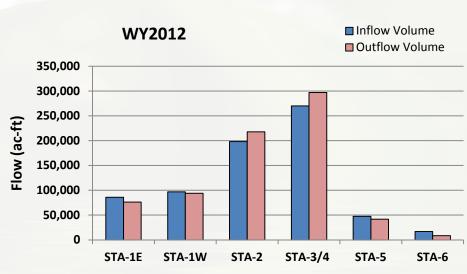
**Applied Sciences Bureau** 

## **STA Location Map**

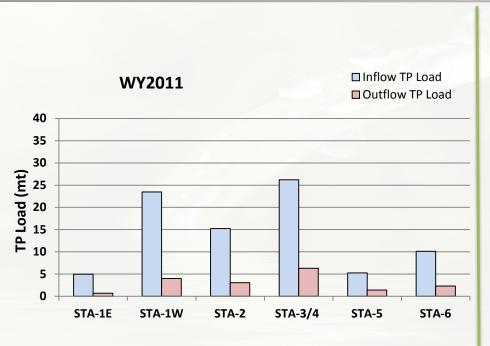


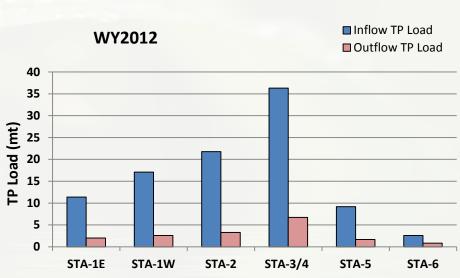
#### Inflow and Outflow Volumes



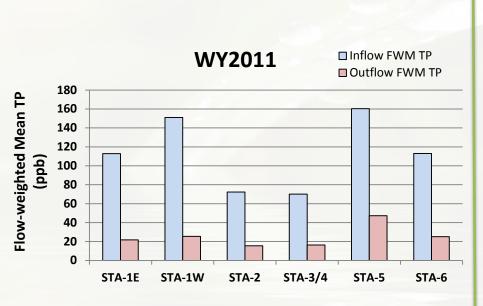


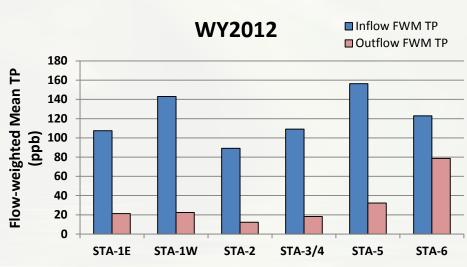
## Total Inflow and Outflow TP Loads



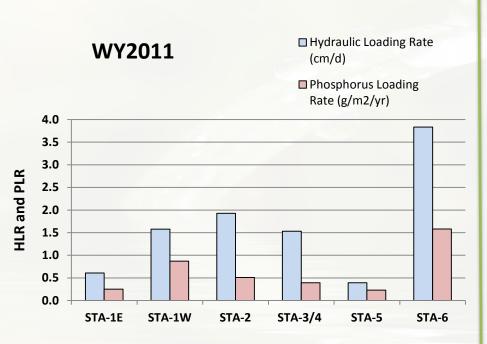


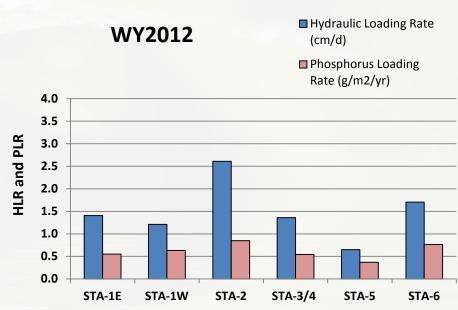
## Inflow and Outflow TP Concentrations





# Hydraulic and Phosphorus Loading Rates

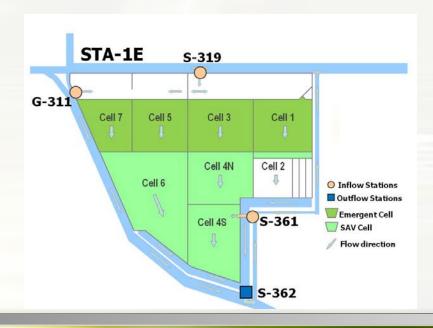




### **STA-1E Flow-ways**

Flow-way	Inflow Volume ac-ft	Inflow Conc. ppb	Outflow Conc. ppb	PLR g/m²/yr
Western	19,422	125	38	0.4
Central	56,756	109	18	1.0

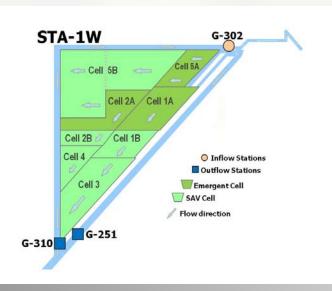
<sup>\*</sup>Data, which includes results up to 4/29/2012, are preliminary and subject to change.



- Structural issues; S-375, S-370C, and S-373B construction activities
- Western Flow-way restrictions
- Eastern Flow-way remained online with restrictions
- Impacts of hydrilla dieoff in WY2010 continued
- Stilt nesting impacts in early part of WY2012
- Supplemental water delivered for hydration

### **STA-1W Flow-ways**

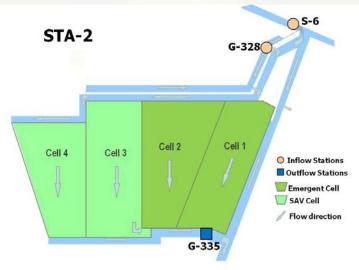
Flow-way	Inflow Volume ac-ft	Inflow Conc. ppb	Outflow Conc. ppb	PLR g/m²/yr
Western	31,974	116	23	0.9
Eastern	27,393	124	18	0.4
Northern	41,888	142	18	0.6



- Additional bulrush planting in Cell 5A open areas and in Cell 5B additional vegetation strips
- Supplemental water received for hydration

#### **STA-2 Flow-ways**

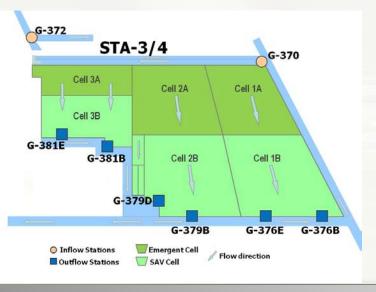
Flow-way	Inflow Volume ac-ft	Inflow Conc. ppb	Outflow Conc.	PLR g/m²/yr
Cell 1	57,320	79	9	0.8
Cell 2	78,200	103	15	1.1
Cell 3	73,549	82	15	0.8



- S6 repairs; temporary pumps were installed
- STA-2 Cell 2 Conversion
  - additional SAV inoculation
- Cell 4 –offline for Compartment B construction
- Supplemental water received for hydration

### STA-3/4 Flow-ways

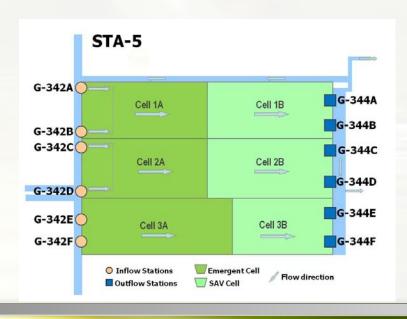
Flow-way	Inflow Volume ac-ft	Inflow Conc. ppb	Outflow Conc. ppb	PLR g/m²/yr
Western	123,600	36	15	0.3
Central	93,373	49	21	0.3
Eastern	80,368	60	20	0.3



- All cells dried out
  - Cell 1A drawdown in early part of WY for vegetation rehabilitation
  - Water levels receded due to drought
- Eastern FW restrictions
- Central and Western FW temporary restrictions after heavy rain events
- Supplemental water delivered for hydration
- PSTA Implementation

## **STA-5 Flow-ways**

Flow-way	Inflow Volume ac-ft	Inflow Conc. ppb	Outflow Conc. ppb	PLR g/m²/yr
Northern	22,838	147	36	0.5
Central	24,515	165	28	0.6

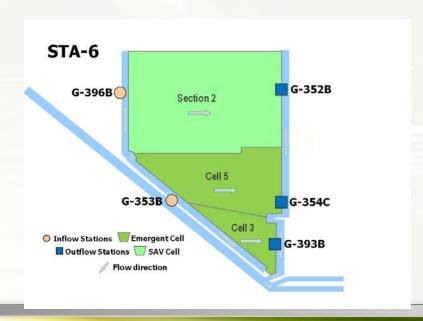


- FW3 online but received <200 ac-ft of flow
- Dryout Cells 1A, 2A, and FW 3 dried out
  - High TP spikes upon resumption of flow
- Supplemental water delivered directly to SAV cells to maintain hydration
- Plugs installed in Cell 2B strips to alleviate short-circuiting

#### **STA-6 Flow-ways**

Flow-way	Inflow Volume ac-ft	Inflow Conc. ppb	Outflow Conc. ppb	PLR g/m²/yr
Cell 3	5,251	118	53	0.8
Cell 5	11,650	129	85	0.8

<sup>\*</sup>Data, which includes results up to 4/29/2012, are preliminary and subject to change.



- Section 2 offline
- Dryout yearly cycles of dryout and re-flooding
  - High TP spikes upon resumption of flow