



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

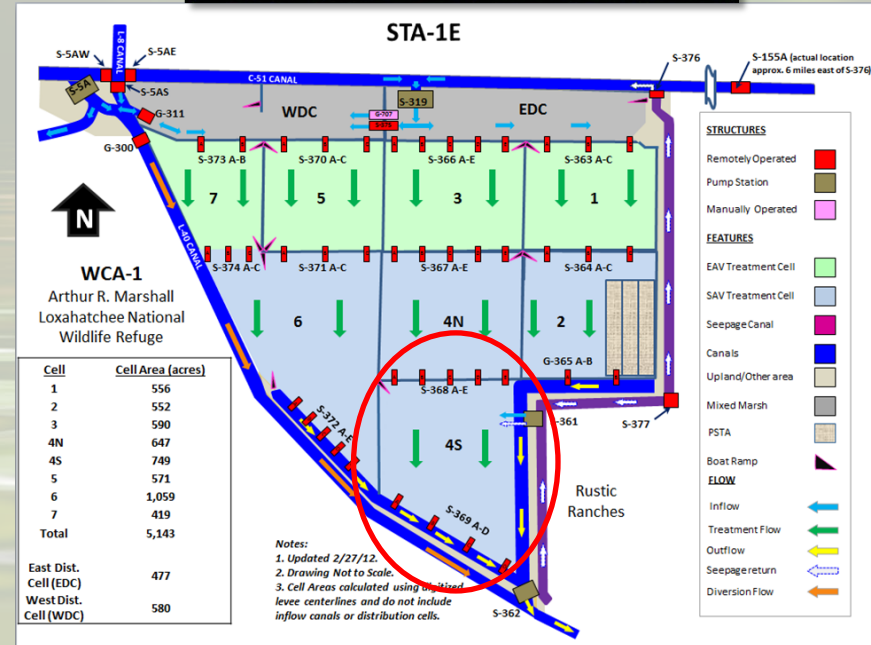
STA-1E Exotic Apple Snail Update

Larry Gerry
STA Coordinator
Office of Everglades Policy & Coordination

STA-1E Cell 4S Update



- STA-1E Cell 4S exotic apple snail infestation
 - July 2013 decline in water quality
 - Near complete loss of SAV
 - Attributed to exotic apple snail (*Pomacea maculata*) herbivory
- Initial investigations revealed no clear cause for population explosion
- Implemented water level manipulations to increase predation and consolidate sediments



STA-1E Cell 4S Update

Density of exotic apple snails in STA-1E Cell 4S was the greatest ever observed in any STA



Exotic Apple Snails STA-1E

Apple Snail egg masses on Cattails



Apple Snail egg masses on Cattails in STA-1E



STA-1E Cell 4S Update



- 23 nest attempts in Cell 4N

Cell 4S SAV Eradication by Snail Herbivory



Defoliated Submerged Aquatic Vegetation



Healthy Submerged Aquatic Vegetation

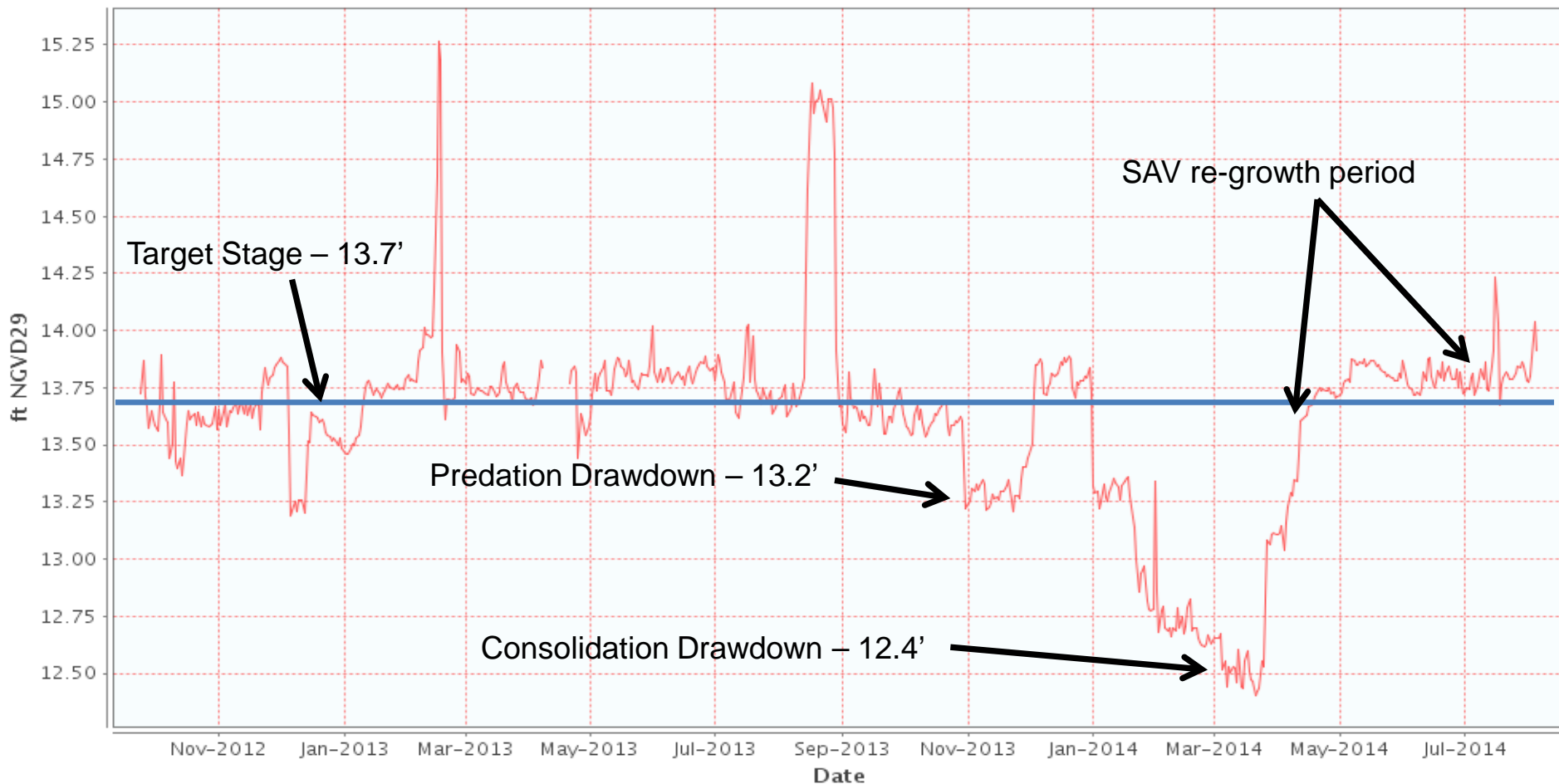
Cell 4S Water Levels Lowered to Increase Predation of Snails

- **Attracted snail kites, limpkins, and other birds**



Cell 4S Water Level Manipulations

DBHYDRO Chart
24-SEP-2012 to 05-AUG-2014

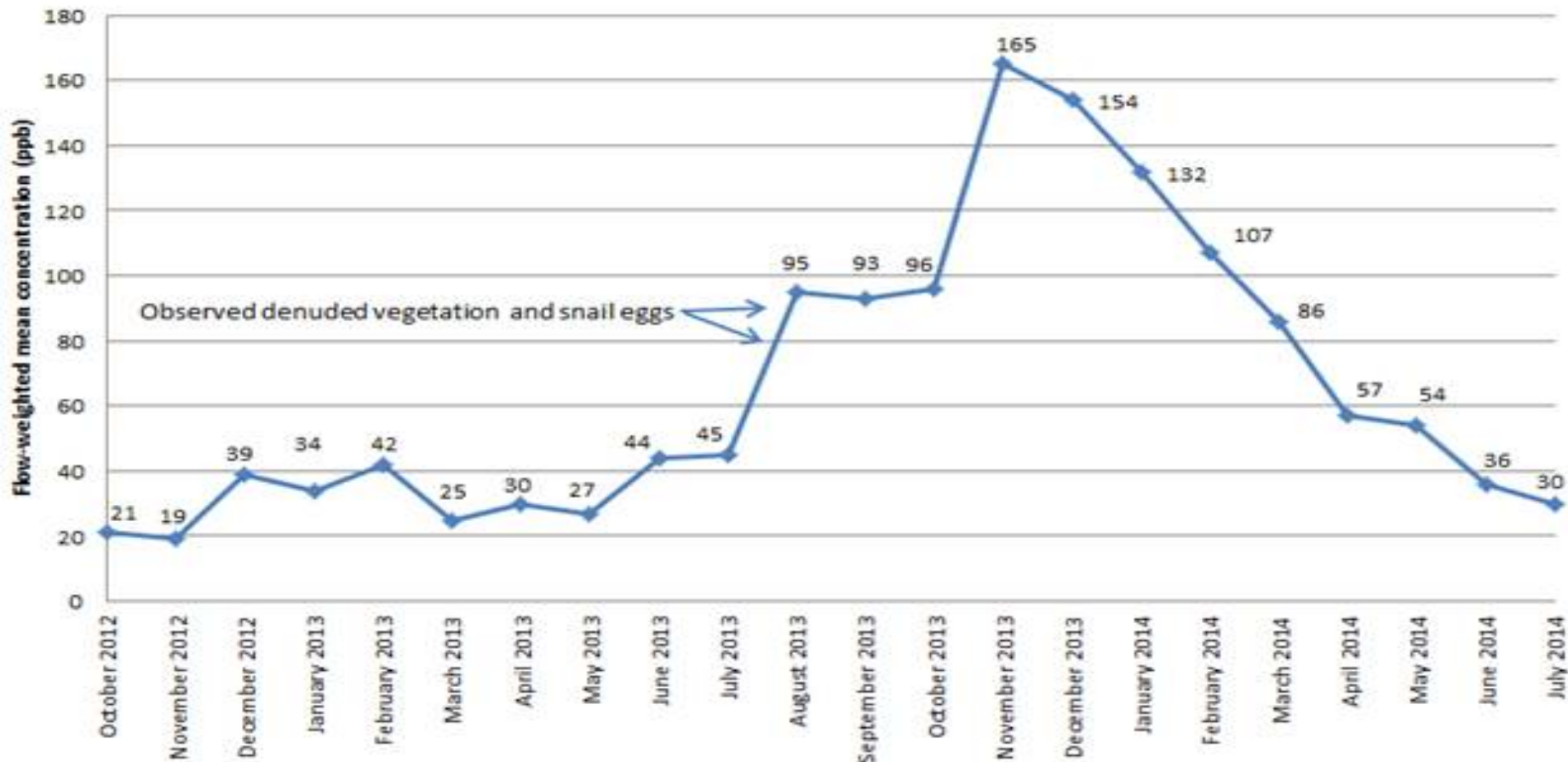


DBKey	Station	Agency	Data Type	Unit	Statistic	Frequency	Strata	Gate/Pump#
TA319	S369C_H	WMD	STG	ft NGVD29	MEAN	DA	0	N/A

Cell 4S Performance Trend

STA-1E Cell 4S Monthly Outflows

Includes Preliminary Data



Summary

- Still no single factor or group of factors identified as cause of snail population explosion in 4S
 - Cell contained 750 acres of SAV, as do other STA cells. Why here?
- Management Measures
 - Water level manipulations appeared to help eliminate snails due to predation
 - Starvation likely played a role
 - Currently few egg clutches observed in cell
- SAV and treatment performance returning to normal one year later

Questions?

