

Stage Gauge Re-surveying in the Refuge

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Presented to Technical Oversight Committee
on October 3, 2006

Inter-Agency Meeting Held July 12, 2006

- Attendees:
 - Refuge
 - SFWMD
 - USGS
- Discussed/shared available information
- Developed Plan of Action
- Discussed NGVD29/NAVD88

Plan of Action

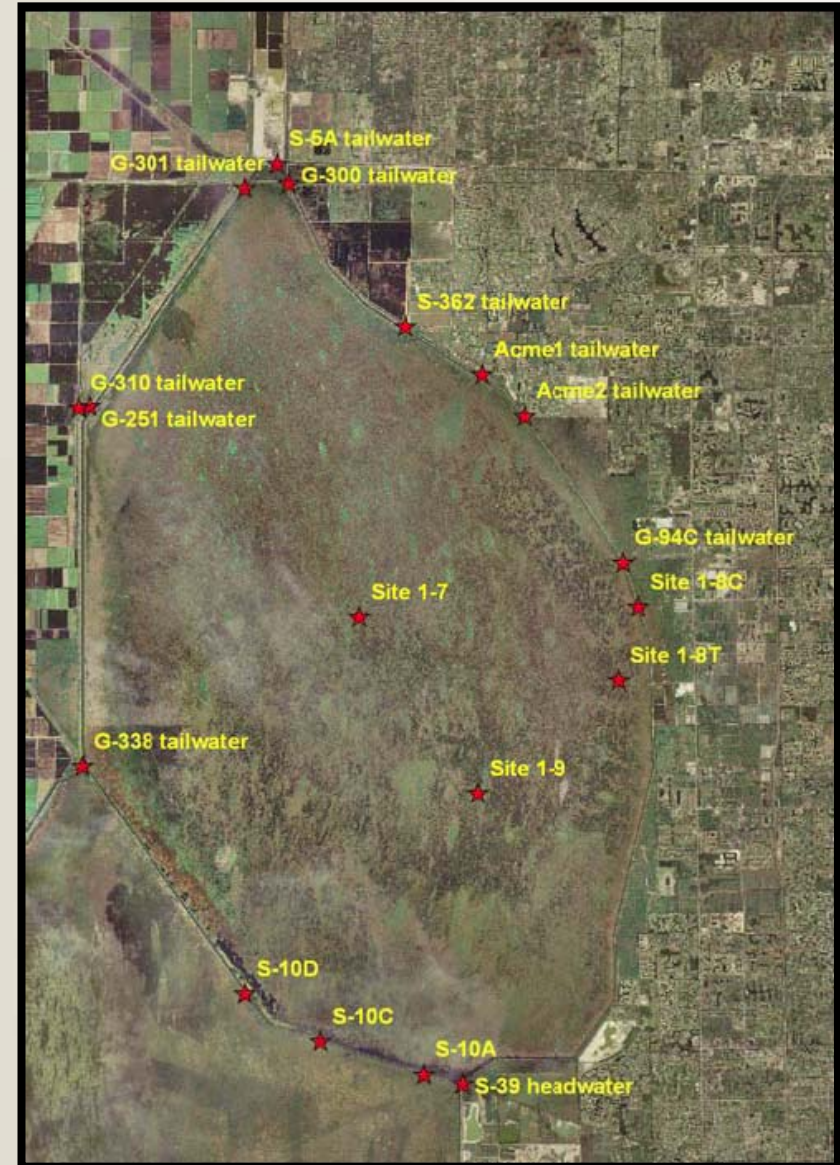
- Complete Re-survey of benchmarks and sites (SFWMD)
- Coordinate agreement on benchmark
- Determine adjustments to gauges 1-9, 1-7, 1-8C
- Implement adjustments as appropriate

Surveyor's Report: Water Conservation Area 1 Elevation Investigation

- Nick Miller, Inc.
- Examined water surface elevations at 18 gauge locations
- Elevations compared with gauge readings
- Recommended one gauge be re-calibrated

18 Gauges Evaluated

- Water Elevation
- Gauge Reference Mark Elevation
- Used NAVD88
- Computed Total Estimated Error



Summary of Results

Gauge	Average Difference (ft)	Est. Vert. Position Accuracy (ft)	Std. Dev.	N
ACME 1 (TW)	0.05	0.1	0.02	6
ACME 2 (TW)	0.05	0.09	0.01	6
G-94C (HW)	-0.03	0.09	0.01	26
G-251 (TW)	-0.03	0.09	0.01	6
G-300 (TW)	-0.05	0.10	0.03	6
G-301 (TW)	-0.01	0.11	0.01	6
G-310 (TW)	-0.01	0.09	0.01	6
G-338 (TW)	-0.07	0.09	0.00	6
S-5A (TW)	0.05	0.09	0.06	12
S-10A (HW)	0.1	0.09	0.05	26
S-10C (HW)	0.01	0.09	0.01	6
S-10D (HW)	0.00	0.09	0.00	6
S-362 (TW)	0.09	0.09	0.04	6
S-39 (HW)	0.27	0.09	0.02	26
WCA1 1-7	-0.13	0.15	0.02	6
WCA1 1-8C	-0.1	0.1	0.01	26
WCA1 1-8T	-0.06	0.15	0.01	6
WCA1 1-9	0.02	0.15	0.02	6

SFWMD Follow-up Actions

- Investigation of S-39 revealed that it was silted in with sediment
- S-39 HW site to be re-built in October 2006
- S-39 HW data being evaluated
 - Period of Record of the error
 - Recommended adjustment amount, if different than 0.27

Additional Follow-up Actions

- Team to refine action plan
- Adjustments to be determined
- Adjustments to be implemented

Questions?