WAP Transect Set-up and Maintenance

Basic Steps of WAP Transect Installation

- Choose Transect Location
- Find or establish “Wetland Benchmark”
- Identify Historic Normal Pool, Historic Wetland Edge, check for subsidence
- Install NP-6, NP-12, wetland edge marker, and wetland interior marker (if not using the staff gage)
- Document everything

Transect setup sheets should be available for all existing WAP sites – acquire copies for your sites from either SWFWMD or TBW, review them, and bring them to your sites during evaluations

WAP Transect Form
Company: Water and Air Research
Wetland Name: CCWF - D
Wetland Site Number(s): 363
Field personnel: KMS/BPM
Date/Time: 03/30/05 12:50 PM
Location Information: MOL 500' East of Production Well # C-7

Description of Transect (Site Map on Back): North edge of wetland, serenoa repens...from interior sight 123 degrees @staff gage to locate edge wetland stake.
Description of Benchmark: SWFWMD Upland well concrete base, PK nail head
Benchmark GPS: 28 17' 23.5" - 082 23' 36.0"
Description of Wetland Edge: *Serenoa repens; Ilex glabra; Aristida sp.; Lyonia sp. & Andropogon sp*

Description of Wetland Interior: *Andropogon sp.; Eupatorium sp.; Rubus sp.; Panicum sp.; Taxodium ascendens; Sabal palmetto & Myrica cerifera*
Staff Gage (ID): Cypress Creek "D" **Staff Gage WL:** BG

Setup	ROD	NGVD	Comments	
Instrument head	0	73.38		
Bench mark (TBM)	4.57	68.81	Existing, SWFWMD Given NGVD: 68.81	
Staff Gage	5.30	68.08	Reading at measuring point: 68.00 (off)	
Staff Gage (ground surface)	7.19	66.19	Wetland interior / DZ	
Normal Pool	**ROD**	**NGVD**	**Comments (EG: use/not use)**	
N P Indicators (ID/description)				Median Calculation
#1 Palmetto Base	4.68	68.70	used	# 6 4.63
#2 Palmetto Base	4.72	68.66	used	#4 4.67
#3 Palmetto Base	4.72	68.66	used	#1 4.68
#4 Palmetto Base	4.67	68.71	used	#2 4.72
#5 Palmetto Base	4.73	68.65	used	#3 4.72 = Median
#6 Palmetto Base	4.63	68.75	used	#6 4.73
#7 Palmetto Base	4.75	68.63	used	#7 4.75
#8 Palmetto Base	4.91	68.47	used	#9 4.85
#9 Palmetto Base	4.85	68.53	used	#8 4.91
				4.72 - 0.25 = 4.47 = Normal Pool
			* Stadia / ROD median palmetto's: -0.25	
			* NGDV median palmetto's: + 0.25	
Normal Pool Final	4.47	68.91		

Layout Distance (ft.)	ROD	NGVD	Comments	
0.00'	4.77	68.61	Historic wetland edge	GPS: 28 17' 23.5" - 82 23' 35.2"
13.20'	4.97	68.41	NP - 6" (TZ/ODZ)	GPS: 28 17' 23.4" - 82 23' 35.0"
30.4	5.47	67.91	NP - 12" (ODZ/DZ)	GPS: 28 17' 23.2" - 82 23' 34.9"
185.40'	7.19	66.19	Wetland Interior / end	GPS: 28 17' 22.3" - 82 23' 33.6"

* NP-6" & NP-12" have been corrected, Field points O.K.

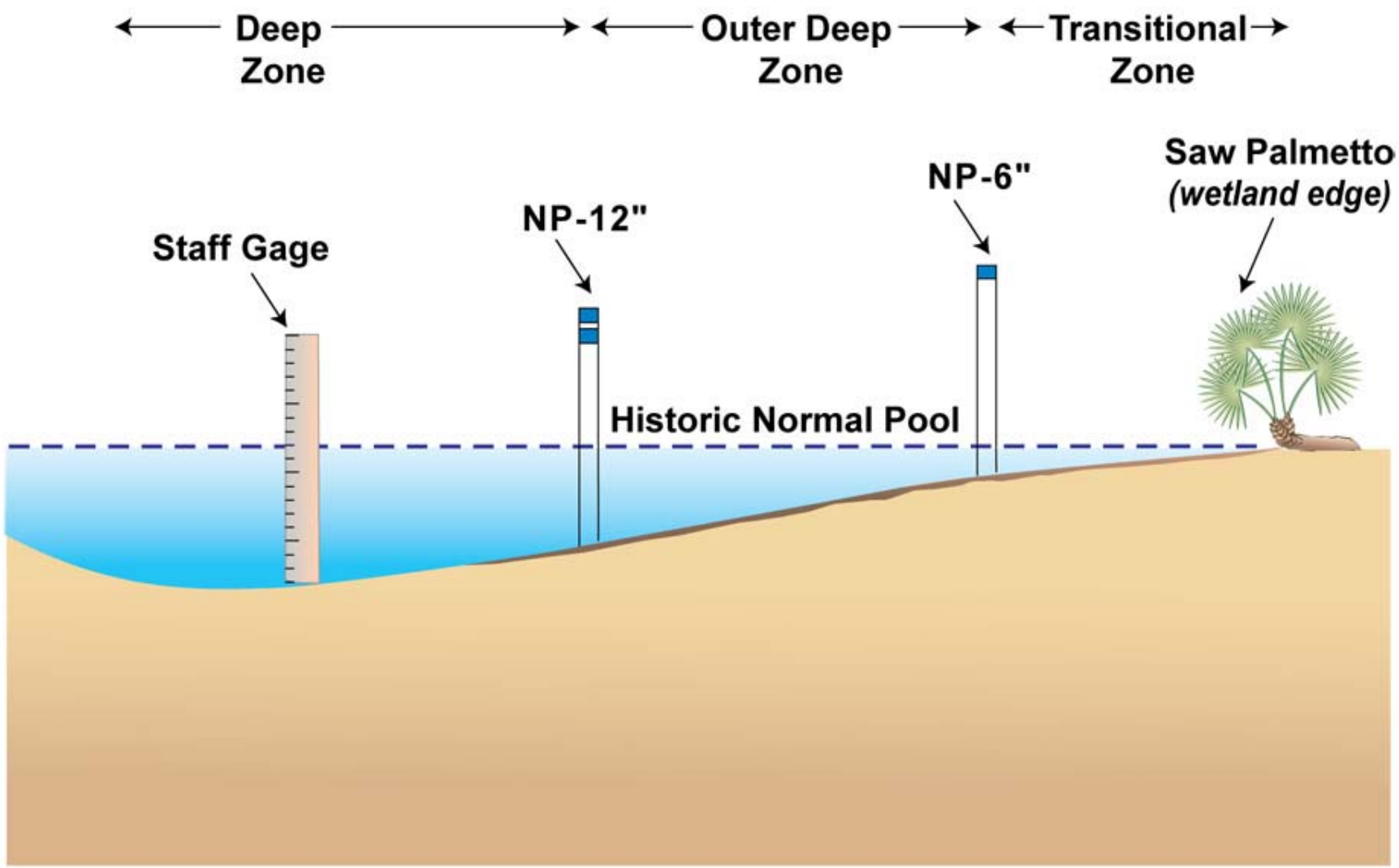
Transect Maintenance

- Be aware of transect set-up documentation
- Check for missing or obviously moved stakes and make repairs
- Report any damaged staff gages or wells to either SWFWMD or TBW

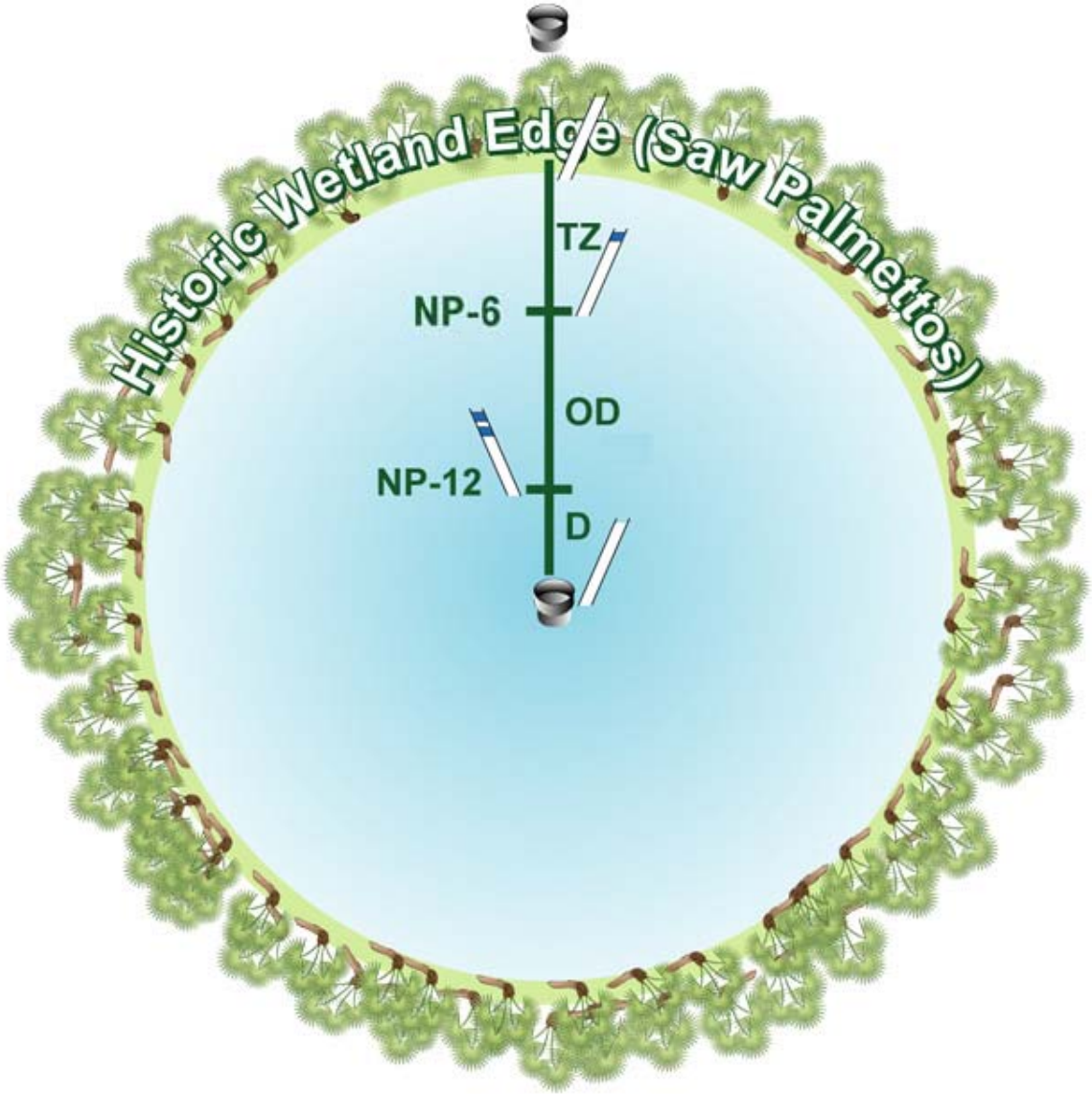
Transect Maintenance

- If stake damaged but in place, simply replace it
- If stake missing, resurveying may be needed
- Measuring the distance of existing stakes from known landmarks (such as a staff gage or well) may alleviate the need for resurveying if stakes are missing in the future (professional surveying should be done at a later date)

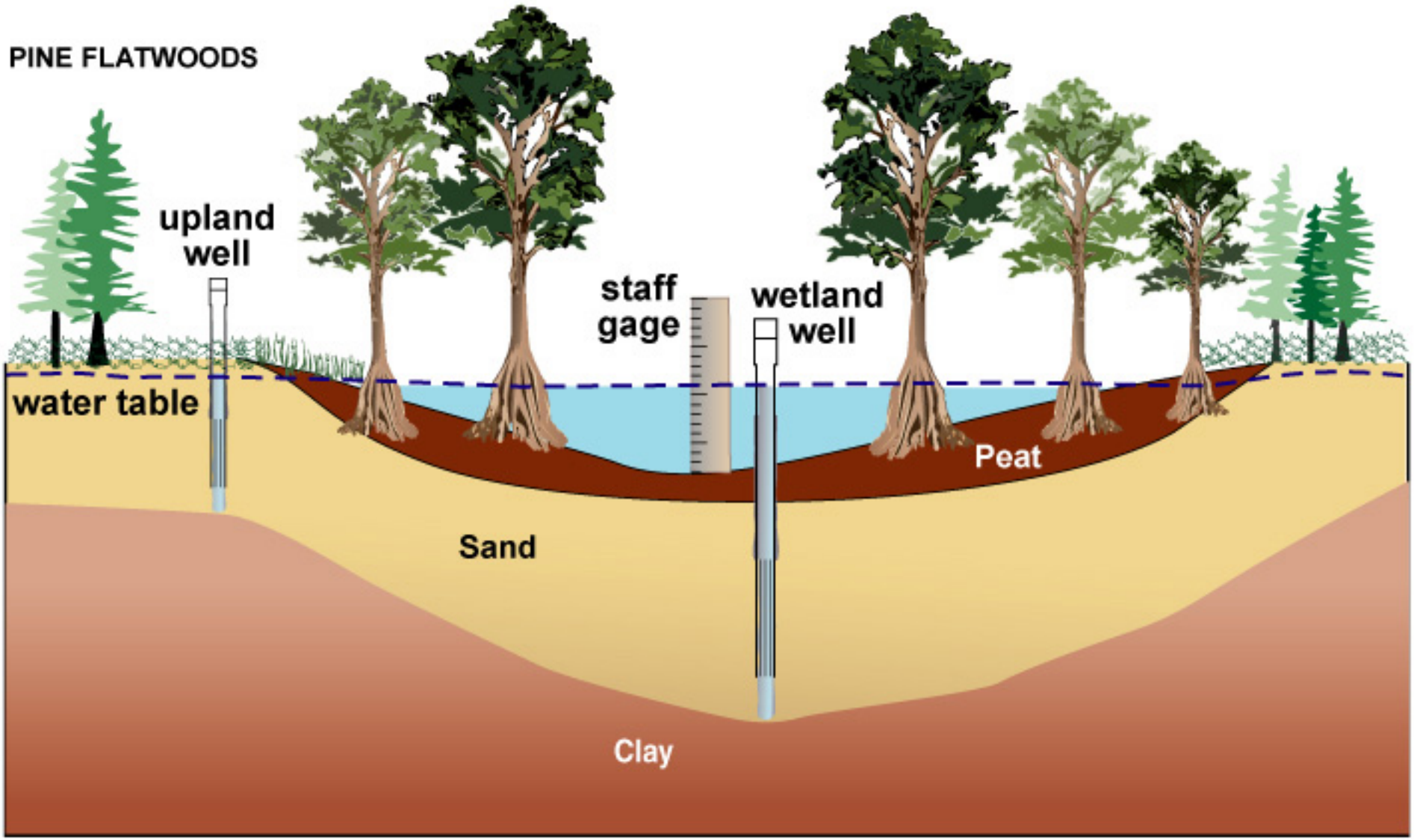
Example of Typical WAP Transect



WAP Transect Set-Up



Wetland Monitoring Instrumentation




Look for
pulled
stakes


Stakes damaged by fire (but still in place)


Stakes lost
through paths
and roads

Find or establish "Wetland Benchmark"

- Everything should start from the Wetland Benchmark
  - Installation of wells and gages
  - WAP transects
  - Normal pools
  - Re-establishment of all of the above
- Benchmark should be near wetland edge, but in the uplands

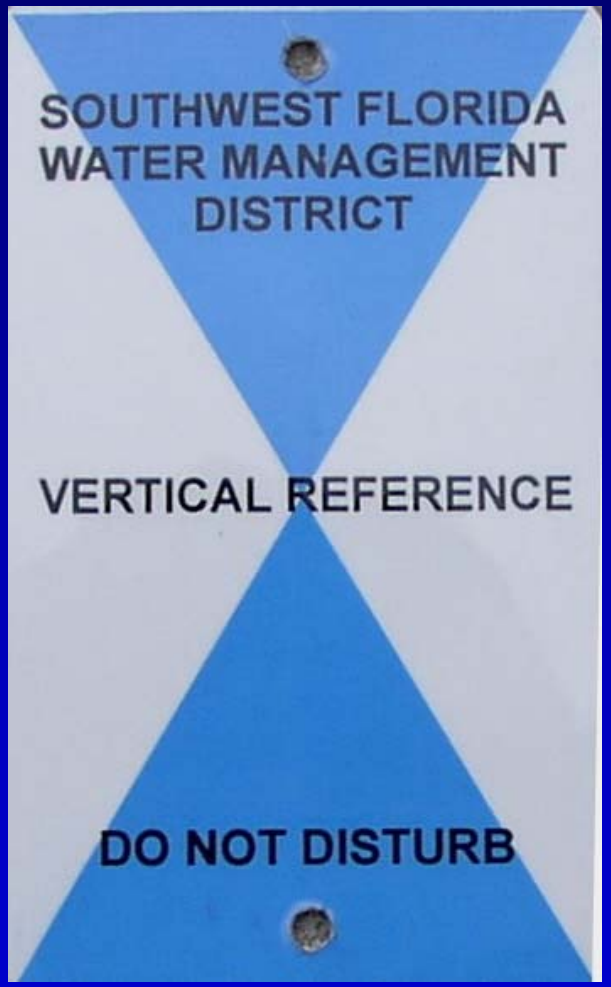
Find or establish "Wetland Benchmark"

- Use a District or Tampa Bay Water TBM if available to establish a wetland benchmark
- Choose a TBM located on a reasonably solid base
  - Large tree
  - Concrete pad of production well
  - Concrete pad of an upland well (if necessary)

Find or establish "Wetland Benchmark"

- If nothing available, make a new benchmark
- Everything should eventually be professionally surveyed

Elevation Reference Markers



Examples of Elevation Reference Markers in the Field


Some benchmarks
remain as nails
in concrete
bases of wells

Stakes

- Use white, Schedule 40 PVC pipe
- No less than ½ inch in diameter
- NP-6 – one blue stripe
- NP-12 – two blue stripes
- Smaller stakes installed at the base or rebar placed inside of stake help mark original location of stakes lost to fire and vandalism

Example of using a “small stake”

Stakes

- HWE – installed when practical, otherwise located as “palmetto fringe”
- Wetland interior – use staff gage or wetland well if possible, otherwise mark with PVC pipe
- Remove all old markers, tape, etc. as soon as possible

Document everything

- Documentation allows correction due to mistakes or future changes in methodology
- Create a field sheet, notebook, etc.
- Transfer to spreadsheet, Access, or other database later

Do everything reasonable to monitor the markers

- Check during gage/well readings
- Make other agency personnel aware of their existence

If a Transect needs to be moved – choose new location considering:

- Access
- Disturbance
- Lines of sight
- Location of existing benchmark, wells, gage
- Quality of “zones”
- Public Access Considerations