



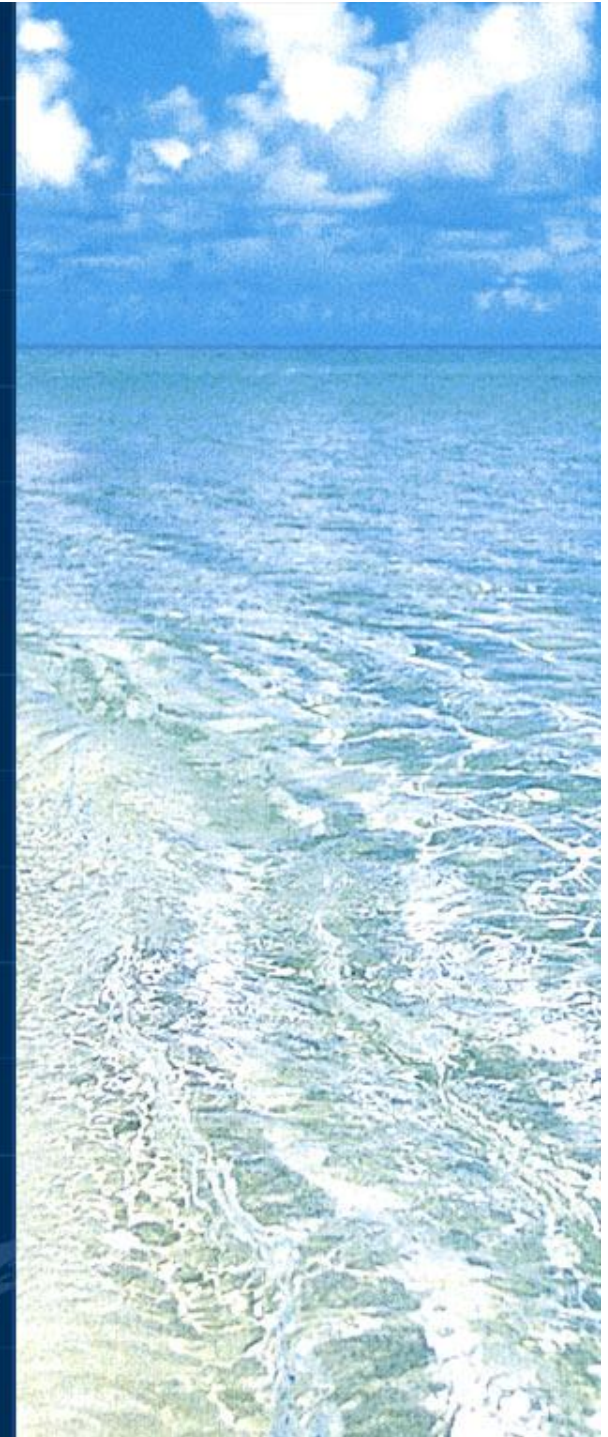
COASTAL SYSTEMS



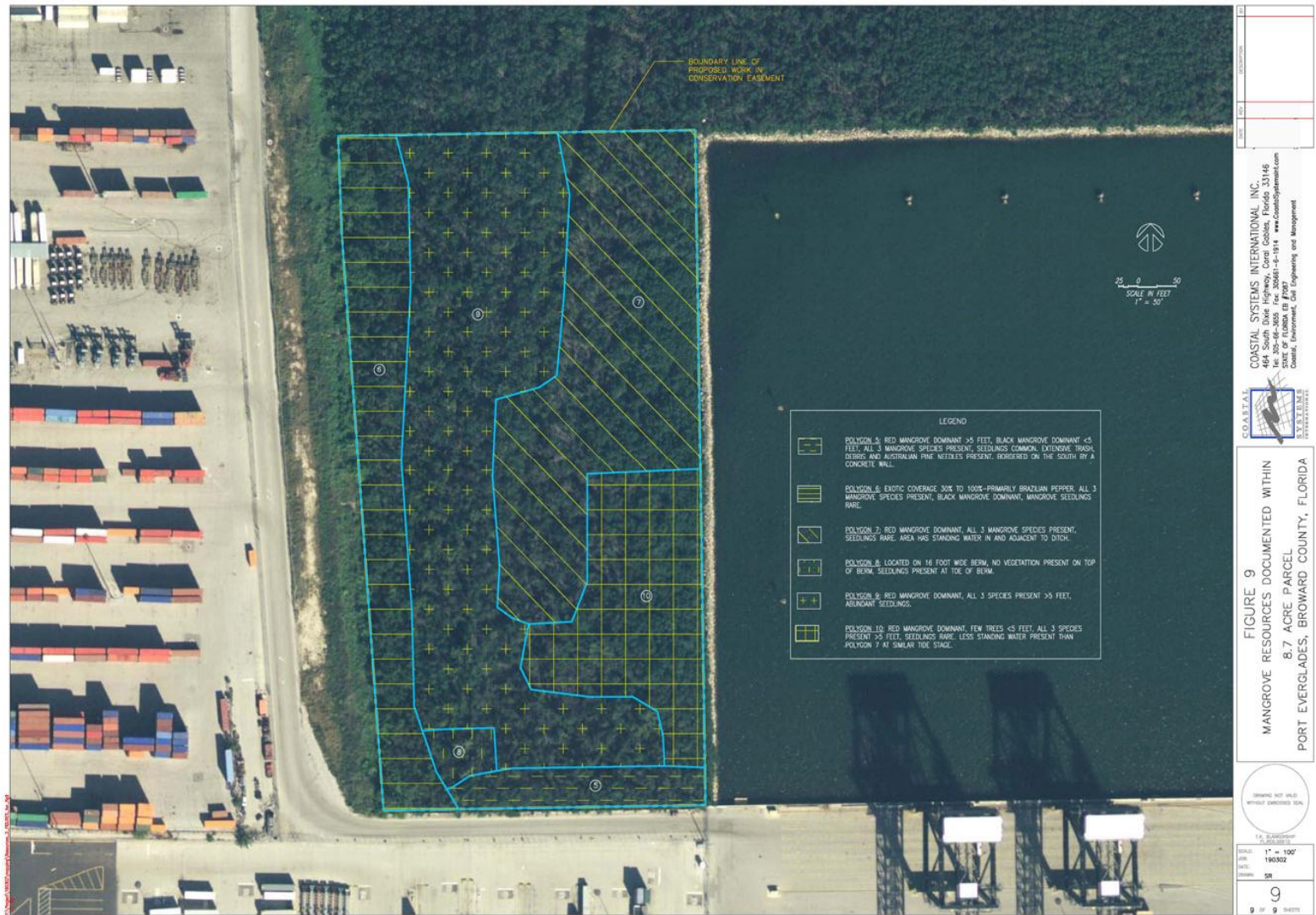
PORT EVERGLADES MANGROVE WETLAND ASSESSMENT



Summary of Data
Mangrove Wetland Assessment Report
February 22, 2008

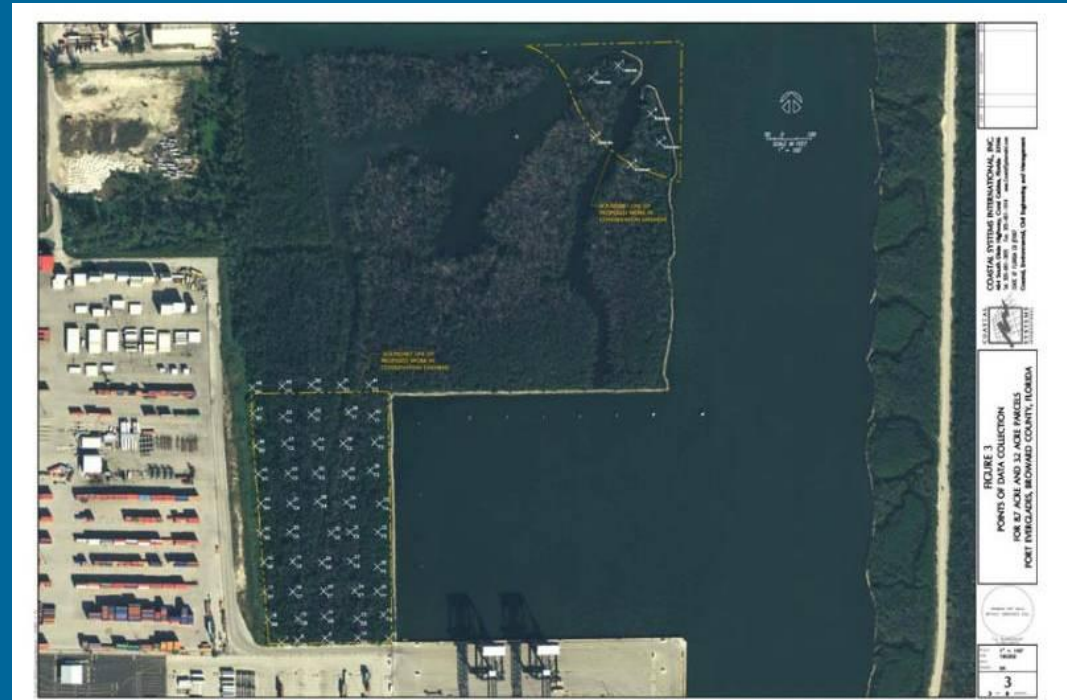


Port Everglades Mangrove Wetland Assessment



Port Everglades Mangrove Wetland Assessment

- 50 GPS points obtained in 8.7 acre parcel
- 10 transects running east/west w/5 points per transect
- Data collected at each point
 - Ø Species of mangrove
 - Ø Trees >5'
 - § Diameter at Breast Height (DBH)
 - § Tree height
 - Ø Trees <5' – number of trees
 - Ø Occurrence of seedlings (rare, common, abundant)
 - Ø Percent cover of exotics
 - Ø Wildlife present, if any
 - Ø Hydrologic conditions



- Manatee sightings within project area (information provided by Broward County)
- No manatees observed within 8.7 acre parcel
- Water depth in tidal channel within 8.7 acre area does not support use by manatees



Polygon 5



Photo #24



Photo #26



Port Everglades Mangrove Wetland Assessment

Polygon 5

- Characterization.....Large amounts of trash and debris
- Mean DBH.....2.4 inches
- Mean Tree Height.....16 feet
- Mean number of trees <5 feet.....2
- Seedlings.....abundant
- UMAM Score.....0.57
- Acreage.....0.36 acre
- Debits.....-0.21 functional unit

Polygon 6



Photo #30



Photo # 31



Photo #33



Photo #34



Port Everglades Mangrove Wetland Assessment

Polygon 6

- Characterization.....High percent coverage of exotic species & poor hydrology
- Mean DBH.....2 inches
- Mean Tree Height..... 18 feet
- Mean number of trees <5 feet.....0.7
- Seedlings.....Rare
- UMAM Score.....0.37
- Acreage.....1.33 acres
- Debits.....-0.49 functional unit

Port Everglades Mangrove Wetland Assessment

Polygon 7



Photo #36



Photo #38



Photo #45



Photo #43

Polygon 7



Photo #50



Photo #52



Photo #54



Port Everglades Mangrove Wetland Assessment

Polygon 7

- Characterization.....Mature mangrove forest with predominately large trees and regular hydrologic exchange
- Mean DBH.....3.4 inches
- Mean Tree Height..... 19 feet
- Mean number of trees <5 feet.....1.2
- Seedlings.....Rare
- UMAM Score.....0.73
- Acreage.....2.44 acres
- Debits.....1.78 functional units

Polygon 8



Photo #59



Port Everglades Mangrove Wetland Assessment

Polygon 8

- Characterization.....Highest ground elevation
- Mean DBH.....N/A
- Mean Tree Height.....N/A
- Mean number of trees <5 feet.....N/A
- Seedlings.....Abundant at toe of berm
None on top of berm
- UMAM Score.....0.20
- Acreage.....0.12 acre
- Debits.....-0.02 functional unit

Polygon 9



Photo #61



Photo #62



Photo #68

Polygon 9



Photo #74



Photo # 77



Port Everglades Mangrove Wetland Assessment

Polygon 9

- Characterization.....Small trees, abundant seedlings and restricted hydrology
- Mean DBH.....2.2 inches
- Mean Tree Height.....17 feet
- Mean number of trees <5 feet.....7.9
- Seedlings.....Abundant
- UMAM Score.....0.63
- Acreage.....3.15 acres
- Debits.....-1.99 functional units

Polygon 10



Photo #91



Photo #94

Polygon 10



Photo #95



Photo #98



Port Everglades Mangrove Wetland Assessment

Polygon 10

- Characterization.....Fairly mature mangrove forest with regular hydrologic exchange
- Mean DBH.....2.5 inches
- Mean Tree Height.....17 feet
- Mean number of trees <5 feet.....2.9
- Seedlings.....Rare
- UMAM Score.....0.70
- Acreage.....1.27 acres
- Debits.....-0.89 functional unit

UMAM ANALYSIS

- 3 Scoring Categories
 - Ø Location and Landscape Support (LLS)
 - Ø Water Environment (WE)
 - Ø Community Structure (CS)
- Scores range from 0 to 10
- Total Score (LLS + WE + CS) divided by 30 equals the “delta”
- Multiply the delta by the assessment area (in acres) which equals the functional units of mangrove habitat required to be offset



UMAM SCORING FOR 8.7 ACRE SITE

Polygon #	Delta	Acreage	Debits
5	0.57	0.36	-0.21
6	0.37	1.33	-0.49
7	0.73	2.44	-1.78
8	0.20	0.12	-0.02
9	0.63	3.15	-1.99
10	0.70	1.27	-0.89

Total debits: 5.38 functional units