

**PREDICTION OF HEIGHT OF *TAXODIUM DISTICHUM* TREES
ON DIFFERENT-AGED PHOSPHATE-MINED
WETLAND RECLAMATION SITES¹**

by

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Abstract. Since 1986, PCS Phosphate–White Springs (PCS, formerly Occidental Chemical Corporation) has collected extensive tree growth data on 15 wetland reclamation sites located in Hamilton County, Florida. Site ages presently range from 1 year to 17 years old with 13 years of data available on the oldest site. A simple linear model was used to determine the expected growth of bald cypress (*Taxodium distichum* L. C. Rich.) as related to sites of different ages. Height (cm) of *T. distichum* was related to site age by a simple regression where H_t (cm) = 1.7 + (42.4 x site age) (n = 63,679; R = 0.782, R² = 0.611). *T. distichum* height at the oldest site at 16 years averaged 716 cm. An average height of 300 cm was found to occur on sites at ages ranging from 6 years to 12 years. When sites obtained these mean canopy heights, changes in herbaceous groundcover and wildlife utilization occurred. Although height regressions on all sites varied, this extensive data base is being used to develop a simple model to evaluate reclamation success based upon canopy development for reclaimed phosphate mined wetland systems.

Additional Key Words: reclamation success, canopy development, model

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