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ABSTRACT

Vegetation base maps for Northeast Shark River Slough from 1978 were verified for accuracy in 1987. The verified maps were then used as a basis for mapping five broad hydric community types in the slough. The mapped hydric communities were compared to map overlays that depicted computer model-predicted hydroperiods for background conditions, and for proposed eastern and western alignments of the Dade County West Wellfield. The percent change in hydroperiod for eastern and western alignments allowed predictions on the likely hydric community successional changes that would occur under these scenarios. These changes were quantified and their ecological implications briefly discussed. The proposed western alignment was shown to result in roughly twice the total wetland area of successional impact as the eastern alignment. Moreover the western alignment would cause the loss of three times as much semi-permanent (hydroperiod = 9 - 12 months) wetlands as the eastern alignment. Both alignments would create large zones of marginal wetland habitat that would likely undergo rapid colonization by the exotic tree species, Melaleuca quinquenervia.