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Agriculture and Ecosystem Restoration in South Florida: Assessing Trade-Offs from Water-Retention Development in the Everglades Agricultural Area

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by Marcel Aillery, Robbin

Shoemaker, and

Margriet Caswell

For more information
contact

Marcel Aillery at

maillery@ers.usda.gov

Robbin Shoemaker at

robbins@ers.usda.gov

Margriet Caswell at

mcaswell@ers.usda.gov

<http://www.ers.usda.gov>



The Florida Everglades

watershed is widely acclaimed as one of the world's most productive wetland/estuarine ecosystems. However, decades of land and water development have seriously degraded

native wildlife communities. Agricultural production decisions have contributed to the loss of some ecosystem functions and reduced environmental quality. Policies to restore the Everglades environment will affect the profitability of the farming sector in Florida. Considerable attention has focused on the retention of wet-season water flows in the northern watershed that is currently drained to meet urban and agricultural needs. In this study, a dynamic model of agricultural production, soil loss, and water retention in the Everglades Agricultural Area was developed to assess agricultural impacts under alternative water policy and land acquisition scenarios. The use of improved water-management regimes on farms would result in the minimum environmental goals being met with relatively small losses in agricultural income. Under increasingly ambitious environmental targets, agricultural returns decline sharply.