

Manuscripts: Model Publications/Reports

Below are the reports and manuscripts that describe various aspects of the ELM.

Fitz, H.C., and B. Trimble. 2006. Documentation of the Everglades Landscape Model: ELM v2.5. Office of Modeling, SFWMD. 420 pp.

Villa, F., A.A.Voinov, H.C. Fitz, and R. Costanza. 2004. Calibration of large spatial models: a multi-stage, multi-objective optimization technique. In: R. Costanza and A.A. Voinov (Eds.), **Landscape Simulation Modeling: A Spatially Explicit, Dynamic Approach**. Springer-Verlag, New York, NY. pp. 77-116.

Fitz, H.C., F.H. Sklar, A.A. Voinov, T. Waring, R. Costanza, and T. Maxwell. 2004. Development and application of the Everglades Landscape Model. In: R. Costanza and A.A. Voinov (Eds.), **Landscape Simulation Modeling: A Spatially Explicit, Dynamic Approach**. Springer-Verlag, New York, NY. pp. 143-171.

Voinov, A., C. Fitz, T. Maxwell, R. Boumans, R. Costanza. 2002. Modular Ecosystem Modelling. In: A. Jakeman, A. Rizzoli (Eds.), **Integrated Assessment and Decision Support. Proceedings of IEMSS 2002 Conference**, 24-27 June 2002, Lugano, Switzerland. pp. 263-268.

Sklar, F.H., H.C. Fitz, Y. Wu, R. Van Zee, and C. McVoy. 2001. The design of ecological landscape models for Everglades restoration. *Ecological Economics* 37: 379-401.

Fitz, H.C., and F.H. Sklar. 1999. Ecosystem Analysis of Phosphorus Impacts and Altered Hydrology in the Everglades: A Landscape Modeling Approach. p. 585-620 In Reddy, K.R., O'Connor, G.A., and C.L. Schelske, editors. **Phosphorus Biogeochemistry in Subtropical Ecosystems**. Lewis Publishers, Boca Raton, FL.

Fitz, H.C., E.B. DeBellevue, R. Costanza, R. Boumans, T. Maxwell, L. Wainger, and F.H. Sklar. 1996. Development of a general ecosystem model for a range of scales and ecosystems. *Ecological Modelling* 88: 263-295.

Maxwell, T. and Costanza, R., 1995. Distributed modular spatial ecosystem modelling. *International Journal of Computer Simulation: Special Issue on Advanced Simulation Methodologies*, 5(3): 247-262.

Fitz, H.C., A. Voinov, and R. Costanza. 1995. The Everglades Landscape Model: Final Report. Report to the Everglades Systems Research Division, South Florida Water Management District, 3301 Gun Club Road, West Palm Beach, FL 33416.

Fitz, H.C., A. Voinov, and R. Costanza. 1995. The Everglades Landscape Model: Verification Analysis Report. Report to the Everglades Systems Research Division, South Florida Water Management District, 3301 Gun Club Road, West Palm Beach, FL 33416. 16 pages.

Fitz, H.C., A. Voinov, and R. Costanza. 1995. The Everglades Landscape Model: Calibration Analysis Report. Report to the Everglades Systems Research Division, South Florida Water Management District, 3301 Gun Club Road, West Palm Beach, FL 33416. 13 pages and binary files.

Fitz, H.C., A. Voinov, and R. Costanza. 1995. The Everglades Landscape Model: Multiscale Sensitivity Analysis. Report to the Everglades Systems Research Division, South Florida Water Management District, 3301 Gun Club Road, West Palm Beach, FL 33416. 88 pages.

Fitz, H.C., R. Costanza, and E. Reyes. 1994. The Everglades Landscape Model (ELM): Compilation of Verification Data. Report to the Everglades Systems Research Division, South Florida Water Management District, 3301 Gun Club Road, West Palm Beach, FL 33416. 2 pages and 57 Mb binary files.

Fitz, H.C., R. Costanza, and E. Reyes. 1994. The Everglades Landscape Model (ELM): Compilation of Calibration Data. Report to the Everglades Systems Research Division, South Florida Water Management District, 3301 Gun Club Road, West Palm Beach, FL 33416. 7 pages and 48 Mb binary files.

Fitz, H.C., R. Costanza, and E. Reyes. 1993. The Everglades Landscape Model (ELM): Summary Report of Task 2, Model Development. Report to the Everglades Systems Research Division, South Florida Water Management District, 3301 Gun Club Road, West Palm Beach, FL 33416. 109 pages.

Costanza, R., H.C. Fitz, J.A. Bartholomew, and E. DeBellevue. 1992c. The Everglades Landscape Model (ELM): Summary Report of Task 1, Model Feasibility Assessment. Report to the Everglades Systems Research Division, South Florida Water Management District, 3301 Gun Club Road, West Palm Beach, FL 33416. 118 pages.

Costanza, R., H.C. Fitz, J.A. Bartholomew, and E. DeBellevue. 1992b. The Everglades Landscape Model (ELM): Summary of Workshop II. Report to the Everglades Systems Research Division, South Florida Water Management District, 3301 Gun Club Road, West Palm Beach, FL 33416. 22 pages.

Costanza, R., H.C. Fitz, J.A. Bartholomew, and E. DeBellevue. 1992a. The Everglades Landscape Model (ELM): Summary of Workshop I. Report to the Everglades Systems Research Division, South Florida Water Management District, 3301 Gun Club Road, West Palm Beach, FL 33416. 13 pages.

Voinov, A.A., H.C. Fitz, and R. Costanza. Coupling raster and vector based models. 24 pp.