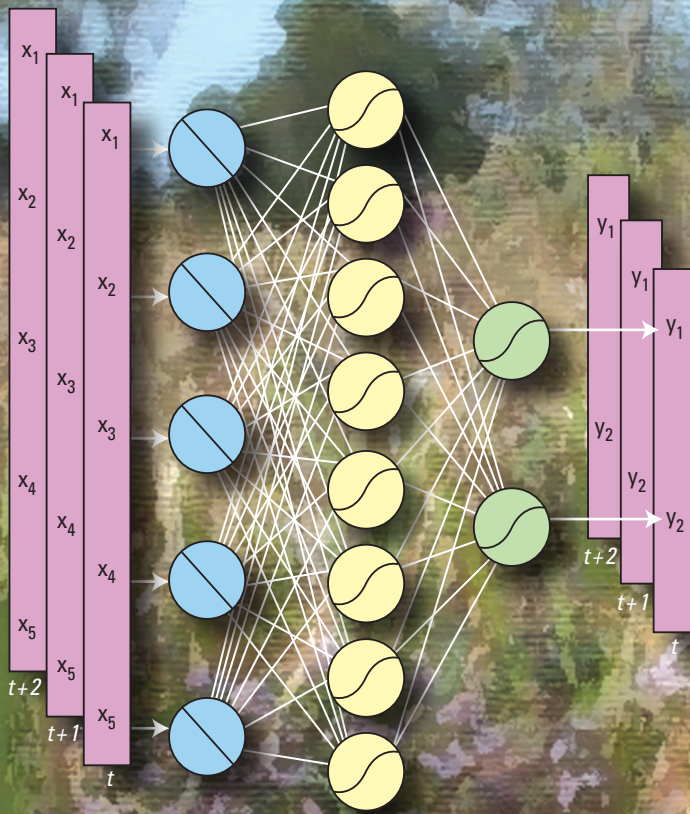


Simulation of Water Levels and Salinity in the Rivers and Tidal Marshes in the Vicinity of the Savannah National Wildlife Refuge, Coastal South Carolina and Georgia

Prepared in cooperation with the
Georgia Ports Authority



Scientific Investigations Report 2006–5187

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By Paul A. Conrads, Edwin A. Roehl, Ruby C. Daamen, and Wiley M. Kitchens

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Conversion Factors

Inch/Pound to SI

Multiply	By	To obtain
Length		
inch (in.)	2.54	centimeter (cm)
inch (in.)	25.4	millimeter (mm)
foot (ft)	0.3048	meter (m)
mile (mi)	1.609	kilometer (km)
Area		
square foot (ft ²)	0.09290	square meter (m ²)
square mile (mi ²)	2.590	square kilometer (km ²)
Volume		
cubic foot (ft ³)	0.02832	cubic meter (m ³)
Flow rate		
cubic foot per second (ft ³ /s)	0.02832	cubic meter per second (m ³ /s)
picocurie per liter (pCi/L)	0.037	becquerel per liter (Bq/L)

SI to Inch/Pound

Multiply	By	To obtain
Area		
square meter (m ²)	10.76	square foot (ft ²)

Horizontal coordinate information is referenced to the North American Datum of 1983 (NAD 83).

Acronyms and Abbreviations Used in the Report

AI	artificial intelligence
ANN	artificial neural network
ASA	Applied Science Associates
ATM	Applied Technology and Management
BEP	back error propagation
BFHYDRO	Boundary Fitted Hydrodynamic Model
CRADA	Cooperative Research and Development Agreement
DSS	decision support system
EFDC	Environmental Fluid Dynamics Code
EIS	Environmental Impact Statement
FCFWRU	Florida Cooperative Fish and Wildlife Unit
GaEPD	Georgia Environmental Protection Division
GPA	Georgia Ports Authority
GUI	Graphical User Interface
LMS	Lawler, Matusky, and Skelly
ME	mean error
MLP	multilayer perceptron
MSE	mean square error
M2M	Model-to-Marsh application
NWIS	National Water Information System
OLS	ordinary least squares
PME	percent model error
psu	practical salinity units
Q	streamflow
RMSE	root mean square error
R ²	coefficient of determination
SISO	single input single output
SNWR	Savannah National Wildlife Refuge
SSE	sum of square error
SSR	state space reconstruction
USACOE	U.S. Army Corps of Engineers
USFW	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WASP7	Water Assessment and Simulation Program—Version 7
WES	Waterways Experiment Station—U.S. Army Corps of Engineers
WL	water level
XWL	tidal range

