

This document describes modifications made in the Calibration and Verification of the South Florida Water Management Model (SFWMM) with V5.4 of the model, which updates the previous Calibration and Verification simulations run with V5.0 in October 2003. The main features and reasons for this revision are described below:

- New Calibration/Verification simulations were required due to several source code modifications from V5.0 to V5.4 of the SFWMM.
- Changes in the topographic elevation introduced in the update to the CERP existing conditions (2000B2) simulation were included in the V5.4 Calibration/Verification.
- The Everglades Agricultural Area was recalibrated using different time periods. 1984-1995 was considered as the calibration period and 1979-1983 and 1996-2000 as verification periods, to be consistent with the calibration and verification periods for the rest of the SFWMM domain. Also, soil storage coefficients were allowed to differ between the three major EAA basins in the calibration.
- The Lower East Coast cutback trigger module was made inactive during the calibration and verification simulations, since historically imposed cutbacks are reflected in the historical Public Water Supply Utility data used as input to the model.
- New data became available to estimate more appropriate values for the following static parameters affecting irrigation, on a cell by cell basis, in the LEC Urban Areas:
  - FLI: Fraction of landscape irrigation receiving water from Public Water Supply Utility well fields.
  - FLR: Fraction of landscape irrigation receiving water from treated waste water
  - FGI: Fraction of golf course irrigation receiving water from treated waste water
- SFWMM V5.0 used anisotropy factors other than one (1.0) for flow resistance in the N-E, E-W direction for the Ridge and Slough II land use type. These factors were reset to one (1.0) in the V5.4 Calibration/Verification.
- In order to simulate increased flow resistance across bridges and culverts underneath the Alligator Alley (I-75) corridor, roughness coefficient  $s$  for cells located nearby were increased by a factor of five in the SFWMM V5.0. For SFWMM V5.4 Calibration and Verification, this factor was reset to one in cells where it had been changed previously.
- Other than the above changes, all parameter values remained the same as in the V5.0 Calibration/Verification.