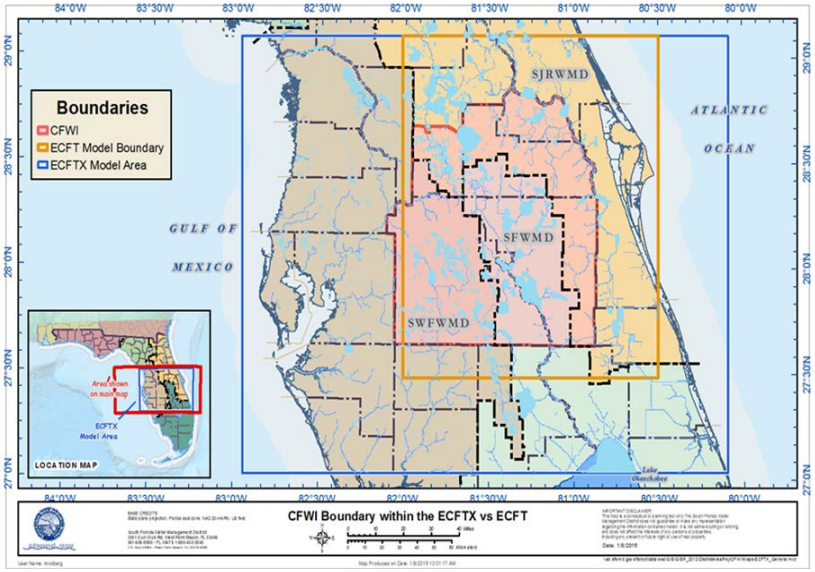
ECFTX Model Update



CFWI Steering Committee Meeting

October 28, 2016

Peter J. Kwiatkowski, P.G.

Hydrologic Analysis Team

www.cfwiwater.com

Overview

- Objective -- Improve upon previous model (ECFT) to improve confidence in future model applications
- Plan – identify and implement areas for improvement
- Staffing – divide tasks among water management district staff and/or consultants
- Peer review – initiate prior to calibration
- Task Tracking – MS-Project

Status

- Started Work – March 2015
- Tasks Completed as of 10/28/16
  - Land Use
  - Man-Made Drainage
  - Model Layering
  - Water Use (Wells)
  - Basic MODFLOW packages
  - Drainage Wells
  - Conceptual Model Documentation
  - Rainfall-Runoff Partitioning
  - Hydrostratigraphy
  - Rivers, Lakes, Springs
  - Aquifer Properties
  - Reclaimed Water, RIBs
  - Return Flow
- Period of Record – 1995 to 2014 vs. 1995 to 2006
- Model ready to begin calibration!

Reasons for Optimism Regarding Calibration

- Better data -- less time during calibration resolving errors
- Improved conceptualization of boundary conditions – Atlantic Ocean and Gulf
  - Polk County water use issue resolved
- Peer Review – incorporate comments as we go
- Water Use data and QA/QC review by Utilities
  - Resolve discrepancies between model and plan

Peer Review Panel

- Groundwater Modeling Experts
  - Louis Motz, PhD, Associate Professor, University of Florida
  - Mark Stewart, PhD, Professor Emeritus, University of South Florida
  - Peter Anderson, P.E., M.S., Principal Engineer, Tetra Tech GEO
- Scope of Work – Review:
  - Conceptual Model Documentation
  - Calibration Plan and Implementation
  - Final Documentation

Milestones

- Calibration – October 2016 to July 2017
- Peer Review – September 2016 to September 2017
- Address Peer Review Comments – October 2016 to December 2017
- Model Documentation – August 2017 to January 2018