# CFWI Hydrologic Analysis Team Status

December 2, 2011

Presented by Akintunde Owosina

#### **Progress Since Last Briefing (1)**

- The HAT met (Oct. 4, 13, and 27, Nov. 10, 15, 22 and 29)
  - Continued discussion on options to link environmental information and hydrologic analysis and define environmental reference condition.
  - Developed detailed schedule and identified early and late completion dates as well as individuals responsible for delivering work product.
  - HAT representatives participated in TOC and joint MOC/TOC meetings.
  - HAT members conducted field visits to selected wetland and lakes
    of interest in the CFWI area.
- Met with USGS (Oct. 18)
  - Reviewed USGS deliverable of the transient calibration and provided comments and feedback that were incorporated in the final deliverable.

### **Progress Since Last Briefing (2)**

- CFWI work plan development
  - Received provisional model output data from the USGS.
  - Made arrangements to provide access to the model to the HAT by January 2012. The details will be contained in a technology transfer memo due by end of December.
  - Drafted modeling related tasks for "Groundwater Availability Determination."

# Anticipated Work for Next Reporting Period

- Review and finalize draft white paper documenting historic water use and representation in model for calibration and Availability Determination.
- Initiate development of the post processing tools for the USGS ECFT model.
- Continue collaboration with EMT on relating simulated and observed wetland changes to withdrawals.
- Provide HAT input to finalizing schedule and overall integrated schedule of the CFWI through Technical Oversight Team.

# Anticipated Work for Next Reporting Period (2)

- Initiate testing of the USGS model per the approved technology transfer protocol.
- Initiate testing of reference condition straw man.
- Meet with USGS on December 15<sup>th</sup> to review progress and results of the Data Mining and Artificial Neural Network tasks.

#### Status of Key Activities

- Progress of USGS model
  - Calibration scheduled completion date September 30, 2011.
     Followed by report preparation (January 31, 2012) and internal USGS review (February April 30, 2012).
    - ✓ Calibration completed and under final review (Nov. 23, 2011).
    - ✓ Draft documentation on track for end of January completion.
- Delivery of USGS model
  - Model output files delivered to SFWMD to initiate the post processing tool development effort.
  - Technology transfer protocol memorandum under development and will be completed by Dec 30, 2011.

#### **USGS Model Delivery Schedule**

2012
2012
2012
eb Mar Apr May Jun Jul Aug Sep

ANN: Artificial Neural Network.

DSS: Decision Support System.

#### **USGS Model Delivery Schedule**

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Calendar Years 2011				2012									
Fiscal Years	2011				2012								
	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
ECFT Model:													
Calibration completed													
Draft report preparation for review													
Technology Transfer			<b>♦</b>										
Report review & approval													
Final Report preparation & distribution													
Data Mining:													
Water Use data compilation													
Water Use data preparation													
ANNs/DSS development & completion				<b>\rightarrow</b>									
ANN/MODFLOW comparison													
Draft report preparation for review													
Technology transfer													
Report review & approval													
Final Report preparation & distribution													

ANN: Artificial Neural Network

**DSS: Decision Support System** 

## **Status of Key Activities**

Technical Collaborative Team	Key Components	Start	End	Status
	Key Components Model Calibration (A1)		9/30/11	<u>Completed</u> : Calibration completed November 23 <sup>rd</sup> .  HAT comments provided on Oct 18 <sup>th</sup> were taken into consideration in final calibration. Draft documentation is in progress for internal USGS colleague review.
	- Technology Transfer Protocol (A1B)	11/10/11	12/30/11	Ongoing: Clarification of new task occurred between 11/7/2011 and 11/10/2011. A memo summarizing Technology Transfer protocol will be complete by the end of Dec 2011.
Hydrologic Analysis Team Modeling and Tools Support (A)	Statistical Trends in Hydrologic Data (A2)		2/28/12	Ongoing: January deliverable expected from INTERA on the statistical analyses. Additional work to couple the statistical results to other hydrologic data in a GIS data base will occur before the end of February.
	USGS Project to Quantify Factors Affecting Groundwater and Lake Levels in the Central Florida Area (A3)		6/30/12	Ongoing: The USGS ANN is ongoing and a meeting with the HAT to present the completed local models is scheduled for December 15th.  Anticipate the A3 activities will be complete by 2/28/2012. Technology transfer and documentation will follow.
	Initial Model Scenarios (A4)		4/30/12	
	Documentation (A5)		5/30/12	

### **Status of Key Activities**

End	Status
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9/30/11	HAT comments provided on Oct 18 <sup>th</sup> were taken into
	consideration in final calibration. Draft documentation is in
	progress for internal USGS colleague review.
	Ongoing: Clarification of new task occurred between
12/30/11	11/7/2011 and 11/10/2011. A memo summarizing
	Technology Transfer protocol will be complete by the end of
	Dec 2011.
	Ongoing: January deliverable expected from INTERA on the
2/28/12	statistical analyses. Additional work to couple the statistical
2,20,12	results to other hydrologic data in a GIS data base will occur
	before the end of February.
6/30/12	Ongoing: The USGS ANN is ongoing and a meeting with the
	HAT to present the completed local models is scheduled for
	December 15th.
	Anticipate the <b>A3</b> activities will be complete by 2/28/2012.
	Technology transfer and documentation will follow.

