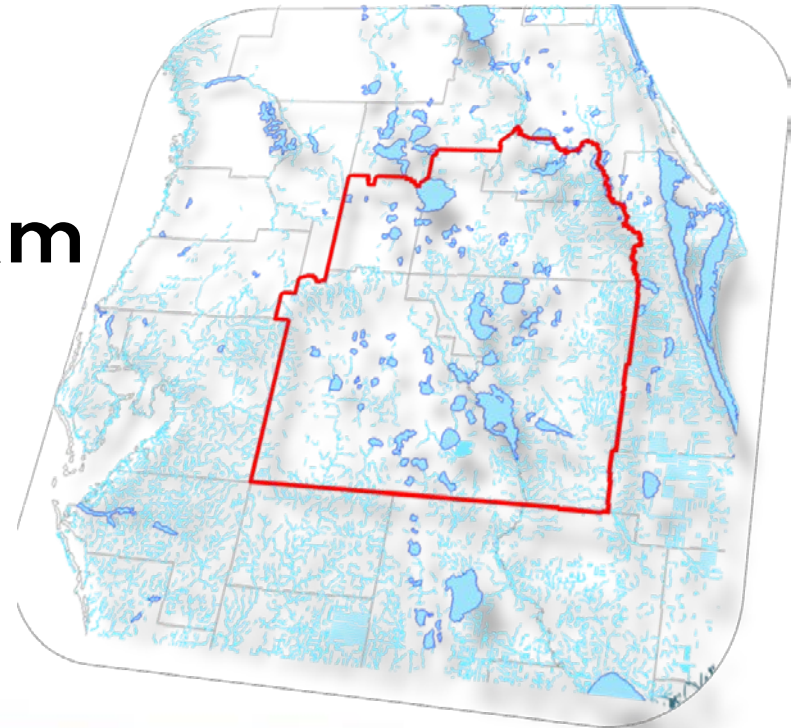


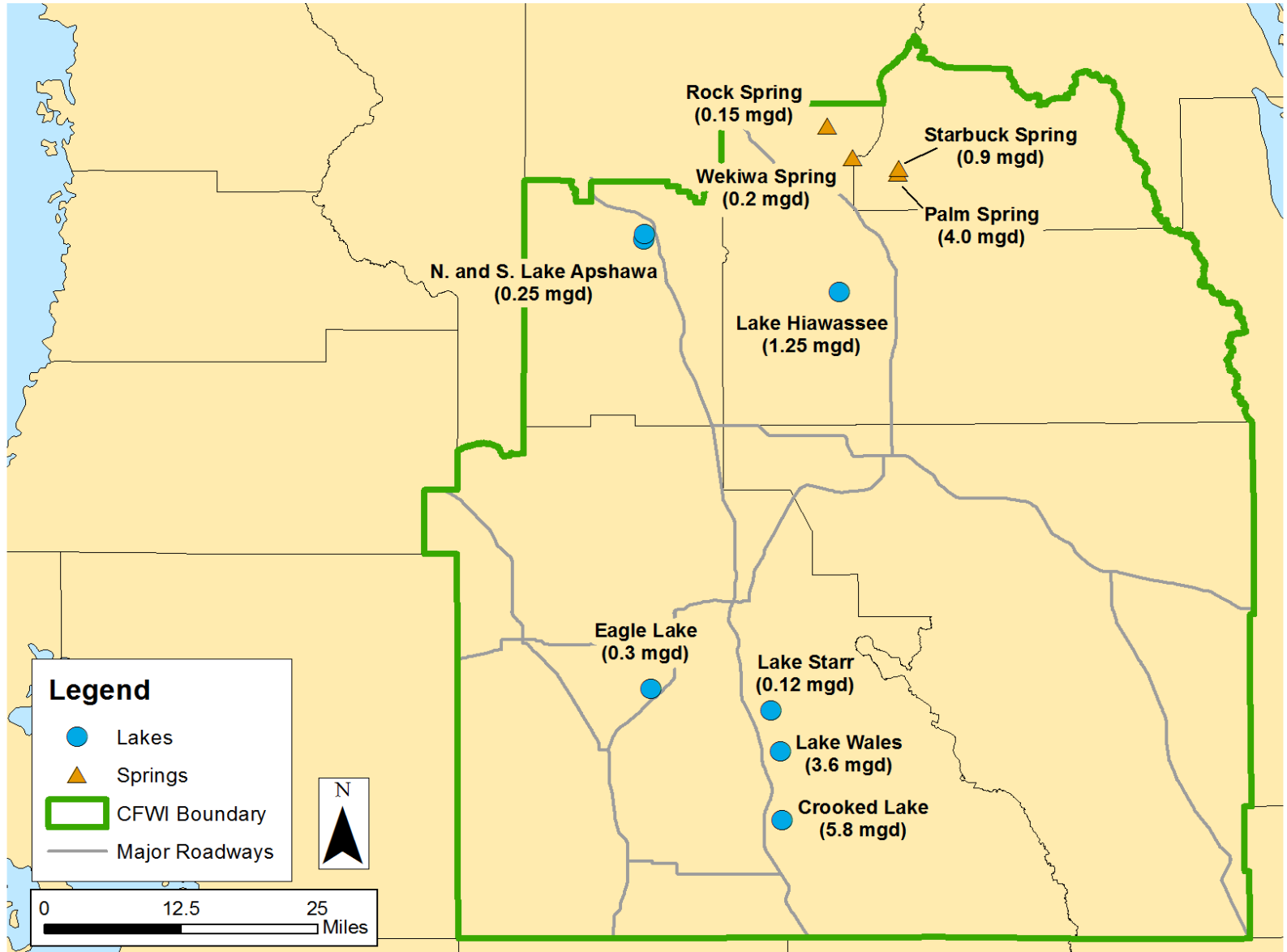
Groundwater Model Scenario Discussion

**Solutions Planning Team
August 21, 2014**

Presented by: Jerry Mallams



"11 Recharge Areas"

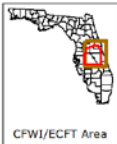
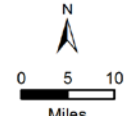
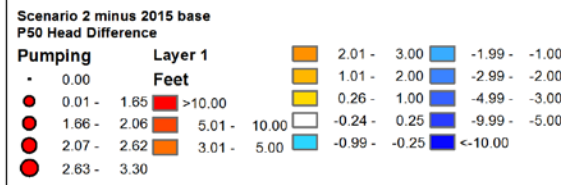
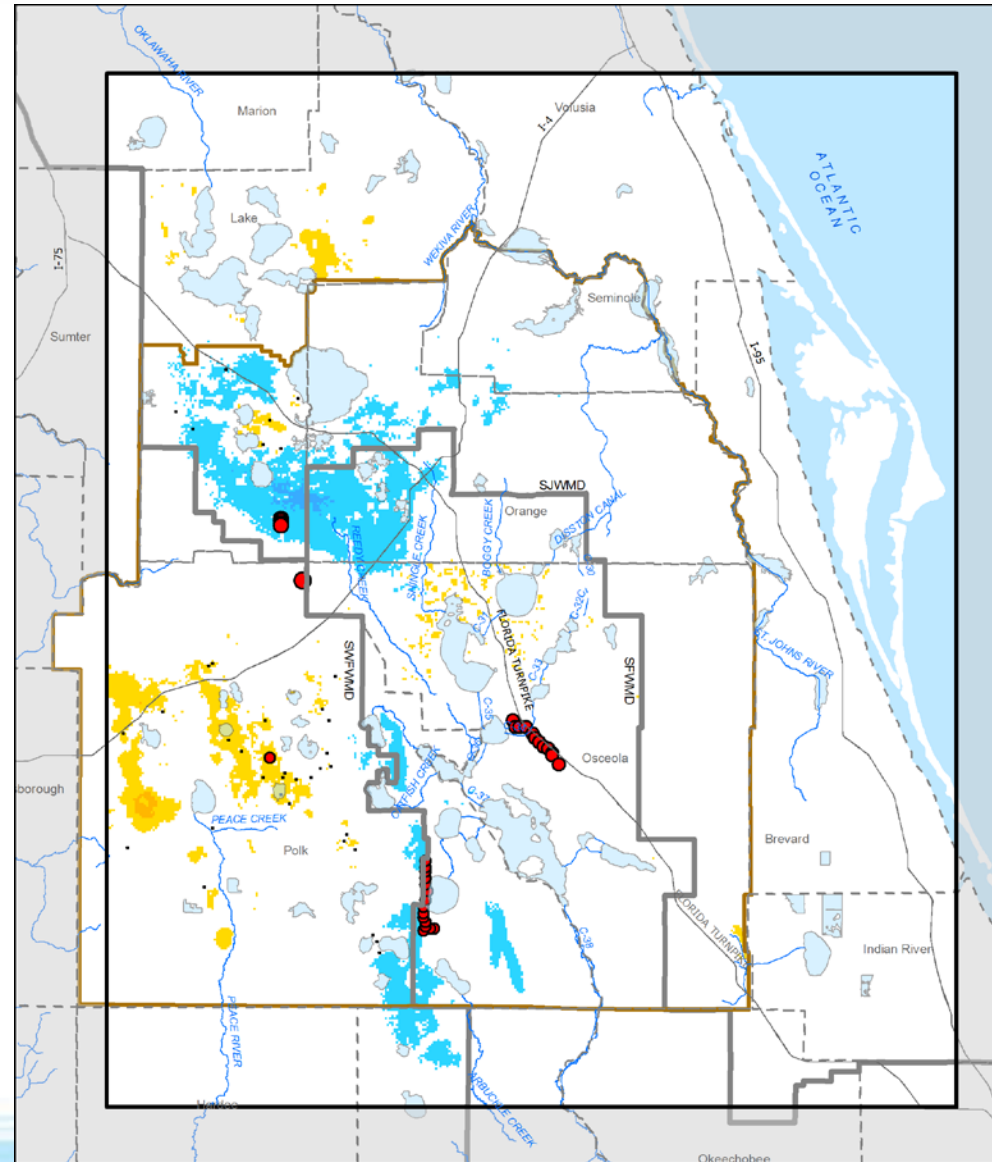


Groundwater Model Scenarios

Scenario Designation	Purpose and Overview	RWSP Total Water Supply
2A	Lower Floridan aquifer evaluation: 1. South Lake Wellfield	850 mgd <u>+12.7 mgd</u> 862.7 mgd
2B	Lower Floridan aquifer evaluation: 1. South Lake Distributed withdrawals	850 mgd <u>+12.7 mgd</u> 862.7 mgd
2	Lower Floridan aquifer evaluation: 1. South Lakes 2. Cypress Lakes 3. SE Polk 4. Winter Haven – Fairfax 5. NE Polk	850 mgd +12.7 mgd +20.5 mgd +30 mgd +4 mgd <u>+2 mgd</u> 919.2 mgd
3	Lower Floridan aquifer evaluation: 1. Polk Co. Distributed LFA withdrawals	850 mgd <u>+15.5 mgd</u> 865.5 mgd

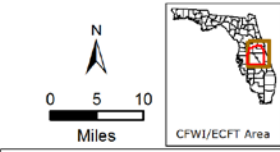
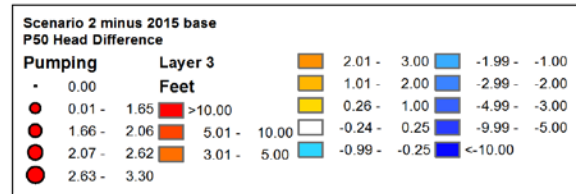
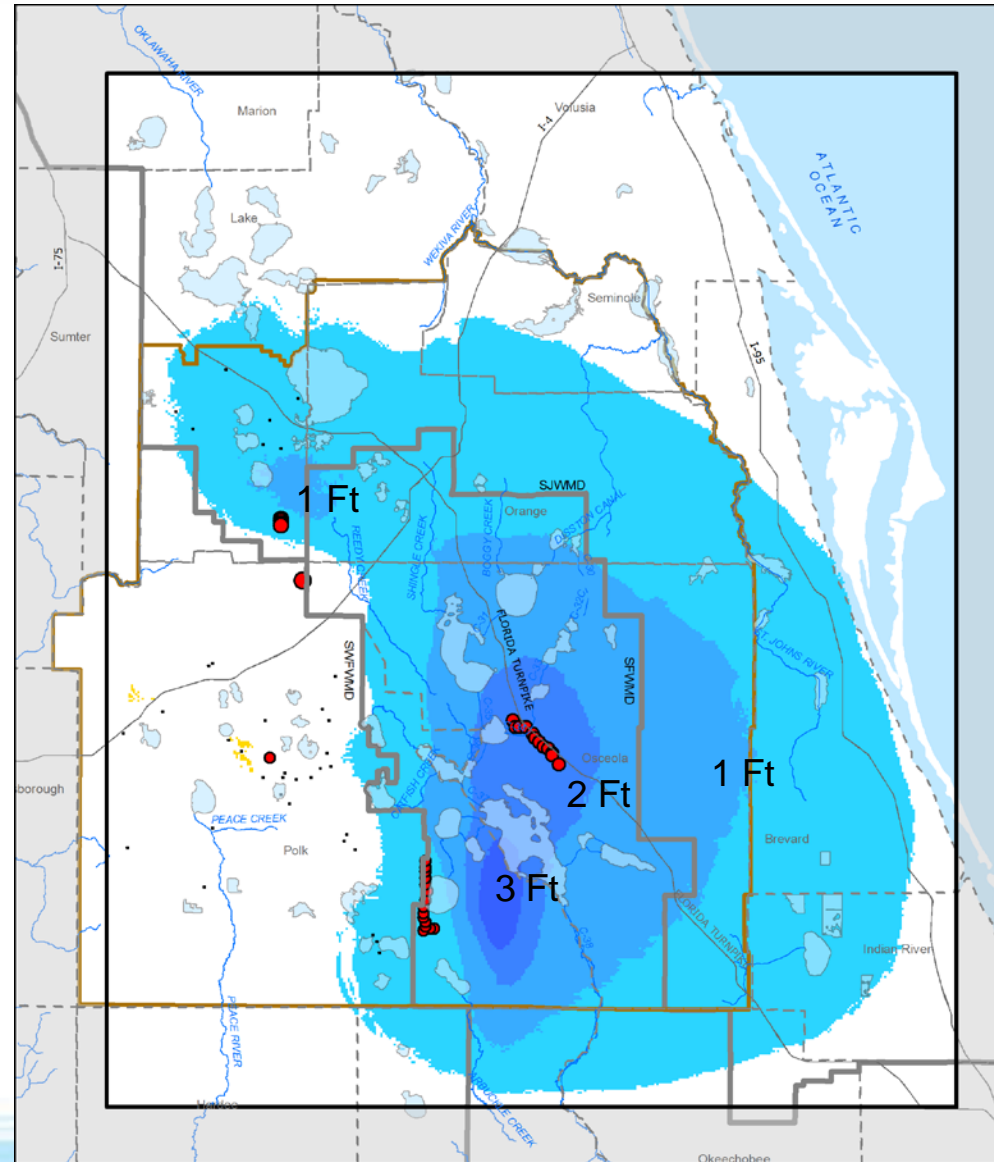
August 7, 2014 Model Results

- Layer 1 – surficial
- Scenario 2 – Raw Water
 - Cypress Lake (25.57 mgd)
 - SE Polk (37.5 mgd)
 - South Lakes (15.9 mgd)
 - NE Polk (4.44 mgd)
 - W.H.-Fairfax (2.35 mgd)



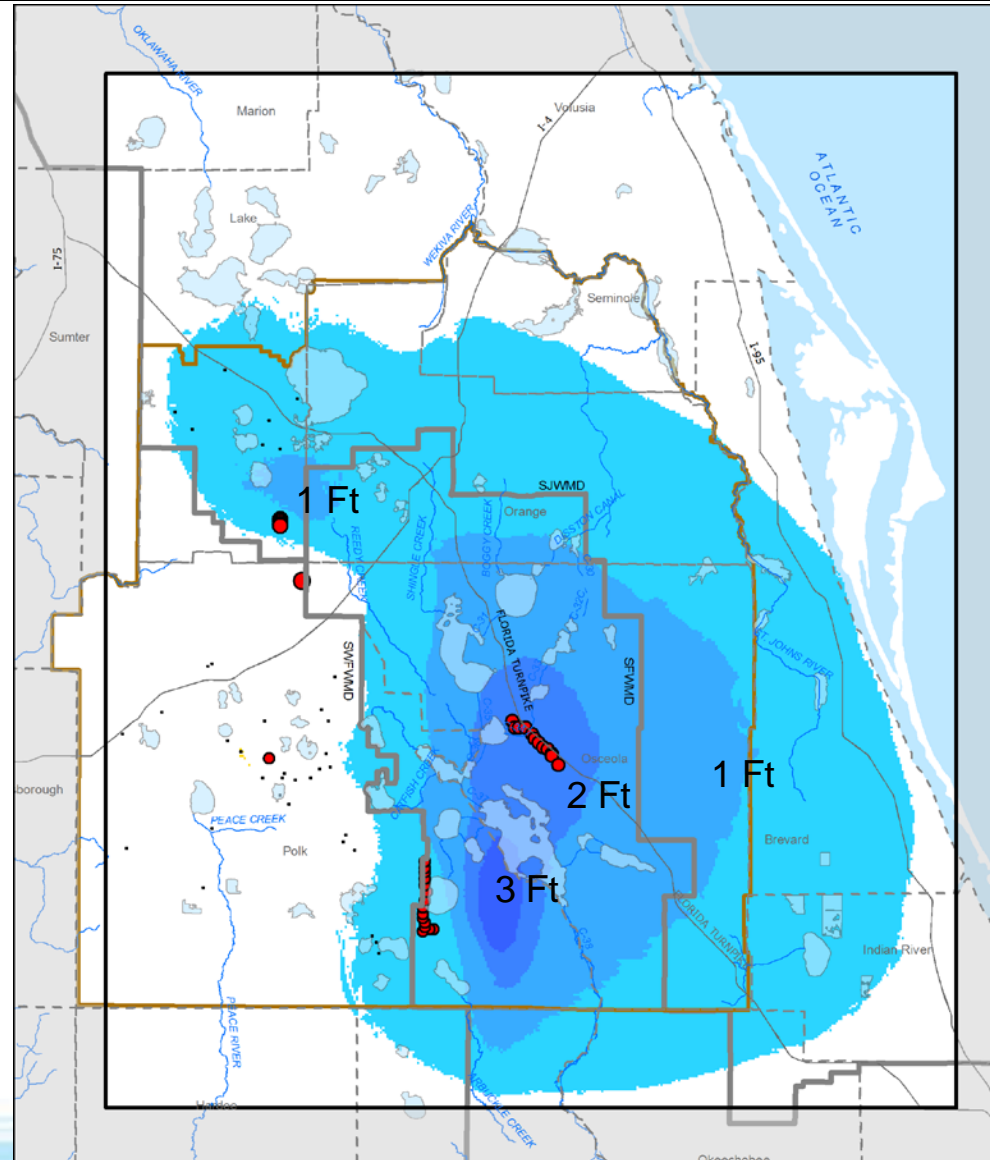
August 7, 2014 Model Results

- Layer 3 – Upper Floridan
- Scenario 2 – Raw Water
 - Cypress Lake (25.57 mgd)
 - SE Polk (37.5 mgd)
 - South Lakes (15.9 mgd)
 - NE Polk (4.44 mgd)
 - W.H.-Fairfax (2.35 mgd)



August 7, 2014 Model Results

- Layer 5 – Upper Floridan
- Scenario 2 – Raw Water
 - Cypress Lake (25.57 mgd)
 - SE Polk (37.5 mgd)
 - South Lakes (15.9 mgd)
 - NE Polk (4.44 mgd)
 - W.H.-Fairfax (2.35 mgd)



Scenario 2 minus 2015 base
P50 Head Difference

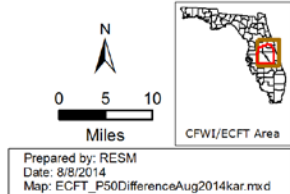
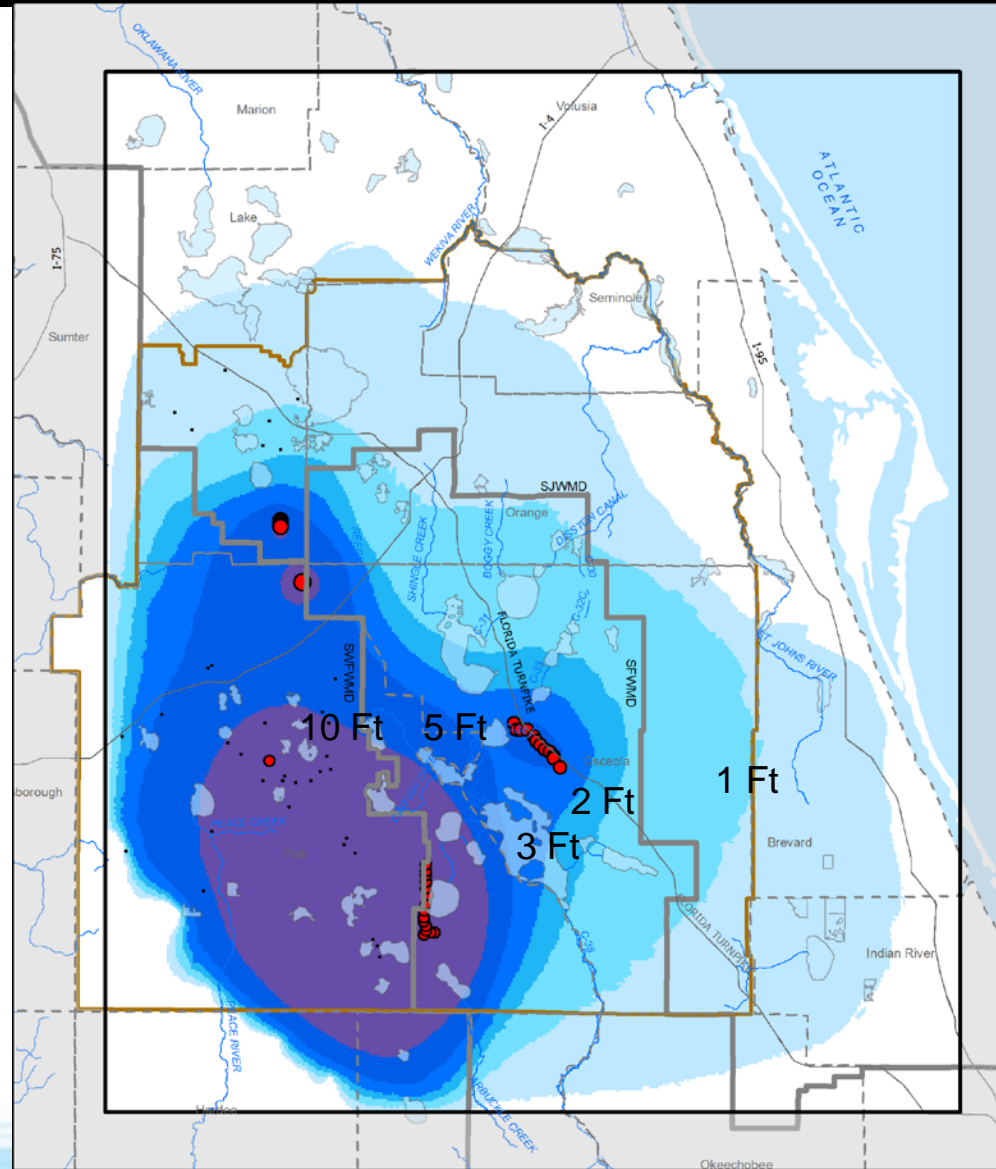
Pumping	Layer 5 Feet	2.01 - 3.00	1.01 - 2.00	0.26 - 1.00	-0.99 - -0.25	-1.99 - -1.00	-2.99 - -2.00	-4.99 - -3.00	-9.99 - -5.00	<-10.00
• 0.00	• >10.00	• 0.26 - 1.00	• -0.99 - -0.25	• -1.99 - -1.00	• -2.99 - -2.00	• -4.99 - -3.00	• -9.99 - -5.00	• <-10.00		
• 1.66 - 2.06	• 5.01 - 10.00	• -0.24 - 0.25	• -0.99 - -0.25	• -1.99 - -1.00	• -2.99 - -2.00	• -4.99 - -3.00	• -9.99 - -5.00	• <-10.00		
• 2.07 - 2.62	• 3.01 - 5.00	• -0.99 - -0.25	• -0.99 - -0.25	• -1.99 - -1.00	• -2.99 - -2.00	• -4.99 - -3.00	• -9.99 - -5.00	• <-10.00		
• 2.63 - 3.30										

Prepared by: RESM
Date: 8/8/2014
Map: ECFT_P50DifferenceAug2014kar.mxd

CFWI/ECFT Area

August 7, 2014 Model Results

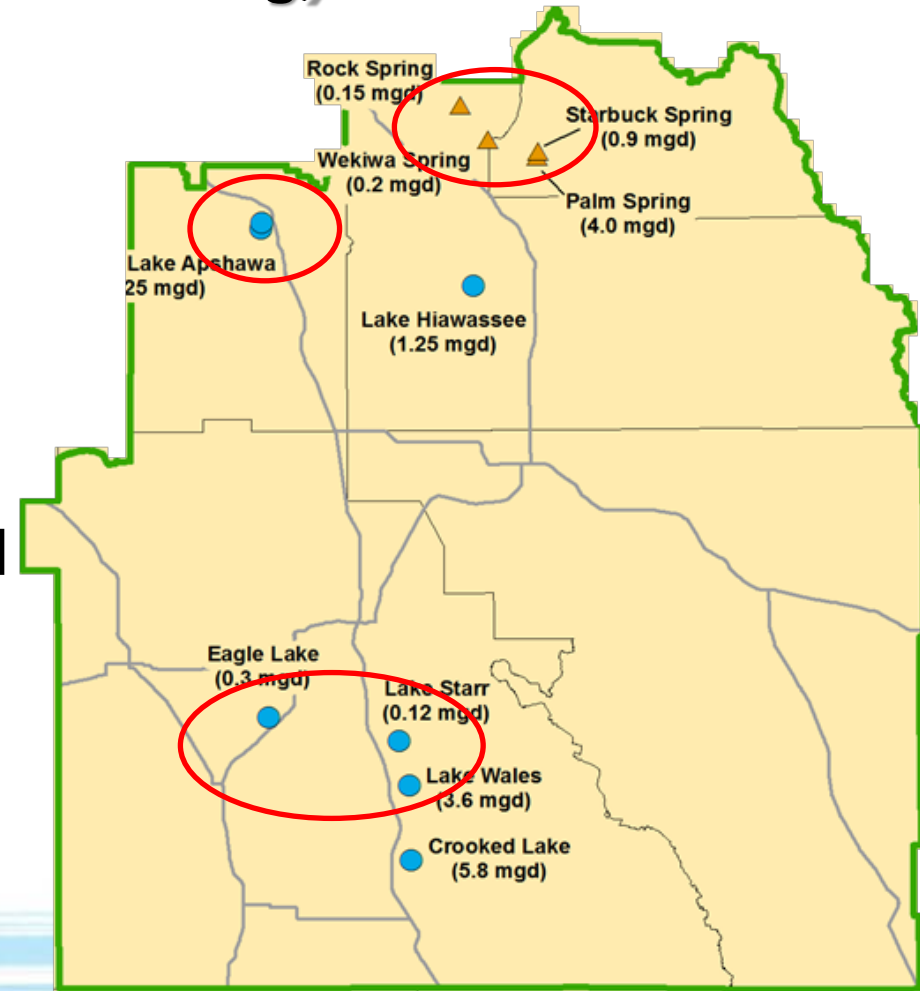
- Layer 7 – Lower Floridan
- Scenario 2 – Raw Water
 - Cypress Lake (25.57 mgd)
 - SE Polk (37.5 mgd)
 - South Lakes (15.9 mgd)
 - NE Polk (4.44 mgd)
 - W.H.-Fairfax (2.35 mgd)



Recovery Projects

(Round 2 of modeling)

- SJR Project (10 mgd)
- RENEW Project (3.65 mgd)
- RIB relocations
 - ❖ Lake Wales – 1.23 mgd
 - ❖ Eagle Lake – 0.65 mgd
 - ❖ Lake Starr – 4.00 mgd



- Incorporate Remaining 2035 Reclaimed Flows

Critical Path of Modeling Activities

Done	8/7	Round 1 Modeling – Groundwater Projects
Ongoing	8/15	Round 1 Env. Eval. – Preliminary Eval.
Ongoing	8/15	Round 2 Model Dev. – Recovery Projects
Pending	8/29	Round 2 Modeling – GW/Recovery Projects

Discussion

