Groundwater Capabilities
Salt water intrusion at Fort Knox

Riverbank infiltration at LWC

Groundwater modeling at Carrollton
2D resistivity surveys for brine detection

Cooperator Meeting – June 11, 2013
Surface and borehole geophysical applications
Observation and monitoring well installations

- Water-level and temperature measurements
- Water-quality sampling
- Borehole logging

Water-quality sampling

- Dedicated systems
- Screened-auger sampling
- Dedicated field vehicle for sampling
Fort Knox summary

Cooperator Meeting – June 11, 2013
Riverbank infiltration at the Louisville Water Co.

System components:

- Four horizontal collector wells designed for 20 Mgd each
- Collector wells connected by bedrock tunnel approximately 6,700 feet long
- Gravity-fed design with one lift station located on water company property
Field activities at the Louisville Water Co.
Measuring the drawdown beneath the river surface
WY 2012 well network

Red – collector wells and piezometers

Green – observation well network

Blue – river piezometers
Direct measurement of infiltration rates

Cooperator Meeting – June 11, 2013
Infiltration Rates

- Estimate development potential
- Track changes in riverbed conditions over time
- Provide more accurate parameters for model simulations
Carrollton study area and modeling results
### Ohio River Alluvial Aquifer near Carrollton

**Groundwater Observation Well Network**

**Well name:** Barry Brown  
**Latitude:** 38 40 27  
**Site ID:** 384027085105201  
**Longitude:** 085 10 52  
**MP (measuring point) description:** Top of 6" coupling flush w/concrete - 1 ft above ground

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**Method of measurement:** m-scope  
**Measurement personnel:** Chris Rose

**Contact information**  
**Telephone:** 502-732-7065  
**Email:** crosewwtp@att.net

**Remarks**

**Well description**

6" steel casing in concrete base - total depth 78 ft

**Location map**

Near intersection of 4th St. and Polk
Cooperative partnerships

Cooperator Meeting – June 11, 2013
Questions,
Comments,
General accusations?

Gregory's interest in the rising water table extends well into the evening hours.