Microbial Source Tracking
Case Studies
The Good-- The Not So Good --The Ugly

Alexandria K. Graves
Soil and Environmental Microbiologist
May 22, 2012
National Security Assessment: Water Scarcity Disrupting U.S. and Three Continents

Global Food Security

http://www.state.gov/s/globalfoodsecurity/index.htm
Target Characteristics
Common Approaches In Microbial Source Tracking

- Elevated Levels of Fecal Indicator Bacteria
- Survey for Potential Host Sources
- Study Design
- Host Source Identification
- Remediation-Management-Monitoring
Fecal Indicator Bacteria
Survey For Potential Host Sources
Study Design
Figure 4. Host source identification of E. coli isolates (n = 1,715) from three Six Runs Creek sampling sites adjacent to waste application field two (WAF2).

Remediation– Management-- Monitoring

State and Local Officials, Public Health Officials, Environmental Groups, Local Residents, County Commissioners and Others with a Vested Interest
How Do We....
Increase The Good?
Minimize The Not So Good?
Eliminate The Ugly?
Alexandria K. Graves
Soil and Environmental Microbiologist
akgraves@ncsu.edu
919.513.0635