

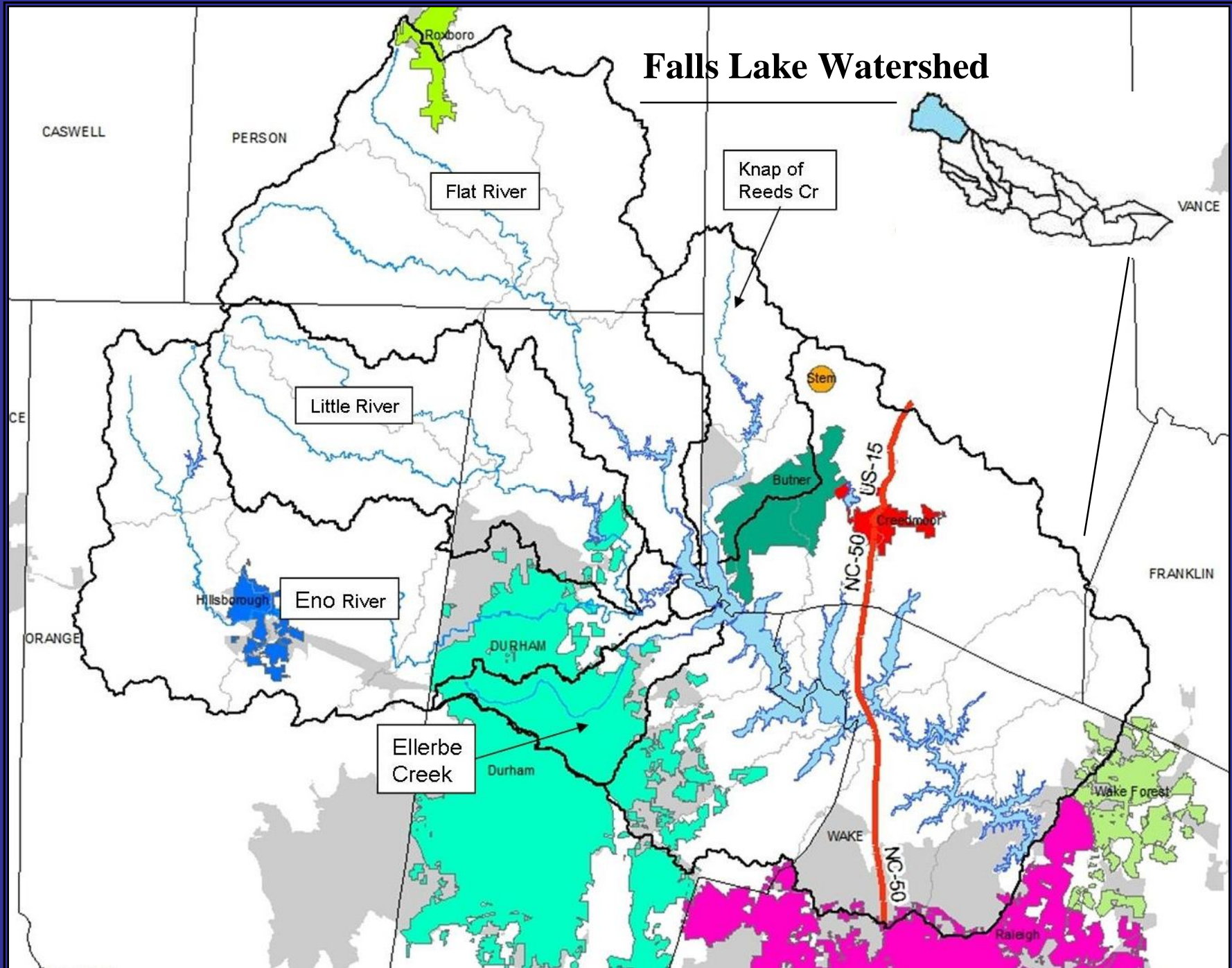
Falls Lake Update

John Huisman, NC DWQ

December 17, 2009



Falls Lake Watershed

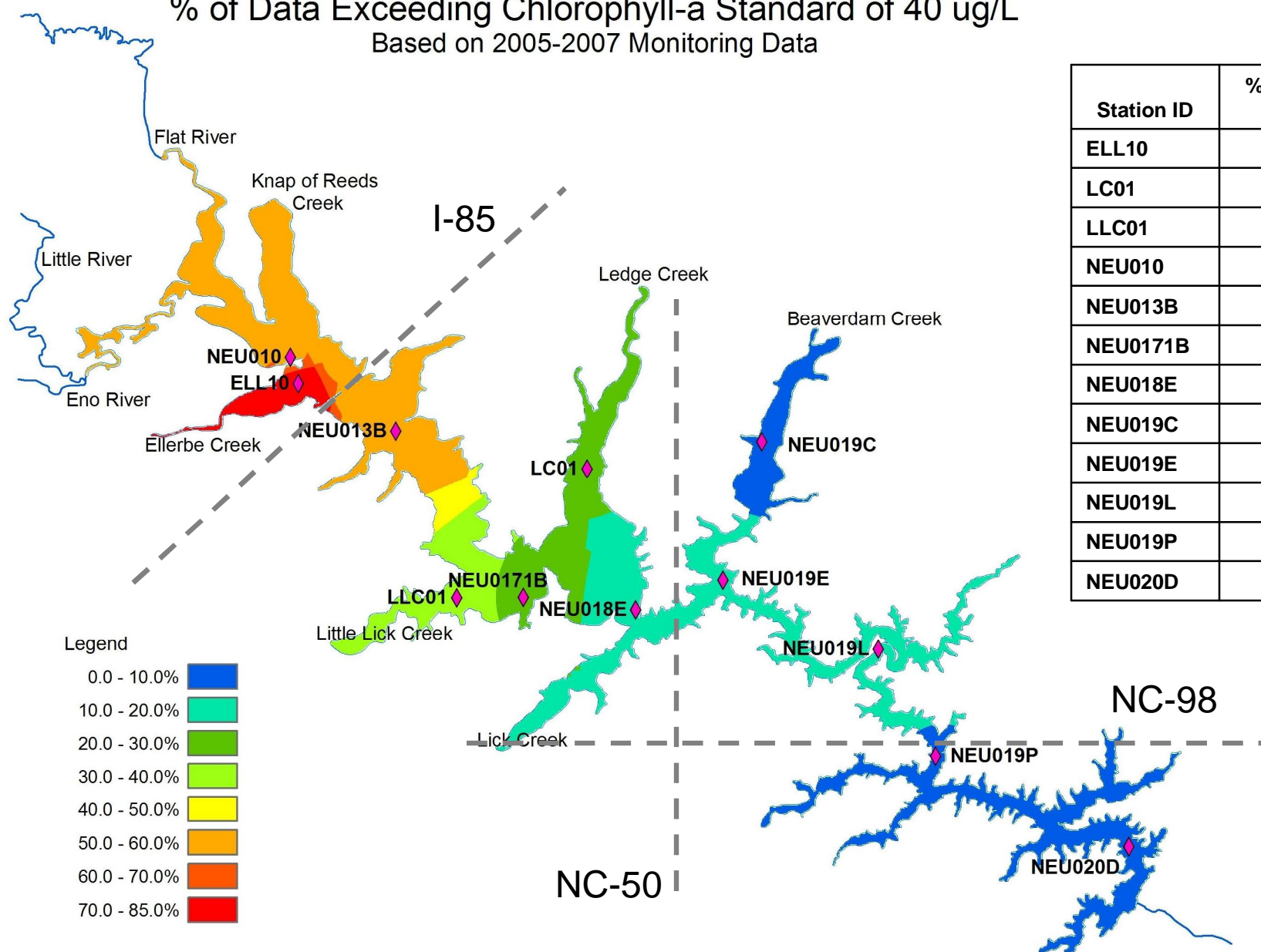


Recent Falls Lake History

- 2004 – focus on lake's condition
- SL 2005-190 (SB 981), SL 2006-259
 - EMC shall adopt nutrient rules
 - Based on calibrated model
- Lake Sampling
 - Special Study: Mar 2005 – Sep 2007
- Technical Advisory Committee
 - Input on data collection, model 2005-2009
- Water Quality Impairment identified
 - 2008 Draft EPA 303d List
 - Chl-a & Turbidity (Portion above I-85)

Percent of Data Exceeding Chl-a Standard in Falls Lake

% of Data Exceeding Chlorophyll-a Standard of 40 ug/L
Based on 2005-2007 Monitoring Data



Station ID	% over 40 ug/L
ELL10	84.0%
LC01	21.1%
LLC01	39.0%
NEU010	53.0%
NEU013B	53.0%
NEU0171B	25.0%
NEU018E	16.0%
NEU019C	4.0%
NEU019E	16.0%
NEU019L	12.0%
NEU019P	9.9%
NEU020D	9.9%

2009 Falls Lake Legislation

SL 2009-486 (s1020)

- EMC shall adopt nutrient rules:
 - January 15, 2011 adoption deadline
 - Concurrently adopt as temporaries
- Credit early reductions
- Buffer, nutrient mitigation – same watershed
- Tighter erosion/sediment control standards
- DENR report on septic by March 2010

Strategy Development Process

- Two Models Developed
 - 15 TAC Meetings - development / review of models
 - Watershed model to stakeholders May '09
 - Lake model to stakeholders June '09
- Rulemaking Process
 - 9 Stakeholder Meetings Aug '08 - Jan '10
 - 12 Subcommittee Meetings Sept - Dec '09
 - Fiscal Note to OSBM - Jan. 31, '10 (target)
 - Draft rules to WQC and EMC - Mar '10
 - Final Rules to EMC no later than January 15, 2011

Stakeholder Subcommittee Meetings

New Development Subcommittee

Meeting #1: September 17, 2009

Meeting #2: October 12, 2009

Meeting #3: December 7, 2009

Point Source and Package Plants Subcommittee

Meeting #1: September 21, 2009

Meeting #2: October 19, 2009

Existing Development and Onsite Wastewater Subcommittee

Meeting #1: October 2, 2009

Meeting #2: October 22, 2009

Local Jurisdictional Approach Subcommittee

Meeting #1: October 26th, 2009

Meeting #2: December 2, 2009

Agriculture Subcommittee

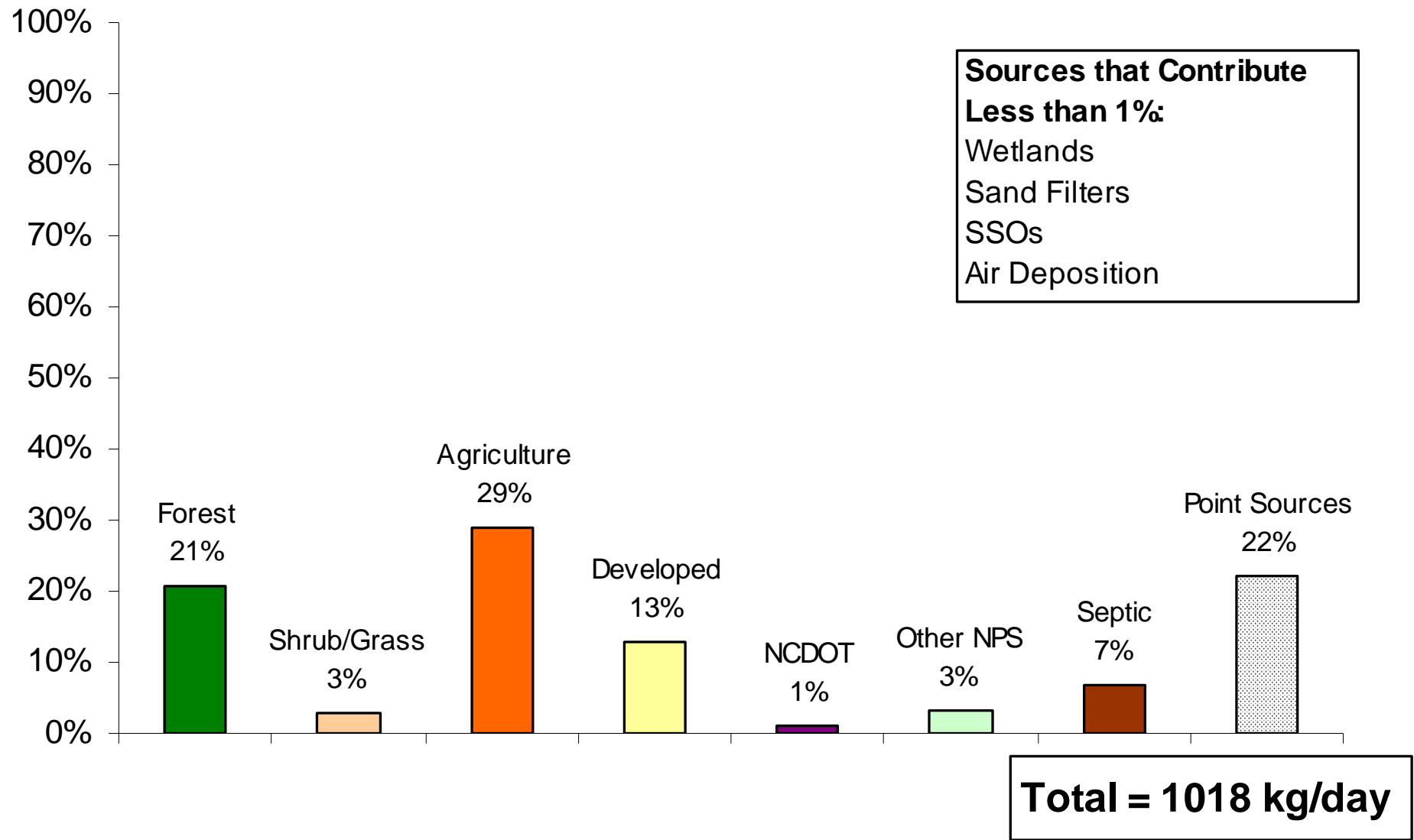
Meeting #1: October 6, 2009

Meeting #2: November 4, 2009

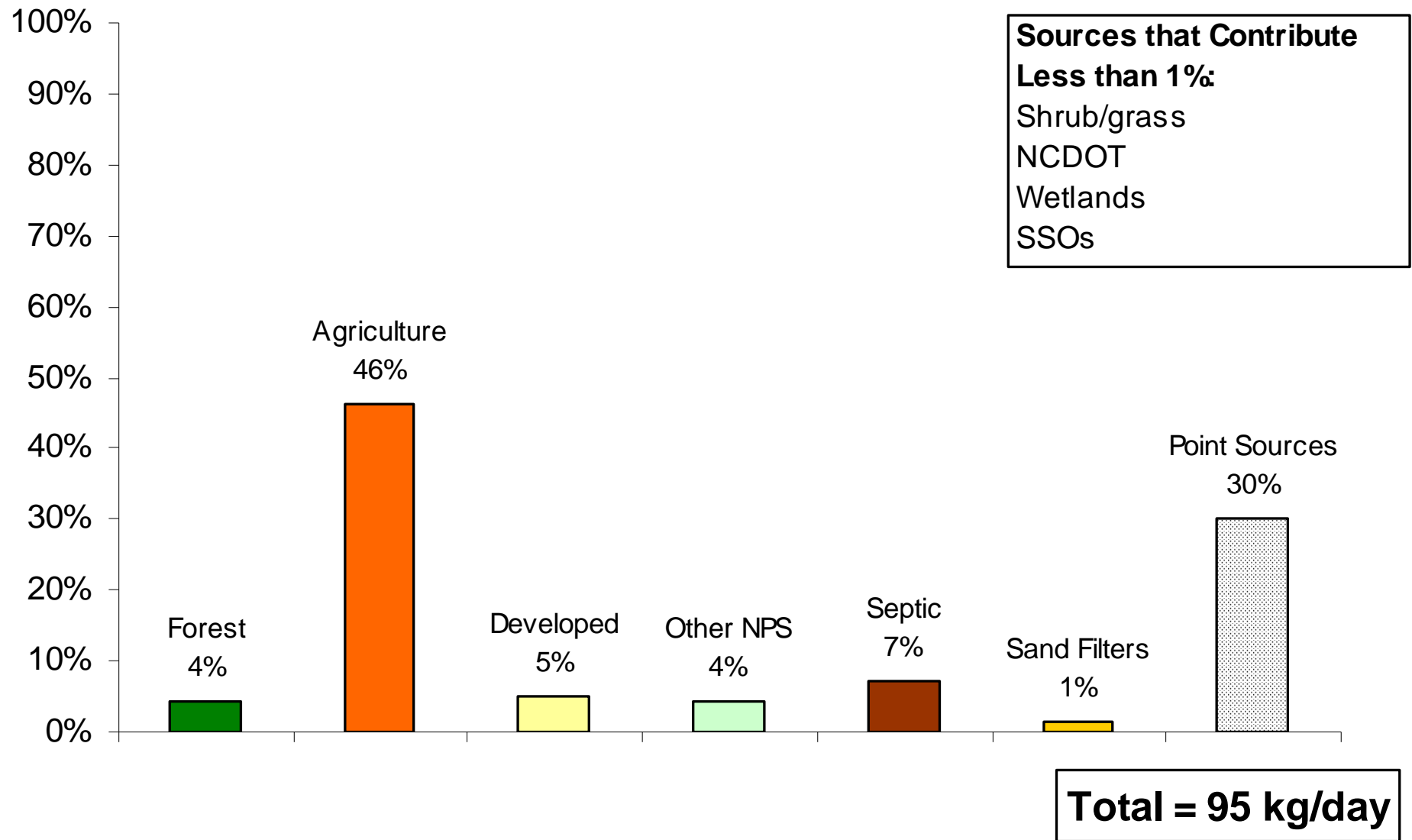
Meeting #3: December 3, 2009



2006 Estimated Total Nitrogen Delivered Load (kg/d) From The Five Upper Watersheds



2006 Estimated Total Phosphorus Delivered Load (kg/d) From The Five Upper Watersheds



Overall Reduction Goals

Nutrient Reduction Goal
40 % TN and 77% TP

Note:

The nutrient reduction goal has been adjusted to represent the redistribution of load reductions from background sources and accounts for predicted reductions from atmospheric sources

NMS Approach

- Adaptive / staged approach
 - Recognizes large reduction needs
 - Ongoing water quality monitoring in lake
 - Calls for reductions from point and nonpoint sources
- Stage 1
 - Start with nutrient reduction controls watershed-wide
 - Achieve water quality standards in the lower lake
- Stage 2
 - Additional reductions in upper watershed over time
 - Achieve the overall reductions needs

Review of Next Steps

- Dec. 23rd ~ Stakeholder comments on 1st draft rule due back to DWQ
- Jan 14th ~ Revised draft rules out to stakeholders
- Jan 21st ~ Final Full Stakeholder Meeting
- Jan 29th ~ Comments on 2nd draft of rules due back to DWQ
- January 31st ~ Fiscal Note to OSBM (target date)
- March 2010 ~ WQC /EMC
- Draft rules out for public comment
- January 15, 2011 ~ EMC Adoption of Final Rules

Questions

John Huisman

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TJCOG Falls Lake Stakeholder Website:

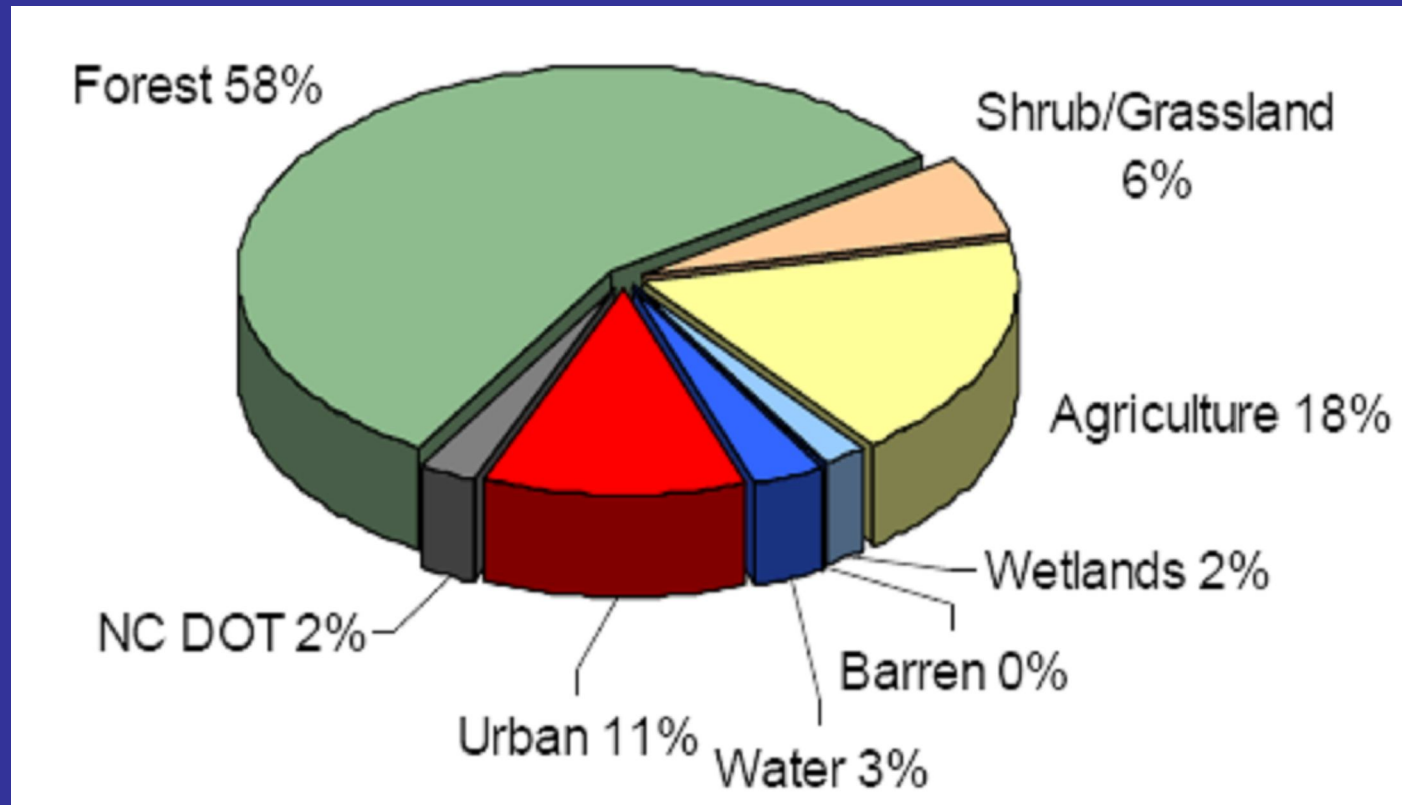
<http://www.fallslakestakeholder.org>

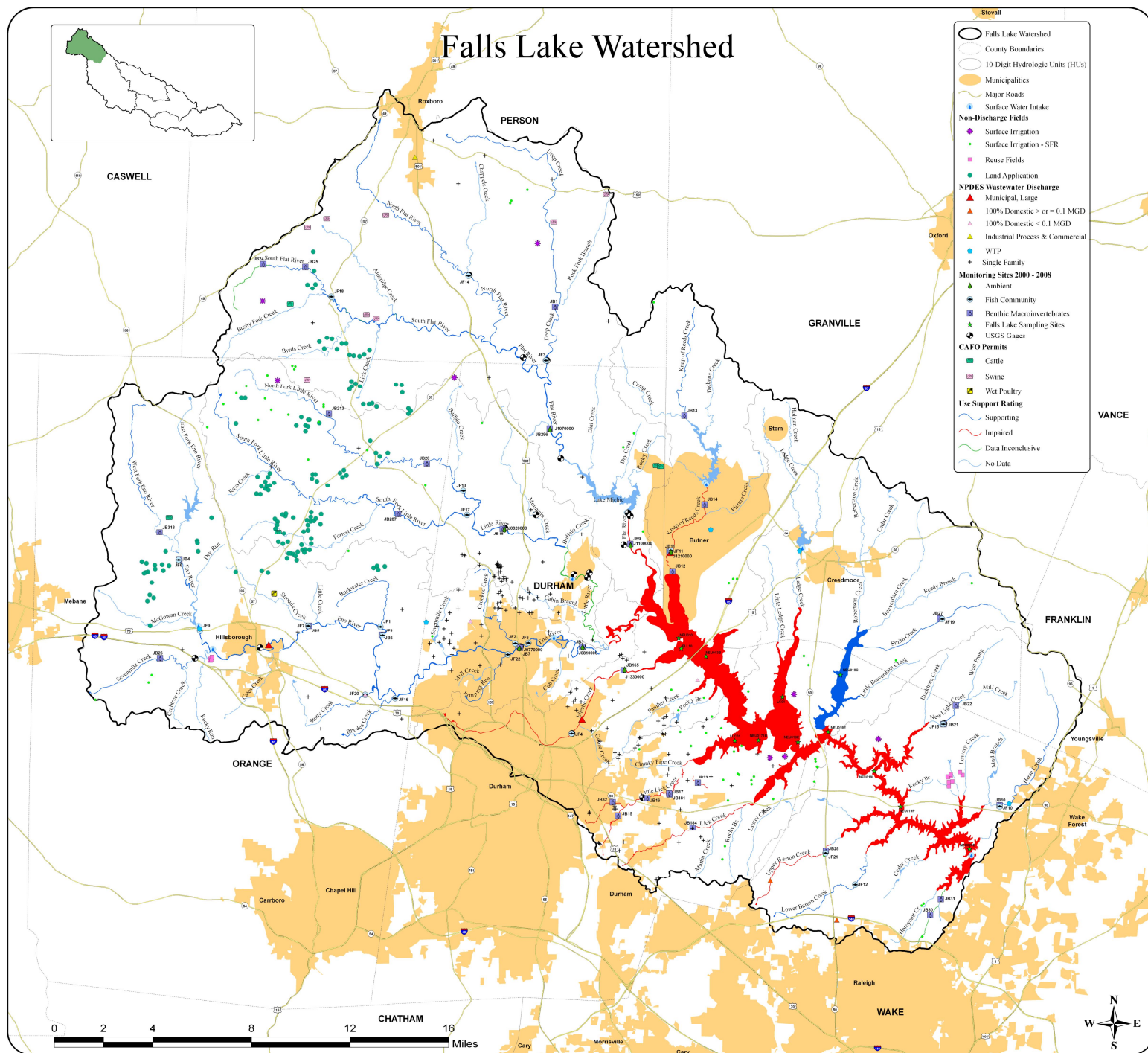


Slides in Reserve

Falls Lake Land Cover

(2001 Land Cover Data)





Falls Lake Watershed

Point Source Dischargers

