



DEQ Monitoring Efforts in the Catoctin Creek Watershed

Catoctin Creek Steering Committee Meeting
Ida Lee Park, Leesburg, Virginia
July 27, 2009

Bacteria Monitoring

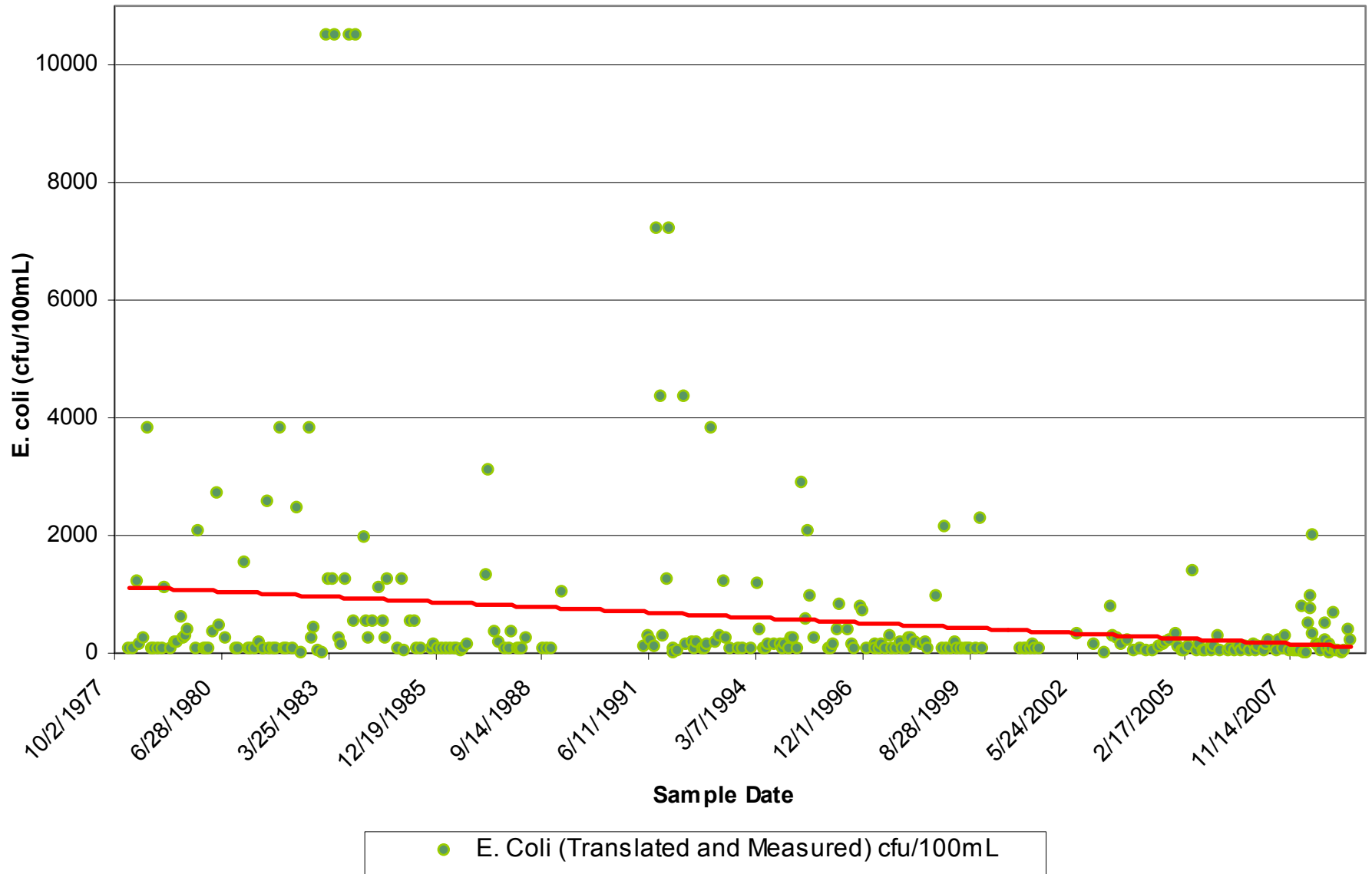
Draft 2010 Assessment (2003 – 2008)

Station	Stream Name	Number of Samples	Number of Exceedances	E. Coli Exceedance Rate
1ACAX004.57 (Route 663)	Catoctin Creek	79	16	20%
1ANOC000.42 (Route 681)	North Fork Catoctin Creek	12	8	67%
1ANOC007.28 (Route 611)	North Fork Catoctin Creek	7	6	86%
1ANOC009.37 (Route 812)	North Fork Catoctin Creek	10	4	40%
1ASOC001.66 (Route 698)	South Fork Catoctin Creek	21	6	29%
1ASOC007.06 (Route 738)	South Fork Catoctin Creek	10	6	60%
1AMIH001.98 (Route 673)	Milltown Creek	10	4	40%
1AXJT002.22 (Cottage Grove Lane)	Unnamed Tributary to Catoctin Creek	10	6	60%

DEQ Water Quality Monitoring Stations in the Catoctin Creek Watershed (2003 - 2008)



Catoctin Creek Station 1ACAX004.57

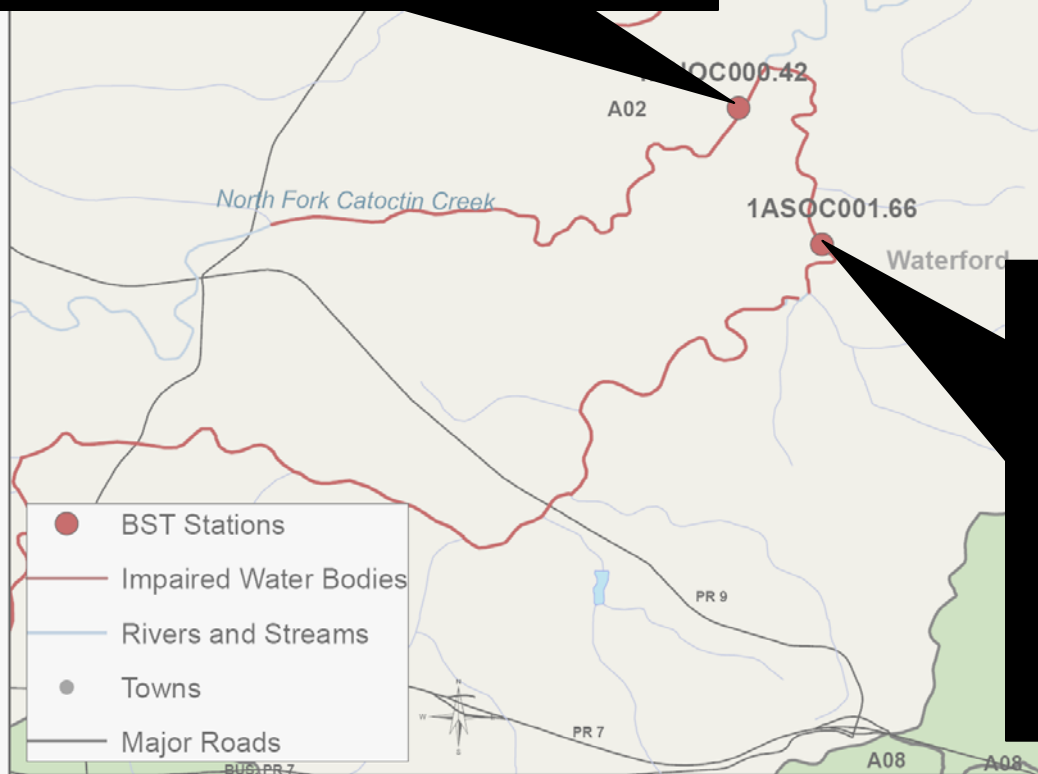
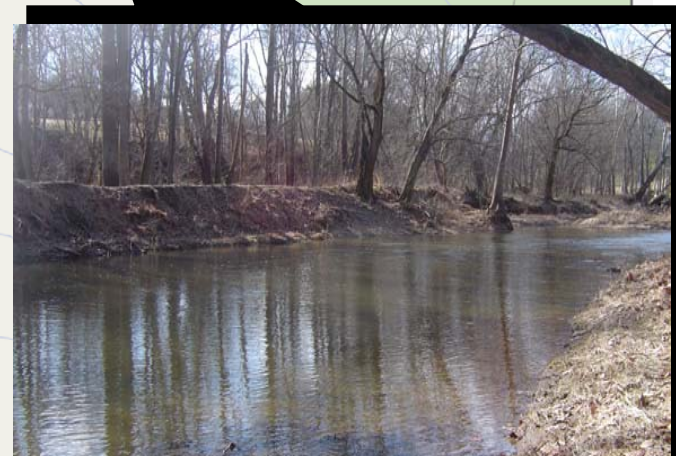
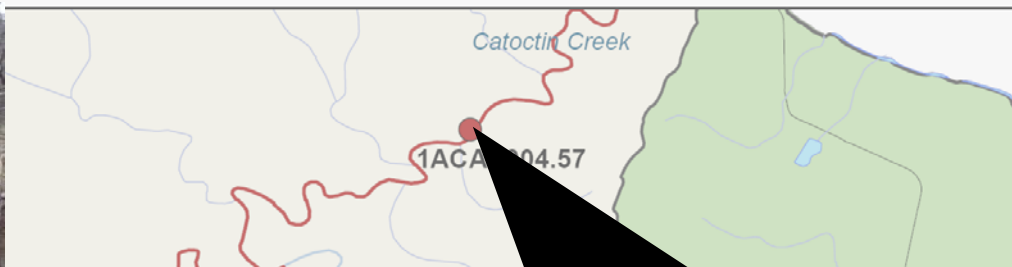


BST Sampling in 2008

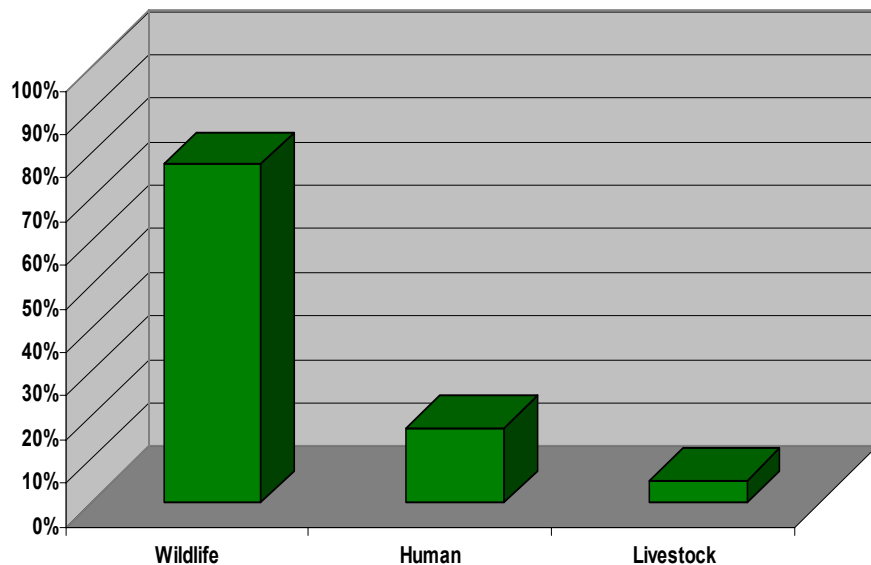
- **BST – Bacterial Source Tracking**
- **Bacteria from different animals have different patterns of antibiotic resistance**
- **Categorize bacteria into groups (human, livestock, wildlife, or pet)**
- **Monthly BST Sampling**
- **3 Stations in the Impaired Watershed**

Stream Name	Station	Station Location
North Fork Catoctin	1aNOC000.42	Route 681
South Fork Catoctin	1ASOC001.66	Route 698
Catoctin Creek	1aCAX004.57	Route 663

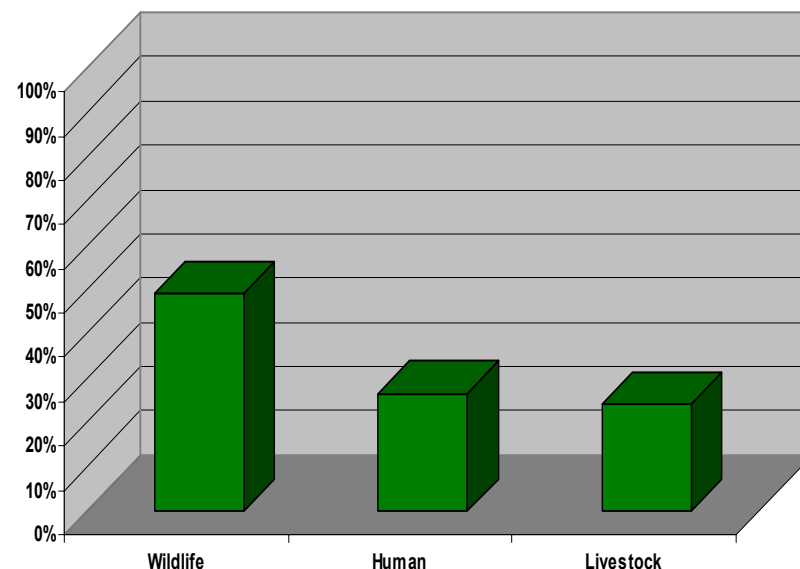
BST Stations in the Catoctin Creek Watershed



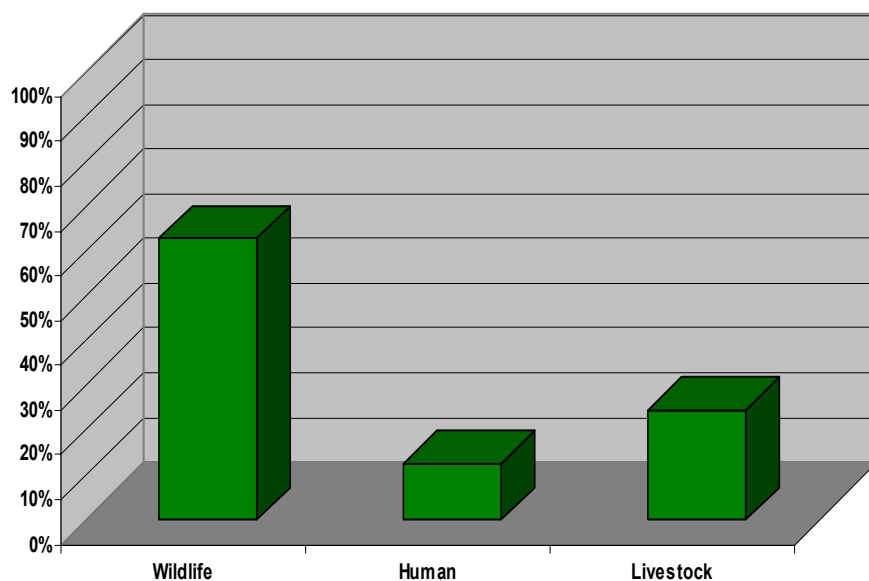
2001 BST Distribution for North Fork Catocin Creek
Station 1ANOC000.42



2001 BST Distribution for South Fork Catocin Creek
Station 1ASOC001.66



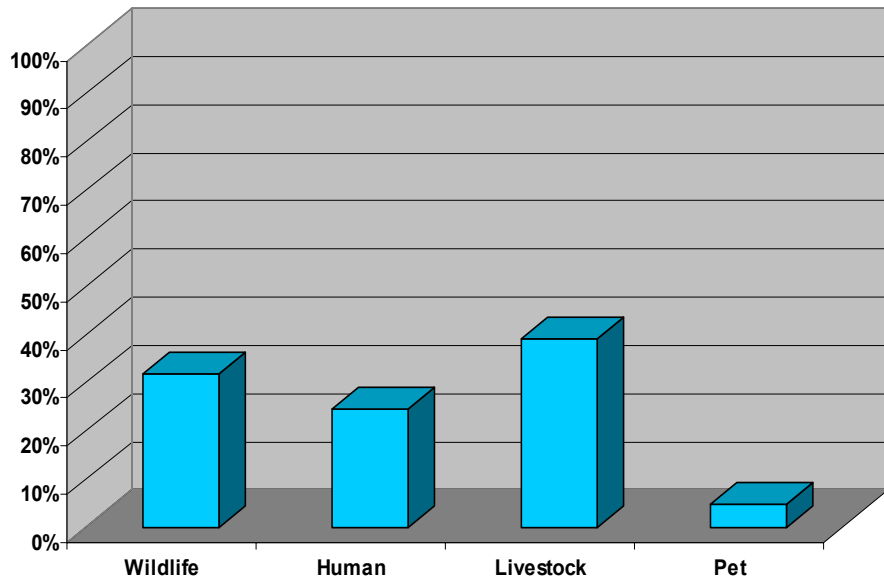
2001 BST Distribution for Catocin Creek
Station 1ACAX004.57



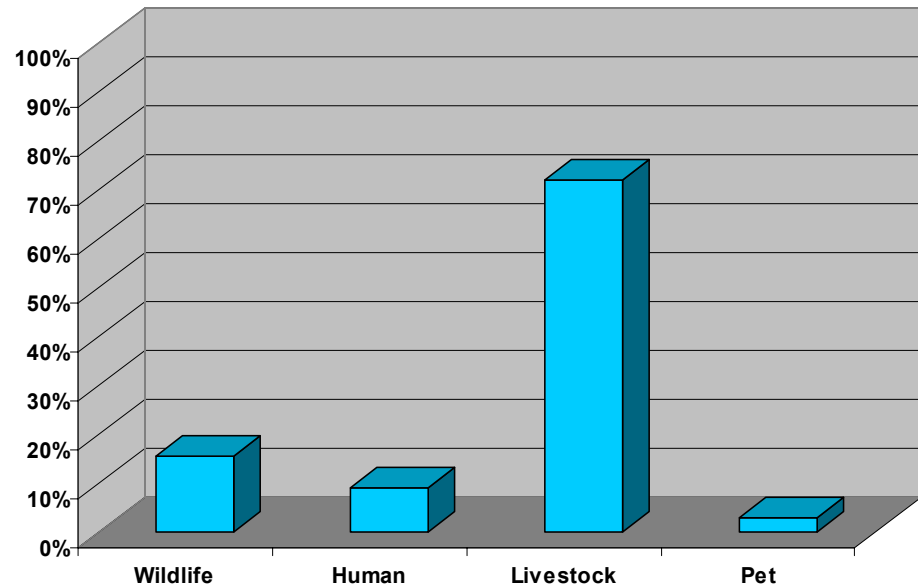
2001 BST Data:

- Breakout by source did not include Pets.
- Sampled for Fecal Coliform.
- Smaller sample set (5 – 6 samples).
- 80% of samples were taken during low flows.
- 77% of the exceedances were from samples taken during low flows (indicates direct deposition sources).

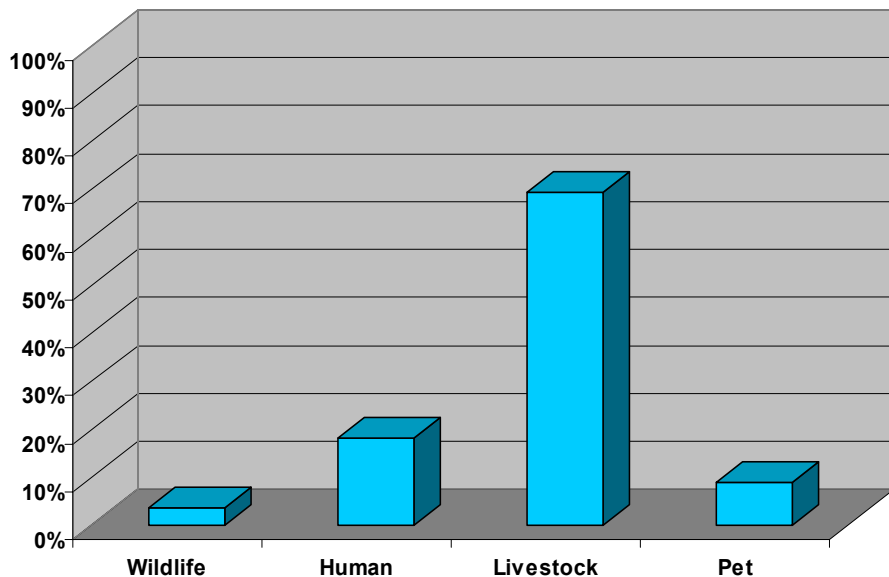
2008 BST Distribution for North Fork Catoctin Creek
Station 1ANOC000.42



2008 BST Distribution for South Fork Catoctin Creek
Station 1ASOC001.66



2008 BST Distribution for Catoctin Creek
Station 1ACAX004.57



2008 BST Data:

- Sampled for E. coli bacteria.
- 12 samples per station (once a month during 2008).
- Samples reflect good representation of all flow conditions.
- 50% of the exceedances were from samples taken during high flows (indicates nonpoint source runoff as the source).

Current and Future Monitoring in the Catoctin Creek Watershed

Water Quality Monitoring (2009 – 2010)

- Catoctin Creek – Station 1ACAX004.57*
- North Fork Catoctin Creek – Station 1ANOC004.38
- South Fork Catoctin Creek – Station 1ASOC005.46

Biological Monitoring (Current)

- North Fork Catoctin Creek – Station 1ANOC000.42
- South Fork Catoctin Creek:

Station 1ASOC000.01

Station 1ASOC007.06

Station 1ASOC010.09

Station 1ASOC013.05



** Station 1ACAX004.57 on Catoctin Creek is a long-term trend station, and thus, is monitored every year.*

C O N T A C T S

Katie Conaway

Virginia Department of Environmental Quality

Regional TMDL Coordinator

Phone: (703) 583-3804

E-mail: Katie.Conaway@deq.virginia.gov

Jeff Talbott

Virginia Department of Environmental Quality

Regional Water Quality Monitoring Coordinator

Phone: (703) 583-3902

E-mail: Jeff.Talbott@deq.virginia.gov