

# DCPG Water Monitoring Year in Review 2013



Roman Jesien  
January 26, 2014 Annual Meeting  
Dorchester Citizens for Planned Growth  
[www.dcpgonline.org](http://www.dcpgonline.org)

*Dorchester  
Citizens  
For  
Planned  
Growth*





## The Susquehanna R

Contributes 33% sed,  
25% of the P,  
46% of the N into the Bay

The dam has little impact  
on N loading in the Bay

Affects mostly the central  
Stem

**Our water monitoring shows  
Pollution from local sources:  
Farms, septic systems,  
stormwater runoff which  
need to be addressed locally**



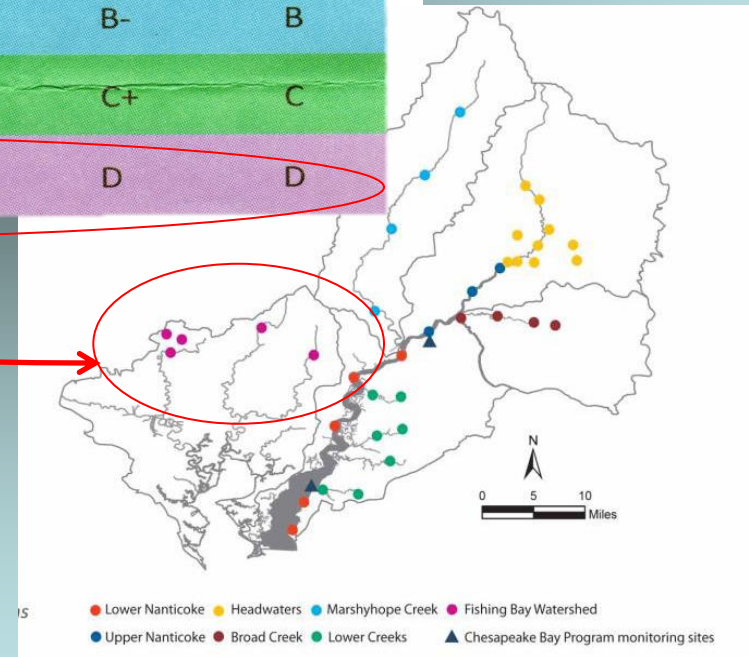
# Nanticoke Watershed Alliance Report Card

## OVERALL HEALTH GRADES FROM 2008-2012

River Region	2008	2009	2010	2011	2012
Upper Nanticoke	B	B	B	B-	B-
Lower Nanticoke	C	C	C+	C+	C+
Delaware Headwaters	B	B	B	B	B
Broad Creek	B	B	B	B	B
Marshyhope Creek	C+	B	B	B-	B
Lower Creeks	C	C	C	C+	C
Fishing Bay Headwaters	D+	D+	D	D	D

Based on:

Dissolved Oxygen    Water Clarity    Total Nitrogen    Total Phosphorus    Fecal Enterococcus



# DCPG Creek Watchers

9 Stations every 2 weeks – 2008 - Present



## Field

Dissolved Oxygen  
Temperature  
Salinity  
Water Clarity

## Laboratory

Nutrients  
Nitrogen  
Phosphorus  
Bacteria



Chicamocomico @ Rt 50

Nanticoke Watershed Association

Made Possible through the  
Efforts of Dedicated Volunteers



Little Blackwater at Rt 16

Trib at Stone Boundary



Envirocore Labs, Inc  
Harrington DE

University of MD  
Horn Point  
Environmental Lab





Tom Wolfle 1936 -2013

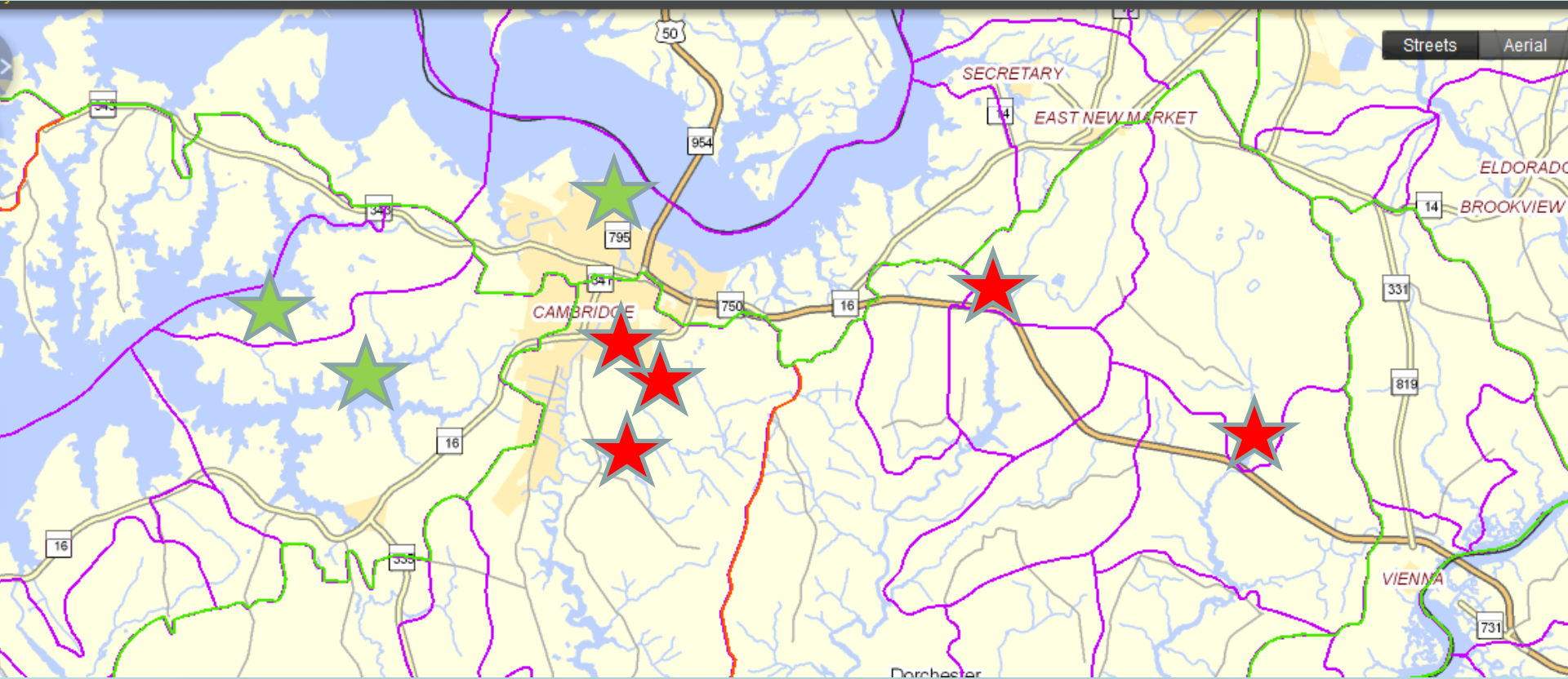
# Creek Watchers

Richard Ball  
Tom Wolfle  
Mike Jones  
David Lee  
Robert Sellers  
Don Sellers  
Lisa Baird

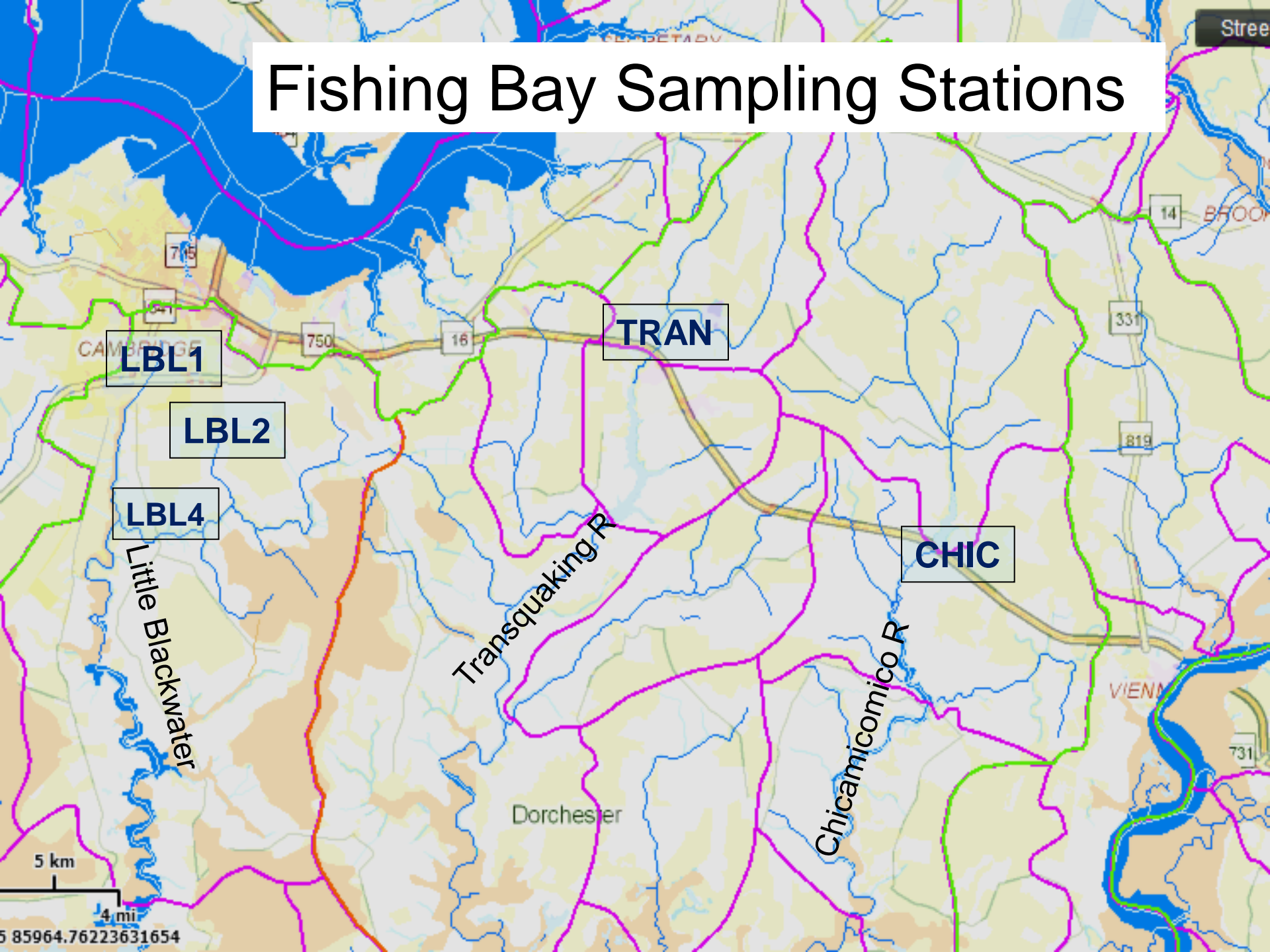


# Sampling stations

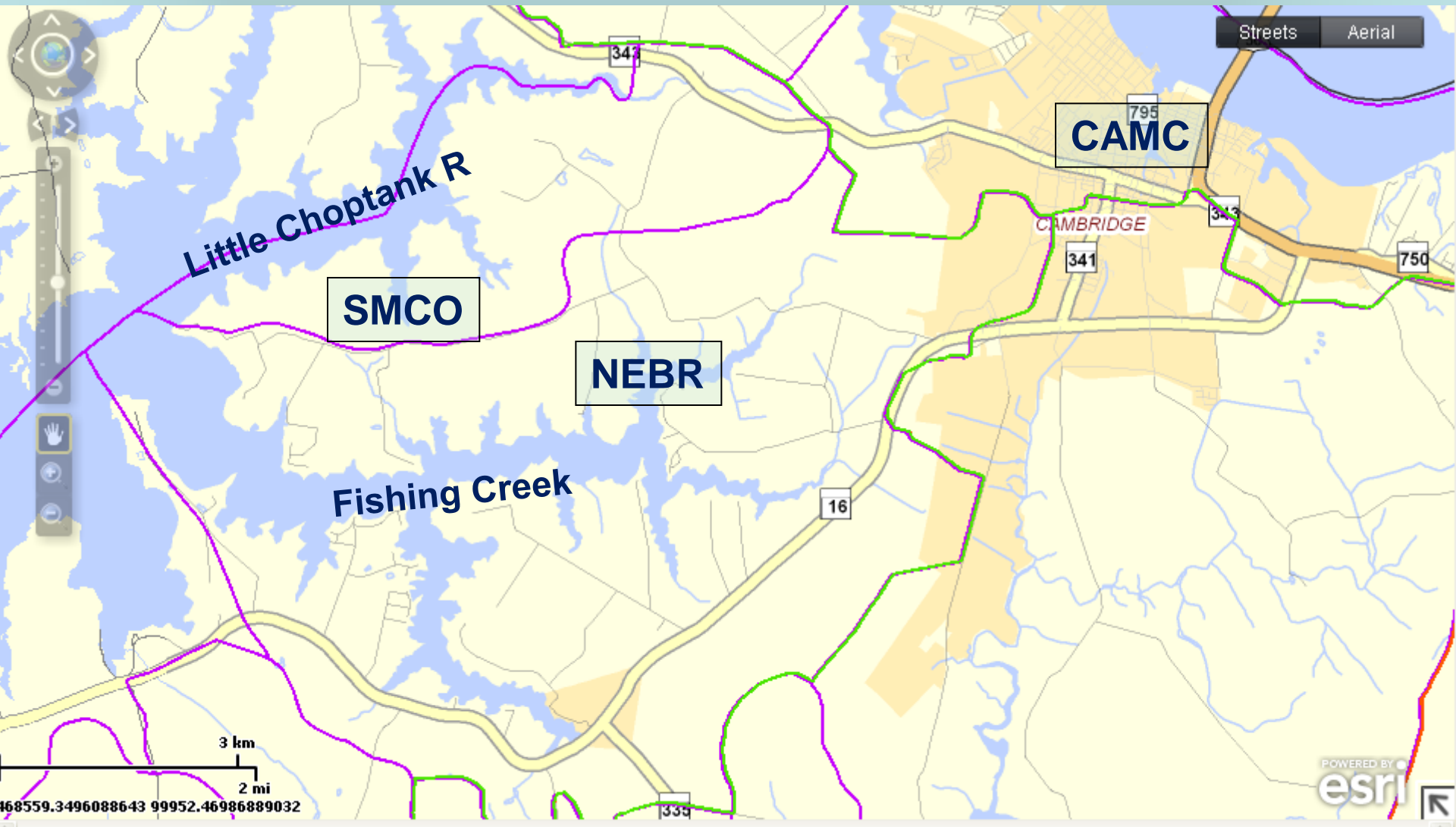
5 Long term, NWA    3 DCPG funded



# Fishing Bay Sampling Stations

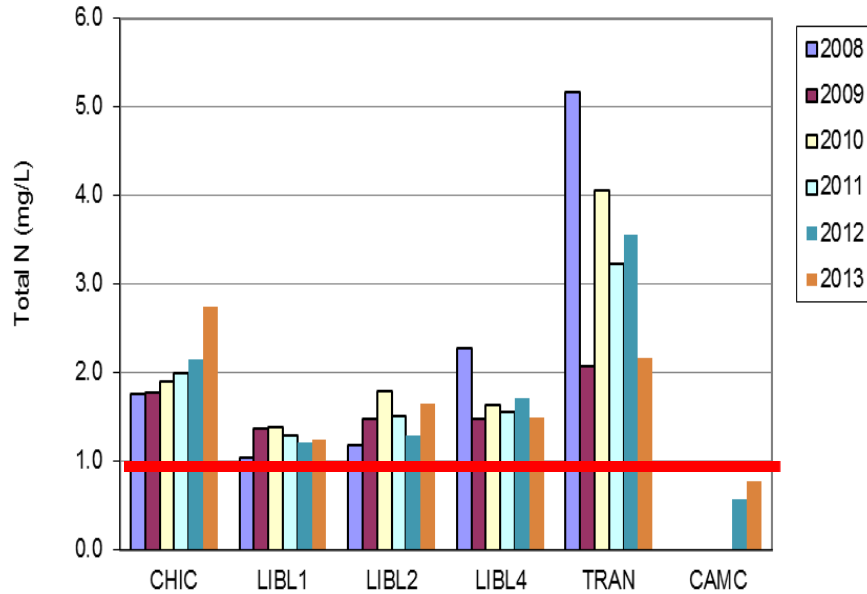


# Choptank Sampling Stations





## Total Nitrogen

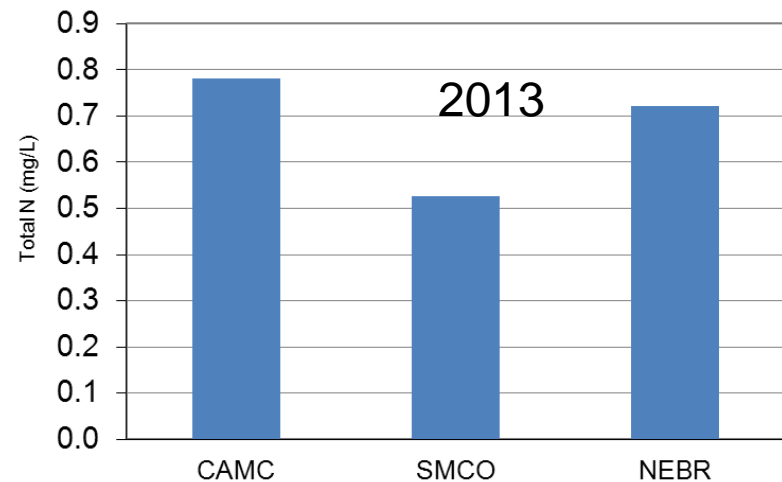


**Median values (1/2 the values are greater).**

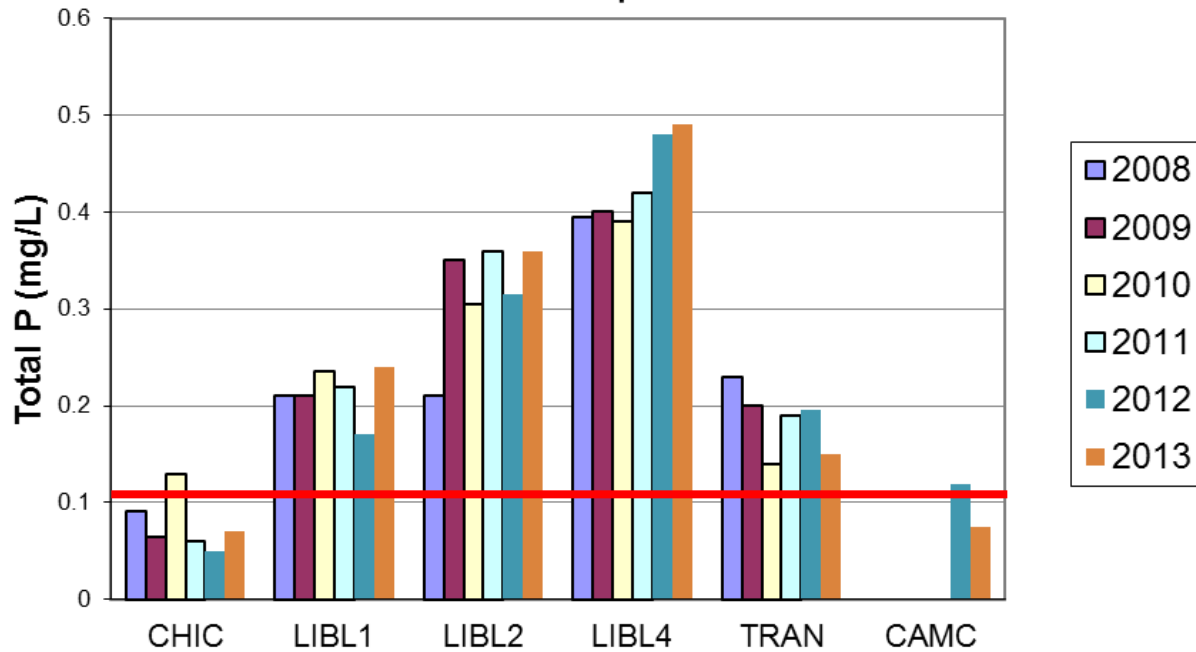
**Total N > 1 mg/L excessive**

**Transquaking R (TRAN)  
JCR Enterprise 2006 violations,  
Blue green algae blooms in the  
Transquaking 2006 - 2012**

## Total Nitrogen

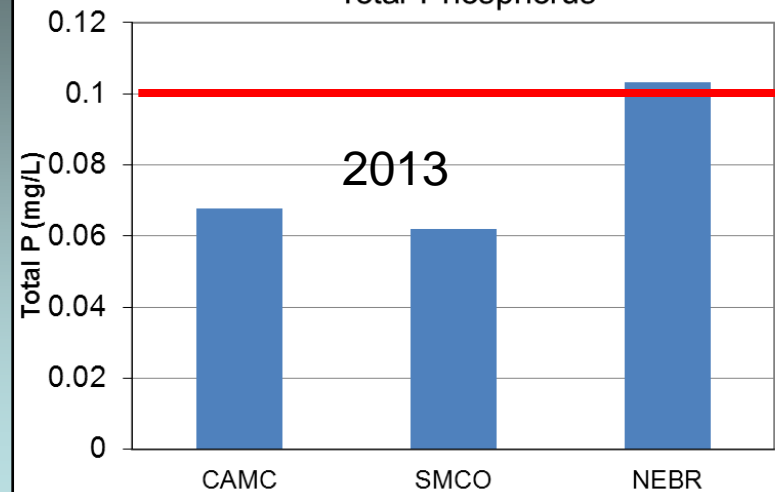


## Total Phosphorus

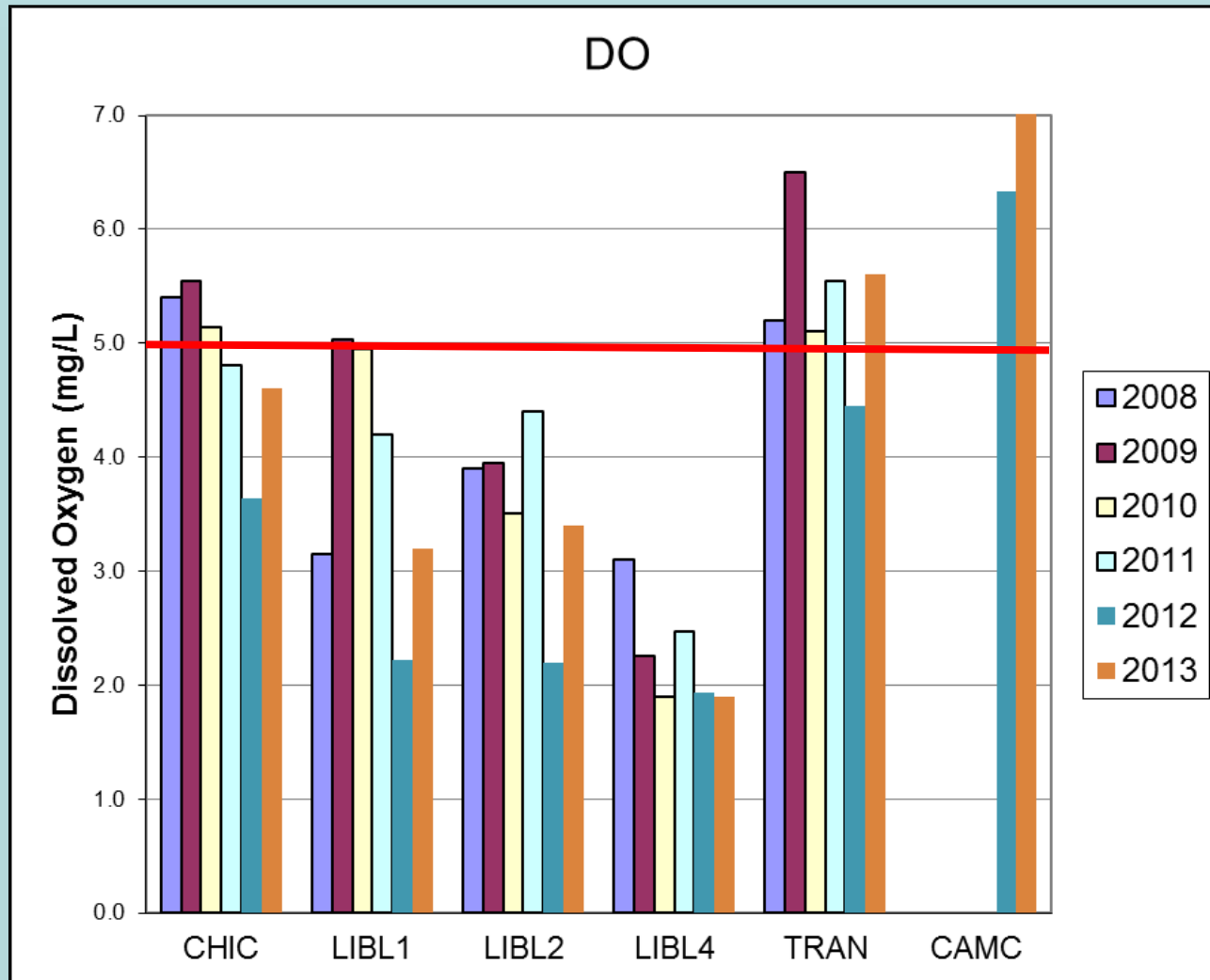


**Total P > 0.1 mg/L  
excessive**

## Total Phosphorus





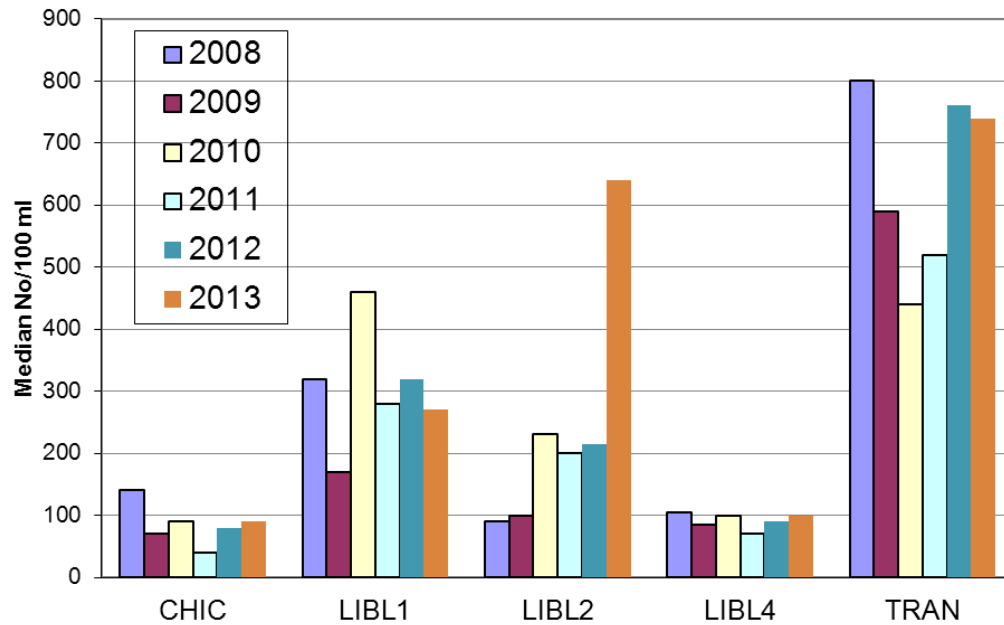


**Dissolved Oxygen**

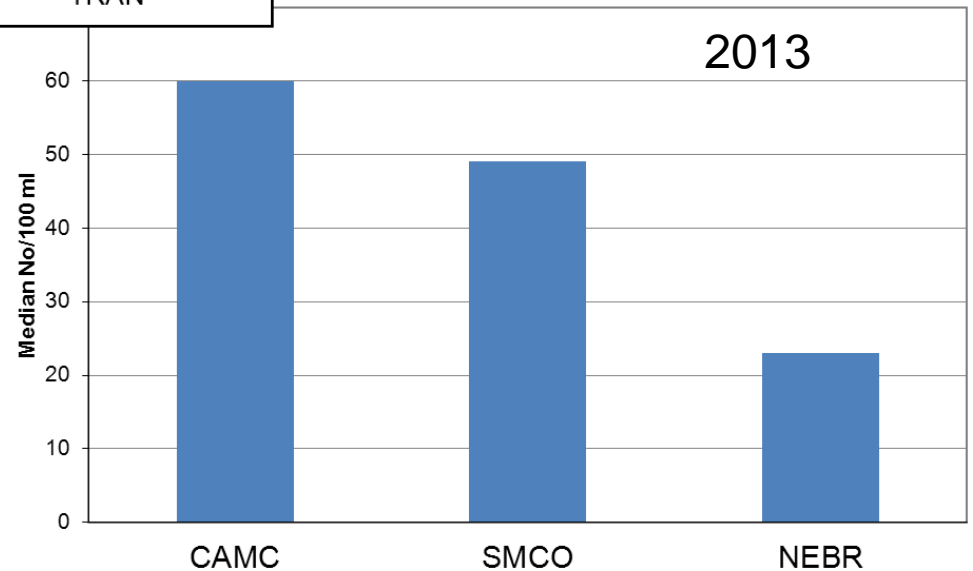
**Aquatic organisms need 5.0 mg/L**

# Indicator of Potential Contamination Risk

## E. coli Bacteria



## E. coli Bacteria





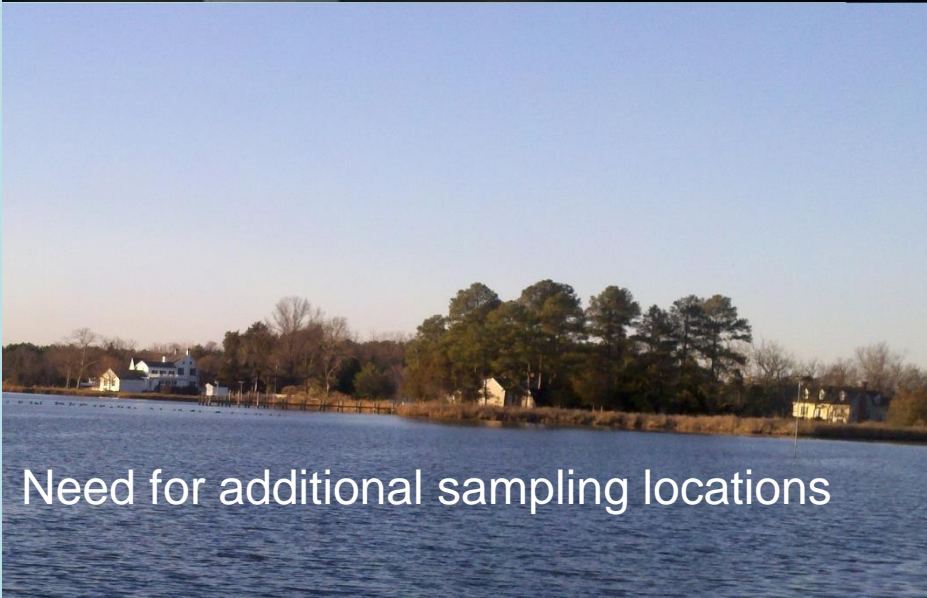
# Help !!



Need for stormwater management



Trash litters many roads...why?



Need for additional sampling locations



Need for buffers and cover crops



# Conclusions

- We have identified some real water quality problems originating in **Dorchester County**
- It will take a strong and concentrated effort by all stakeholders, i.e., farmers, developers, landowners, watermen, business owners, municipalities to work together to restore the waters of **Chesapeake Bay**

