The background of the slide features a large, semi-transparent watermark of the Rutgers University seal. The seal is circular and contains the text "RUTGERS UNIVERSITY" around the perimeter and "1823" at the bottom. The seal is centered and overlaps the main title text.

RUTGERS

New Jersey Agricultural
Experiment Station

Data Collection & Application Using a Modified Stream Visual Assessment Protocol

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Presented by Katie Giacalone
RCE Water Resources Program
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2008 WEF National Monitoring Conference

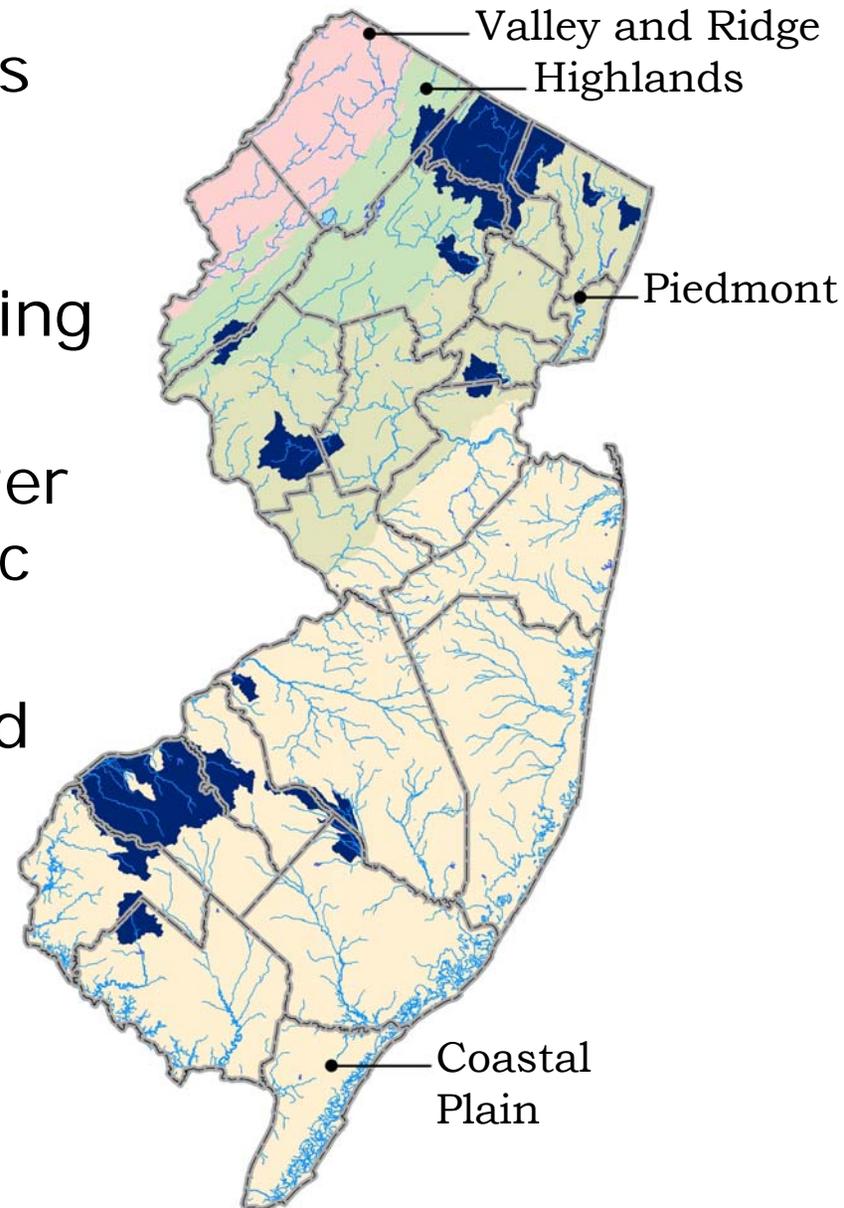
Why collect this data?

- *Get to know your streams!*
- Impacts of changing land use
- Relate the ecological characteristics to recreational and habitat preservation goals.
- Characterize pipes and ditches that may be affecting water quality;
- Document changing stream conditions over time.
- Apply for grant money to fix identified problem areas.



Use of SVAP in Watershed Planning

- More than 700 stream reaches assessed since 2003!
- Data used in prioritizing restoration activities, addressing flooding issues and TMDLs.
- Typically accompanied by water quality monitoring and benthic surveys, but not necessary.
- Soil Conservation Districts and Mosquito Commissions have also been trained in this revised SVAP.



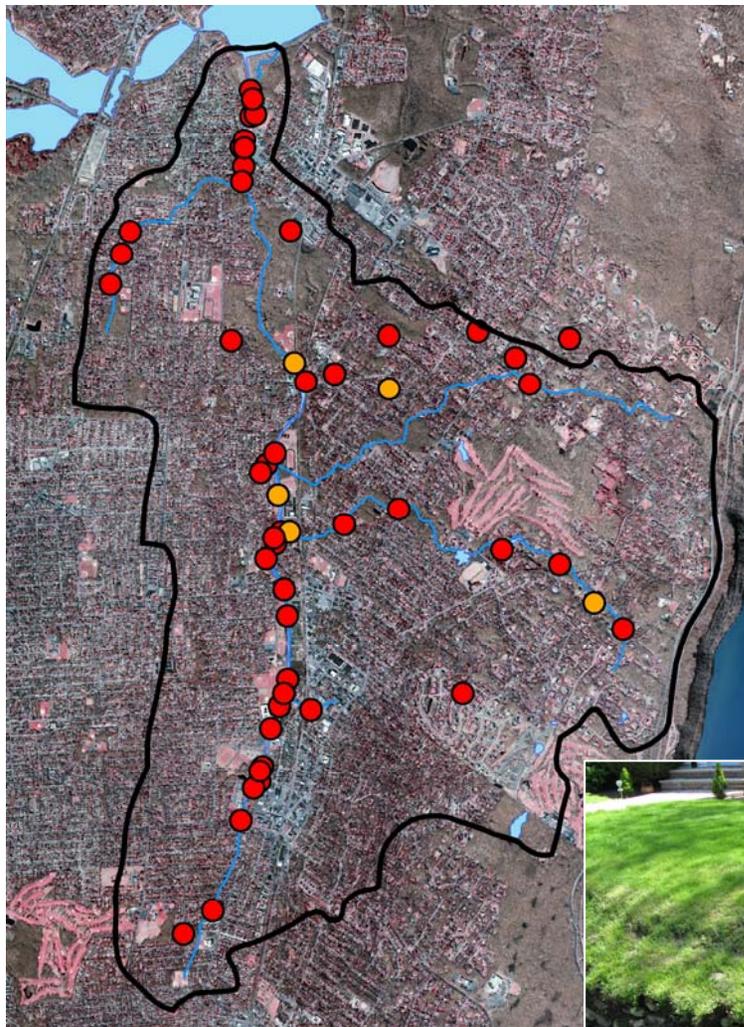
SVAP Elements

- **Channel Condition**
- **Hydrologic Alteration**
- **Riparian Zone (L, R)**
- **Bank Stability (L, R)**
- **Water Appearance**
- **Nutrient Enrichment**
- **Barriers to Fish Movement**
- **Instream Fish Cover**
- **Pools**
- **Invertebrate Habitat**
- **Canopy Cover**
- **Manure Presence**
- **Riffle Embeddedness**
- **Macroinvertebrates Observed**



Tenakill Brook

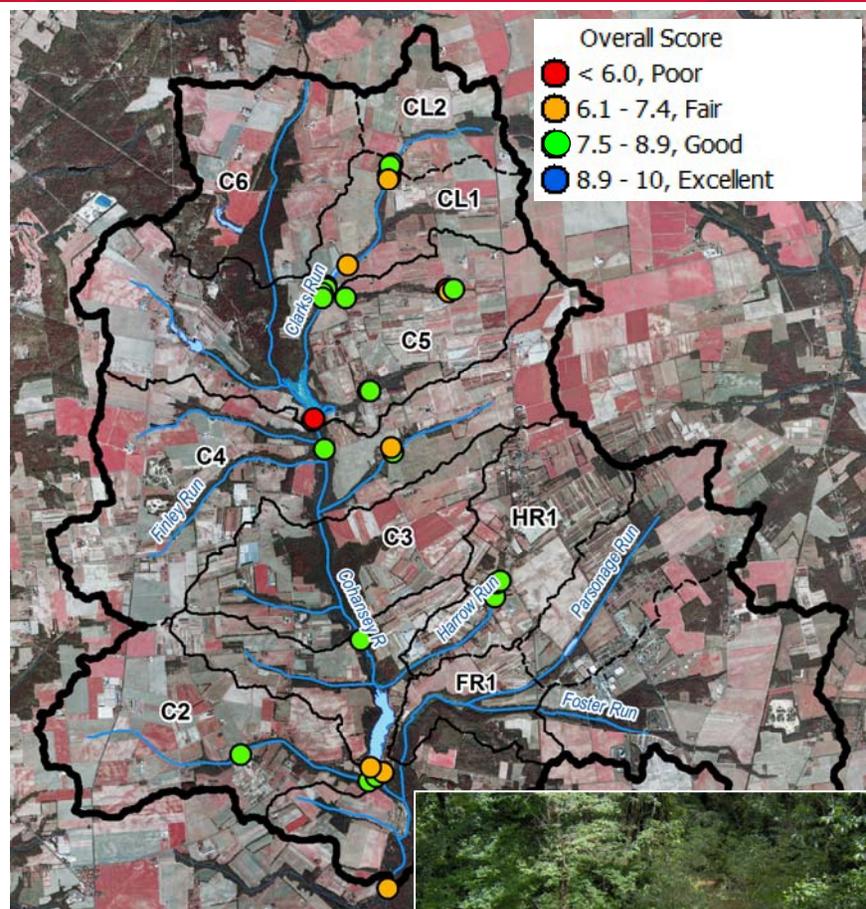
- 9 mi², 9 river miles
- WMA 5 – the most densely populated WMA
- Addressing FC TMDL; TP data also above WQS
- 53 reaches assessed – 4.9 overall score (POOR)
- Sites identified with presence of manure – geese and pet waste management needed.



Overall Score

- < 6.0, Poor
- 6.1 - 7.4, Fair
- 7.5 - 8.9, Good
- 8.9 - 10, Excellent

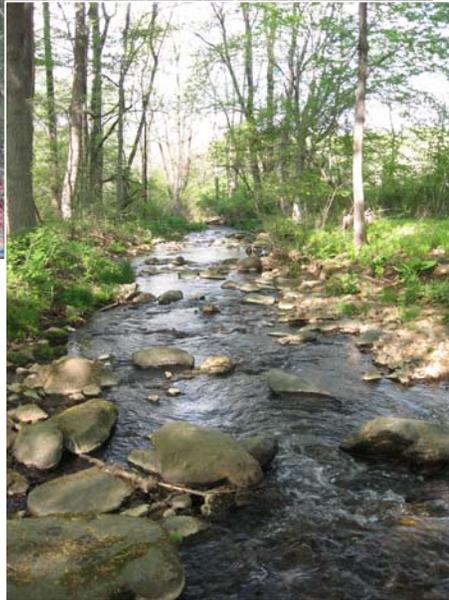
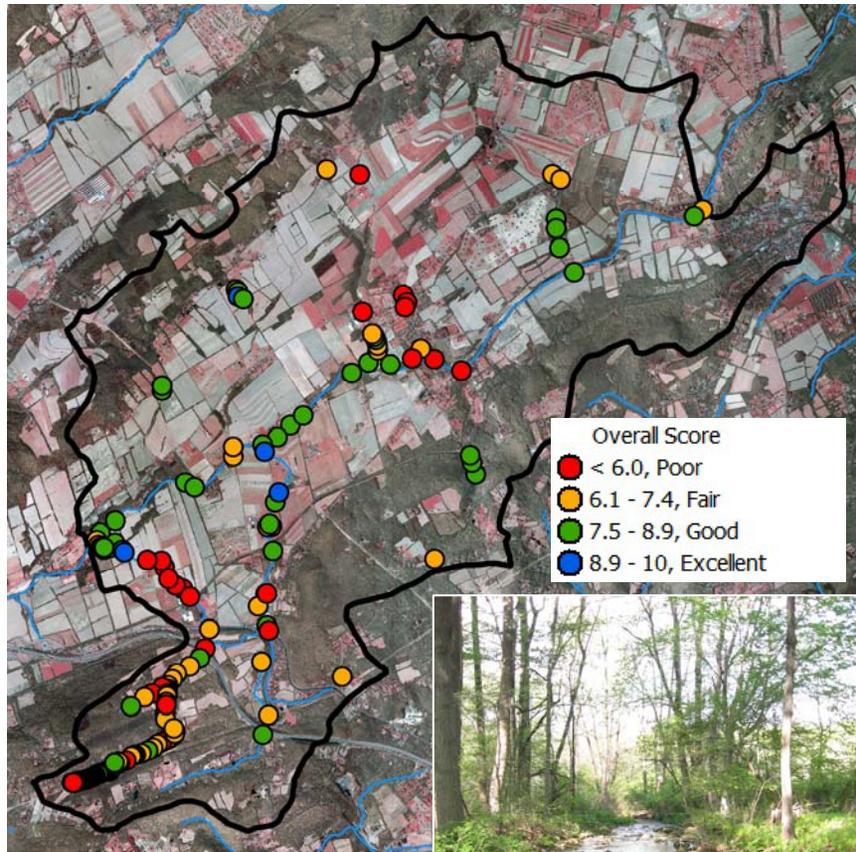
Upper Cohansey River



- 31 mi², 26 river miles
- 35 reaches assessed
- 86% Agriculture
- Addressing FC, TP TMDLs and aquatic life impairment
- Eroding stream banks, lack of riparian buffer, and water appearance scores are a focus
- Overall "GOOD"



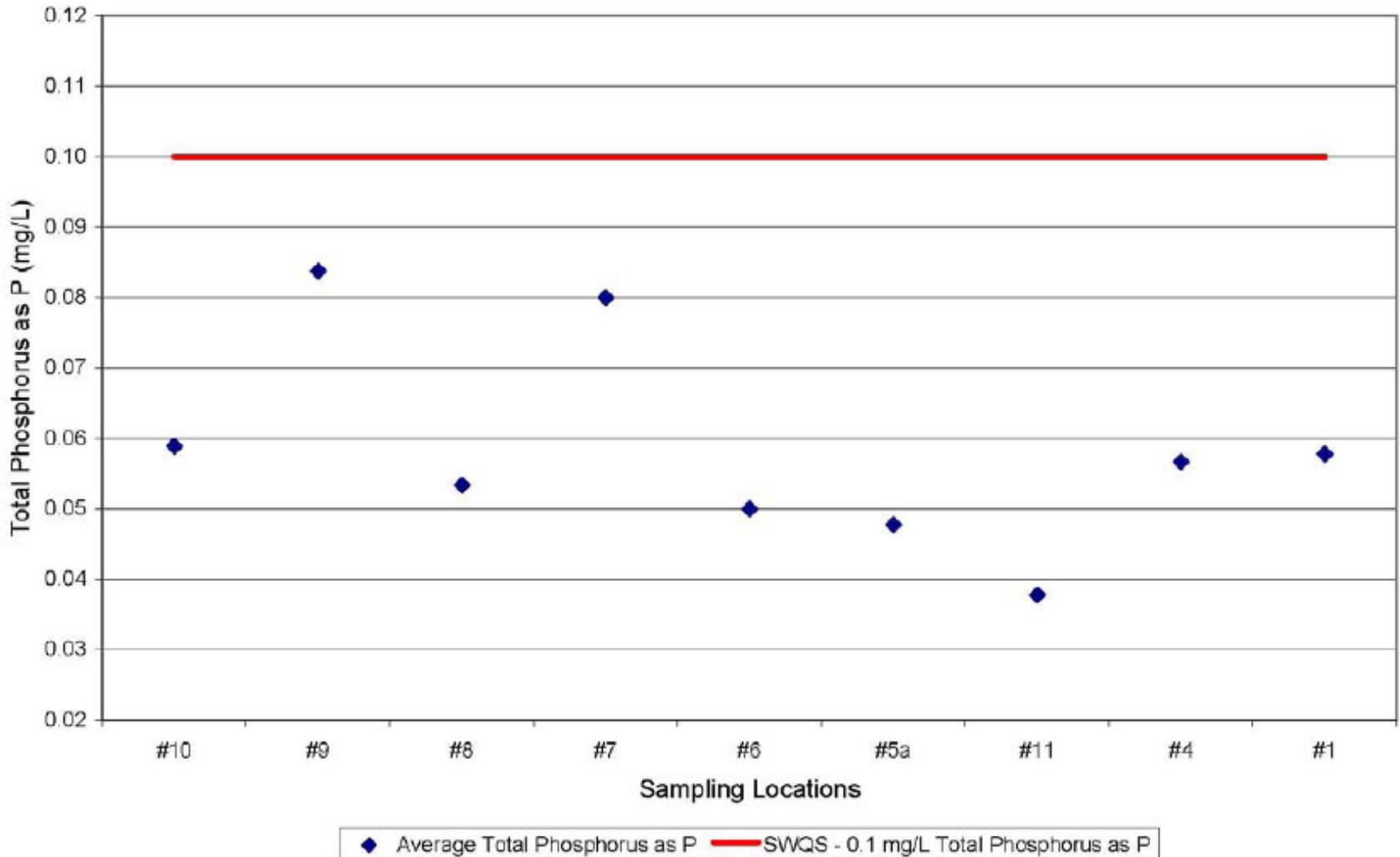
Musconetcong River



- 19 mi², 23 river miles
- 166 reaches assessed!
- Low and high gradient streams
- 45% Ag, 34% Forest
- EXCELLENT water appearance scores
- Pools and Barriers to Fish Movements were lowest scoring elements
- Opportunities for agricultural buffers documented as well as livestock and equine fencing

Musconetcong River - TP

Musconetcong River - Average Total Phosphorus

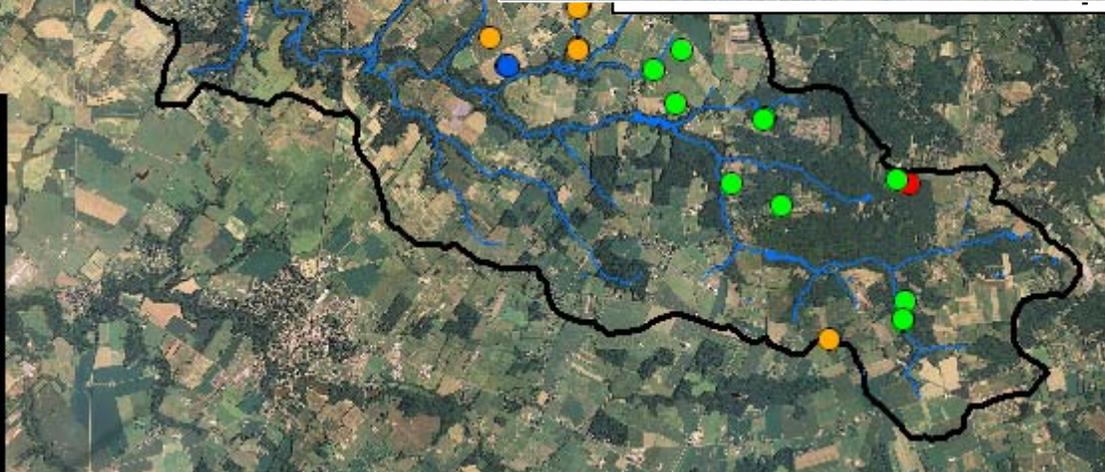
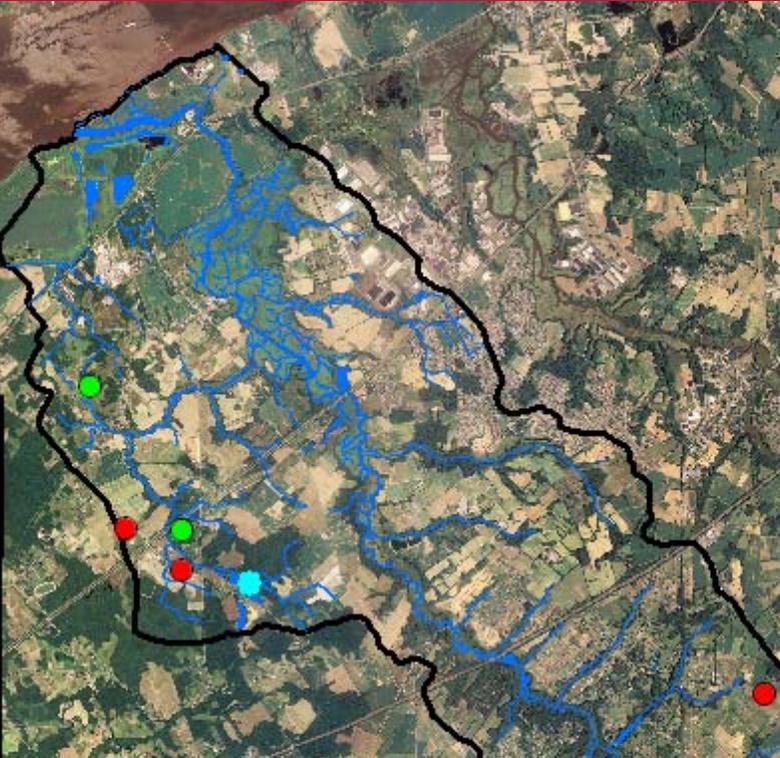


River

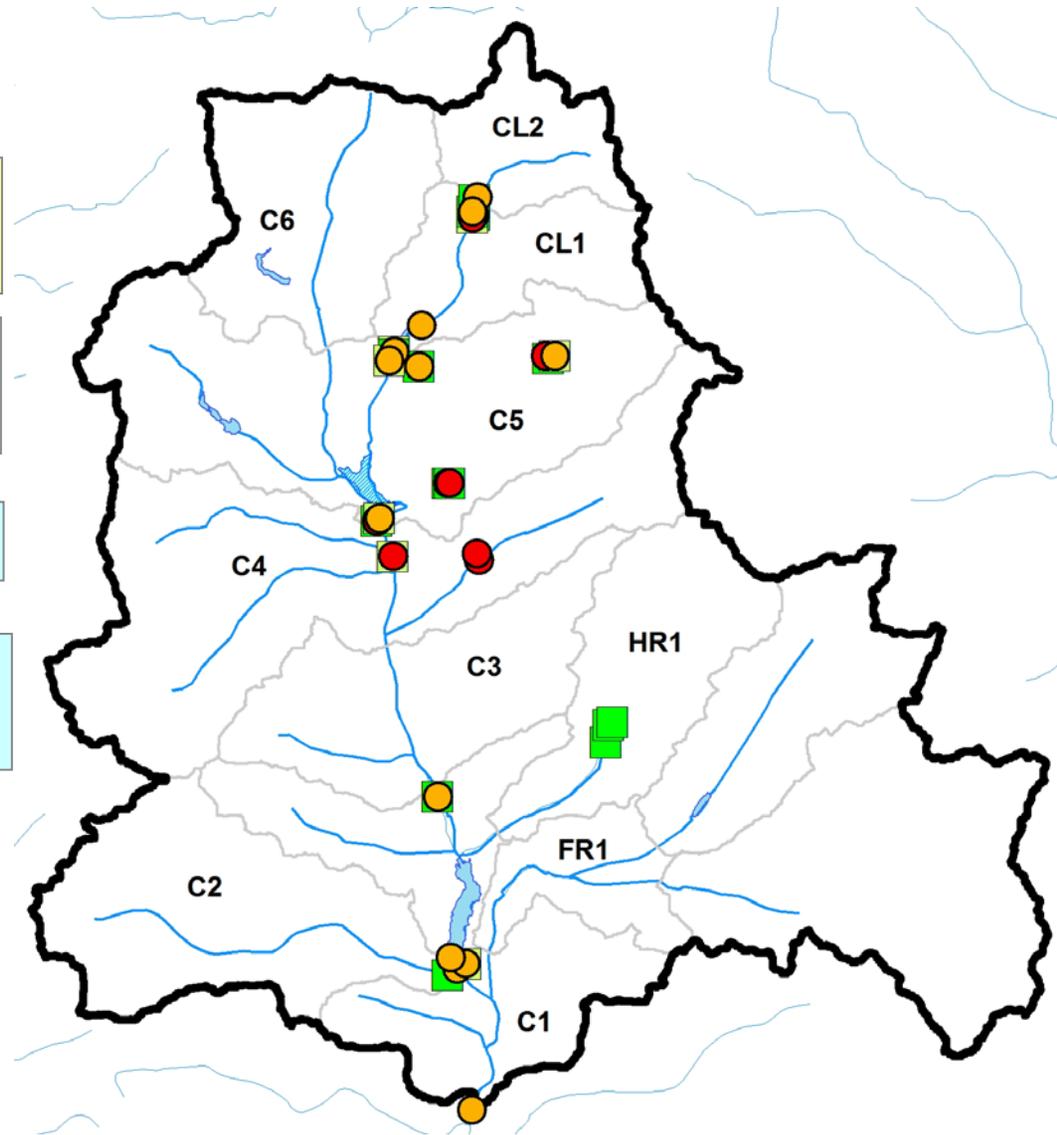
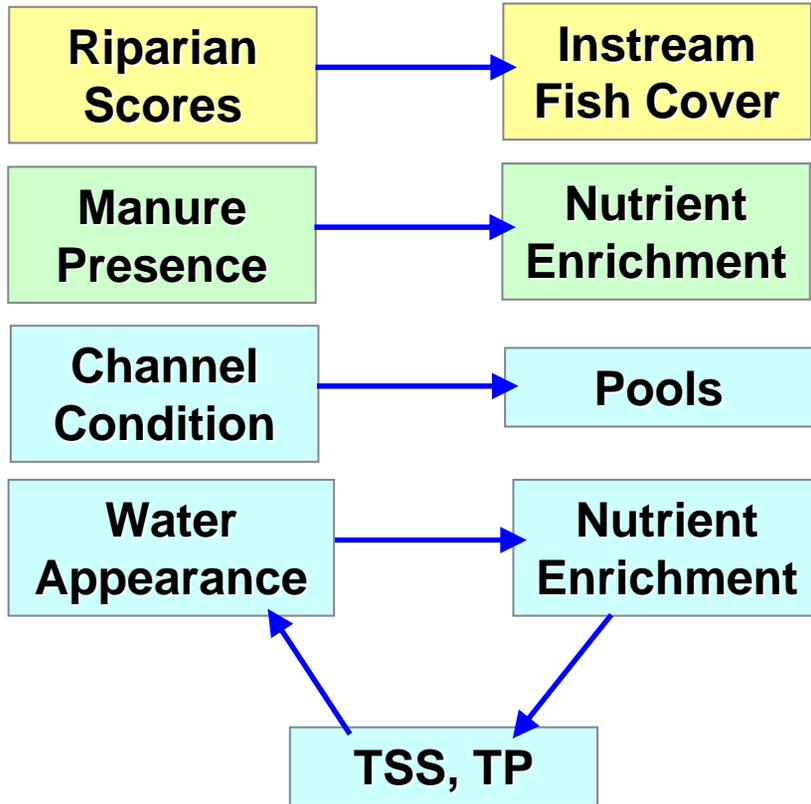
manure in stream
ge located in flood

of livestock access
e





Scores & Relationships



- Recommended materials and strategies:
 - Access to at least one GPS unit and digital camera
 - 2.5 hours of classroom training and group sessions in the field to discuss and score two locations (featuring different characteristics)
 - Dedicated volunteers who don't mind getting their feet wet and able to work in pairs
 - Homeowner willingness to participate (may wish to contact homeowners at the start of the project rather than later)
- Alert local authorities or work with a newspaper to announce what you are doing.

Establishing a Volunteer SVAP Program (cont'd)

- Reference reach
- Written account of what activity the volunteer is performing and contact information to be handed out to any homeowners who request more information
- A platform for decision-making for your volunteers – such as cold water fishery or warm water fishery. *Consistency is critical to the value of your data!*



- Online database developed for ease of data entry storage.
- Data downloaded as spreadsheet and GIS point file.



Welcome, Volunteer.
[Logout](#)

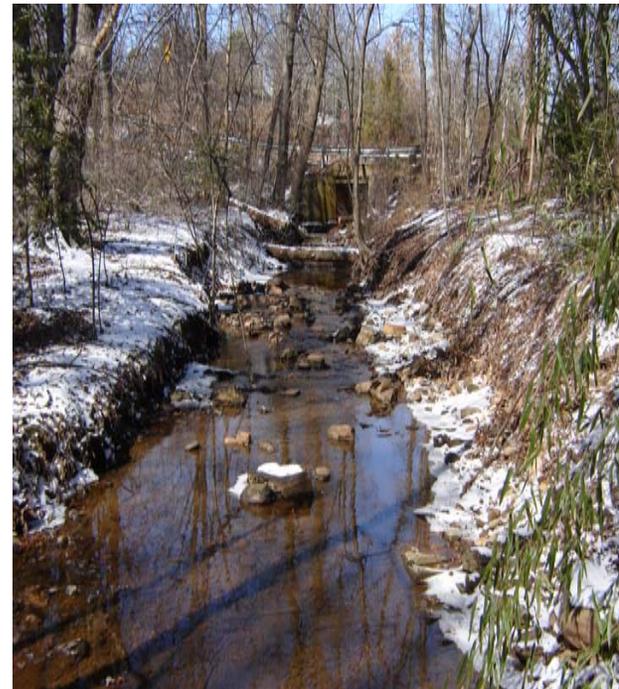
Site
Assessment
Landuse
Pipes
Ditches
Additional Info

General Site Info.

Project:	Upper Cohansey River
Evaluator's Name:	K. Buckley <small>J. Doe</small>
Date:	June 11 2006
Time:	3 : 16 PM
Property Owner's Name: (if applicable)	
Reach Location:	GC4R001 <small>GA1R001...</small> <small>For reach location, please identify the Grid Location and Reach ID according to the day that you are conducting the field work.</small>
Applicable Reference Site:	intersection of beal and route 40 <small>Intersection of Cake and Beal Roads.</small>
Latitude:	40° 55' 11" 40° 58' 16"
Longitude:	-74° 40' 02" -74° 59' 51"
Weather Conditions Today:	Clear Skies
Weather for Past 2-5 Days:	rain 3 days ago <small>heavy storms, light rain</small>
Active Channel Width:	12 feet

Upcoming Training!

- WHEN:** JUNE 13TH, 2008
- WHERE:** COOK CAMPUS CENTER
MULTIPURPOSE ROOMS A/B
59 BIEL ROAD
NEW BRUNSWICK, NJ
- REGISTER:** CONTACT CHERYL AT
CBURDICK@CEP.RUTGERS.EDU
(732) 932-9800 X 6106
- FEE:** \$35 WILL COVER DRINKS, PIZZA
AND COURSE MATERIALS.



If you have any questions, feel free to contact me at katieb@rutgers.edu. This presentation will also be available on our website, www.water.rutgers.edu.

THANK YOU!

This presentation would not have been possible without the hard work of organizations including the South Jersey Land & Water Trust, Cumberland-Salem Conservation District, Bergen County Department of Health Services, South Branch Watershed Association, Omni Environmental Corporation, Musconetcong River Watershed Association, North Jersey RC&D, New Jersey Water Supply Authority, RCE of Salem County and NJAES.







06/28/2006 11:43

