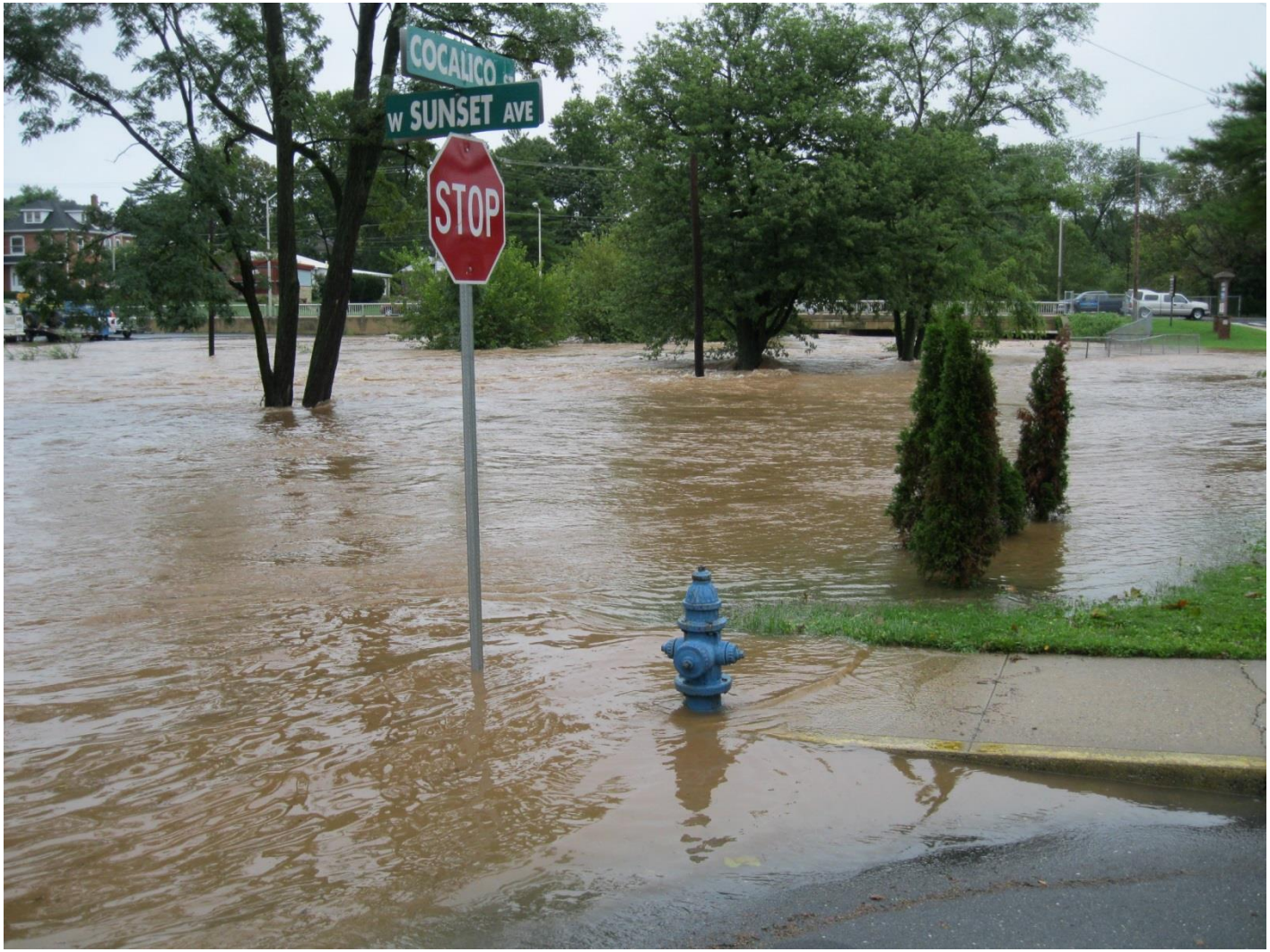
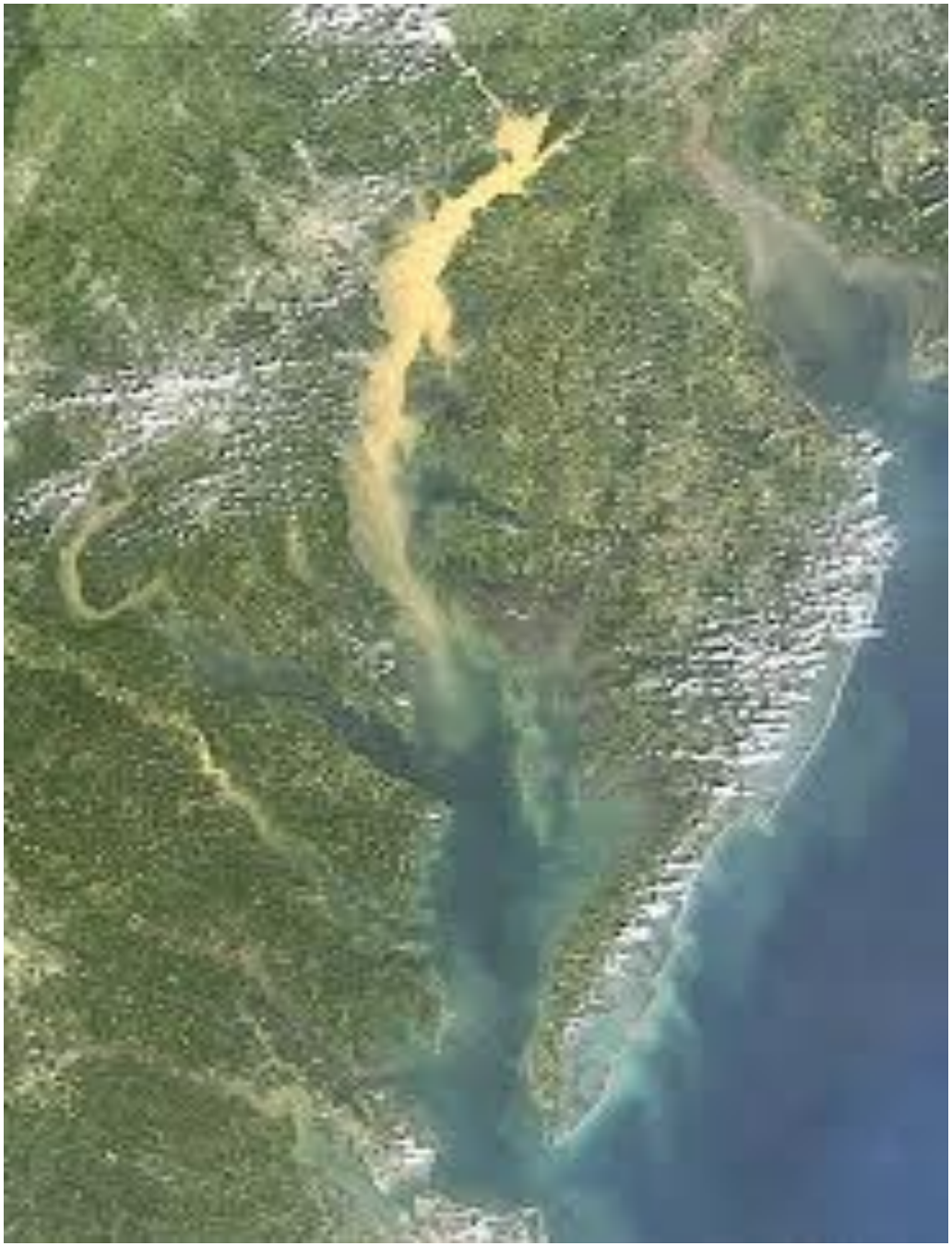
What Do We Need To Know About Storm Water?

Notice the color of the water in photo below?





Sorta Look Familiar?

Tropical Storm Lee
(13” rain in 1 ½ Weeks)

Cocalico Creek
"Impaired"

Conestoga River
"Impaired"

Susquehanna River
Not Listed Yet?

Chesapeake Bay??

Implication of an Impaired Cocalico Creek

- Impaired = Does not meet water quality standards:
  - Nitrogen
  - Phosphorous
  - Sediment
- Total Maximum Daily Load (TMDL) Limits coming in 2015 – we need to get ahead of this issue.
- Our Obligation is to reduce load to the Cocalico Creek
  - Under Federal Law – Clean Water Act
  - Under Municipal Separate Storm Sewer System (MS4) Permit – PA DEP

Ordinance for Storm Water

- Original Ordinance passed 10 years ago
- New Ordinance
  - General Concept – Every property owner is responsible for the rainwater that falls on their property
  - New ordinance intended to control volume of rainwater to the river (total gallons, not gallons per minute)
  - How?
    - Controlled run off
    - Infiltration
    - Evaporation
    - Storage for later use

Ordinance for Storm Water

- Examples:
  - Rain Gardens
  - Rain Barrels
  - Green Roofs
  - Trees, Shrubs, Wet lands
  - Buffer Zones along Stream
  - Pervious Paving Options
  - Amended Soils with Compost
  - Rock filled trench
  - Cistern

What's the Goal?

- Reduced loading to Cocalico Creek
  - Less nitrogen, phosphorous, sediment, flow
- Impact entire watershed – 140 square miles
  - South Mountain (Leb. Co.) to Conestoga River @ Brownstown
- Ephrata Borough – 4 square miles
  - We could do everything 100% of the time and the river could still be impaired
- Need to work with our neighbors
  - Cocalico Creek Watershed Association
  - Establishment of baseline for entire watershed
  - Seek "biggest bang for our buck" – largest impact may be outside of Borough.
  - All members benefit