Purpose of Workshop

To provide municipalities:

- an introduction to “impaired waters” and “TMDLs” in advance of anticipated regulatory requirements
- easy access to most reliable sources of information
- maps, documents, and GIS coverages tailored to the needs of Chester County municipalities
- a “practitioner's” perspective (not a “regulatory” perspective)
- suggestions on how to prepare for anticipated regulatory requirements
Key Topics

- What Is a Watershed
- Impaired Streams
- TMDLs in Chester County
- Municipal Role
- Agriculture Role
- Open Discussion

Website Soon Updated

- Chester County redesigned website
- Once redesigned website goes live (end January?), new content will be added
The material provided and presented in this workshop represents the best available information and understanding at the time it was prepared; however this information is intended solely for informational - not regulatory compliance - purposes. Any incorrect, misleading or incomplete information is unintentional. CCWRA requests that any errors please be brought to our attention.

Goal: Improving Streams

1. Understand your watershed and inventory your streams.
2. Stormwater regulations can be onerous.
   - Easier and cheaper to preserve streams before they degrade.
   - Re-evaluate your municipality’s resource protection strategies
     - Riparian Buffer Ordinance
     - Strengthening Stormwater Ordinance
     - Watersheds – Chapter 7 and 8
Improving Streams

3. To truly improve watersheds, there is a critical municipal role to protect and restore watersheds
   - Despite not having regulatory mandates
   - Ahead of/In addition to regulatory mandates

New Publication Available

- Pdf available of our latest brochure
- Captures precipitation
- Includes groundwater and aquifers
- Defined by a continuous ridgeline
- Subwatersheds or drainage areas
Elverson Borough
Drains to:
Chesapeake Bay and
Delaware Bay

2,348 miles of Streams

Presented by Chester County Water Resources Authority, January 14, 2011
Status of Chester County’s Streams

- As of 2010, 593 miles out of 2,300 miles declared impaired
  - 25% of Chester County stream miles

- Streams Impaired Within each Watershed:
  - Chesapeake: 24% impaired
  - Christina River Basin: 30% impaired
  - Delaware River Tribs: 7% impaired
  - Schuylkill River Tribs: 21% impaired
Federal
CLEAN WATER ACT
(1948)

States Required to
ASSESS and LIST
IMPAIRED WATERS

Pennsylvania’s
Clean Streams
Law (1937)

States Required to
SET GOALS for
POLLUTANT REDUCTION
(TMDLs)

To Control Water Pollution --- NPDES Permit program,
MS4 Municipalities Required to help MEET GOALS

Why are Streams Assessed?
Overview of PADEP 2010
Integrated List of All Waters

SEE HANDOUT

- Waters Assessed for Different Uses
  - Waters have been assessed mostly for aquatic life
  - Each water segment is listed in 1 of 5 Categories.
  - Different SEGMENTS of the same creek could be in different categories.
Using the Lists

List will determine:
- which stream segments are impaired,
- which have a TMDL and
- which will have a future TMDL.

To use the List online:
Determine the Hydrologic Unit Code (HUC)
Using the Lists

An example:

To use the List, go to Category 5:

Determine the Hydrologic Unit Code (HUC)

- Streams sorted alphabetically
- Unnamed tributaries have ID #
Using the Lists

To use the List, go to Category 5:

- Use mapping to determine streams names, or location of unnamed tributary (UNT)
  1. PADEP link to EMapPA or
  2. Download GIS layer from PASDA (PA Spatial Data Access) website or
  3. From CCWRA website, download our version:
      Chester County value-added PASDA GIS layer
      (added municipalities, watersheds, sources and causes split to help with sorting)
Chester County Impaired Waters Tool

- Download file into Excel
- Tool provides information about stream impairments at the municipal level:
  - # of miles for each source-cause of impairment
  - Name of watershed that contains impaired streams within your municipality
- Tool does not:
  - Define exact location (see map series)
  - Since there can be multiple impairments on the same stretch of stream, it may not be accurate to add together the number of miles for individual impairments to determine the Total Miles Impaired (see map series)

Chester County Impaired Waters Map Series

- From our website we will provide pdfs of individual maps for the 16 causes of impairments
  - 3 examples:
    - Impaired stream segments for siltation
    - Impaired stream segments for PCB
    - Impaired stream segments for habitat alteration
- NOTE: stream segments can have multiple causes of impairments for the same reach
Effective Municipal Strategy

**Restore Current Impairments**
**Prevent Future Impairments**

- Re-evaluate your municipality’s resource protection strategies
  - Riparian Buffer Ordinance
  - Strengthening Stormwater Ordinance
  - *Watersheds* - Chapter 7 and 8

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Resources Available Soon at CCWRA Website

- Meeting Materials
  - Power Point slides
- Tools and Information Resources
  - *What is a Watershed* (pdf)
  - Watersheds of Chester County Map (pdf)
  - Overview of 2010 Integrated List of All Waters
  - Link to PADEP 2010 Integrated List and Report
  - Impaired Streams of Chester County
    - pdf Map
    - GIS coverage - value added data breakdowns for impairments, watersheds and municipalities
  - HUC Map (pdf)
  - Chester County Impaired Waters Tool
  - Chester County Impaired Waters Map Series (16 impairments)
Look for the continuation of this slide show (Part 2: TMDLs) on Chester County Water Resources Authority website.