

Wissahickon Creek Watershed Act 167 Study

Kick-Off Meeting -October 7, 2010

Dr. Jeffrey Featherstone



Center for Sustainable Communities
TEMPLE UNIVERSITY®

Wissahickon Creek Watershed Act 167 Study

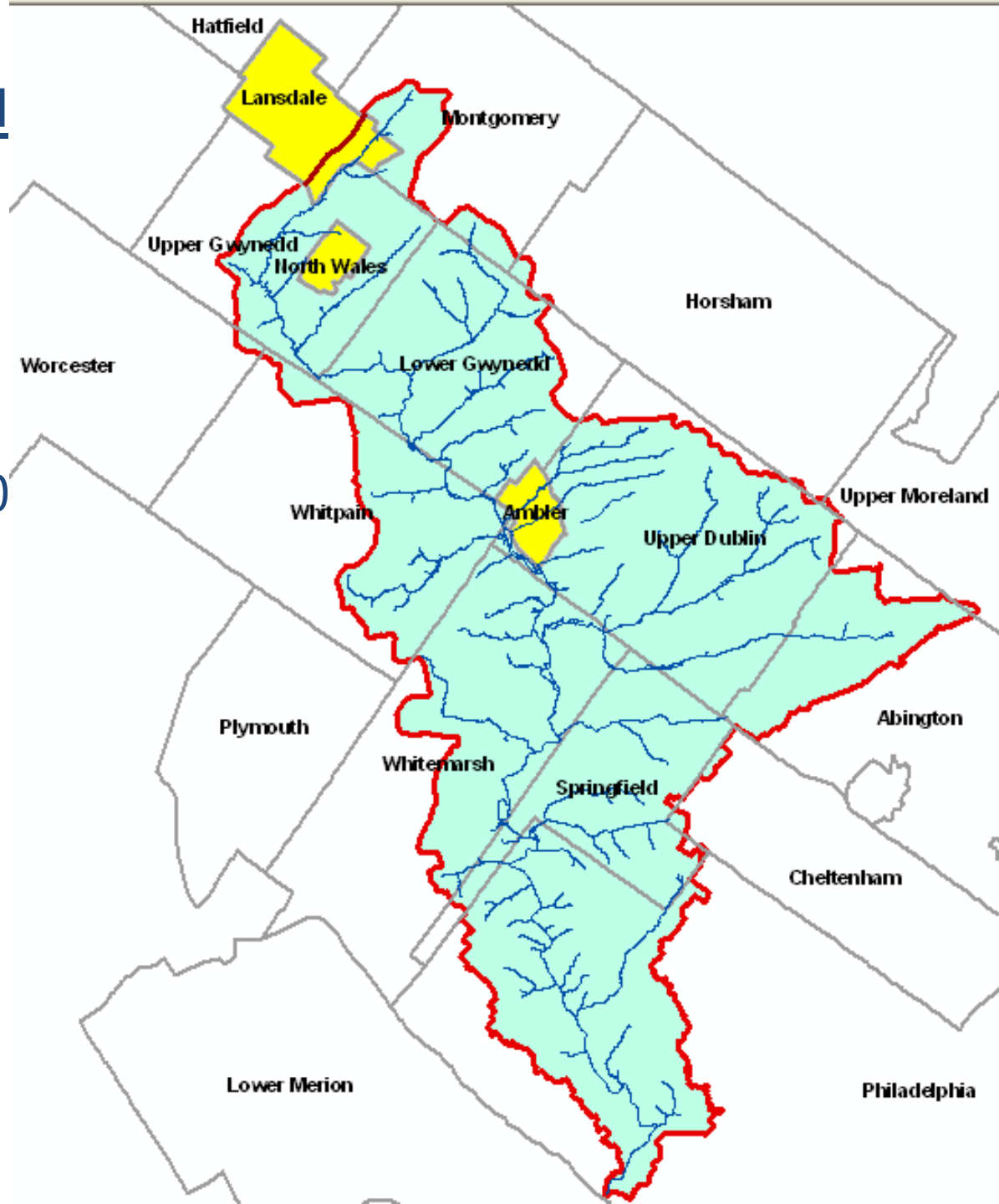
Key Features:

- ❑ **Lead: Center for Sustainable Communities
NTM Engineering, Inc.**
- ❑ **Timetable: October 2010 – March 2013**
- ❑ **20 Work Tasks**



Wissahickon Watershed

- * 64 Square Miles
- * 15 Municipalities
- * Population = 160,000

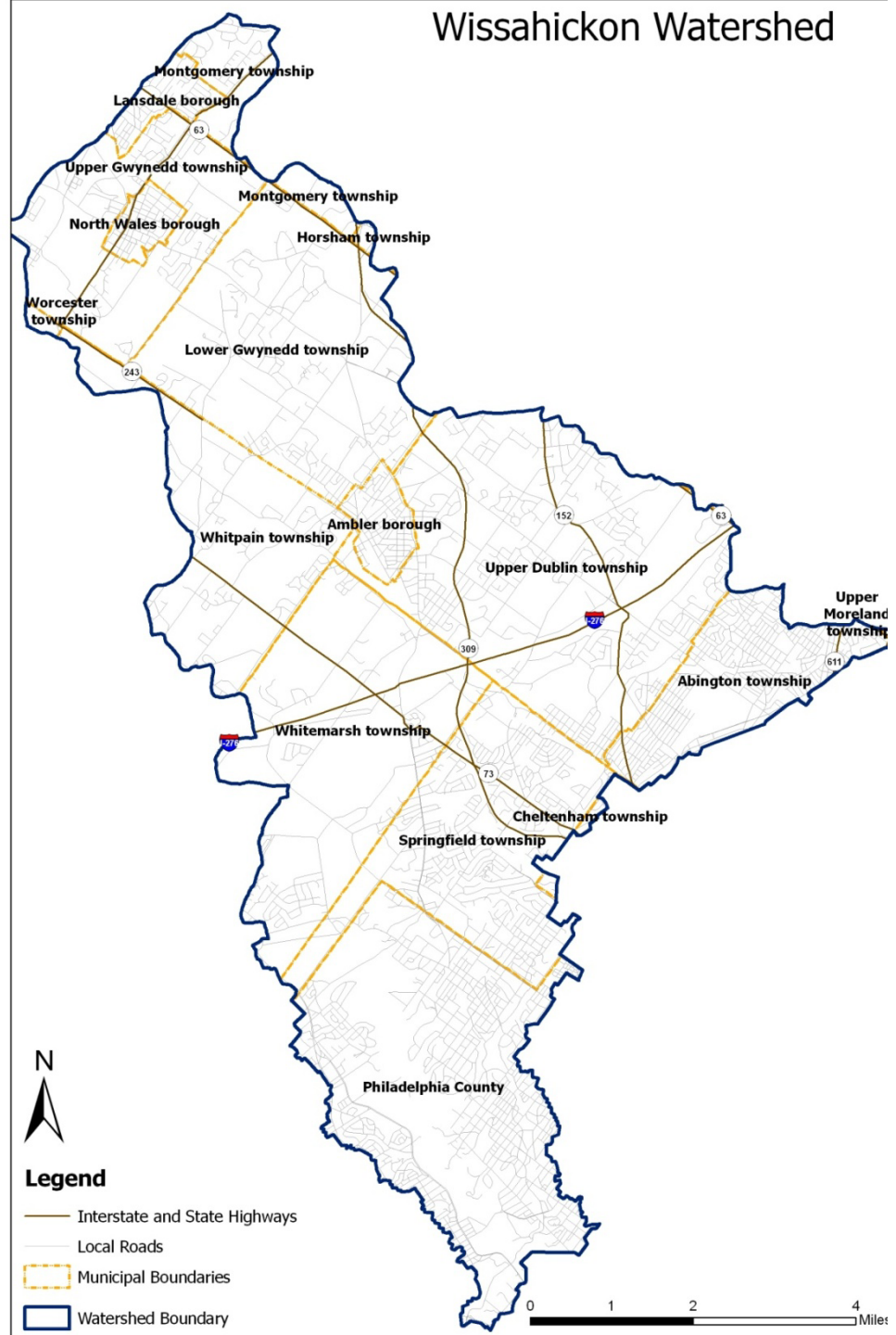


Major Highways

- PA Turnpike
- Rte. 309
- Rte. 73
- Rte. 63
- Rte 243
- Rte 611

Public Transit

- *SEPTA Rail
- *SEPTA Bus



Wissahickon Watershed Flooding

Major Recent Flood Events:

August 2009

September 2004

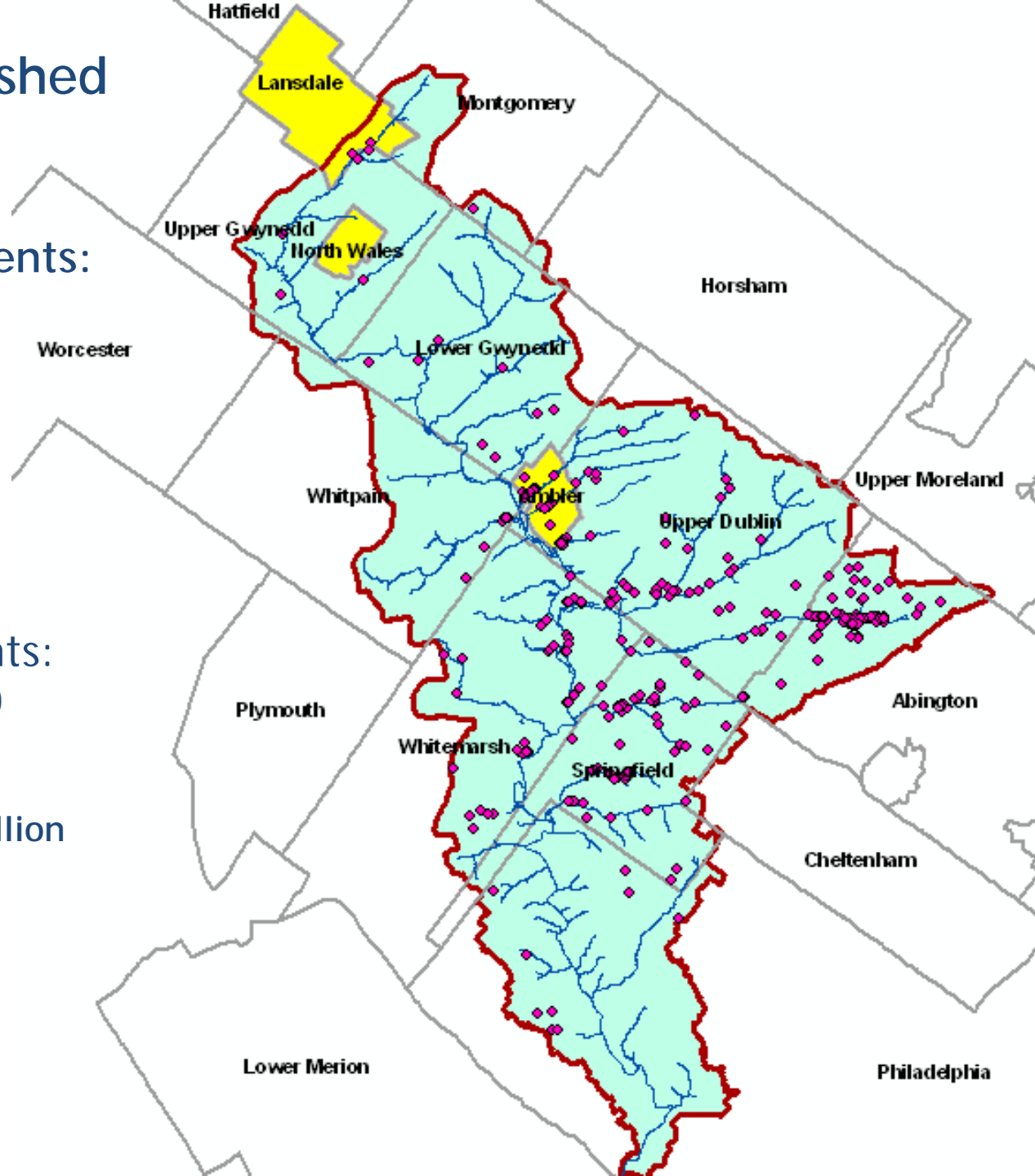
June 2001

September 1999

Flood Insurance Payments: January 1978 - March 2010

Total paid claims = 610

Total payments = \$26.2 million



Flood Insurance Data provided by FEMA.
Total claims payments do not represent
all flood damage.

Study Work Tasks

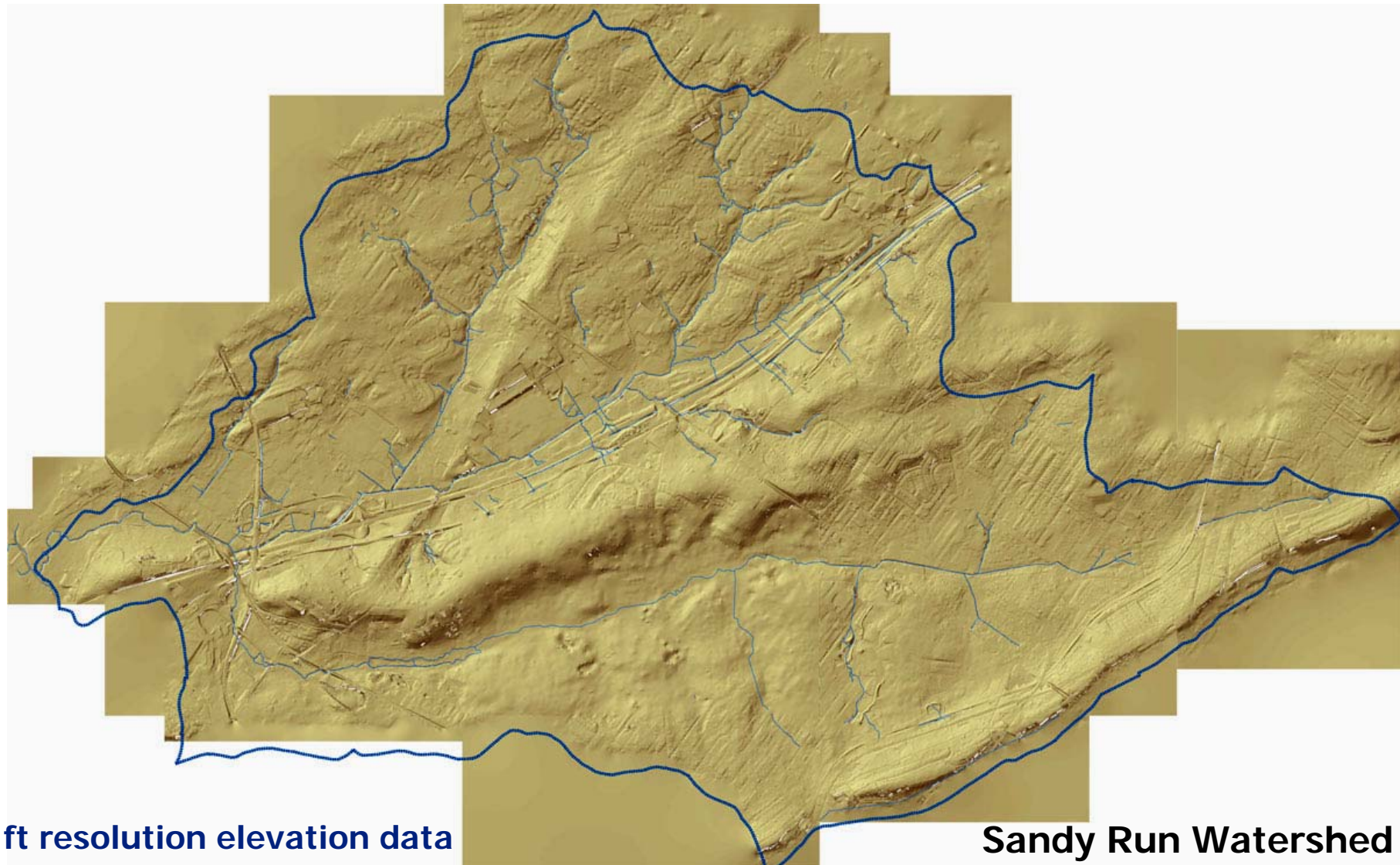
Tasks 1-5

- 1. Adjust DEM**
- 2. Map Streams**
- 3. Map Obstructions**
- 4. Field Work: Obstructions**
- 5. Field Work: Stormwater Improvements**

Data

| GIS Data | Likely Source |
|---|---|
| County and municipal boundaries | PennDOT or DVRPC |
| Road centerlines | PennDOT or DVRPC |
| Streams | PWD |
| Water bodies | PWD, PennDOT, or Counties |
| Watershed boundary | PWD will delineate the watershed from (DEM) and provide it to NTM. |
| Wetlands | U.S. Fish and Wildlife Service National Wetlands Inventory (NWI), PWD |
| High Resolution Digital Ortho Photographs | DVPRC |
| Digital Elevation Model (DEM) | PWD |
| Existing Land Use | DVRPC |
| Future Land Use | DVPRC, CSC |
| Impervious Surface Areas | PWD, PASDA |
| Hydrologic Soil Groups | USGS, PWD |
| Geology | USGS, PWD |
| Obstructions | PWD, CSC |
| Floodplains (FEMA Q3) | FEMA |

Fort Washington Area Flooding and Transportation Improvement Study



2 ft resolution elevation data





Sandy Run Watershed

Stream Comparison

Pennypack Creek Watershed



0 250 500 1,000 Feet

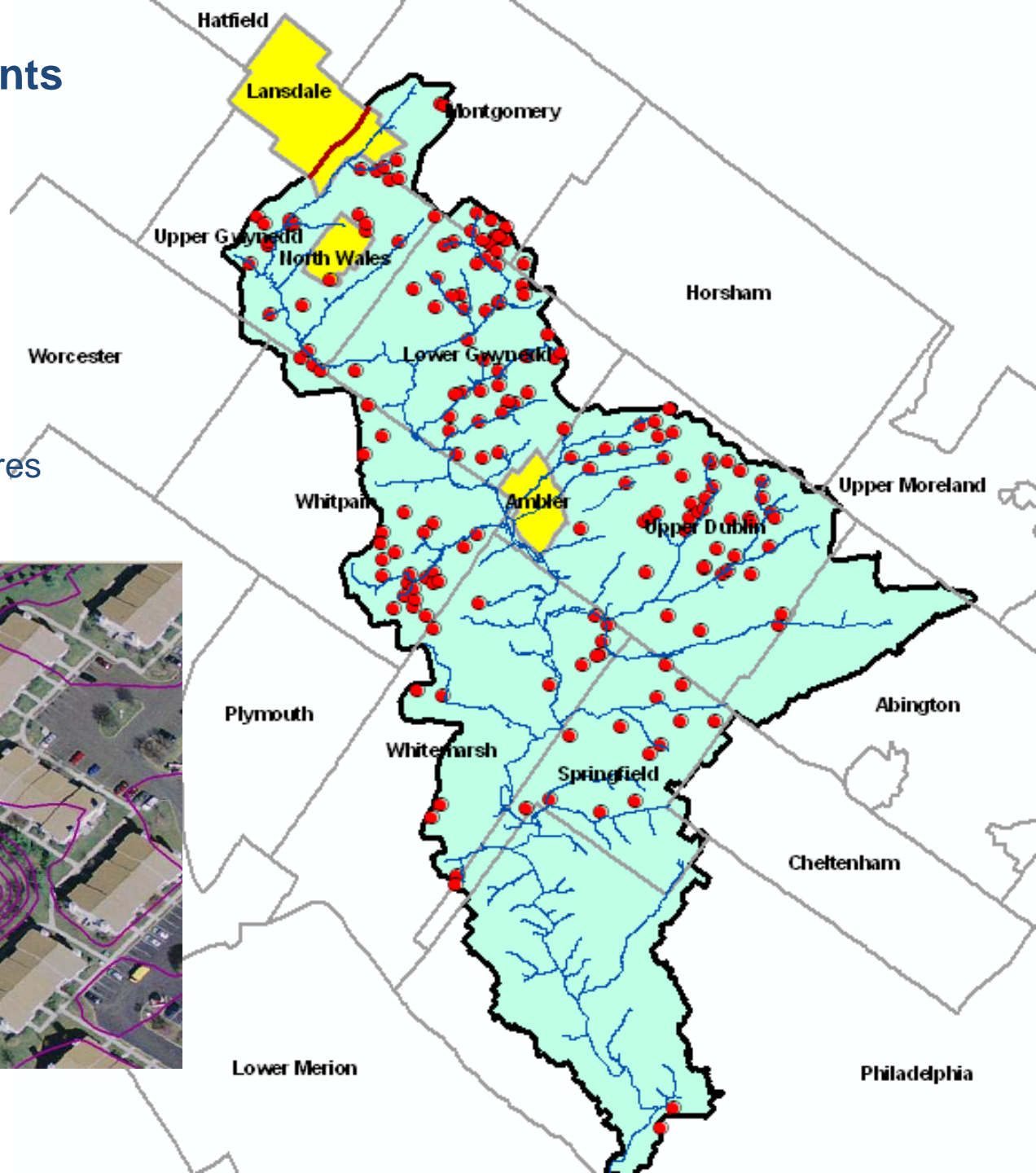
 New Stream  DVRPC Stream  ESRI Stream  PWD Stream



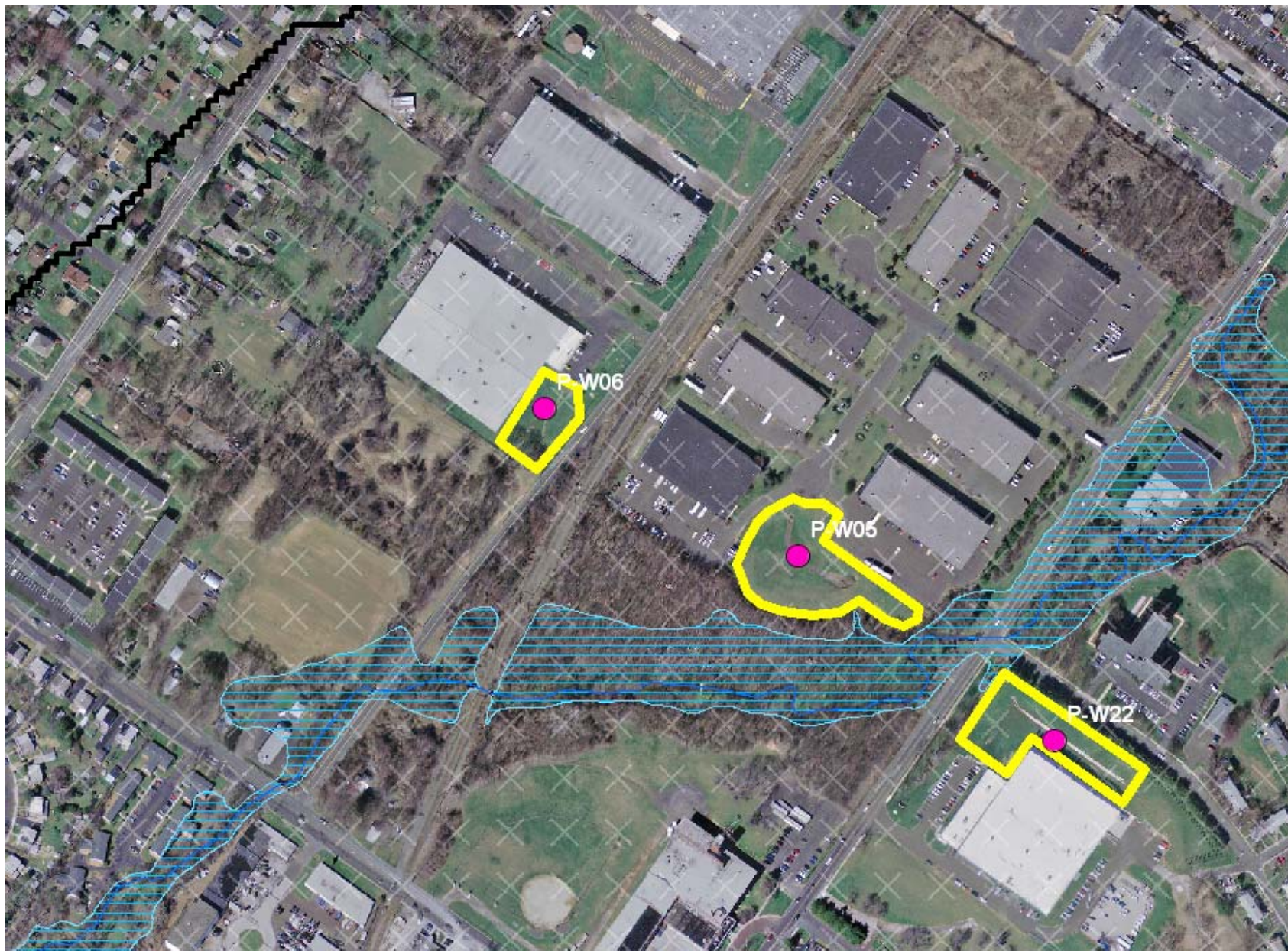
Stormwater Improvements

2009 Work for the PEC identified potential additional storage sites.

Detention Sites – 240 Acre-Ft
Infiltration Sites – 118 Acres
Riparian Buffers Rest.– 407 Acres
Total Volume – 294 Acre-Ft



The analysis completed for the PEC would be re-evaluated and expanded to include additional facilities that could be expanded, and potential new areas



Sandy Run

A detailed study of flooding and potential Stormwater improvements was completed for the Sandy Run portion of the watershed in 2009 by the Center for Sustainable Communities.

This would be expanded to the rest of the Wissahickon watershed if funding is obtained.

