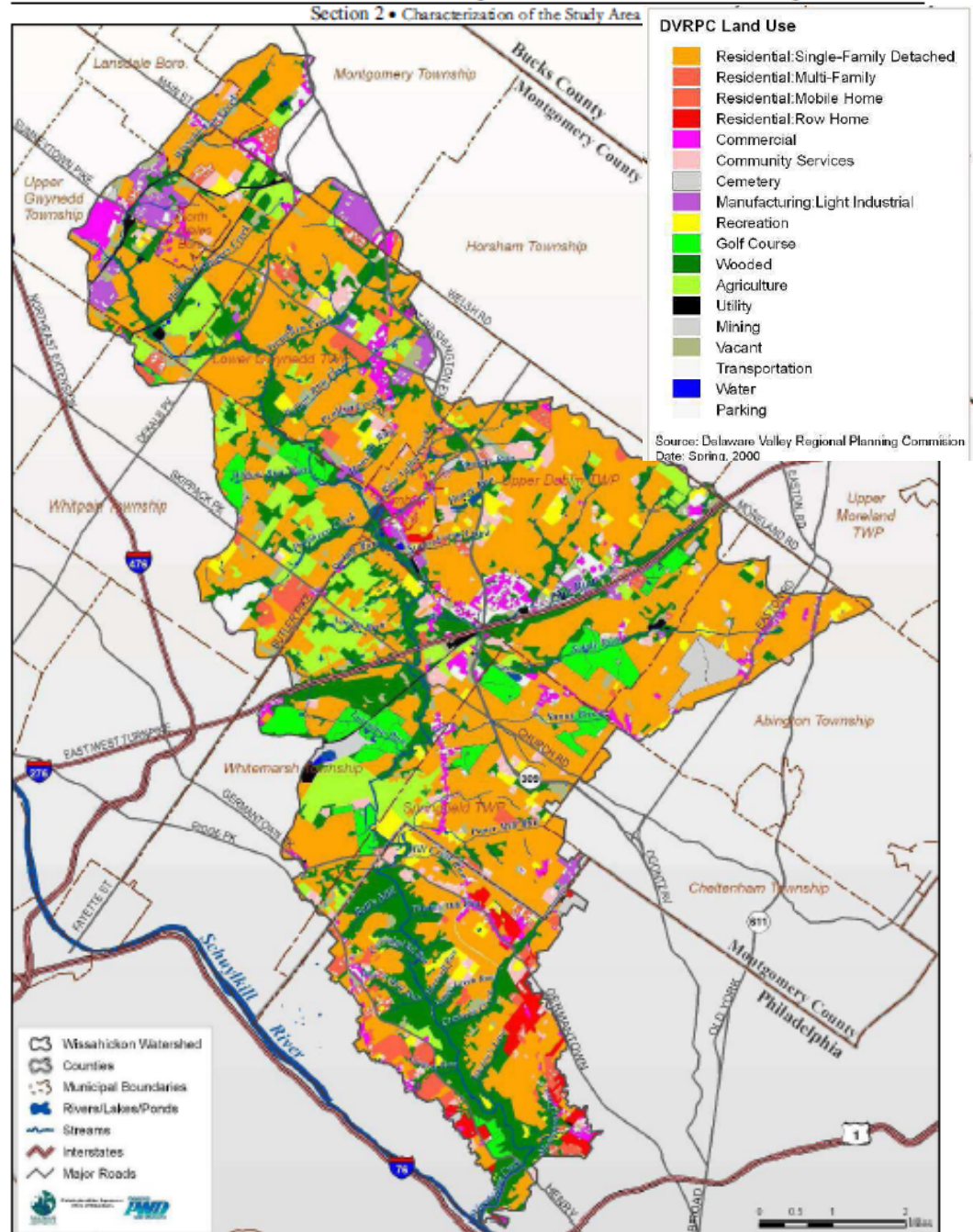


Study Work Tasks

Tasks 6-10

- 6. Update Land Use and Other Data**
- 7. Develop Land Use Scenarios**
- 8. Develop Hydraulic Model**
- 9. Prepare Flood Insurance Rate Maps**
- 10. Evaluate Obstruction Capacity**

Land Use in the Wissahickon Watershed



Source:
Delaware Valley Regional Planning
Commission, Spring 2000.

Reference:
Wissahickon Comprehensive
Characterization Study,
Philadelphia Water Department
Office of Watersheds, 2007

Figure 2-6 Land Use in the Wissahickon Creek Watershed

NO SWIMMING

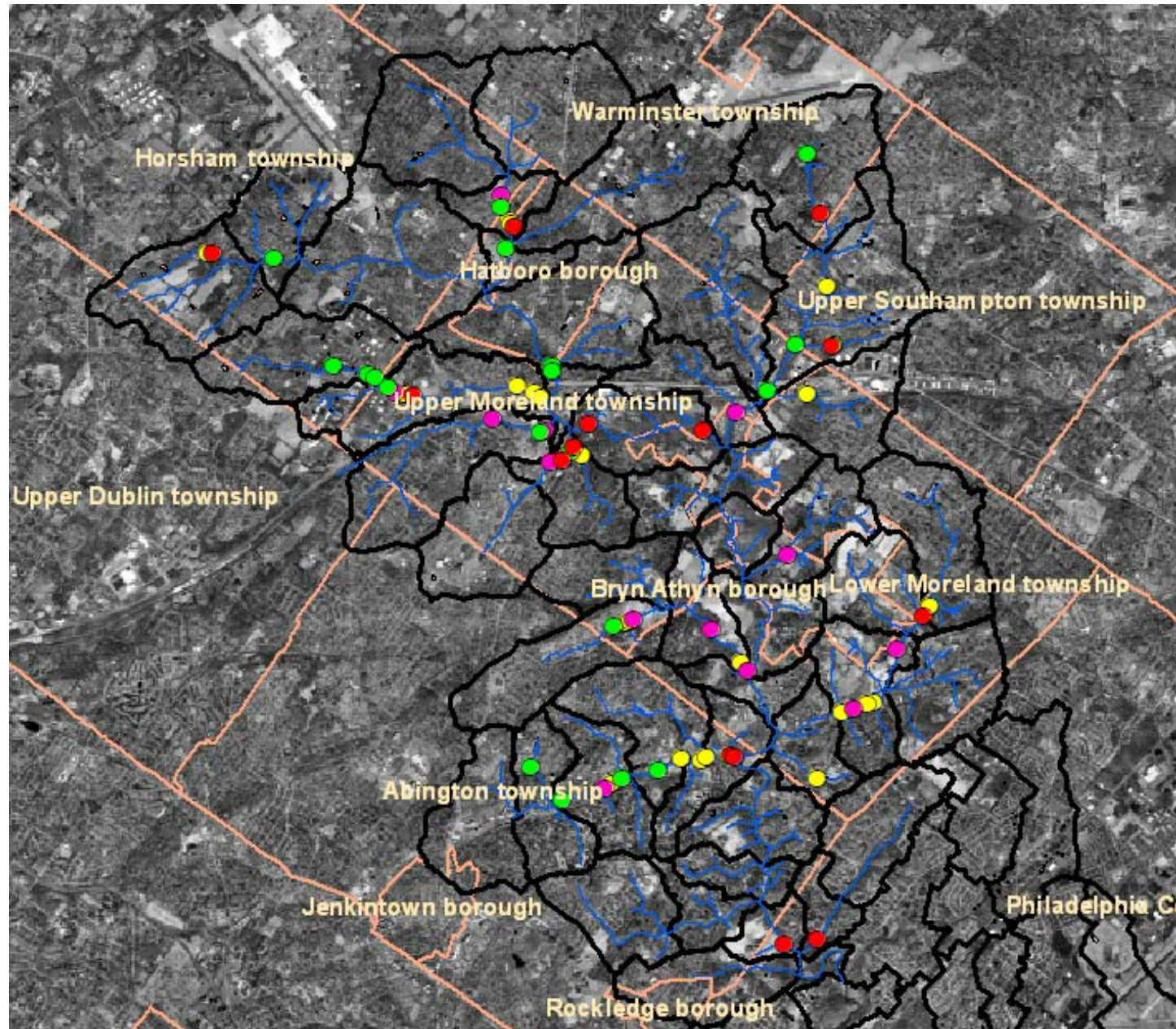




Example: Identification of Floodprone Bridges - Pennypack Watershed

Overtopped By:

- ≥ 1 -Yr Storm
- ≥ 2 -Yr Storm
- ≥ 5 -Yr Storm
- ≥ 10 -Yr Storm



Study Work Tasks

Tasks 11-15

11. Conduct Modeling with Improvements

12. Depict Flood Hazard and Other Problem Areas

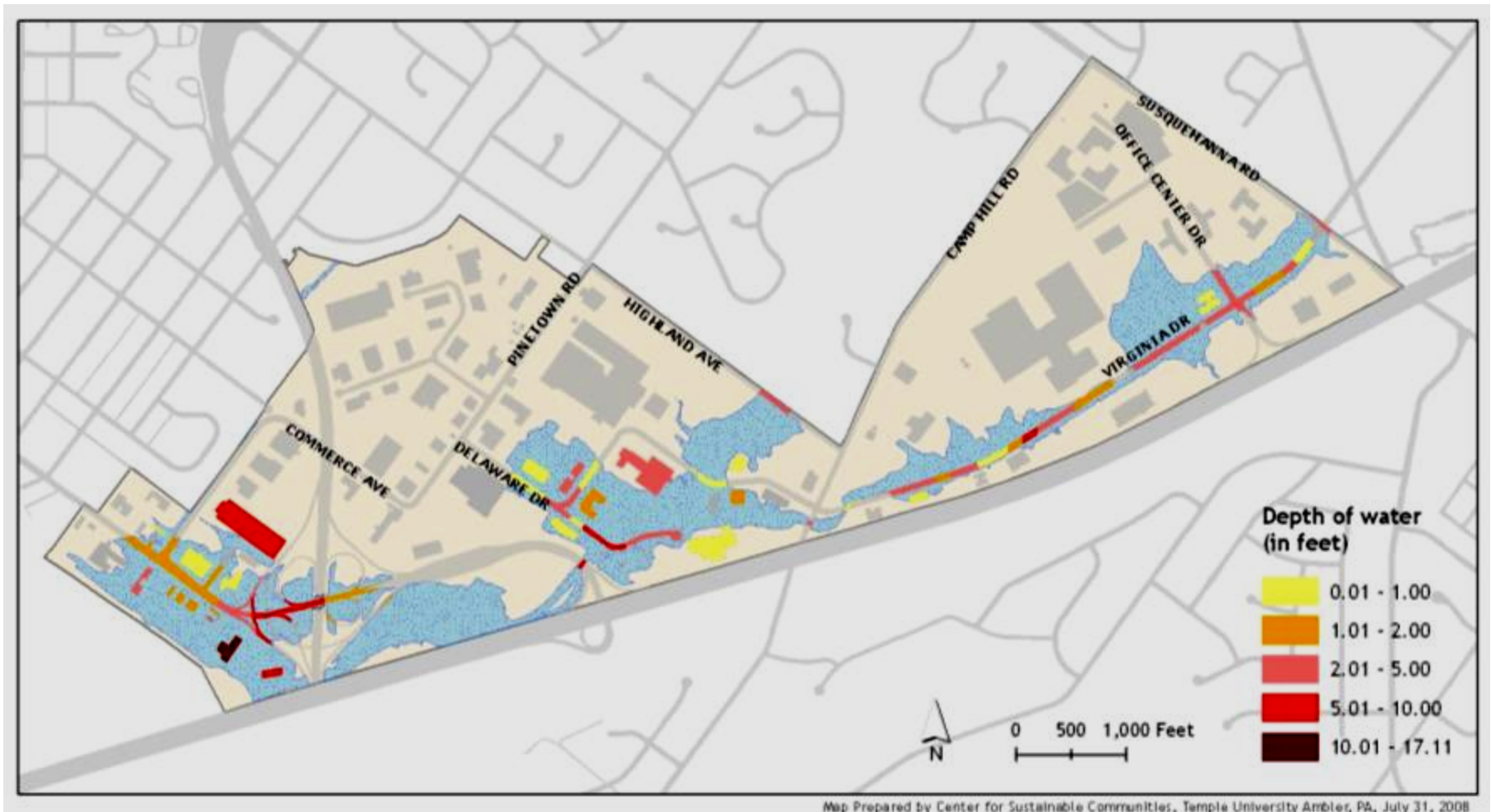
13. Develop Costs for Stormwater Improvements

14. Develop Control Standards

15. Prepare Act 167 Ordinance

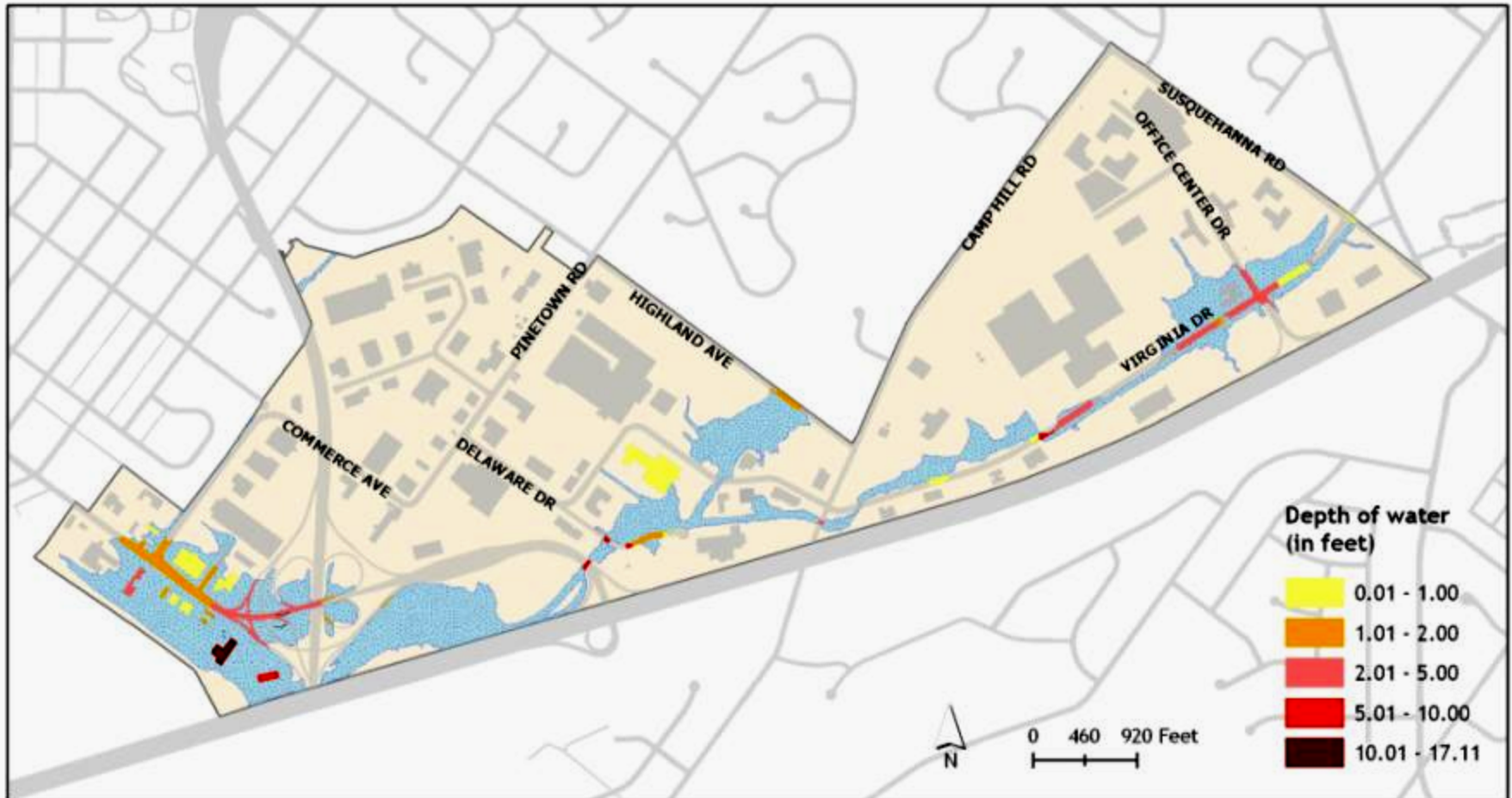
Example: Before and after improvements - Sandy Run Watershed

2-Year Floodplain and Flood Depths before Improvements



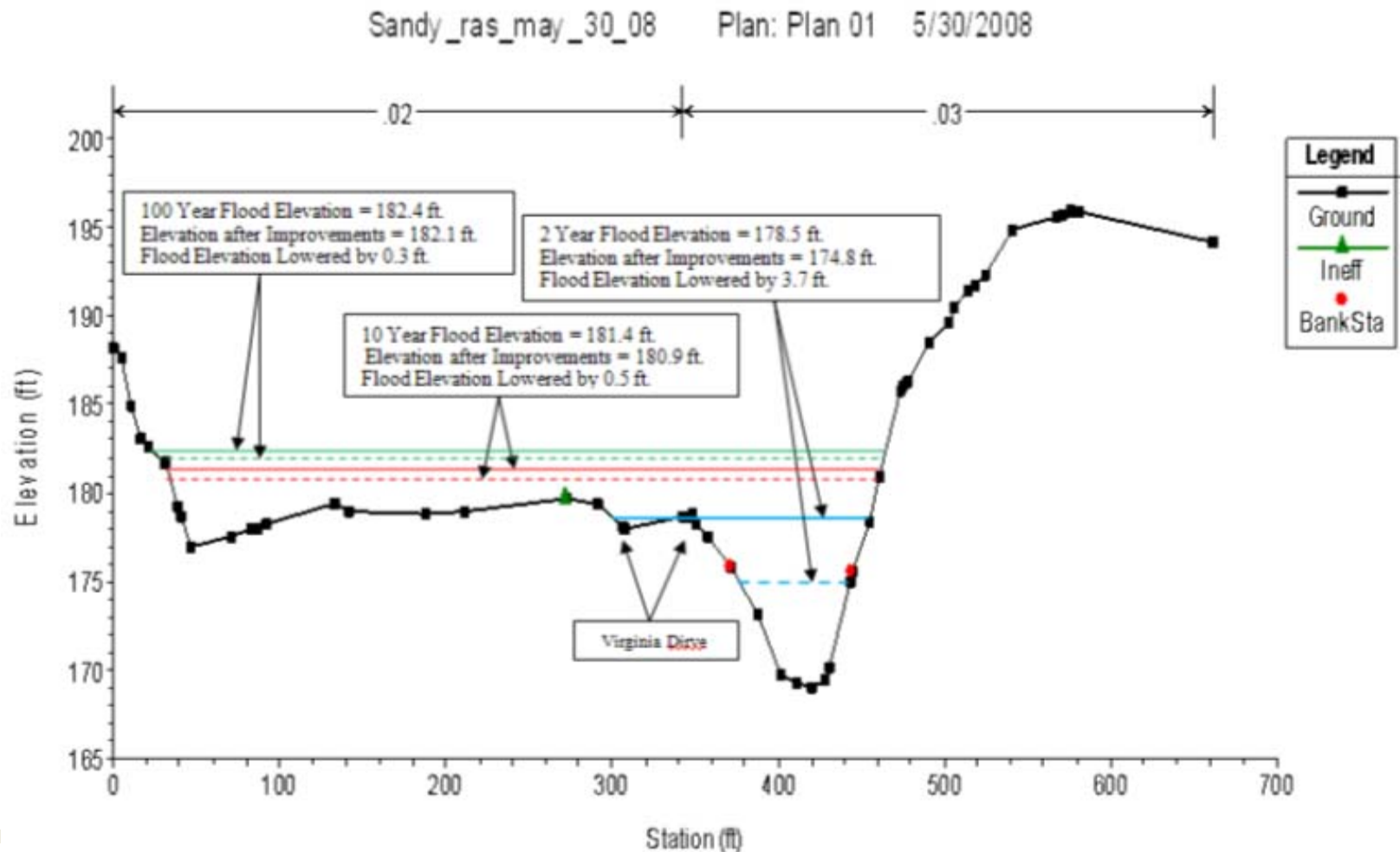
Example: Before and after improvements - Sandy Run Watershed

2-Year Floodplain and Flood Depths after Improvements



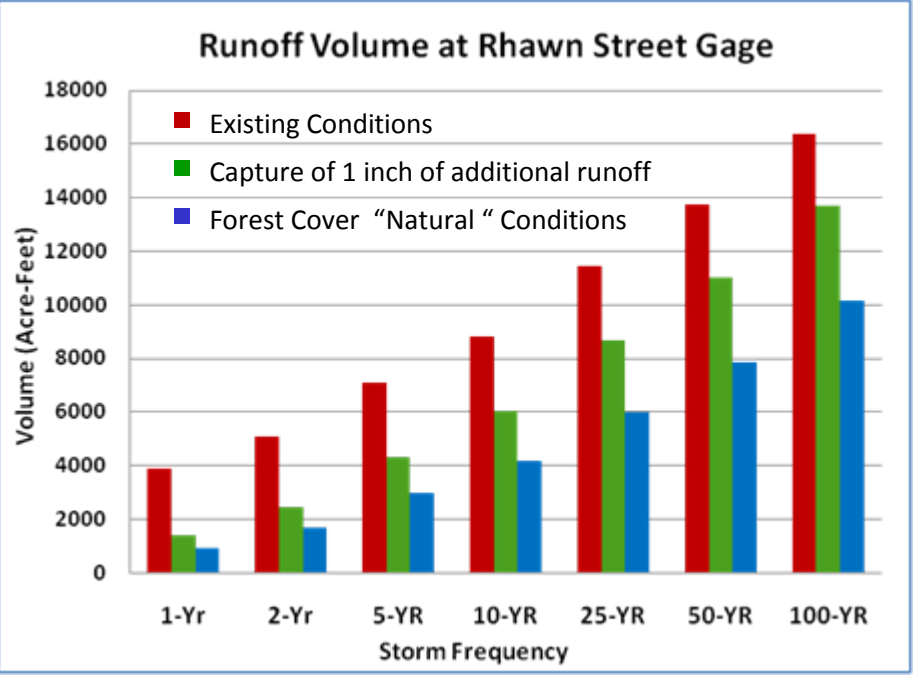
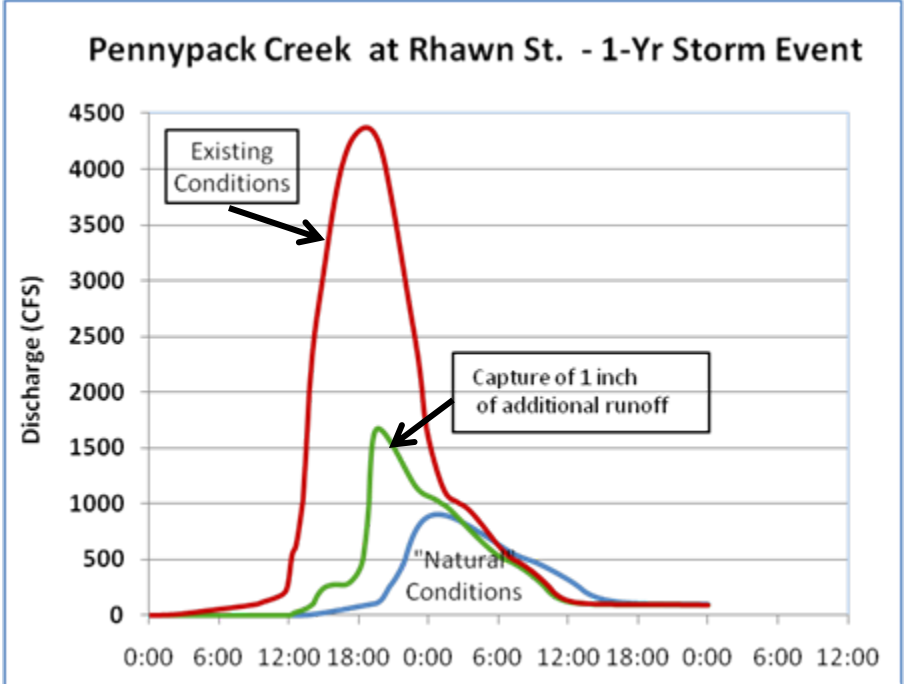
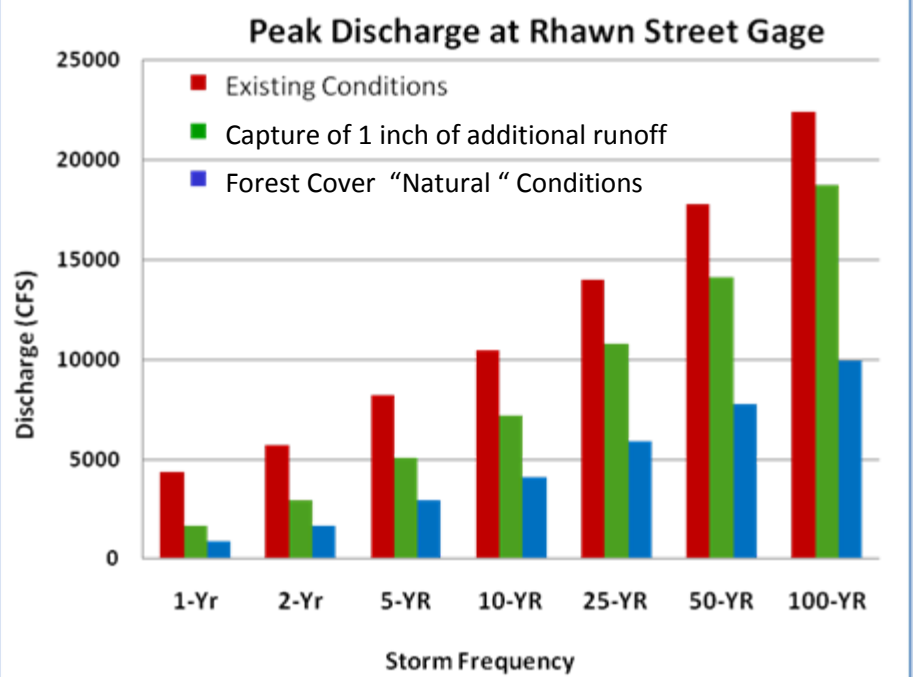
Example: Before and after improvements - Sandy Run Watershed

Cross Section 415 showing 2, 10, and 100 Year Flood Elevations Before and After Improvements



Capture of Additional 1 inch of Runoff

- Location: Pennypack Creek at Rhawn Street
- Total Precipitation for 1-Yr Storm = 2.98 inches
- Effects shown are for distributed BMP's and "Green Infrastructure" approach.
- Natural conditions results assumes a Curve Number for Forest Cover of 63.



Many existing detention facilities do not retain significant runoff from small events. These events account for a large portion of annual runoff volume.

Precipitation Events 2007

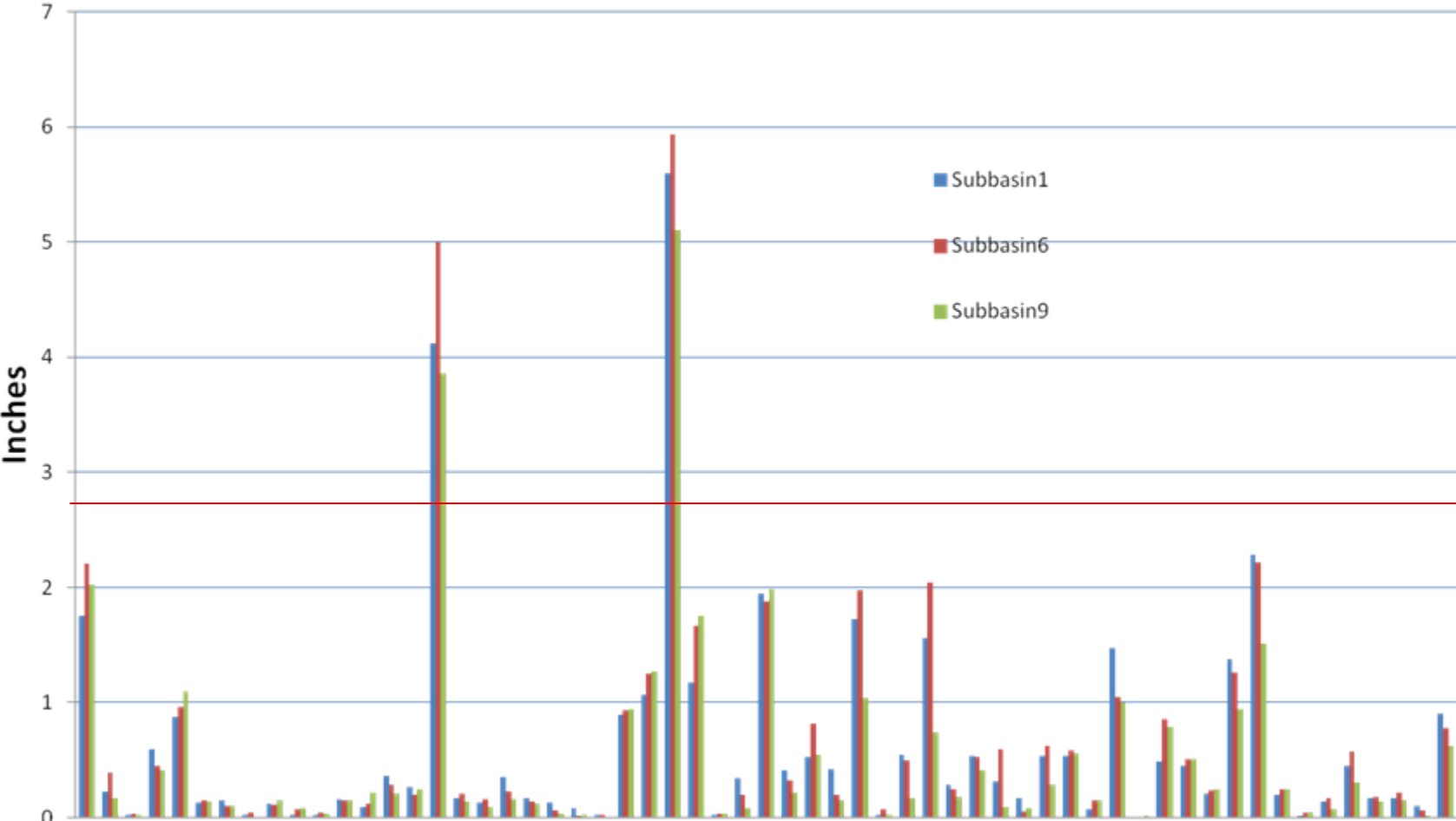
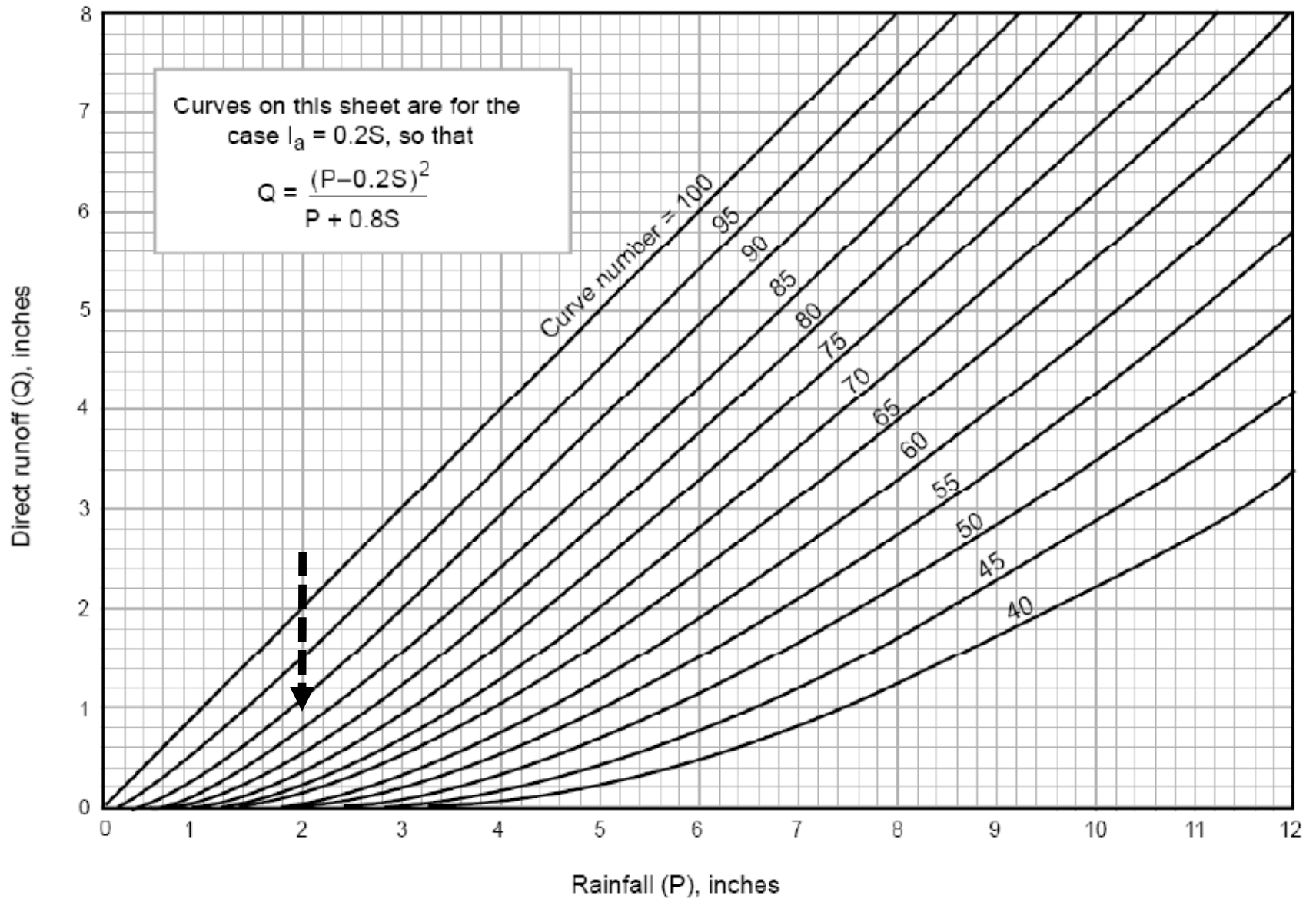


Figure 2: Solution of the NRCS runoff equation

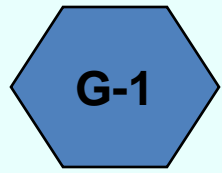


WATERSHED	FORM COMPLETED BY	INSTRUCTIONS
Name:	Name:	Diagram each system on the appropriate map. Establish map points to show changes in system elements, pipe size, or pipe direction. (If unknown, outline the system extent.) Complete this form only where specific information on construction is available. Use a separate form for each system. Identify the points within a system consecutively (ex. G-1,G-2,G-3). Start the first point in each additional system 20 numbers higher. For example, G-3 ends one system, so G-23 begins the next. See Sample Diagrams & Form on Reverse.
Municipality:	Telephone:	
County:	Date:	

Map I.D. No.		System's Elements (x)			Measurements *			Material	Year Constr.	Design Data Available	Contact Person Name and Phone	Name of Final Ownership and Maintenance Responsibility
From	To	Pipe	Open Channel	Swale	Pipe D	Channel / Swale TW	B					
G-	G-											
G-	G-											
G-	G-											
G-	G-											
G-	G-											
G-	G-											
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G-	G-											
G-	G-											

* See measurement key on reverse side.

FORM G - EXISTING STORM WATER COLLECTION FACILITIES



Study Work Tasks

Tasks 16-20

16. Prepare Draft 167 Plan

17. Submit Draft Plan

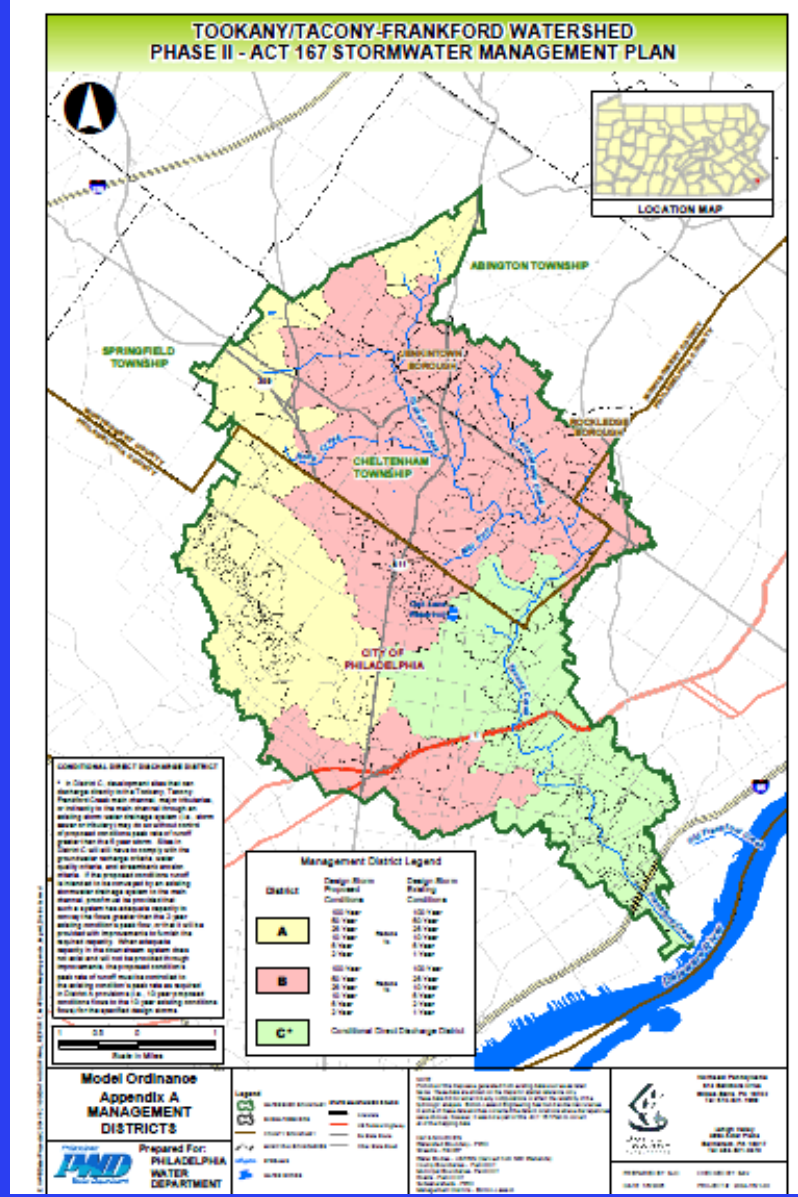
18. Project Oversight

19. Partnership Meetings

20. Submit Final Plan

Final Products:

- Inventory of detention basins with proposed retrofits
- Inventory of problem areas with proposed solutions
- Final report
- Model Stormwater Mgmt Ordinance
- Criteria and standards for storm runoff from new and expanded development



CONTACTS

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