



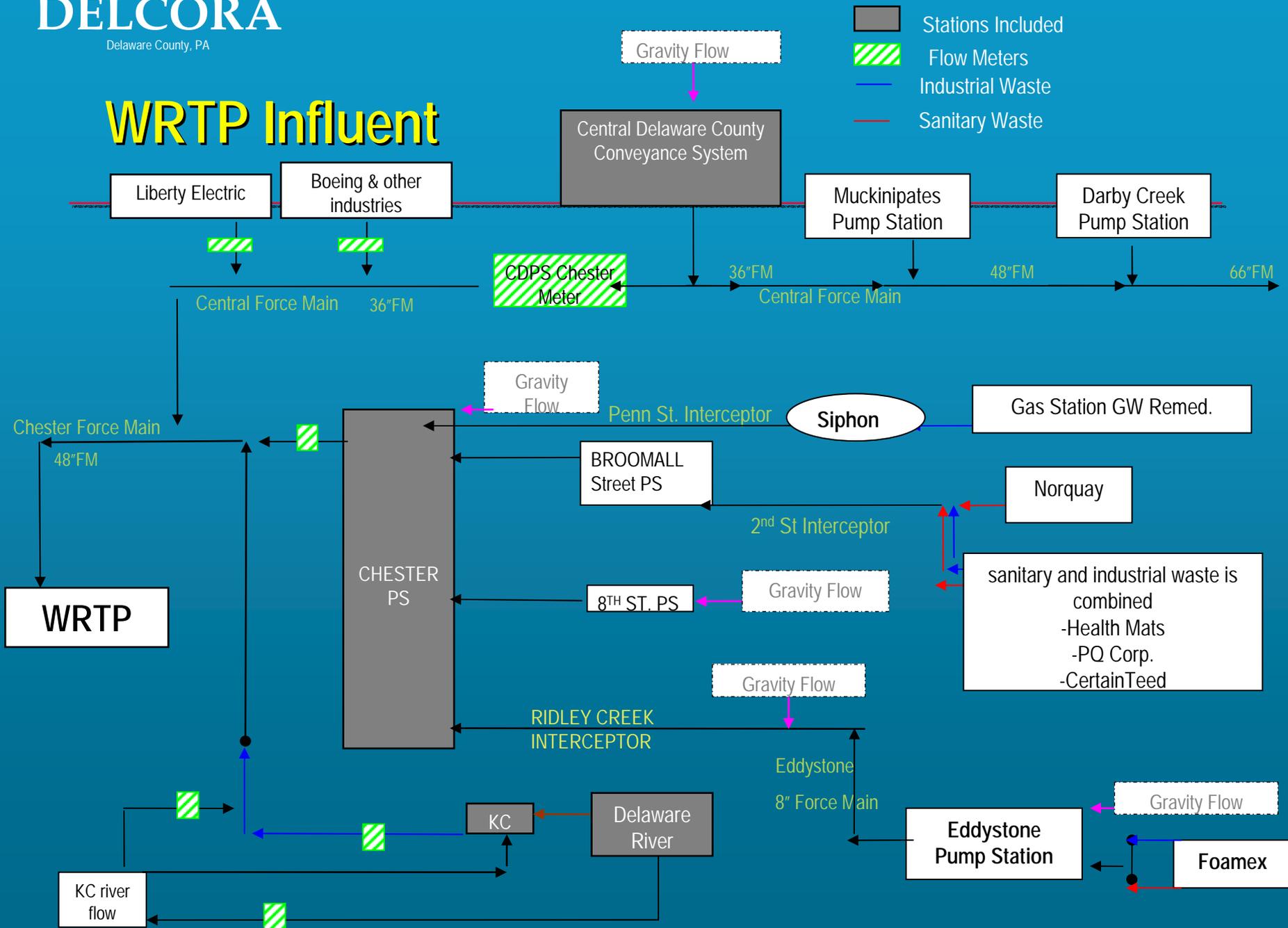
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***The DELCORA Experience***  
***With***  
***the PCB PMP***

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**Technical Services Manager**

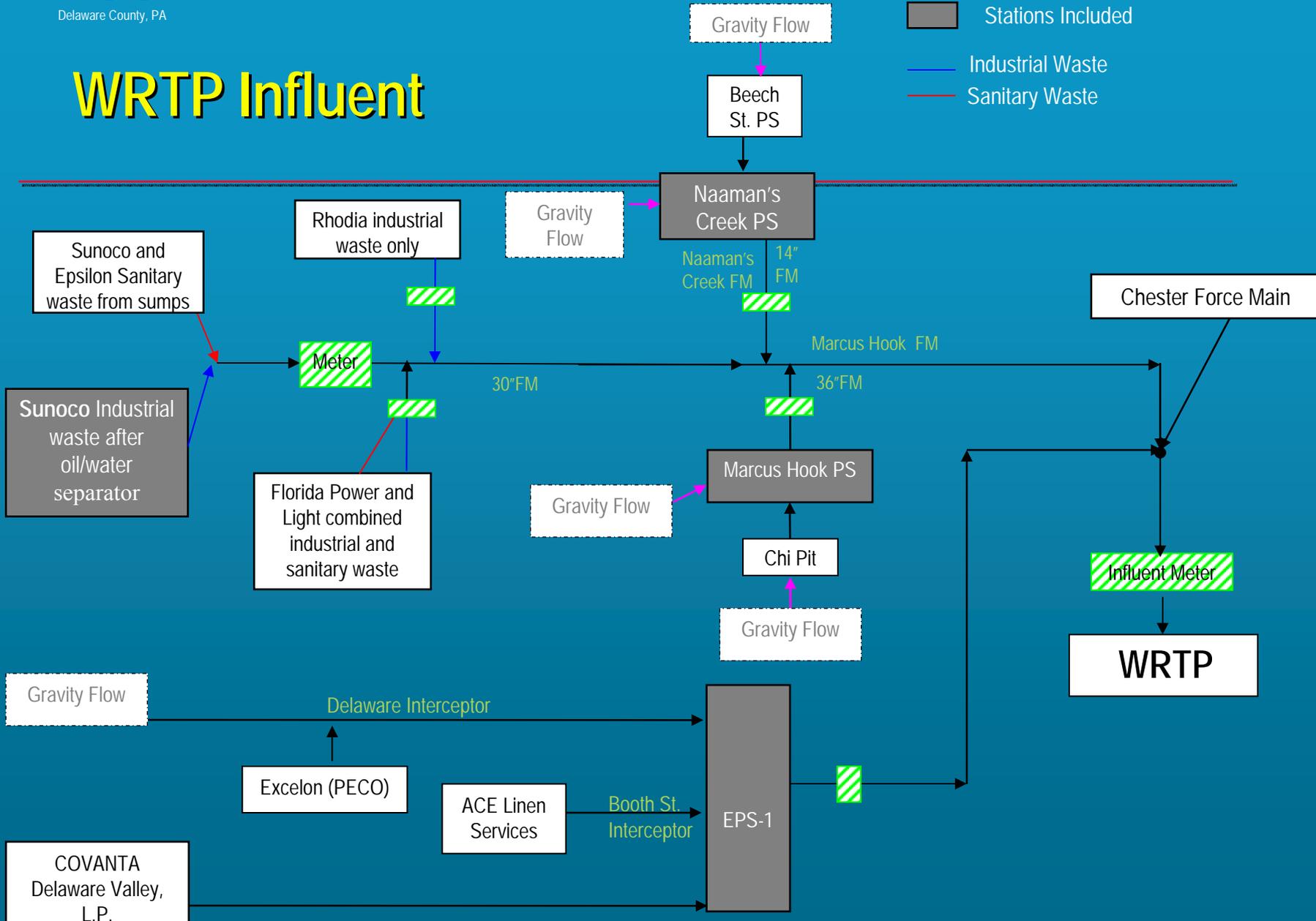
*January 30, 2007*

## WRTP Influent



-  Flow Meters
-  Stations Included
-  Industrial Waste
-  Sanitary Waste

# WRTP Influent



# Agenda

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- On-Site PCB Reduction Efforts
  - ◆ Past and Present
- Sewer System Trackback Studies
  - ◆ Phase 1 and Phase 2
- Pollution Prevention Efforts and Measurable Progress
- Comments & Questions

# PCB Reduction Efforts

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- PCB Transformer Oil Removal – 1992
  - ◆ 8 Transformers were cleaned and retrofilled
  - ◆ 548 gal of fluid with 541 ppm PCB's
- PCB Containing Capacitor Removal - 1997
  - ◆ 6 Large Capacitors Removed
  - ◆ 60 gal of fluid with > 500 ppm PCB's
- Other Off-Site Facilities
  - ◆ Darby Creek Pump Station Transformer Removal
    - Removal and disposal by Authority, not DELCORA

# PCB Reduction Efforts

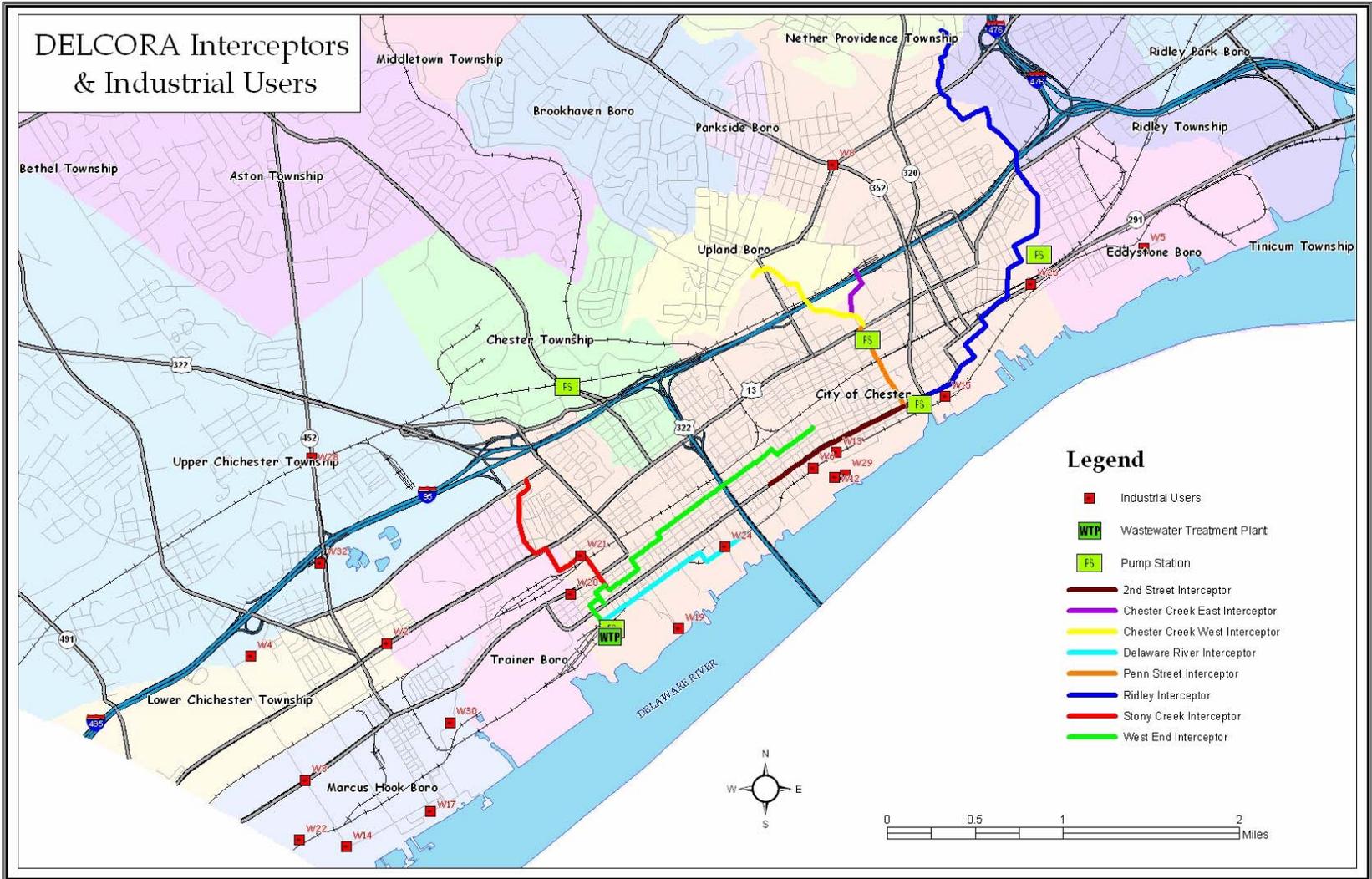
<b>Project</b>	<b>PCB's Removed</b>
Transformers - 1992	2.5 lbs / 1.12 Kg
Capacitors - 1997	.25 lbs / 112 g
Other Projects	2025 lbs / 920 Kg
<b>Total</b>	<b>2027.5 lbs / 921.2 Kg</b>

# Sewer System Trackback Studies

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- Objective: To determine the sources of PCB contributions to the WRTP influent - Above blank and “background” levels.
- Phase 1 – Entire WRTP Sewer-shed
  1. Sampled all incoming “nodes” : 5 pump stations and 2 IU’s
  2. Utilized 24 HC samples and PISCES “concentrator” samples
  3. Only found 1 node significantly above “background”
- Phase 2 – EPS-1 Sewer-shed
  1. Sampled all incoming “nodes” : 4 Interceptors and 1 IU
  2. Utilized 24 HC water samples and select sediment samples
  3. Analytical results are not yet available

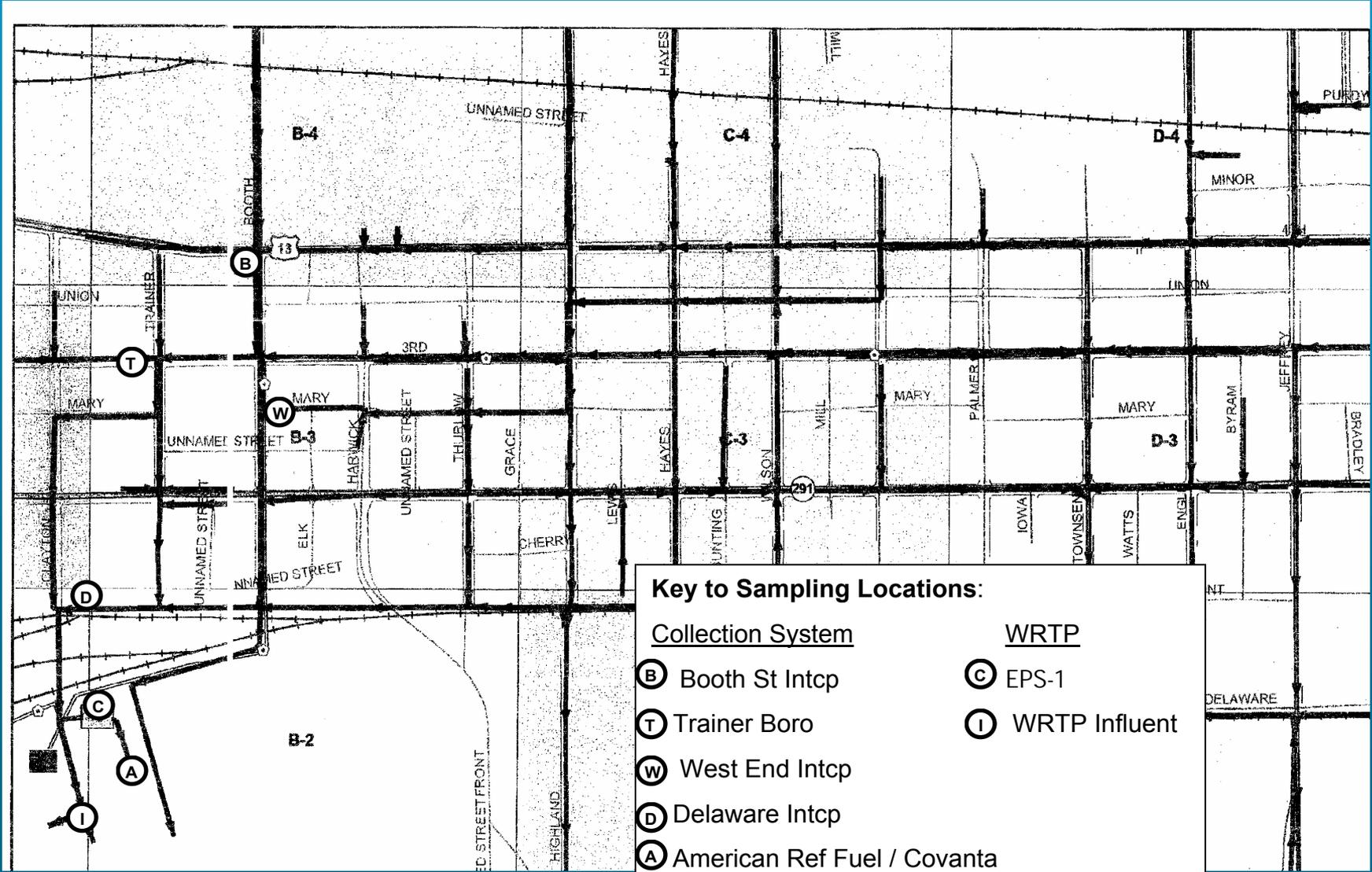
# Phase 1 Map



# Phase 1 - Results

Sampling Location	Whole Water (ng/L)	PISCES+		
		Conc. In Hexane (ng/L)	Water Volume Sampled (L)	Equivalent Conc. In Water (ng/L)
Naamans Creek PS	0.00	153.82	5.73	26.86
Marcus Hook PS	0.00	111.66	5.75	19.41
Chester PS	0.00	12.00	5.20	2.31
Central Delaware PS	0.00	349.60	5.08	68.84
EPS-1	32.74	1,333.72	5.24	254.67
WRTP Influent	500.13	56.45	7.85	7.19
Industry #1	U##	--	--	--
Industry #2	0.00	--	--	--

## Phase 2 Map



## Pollution Prevention Efforts

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### ■ Education Programs

- ◆ Presentations at Public Meeting (EAC, LEPC)
- ◆ Hand-out for salvage yards (in development)
- ◆ Education of DELCORA personnel (in development)

### ■ Industrial User Awareness

- ◆ Sent surveys to all Industrial Users on our system requesting information on PCB's on their site. Started a tracking database.
- ◆ Inspections now include review of site for potential PCB containing equipment and issues.

### ■ Assess Waste and Abandoned Sites

- ◆ Visited several sites w/in our sewer system
- ◆ Reviewed available literature
- ◆ Attempted to contact owners if potential issues were discovered

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# Discussion—Q&A

