



Pollutant Minimization Plan for Polychlorinated Biphenyls (PCBs) in the Delaware River Estuary

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Delaware River Basin

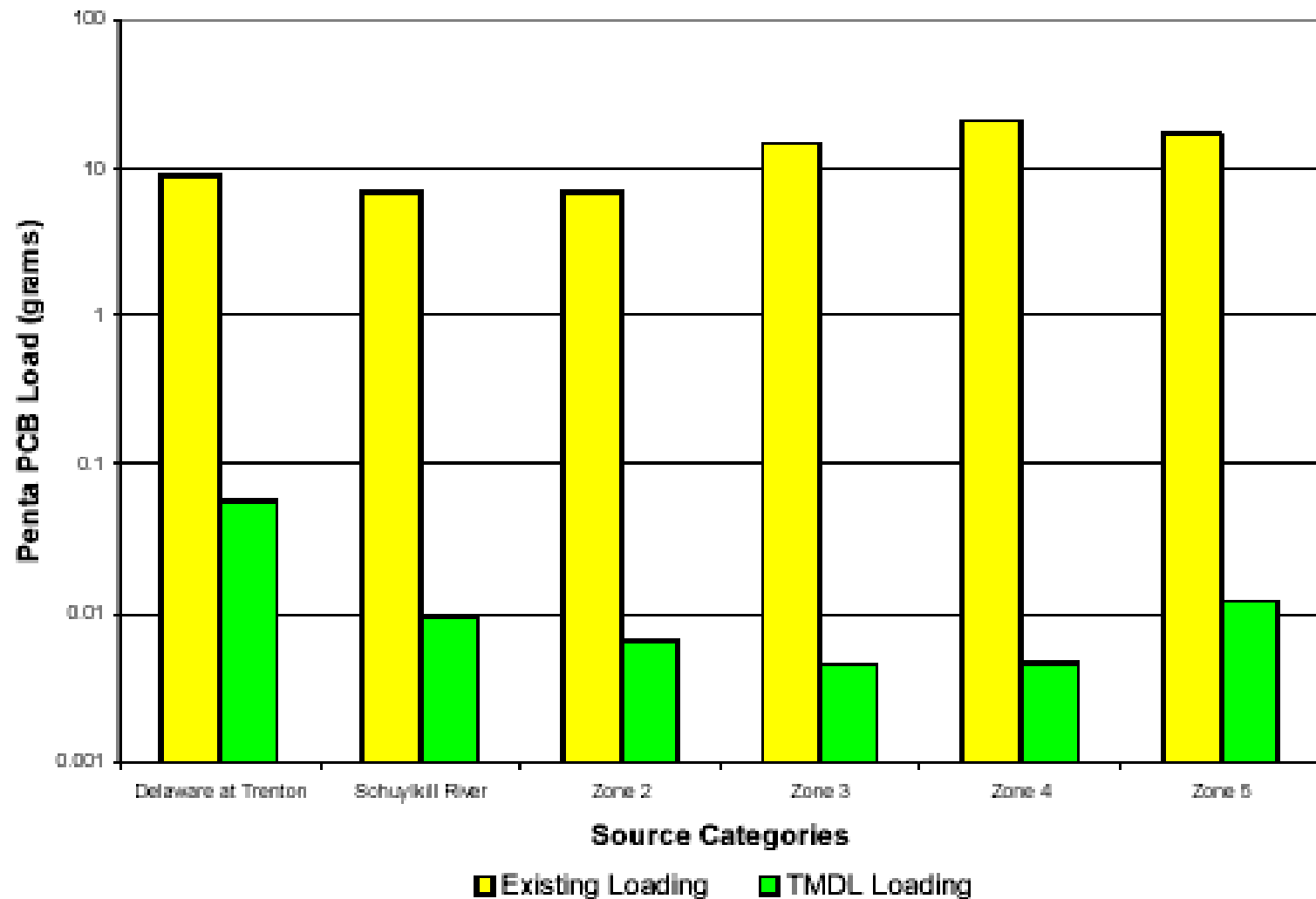
Fish tissue concentrations of **polychlorinated biphenyls (PCBs)** often exceed human health criteria [i.e., federal criteria of 0.17 ng/L and Delaware River Basin Commission (DRBC) criteria of 0.0079 – 0.064 ng/L as total PCBs (later revised to 0.016 ng/L for all zones)]

DRBC set **total maximum daily loads (TMDLs)** for PCBs for zones 1 – 6

TMDLs allocated to point and non-point discharges



Existing Loadings Versus Stage 1 TMDLs Delaware Estuary



Taken from DRBC's TMDL Report – September 2003



Pollutant Minimization Plan

PCBs have been banned since the late 1970s and municipal pretreatment ordinances prohibit PCB discharge to sewer systems.

Residual PCBs are contributed from unknown and diffuse sources (e.g., atmosphere, recycling); however, treatment to criteria levels is impractical

**DRBC chose a pollution prevention approach:
Section 4.30.9 of the 2005 Water Quality Regulation
Amendments require dischargers to prepare and implement
Pollutant Minimization Plans (PMP) to identify and control
PCB sources in their service areas/facilities**

Goal is to achieve a 50 percent reduction of the aggregate point and nonpoint loads of total PCBs within the next five years



PCB Sources

Known Sources (i.e., contribute PCB levels in excess of the water quality criteria and have defined pathway of release);
Examples: atmospheric deposition, CSO tide gate infiltration, intake water, water supply

Potential Sources (i.e., PCBs present, but no pathway of release);
Examples: non-leaking electrical equipment such as transformers, current and former waste sites, commercial and household materials

Unknown Sources - to be identified through “trackdown”



Pollution Prevention Efforts for Known and Potential Sources

Education Programs

- Presentations at public meetings (EAC, LEPC)**
- Handout PCB Brochure to interested groups**
- Education of DELCORA personnel**

Industrial User Awareness

- Requested data on PCBs removed and stored at permitted Industrial Users; Documented survey results in data base**
- Inspections now include review of site for potential PCB containing equipment and issues**

Assess Waste and Abandoned Sites

- Visited several sites within our sewer system**
- Reviewing DelTriP reports and coordinating site visits with agencies**

PCB Reduction Since 1990s (Documented by Internal Review and Industrial User Survey)



Project	PCB Fluids Removed
DELCO - Transformers and Capacitors	2960 Kg
Other Facility Projects	2025 lbs / 920 Kg
Other Industrial Users	80,000+ Kg
Total	Over 83,000 Kg



Pollution Prevention Efforts for Known and Potential Sources (continued)

Upgrade CSO and Stormwater Infrastructure

Rebuilt 24 storm inlets in 2006 and 30 in 2007

Rebuilt 3 CSO Regulator Chambers

Installed remote monitoring systems at all CSOs

Clean and Rehabilitate Sewers

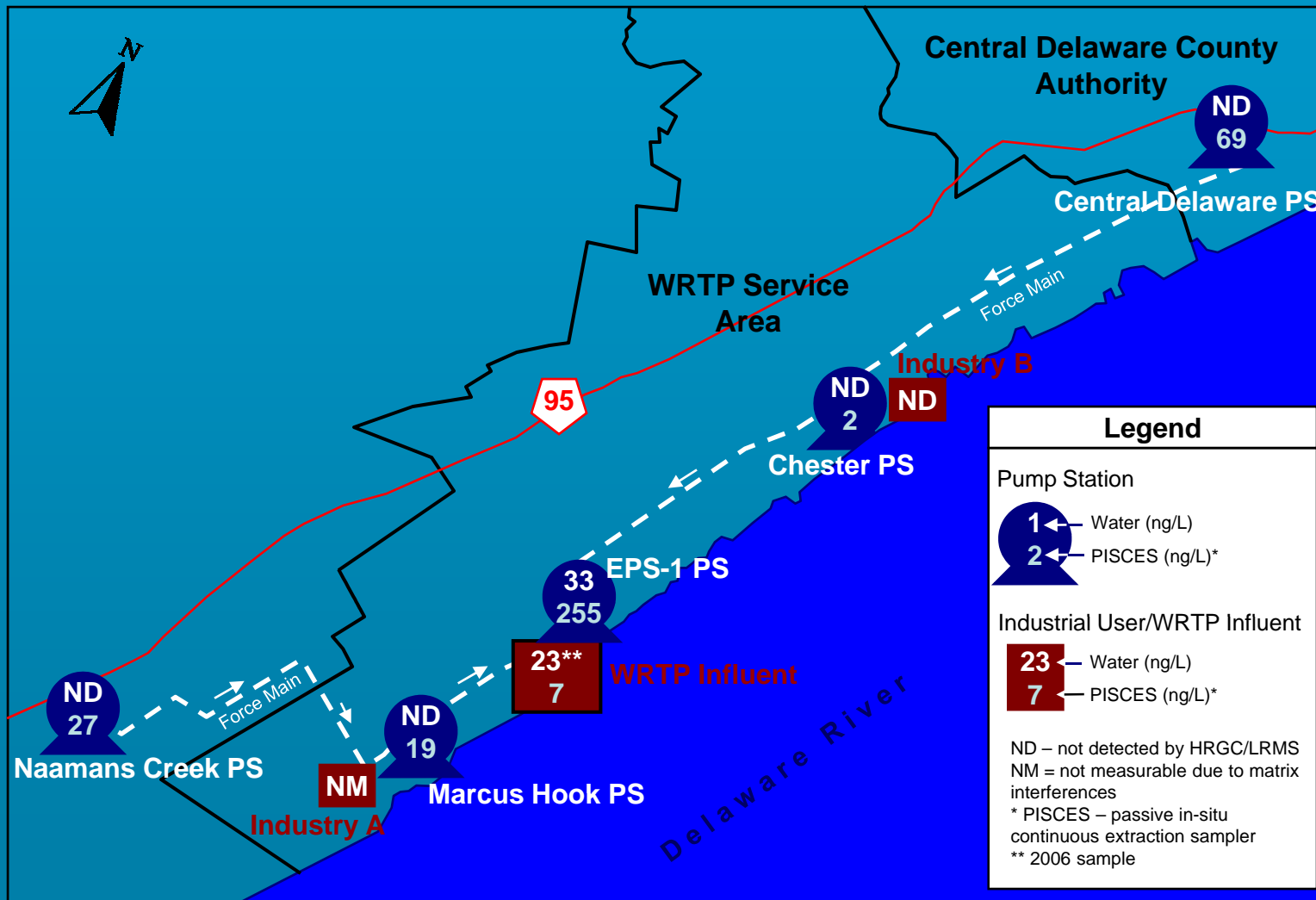
**Cleaned sediment from over 225,000 ft of sewer in 2006 and
380,000 ft in 2007**

Cleaned 300 ft of on-site storm sewer

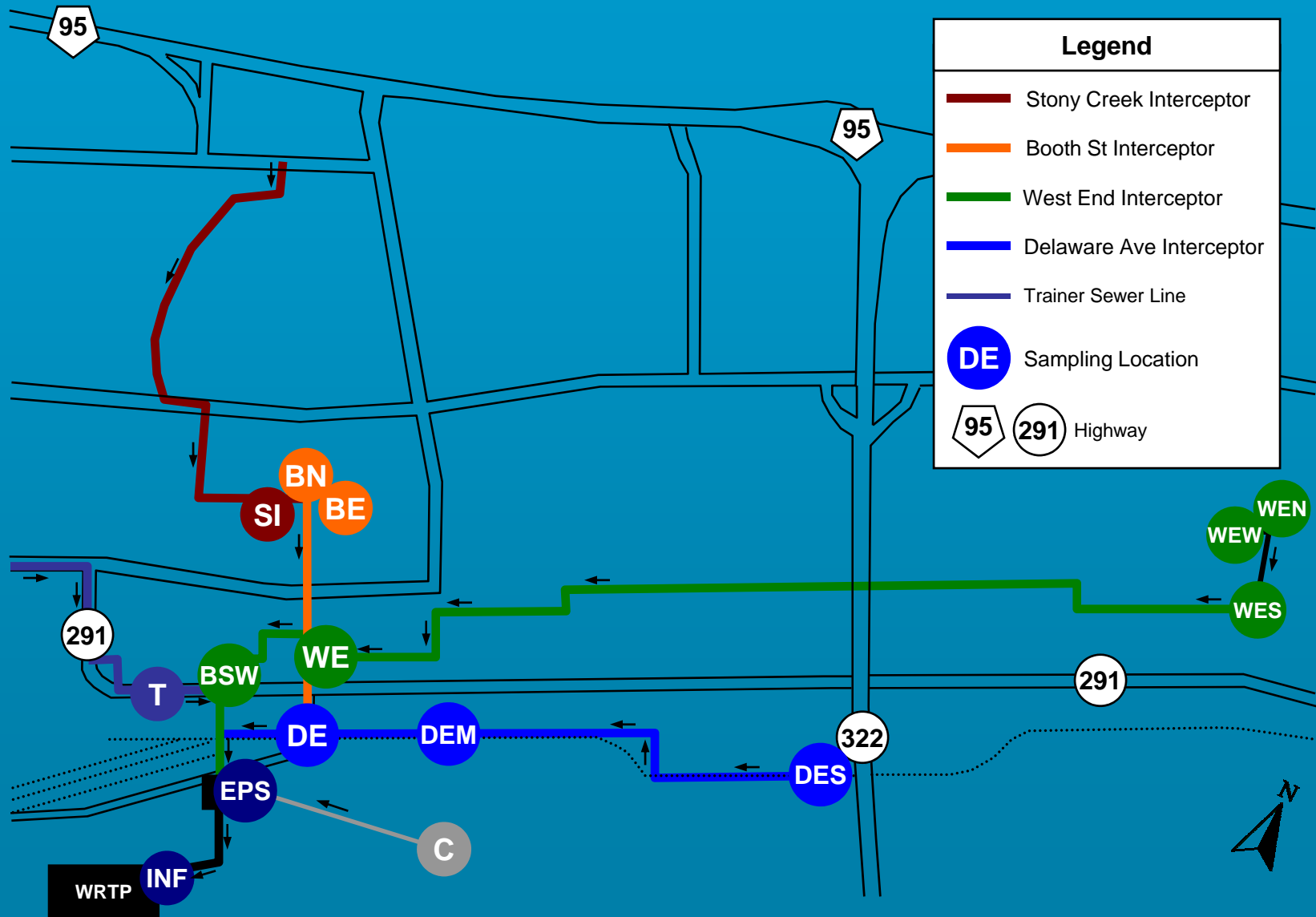
Replaced 160 ft of collapsed brick sewer and 3700 ft of pipe



Phase 1 Trackdown: Total PCBs by Sampling Location

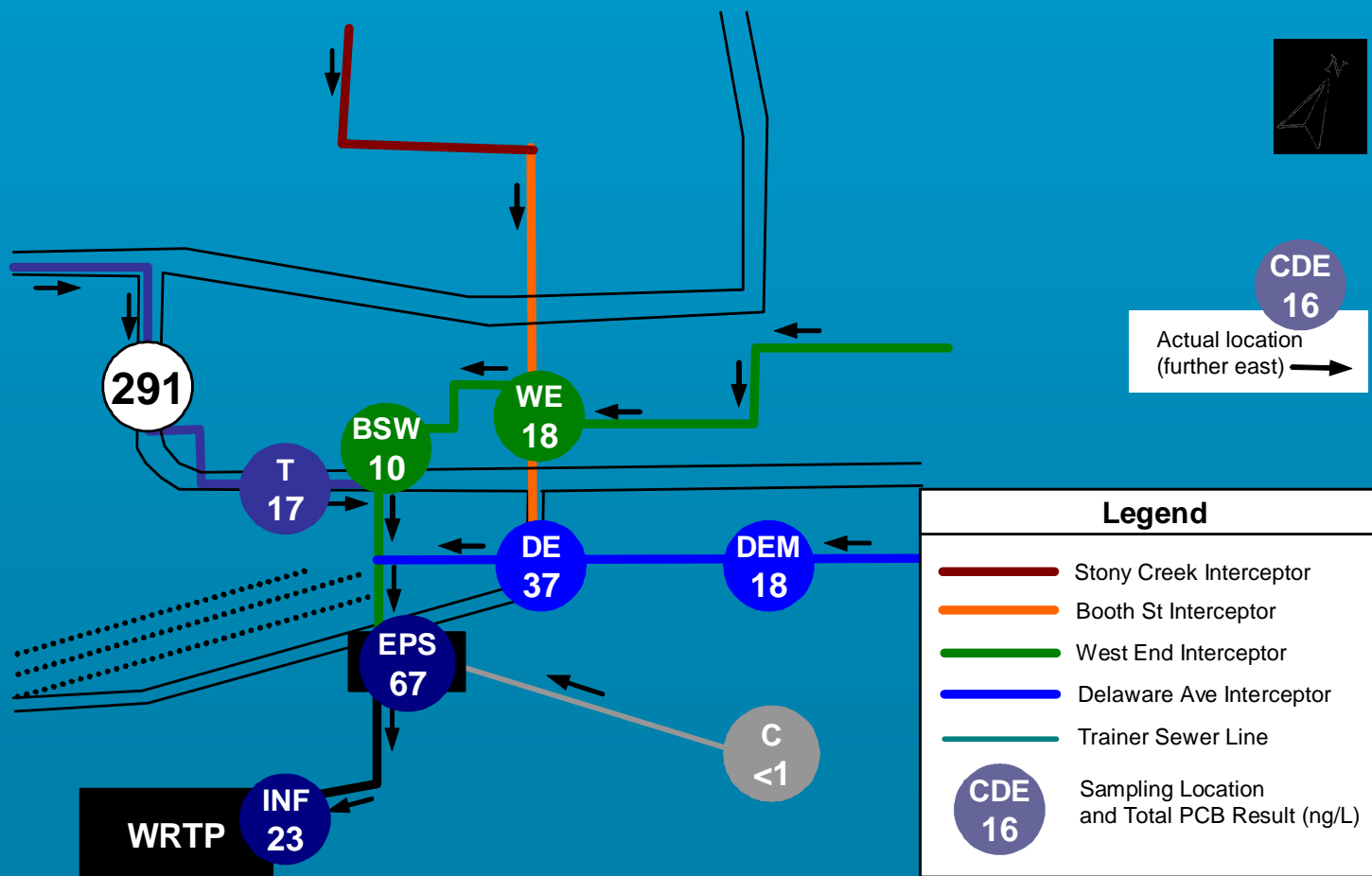


Phase 2 Trackdown – EPS-1 Sewershed Sampling Locations





Phase 2 Trackdown – EPS-1 Sewershed Results



Question & Answer

