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

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Delaware Estuary Science & Environmental Summit
The Grand Hotel, Cape May, NJ

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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)

<table>
<thead>
<tr>
<th>Project</th>
<th>PCB Fluids Removed</th>
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<tbody>
<tr>
<td>DELCORA - Transformers and Capacitors</td>
<td>2960 Kg</td>
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<tr>
<td>Other Facility Projects</td>
<td>2025 lbs / 920 Kg</td>
</tr>
<tr>
<td>Other Industrial Users</td>
<td>80,000+ Kg</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>Over 83,000 Kg</strong></td>
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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

Legend
- Stony Creek Interceptor
- Booth St Interceptor
- West End Interceptor
- Delaware Ave Interceptor
- Trainer Sewer Line

Sampling Location

DE
95
291 Highway

Legend
- Stony Creek Interceptor
- Booth St Interceptor
- West End Interceptor
- Delaware Ave Interceptor
- Trainer Sewer Line
Question & Answer