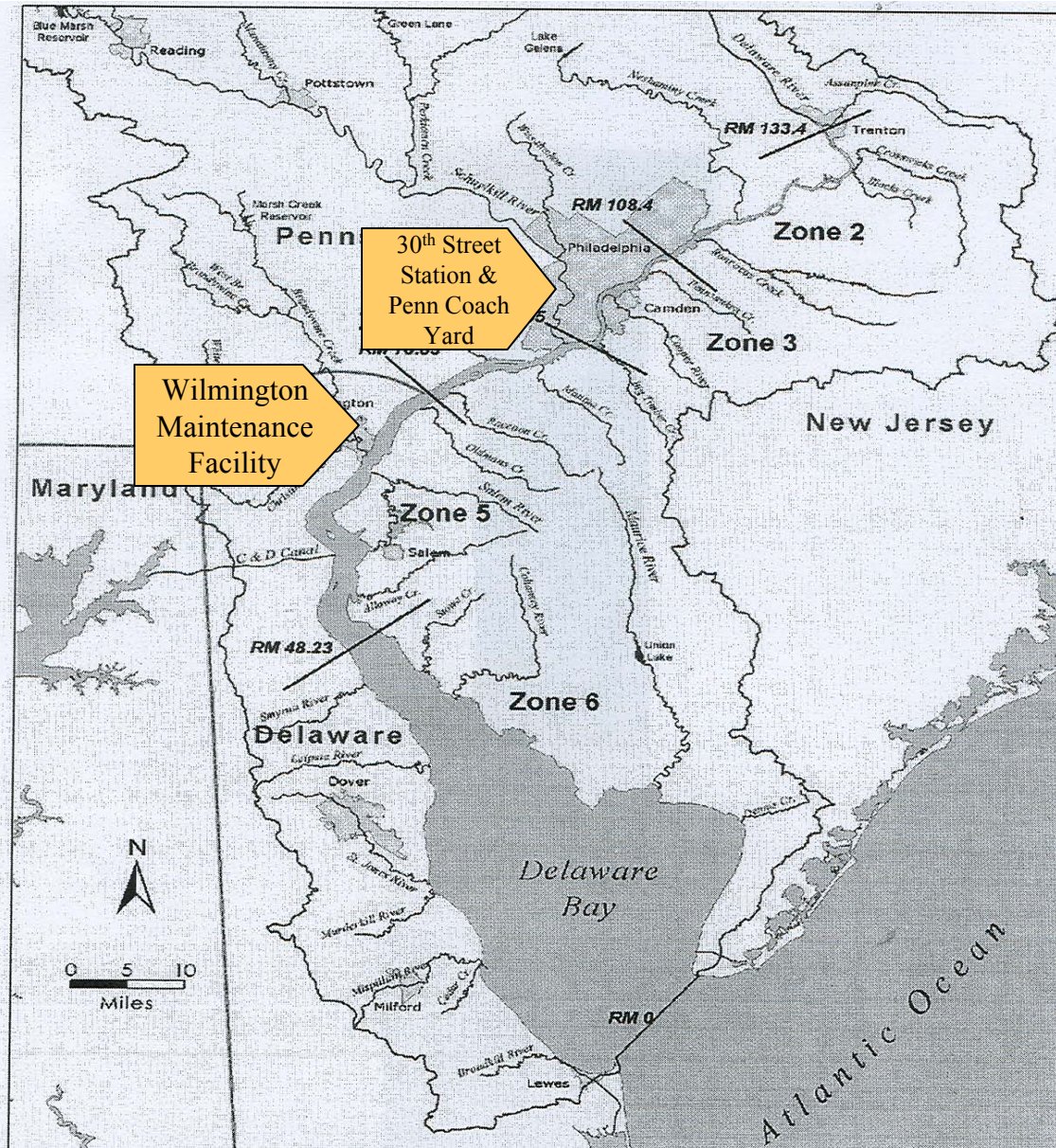


Amtrak Facilities in the Delaware River Basin



Amtrak Facilities

- Wilmington began operations in early 1900's
- Philadelphia began operations in late 1930's
- Electric train service began in 1930's
- Monitoring with approved PCB Analytical Methods indicated "Non-Detectable" concentrations with a detection limit of 0.5 ppb
- Impacts from historical railroad operations



Wilmington PMP activities

- Outfall 004 Early Action
- Sewer Cleaning Outfall 002 – Completed
- Sewer Cleaning – Outfall 007 – Planned
- Track down sampling - Planned
- Other activities will be integrated into remediation of site under DNREC voluntary cleanup program and construction of new buildings onsite.

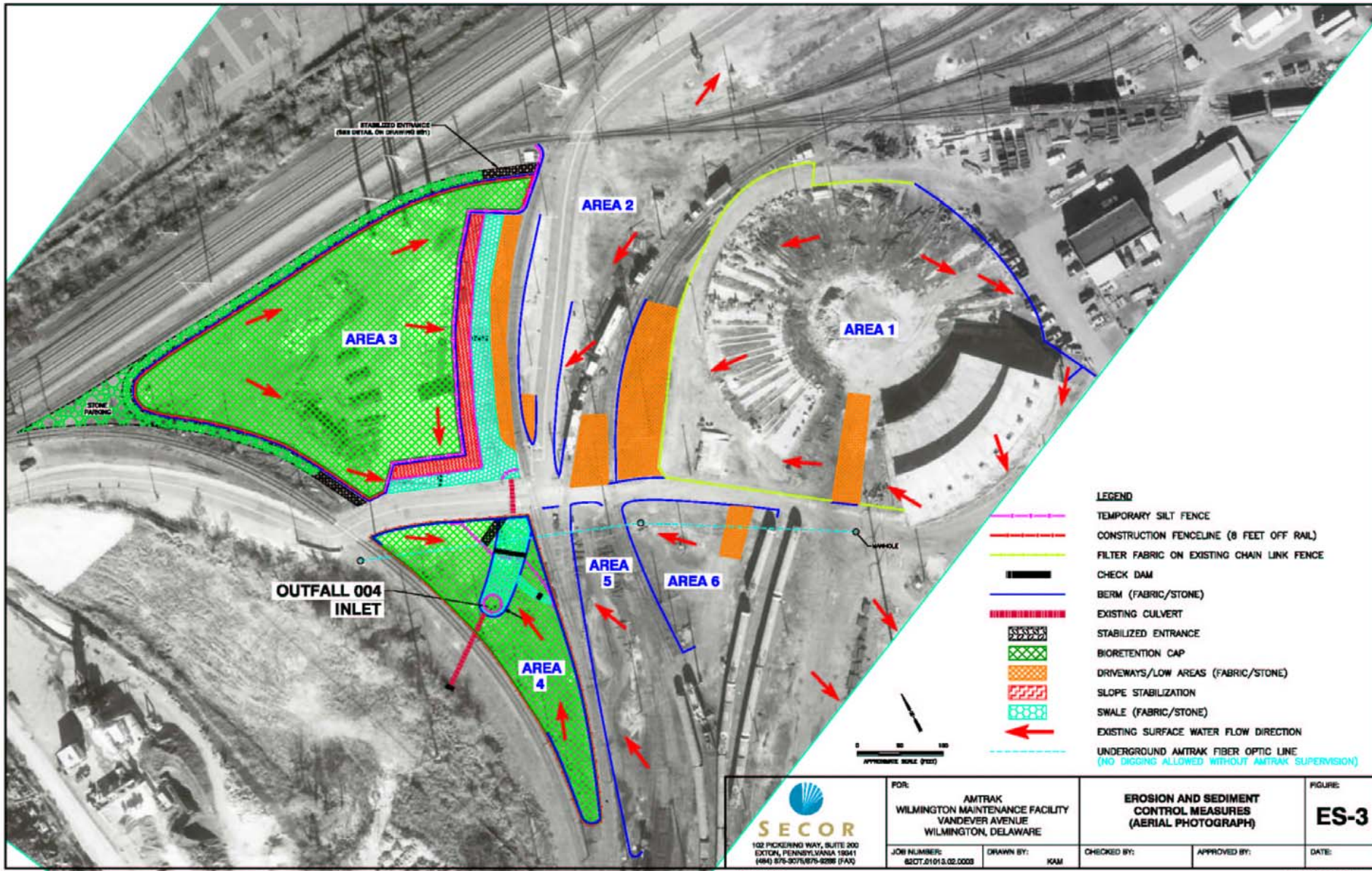


Amtrak Early Action

- Completed a PCB minimization project using stabilization and runoff controls that reduced PCB discharges from the Wilmington Shops by 94 percent
- Confirmed that the pollutant control plan could work
- Program received an Achievement Award in 2005 from the Pennsylvania Water Resources Association



Outfall 004 Early Action



Outfall 004 Area - Before



Outfall 004 Area - After



Results - Wilmington

- Outfall 004
 - PCB concentrations substantially reduced - approximately 94 %
 - Positive response from the regulatory agencies for Amtrak's for early successful action
 - Benefits integrated in overall site remediation strategy
- Sewer Cleanout
 - Removed 60 tons of PCB contaminated sediment for offsite disposal
 - Most sediment concentrations of PCBs in 5 to 10 ppm range (one pipe had a PCB concentration of 60 ppm)
 - Actual benefit to be the river will be determined after next round of sampling

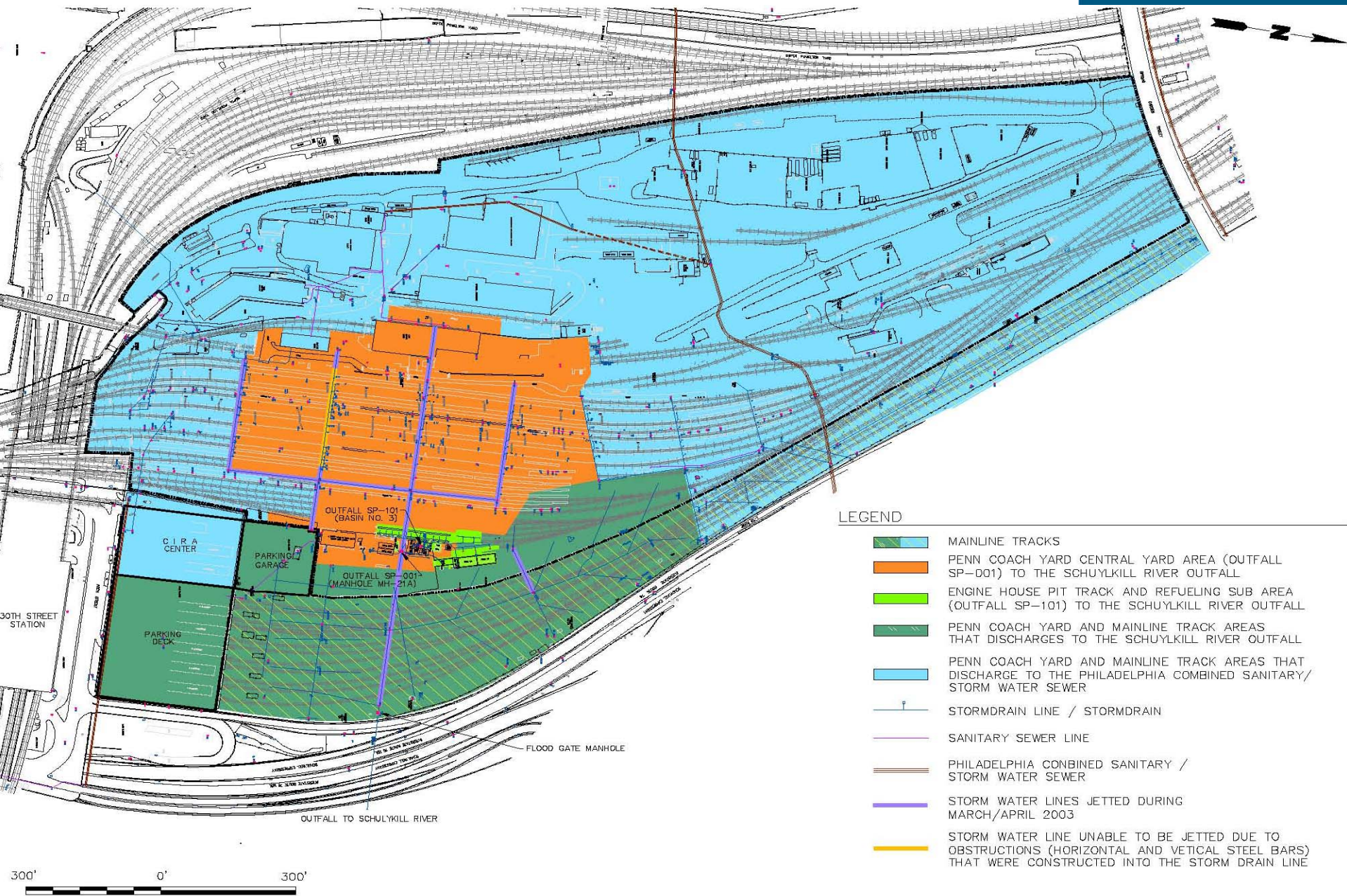


Philadelphia PMP Activities

- NPDES Permit renewed in 2003 and contained a PMP requirement
- Cleaning of drain pipes (both outfalls)
 - Cleaning events in 2001 and 2004
- Outfall 101
 - Waste water treatment plant improvements
 - Cleaning of pits and tanks
 - New belt skimmer
 - New waste oil tank
 - Connection to POTW for additional treatment
- Outfall 001
 - Improvements to catch basin inlets
 - Track down Sampling
- PCB Minimization Plan was revised and submitted as annual report in April 2006













Track down Sampling



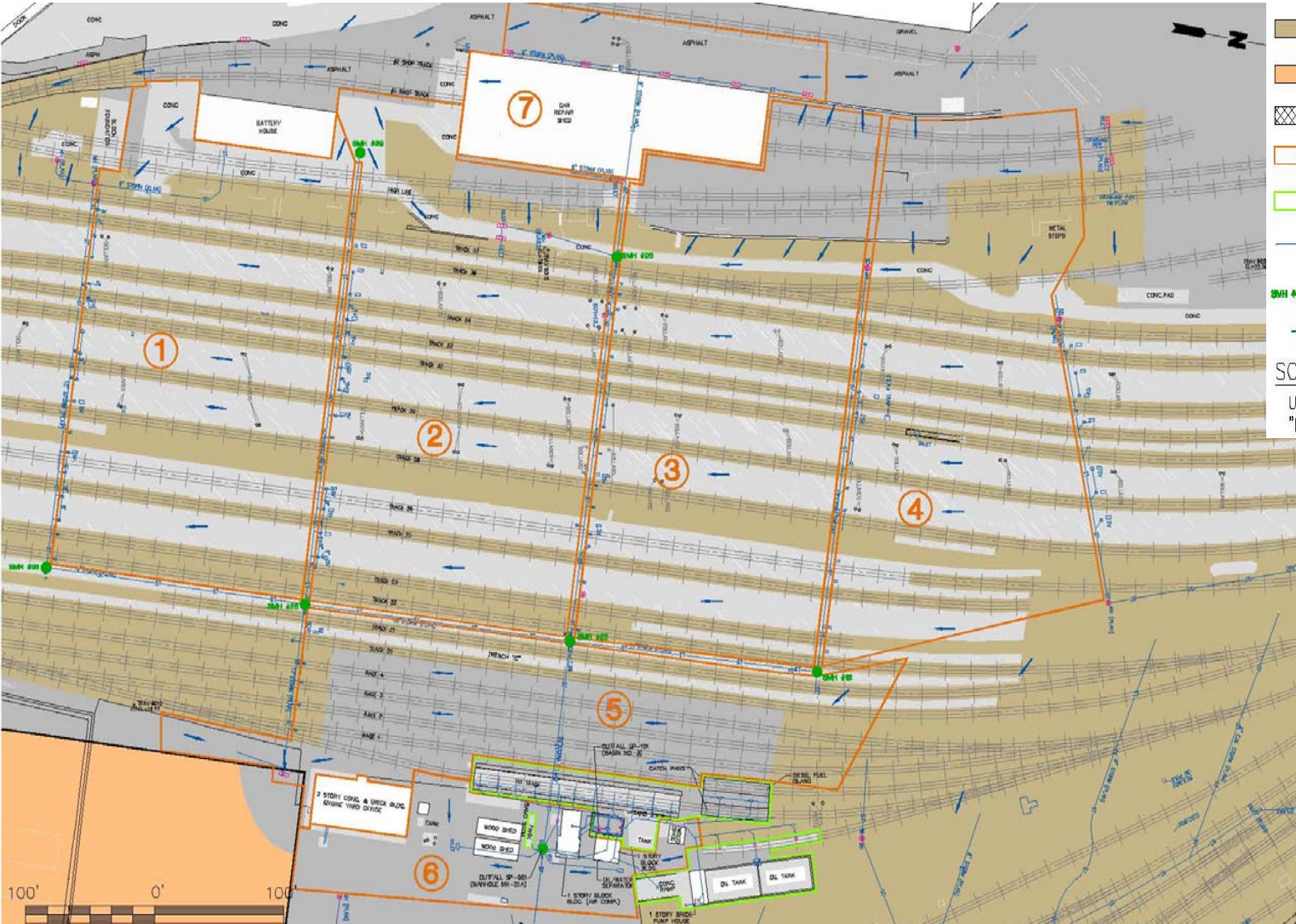
Track down sampling

LEGEND

-  ASPHALT
-  CONCRETE
-  BALLAST
-  PARKING GARAGE
-  ASPHALT/BALLAST
-  ① DRAINAGE AREA FOR SAMPLING POINT SP-001 SUB AREAS
-  DRAINAGE AREA FOR THE STORM WATER TREATMENT PLANT (SP-101)
-  STORMDRAIN LINE / STORMDRAIN
-  PROPOSED STORM WATER SAMPLING LOCATION
-  DIRECTION OF SURFACE WATER FLOW

SOURCE

UNDATED AMTRAK SITE PLAN ENTITLED "PENN COACH YARD".



Track down Sampling Methods

- Inspected and sampled all utility trenches, vaults, etc.
- Collected grab samples rather than composite samples
- Utilized method 8082 for screening purposes
 - Method 8082 looks at 56 congeners rather than 209
- Collected samples during same rain event that composite samples were collected from outfall 001 in an effort to correlate results



Results - Philadelphia

- Outfall 101
 - Wastewater treatment plant upgrades improved sample results
 - Connection to POTW improved overall discharge
- Outfall 001
 - Catch basin improvements had small impact on discharge results
- Track down Sampling
 - Sampling was inconclusive and not consistent with outfall sample. Will resample during next semi-annual event.
- Sewer Cleaning
 - Removed and disposed of over 60 tons of PCB contaminated sediment during 2 cleaning events with concentrations from 3 ppm to 50 ppm
 - Cleaning done before first sampling event – can't quantify impact.



Impacts to Amtrak

- Approximate dollars spent on PMP development, monitoring and minimization activities

Wilmington	\$525,000
------------	-----------

Philadelphia	<u>\$175,000</u>
--------------	------------------

Total Spent	\$700,000
--------------------	------------------

- Incorporated PMP issues into storm water training classes



Lessons Learned

- Being proactive helps
- Partnering helps – working with the Coalition has helped Amtrak conserve resources and reduce PCB concentrations
- Data can be inconsistent
- PCB reduction activities can be incorporated into overall site remediation strategy
- **PMP activities do not always show immediate results**

