South River Science Team Meeting
October 21, 2003

Storm Water Sampling
Invista Waynesboro Plant

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Study Objectives

- Determine the mercury concentration and relative mass loading to the South River from several outfalls from the Waynesboro Plant
- Provide insight into the possible source of mercury, if detected in any of the plant outfalls
- Completed as part of RCRA Corrective Action Program for Waynesboro Plant

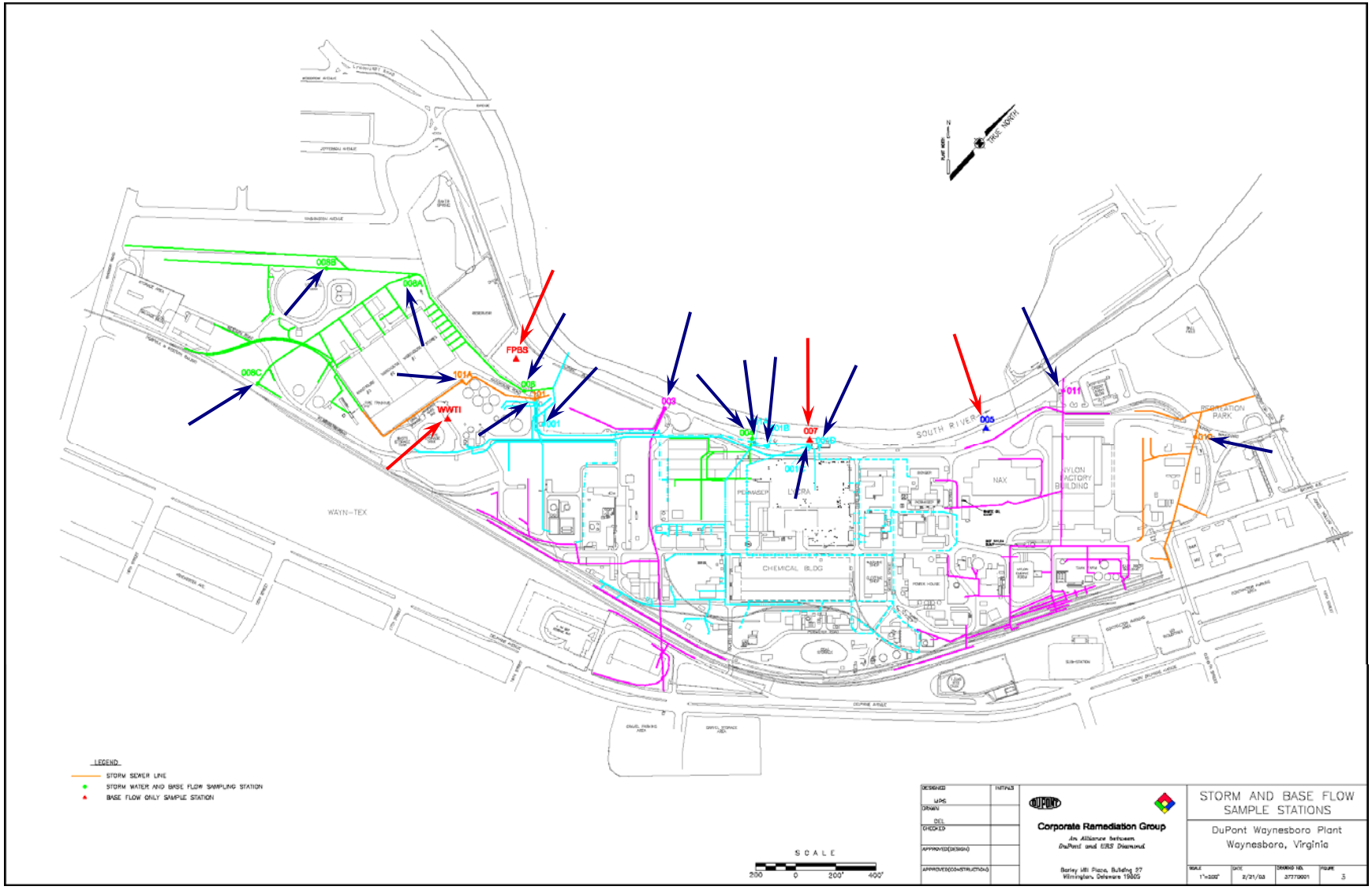
Storm Selection

- In accordance with USEPA storm water sampling requirements (40CFR 122.21(g)(7)), an acceptable storm to collect surface water samples will exhibit the following characteristics:
  - Less than 0.1 inch of rainfall in the last 72 hours before the storm
  - The total rainfall of the event should be forecasted not to vary more then 50 % from the average or median event for the sampling area.
- The Waynesboro Plant is in the Midatlantic region with an average storm event of 10.1 hours and 0.64 inches of precipitation . Therefore, a representative storm would be:
  - 5.05 – 15.15 hours in duration
  - 0.32 – 0.96 inches of rainfall

Technical Approach

- Base Flow Sampling - May 2003
  - Mercury loading from the Waynesboro Plant during non-storm event conditions
  - No precipitation for the proceeding 72 hours
  - 19 sampling stations
  - 1 grab sample
  - Flow measurements
- Storm Flow Sampling - September 2003
  - Characterize mercury loading during a precipitation event
  - 15 sampling locations
  - Flow measurements
  - First-flush and flow-weighted average samples
    - First-flush - grab sample collected during first 30 min. of storm discharge
    - Flow-weighted average
      - 9 samples collected over first 3 hours of storm discharge
      - composited in the lab (proportional compositing based on measured flows)

Sampling Locations



Results - Base Flow Sampling

- Only base flow sampling results have been received

- All mercury results from the base flow samples collected from the plant outfalls discharging to the South River were non-detect