



# DuPont Pompton Lakes Works Acid Brook Delta/Pompton Lake Final RCRA/HSWA Permit Modification Public Information Session

**CARNEVALE CENTER  
POMPTON LAKES, NEW JERSEY  
JANUARY 15, 2013**



## DuPONT POMPTON LAKES WORKS ACID BROOK DELTA AREA

- Historical Discharges of Mercury/Lead/Copper to Acid Brook
- Contaminated Sediments/Soils in Acid Brook/Surrounding Flood Plain/Residential Property Leading to Pompton Lake Sediment
- Remediation of Acid Brook/Residential Properties in 1990s
- Acid Brook Delta is Subject of the HSWA Permit Modification & Includes:
  - Sediment: Centered at the mouth of Acid Brook into Pompton Lake
  - Upland Soil Areas: Impacted Soil in the Vicinity of the Mouth of Acid Brook into Pompton Lake



## DuPONT POMPTON LAKES WORKS ISSUANCE OF PERMIT MODIFICATION

- Nov. 20, 2011 - Public Notice of the Draft Permit Modification
  
- Numerous Public Comments Received
  
- January 9, 2012 - DuPont Submitted Comparison of Lake Depths Based on the 2011 & 2007 Bathymetric Surveys
  
- January 15, 2013 - Public Availability Sessions to Discuss Permit Modification
  
- Final Permit Modification issued on December 19, 2012 Effective February 4, 2013



## DuPONT POMPTON LAKES WORKS DRAFT PERMIT MODIFICATION - NOVEMBER 2011

- ACID BROOK DELTA (ABD) SEDIMENT
  - Qualitative Remedial Action Objectives (RAOs)
    - Reduce Potential Mercury Methylation (Near-Shore)
    - Reduce Exposure of Eco Receptors to Elevated Sediment Mercury
  - Original Proposed Remedy: Dredge ABD West of Proposed RAO Line (26 Acres)
  
- UPLAND SOILS AREAS
  - Quantitative RAO
    - NJDEP Soil Remediation Standard (SRS) and Ecological Soil Criterion: Surface/Subsurface Soils
  - Original Proposed Remedy: Excavate soil and Restore with backfill and plants



## DuPONT POMPTON LAKES WORKS REVISED PERMIT MODIFICATION RATIONALE

- ACID BROOK DELTA (ABD) SEDIMENT
  - ❑ Bathymetric Survey Performed in 2011 by DuPont
    - Sediments Scoured From Narrower Areas of Ramapo River Channel/Pompton Lake Since 2007
    - More Highly Contaminated Buried Sediment Among Areas Scoured
    - Storm Events 2007-2011 May Have Impacted Sediment Stability
  
  - ❑ US Fish & Wildlife Service Comments
    - Update Ecological Risk Assessment (ERA) by Consideration of Pathways & Ecological Receptors
    - Derive Updated Toxic Reference Value (Back-Calculate Corresponding Sediment RAOs)



## DuPONT POMPTON LAKES WORKS REVISED PERMIT MODIFICATION RATIONALE

### ➤ UPLAND SOILS AREAS

#### US Fish & Wildlife Service Comments

- Significant Portions of Upland Soils Located in Wetlands Transition Zone & Wetlands Zone
- Need to update Ecological Soil Criterion
  - Update pathways and ecological receptors to include wetland dependent species
  - Evaluate ecological receptors based on exposure to methylmercury as opposed to total mercury
  - Obtain Updated Data to Support Above



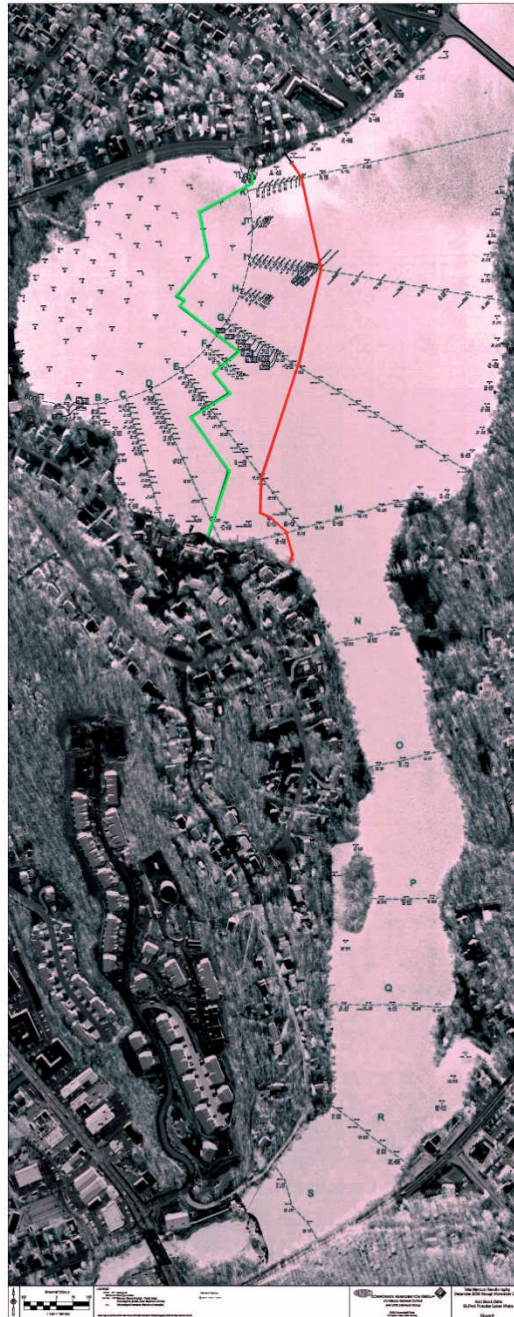
## DuPONT POMPTON LAKES WORKS FINAL PERMIT MODIFICATION - DECEMBER 2012

### ➤ SEDIMENT

- Extends Dredging Area Nearer to Ramapo River Channel (nearer to the 2 ppm Surficial Mercury Contour Line)
  - Dredged sediment area increases from 26 to 40 acres
  
- During Dredging: Conduct Additional Sediment Sampling in the rest of the lake and Ramapo River
  - Throughout Lower Pompton Lake to Identify Hot Spots to Address Prior to Completion of Dredging
  - Across Transects up to 3 Miles Downstream of Pompton Lakes Dam
  
- Dredge Hot Spots Identified by Additional Sampling



Figure 1



## Acid Brook Delta in Pompton Lake





## DuPONT POMPTON LAKES WORKS FINAL PERMIT MODIFICATION - DECEMBER 2012

### ➤ UPLAND SOILS AREAS

- Develop an updated evaluation of ecological receptors exposed to methylmercury to establish excavation limits for uplands in wetlands or wetland transition zones
  
- Obtain Updated Data to Support Above
  
- Provide Updated Remediation and Restoration Plan



## DuPONT POMPTON LAKES WORKS FINAL PERMIT MODIFICATION - DECEMBER 2012

- ❑ POST REMEDIATION LAKE SYSTEM MONITORING (AT LEAST 5 YEARS)
  - Establish Baseline Conditions Prior to Dredging
  - Monitor Mercury Concentrations in Suspended Sediment & Water
  - Biomonitoring Including Mercury Residues in Organisms
  
- ❑ CONDUCT ECOLOGICAL RISK ASSESSMENT (ERA)
  - Two Years After Dredging/Restoration
  - ERA Based on Updated Data Obtained During Monitoring Program



## DuPONT POMPTON LAKES WORKS CONSTRUCTION-RELATED ACTIVITIES/NEXT STEPS

- Several Technical Deliverables Due 30 Days After Effective Date
  - Revised Corrective Measures Implementation Work Plan
  - Sediment Sampling Plan (for the Rest of the Lake and Ramapo River to approx. 3 miles downstream of the dam)
  - Uplands Remediation & Restoration Plan
  - Post-Remediation Long-Term Monitoring Plan (and Establish Baseline for Lake System Prior to Dredging)
  
- EPA/NJDEP Review/Approval of Technical Deliverables
  
- Public Information Session Prior to Approval of Final Operating Plan (part of CMIWP).
  
- list 2-3 that you know need to be prepared/revised



- ❑ DuPont Must Prepare/Revise State & Local Permit Applications for Approximately 11 State & Local permits, including:
  - NJDEP Wetlands Protection Act (N.J.A.C. 7:7A)
  - NJDEP Flood Hazard Area Control Act (N.J.A.C. 7:13)
  - Soil Mining Ordinance of the Borough of Pompton Lakes
  - New Jersey Department of Agriculture Soil Erosion and Sediment Control Act (Chapter 251, P.L. 1975)
  - NJDEP Stormwater Management Rules (N.J.A.C. 7:8) Stormwater Management Plan



## **DuPONT POMPTON LAKES WORKS COMMUNITY INVOLVEMENT ACTIVITIES**

- Public Information Sessions - January 15, 2013
- Quarterly Public Information Sessions Thereafter
- Bi-Monthly Newsletters
- Other Meetings as Needed