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

CARNEVALE CENTER
POMPON 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
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
Acid Brook Delta in Pompton Lake
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).

1/16/2013
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