



One Corps Serving the Army and the Nation

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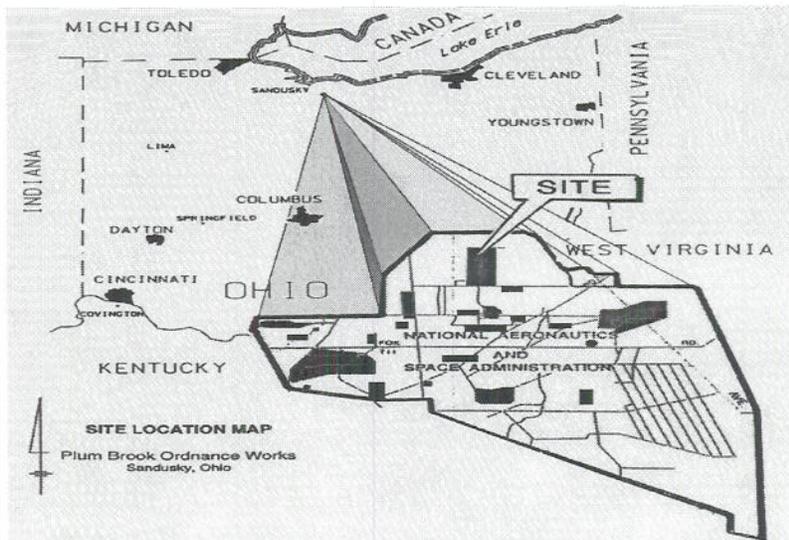
Plum Brook Ordnance Works



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Plum Brook Ordnance Works

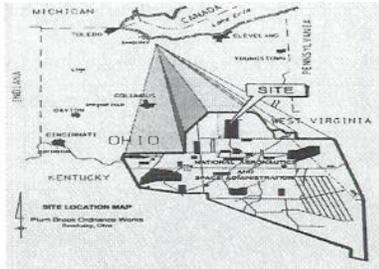




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Plum Brook Ordnance Works



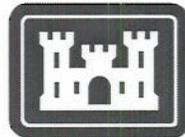
- World War II TNT manufacturing facility
- 6,400 acres
- Located near Sandusky, Ohio and Sandusky Bay, Lake Erie
- Surrounding area is mostly residential and agricultural



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The PBOW Restoration Team



***PBOW Restoration
Advisory Board***



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Plum Brook Ordnance Works

- History
- Areas of Concern
- Current Construction Activities
- Site wide Ground Water Monitoring and Feasibility Study
- Public Involvement
- Successes
- Future Challenges



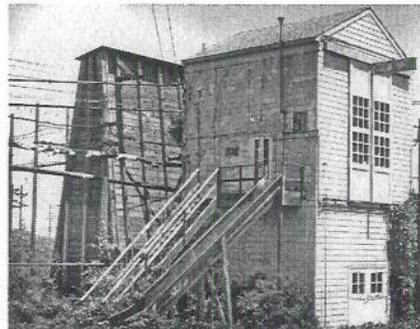
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History



Acid Area



TNT Manufacturing Area

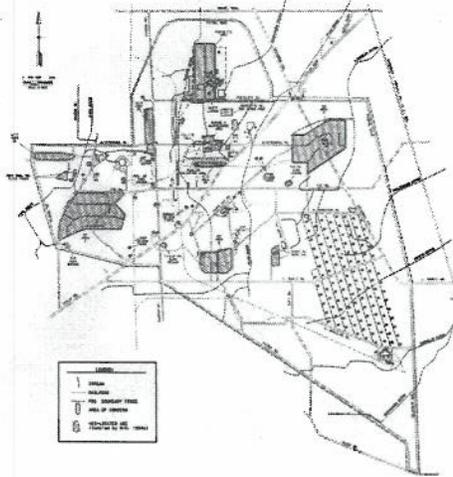


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History and AOC Locations

- 1941 thru 1945 – PBOW produced over 1 billion pounds of explosives (i.e., TNT, DNT and Pentolite)
- 1949 – site transferred to GSA
- 1963 – NASA acquired property and currently maintains and utilizes the 6,400 acres for research (most noted for reactor, hypersonic testing facility and space propulsion facility)
- USACE currently has 16 Projects (further investigation performed as funding becomes available)



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Areas Of Concern

Closed/Closing

- TNT Railcar Loading Area
- Pentolite Waste Lagoon Area
- Lower Toluene Tank Area



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Areas Of Concern

Underway

- Reservoir 2 Burning Grounds
- TNT Area A
- TNT Area B
- TNT Area C
- Redwater Ponds (Pentolite Road and West Areas)
- Sitewide Groundwater



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Areas Of Concern

Future

- Additional Burning Grounds
- WWTPs #1 & 3
- WWTP #2
- Ash Pits #1 & 3
- Powerhouse #2 Ash Pits
- Acids Areas #1, 2 and 3
- Garage Maintenance Area



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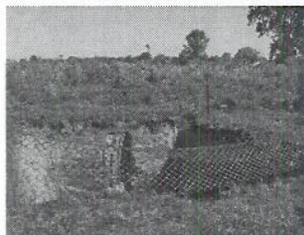
Current Construction Activities



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TNT B Interim Soil Removal



- 30 Hot spots contaminated with Nitroaromatics, PAHs and Lead
- Maectite Stabilization of Lead prior to disposal
- Excavation and Disposal of 8500 tons of contaminated soil

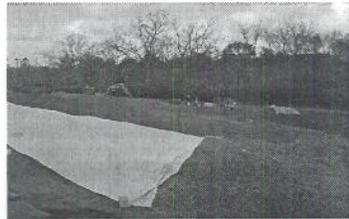


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Windrow Composting of Nitroaromatic-Contaminated Soil

- TNT B and Redwater Areas - 2200 tons of contaminated soil mixed w/ natural amendments (chicken manure, straw)
- Temperature and moisture monitored
- Compost turned daily
- Bacteria break down nitroaromatics
- Scheduled remediation at TNT A & C Areas



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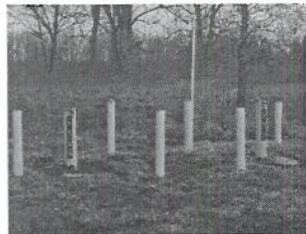
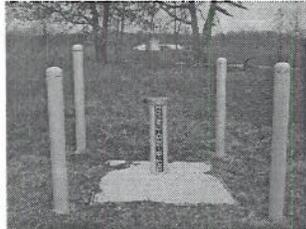
Site wide Ground Water Monitoring and Feasibility Study



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Groundwater



- Collection of 95 groundwater monitoring wells (shallow and deep aquifers)
- Quarterly collection of water elevations & maintenance
- Currently installing 10 additional wells for background (upgradient) and off-site (downgradient) investigations



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Public Involvement



- Local community interest group
- Community co-chair
Mark Bohne





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Restoration Advisory Board (RAB)



- Local community interest group of approximately 12 members
- Meets quarterly at Firelands College Library in Sandusky, Ohio
- USACE presents topics depending on current work (i.e., RI/FS, RA-C, GIS, budget and schedule info, site tours)
- USACE conducts public information sessions



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Successes

- Excavation, Stabilization and Disposal
- Composting and Disposal
- Surplus funds from other Districts
- RAB (Public Involvement)
- Administrative Record (Electronically)

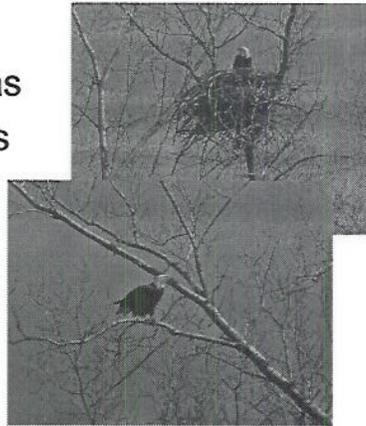


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Future Challenges

- Funding
- Bald Eagle Nesting
- Compost of TNT A & C areas
- Reservoir 2 Burning Grounds RI/FS
- Remediation of West Area



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Questions?

- <http://www.lrh.usace.army.mil/projects/fuds/PBOW.htm>
- <http://www.lrh.usace.army.mil/>