

Beneficial use of Dredge Material on the Ohio River and Future need for Sediment Management

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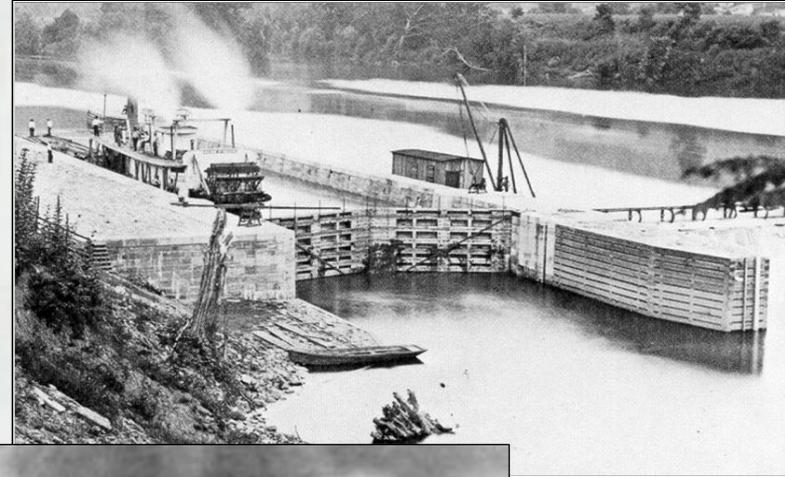
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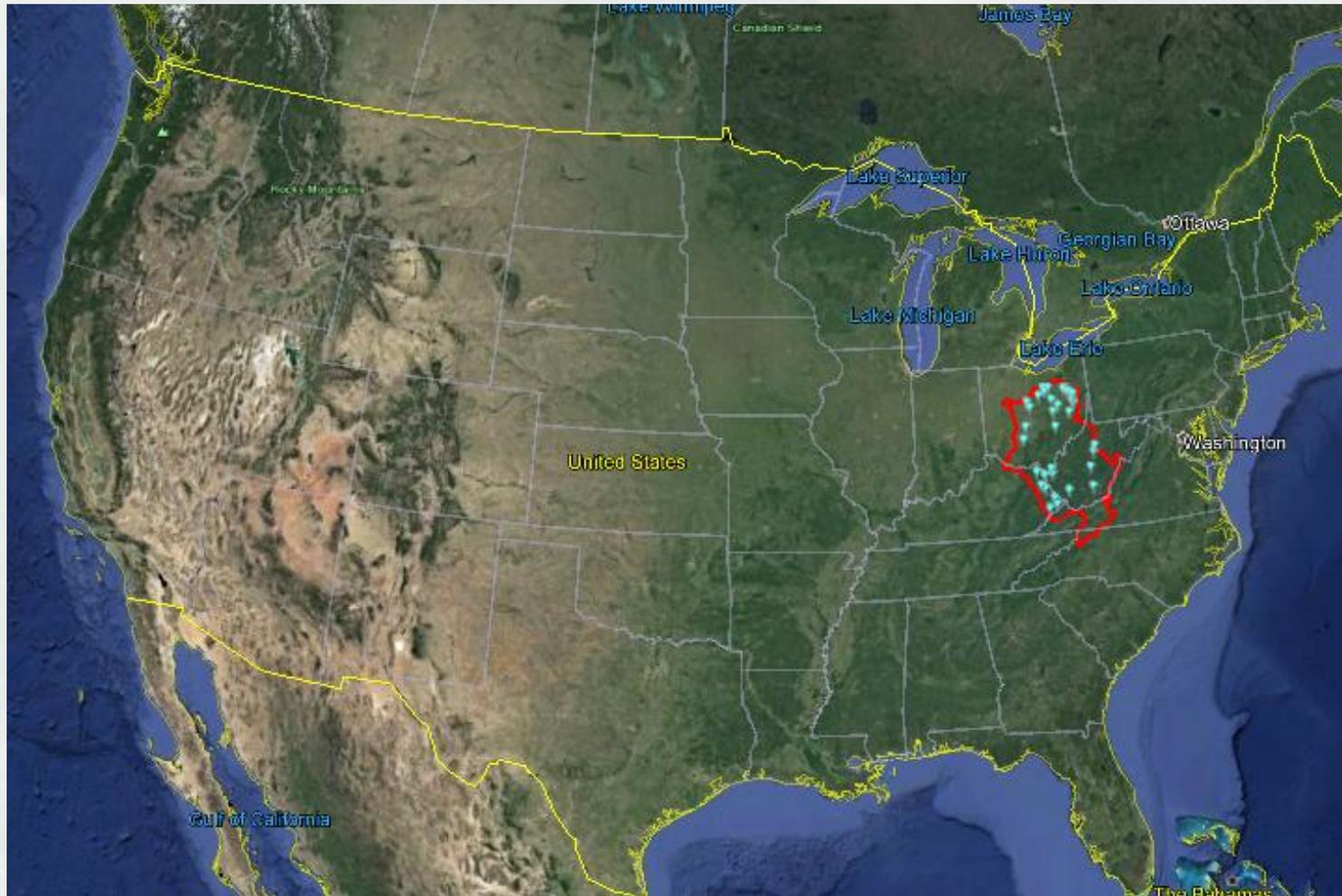


History of the Huntington District

- District formed in 1922
- Responsible for navigation on the Ohio River
- 1937 flood of record in Ohio River Basin

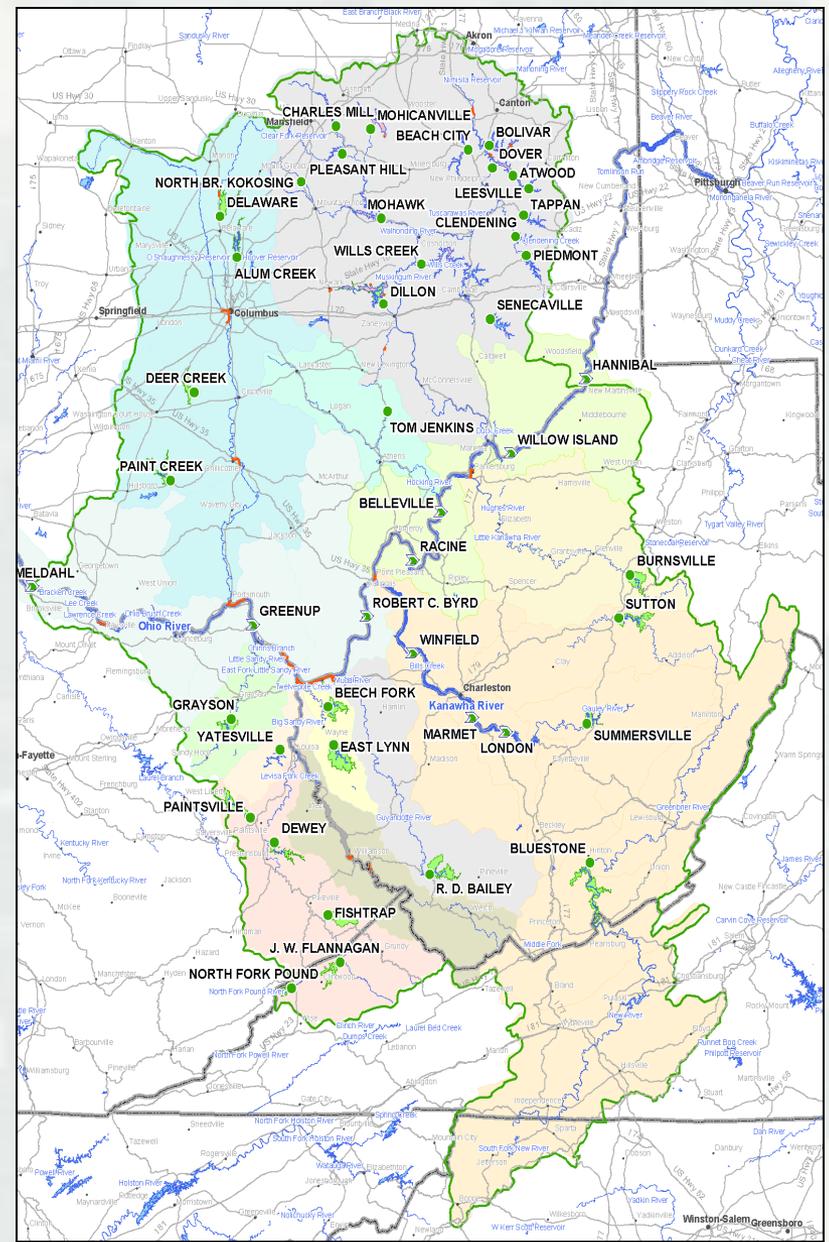


Huntington District

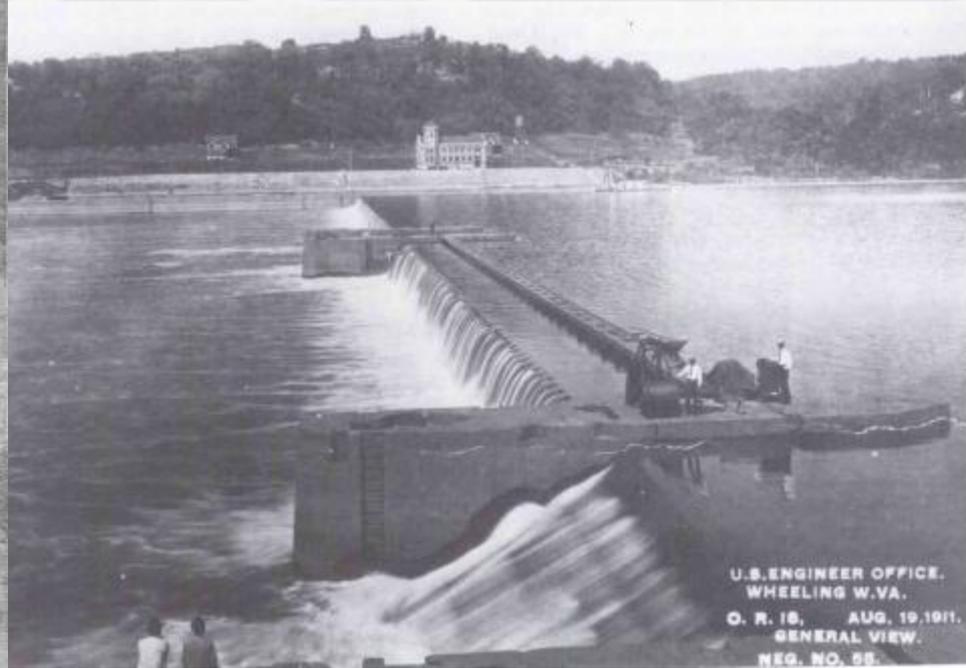
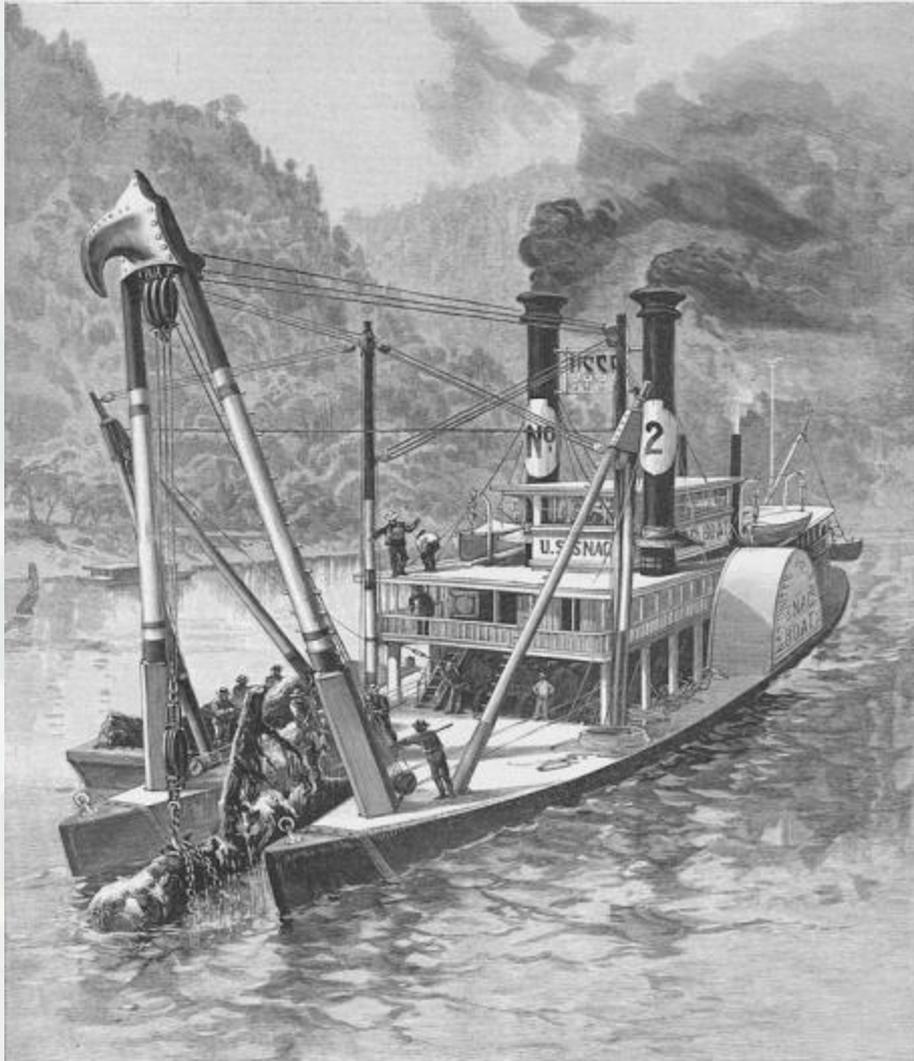


Huntington District

- 35 Dams/Reservoirs
- 29 Local Protection Projects
- 9 Locks and Dams
- 311 Ohio River miles
- 9 River basins
- 45,000 square miles



History of Ohio River Navigation



History of Dredging on the Ohio River

- In 1824, Congress authorized the Corps of Engineers to maintain the Ohio River for navigation use. (3' navigation navigable depth)
- October 1929 completion of the 52 Lock and Dams, (6' navigation navigable depth)
- August 1937 Gallipolis Lock and Dam in service (9' navigation navigable depth)

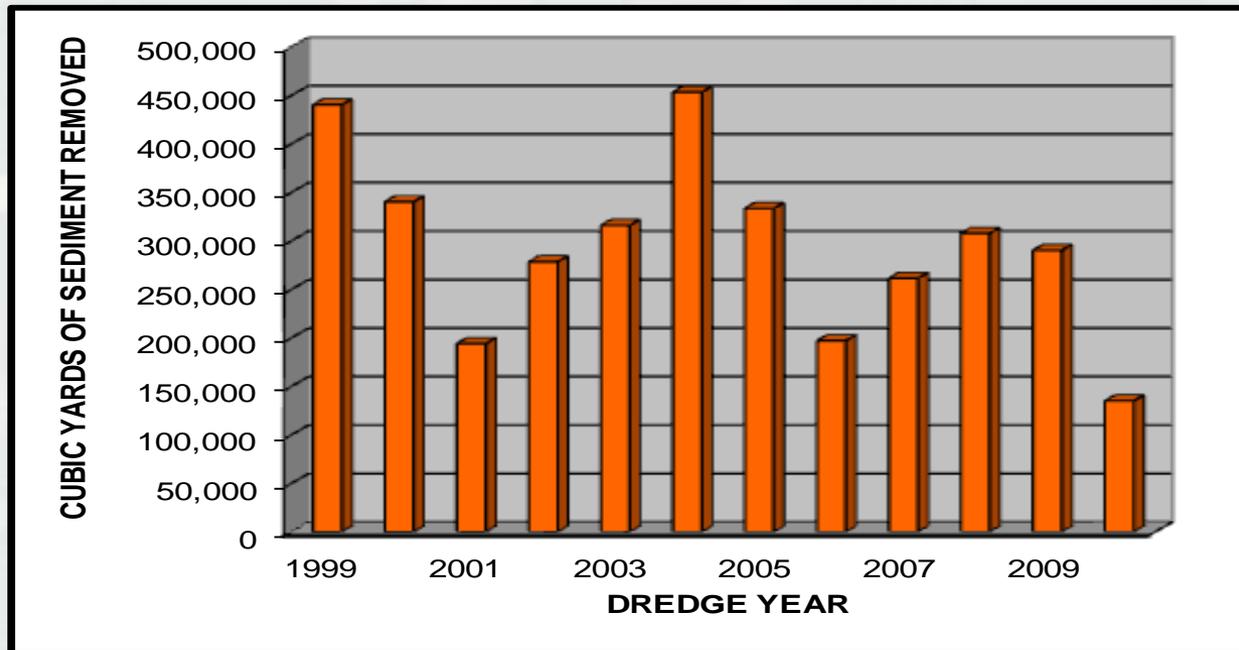




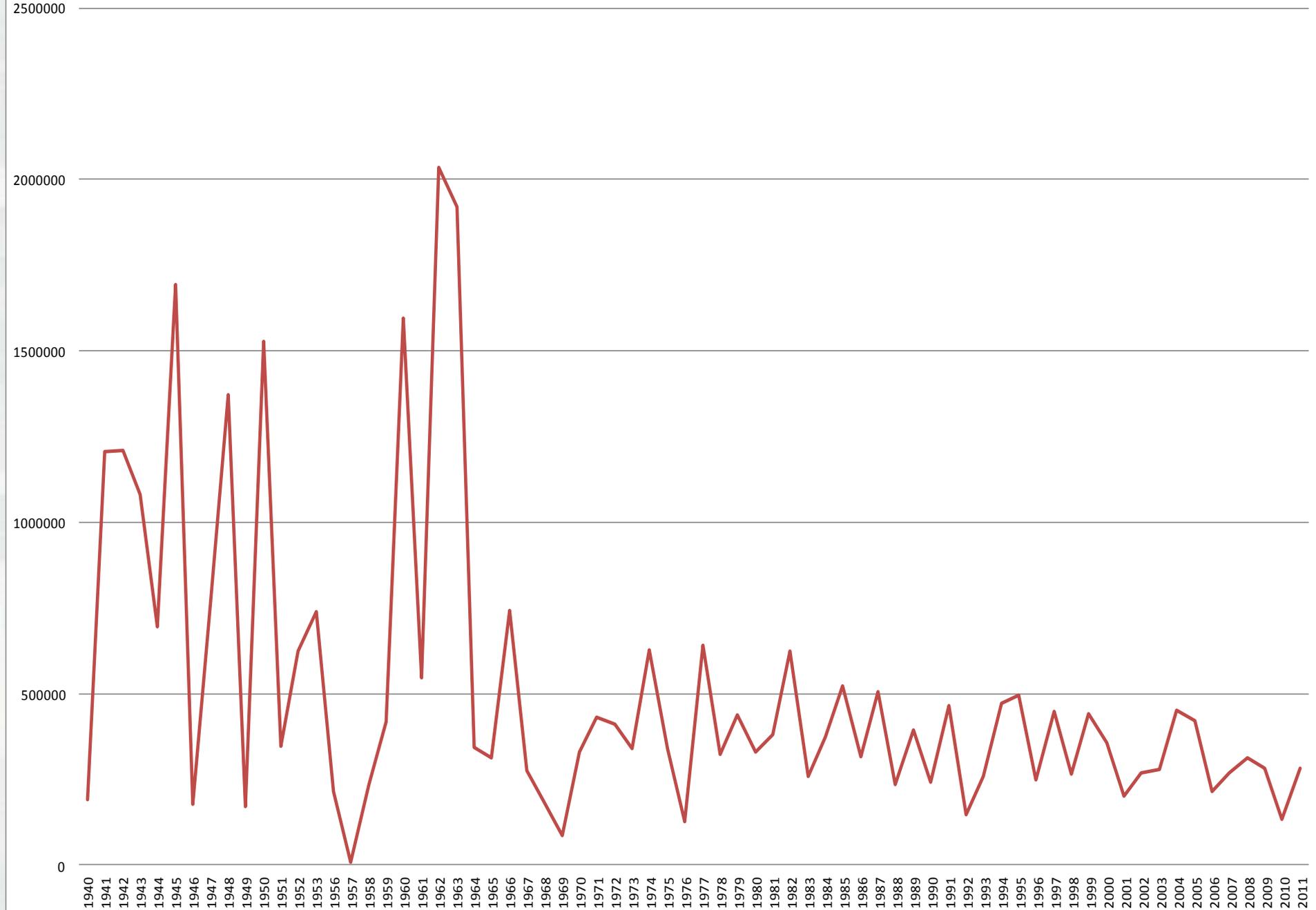
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Inland Navigation – Huntington Dredging Program

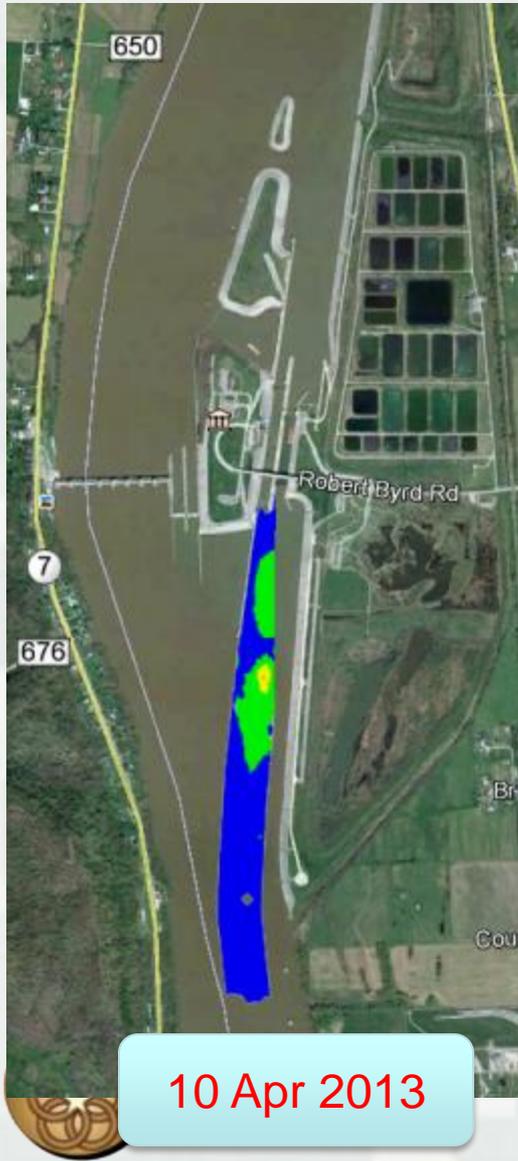
- Average of 500,000 CY of sediment dredged annually from Huntington District
- 34,172,000 CY suspended sediment annually in Ohio River (USGS)



Past Dredge Quantities



Dredging locations



Big Sandy River

- 2013 Dredging 211,573 CY of the 417,507 CY for Huntington
- Navigable Tributary to the Ohio River
- Coal
- Excavation of sumps upriver of navigation and at significant tributaries





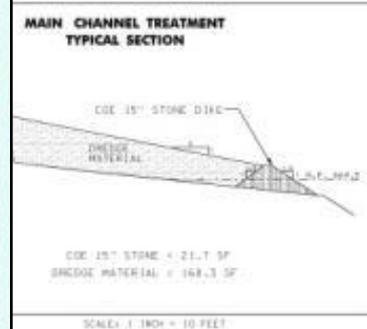
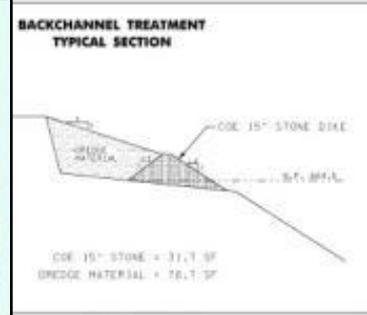
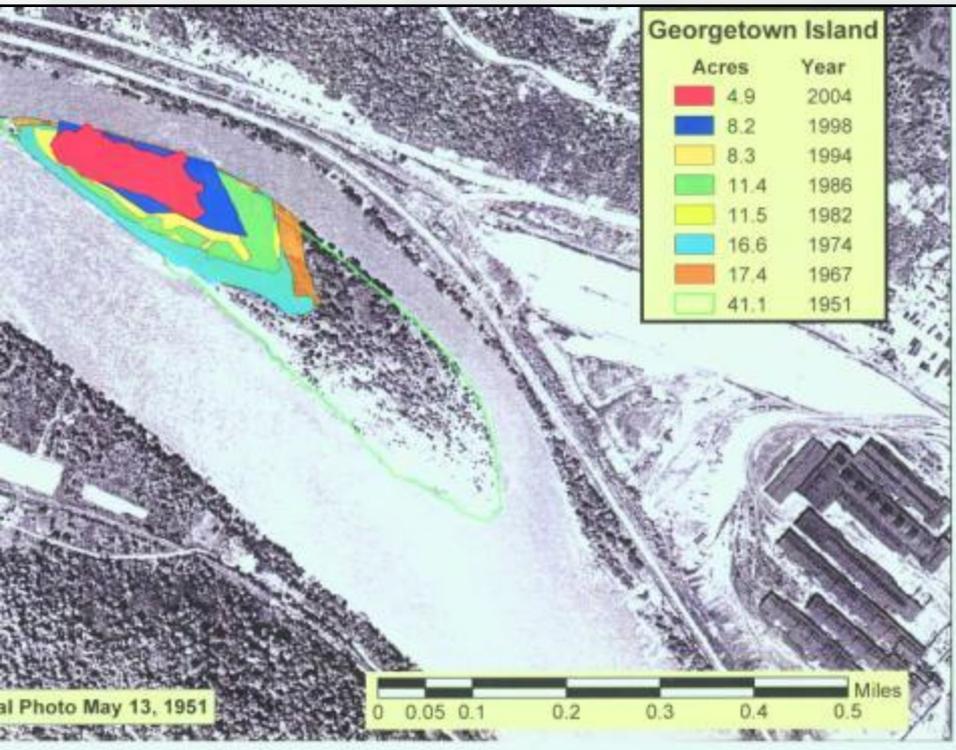
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Beneficial Use of Dredge Material



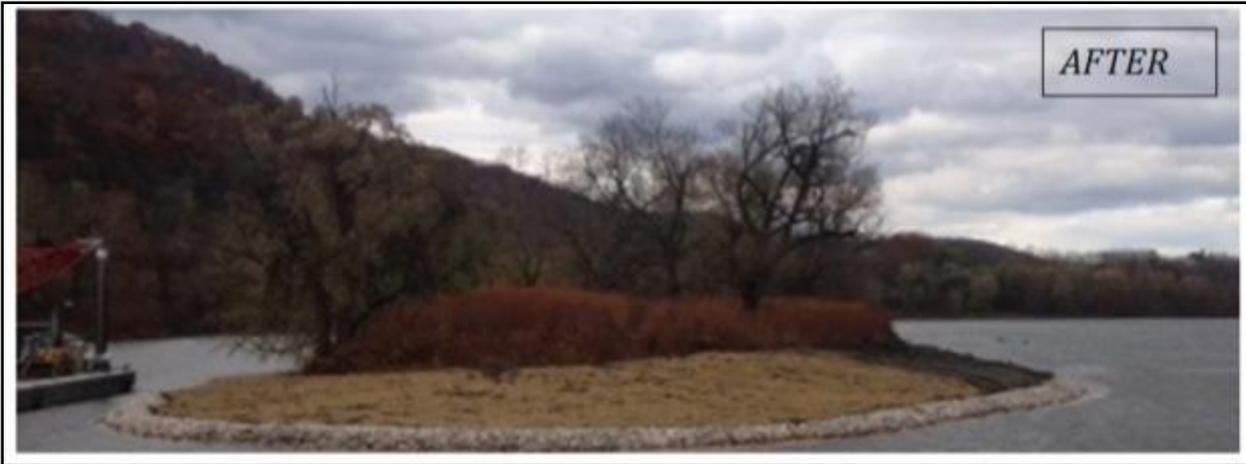
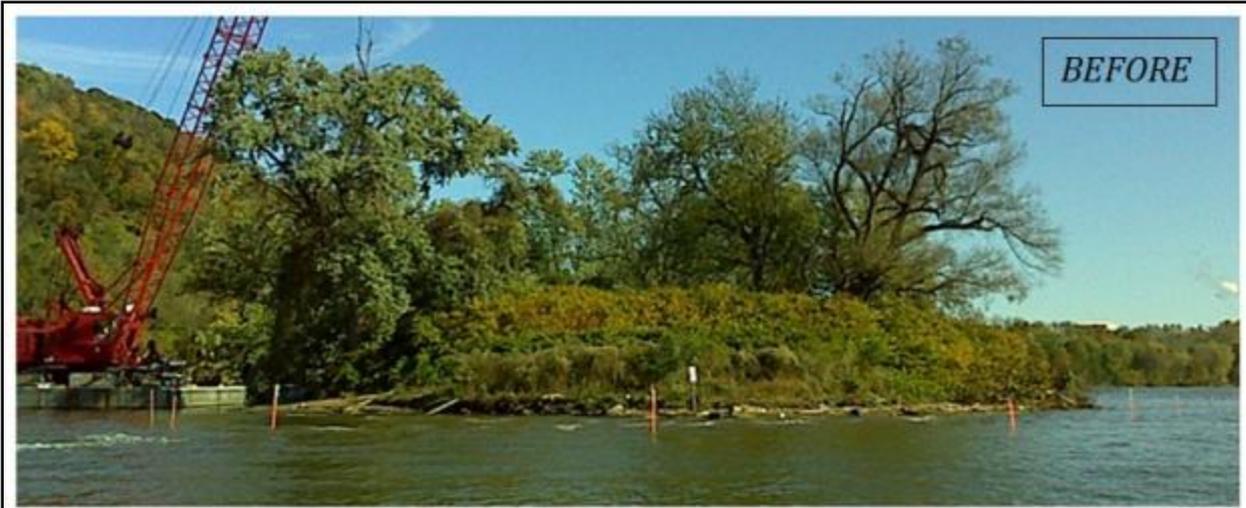
Georgetown Island, PA

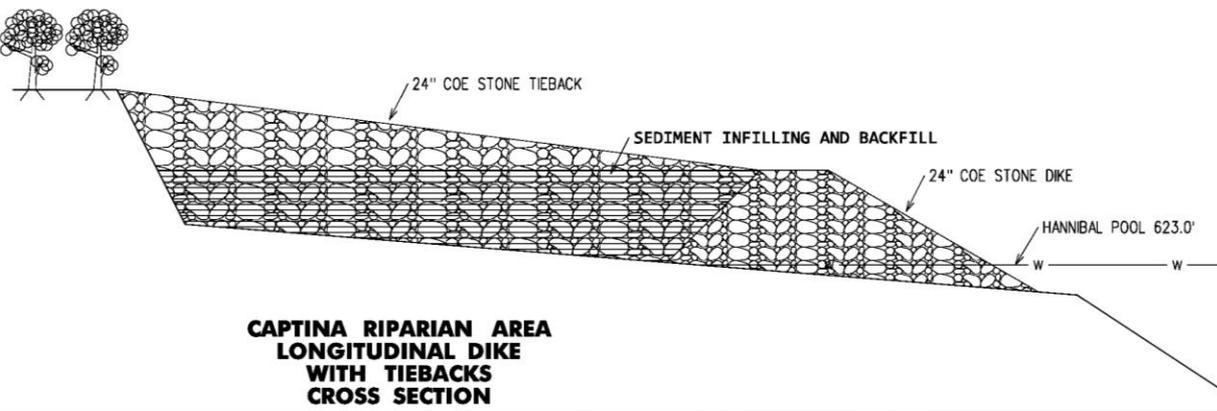


- NOTES:**
1. DIKE OFFSET FROM ISLAND BANK IS APPROXIMATE AND IS DEPENDENT AND DEFINED BY A SHALLOW WATER BENCH.
 2. DREDGE MATERIAL CONSISTS OF SAND WITH SOME GRAVEL AND COBBLES.
 3. SITE PLAN SHOWN ON AERIAL PHOTOGRAPHIC IMAGE FROM EARTH, GOOGLE.COM. MOST RECENT AVAILABLE TOPOGRAPHIC MAPPING IS DATED 1961.

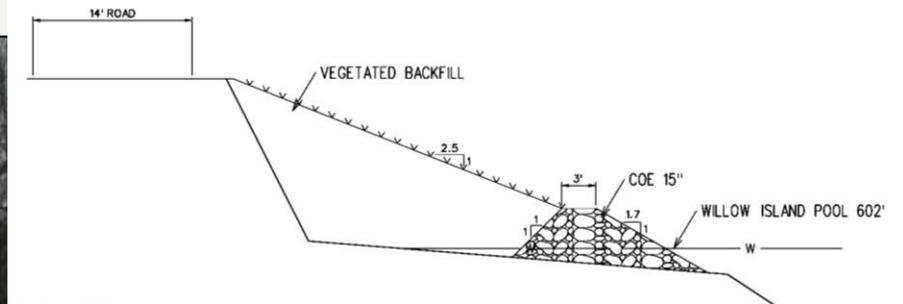


Georgetown Island, PA





Longitudinal Dike and Down Channel Transition with Placed Fill and Vegetation



Continuous Toe of Slope Longitudinal Stone Dike with Vegetated Backfill

Problems and Opportunities

- Disposal areas become freshwater mussel habitat
- Costs of upland disposal
- Riverbank erosion sites could receive dredge materials
- Change the flow of the rivers to reduce the need for dredging



Credits and Resources

Joe Rockovich CELRP - Construction Division

Sara Siekierski, USFWS Ohio River Island NWR

CELRH-Waterways Section of Operations and
Readiness Division

Kent Browning

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Any Questions?

