

Chicago Area Waterway System Dredged Material Management Plan and Integrated Environmental Assessment

Public Meeting

June 22, 2015

6:00 – 7:30 pm

Chicago District
Great Lakes and Ohio River Division



US Army Corps of Engineers
BUILDING STRONG



Agenda

- Study Overview
- Proposed Plan
- Next Steps
- Questions & Comments



USACE Civil Works Missions

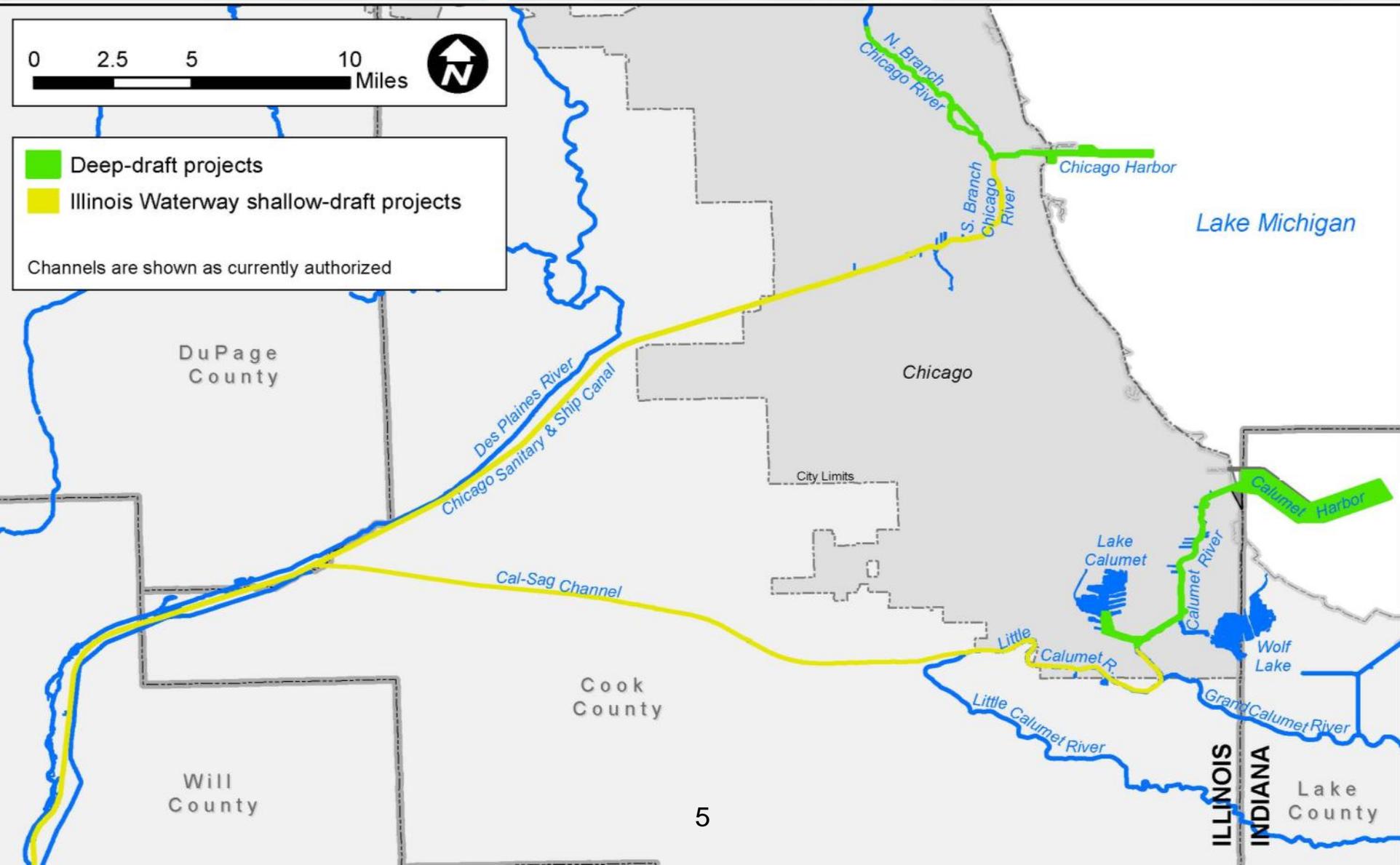


Summary of Proposed Plan

- Dredging need: 1,330,000 cubic yards over 25-years
 - ▶ 680,000 cy – contaminated sediment
 - ▶ 650,000 cy – clean material
- Proposed Plan
 - ▶ Close the existing placement facility
 - ▶ Construct a new facility at a former industrial site
- Plan is cost-effective and protects the environment
 - ▶ Beneficially use clean material in facility construction
 - ▶ Contaminated material isolated from surrounding environment



Chicago Area Waterway System



Why is Dredging Needed?

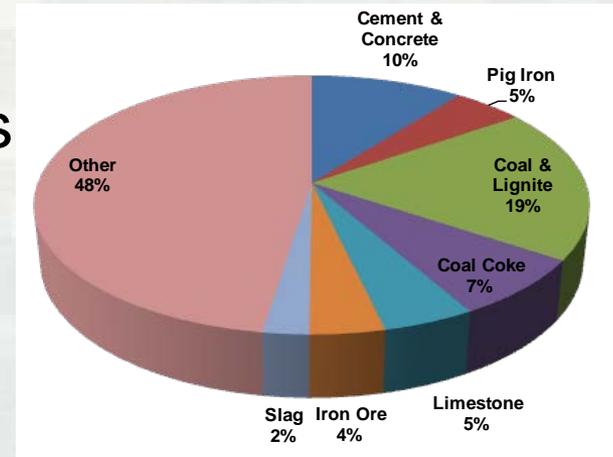
- Economic Benefits

- 3rd busiest harbor on Great Lakes
- Shipping and related activities support local jobs and revenue
 - ▶ 2,500 jobs
 - ▶ \$455,000,000 in annual sales

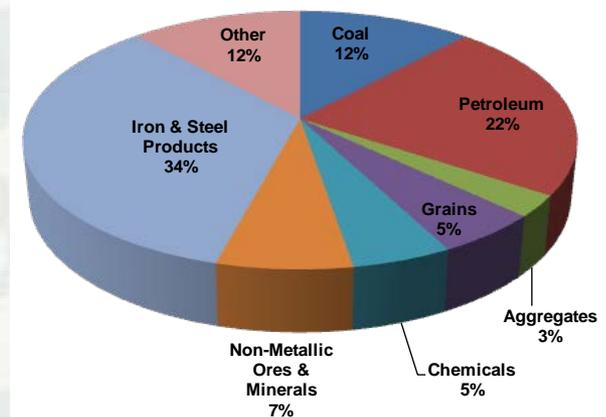
- Environmental and Social Benefits

- Waterborne transportation safety and efficiency
- Remove legacy contaminated sediment from waterway

Commodity Movements (2003-2012)



Calumet Harbor and River
(Annual average 14,400 tons)



Calumet Sag-Channel
(Annual average 6,500 tons)

Projected Dredging Need (25 years)

	Project	Projected Need	Current Placement
Deep Draft	<i>Calumet Harbor and River</i>	1,300,000 cy	Chicago Area CDF
	Chicago Harbor	none	
	Chicago River	none	
Illinois Waterway	<i>Calumet-Sag Channel</i>	30,000 cy	No designated location ¹
	Chicago Sanitary & Ship Canal	none	

¹Previously designated placement site, Lucas Berg CDF, was deauthorized for dredged material placement by the Water Resources Reform and Development Act of 2014

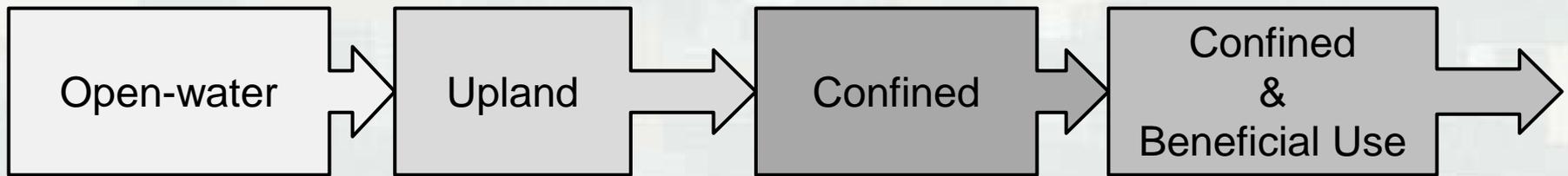


Existing Chicago Area Confined Disposal Facility (CDF)

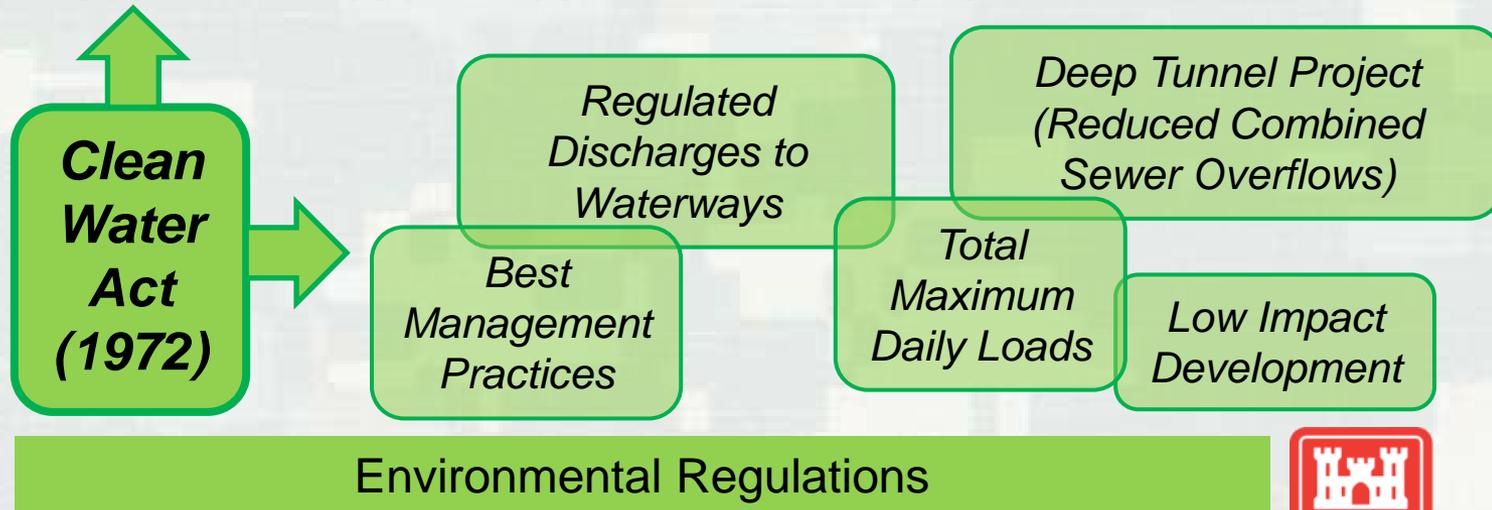


Sediment Quality & Dredged Material Management

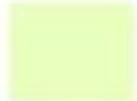
Dredged Material Management Practices



1800s → 1969 → 1980 → 1984 → 2016 →



Sediment Quality



Calumet Approach Channel – No required dredging



Calumet Harbor Channel – Low levels of metals and PAHs, similar to Chicago background conditions



Calumet River and Calumet-Sag Channel – Elevated concentrations of metals and PAHs



Collaborative Planning

- Study funded by USACE based on need for dredged material placement capacity
- Ongoing coordination with stakeholder agencies
 - ▶ Prospective Non-Federal Sponsor for implementation: Illinois International Port District
 - ▶ Other Stakeholders: City of Chicago, Chicago Park District, Metropolitan Water Reclamation District of Greater Chicago



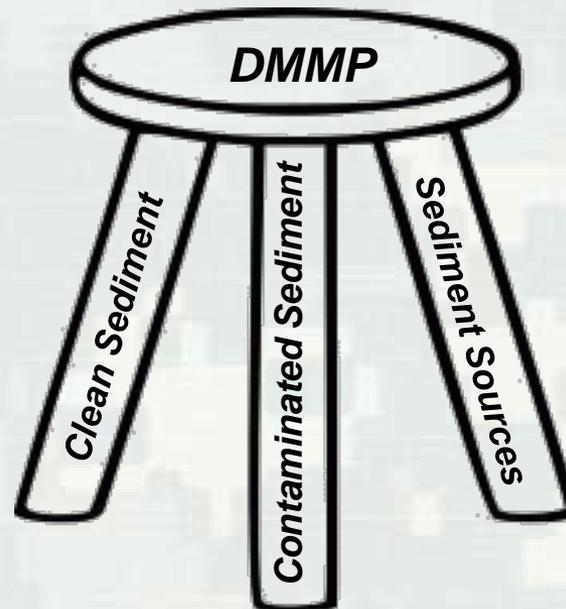
Planning Process

- Federal Standard (33 CFR § 335.7)
 - ▶ Complies with environmental regulations
 - ▶ Sound engineering principles
 - ▶ Least cost
- Additional criteria
 - ▶ Economically justified: benefits exceed costs
 - ▶ Long-term planning: minimum 20 years
 - ▶ Sustainability: consider life-cycle costs and impacts
 - ▶ Regional perspective: meet needs for entire Chicago Area Waterway System

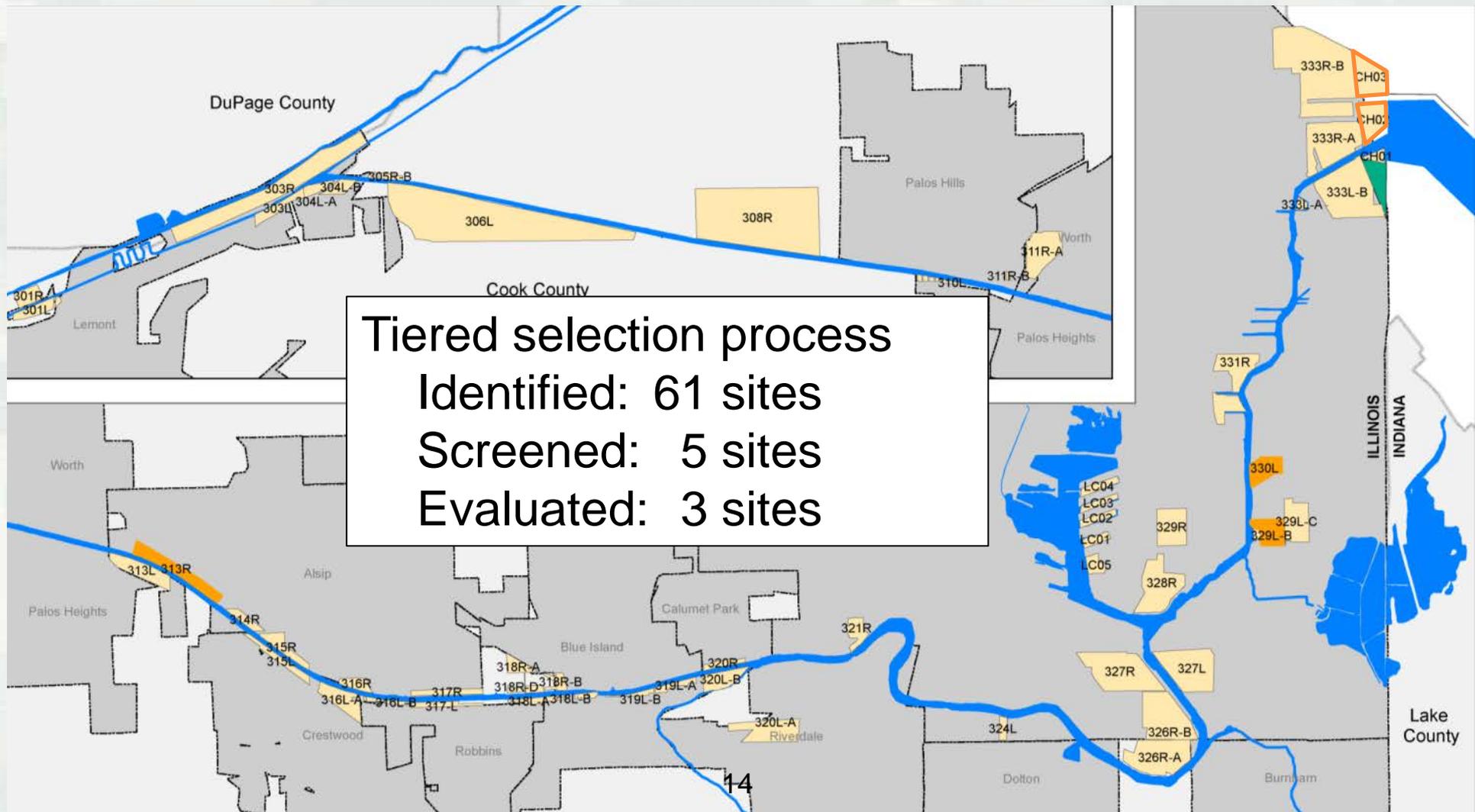


What Can We Do With the Sediment?

- Source reduction
- Beneficial use of clean material
- Confined disposal of contaminated material

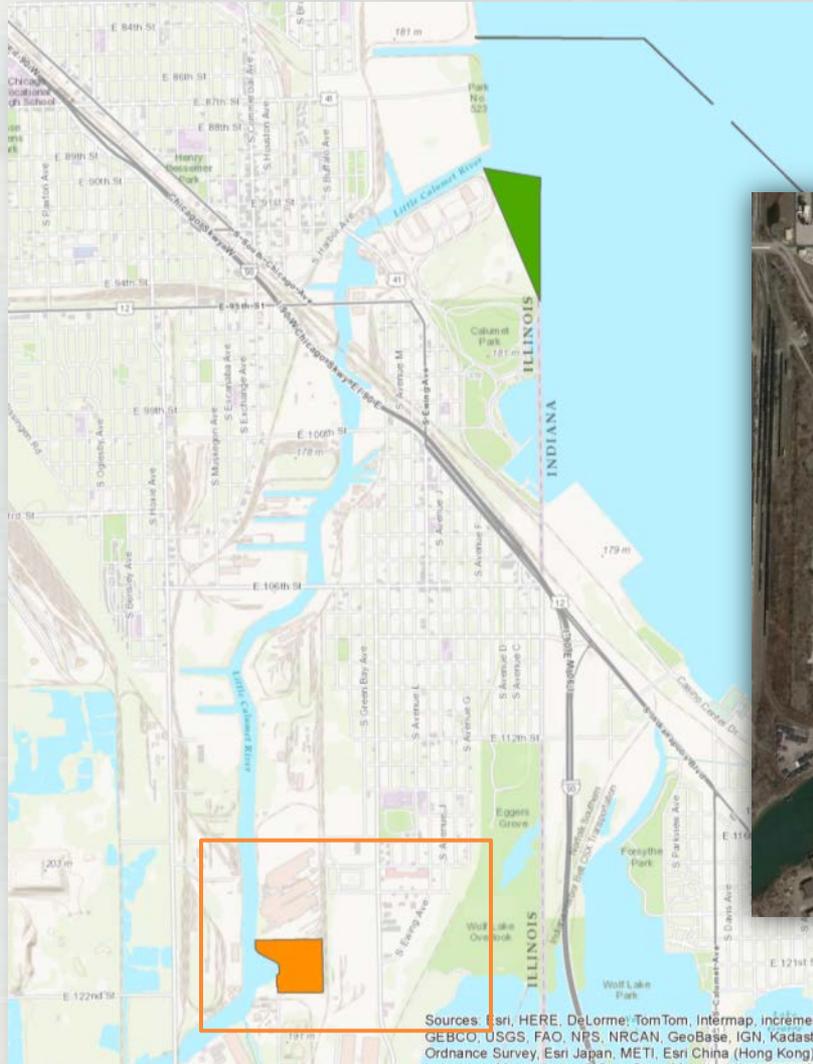


Potential Dredged Material Disposal Facility (DMDF) Sites



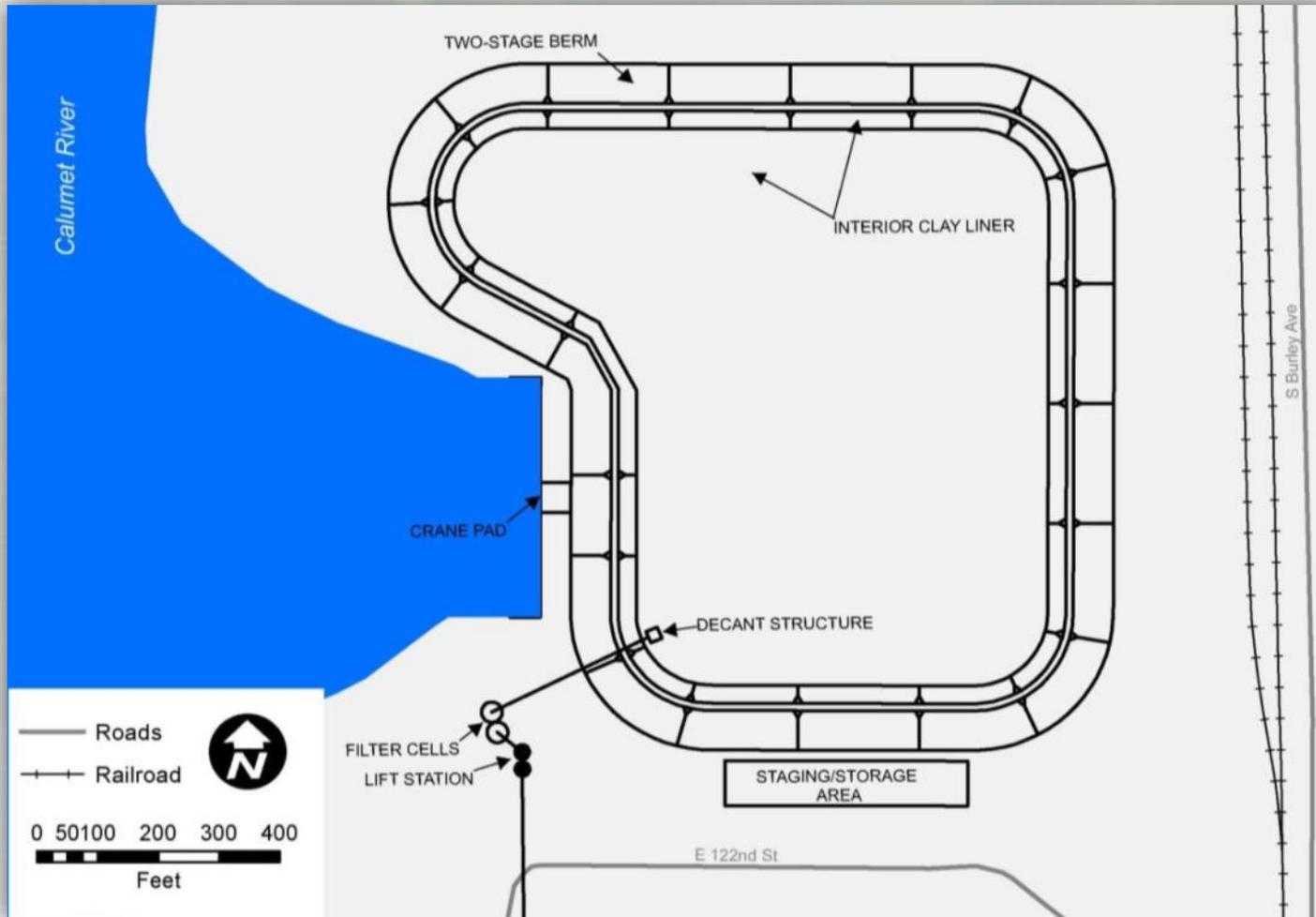
Tentatively Selected Plan

-  Existing Chicago Area CDF
-  Proposed Republic DMDF Site

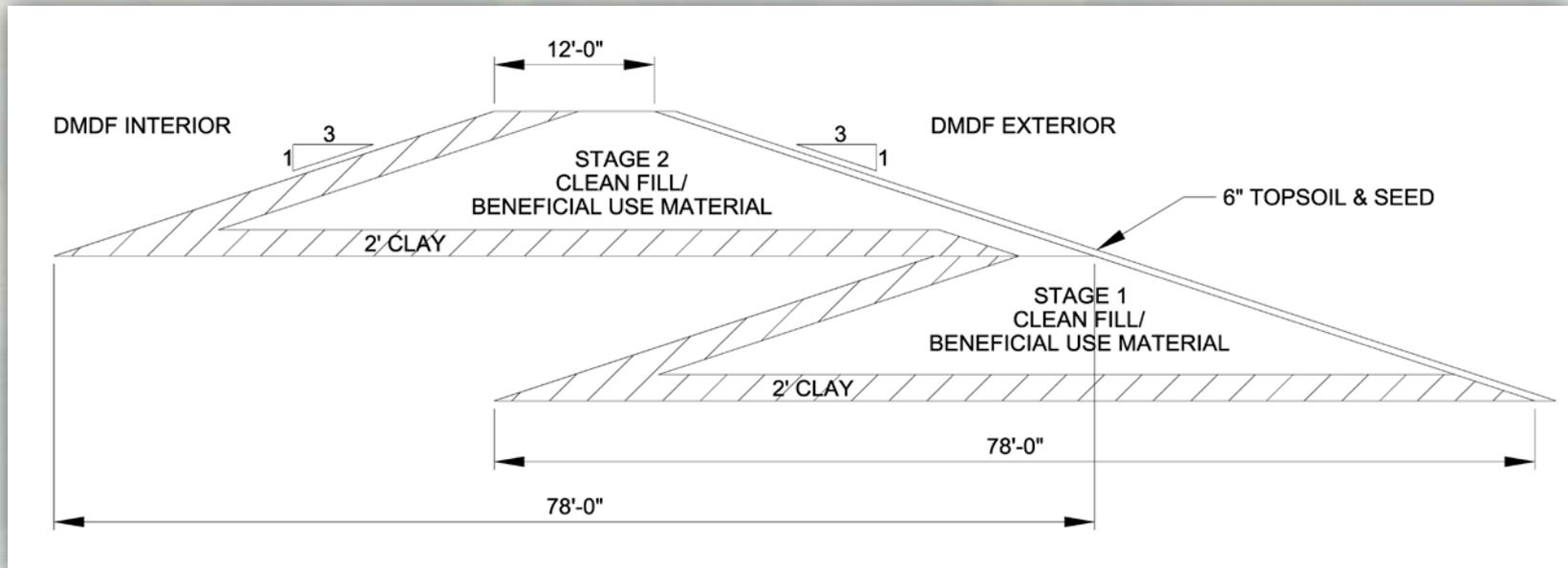


Sources: Esri, HERE, DeLorme, TomTom, Intermap, increment, GEBCO, USGS, FAO, NRS, NRCAN, GeoBase, IGN, Kadaster, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), Swisstopo, Mapbox, © OpenStreetMap contributors, and

Preliminary DMDF Site Layout



Conceptual DMDF Design

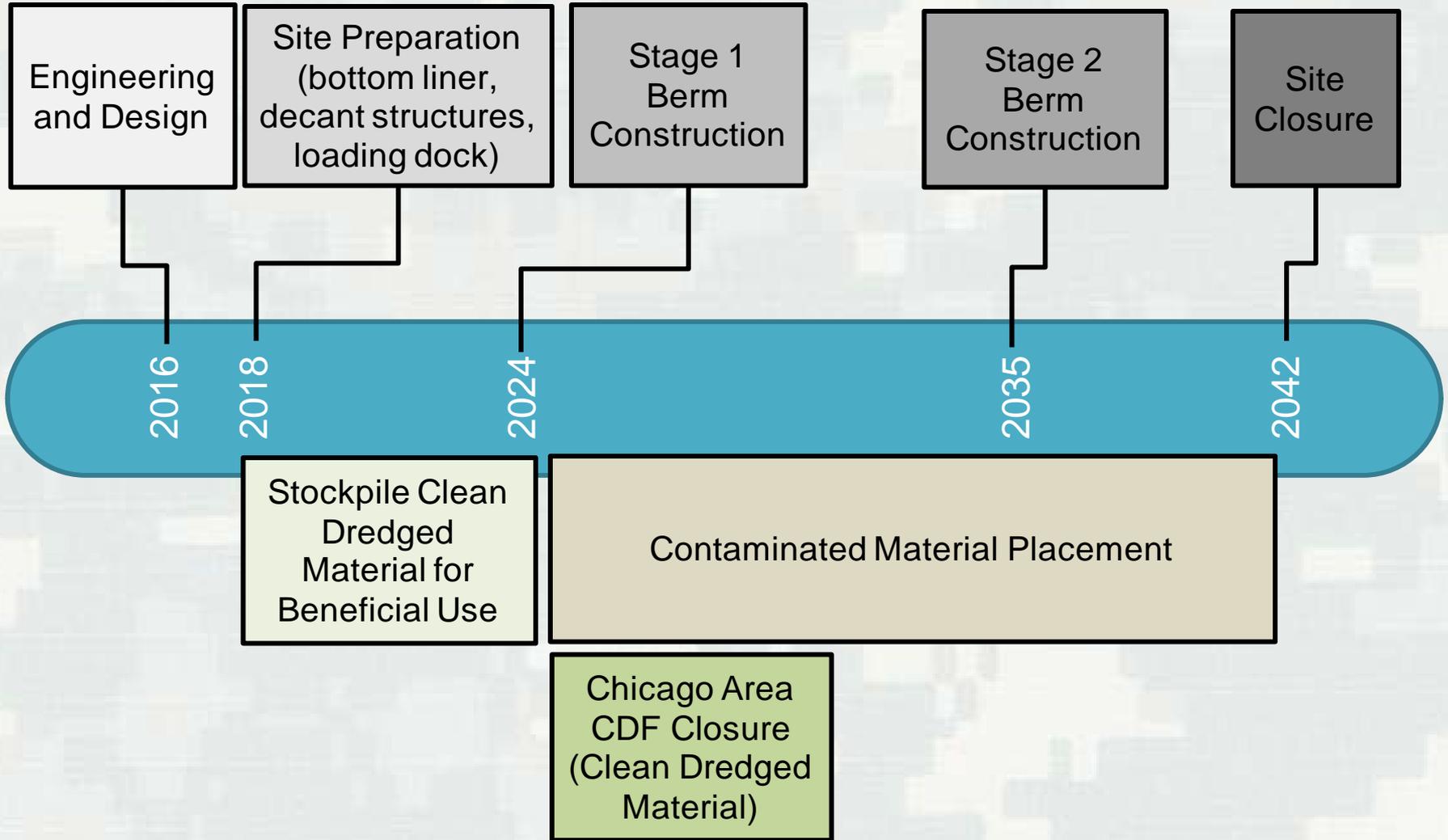


- Two-stage perimeter berms, each approx. 11-ft high
- Compacted clay liner serves as barrier
- Erosion and dust control incorporated in site design



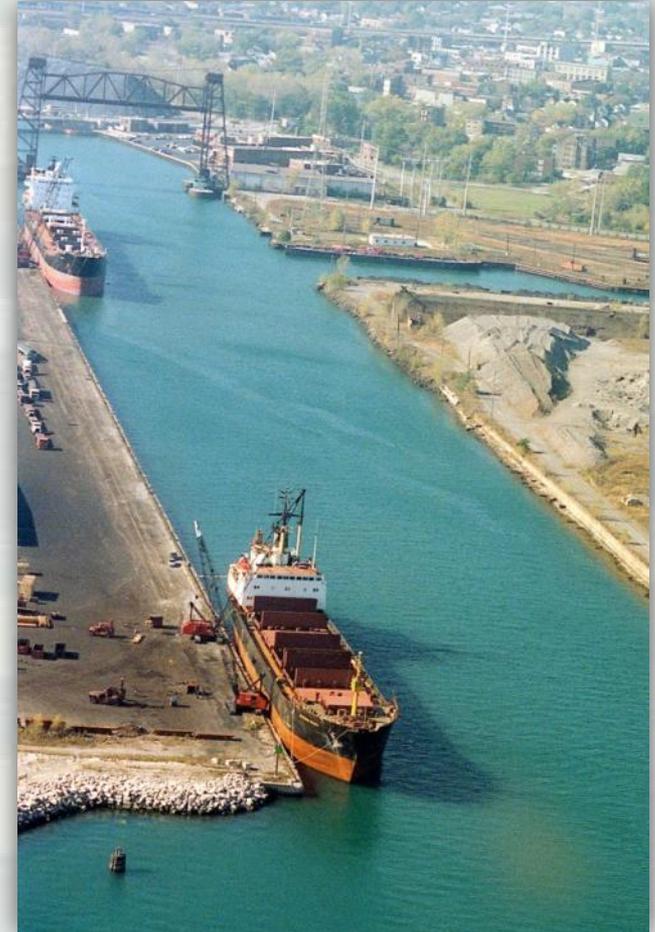
Phased DMDF Construction

(estimated timeline, pending funding)



Plan Benefits

- National Economic Development
(Transportation Cost Savings)
 - ▶ \$7,000,000 average annual net benefits
 - ▶ Benefit-to-cost ratio: 3.2
(Oct 2014 price level, 3.375% discount rate)

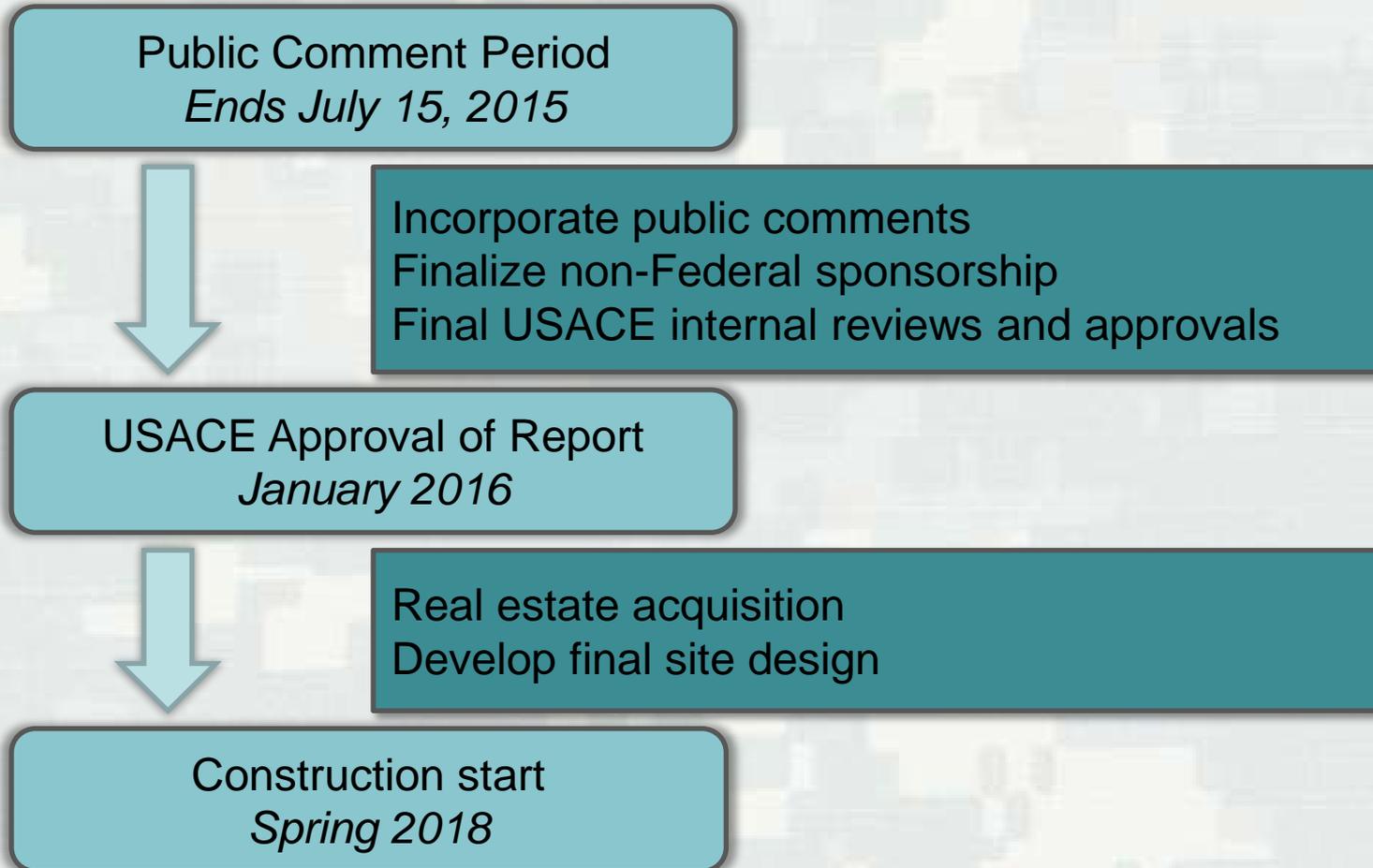


D MDF Implementation

- Total project cost: \$25M to \$35M (with inflation)
 - ▶ Construction costs are shared
65% Federal, 35% non-Federal
 - ▶ Non-Federal sponsor provides necessary
lands, easements, and rights-of-way
- D MDF Operations:
 - ▶ Facility operation & maintenance by Chicago District
 - ▶ Dredged material placement by USACE contractors
- D MDF Closure:
 - ▶ Final cover placed by USACE
 - ▶ Maintained by non-Federal sponsor



Next Steps



(Estimated timeline, pending funding)



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Public Comment Period

- Comment period ends July 15, 2015
- Report available at <http://www.lrc.usace.army.mil/>
- How to comment:
 - ▶ E-mail: chicagodistrict.pao@usace.army.mil
 - ▶ Mail: USACE, Chicago District
231 S. LaSalle Street, Suite 1500
Chicago, IL 60604
ATTN: Planning Branch
(postmarked by July 15, 2015)



Thank you for your participation!



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