# NEPA Public Meeting

## Chicago Area Waterway System (CAWS)
## Dredged Material Management Plan (DMMP)
## Chicago, IL

Chicago District, May 2019

US Army Corps of Engineers

U.S.ARMY

# NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)

**Process to ensure that the government considers impacts to the human environment when making decisions**

**Public involvement**

- NEPA allows public to participate and influence the decision
- Critical to ensure that all potential impacts are considered

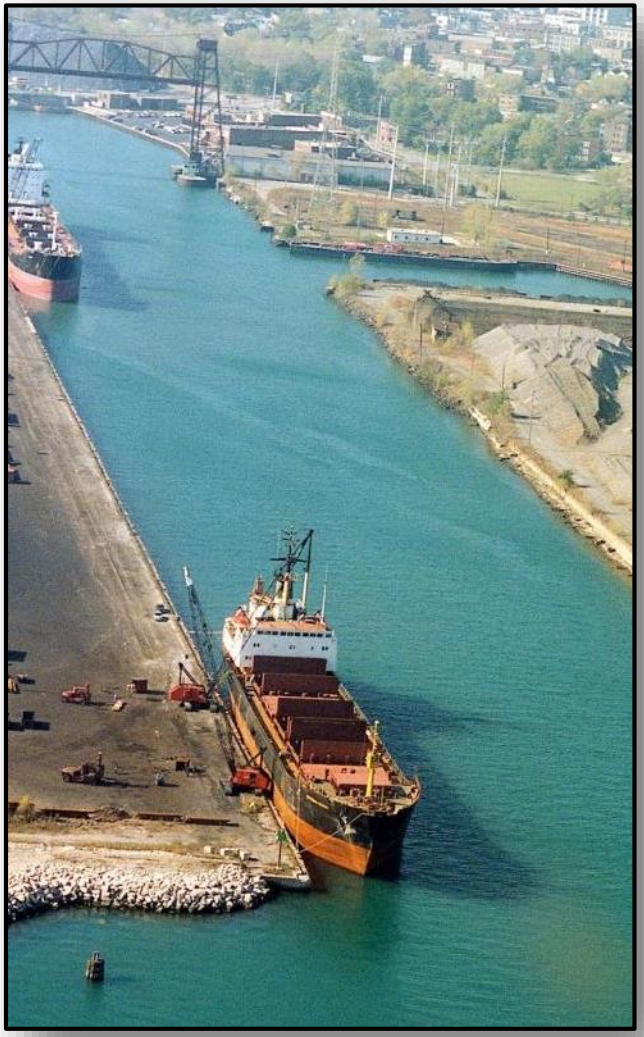
**Transparency and documentation for review and posterity**

- Full disclosure and consideration of environmental information in agency decision-making
- Agencies must inform the public of potential impacts and alternatives and involve the public in decision-making

# AGENDA

- Study Overview and Background
- Existing and Future Conditions
- Plan Formulation and Analysis
- Plan Evaluation and Selection
- Opportunities to Provide Input

# STUDY OVERVIEW



Federal Navigation Authorities:

**Calumet Harbor and River**

- River and Harbor Acts of 1899, 1902, 1935, 1960, 1962, and 1965

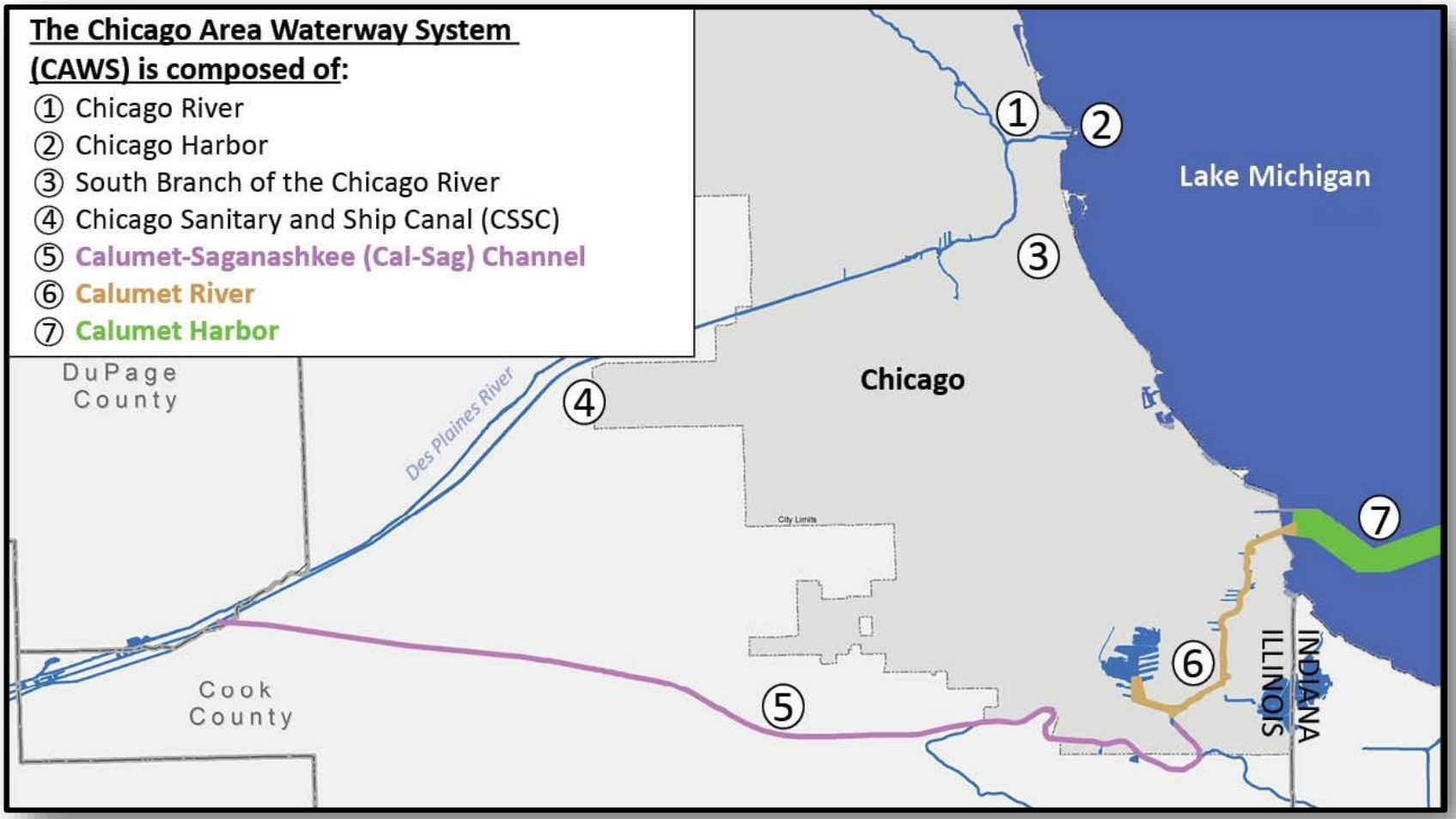
**Cal-Sag Channel**

- River and Harbor Acts of 1930, 1945, 1946, and 1957

***Non-Federal Sponsor:***

- City of Chicago, as represented by Chicago Department of Transportation (CDOT)

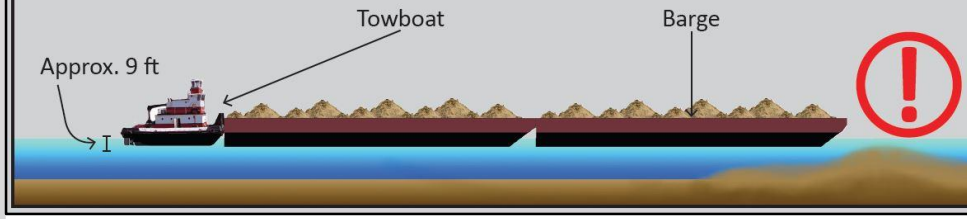
# CHICAGO AREA WATERWAY SYSTEM (CAWS)




***NOTE:*** *Channels shown in color are projected to require dredging over the next 20 years.*
*Calumet Harbor & River is a single federal navigation project, shown separate here for clarity.*

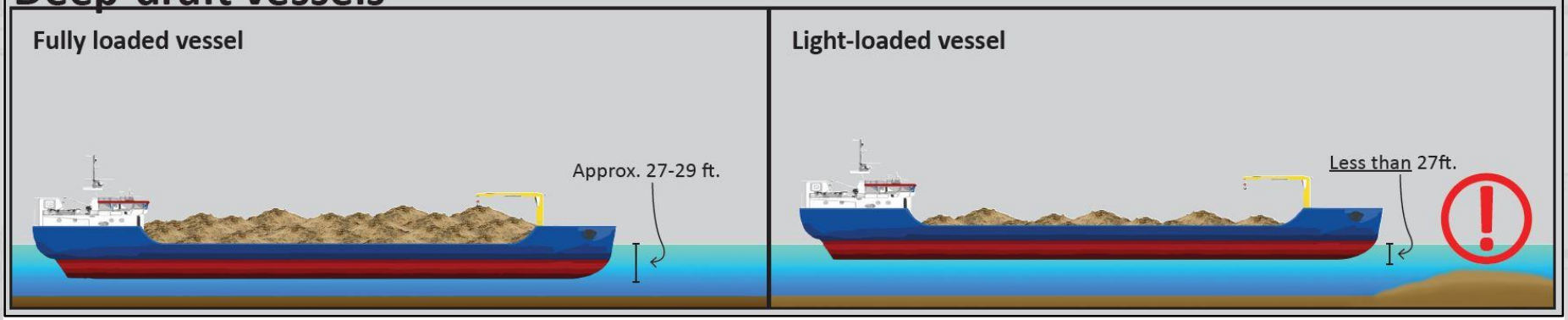
# WHY DREDGING IS NEEDED

## Shallow-draft barges and towboat




*Shoaling reduces efficiencies of commercial navigation

## Deep-draft vessels




*Shoaling requires some vessels to light load when authorized depths cannot be maintained

# BENEFITS OF DREDGING

- Unique connection between Great Lakes and Mississippi River navigation systems
- Chicago is the 2nd busiest port in the Great Lakes (2017)
- Calumet Harbor and River : 7.5 M tons annually (2015-2017)
- Cal-Sag Channel: 4.8 M tons annually (2015-2017)
- These waterway movements support Chicago's regional economy:
  - Generate revenues for multiple industries: waterways, port services, warehousing, transportation, and fuel providers
  - Supports ~1,800 jobs annually
  - Supports ~$460 M in industry revenues annually

# PROJECTED DREDGING NEEDS

- Calumet Harbor & River and Cal-Sag Channel

- 1,030,000 cubic yards (cy) over 20 years
  - Calumet Harbor 500,000 cy
  - Calumet River 500,000 cy
  - Cal-Sag 30,000 cy

- Assume 50,000 cy/year
  - ½ Harbor; ½ River

- Small amount reserved for Cal-Sag Channel
  - No current plans for dredging
  - Not dredged since 70s

# QUALITY OF SEDIMENT AFFECTS MANAGEMENT

**1. Very Clean, Sandy = Open Water or on the Beach**

**2. Clean Fine, Clay or Silt = Some Beneficial Uses**

- On land as fill
- In water as habitat (wetlands)
- Calumet Harbor Sediment

**3. Contains Pollution = Other Management Technique**

- Private management (landfill), treatment, confined disposal
- Calumet River & Cal-Sag Channel Sediment

**Open-water placement**

Direct placement into water

**Beneficial use**

Parks

Roadbeds

Urban Redevelopment

Ecosystem Restoration

**Confined disposal**

Material safely enclosed

# MANAGEMENT MEASURES AND SCREENING

| Measures | Status |
|---|---|
| No Action | **Considered** |
| Open Water Placement | **Considered** |
| Beneficial Use | **Considered** |
| Source Reduction | **Considered** |
| Minimizing Dredging Requirements | **Ongoing** |
| Private Management (landfill) | ***Not Feasible*** |
| Sediment Treatment/Remediation | ***Not Feasible*** |
| Confined Disposal | **Considered** |

Bottom line: only feasible management measures are being considered in detail in the study report.

# BENEFICIAL USE OF DREDGED MATERIAL

- Calumet Harbor material is suitable for beneficial use
- Corps policy requires dredged material be put to beneficial use to the greatest extent practicable
- The Corps and the City of Chicago are working together to develop a plan for beneficial use
- There is a continuing demand in the project area for clean fill material for multiple uses

# CONFINED DISPOSAL

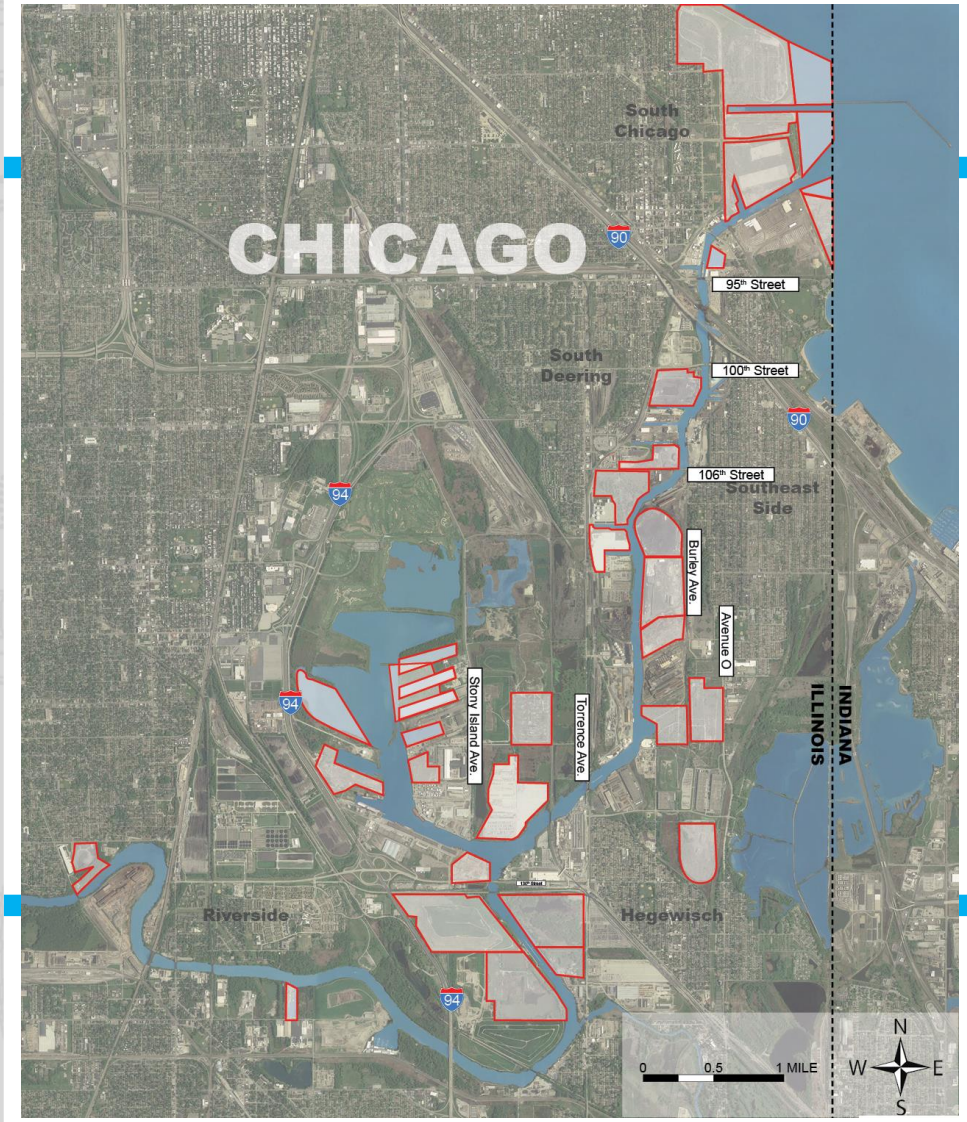
- Calumet River and Cal-Sag Channel material is not suitable for beneficial use
- Confined Disposal is the only viable and safe management measure for contaminated sediment from Calumet River and the Cal-Sag Channel
- This is based on a comparison of effectiveness, scale, environmental concerns, and cost

# CONFINED DISPOSAL SITE SELECTION

## Public Outreach Resulted in these Actions:

- **Submit letter of support for Calumet master planning effort**
  - CMAP grant application successful
- **Re-evaluation of measures**
  - Additional sites
  - Beneficial use
  - Private Management (Landfill)
  - Treatment alternatives
- **Conduct an EIS rather than an EA**
  - Based on public concerns
- **Extended public comment period**
  - From 45 to 60 days

# CONFINED DISPOSAL SITE SELECTION




- **60+ sites considered in 2015**
- **Identified additional new sites**

**Key Site Criteria:**

- **Size** – provide required capacity
- **Natural Resources** – avoid quality habitat
- **Current Use** – prefer under-utilized land
- **Env. Conditions** – avoid likely response actions
- **Operability** – practical to build and fill
- **Waterway Access** – efficient handling and transportation
- **Upland Site** – beneficial use opportunity

**5 sites appear to meet all of the above criteria**

# CONFINED DISPOSAL SITE SELECTION


## Final Array of Alternatives

- No Action
- Vertical Expansion of Existing Chicago Area CDF
- Former KCBX North Terminal
- Former Wisconsin Steel Site
- 116th Street and Burley Avenue
- Former LTV Steel Site

**Detailed design, cost, and environmental analysis is used to identify the Tentatively Selected Plan (TSP)**



CDOT CHICAGO DEPARTMENT OF TRANSPORTATION
U.S.ARMY
US Army Corps of Engineers

# ECONOMIC EVALUATION OF ALTERNATIVE PLANS

| | LTV | Wisconsin Steel | KCBX | 116th and Burley | Vertical Expansion |
|---|---|---|---|---|---|
| Average Annual Benefits | $10,900,000 | $10,900,000 | $10,900,000 | $10,900,000 | $11,072,000 |
| Average Annual Costs | $5,124,000 | $5,557,000 | $4,980,000 | $5,144,000 | $5,074,000 |
| **Lifecycle Cost** | **$92,138,000** | **$98,090,000** | **$90,111,000** | **$91,983,000** | **$90,970,000** |
| **BCR** | 2.1 | 2.0 | 2.2 | 2.1 | 2.2 |

- LTV, 116th & Burley, KCBX, and Vert. Expansion preliminary cost estimates are within 2%

- Consider addition criteria/risks in selecting between *seemingly equivalent alternatives*

# TRADEOFFS ANALYSIS + SELECTION OF A TSP

## Vertical Expansion has less risk

- Furthest away from homes
- Addresses many concerns heard during public outreach
- Lower real estate risks
  - Little monetary value
  - Publically owned
  - Will not change future end use as open space
- Lower existing contamination risks
  - Same as current use
  - Operated safely since 1984

**The Tentatively Selected Plan is the Vertical Expansion Alternative**

# NEPA ANALYSIS – ENVIRONMENTAL IMPACT STATEMENT

**Natural Resources**

- Geology & topography
- Hydrology & hydraulics
- Water quality
- Air quality
- Contamination (HTRW)

**Social/Cultural Resources**

- Environmental justice
- Historic structures
- Tribal resources
- Recreation & aesthetics
- Noise
- Public health and safety

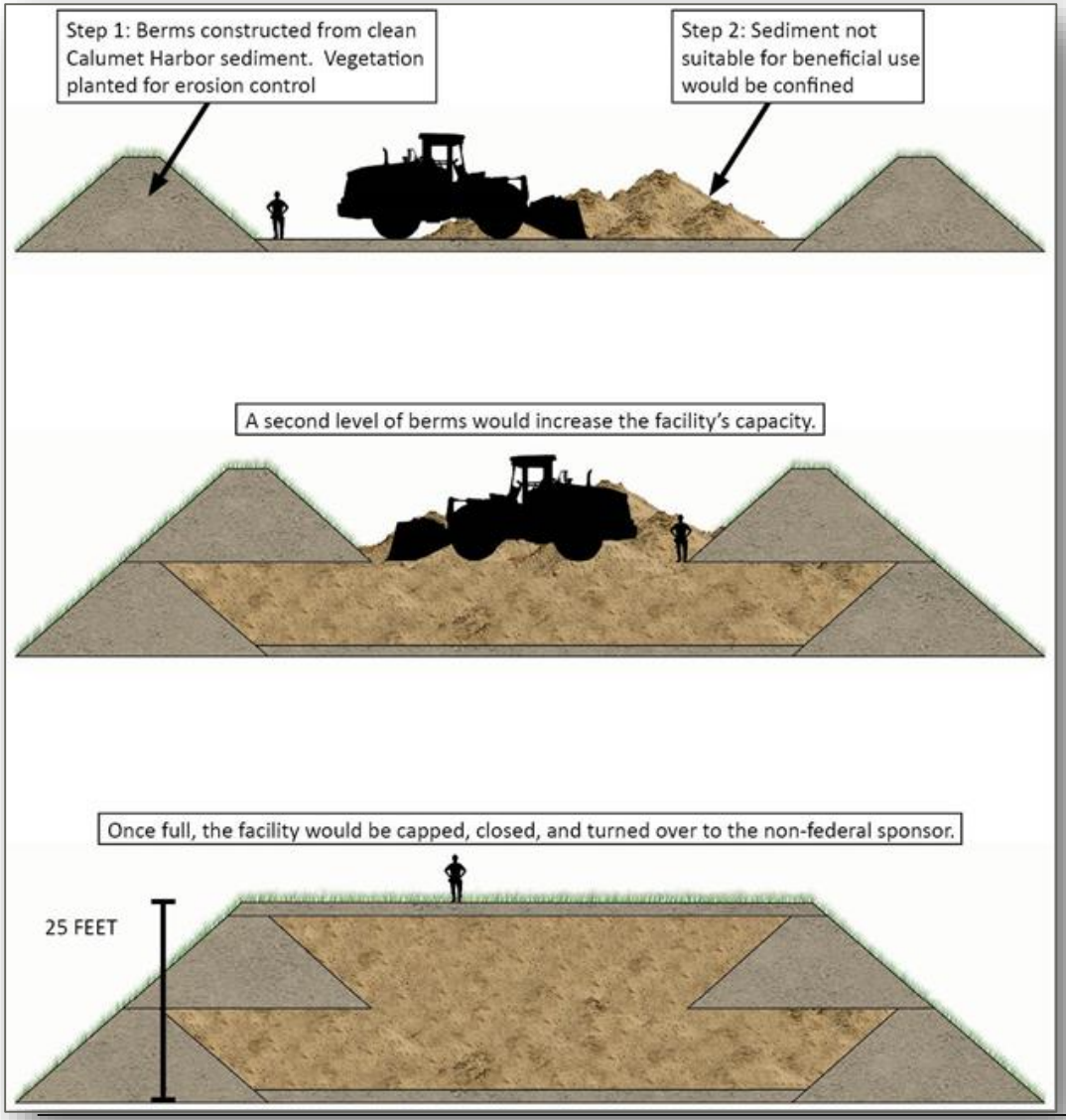
**Biological Resources**

- Flora & fauna (plants & animals)
- T&E species
- T&E critical habitat
- Other high quality habitat
- Wetlands
- Floodplains

**Economic Resources**

- Traffic and transportation
- Waterborne commerce
- Local economic development
- Regional economic development
- Jobs

# TSP CONCEPTUAL DESIGN




## Beneficial Use

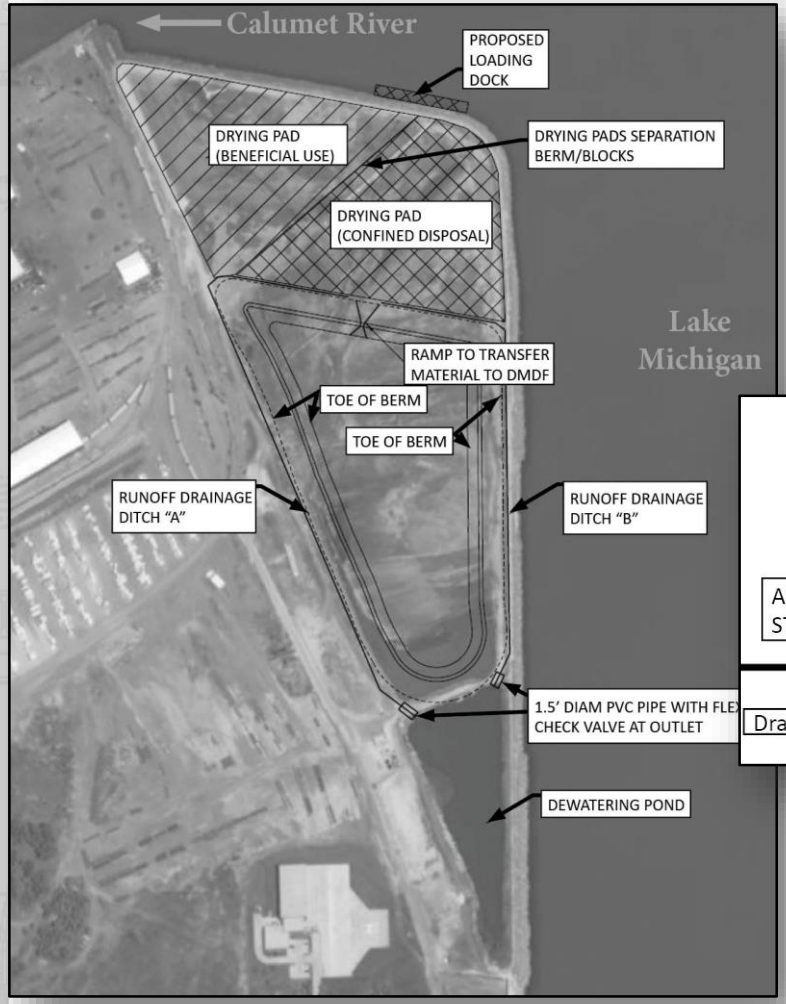
- **Berms** (with clay lining)
- **Cap** (2.5' with 6" of topsoil)
- **ID beneficial uses for remainder** (key assumption)

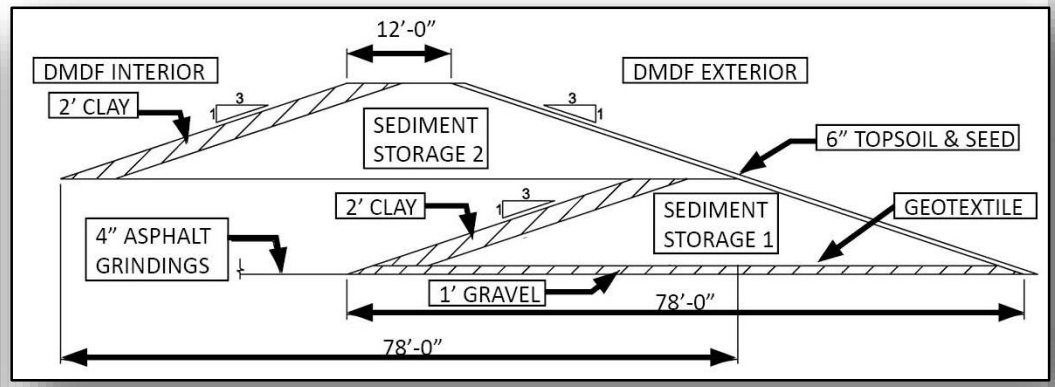
## Contaminated Material Safely Confined in Facility Interior

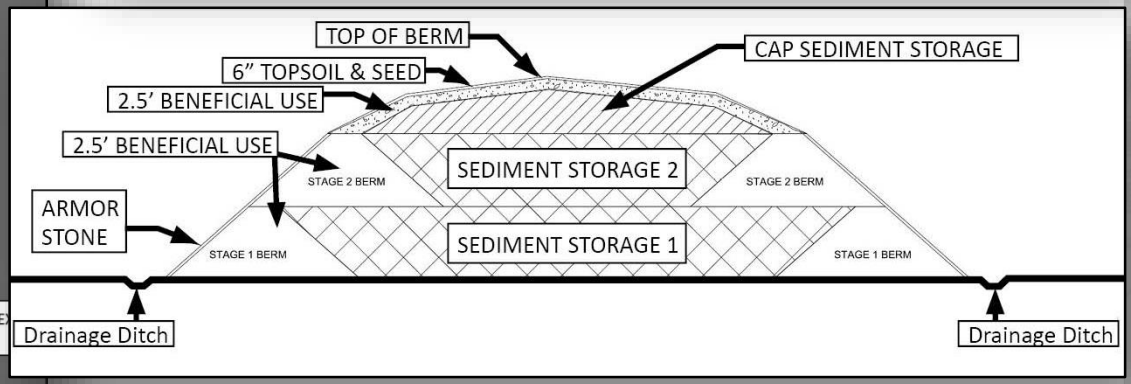
- **Two Stages** (~11' each)
- **Restrictions on Future Use to protect the cap**

# VERTICAL EXPANSION OF EXISTING CDF






- Calumet Harbor / mouth of Calumet River
- Existing CDF constructed in 1984
- Previously lake bottom
- Future use restricted to parkland or open space

| FACILITY DESIGN | PURPOSE |
| --- | --- |
| Dikes around facility | Contain sediment away from humans |
| Liner | Prevents groundwater seepage |
| Fencing and cover | Secures facility, keeps people out |
| Water treatment | Keeps contaminants from re-entering waterway |
| Vegetation, silt fencing | Prevent exposure of workers and residents to dust |
| Sampling and testing | Monitor sediment quality and successful confinement |

# TENTATIVELY SELECTED PLAN

## What does this plan mean for the region?

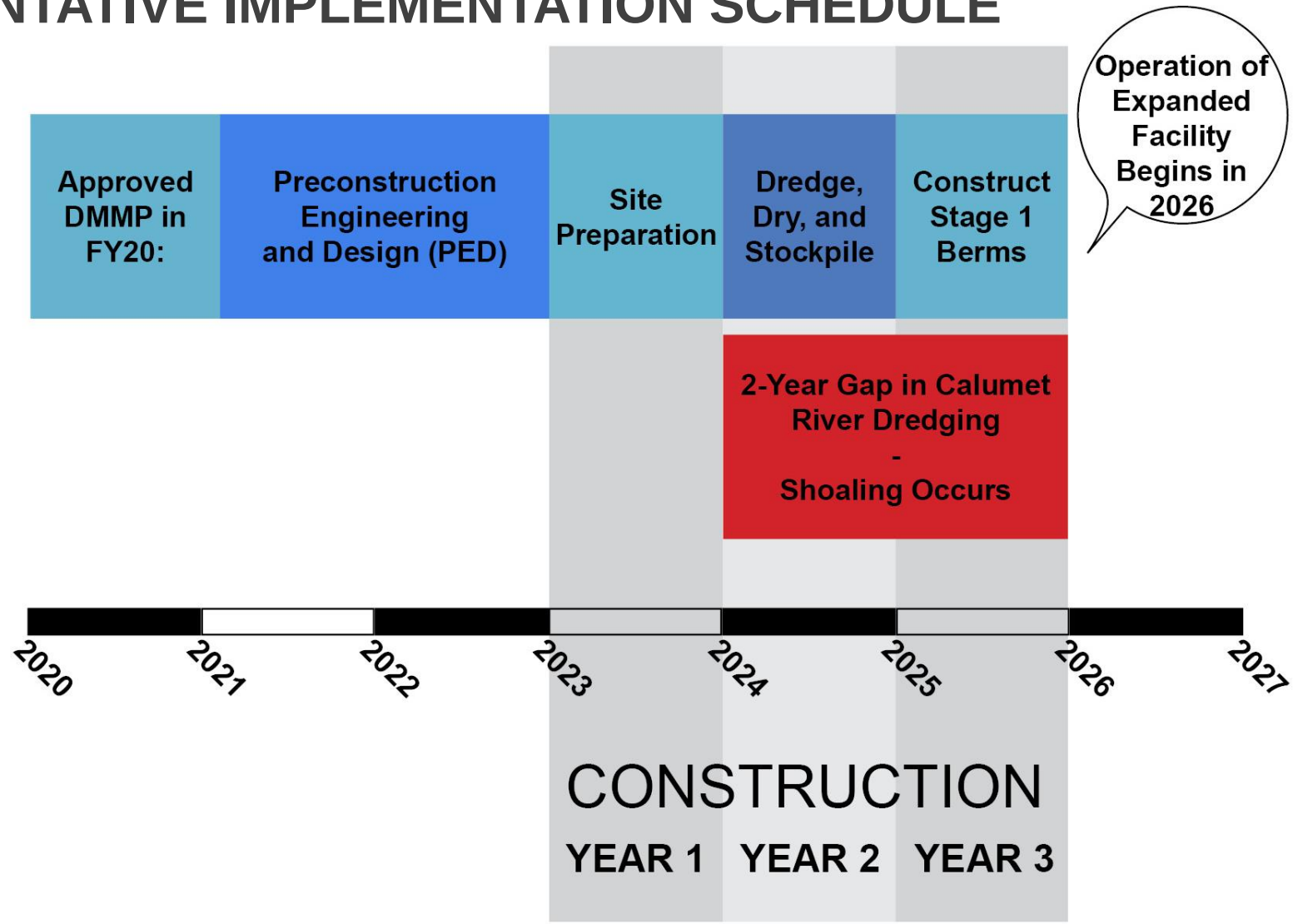
- **SAFETY**. **No significant adverse impacts identified in EIS**
  - Operated safely since 1984
  - Design features on the proposed facility will continue to ensure safety
- **EFFICIENCY.** Shortest development time for new facility means fewer navigation impacts
- **ENVIRONMENTALLY RESPONSIBLE**.
  - Removes polluted sediment from the environment
  - As far away from homes as possible
  - Beneficial use of clean sediment
- **FUTURE PARK USE.** End state will be a lakefront park or open space
- **COST EFFECTIVE**. Responsible use of taxpayer dollars

# STUDY SCHEDULE

| | |
|---|---|
| Begin Study | Fall 2013 |
| Public Review of 2015 Draft Report | June 2015 |
| 3 Stakeholder Roundtable Meetings and 2 Public Workshops | Feb-June 2018 |
| Tentatively Selected Plan Milestone | 28 Feb 2019 |
| **Draft Report Released – Start of Public and Agency Review** | **03 May 2019** |
| **Public and Agency Comments Due** | **02 July 2019** |
| Agency Decision Milestone* | Aug 2019 |
| Transmittal of Draft Report for Final Review* | Nov 2019 |
| Public Review of Draft Report and EIS* | Jan 2020 |
| Final Dredged Material Management Plan Approved* | Apr 2020 |
| Record of Decision (ROD) Signed* | TBD |

* Estimated Dates

# TENTATIVE IMPLEMENTATION SCHEDULE



# WE WANT YOUR INPUT!

**View the report at:**
https://www.lrc.usace.army.mil/Missions/Civil-Works-Projects/Calumet-Harbor-and-River/

**Provide feedback on the study:**
Comment session (today)

Written comments (through June 16, 2019)

**By mail to**:
U.S. Army Corps of Engineers
231 S LaSalle St
Suite 1500
Chicago, IL 60604

**Or by email to**:
CELRC_Planning_Econ@usace.army.mil

# BACKUP

## ENVIRONMENTAL ANALYSIS (EA)

- No significant adverse impacts or controversy are anticipated
- Evaluates potential impacts of selected plan only
- 30-day public review
- Completed with a Finding of No Significant Impacts (FONSI)

**VS.**

## ENVIRONMENTAL IMPACT STATEMENT (EIS)

- If potential significant effects to the human environment or controversy are anticipated
- More detailed analysis of effects of multiple alternatives
- More process (Notice of Intent in Federal Register, Public Scoping & Involvement)
- Minimum 45-day Public Review Notice of Availability in Federal Register
- Completed with Record of Decision (ROD)