Newtown Creek
Navigation Channel Discussion

ANCHOR QEA

April 3, 2019

Privileged and Confidential Draft – Not Subject to FOIL

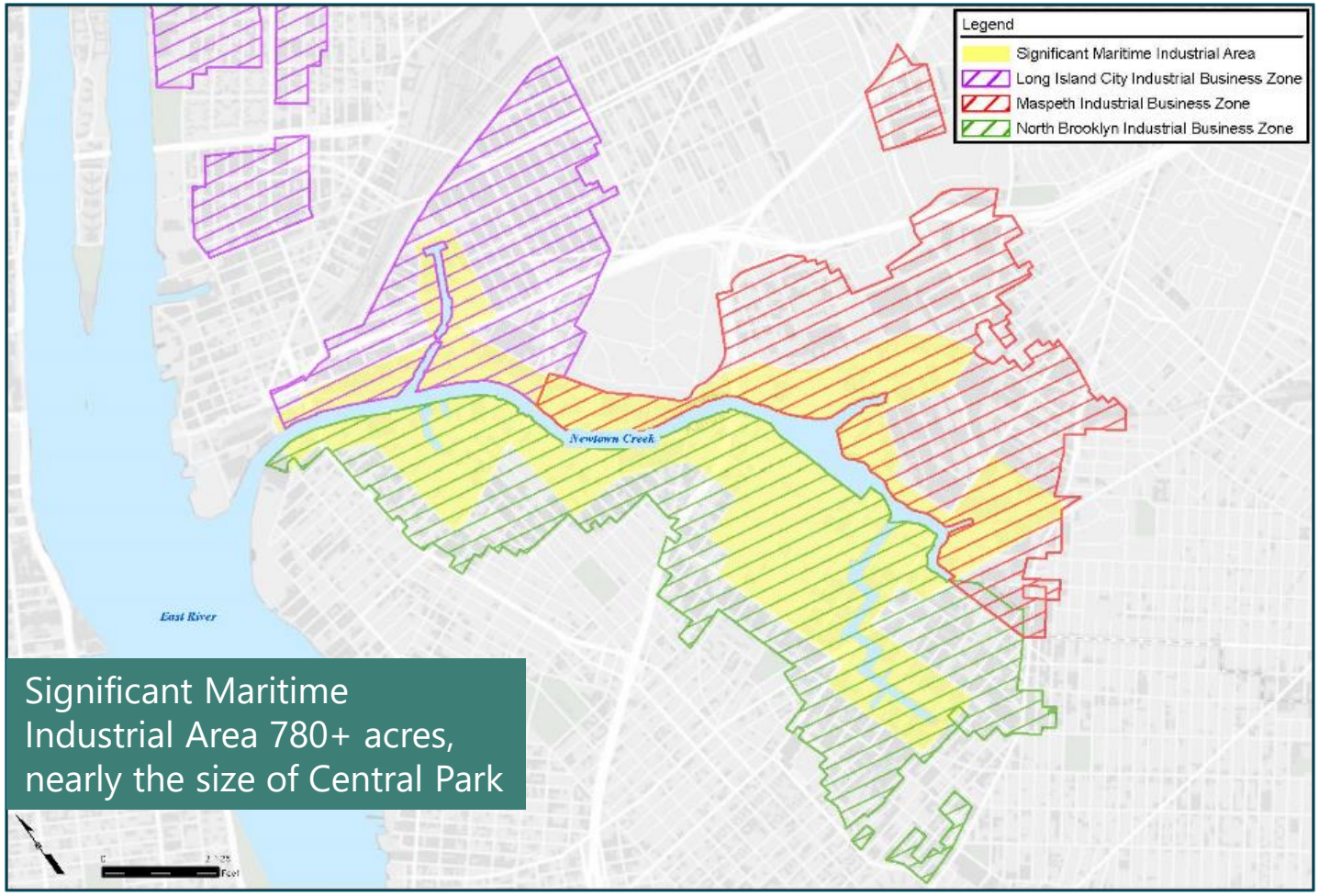
Objectives of USACE and NCG Meeting

- Review NCG's understanding of background information on site as it relates to bathymetry and authorized depths
- Provide NCG's understanding of navigation-related uses
- Provide overview of Newtown Creek RI/FS status and results
- Discuss CSM and potential early action remedial approaches and the inter-relationship with navigation channel
- Discuss USACE's approach to navigation-use information gathering
- Discuss steps for path forward

Newtown Creek

Background Info

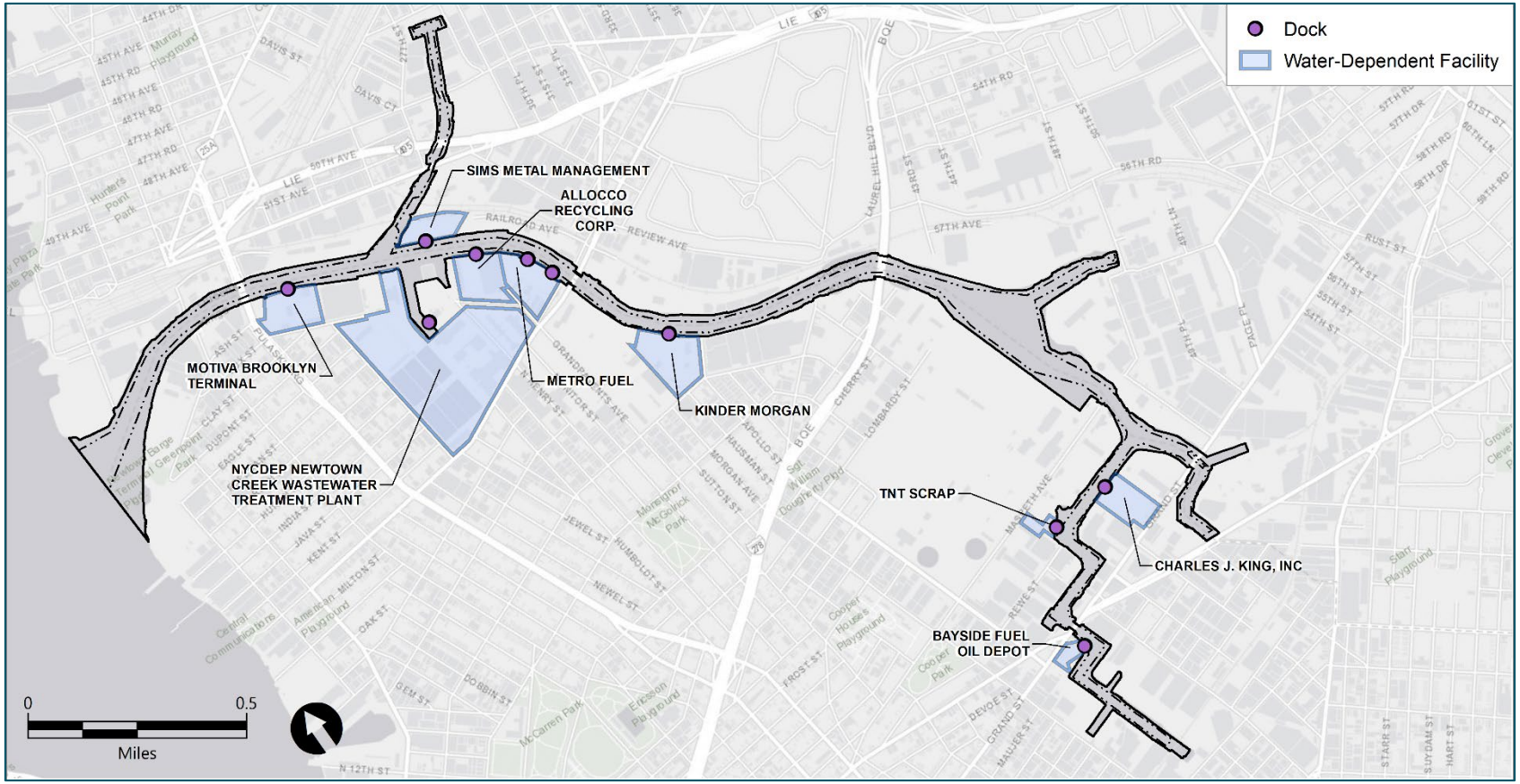
Newtown Creek's Industrial Corridor – Most Significant Industrial Footprint in NYC



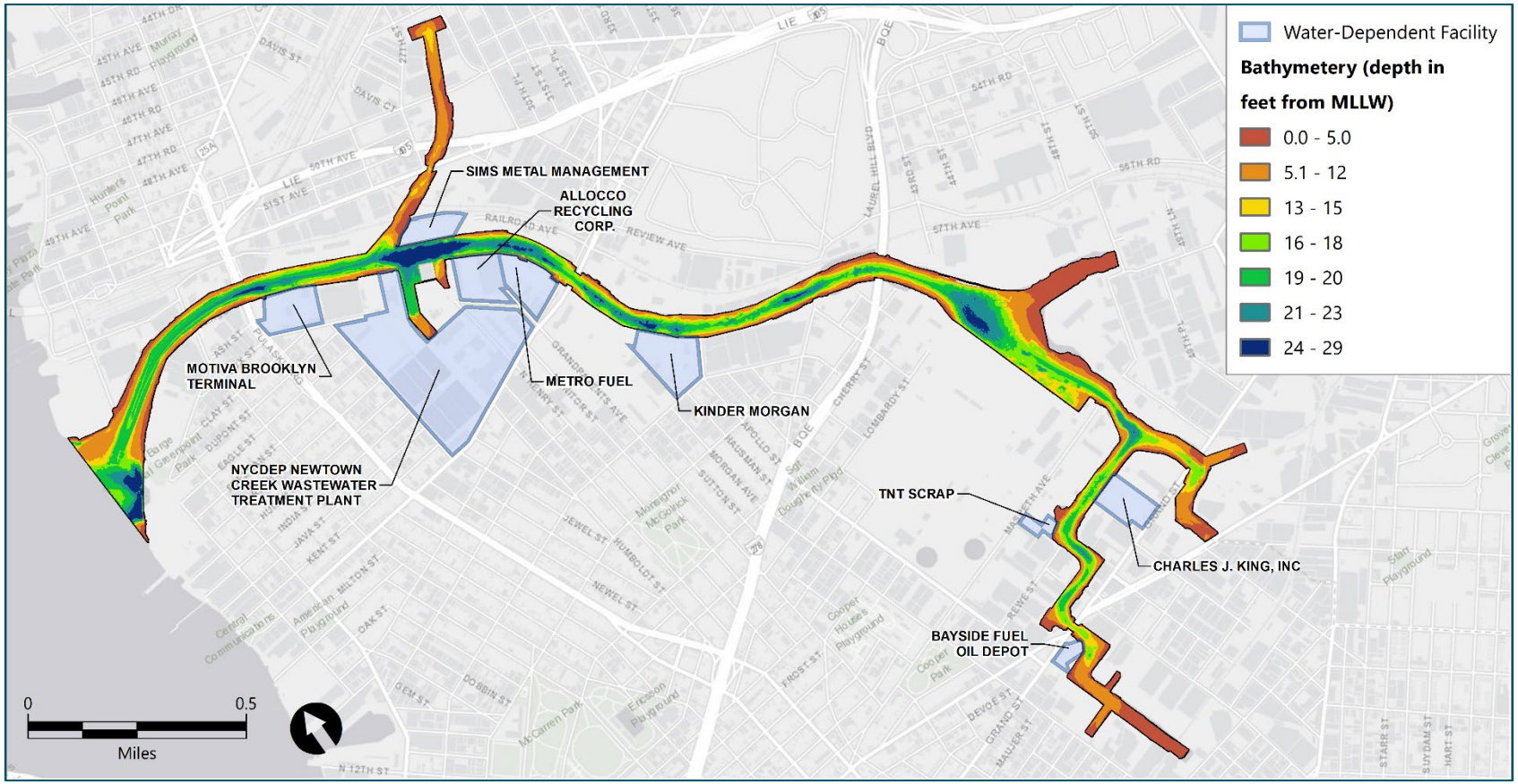
Significant Maritime Industrial Area 780+ acres, nearly the size of Central Park

Source: NYC Department of City Planning

Newtown Creek Facilities with Existing Water-Dependent Uses (2017)

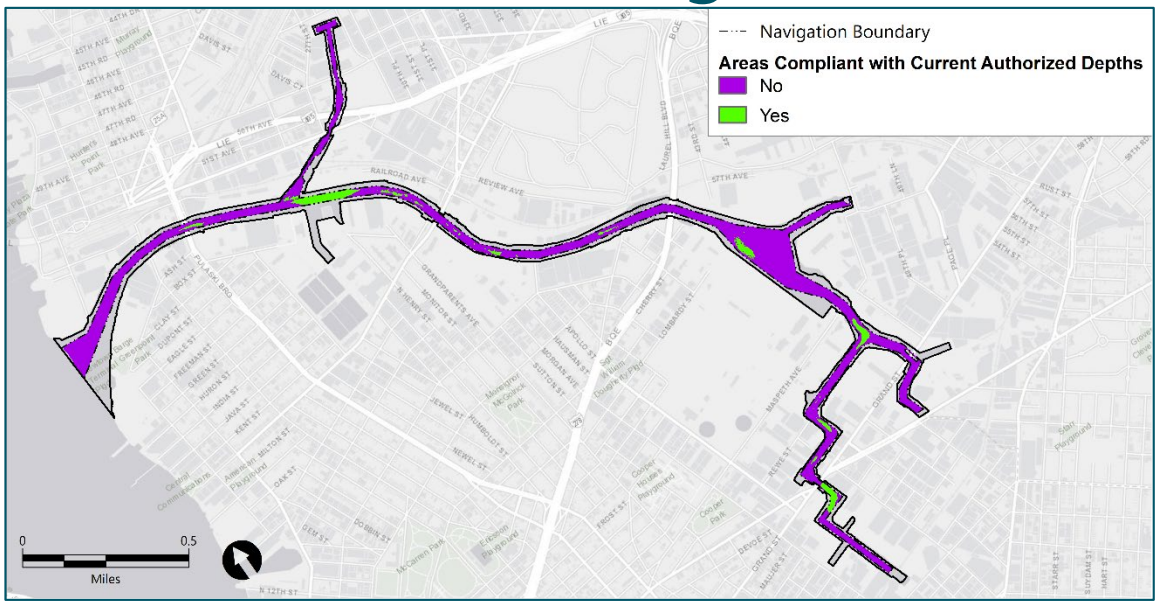


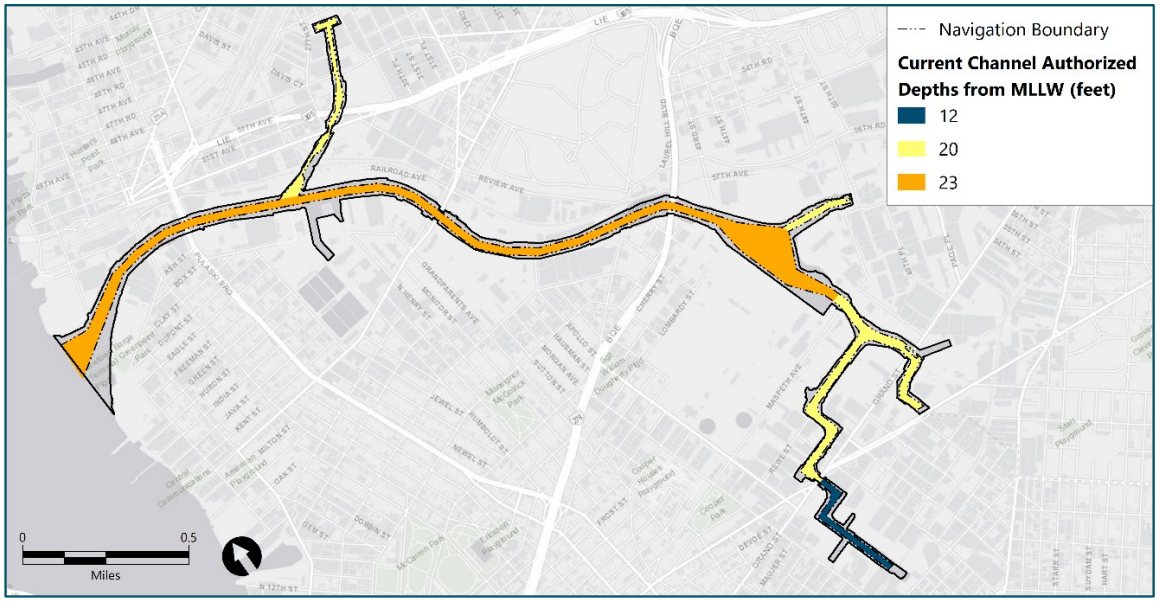
Recent Bathymetry



Bathymetry data from CR Environmental (December 2012), Aerometric (March 2012), and New York City Department of Environmental Protection (December 2014)

Newtown Creek Navigation Channel





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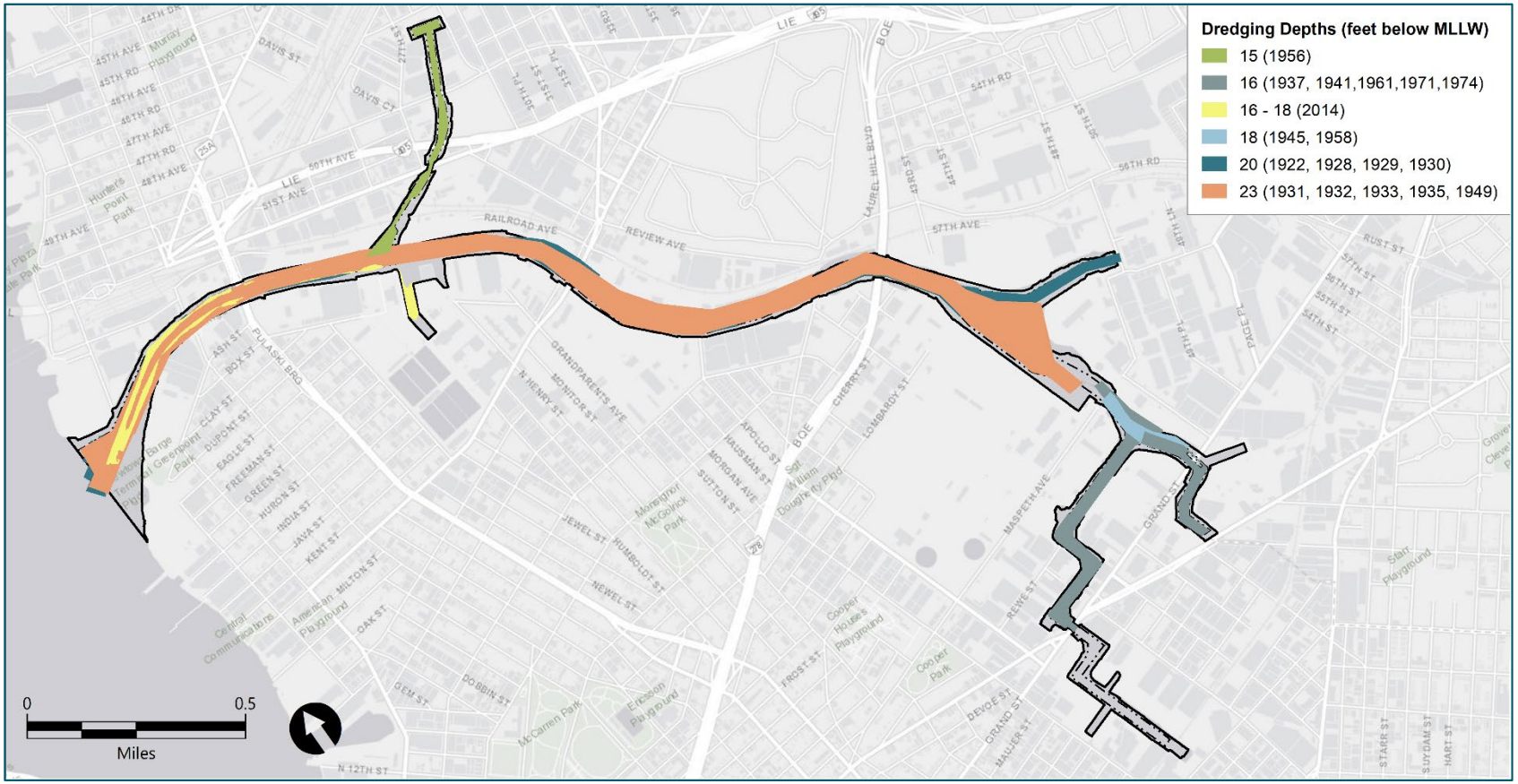
NCG's Understanding of Navigation-Related Uses

Dredging History



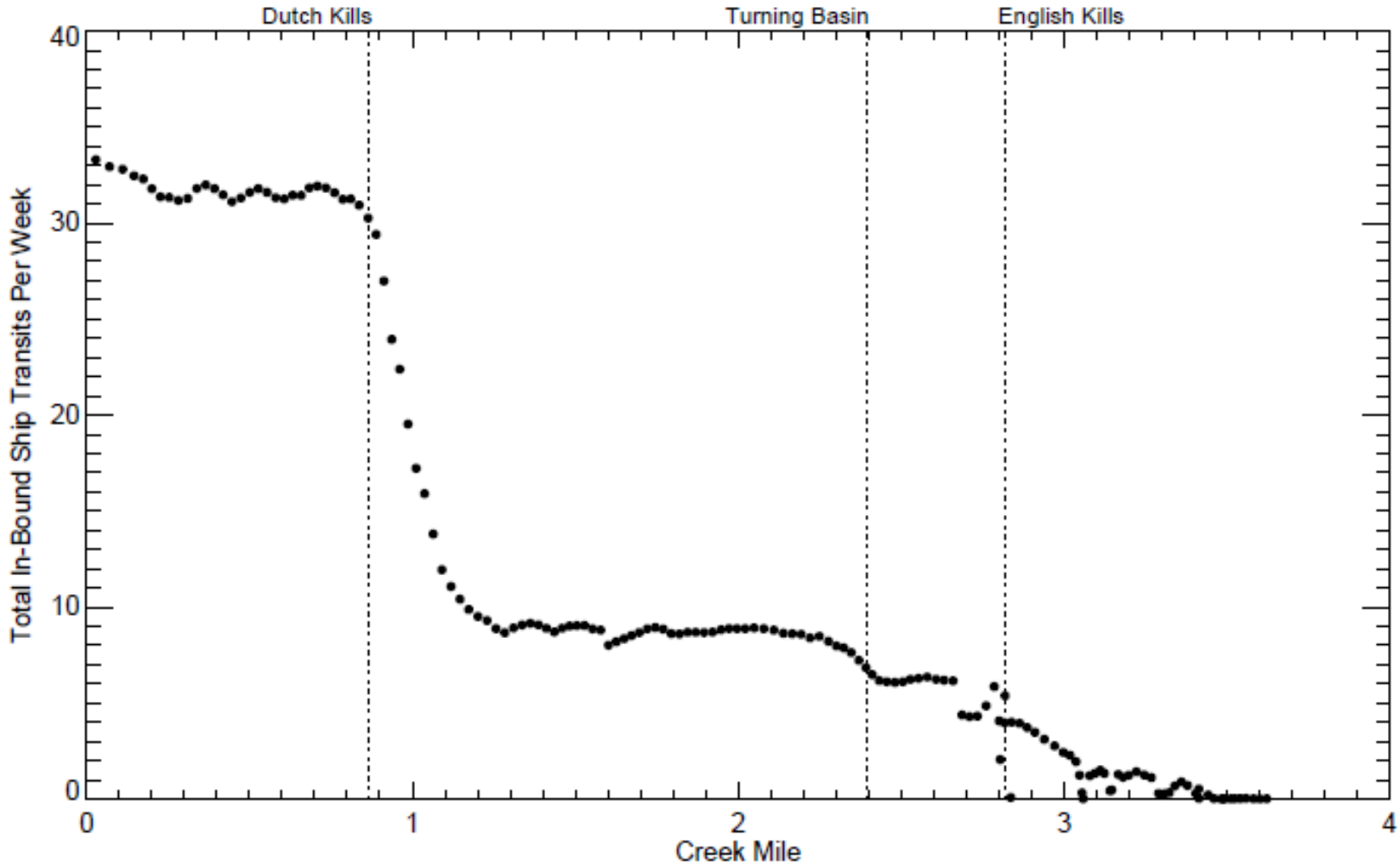
Dredging History (continued)

- Channel authorized in 1937, but 36% of the project was never completed
- Main stem has not been dredged in the last 70 years with exception of focused dredging in 2014
  - 2014 focused main stem dredging by local sponsor did not go to authorized depth (16 to 18 feet versus 23 feet) based on sludge disposal vessel draft needs
- Maximum removal depth since the 1960s in the tributaries was to 16 feet
- Main channel is highly functional, even with seven decades of not being dredged

Navigation-Related Uses

- Based on Newtown Creek RI/FS field observations, nine facilities in total on Newtown Creek have active navigation uses
  - Of those, only three are above CM 2
- Based on a review of AIS data from 2009 to 2014, the frequency of vessels using the docks at these facilities is as follows:
  - 20 to 25 vessels per week up to Dutch Kills
  - 5 to 6 vessels per week between Dutch Kills and Turning Basin
  - 1 to 2 vessels per week upstream of Turning Basin

Frequency of Ship Traffic: 2017



Ship traffic information based on AIS data and excludes Newtown Creek RI/FS sampling vessels.

Vessel Usage Compatible with Existing Depths

- The 2005 Navigation Analysis report (NYSDOT) states, "vessel drafts today seldom exceed 15 feet"
- Self-Propelled (unaccompanied tugs [i.e., without barge] and coastal tankers)
  - Account for approximately 40% of vessel traffic; coastal tankers have limited-to-no activity above Whale Creek (CM 1)
  - Typical coastal tanker loaded draft is 14 feet or shallower
  - Typical tug draft is 10 to 13 feet
- Non-Self-Propelled (dry cargo barges and tank barges assisted by tug/push boats)
  - Account for approximately 60% of vessel traffic
  - Typical loaded barge draft is 12 to 15 feet

Newtown Creek

RI/FS Overview

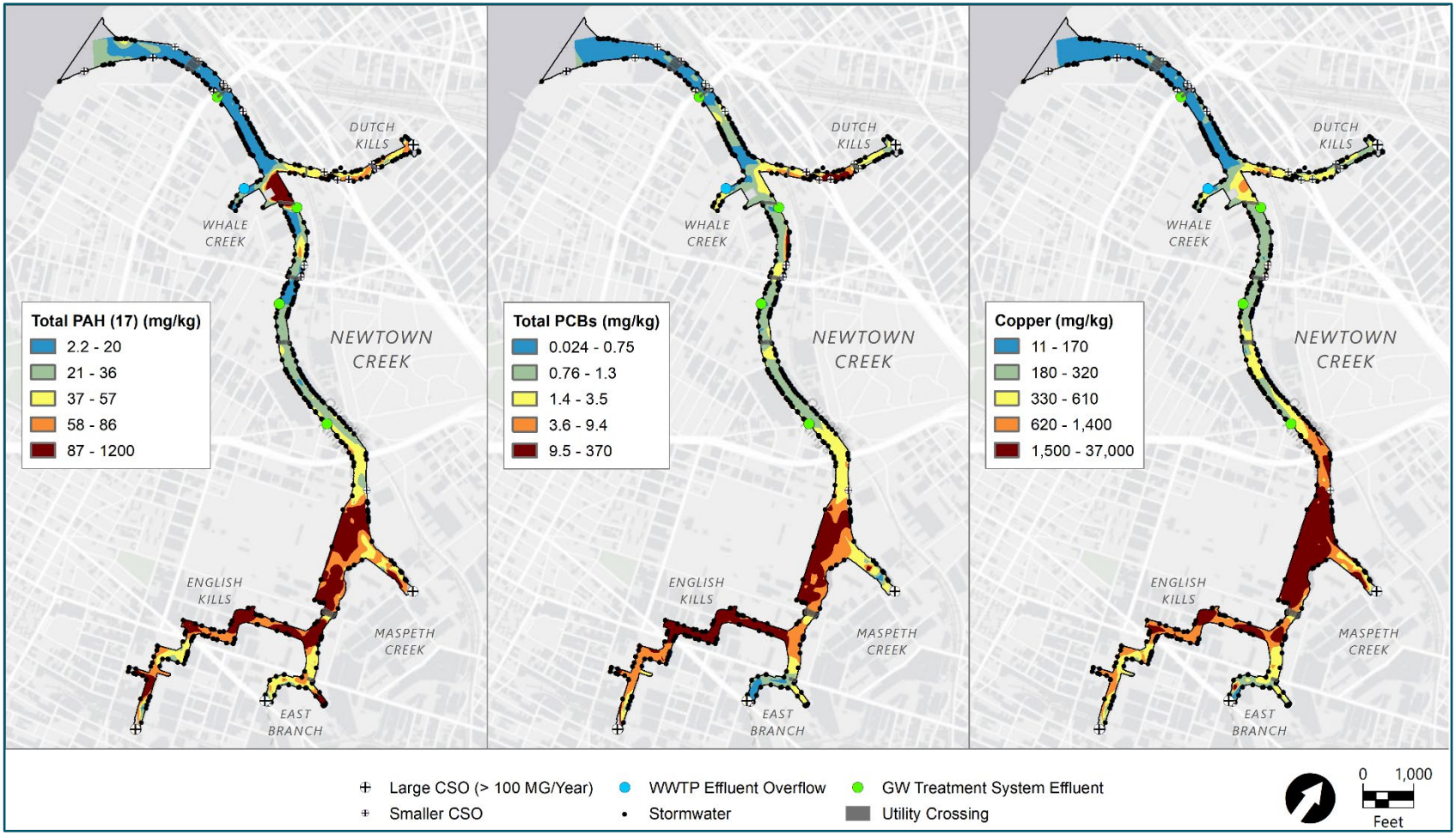
RI/FS Overview

- RI included collection of more than 1.1 million scientific analyses over 9 years
- Targeting final RI by fourth quarter 2019
- Targeting final FS by third quarter 2022
- Results to date:
  - Much of the at-depth contamination is very stable and does not require removal for purposes of eliminating risk or recontamination pathways.
  - Surface sediment concentrations in the lower 2 miles of the main stem are markedly lower than the rest of the site and are at or approaching background levels.
  - Based on the CSM developed to date, the NCG is proposing an EA in CM 0–2.

Newtown Creek Site-Wide CSM

- Industrial, highly constructed "dead-end" system with hardened shoreline and limited habitat; reflective of urban environment
- Upstream water inputs limited to CSOs, stormwater, and groundwater
- Surface sediment concentrations of COPCs are generally lower in CM 0–2 compared to in CM 2+ and tributaries
  - East River's predominant influence in CM 0–2
  - Origin of sources and distribution/mixing
- NAPL and Ebullition
  - Minimal within CM 0–2
  - CM 2+ subject to ongoing evaluations

Newtown Creek – Distribution of Surface Sediment Concentrations



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CSM for Creek Mile 0–2 and Early Action Remedy

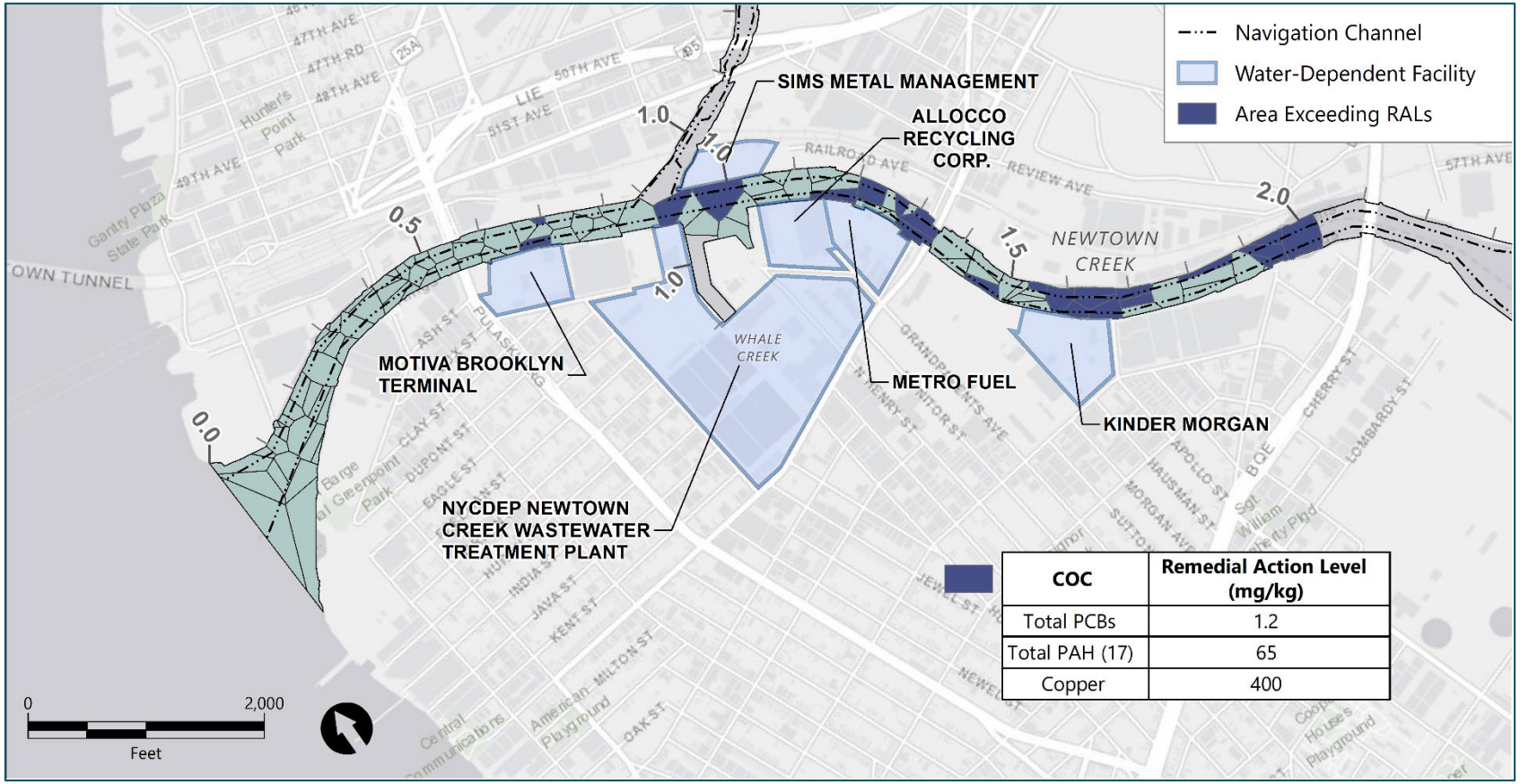
Newtown Creek Mainstem CM 0–2 CSM

- CM 0–2 is a depositional system with surface sediment concentrations generally within the range of background
  - Remaining areas above background addressed in the EA
- Key contaminants of concern are PCBs, PAHs, and copper (Cu)
- NAPL presence in CM 0–2 is very limited and determined to not be mobile
- Extensive evaluations in CM 0–2 have confirmed that NAPL, ebullition, groundwater, point sources, and shoreline erosion do not pose a significant threat of recontamination

Early Action Concept CM 0–2

- Targeted removal of areas with surface sediments with concentrations of PCB, PAH, or Cu above target RALs in lower 2 miles
  - PCBs: 1.2 – 1.4 ppm
  - PAHs: 65 – 85 ppm
  - Cu: 400 – 500 ppm
- Will achieve background surface sediment concentrations in CM 0–2
- Removal along shorelines may be limited by shoreline/ bulkhead stability

Early Action Remedy Concept for CM 0-2



COC	Remedial Action Level (mg/kg)
Total PCBs	1.2
Total PAH (17)	65
Copper	400

Early Action and Potential Impacts on Navigation Issues

- No permanent fill material (e.g., stone) will be placed into the creek as part of the EA remedy.
  - Isolated areas of clean sand backfill will be placed.
- The elevation of those backfill areas will not be shallower than existing depths and may be deeper.
- Proposed EA remedy will not obstruct navigation while USACE undertakes review of the authorized navigation channel.

Newtown Creek

Navigation-Information Gathering

NCG's Desire to Understand USACE Information Gathering

- How does USACE engage with local sponsors?
- How are ship/barge trends and cost benefit factors evaluated?
- How does evaluation distinguish between navigation channel and non-navigation channel responsibilities?
- How does evaluation separate "need" from "want"?

USACE Navigation Info Gathering

- NCG will share information from survey work.
  - Surveyed 200+ businesses within the Industrial Business Zone (40% responded)
    - 79% preferred quicker cleanup
    - 86% had concerns about protracted remediation
- NCG can synthesize RI/FS data in ways that facilitate information gathering process

Path Forward Needs

- Short Term
  - Acknowledgement that EA remedy will maintain status quo and will not create a permanent obstruction to navigation
  - NCG willing to move forward with EA while USACE completes their review of the authorized navigation channel
- Long Term
  - Continued engagement between NCG, USACE, USEPA and other relevant stakeholders regarding navigation needs for Newtown Creek
  - Eventual decision on required authorized navigation depths throughout Newtown Creek and its tributaries

Questions