



**Update on Status of Operable Unit 3
Newtown Creek Superfund Site
Queens and Brooklyn, New York City
July 21, 2021**

Review of Context for Operable Unit 3

- ◆ Remedial Investigation and Feasibility Study for the Newtown Creek Study Area has been ongoing since 2011.
 - Highly complex system
- ◆ The Operable Unit 1 Record of Decision is not expected until at least 2024, possibly later.
- ◆ The Newtown Creek Group (NCG) came to EPA with idea of conducting an Early Action in the lower 2 miles of Newtown Creek.
- ◆ The Region agreed to consider this possibility as an Interim Action.
 - Administrative order signed with NCG in 2019.
 - A structured evaluation approach was specified.
 - Any action taken as part of Operable Unit 3 would ultimately need to be consistent with the Operable Unit 1 remedy once it is selected.

Early Action Administrative Order

The objectives of the Operable Unit 3 Work were defined as follows:

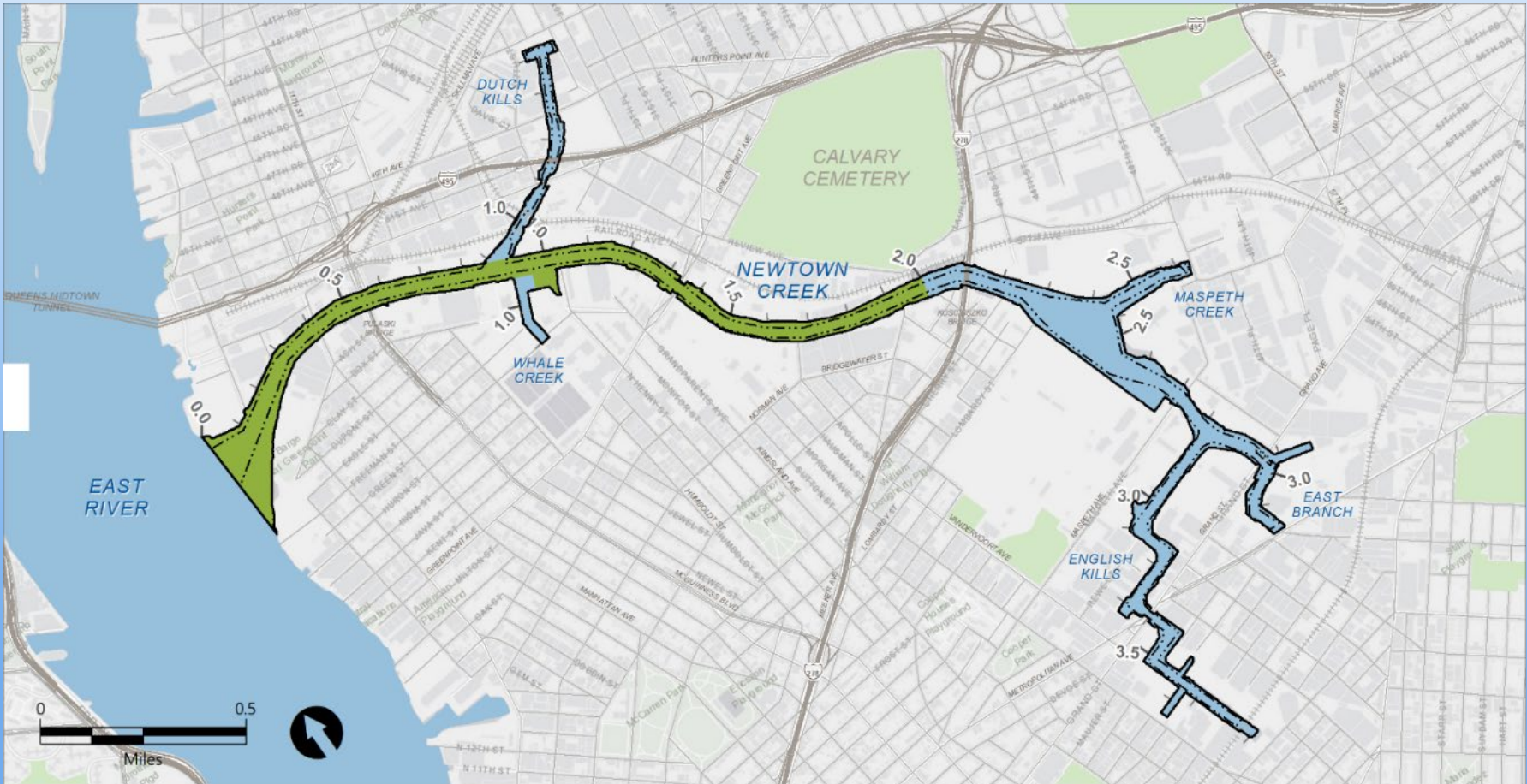
- ◆ **Objective 1:** Determine **whether an Early Action remedy for Creek Mile 0-2 is appropriate as an interim action or whether the selection of a remedy for this portion of the creek should be deferred** pending completion of the Operable Unit 1 Remedial Investigation/Feasibility Study and an Operable Unit 1 Record of Decision.
- ◆ **Objective 2:** Develop and evaluate potential remedial alternatives for Operable Unit 3 through the Focused Feasibility Study (FFS) process, if determined to be appropriate. The FFS Report will form the basis for EPA to document selection of an Early Action remedy for Creek Mile 0-2 in an Operable Unit 3 Record of Decision.
- ◆ **Objective 3:** Develop action-specific performance metrics for use, post-implementation of any Operable Unit 3 remedy, in a Performance Monitoring Plan designed to evaluate the impact/performance of any such Early Action remedy.

Timeline/Current Status

- ◆ July 2019 – Administrative order signed
- ◆ July 2019 – NCG completed a Sediment Characterization Study to help refine the Early Action footprint
- ◆ March 20, 2020 – NCG submitted a Draft FFS to EPA
- ◆ April 30, 2020 – CSTAG¹ meeting
- ◆ August 8, 2020 -- CSTAG recommendations provided to the Region
- ◆ December 9, 2020 – Region responds to CSTAG recommendations
- ◆ January 5, 2021 – Region provides comments on the draft FFS to NCG (275 comments/40 pages)
- ◆ March 5, 2021 -- NCG provides response to comments on draft FFS
 - NCG proposed significant modifications to the draft FFS to address concerns raised during the review process

¹CSTAG stands for the EPA Contaminated Sediment Technical Advisory Group, a group of sediment site experts that provides consultation and advice to EPA Regions to promote a nationally consistent approach to managing and implementing Superfund response actions at complex sediment sites.

Newtown Creek with Operable Unit 3 Portion Highlighted



Evaluation of Objective 1: Are technical positions supported?

- ◆ NCG Position 1: Tidal flow from the East River is currently the dominant source of solids to the surface water and sediment bed in Operable Unit 3.
 - EPA agrees based on current system understanding (modeling and data from the Remedial Investigation consistent with this position; still awaiting revised modeling portion of Remedial Investigation report).

- ◆ NCG Position 2: Operable Unit 3 is net depositional and natural recovery toward long-term equilibrium conditions is expected to continue over time via deposition of solids primarily from the East River.
 - Several lines of evidence suggest natural recovery is occurring, but currently don't have the temporal data (rate of recovery) to confirm.
 - While EPA agrees the system is generally net depositional, local erosional areas do exist and episodic erosion/deposition may occur.

Evaluation of Objective 1: Are technical positions supported (continued)?

- ◆ NCG Position 3: The creek bed in Operable Unit 3 is physically stable.
 - Support for this, but local erosional areas need to be clarified.

- ◆ NCG Position 4: Ongoing sources of Contaminants of Concern are not expected to negatively impact Early Action success.
 - To date, no significant **ongoing** sources have been specifically identified in the lower 2 miles. However, localized exceedances in sediment remain despite this assumption and the assumption that natural recovery is occurring.
 - Both internal and external ongoing sources of contamination could potentially impact effectiveness of any action.
 - Upland property evaluation still ongoing; many of the properties are being addressed through State programs.
 - Ongoing sources may impact rate/effectiveness of natural recovery in the Creek.

Benefits of Moving Forward with Operable Unit 3

- ◆ Opportunity to start cleaning up the creek years before any remedy is implemented in the rest of Operable Unit 1
 - If Operable Unit 1 Record of Decision is 2024, remedial action realistically not before 2028, likely later
- ◆ Opportunity to confirm and further refine the Study Area-wide Conceptual Site Model
 - Robust post-implementation sampling would be conducted
 - If assumptions are not true, the data will tell us
 - Some key examples:
 - Could create a robust temporal dataset through which to better evaluate natural recovery for this portion of the Creek
 - Could help determine if there are any significant ongoing sources within Creek Mile 0-2
 - Could help determine if additional localized erosional areas are present within Creek Mile 0-2
- ◆ Opportunity to gain direct experience conducting cleanup work in the Creek
 - Will help inform future efforts
 - Logistics

Challenges: Technical Considerations

- ◆ Sitewide cleanup goals have not yet been developed
- ◆ Navigational concerns
 - Ongoing discussions with U.S. Army Corps of Engineers
- ◆ Modeling incomplete
 - Contaminant fate & transport model would inform cap design to prevent recontamination
 - Sediment transport model informs the modeling in the FFS
 - Modeling will help define the relevant footprint of contamination
- ◆ Upland source control efforts ongoing

Challenges: Stakeholder Considerations

- ◆ CSTAG – primary remaining concerns include
 - Does not address the most contaminated portion of creek – does not fit usual definition of an Early Action
 - Concerns with the relevant footprint of contamination (e.g., due to erosional forces, prop wash, etc.)
 - Potential for recontamination not sufficiently understood
 - Timing
 - Navigational concerns
- ◆ New York State Department of Environmental Conservation
 - Non-Aqueous Phase Liquid (i.e., NAPL)
 - Agrees with general concerns expressed by CSTAG and CAG
- ◆ CAG
 - No clear benefit to the community
 - Focused on cleanest areas of Creek; there are areas with more immediate needs
 - Potential for recontamination
 - Too early – no cleanup goals yet
 - Navigational concerns
 - A diversion of Superfund resources

Next Steps...

- ◆ Based on a preponderance of the evidence, and consistent with the terms of the Administrative Order between EPA and the NCG, EPA has determined that the selection of a remedy for this portion of the Creek should be deferred pending completion of the Operable Unit 1 Remedial Investigation/Feasibility Study.
- ◆ Significant effort has gone into getting to this point.
 - The information learned through this process will benefit the project overall.

Questions?