



# Newtown Creek Early Action Project CAG Briefing



December 2019

## Early Action Objectives (from SOW)

- Determine whether an Early Action is warranted as an interim action, or should it be deferred to site-wide remedy
- Develop and evaluate remedial alternatives for OU-3 in a Focused Feasibility Study (FFS), and have that document serve as the basis for EPA's decision that will be made in the OU-3 ROD
- Develop action-specific performance metrics for use post-implementation of any OU3 remedy to evaluate the impact/performance of any such EA remedy should a remedy be implemented

# NCG's Newtown Creek Site-wide CSM

- Upstream water inputs limited to CSOs, stormwater, and groundwater
- Surface sediment concentrations of COPCs are generally higher in CM2+ and tributaries compared to CM 0-2 due to:
  - East River's influence in CM 0-2
  - Origin of sources and distribution/mixing
- Groundwater flows tend to be higher upstream of CM 2 compared to downstream
- NAPL and Ebullition:
  - Minimal within CM 0-2
  - CM 2+ subject to ongoing investigations
- Industrial, highly constructed “dead end” system with hardened shoreline and limited habitat; reflective of urban environment

# NCG's Newtown Creek CM 0-2 CSM

- CM 0-2 is a depositional system with surface sediment concentrations generally within the range of background
  - Remaining areas above reference area-based thresholds addressed in EA
- Key contaminants of concern are PCBs, PAHs, and copper
- NAPL presence in CM 0-2 is very limited, discontinuous in discrete subsurface sediments, and determined to not be mobile
- Extensive evaluations in CM 0-2 have confirmed that NAPL, ebullition, groundwater, point source runoff and shoreline erosion do not pose a significant threat of recontamination

# FFS Process and Evaluation

- Additional sediment characterization was conducted to refine the remedial footprint
- Potential remedial alternatives will be developed that address potential target areas followed by clean cover placement
- The evaluation of alternatives will include an assessment of the four key NCG's positions on the CSM for CM 0-2:
  - East River is dominant source of solids to lower 2 miles
  - Net depositional, indications of recovery
  - Stable sediment bed
  - Ongoing sources will not impact EA remedy

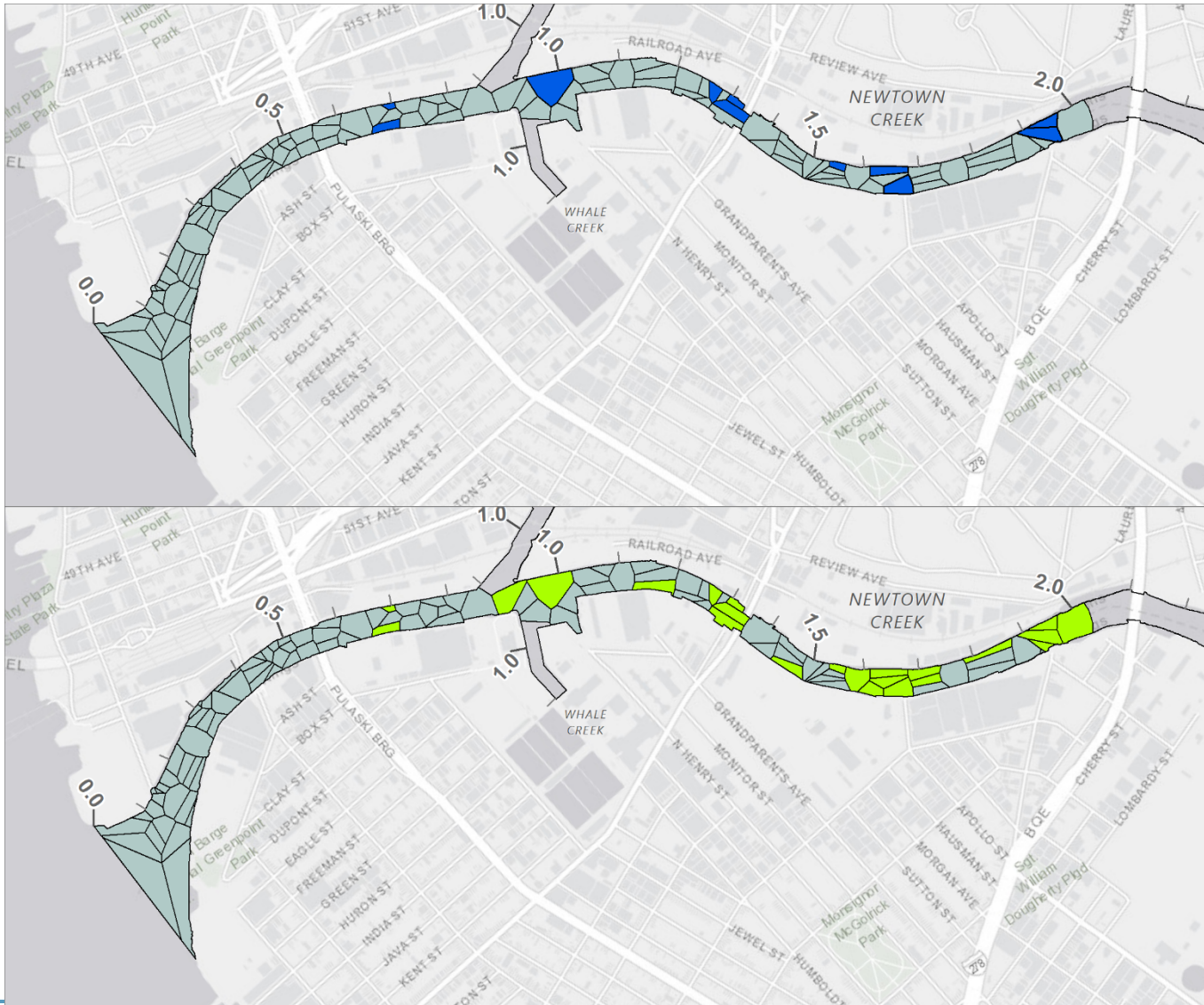
# NCG Early Action Project CM 0-2

- Targeted removal of areas in CM 0-2 with surface sediments with PCB, PAH, or copper concentrations above target Remedial Action Levels (RALs)
  - PCBs: 1.2 – 1.4 ppm
  - PAHs: 65 – 85 ppm
  - Copper: 400 – 500 ppm
- Achieve risk-based or background surface sediment concentrations in CM 0-2
- Monitoring
  - Comprehensive monitoring and verification program will be implemented to determine remedy success



Surface Sediment above PCB, PAH or Cu RALs

# Early Action Areas – Preliminary

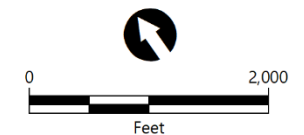


**Range of Target Areas for Early Action Areas Exceeding the Following RALs:**

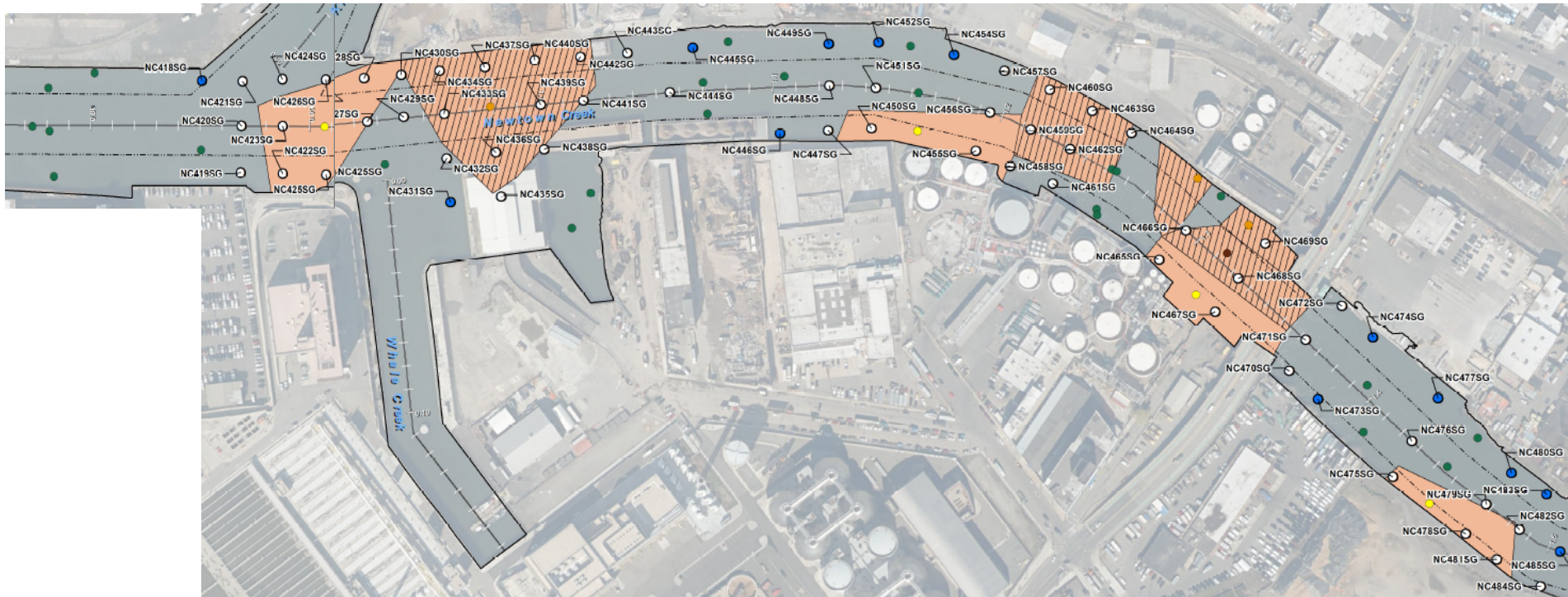
COC	Remedial Action Level (mg/kg)
Total PCBs	1.2
Total PAH (17)	65
Copper	400



COC	Remedial Action Level (mg/kg)
Total PCBs	1.4
Total PAH (17)	85
Copper	500



# Sampling Location Rationale – CM 0.8 to 1.5



### Preliminary Target Area Ranges

■	COC	Remedial Action Level (mg/kg)
	Total PCBs	1.2
	Total PAH (17)	65
	Copper	400
▨	COC	Remedial Action Level (mg/kg)
	Total PCBs	1.4
	Total PAH (17)	85
	Copper	500

### LEGEND:

- Newtown Creek
- Navigation Channel
- Creek Mile
- Proposed Sampling Station
- Surface Sediment
- Archive

### Existing Surface Sediment Sampling Location

#### Total PCBs (mg/kg)

- 0.0242 - 1.20
- 1.21 - 1.40
- 1.41 - 2.80
- 2.81 - 376

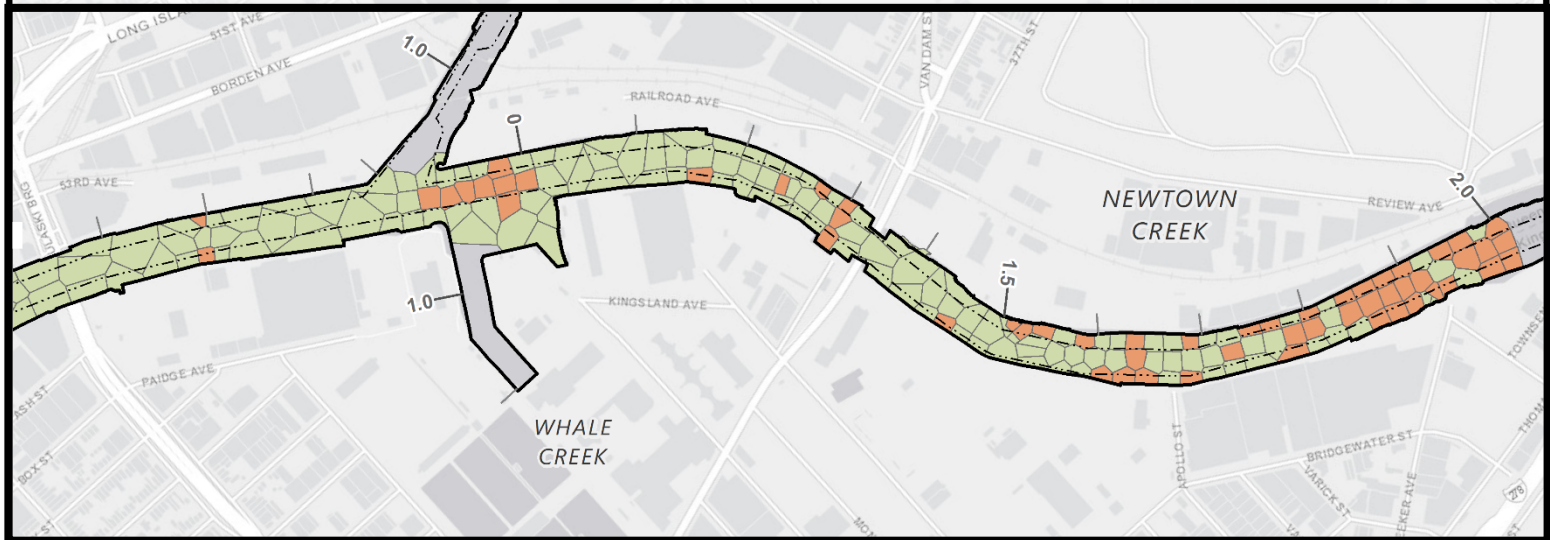


# EA Surface Sediment Results

Original  
Target  
Areas



Revised  
Target  
Areas



# Early Action Monitoring

- Remedial footprint monitoring
  - Was cover placed properly?
  - How do time-zero concentrations change?
  - What sources may be affecting the changes?
- Baseline monitoring
  - Timing – linked to OU1 ROD
  - Purpose – Generate surface-weighted averages (sediments), compare to appropriate benchmarks
  - Tissue will also be evaluated

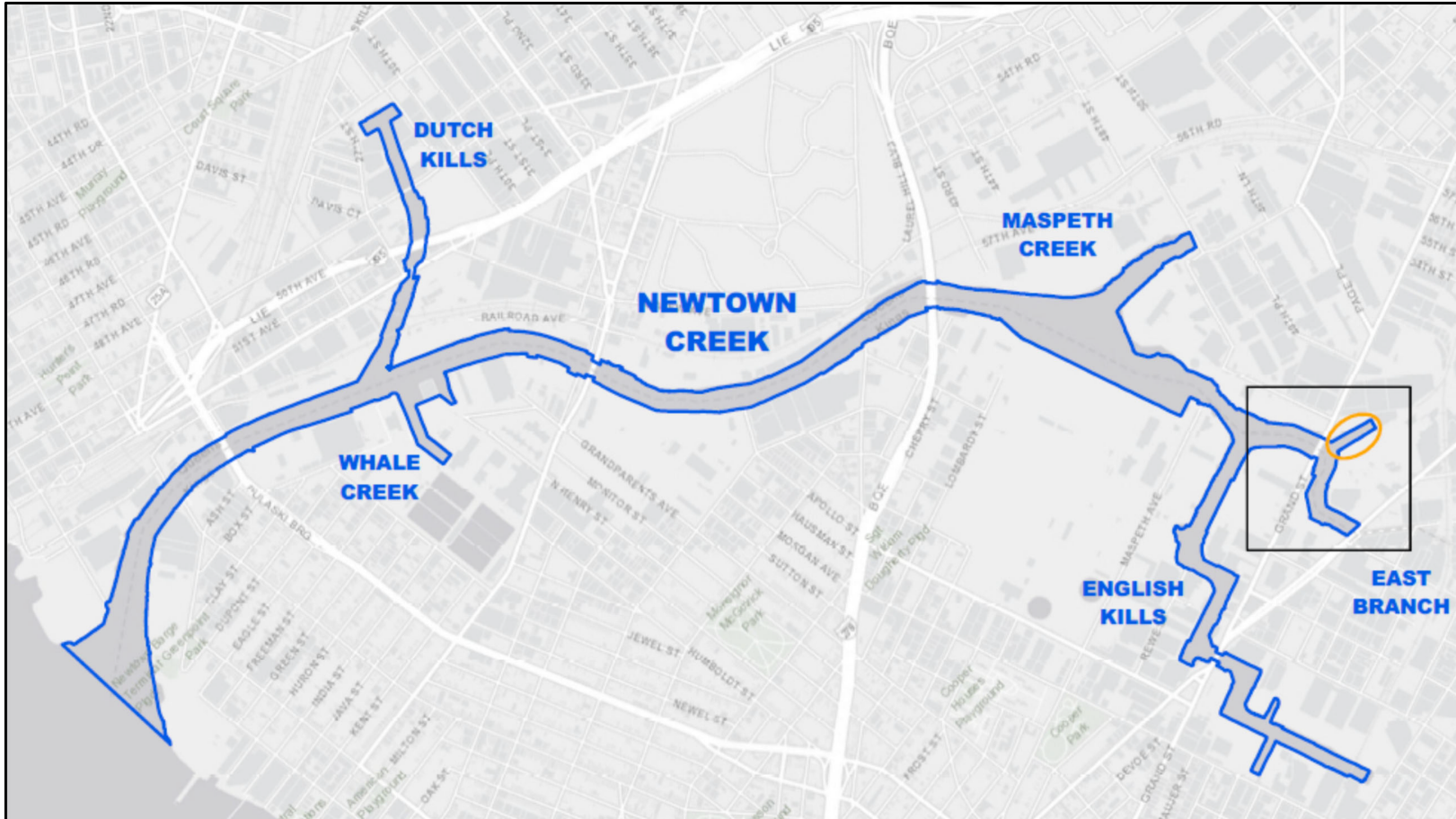
# Timing for Early Action Project

- Timing of Early Action Components
  - AOC has been executed
  - Sediment characterization study during July & August, 2019
  - FFS complete and potential Record of Decision by mid-2020 (review of new data and FS evaluations will factor into threshold decision about appropriateness of an interim remedy)
  - Any ROD selecting an interim remedy would have to be implemented through a second Order
  - Remedy completion, if deemed appropriate via the ROD and subsequent Order, is anticipated to be completed by 2022, possibly by end of 2021

## Ongoing studies in CM 2+

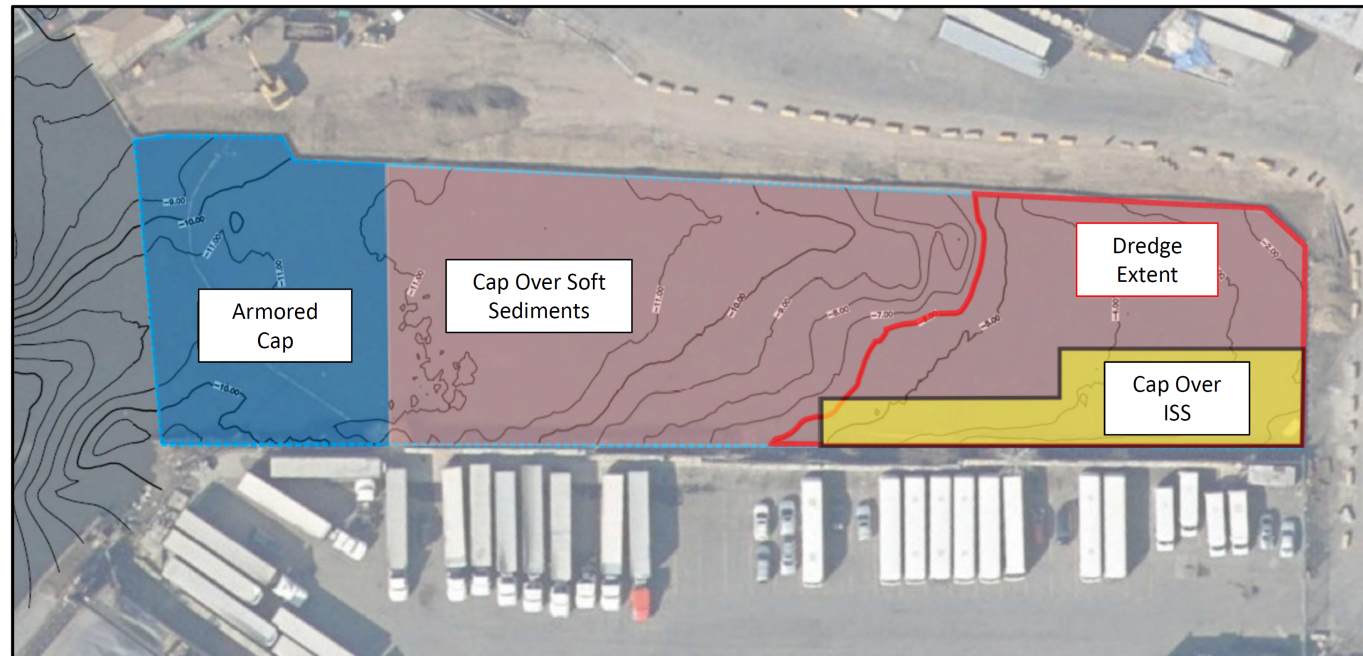
- Site-wide FS-related studies further evaluating some of the complexities that occur in the upper portion of the Site
- Modeling studies used to better understand chemical fate and transport, bioaccumulation, and long-term projections of future sediment concentrations
- Implement a Treatability Study in the 2+ area to better understand some of the key potential remedial solutions that are most likely to be part of the remedial alternatives

TRREATABILITY STUDY AREA



## Summary of Treatability Study

- Limited dredging to provide access for equipment
- Perform ISS adjacent to legacy bulkhead
- Place sediment caps



# Summary

- The EA approach has considered potentially significant ongoing sources to CM 0-2 (emanating from outside of the RI/FS study area)
- Preliminary evaluations indicate that ongoing sources will not negatively impact EA remedy success, but final evaluations conducted as part of the FFS need to be completed
- FFS will objectively evaluate a range of potential EA scenarios and the potential recontamination pathways
- The FFS evaluation will be the basis for determining of an interim remedy early action should be implemented

# Questions/Discussion

