# Next Steps and Upcoming Project Activities

Community Advisory Group Meeting December 3, 2015



- Ongoing Habitat Reconstruction 2015/2016
- Facility Demobilization and Restoration
- Remedial Action Certification of Completion
- Operation, Maintenance & Monitoring (OM&M)
  - Habitat Benchmarks and Success Criteria
  - Caps
  - Fish
  - Water Column
  - Sediment
- Five Year Reviews





#### **Ongoing Habitat Reconstruction**

Shunder All PROTECTO

- Habitat reconstruction of Riverine Fringing Wetlands (RFW) & Submerged Aquatic Vegetation (SAV) in areas dredged in 2015 will be completed in 2016
  - CUs 60, 94-96, 99
  - Similar amount of work in 2016
  - Other areas of reconstruction as necessary (response actions)
- The primary goal of the habitat program is to replace the functions of the dredged habitats of the Upper Hudson River





#### **Current Processing Facility Demobilization Activities**



- Equipment demobilization, decontamination, and sampling underway
  - Equipment cleaning and sampling ongoing
  - Equipment can be removed from the site once it has been cleaned and sample results verify decontamination is complete
- Cleaning/sampling asphalt and concrete surfaces, soil, sediment, water, structures, and infrastructure are next steps
- Discussions between GE, EPA, and property owners ongoing regarding future site reuse



#### **Processing Facility Demobilization Next Steps**



Decisions about structures, infrastructure, and paved/concrete surfaces will be made based on sampling results and discussions between GE, EPA, and property owners

 Requested items to be left include: certain structures, asphalt/concrete surfaces, electrical, potable water lines, wharf, access road to site (Lock 8 Way), bridge on Lock 8 Way

Complete demobilization and restoration of support properties

• Used for crew changes, staging of materials and equipment along length of river



### Processing Facility Demobilization Closeout



- Final site configuration is considered as part of restoration plans
  - Includes stormwater, property access, site control
- Demobilization and restoration work anticipated to be complete by the end of 2016





# Remedial Action Certification of Completion



- Certification of Completion of Remedial Action
  - Sequence of steps between GE and EPA that lead up to EPA approval
  - Steps include:
    - Engineering documents need to be completed and approved
    - Demobilization and restoration of all facilities
    - Site inspections
  - Anticipated 2017
- Formal beginning of Operation, Maintenance & Monitoring (OM&M)



## **Operation, Maintenance, and Monitoring (OM&M): Habitat Reconstruction**



- Habitat reconstruction is evaluated using Benchmarks and Success Criteria
- Benchmarks
  - Quantitative, statistically-based evaluation
  - Compare reconstructed RFW and SAV areas to reference areas (nondredged areas)
  - Observe recovery metrics such as % cover and species composition to monitor progress of initial plantings and natural recolonization (nondestructive)
  - Goals gradually increase each year
  - Benchmarks typically evaluated over a five year period to transition areas into Success Criteria



## **Operation, Maintenance, and Monitoring (OM&M): Habitat Reconstruction**



- Success Criteria
  - Statistical comparison of dredge areas to non-dredge areas (looking at RFW and SAV as well as unconsolidated river bottom areas)
  - Observe % cover, species composition, biomass or stem density
  - Will also include benthic macroinvertebrate sampling
  - Evaluations applied at a larger scale (by River Reach)
  - Monitoring continues until criteria are achieved
- Remedy includes monitoring of fish, water and sediment to determine when Remediation Goals are reached, and also monitoring the restoration of aquatic vegetation





### **Operation, Maintenance, and Monitoring (OM&M): Caps**



#### OM&MO

- Caps: year 1, year 5, and year 10 surveys after construction, then 10-year surveys in perpetuity
  - i.e., 2011 caps surveyed in
    2012, 2016, and 2021
  - Surveys after flood events
  - Cause of cap disturbance requires evaluation
  - Repairs if 3" of elevation loss over 4,000 sf area or 20% of cap area





# **Operation, Maintenance, and Monitoring (OM&M): Fish Monitoring**

#### OM&MO

- Fish Monitoring
  - Continue current annual program (spring and fall)
  - Program is evaluated on regular basis
    - Large fish collected in spring (~350 fish)
    - Small forage fish (~1 yr old) collected in fall
  - Fish monitoring expected to continue into the foreseeable future (consideration of remedial action objectives and fish advisories)







#### Operation, Maintenance, and Monitoring (OM&M): Water Column and Sediment Monitoring

# Shunder Fall PROTECTO

#### OM&M

- Water Column Monitoring
  - Continue current program
  - Ongoing review of the program
  - Continue to evaluate PCB load to lower river
  - Continue to evaluate concentrations at baseline stations in the Upper Hudson River
  - Water column monitoring expected to continue into the foreseeable future
- Sediment Monitoring
  - Sampling surface sediment in dredged and non-dredged areas to evaluate PCB concentrations
  - Includes sediment sampling in areas that did not meet dredging criteria
  - Sediment monitoring expected to continue into the foreseeable future





- Last Five Year Review conducted in 2012
- Continued evaluation of the protectiveness of the remedy
- Remedial Action Goals of the Project:
  - 1. Reduce the cancer risks and non-cancer health hazards for people eating fish from the Hudson River by reducing the concentration of PCBs in fish.
  - 2. Reduce the risks to ecological receptors by reducing the concentration of PCBs in fish.
  - 3. Reduce PCB levels in sediments in order to reduce PCB concentrations in river (surface) water that are above surface water ARARs.
  - 4. Reduce the inventory (mass) of PCBs in sediments that are or may be bioavailable.
  - 5. Minimize the long-term downstream transport of PCBs in the river.









