START

Does the SSAP provide adequate information to complete the engineering design?

NO

Report completed and approved for candidate Phase 1 areas?

NO

Create a flexible SEDC program to enable the design to proceed.

YES

Perform desktop geotechnical analysis.

YES

Modify boring location relative to water depth (i.e., inaccessible due to shallow water).

NO

Are borings required in areas adjacent to candidate Phase 1 areas to determine potential dredge prism geometry?

YES

Does the SEDC require test borings in areas adjacent to candidate Phase 1 areas?

NO

NO

Does the SEDC require test borings in areas adjacent to candidate Phase 1 areas to determine potential shoreline slope stability?

YES

Modify boring plan to place boring in areas of concern along the shoreline.

NO

May triaxial or Atterberg limit testing be required due to material type?

YES

Collect Shelby tube sample for potential triaxial testing; also collect samples for possible Atterberg limit testing.

NO

Does the SEDC require inventory of river-related infrastructure?

YES

Modify boring termination to 25 feet below mudline.

NO

Adjust boring location relative to water depth (i.e., inaccessible due to shallow water).

YES

Does the SEDC require test borings in candidate Phase 1 areas?

NO

NO

Can the borings be spaced evenly (laterally) within the candidate area?

YES

Space borings to capture material variation/stratigraphy.

NO

Does the SEDC need to be performed in the candidate Phase 1 areas with additional intrusive field work and lab testing?

YES

Can the borings be spaced evenly (laterally) within the candidate area?

NO

Adjust boring location to capture anomalies (not related to sediment type).

NO

Modify boring plan to establish limits of the dredge prism (possibly due to rock outcrop).

YES

Can sheetpile be used as a resuspension containment system based on embedment length required for sheetpile (i.e., refusal will not prohibit sheetpile to be used if it is below the end of the pile)?

NO

YES

Collect Shelby tube sample for potential triaxial testing; also collect samples for possible Atterberg limit testing.

NO

Modify boring location relative to water depth (i.e., inaccessible due to shallow water).

YES

Does the bathymetry affect the boring location?

NO

NO

Modify boring plan to place boring in areas of concern along the shoreline.

YES

Modify boring plan to establish limits of the dredge prism (possibly due to rock outcrop).

NO

Does the SEDC require test borings in areas adjacent to candidate Phase 1 areas to determine potential shoreline slope stability?

NO

Collect Shelby tube sample for potential triaxial testing; also collect samples for possible Atterberg limit testing.

YES

Does the bathymetry affect the boring location?

NO

NO

Does the SEDC require test borings in candidate Phase 1 areas?

YES

NO

NO

Is the material homogeneous based on visual/USCS classification of the SSAP data?

NO

NO

Space borings to capture material variation/stratigraphy.

YES

Adjust boring location to capture anomalies (not related to sediment type).

YES

Perform desktop geotechnical analysis.

START

Perform engineering design.

Notes:
DAD Report = Dredge Area Delineation Report
SEDC = Supplemental Engineering Data Collection
SSAP = Sediment Sampling and Analysis Program
USCS = Unified Soil Classification System

GENERAL ELECTRIC COMPANY
HUDSON RIVER PCB SUPERFUND SITE
SEDC WORK PLAN

GEOTECHNICAL FIELD SAMPLING
FLOW DIAGRAM

Figure 1
START

Have the sample locations (for field work) been identified?

NO

Modify/add sample locations as specified by the engineer.

YES

Perform SPT field test and vane shear test.

Based on field visual classification and additional sampling required (e.g., clayey material would require a Shelby tube).

NO

YES

Collect additional sample using the appropriate method as specified in the SEDC Work Plan and SOPs.

Do the samples require testing (i.e., grain size distribution, shear strength, etc.)?

NO

YES

Keep samples archived.

Does the dredge area consist of a uniform material type?

NO

Select representative samples for testing (approximately 25% of total samples collected for area).

YES

Perform desktop geotechnical analysis.

Perform engineering design.

Perform necessary geotechnical testing relative to material type based on engineering judgment at a minimum of 25% of the total samples.

Notes:
SEDC = Supplemental Engineering Data Collection
SOPs = Standard Operating Procedures
SPT = Standard Penetration Test

Does the dredge area contain sand/gravel materials?

NO

YES

Does the dredge area contain silts/clays?

NO

YES

Does the dredge area contain organics?

NO