

DREDGING PROJECT STATUS REVIEW

CITY OF RYE

May 2018

THE PROJECT

DREDGE PLAN



VOLUME BREAKDOWN

- **Channel:** 10,130 CY
- **Basin**
 - North: 3,642
 - South: 2,885
 - East: 2,895
 - West: 4,574
 - Add-On: 464
- Total:** 24,590 CY

33,000 CUBIC YARDS



SEDIMENT TESTING

SEDIMENT TESTING

Two reasons for testing:

1. Quality of sediment removed/disposed

New England Army Corps of Engineers

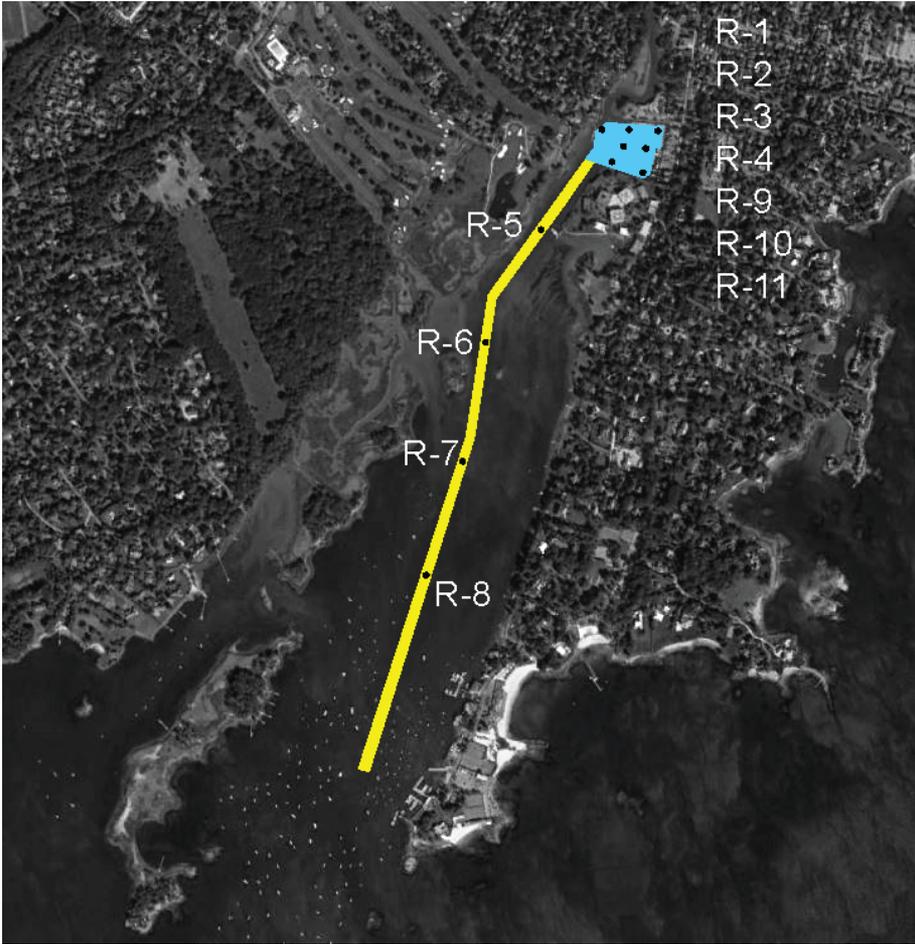
NY Department of State

CT DEEP

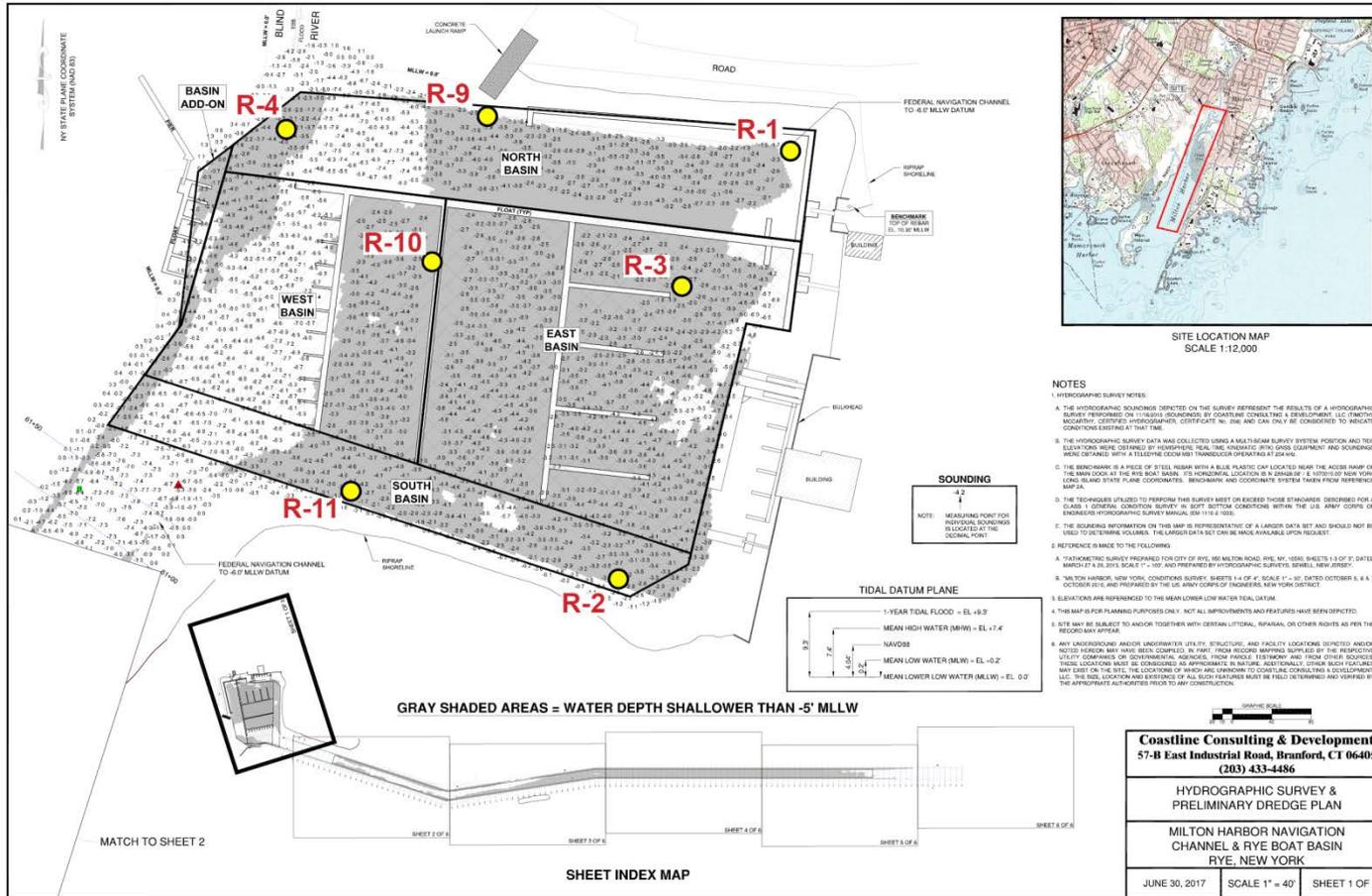
2. Quality of sediment left behind after dredging

NY DEC

OVERALL SAMPLING PLAN



BASIN SAMPLING PLAN



SEDIMENT TESTING RESULTS

- Dredge Material
 - Compared to reference values at open-water disposal site
 - Preliminary evaluation indicates that the majority of the sediment **exceeds suitability thresholds**
 - PAHs
 - Metals
- New Bottom Material
 - Compared to state testing criteria for dredge sites
 - Preliminary evaluation indicates proposed bottom material is **acceptable to remain**

SEDIMENT TESTING RESULTS

Must submit lab data to the Army Corps for review and an official suitability determination

SEDIMENT SUITABILITY

SEDIMENT SUITABILITY PROCESS

- Submit lab results to NE Army Corps
- Receive suitability letter
- Options if biological testing is required:
 1. Conduct biological sampling/testing
 2. Propose alternative dredge plan (open-water and/or upland/off-site)

SEDIMENT SUITABILITY LETTER

CENAE-RDP

5 April 2018

MEMORANDUM FOR: Diane Ray, Project Manager, CENAE-RDB

SUBJECT: Sampling and Analysis Plan – Biological Testing

1. The applicant is proposing to dredge two areas at the Marina. The first area is the northern section of the basin, which has a total area of 4,554 sq. ft. to -6' MLW plus a one-foot overdredge. The second area is the southern section of the basin, which has a total area of 8,805 sq. ft. to -9' MLW plus a one-foot overdredge. A total project volume of 2,656 cu. yd. would be mechanically dredged and disposed of at Western or Central Long Island Sound Disposal Sites (WLDS or CLDS). This area was last dredged by 1978. At that time, the majority of the materials were found to require biological testing.

2. Please note that the Regional Implementation Manual for the Evaluation of Dredged Material Proposed for Disposal in New England Waters (RIM), effective May 6, 2004, as well as requirements for electronic submission of data, may be downloaded from the website <http://www.nac.usace.army.mil/Missions/Regulatory/DredgedMaterialProgram/RegionalImplementationManual.aspx>. The templates for the electronic submission of data can be found at <http://www.nac.usace.army.mil/Missions/Disposal-Area-Monitoring-System-DAMOS/Electronic-Data-Deliverables.aspx>.

All data reports from labs that do not have an approved Laboratory Quality Assurance Plan on record at the New England District Corps of Engineers **WILL NOT be accepted**. Applicants and their agents should verify that their laboratory and any sub-contracting laboratory has, or is working towards, a valid LQAP before retaining their services.

3. SPILLS & OUTFALLS: There were no known spills or release at the site.

4. Three cores (SO-1 through SO-3) should be taken from the area to be dredged according to the attached plan. Core samples should be taken to the proposed dredge depth plus the overdredge amount. The cores should be inspected in the field for stratification. If the cores show significant stratification, in the opinion of the sampling crew, subsamples should be made of each layer. Sufficient material should be taken for the following required tests: a bulk sediment chemistry analysis, a 10-day bioassay, a 28-day bioassay/bioaccumulation test and a suspended particulate assay. Chemical analysis should be performed on the elutriates and water used in the suspended particulate assay. All sediments being held for testing should be stored in accordance with the requirements of Table 8-2 in Evaluation of

BIOLOGICAL TESTING COSTS

- Depends on scope of plan required by Corps

Approx. **\$50,000**

no guarantees for approval

NY DEPARTMENT OF STATE (DOS)

- Any project that requires biological testing will likely require cap.
- **Cap:** clean material placed on top of “contaminated” dredge spoils
- Any project that requires cap will likely be denied by DOS.

UPLAND/OFF-SITE DISPOSAL

- Current lab results *may* be acceptable for disposal in NY
- Additional sampling/testing will likely be needed for out-of-state disposal
- Receiving facility (e.g. CE, TP) will determine testing parameters

DISPOSAL OPTIONS

DISPOSAL OPTIONS

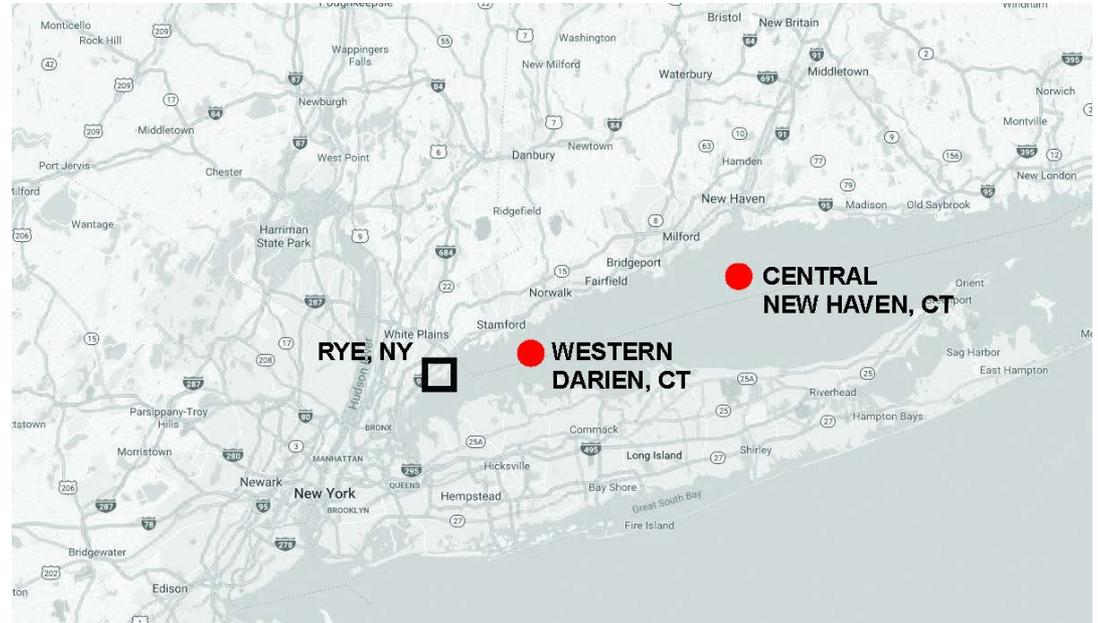
- **Open-Water Disposal** (Western, Central, HARS)
- **Upland/Off-Site** (Clean Earth, Tipping Point, other)
- **Landfill** (additional & ongoing testing)
- **Upland/On-Site**
- **CAD Cells** (confined aquatic disposal)
- **Beach Nourishment** (sand only; direct & nearshore)
- **Habitat Restoration** (strict criteria)

OPEN WATER DISPOSAL

Distances from Milton Harbor

Western: ~15 miles

Central: ~48 miles



UPLAND/OFF-SITE BY BARGE

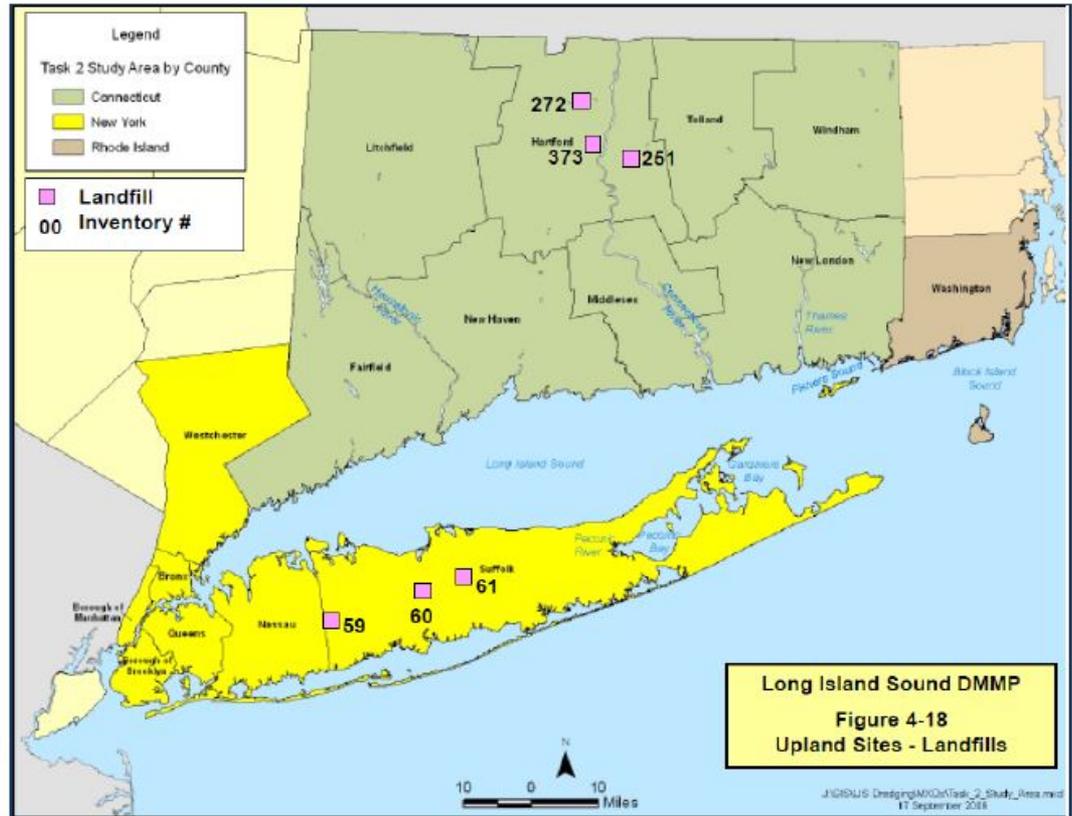
Clean Earth Dredging Technologies

Tipping Point Resources Group, LLC



LANDFILLS IN NY/CT

- Additional testing for initial approval
- Ongoing testing during disposal
- Consider costs associated with multiple handling, trucking, tipping fees



HISTORIC REMEDIATION SITE (HARS)

Only material from New York Harbor that meets criteria based on biological testing of the sediment can be disposed of at the site.



DREDGING COSTS

PRELIMINARY COST ESTIMATES

- **Open-water Disposal @ Western: \$1.2 million**
e.g. 25K CY x \$45/CY + \$100K mob
- **Open-water Disposal @ Central: \$1.6 million**
e.g. 25K CY x \$60/CY + \$100K mob
- **Clean Earth, NJ: \$4.1 million**
e.g. \$1.6M + \$20K mob + (25K CY x \$100/CY)
- **Tipping Point: \$4.8 million**
e.g. \$1.6M + (25K CY x \$130/CY)

Note: CE & TP costs exclude cost of debris removal at \$100-225/ton.

Permitting

NEXT STEPS

NEXT STEPS

PERMITTING

1. Determine sediment suitability
2. Prepare/File Joint Permit Application with:
 - NYS DEC
 - NY Army Corps
 - NYS Office of General Services (OGS)
 - NYS Department of State (DOS)
3. *If open-water disposal*, file Certificate of Permission Application with:
 - New England Army Corps
4. Receive approvals from DEC & DOS
5. *If open-water disposal*, file Certificate of Permission of Application with:
 - CT DEEP
6. Receive all remaining permits

THANK YOU