CENAE–R-PT (1145–2–303B) 9 December 2003

MEMORANDUM THRU

PFH for Joanne M. Barry, Chief, Policy Analysis and Technical Support Branch

FOR: Roger Juhola, Project Manager, CENAE-P-M

SUBJECT: Suitability Determination for CENAE, Wellfleet Harbor FNP, Wellfleet, MA, Application Number 200301161.

1. **Project Description:**

The CENAE is proposing to dredge an area of approximately 10.5 acres in Wellfleet Harbor and remove approximately 135,000 cu. yds. of material. This material is proposed to be mechanically dredged and disposed of at the Cape Cod Bay Disposal Site (CCDS). This area was last dredged 7 years ago.

A sampling plan for this project was prepared on 30 June 2003. The plan called for seven cores to be taken from the project area. This plan was followed and produced data.

2. **Summary:**

This memorandum addresses compliance with the regulatory evaluation and testing requirements of 40 CFR Section 230.60 and 230.61, subpart G under the Clean Water Act 404(b)(1) guidelines. This evaluation confirms that sufficient information was obtained to properly evaluate the suitability of this material for open water disposal under the guidelines and finds the sediments suitable for disposal as proposed.

3. **Clean Water Act Regulatory Requirements:**

The disposal of sediments below mean low water in **Cape Cod Bay** is regulated according to Section 404 of the Clean Water Act. Subpart G of the Section 404(b)(1) guidelines describes the procedures for conducting this evaluation, including any relevant testing that may be required.

§230.60 General Evaluation of Dredged or Fill Material

(a) The sediment proposed to be dredged is not mostly sand located in an area of high water energy. This exclusion does not apply to this project.

(b) According to the Wellfleet Harbormaster, there have been no recent spills. The Town of Wellfleet submitted a plan of nearby storm water outlets.

(c) The material to be dredged and the material at the disposal site are not adjacent, composed of the same materials and subject to the same sources of contaminants. Further testing was therefore required.

(d) This subsection states that further testing may not be necessary if the material to be dredged is constrained to reduce contamination within the disposal site and to prevent transport of contaminants beyond the boundaries of the disposal site. As such constraints in handling are not proposed, this subsection does not apply.

§230.61 Chemical, Biological and Physical Evaluation and Testing

(a) This subsection describes the purpose of §230.61 and does not give any criteria for the evaluation of sediments.

(b) Water column and benthic bioassay testing is not needed as it was determined, on the basis of evaluation of §230.61(c), that the contamination is low.

(c) An inventory of the total concentration of contaminants is of value in comparing sediment at the disposal and dredging sites. See the attached spreadsheets for comparisons to the CCDS reference areas. While some of the concentrations of metals and PAH's are higher than the reference values, they are not very much higher. The concentrations of PCB's and pesticides were all lower than the detection limits or only slightly higher. Therefore, this project's sediment is similar to that of the reference area and is suitable for unconfined open water disposal at CCDS.

CENAE and the federal agencies did not think an analysis of biological community structure was needed for this project.

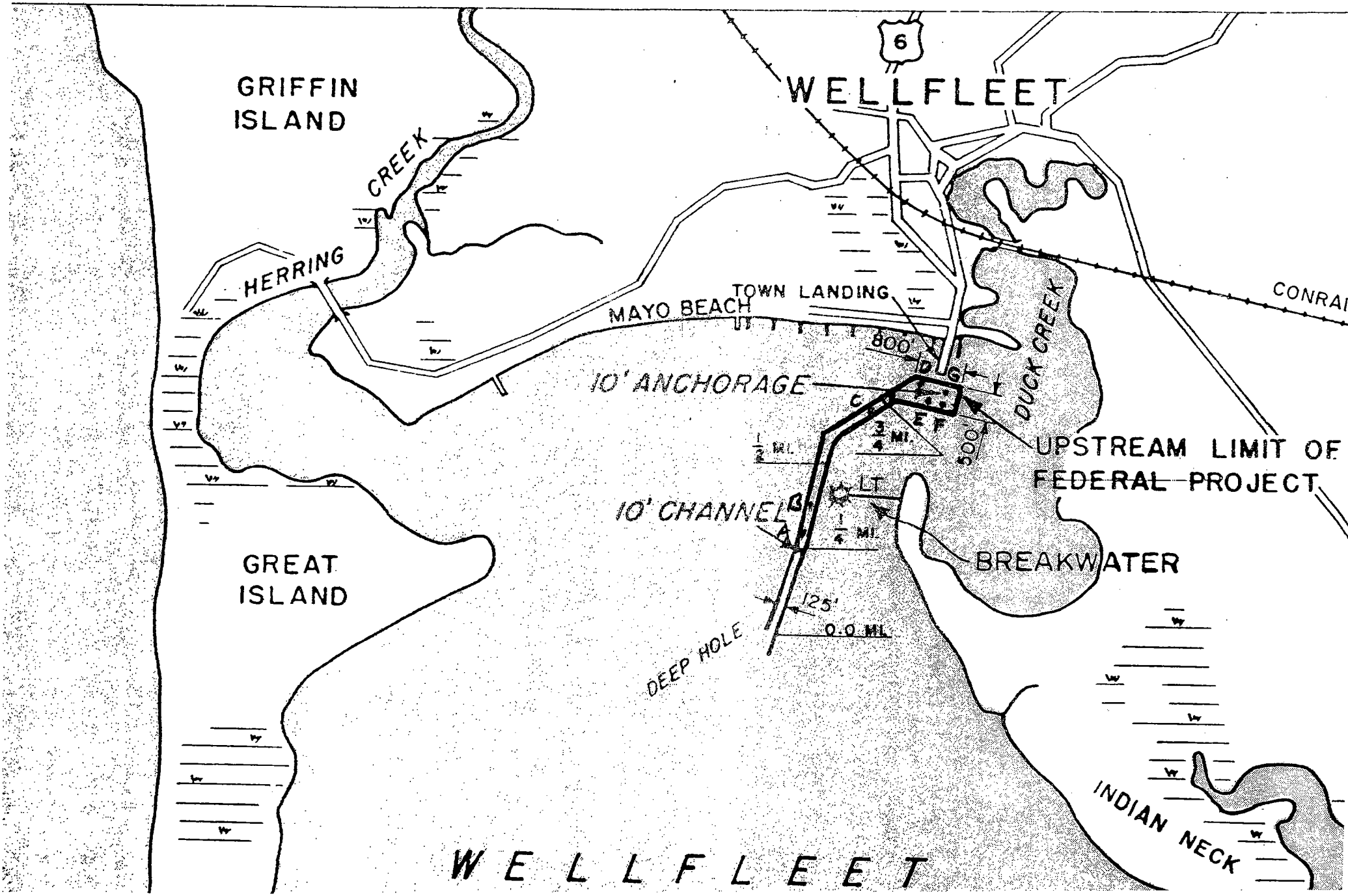
(d) The physical effects of the disposal of the dredged material at the disposal site should be minimal. Although some benthic marine organisms will be buried by the disposal, the disposal site should be rapidly re-colonized.

4. Copies of the draft of this suitability determination were sent to the State DEP, US EPA, and US NMFS for their review. The agencies either responded to say that they concur with the determination or did not respond within the 10 day response period.

5. If you have any questions, please contact me at 78660.

Phillip W. Nimeskern Jr.

PHILLIP W. NIMESKERN, JR.
Project Manager,
Marine Analysis Section


GRIFFIN ISLAND
CREEK
HERRING
6
WELLFLEET
TOWN LANDING
MAYO BEACH
800'
10' ANCHORAGE
DUCK CREEK
CONRAI
UPSTREAM LIMIT OF FEDERAL PROJECT
1/2 ML.
3/4 MI.
400'
LT
10' CHANNEL
1/4 MI.
BREAKWATER
GREAT ISLAND
125'
0.0 ML.
DEEP HOLE
INDIAN NECK
WELLFLEET

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	Pollutant concentrations comparisons												
2	Application #200301161												
3	Wellfleet Harbor FNP												
4													
5	Sample Site		CCDS-1986		Sample AB			Sample CDE			Sample FG		
6	Metals (ppm)		mean		Raw Data	Normalized		Raw Data	Normalized		Raw Data	Normalized	
7	Arsenic		16		1.5		ok	24		*	29		*
8	Cadmium		0.9		0.12		ok	1.6		*	1.8		*
9	Chromium		48		2.8		ok	39		ok	41		ok
10	Copper		20		2		ok	34		*	37		*
11	Mercury		0.4		0.00385		ok	0.11		ok	0.096		ok
12	Nickel		27		1.5		ok	20		ok	21		ok
13	Lead		36		2.6		ok	38		*	40		*
14	Zinc		88		8.3		ok	110		*	120		*
15													
16	% fines				57.9			60.5			57.85		
17	PAH's (ppb)												
18	Fluorene		75		11		ok	40		ok	45		ok
19	Phenanthrene		75		49		ok	40		ok	45		ok
20	Anthracene		75		28		ok	40		ok	45		ok
21													
22	Fluoranthene		75		290		*	130		*	160		*
23	Pyrene		75		330		*	180		*	210		*
24	Benzo(a)anthracene		75		130		*	40		ok	45		ok
25	Chrysene		75		120		*	40		ok	45		ok
26	Total Benzofluoranthenes		150		203		*	124		ok	155		*
27	Benzo(a)pyrene		75		120		*	40		ok	45		ok
28	Dibenzo(a,h)anthracene		75		11		ok	40		ok	45		ok
29	Benzo(g,h,i)perylene		75		52		ok	40		ok	45		ok
30	Ideno(123-cd)pyrene		75		56		ok	40		ok	45		ok
31													
32	TOC				0.21			6.6			7		
33													
34	Sum of PAH's				1400			794			937		
35													
36	* = > REFERENCE SAMPLE				ARG = CAN'T COMPARE								
37	ok = < REFERENCE SAMPLE												
38													
39	Reference data is from "Final Report, Pre-Disposal Surveys, Cape Cod Disposal Site, Cape Cod Bay, MA"; 11 August, 1994.												