RETURN TO 1998 ROD AR INDEX

13.4.27

New Bedford Harbor Superfund Site
Meeting
September 5, 1995
6:00 p.m.
Greater New Bedford
Vocational High School

Superfund Records Center
SITE: NEW BEDFORD
BREAK: 13.04
OTHER: 47584

AGENDA

- Status of treatability studies
- - Impact of federal shutdown
- Status of dredging
- Sea Change proposal
- Continued discussion of Phase 2 ROD issues
- Other public participation activities
- Status of Forum funding; schedule of future meetings
- Old business
- New business

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SDMS DocID 47584

Summary of Meeting Held September 5, 1995
of the New Bedford Harbor Superfund Forum

In attendance at the session were:

Facilitators
Michael Keating

HMTR
Steve Cassidy
Jim Simmons
Barry Starr

DER
Paul Craffey
Helen Waldorf
David Janik

New Bedford City Council
George Rogers
Fred Kalisz, Jr.

Remind Coalition
Carol Sanz

New Bedford Mayor's Office
Molly Fontaine

EPA
Cindy Catri
Frank Ciavattieri
David Dickerson
Harley Laing
Kristine Laumeyer

NOAA
Jack Terrill

State Elected Officials
Rep. Bill Straus

Town of Acushnet
Roland Pepin

Five members of the public observed the meeting, which was videotaped for subsequent broadcast on local cable television.

David Dickerson reported that EPA's contractor, Ebasco, was in the process of selecting a subcontractor from among the bidders for the bench-scale treatability work. A selection is imminent, and the work on the contract can be expected to begin in late September or early October. Ebasco will make a presentation on the winning bench-scale contract at the Forum's next meeting.

A large field of bidders submitted proposals for the pilot-scale treatability study prior to the close of the bid period last week.

There was discussion of the possibility of the shutdown of the federal government for some period in early October as a result of the Congressional budgetary process. Concern was expressed over security at the Sawyer Street site and monitoring activity at the Hot Spot CDF, but EPA personnel indicated that essential personnel would continue to work, and security and public safety would appear to be essential functions. The discussion was intended simply to alert Forum members to the possibility of an early October interruption of work at the site.

Roland Pepin reported that the Hot Spot dredging is 99 percent complete, with completion expected within the next day or two.

The Forum considered Sea Change's proposal for an independent scientific review of questions related to the present version of the Phase 2 ROD. Steve Cassidy renewed his concern about the nature and rigor of questions posed to the proposed panel, and Roland Pepin expressed some reservations about immediate approval without more time to study Sea Change's proposal. Other members of the Forum expressed a need to move forward expeditiously with the process and urged adoption of the proposal. The Forum tentatively approved the Sea Change proposal, subject to further review and input as the project develops. The need to form a group to develop relevant questions was acknowledged, and Sea Change was directed to work with Forum members to develop questions. The proposed September 15 deadline for the submission of questions was viewed as too restrictive, because more time to develop effective questions would probably be required.

EPA and Dave Dickerson continued discussion of Phase 2 ROD issues identified as important by the Forum at its July 25th meeting. Considerable concern was expressed about the nature, extent and funding of continued monitoring of the CDFs. The monitoring basically consists of wells sunk around the perimeter of each CDF from which groundwater samples can be taken to gauge changes in the quality of the groundwater due to leakage from the CDFs. The spacing of wells and the frequency of testing will be determined as the project advances, with plenty of input from the Forum and the community. Because the movement of groundwater, and any pollution connected with it, is much slower than that of water or air, the proposal calls for a schedule of less frequent testing, as reflected by the suggestion for quarterly sampling initially.

Several members of the Forum questioned the availability of funds over the long-run for the maintenance of effective monitoring. Paul Craffey described a formula for the disposition of the settlement funds that ensures the reservation of an amount for continued, long-term monitoring. No one, however, could guarantee that government funds would always be available for indefinite monitoring and maintenance.

Early discussion focused on the permeability of the soil and sediments in the areas in which the CDFs are proposed to be placed. The anticipated rate of leakage reported by EPA in the Forum's last meeting (a daily rate of 0.008 pounds of PCBs) was based on a conservative estimate that assumed the CDF subsoils would be highly porous, although existing indications suggest that the subsoils are, in fact, relatively impermeable. The possibility of a bottom liner was discussed, but because it would be necessary to raise the CDF bottoms above the water level to ensure the effective of an artificial liner, that alternative is not presently being actively considered. The heightened level, plus the structure of the bottom liner, would raise the height of the CDFs some ten to 15 feet.

A questions was raised by Barry Starr about the number of CDFs projected to be built and placed around the harbor by the agencies under the plan. The agency identified eleven different potential sites for CDFs during the feasibility study for the Phase 2 ROD. EPA indicated that it plans only to use only the three CDFs identified in the proposal as CDFs 1, 1b and 7. These are slated to contain the some 475,000 cubic yards of sediments to be dredged. If, however, a decision is made not to use one or more of the proposed three CDFs, all of which are physically located within the area to be dredged, there may be a need to do additional dredging. This additional dredging may involve as much as 508,000 cubic yards, if all of the alternative CDFs are located

outside the area of dredging. Thus, if the proposed sites are rejected, it may require more of the other potential sites to contain the resulting larger amount of sediments. The agencies, however, disavow any intention of creating more CDFs than are required to hold the spoils identified in the plan to be dredged.

The interplay between the storage of navigational and Superfund dredging materials in CDF 7 was explored. There is a limit on the amount of navigational dredge spoils that can be stored in CDF 7, with that limit being about 150,000 cubic yards. That represents only a portion of the spoils that are expected to be generated by the navigational dredging, although the precise amount likely to be generated by the navigational dredging remains to be determined by an Army Corps of Engineers survey. EPA's present proposal also allows for another 50,000 cubic yards of navigational dredging spoils to be accommodated in an extension of CDF 7 at some later point.

Dave Dickerson identified other Superfund CDF sites around the country and promised to provide Forum members with information. Under prodding from George Rogers, EPA agreed to provide members with brief descriptions of such sites together with this summary and to place other more voluminous and complete materials in the depository libraries.

Cindy Catri elaborated on the written financial breakdown of expenditures on the New Bedford site to date and detailed the resources for further work on the project that was handed out to Forum members.

Late in the meeting, Jim Simmons reported that constituents from HATR and neighbors in the area of proposed CDF 1 were opposed to the use of CDFs and wanted an opportunity to ask questions about the proposal for the Phase 2 ROD before it was finalized. Some Forum members were concerned about mixing public hearings and the Forum process, but everyone generally agreed on the need to provide some sort of public question period whether in conjunction with a Forum meeting or separately. Members were urged, prior to the next meeting to think about this issue and come up with some way of providing public input that might be considered and adopted.

A lengthy discussion of the agenda for the next meeting followed. It was agreed that topics should include the location of CDFs; questions relative to the information on the use of CDFs at other Superfund sites provided by EPA; a rundown on the selection of the bench-scale subcontractor; a presentation from someone at EPA's Narragansett Lab on wetlands issues raised by the Phase 2 ROD; and responses of the agencies to issues raised by the citizens' groups in the last two sessions, including, e.g., the potential for the leaching of heavy metals from the CDFs.

A schedule of meetings was set for the following dates:

Wednesday, September 20, at 6:00 p.m.

Wednesday, October 11, at 6:00 p.m.

Wednesday, October 25, at 6:00 p.m.

All of these meetings are scheduled to be held at the Greater New Bedford Vocational High School.

The meeting adjourned at 9:10 p.m.

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(Handout for 9/5/95 Forum meeting)

The EPA Responds to the Forum's ROD II Concerns (continued)

7. Can the CDFs be designed to enhance the natural biodegradation processes that occur in CDFs?

At this point in time it is unclear exactly what would be required to accomplish this enhanced biodegradation within each CDF, but the EPA together with the Corps of Engineers and the state DEP is committed to pursuing this question further. Conceptually speaking, addition of nutrients and microbes and maintenance of preferred aerobic conditions would be basic requirements to accelerate the break-down of PCBs.

8. What will the leachate monitoring system around the CDFs be like?

Groundwater monitoring wells installed around the perimeter of each CDF will be the most important assessment tool for detecting any leachate. Monitoring wells along the seaward perimeter would have to be placed directly in the "in-water" dike of each CDF. Prior to disposing any dredged material in a CDF, initial baseline monitoring would be performed for comparison with post-disposal monitoring. Once disposal is complete, groundwater monitoring would initially be performed quarterly. All monitoring results will of course be shared with the public.

9. How will the CDFs be designed to ensure long-term structural durability? What is the projected lifespan of CDFs?

The CDFs will essentially be designed to last indefinitely, provided that a proper maintenance program is in place. Natural earthen materials will be used to the maximum extent possible. The seaward facing slope of the CDF dikes will be armored with heavy stone (called rip-rap), similar to the way the hurricane barrier is constructed, to protect against wave damage. Synthetic components, such as the steel bulkheading proposed for CDF 7 and any synthetic layers of the CDF caps, may need to be replaced periodically, but the CDFs as a whole will continue to function indefinitely. A comprehensive inspection, monitoring and maintenance program will be critical in keeping the CDFs structurally sound.

As we move from the concept to the design phase (i.e., after ROD II is issued), the specific engineering details of the CDFs will begin to take shape. At this point, these design details have not been developed since the ROD has not been finalized. However, the EPA will continue to involve and inform the public during the detailed design of the CDFs, so that this general question will be answered more thoroughly with time. Design suggestions will be welcome, especially in the area of the ultimate end use of each specific CDF.

10. Who takes over operation and maintenance (O&M) of the CDFs after 30 years?

The Superfund statute requires that the state DEP be responsible for O&M indefinitely, once the cleanup remedy has been determined to be operational and functional. There is nothing special about the 30 year mark, except to the extent that it is a standard timeframe used in engineering economics (costs beyond 30 years become hard to predict and increasingly insignificant from a present worth standpoint). The state DEP may elect to form a commission or district specifically for implementation of CDF O&M, but the statutory responsibility for O&M remains with the state indefinitely. Thus if for some unexpected reason O&M responsibilities were being neglected at any point in the future, the EPA is legally empowered to require the proper performance of O&M.

11. Aesthetically, what will the CDFs look like?

When looking from the landward side of a CDF, one would see an earthen dike rising at an angle to about 5 to 12 feet above water level at high tide, depending on the CDF and the specific location being viewed. The final surface of the top of the CDF after placement of the impermeable cap could be tailored to whatever end-use the community decides is most appropriate. End uses suggested so far include athletic fields, shoreline parks, bike paths, wildlife habitat, parking lots, or small buildings.

When looking from the seaward side of a CDF, one would see a similar earthen dike, but the dike would be covered with large stones (called rip-rap) for wave and storm protection. The one exception to this would be CDF 7, where a pier-type (e.g., a concrete-faced sheet pile) design is envisioned for the "in-water" section of dike to promote general maritime use.

12. Some locations for CDFs seem better than others. Selection criteria for siting CDFs need to be established.

The EPA agrees that a listing of siting criteria developed by the Forum would greatly aid in the final selection of CDF locations. The EPA used engineering-related criteria when developing and evaluating potential CDFs, but the local communities may have other criteria which they also value. A map of the CDFs considered during the Feasibility Study is attached.

An important consideration to keep in mind when developing public criteria is the so-called "footprint criteria". That is, if CDFs are located in areas above PCB cleanup levels, the underlying sediments would not need to be dredged, and the total volume or number of CDFs is thereby decreased. This is a very important aspect in terms of cost-effectiveness and public acceptance, among others. The three CDFs in the EPA's proposed

remedy (numbers 1, 1B and 7) satisfy this footprint criteria. A map of the contaminated areas above cleanup levels is also attached.

Other engineering concerns include the location of the treatment plant for treatment of the water that is drained off the dredged sediment, the overall implementability of each CDF, the preference to avoid bringing "dirty" sediments to "clean" areas for disposal, and the attainment of the total requisite disposal volume. For the currently proposed remedy using CDFs 1, 1B and 7, about 475,000 cubic yards of sediment would require dredging; if all CDFs are sited outside the area of dredging than about 608,000 cy would require dredging.

13. What is the potential for beneficial reuse of the CDFs?

Although care would have to be taken to preserve the integrity of the CDFs' impermeable cap, there is a very high potential for beneficial reuse of the CDFs. Ideas for reuse that have been suggested to date include shoreline parks, athletic fields, bird sanctuaries, bike paths, parking lots, small buildings and, for CDF 7, a marine docking facility.

Given the need to protect the underground cap, special engineering considerations would have to be made for any underground utilities such as water, sewer and gas. For example, to protect against freezing, these utilities could be enclosed within an earthen berm rather than being buried directly underground. Trees would generally be prohibited since deep roots could puncture the impermeable cap. Shallow-rooted vegetation would be possible, however.

Whatever ultimate land use is elected, that use should be decided upon prior to initiation of the final engineering design for each CDF's cap. This would provide for the shortest time period before beneficial reuse of the CDFs could begin.

14. Are there other examples of Superfund CDFs nationally?

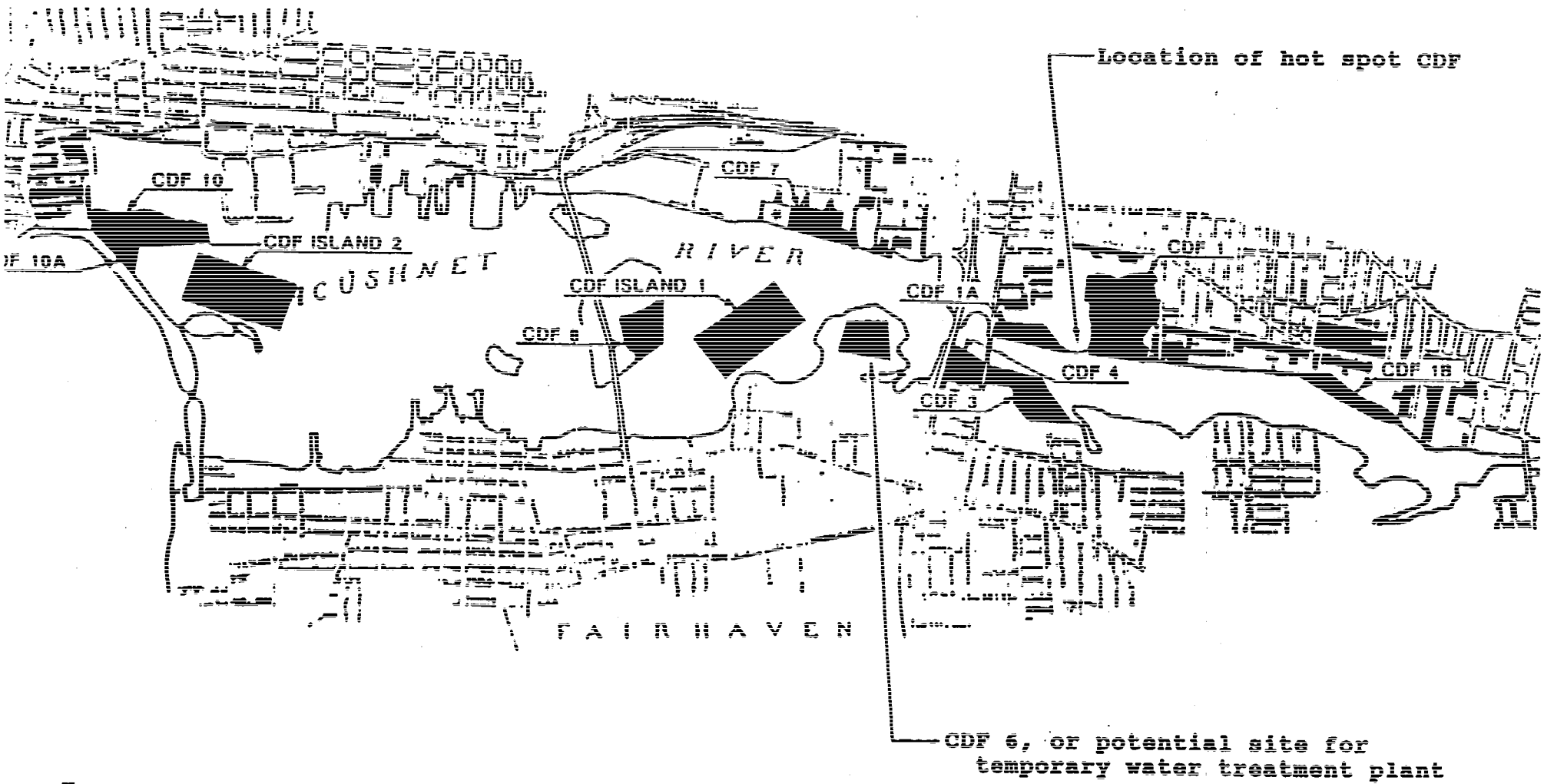
Yes, several other sites have used or plan to use near-shore CDFs to remediate contaminated sediments. Sites with completed CDFs include the Waukegan Harbor site in Michigan (CDFs for PCBs completed in 1993), the Commencement Bay Sitcum Waterway site in Washington (CDF for metals and organics completed about one year ago), and two Port of Seattle sites (CDFs for PCBs, PAHs and metals completed in 1982 and 1986). Other sites considering near-shore CDFs include the San Diego Bay National City Marine Terminal site, and additional problem areas at both the Commencement Bay and the Port of Seattle sites. The EPA is in the process of gathering information from these various sites for distribution to Forum members in the near future.

In addition, many other coastal cities in the U.S. and around the world have used CDF technology to dispose of contaminated navigational dredged material.

15. Could implementation of ROD II help provide some of the disposal volume required for the city's navigational dredging?

Yes, as currently conceived, the CDFs included in the proposed remedy would provide significant capacity for disposal of navigational dredged material. As explained in the response to question #1, the navigational dredged material could be deposited above the Superfund dredged material as a preliminary cap. This preliminary cap would help "squeeze out" pore water and PCBs from the underlying Superfund sediments, and would prevent dust emissions from the Superfund sediments. Preliminary estimates of the capacity that would be available in the CDFs for navigational dredged material are on the order of 150,000 cubic yards.

It should be noted that over the past few years the EPA and the City of New Bedford have developed a conceptual design for CDF 7 that would provide for easy build-out by the City for future disposal needs. In other words, the EPA would not use all of the available area for its CDF, but would save some acreage for future use. Preliminary estimates of the capacity of this future build-out area are on the order of 50,000 cubic yards.

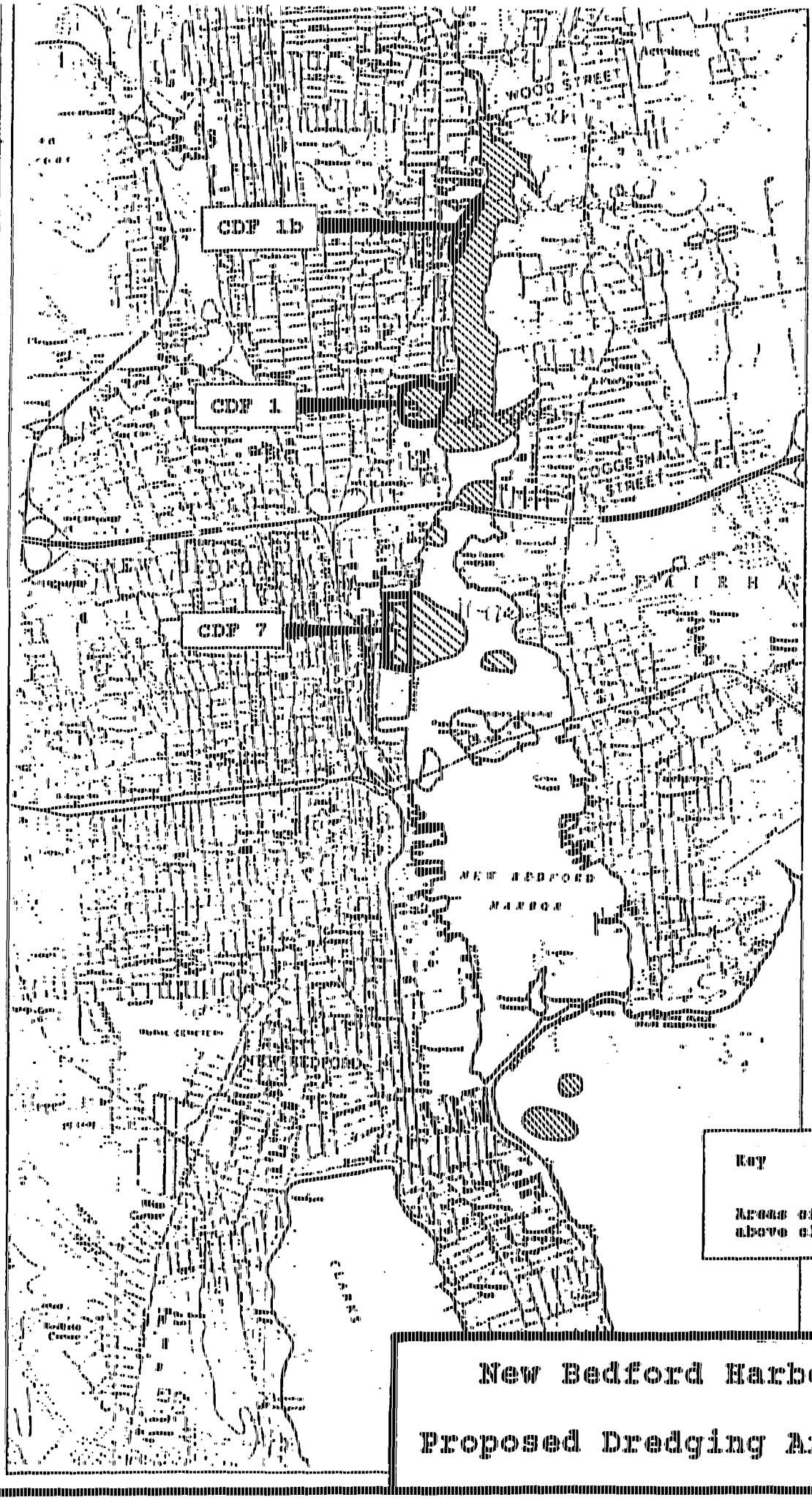


Key

* - portion of CDF 7 reserved for navigational dredged material

New Bedford Harbor Superfund Site

Potential CDF Sites for ROD II



New Bedford Harbor ROD II

Proposed Dredging Areas and CDFs

NEW BEDFORD HARBOR SUPERFUND SITE
SETTLEMENT PROCEEDS AND CURRENT STATUS

Three different Consent Decrees entered with five PRPs. The combined amounts of all settlements are as follows:

- Total Settlement $99.6 (in millions) (excluding some initial interest received during the appeals process)

Natural Resources Damages	$20.1
Total Response Costs	69.5
Natural Resources/Response Costs	$10

~~This last combined natural resource/response cost account~~ of $10 million is ~~the only sum which bears interest~~ that can be used for ~~site~~ activities. The interest from the other two sums ~~goes to the National Superfund~~

incorrect DRD 9/5/95

- Settlement Costs allocated to Past and Future Response Costs

Past Response Costs	$12.1
Settlement Future Response Costs	$57.3*
Special Acct. for Future Response Costs	$59** (initial total)

- FY 95 Deductions from the Special Account ***

Approximately $2.3 million

Current Amount in the Special Account: $56.7 million

*Paid to New Bedford Harbor Superfund Site Special Account. Any interest earned is paid to Superfund, not to the Special Account.

**An additional $2 million interest was earned during the appeals process before the settlement money was deposited by the PRPs into the Special Account.

***FY 95 is the first year EPA has drawn money from the Special Account for this site. All costs for the Site prior to FY 95 were drawn from the Superfund.