PUBLIC RECORD OF DECISION ON THE FINAL ENVIRONMENTAL IMPACT STATEMENT

ON WASTEWATER TREATMENT FACILITIES FOR NEW BEDFORD, MASSACHUSETTS

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION I
BOSTON, MASSACHUSETTS

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March 27, 1992

Date

RECORD OF DECISION

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U.S ENVIRONMENTAL PROTECTION AGENCY'S

RECORD OF DECISION

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WASTEWATER TREATMENT FACILITIES FOR NEW BEDFORD, MA

1. INTRODUCTION

The U.S. Environmental Protection Agency (EPA) has prepared this document as its Record of Decision (ROD) for the Final Environmental Impact Statement (EIS) on Secondary Wastewater Treatment Facilities for the City of New Bedford, Massachusetts. The Draft and Final EISs evaluated a variety of alternative sites and suitable treatment technologies for secondary wastewater treatment, sludge treatment and disposal, and effluent outfall from the proposed treatment plant.

Concurrent with EPA's environmental review, the City of New Bedford conducted environmental review and facilities planning for the secondary treatment facilities in compliance with Massachusetts Environmental Policy Act (MEPA) regulations. The City of New Bedford published its Final Facilities Plan/Environmental Impact Report (FP/EIR) in October of 1990 and a March 1991 supplement to that which contained its final recommendations for secondary wastewater treatment technologies and sites.

The City of New Bedford's existing primary wastewater treatment system is currently in violation of the Clean Water Act. In order to come into compliance with state and federal wastewater treatment requirements, the City will be constructing secondary wastewater treatment facilities in accordance with a 1987 federal court order. The three interrelated components of secondary wastewater treatment system are secondary wastewater treatment which removes solids from the wastewater and disinfects it; treatment of solids removed from the wastewater and proper disposal of those solids; and conveyance of the treated effluent from the WWTP to an acceptable off-shore location.

The City of New Bedford is responsible for selecting and implementing an environmentally acceptable plan for implementing secondary wastewater treatment as required by the Clean Water Act. EPA's primary responsibilities are to ensure compliance with the Clean Water Act and the National Environmental Policy Act (NEPA) and to provide an independent analysis of the City's Facilities Plan/EIR. In preparing its NEPA environmental review, EPA drew its own conclusions, but made use of the information generated by the City for the state environmental review process as long as it met EPA's needs under NEPA. Additional information or analyses were provided by EPA where necessary. This "piggy-back" approach allowed EPA to conduct a more efficient environmental review than otherwise would have been possible.

EPA published its Draft EIS on Wastewater Treatment Facilities for the City of New Bedford, MA in November of 1989 (noticed in the December 15, 1989 Federal Register). A public hearing was held in New Bedford on January 24, 1990. Oral and written comments on the Draft EIS were received during a sixty day public comment period. The Final EIS, which responded to these comments, was published in July, 1991 (July 12, 1991 Federal Register) and was followed by a 30 day comment period. This Record of Decision has been prepared taking into consideration comments received on the Final EIS. The comments received on the Final EIS and responses to them are attached as Appendices A and B, respectively.

The Draft and Final EIS satisfy federal environmental review requirements in accordance with the EPA and Council on Environmental Quality (CEQ) procedures for implementing NEPA as set out in 40 CFR Parts 6 and 1500, respectively.

This Record of Decision sets forth EPA's final decision on the City of New Bedford's plan for implementing secondary wastewater treatment and is being circulated to inform the public of EPA's decision and to respond to the comments received on the Final EIS.

2. SCREENING AND EVALUATION OF ALTERNATIVES

2.1 Development and Screening of Alternatives

NEPA regulations require EPA, during environmental review, to rigorously explore a reasonable range of siting and treatment technology alternatives illustrating the full spectrum of potential impacts to be analyzed. Three analogous screening processes were conducted in the EIS for the three components of the City's facilities plan -- the wastewater treatment plant, sludge facilities, and the effluent outfall.

2.1.1 Wastewater Treatment Plant

The screening and evaluation of wastewater treatment plant (WWTP) alternatives involved three steps:

- determination of the wastewater treatment plant influent quantity and quality;
- development of the liquid wastewater treatment process configuration; and
- determination of the location for the proposed wastewater treatment plant.

Determining the influent quantity and quality required detailed analysis of the existing and future population serviced by the plant, sources of the wastewater, and existing and future levels of pollutants in the wastewater. The existing New Bedford Primary Wastewater Treatment Plant receives wastewater and its associated pollutants from residential,

commercial, and industrial business activities in the region. Water also enters the facility through infiltration, inflow, and combined sewer flows that result from the mixing of sewage and urban stormwater runoff during periods of rain or snow melt. In addition, the plant receives septage from septic systems in the unsewered areas of New Bedford, Acushnet, Dartmouth, Fairhaven, and Mattapoisett.

Several technologies for preliminary treatment, primary treatment, secondary treatment, and disinfection were considered for liquid wastewater treatment at the proposed facilities. To limit the number of alternatives to be considered, and to make the evaluation of alternatives more manageable, two screening analyses were conducted as part of the facilities planning process. These analyses made use of technical, environmental, institutional, and cost criteria for screening. The non-monetary screening criteria used to compare the liquid wastewater treatment alternatives are shown in Table 1. The screening process employed is discussed in detail in Section 2.2 of the Draft EIS and in the City of New Bedford's Phase II Facilities Plan/EIR (CDM, Volume III, 1989). Figure 2.2-2 of the Draft EIS shows the wastewater treatment technologies which were examined, and the recommended wastewater treatment technologies are listed in Table 2.

Table 2

RECOMMENDED WASTEWATER TREATMENT TECHNOLOGIES

Preliminary Treatment:	Catenary Bar Screen Aerated Grit Chamber
Primary Treatment:	Rectangular Clarifier
Secondary Treatment:	Air Activated Sludge Anaerobic Selector Rectangular Clarifier
Disinfection:	Sodium Hypochlorite followed by Dechlorination

The wastewater treatment plant (WWTP) site selection process began with the identification of 47 potential sites within the City of New Bedford, which were then screened down in several steps, with each screening making use of a set of criteria and specific categories of information ranging from developable area to cost and environmental considerations. The criteria and screening elements applied to the 5 most suitable sites are listed in Table 3.

The sites initially considered are shown in Figure 1 (Fig. 2-39 from the Draft EIS) and details of the screening process are provided in Section 2.3 of the Draft EIS. Two sites, Site 1A (Fort Rodman) and Site 4A (Standard Times Field) were retained for final detailed evaluation in the Draft and Final EIS (see Figure 2).

Table 1

NON-MONETARY PHASE I SCREENING CRITERIA FOR LIQUID WASTEWATER TREATMENT ALTERNATIVES

Criteria	Description	Rating
Reliability	The level of assurance that the unit process will consistently achieve and the required degree of treatment under an expected range of operating conditions, including consideration of the track record of the unit process at other large municipal wastewater treatment facilities.	low, average, high
Flexibility	The ability of a unit process to operate under atypical conditions or to adapt to major changes in flows or loadings.	low, average, high
Constructability	Consideration of several aspects of construction including the complexity of construction, duration, and scheduling.	difficult, normal
Safety	The level of precautions needed to reduce risks to plant personnel and the surrounding community, including those required for operation under both normal and special circumstances.	special, normal
Operators Required	A measure of the relative number of operators and maintenance personnel required to successfully operate and maintain the unit processes as compared to the reference unit process.	greater, average, fewer
Operational Complexity	The degree of difficulty in the maintenance and control of a unit process.	high, average, low
Power Efficiency	The amount of power necessary to achieve the desired level of treatment.	low, average, high

Table 1 (continued)

NON-MONETARY PHASE I SCREENING CRITERIA FOR LIQUID WASTEWATER TREATMENT ALTERNATIVES

Criteria	Description	Rating
Auxiliary Needs	Any additional needs (e.g., chemical feed facilities) required for a unit process.	(no auxiliary need or specific need)
Residuals Aspects	Consideration of the quality and quantity of the residuals generated by a particular unit process regarding the difficulty of collection, processing and disposal of residuals.	difficult, average, good
Spoils Disposal	The amount of soils excavation and the difficulty in the disposal of such material when compared to the reference unit process.	difficult, average, simple
Air Emissions Control	The potential for generating air emissions and therefore the level of control necessary to limit air emissions from a unit process.	low, average, high
Odor	The potential for generating and emitting odor-causing compounds to the environment.	high, average, low
Noise Control	The ease of controlling the noise generated during operation of a specific unit process.	high, average, low
Aesthetics	The relative visual impact of a unit process on the surrounding communities and adjacent marine users.	average, good
Effluent Quality	The relative impact of a unit process on downstream unit processes or receiving wate.	low, average, high

Adapted from: CDM, Volume III, 1989

Table 3

CRITERIA AND SCREENING ELEMENTS APPLIED TO THE FIVE "MOST SUITABLE" SITES[1] IN PHASE I/SCREEN 2

Geology, Soils & Topography
Geologic features
Depth to bedrock
Soil/subsurface conditions
Slope constraints and erosion potential
Drainage
Flooding
Groundwater Hydrology
Potential impact to groundwater quality/quantity
Depth to water table
Surface Water
Proximity to surface water bodies
Water quantity classification
Land Use
Onsite land use
Adjacent land use
Generalized (surrounding) land use
Zoning
Site zoning
Surrounding zoning
Regulatory Requirements
Noise
Distance to sensitive receptors
Existing noise levels
Noise mitigation potential
Odors
Wetlands
Terrestrial Habitat
Marine Habitat
Historic Sites and Districts/Archaeological Areas
Aesthetics
Traffic
Routes through residential neighborhoods
Increase in traffic and delays caused by trucks
Site accessibility
Engineering Feasibility
Hydraulic compatibility
Effluent pipe length
Energy consumption
Expansion/buffer potential
Incineration
Air quality impacts
FAA restrictions
Hazardous Waste

1. Sites 1A, 4A, 7/8, 14/36 and 16.

Adapted from: CDM, Volume I, 1989.

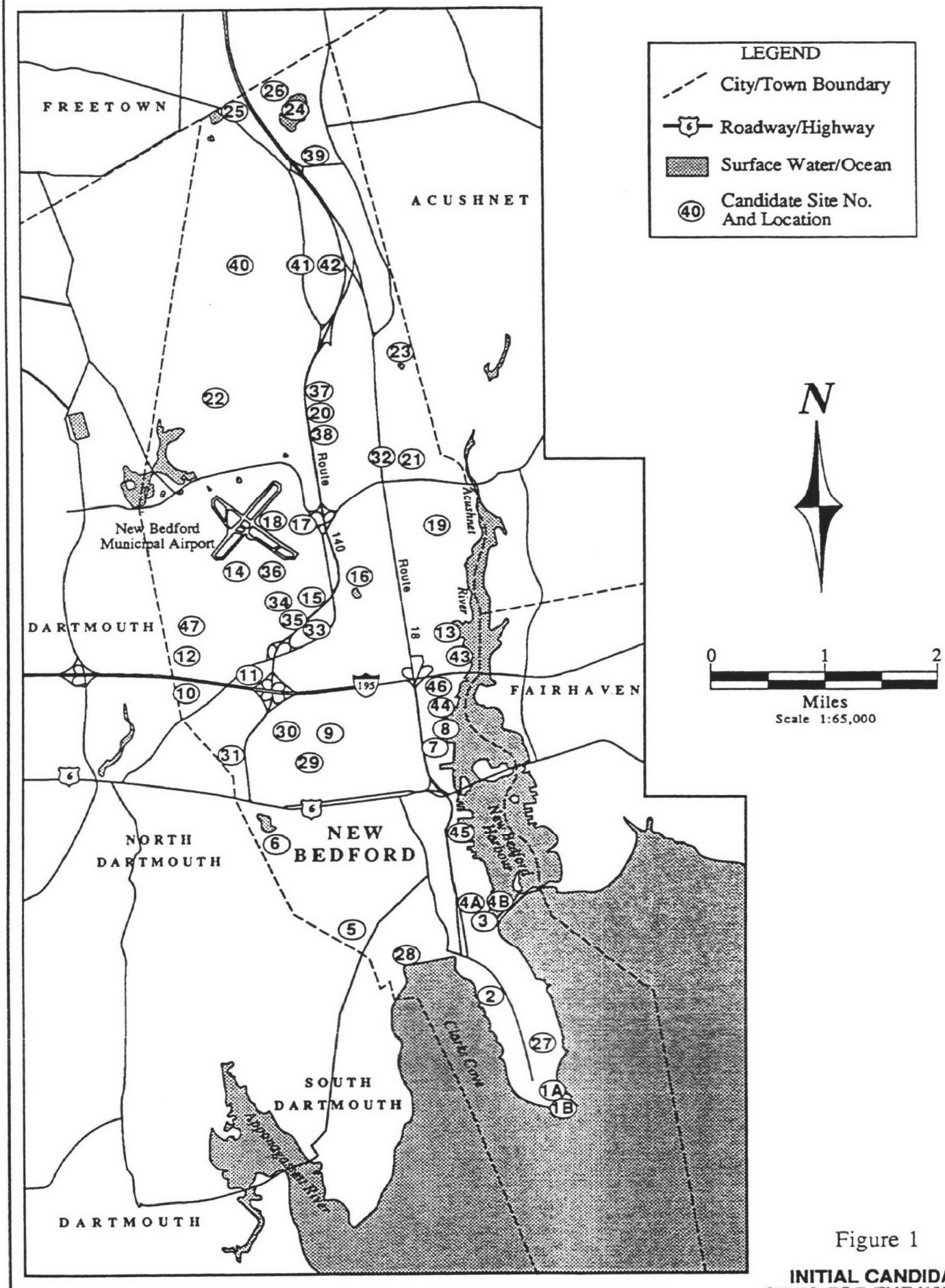


Figure 1

INITIAL CANDIDATE SITES FOR THE WWTP

Adapted from CDM, 1989

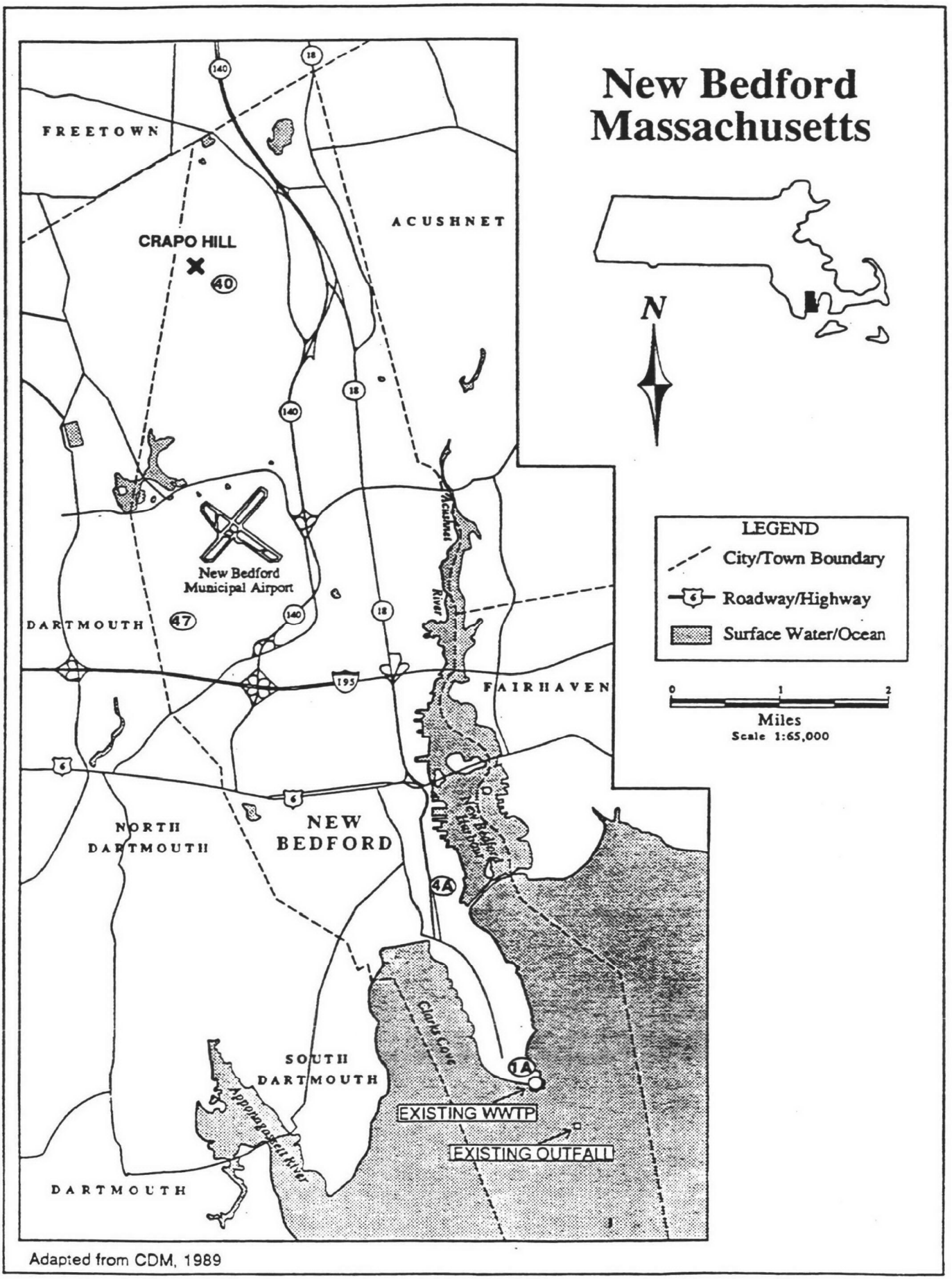


Figure 2 **New Bedford Area Showing Sites 40, 47, 4A, 1A, and Crapo Hill**

2.1.2 Sludge Disposal Facilities

The screening and evaluation of wastewater residuals (sludge) processing and disposal alternatives also involved three steps:

- determination of the sludge quantity and quality;
- development of the sludge process configuration; and
- determination of the disposal site for the sludge or sludge product.

The evaluation of the quantity and quality of the sludge to be produced by the proposed WWTP required a detailed analysis of the existing and projected solids removed by the WWTP. The quality of sludge was important because it could restrict the ultimate method of sludge product use or disposal.

Three successive screening steps were used to reduce the number of alternative technologies for final consideration, based on criteria including technical and cost considerations in addition to sludge quantity and quality. The evaluation criteria employed for sludge process evaluations are listed in Table 4. The technology screening process employed is discussed in detail in Section 3.2 of the Draft EIS and the recommended sludge treatment process train is shown in Figure 3.

The 47 sites initially identified for location of the WWTP were also considered for solids disposal (see Fig. 1). Existing or proposed landfills and incinerators within a reasonable distance of the City of New Bedford were also reviewed for possible use as sludge disposal facilities. A number of successive screening steps using cost and environmental criteria (shown in Table 5), in addition to acreage requirements and other technical considerations, resulted in the identification of sites worthy of detailed evaluation in the Draft EIS. These were the Crapo Hill Landfill (a proposed solid waste landfill in Dartmouth), Site 47 (near the airport and adjacent to the New Bedford municipal golf course and an existing solid waste landfill), and Site 40 (near the Polaroid facility and the Acushnet Cedar Swamp). These three sites are shown in Figure 2.

After the site screening process had narrowed the number of candidate sites to 3, the ability of those sites to accommodate the different sludge technologies was calculated based on the volume required for the different disposal options and the available landfill volume at each site. All of the sites were initially considered for all of the alternative technologies -- anaerobic digestion, chemical fixation, composting, incineration, and lime stabilization. The results are shown in Table 6. Early in the technology and site screening process, a decision was made to attempt to locate all sludge treatment facilities at one site to make sludge handling and plant operations most efficient. Primary and secondary sludge processing (i.e., thickening, stabilization, and dewatering) are typically done at the WWTP site rather than at the sludge disposal site if space allows because there is less duplication of facilities and personnel as well as financial advantages to consolidating the sludge processing steps.

Table 4

SUMMARY OF EVALUATION CRITERIA FOR PROCESS EVALUATIONS

Criteria	Ratings		
Reliability	Low	Average	High
Flexibility	Low	Average	High
Constructibility	Difficult	Normal	--
Safety	Special	Normal	--
Operators Required	Greater	Average	Fewer
Operational Complexity	Difficult	Average	Simple
Power Efficiency	Low	Average	High
Auxiliary Needs	(No auxiliary need or specific need)		
Residuals Disposal	Difficult	Average	Good
Air Emissions Control	Difficult	Average	Good
Noise Control	Difficult	Average	Good
Aesthetics	--	Average	Good

CDM Final FP/EIR, Vol. III, 1990

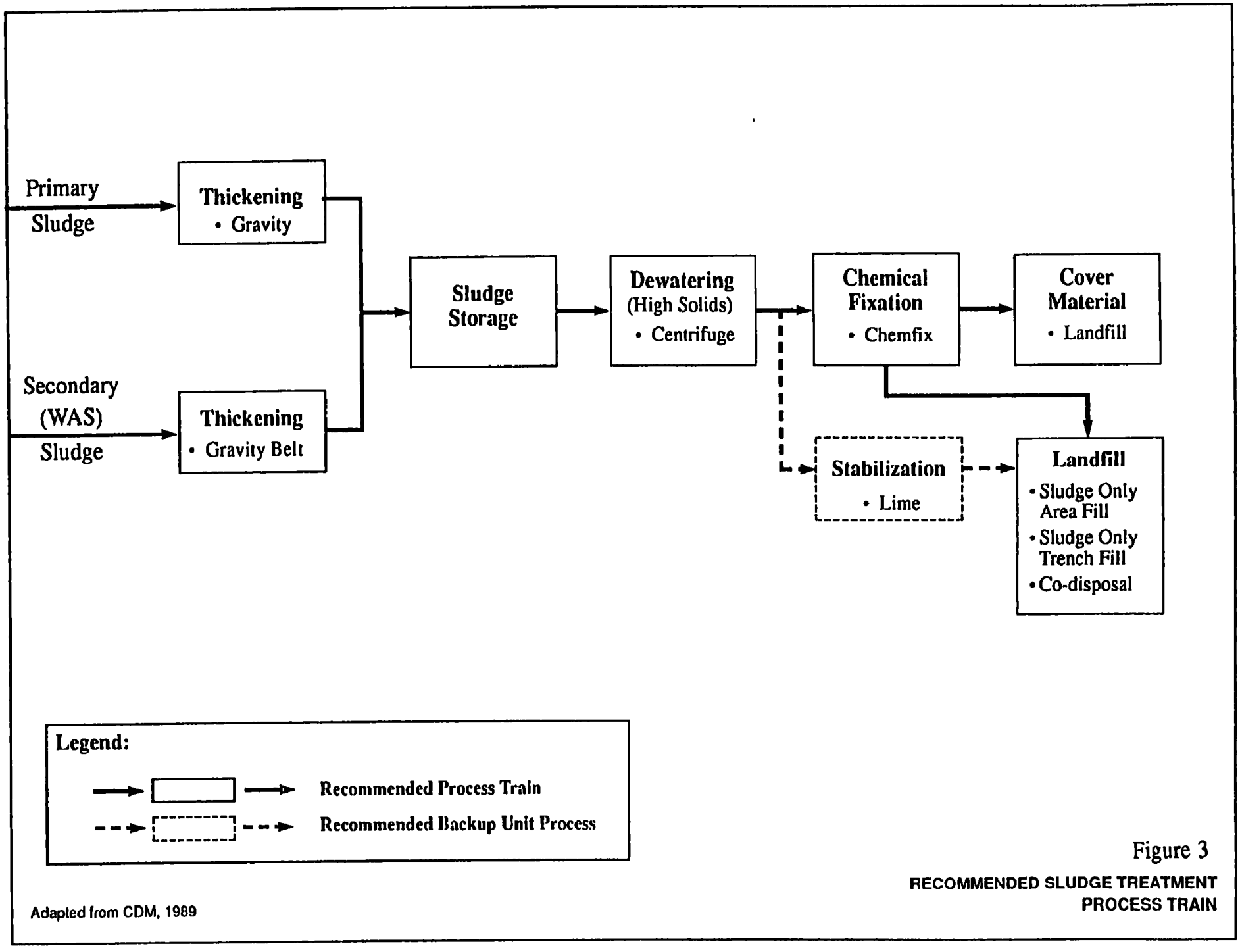


Figure 3

RECOMMENDED SLUDGE TREATMENT PROCESS TRAIN

Adapted from CDM, 1989

Table 5

IMPLICATIONS OF DEVELOPMENT CONSTRAINTS

Constraints	Implications
Floodplain (100 year)	Construction of a sludge disposal facility in the 100-year floodplain is not permitted under state regulations.
Wetlands and Waterbodies Freshwater - includes bordering vegetated wetlands, banks, land permanently under water	Disturbance of areas greater than 5,000 sq ft of bordering vegetated wetlands requires a variance, which would significantly impact the project schedule. Generally, all areas that are disturbed must be replaced within the same hydrologic system.
Groundwater Potential as high and medium yield groundwater source	State guidelines prohibit construction of sludge landfills over aquifers that are or could be used as a water supply.
Historic and Archaeological Resources	Historic and archaeologic resources are considered in terms of direct impacts, which would disturb the integrity of building or remains, and indirect impacts, which change the character/context or would impede public access, and hence, enjoyment of an historic resource.
Deed restrictions and easements	Need to accommodate the deed restrictions and easements in relation to the use of the land, access, or other requirements.
Zoning Residential	Reflects incompatibility of facility with types of land uses for the area.
Existing On-site Land Uses	Permanent disruption, perhaps requiring relocation of existing uses.

CDM Final FP/EIR, Vol. III, 1990

Table 6

SOLIDS DISPOSAL OPTIONS FOR SITES IN NEW BEDFORD
(Based on Average Year)

Disposal Option/Available Volume		Site 20 without Impacts	Site 40 without Impacts	Site 47 without WWTP
Available volume at each site		0.41 mill cy	1.89 mill cy	1.55 mill cy
1)	Incineration with High Solids, 15 year ash landfill + 5 year lime stab. sludge landfill vol.	0.71 mill cy 20.7 ac	no (16.1 yrs)	yes	yes
2)	Chemical Fixation with High Solids, 20 year landfill vol.	1.10 mill cy 30.1 ac	no (7.5 yrs)	yes	yes
3)	Incineration with Low Solids, 15 year ash landfill + 5 year lime stab. sludge landfill vol.	1.33 mill cy 35.8 ac	no (6.2 yrs)	yes	yes
4)	Anaerobic Digestion with High Solids, 18 year landfill vol. +2 yr lime stab.	1.63 mill cy 43.0 ac	no (5.0 yrs)	yes	no (19.0 yrs)
5)	Lime Stabilization with High Solids, 20 year landfill vol.	1.75 mill cy 45.8 ac	no (4.7 yrs)	yes	no (17.7 yrs)
6)	Chemical Fixation with Low Solids, 20 year landfill vol.	1.80 mill cy 46.8 ac	no (4.7 yrs)	yes	no (17.2 yrs)

without impacts = Available landfill volume without impacting wetlands or high and medium yield groundwater areas.

Table 6 (continued)

SOLIDS DISPOSAL OPTIONS FOR SITES IN NEW BEDFORD
(Based on Average Year)

Disposal Option/Available Volume		Site 20 without Impacts	Site 40 without Impacts	Site 47 without WWTP
Available volume at each site		0.41 mill cy	1.89 mill cy	1.55 mill cy
7)	Invessel with High Solids, 18 year landfill vol. + 2 yr lime stab. backup	2.11 mill cy 54.3 ac	no (3.9 yrs)	no (17.9 yrs)	no (14.7 yrs)
8)	Invessel with Low Solids, 18 year landfill vol. + 2 yr lime stab.	2.89 mill cy 72.4 ac	no (2.8 yrs)	no (13.1 yrs)	no (10.7 yrs)
9)	Anaerobic Digestion with Low Solids, 18 year landfill vol. + 2 yr lime stab.	2.90 mill cy 72.5 ac	no (2.8 yrs)	no (13.0 yrs)	no (10.7 yrs)
10)	Lime Stabilization with Low Solids, 20 year landfill vol.	4.69 mill cy 113.6 ac	no (1.7 yrs)	no (8.1 yrs)	no (6.6 yrs)

NOTES

mill cy = million cubic yards
Area requirements do not include buffer
Yes or no indicates whether or not the site can support designated landfill volume.

without impacts = Available landfill volume without impacting wetlands or high and medium yield groundwater areas.

( ) - Landfill Life Expectancy in Years

Adapted from: CDM, Volume III, 1989.

2.1.3 Effluent Outfall

The screening and evaluation process for outfall alternatives also involved three steps:

- determination of the quality and quantity of effluent to be discharged by the new treatment plant;
- development of the best mechanism and construction technology through which to discharge the effluent; and
- selection of the best discharge location.

The latter two steps were carried out simultaneously, although the outcome of both was ultimately dependent upon effluent quality and quantity. Furthermore, choices made for technology and siting alternatives were also interdependent.

Seven alternatives for the effluent outfall were initially identified. Each involved pipe construction or rehabilitation, with or without addition of a diffuser. Factors considered in screening included engineering feasibility, constructability, and cost criteria. The outfall screening criteria are listed in Table 7. This screening process, discussed in detail in Sections 4.2 and 4.3 of the Draft EIS, identified the following three alternatives for further evaluation at the two locations shown in Figure 4.

- rehabilitation of the existing 60" pipe at the Existing Site;
- dredging of a trench and placement of a new outfall pipe this trench, with a seabed diffuser at its terminus discharging at the Existing Site; and
- construction of a new tunnel to the 301(h) Site, with a seabed diffuser at its terminus.

The Existing Site is located at the terminus of the present outfall from the Fort Rodman wastewater treatment plant (see Fig. 4). The site is located in outer New Bedford Harbor approximately 1000 m (3300 feet) south-southeast of Fort Rodman, at a depth of 9 m (29 feet) at mean low water. The 301(h) Site is located 7 km (22,200 feet) south of Clarks Point, south-southwest of Negro Ledge, at a depth of 14 m (45 Feet) at mean low water (Fig. 4).

2.2 Detailed Evaluation of Alternatives

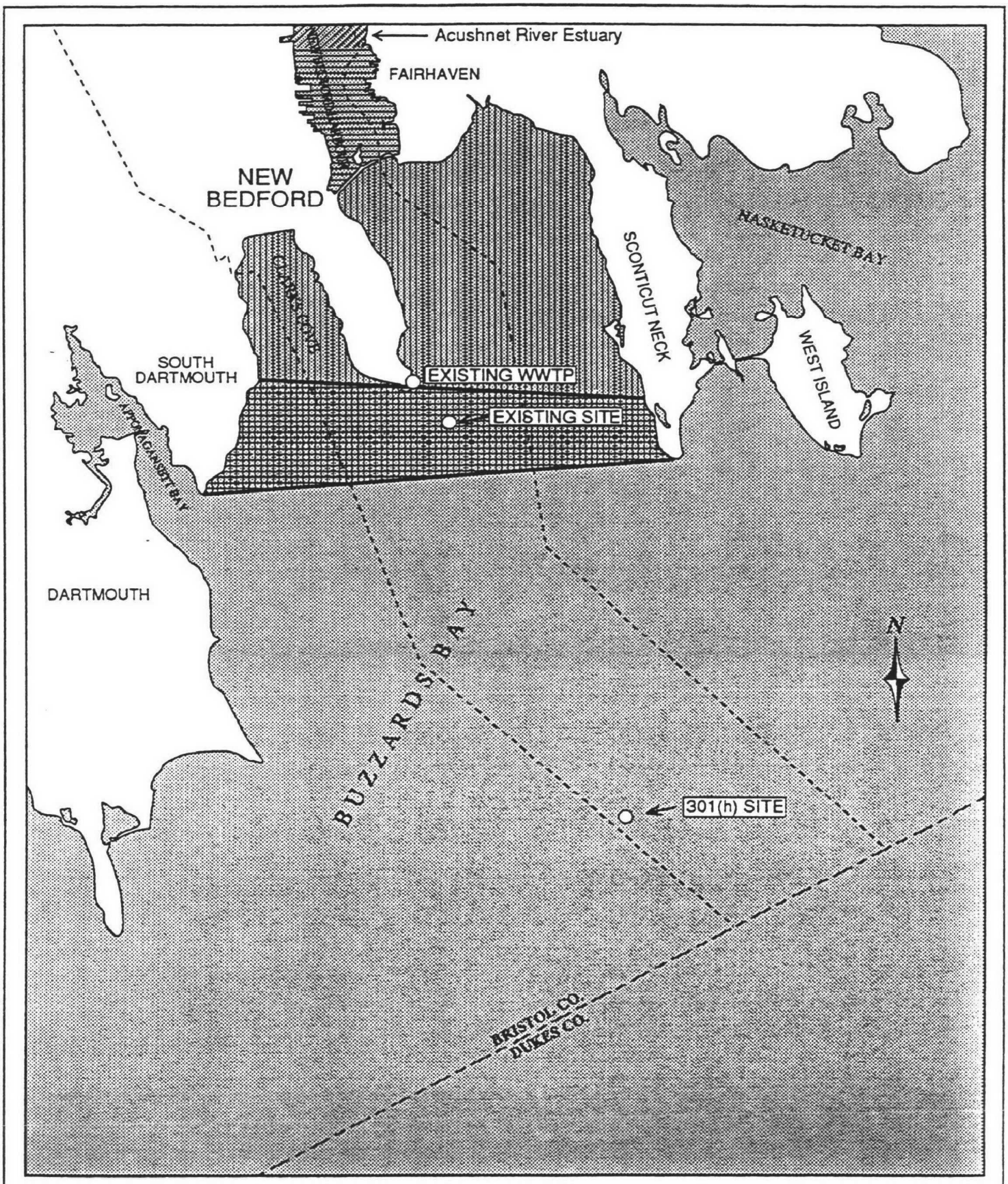
Chapters 5 and 6 of the Draft EIS and Chapter 2 of the Final EIS assessed the existing conditions at the candidate WWTP, sludge disposal, and outfall sites remaining after screening and predicted the environmental impacts resulting from the proposed use of each site for the following potential impact areas:

Table 7

NEW BEDFORD HARBOR OUTFALL SITING CRITERIA.

Environmental
Ability to meet EPA Ambient Water Quality Criteria
Conformance with Massachusetts Water Quality Standards
Avoidance of Adverse Sediment Accumulation
Ability to Protect Local Species from Adverse Stress
Ability to Maintain Ecosystem Structure
Maintenance and Enhancement of Aesthetic Conditions
Protection of Shoreline
Protection of Marine Archeology
Construction Impacts
Engineering
Reliability
Flexibility
Constructability
Operational Complexity
Power Needs
Quality and Quantity of Dredged Material for Disposal and/or Relocation
Cost
Permitting

Source: CDM, Volume IV, 1989.



Adapted from CDM, 1989

Figure 4

NEW BEDFORD RECEIVING WATERS

- On-site and Adjacent Land Use;
- Transportation and Traffic;
- Water Quality;
- Air Quality and Odors;
- Terrestrial, Wetland, and Marine Ecosystems;
- Socioeconomics; and
- Cultural Resources.

This section summarizes those findings and suggests mitigation measures for impacts predicted to be significant.

2.2.1 Wastewater Treatment Plant Sites

2.2.1.1 Short-Term Impacts

Anticipated short-term impacts during construction of the WWTP at either site include increased traffic, fugitive dust, and noise. Recommended mitigation measures to alleviate potential traffic problems during construction at Site 1A include policing the intersection of JFK Boulevard and Cove Street during peak traffic hours, and scheduling construction work shifts so as not to coincide with peak traffic flows. Traffic problems were not predicted to be as severe at Site 4A, and could be avoided with minimal mitigation. To mitigate air quality impacts during construction at either site, it was recommended that dust suppressants be applied to main truck routes within the site to reduce fugitive dust emissions.

Typical sustained noise levels during WWTP construction would be audible over background noise levels at either site. Noise levels would be highest when rock drills were operating, and when blasting took place. During this time, which should not last more than 6 months, peak noise levels at the site boundaries could range up to 74 dBA at Site 1A and up to 83 dBA at Site 4A. Typical sustained construction noise levels at the nearest residences would increase about 9 dBA at Site 1A, but would not audibly increase at Site 4A because the residences are at least 1000 feet away from construction noise sources and are separated from the site by a highway. The City plans to minimize construction noise impacts at Site 1A by placing a noise barrier such as an acoustic wall or berm along the northern boundary of the site. This will reduce typical sustained construction noise levels at residences across the street by 10 dBA. In addition, use of the best available noise muffling equipment on all large pieces of construction equipment will achieve up to an additional 10 dBA reduction in daytime noise. With these two measures, construction noise levels at the residences will only occasionally be audible over the prevailing ambient traffic noise. Further mitigation measures such as temporary barriers or enclosures should also be committed to by the City, as needed, to control peak noise levels due to blasting and rock drilling.

2.2.1.2 Long-Term Impacts

The construction of a WWTP at either Site 1A or 4A would, to a certain extent, conflict with existing on-site and adjacent land use. At Site 1A, existing educational, social service, and recreational facilities would be displaced, thereby requiring significant coordination between the City and federal, state, and local agencies to relocate and replace those facilities. In addition, there were deed restrictions on certain portions of the site which would have to be removed before it could be used for a WWTP. At Site 4A, the WWTP would not be compatible with the existing use of the site for recreation and as a parking area for local industry; these uses would be displaced. However, the relocation effort required at Site 4A would not be as major as that required at Site 1A.

A WWTP would not be compatible with adjacent residential land use at either candidate site. There are approximately 450 single family residences within a one-half mile radius of Site 1A and 3,200 multi-family and single family residences in the vicinity of Site 4A. The residences at Site 1A are separated from the site by Rodney French Boulevard and those at Site 4A are separated from the site by a major highway. These roads would act as buffers to help minimize the potential for any adjacent land use impacts due to a new WWTP. Recommended land use mitigation measures at Site 1A included relocation of educational, social service, and recreational facilities (providing them with comparable facilities at other sites within the City of New Bedford), and development of a waterfront park and recreational fields adjacent to the WWTP. The City's proposed Taber Park would not only act as a buffer to the adjacent neighborhoods, but would also improve public access to the waterfront, provide recreational opportunities, and help preserve the Fort Taber Historical District by stabilizing the fort and documenting the history of Clark's Point through signs and public exhibits of historic documents and photographs.

Potential land use impact mitigation measures at Site 4A included projects to improve public access to the waterfront and upgrading the South First Street neighborhood. At the time the project was initially proposed, waterfront access projects included creation of Palmer's Island (a condominium and marina complex), upgrading of the existing boat ramp, and provision of parking facilities for the public. Infrastructure and facility improvements could include building improvements and the creation of a neighborhood civic organization. Since that time, plans for the Palmer's Cove development were abandoned by the developer as a result of the downturn in the economy, and the land was bought back by the mortgage company. Although the Palmer's Cove plan is no longer viable, Site 4A, being privately owned and not subject to any deed restrictions as Site 1A is, is still considered a good candidate site for industrial or mixed use development.

During operation of a WWTP, 14 additional car and no additional truck trips (over present conditions), and 74 car and 48 truck trips would be required each day at Site 1A and 4A respectively. Despite the small increase in traffic loads over existing conditions at Site 1A (due to the existing treatment plant), due to its proximity to residential areas and its distance from major highways, Site 1A has a greater potential for traffic impacts than Site 4A. The main access route to Site 1A is Rodney French Boulevard, so additional traffic associated with the WWTP could impact the nearby residential dwellings and local health clinic.

Locating a WWTP at Site 4A, however, would not produce any noticeable traffic impacts because it is located adjacent to a major limited access highway. In order to minimize traffic impacts due to plant operation at Site 1A, road improvements should be made by the City at the intersection of West Rodney French Boulevard/Cove Road and Brock Avenue.

Site 1A is most compatible with the existing wastewater conveyance system because all existing dry weather flow currently flows to the site by gravity. Conveyance system improvements associated with locating the WWTP at Site 1A would be minimal and would be necessary only to correct some existing hydraulic capacity deficiencies. Site 4A is not as compatible with the existing wastewater conveyance system as Site 1A, but the necessary conveyance system modifications would not be extensive. Much of the flow could be diverted by gravity. The existing Cove Road pumping station would have to be modified and a new force main constructed, which would result in some traffic and street disruption, but these additions would not significantly increase maintenance requirements. Modifications to wastewater conveyance systems on Clark's Point would also be necessary and would require a new pumping station and force main, but these facilities would only be for a small percentage of total City flow. The required conveyance system modifications are described in greater detail in the City's Draft FP/EIR Volume II, Section 8.

EPA has determined that constructing a WWTP in the floodplain at Site 1A would not constitute a critical action requiring protection from a storm of 500-year magnitude. Nevertheless, EPA and the Federal Emergency Management Agency recommend that a WWTP built at Site 1A be designed to withstand greater than the 100-year flood. Mitigation measures proposed by the City to provide protection at the 500-year stillwater level (no wave action), include:

- constructing all facilities outside of the coastal high hazard zone;
- raising site grading to above elevation 11.5 ft.;
- constructing all first floors of buildings above elevation 13.5 ft.;
- for buildings with basements, insuring that water cannot reach basements until flood level exceeds 13.5 ft.;
- providing stoplogs or equivalent for all garage entrances to buildings to keep water out up to elevation 13.5 ft.; and
- mounting motors for sludge collector drives above elevation 13.5 ft. on all process tankage.

These measures are a part of the City's recommended plan. Taking these measures would ensure that valuable equipment would be protected from water damage during a 500-year flood. No protection would be installed to prevent inundation of tanks by flood waters rising above elevation 13.5 feet because saltwater intrusion would not damage the tanks, but only interrupt operations, which would be resumed once floodwaters had receded. Floodplain

impacts are not a significant concern at Site 4A because only two acres of that site are in the 100-year floodplain and the site is protected by a hurricane barrier.

It is projected that there would be moderate air quality impacts from locating the WWTP at either of the two alternative sites. Overall, both sites are considered equal with respect to compliance with air quality and odor criteria. At both Sites 1A and 4A, the level of mitigation needed to meet air quality standards is achievable through control technologies normally applied to WWTPs. Although any air quality impacts at Site 4A would affect a larger population (because there are more residences within one-half mile of Site 4A than there are at Site 1A), these differences are not significant compared to other assumptions made in the air quality analysis.

Impacts associated with plant operation noise would not be significant at either candidate WWTP site. In both cases, the projected noise levels in the adjacent residential areas would not exceed the noise criteria, and thus no significant noise impacts to nearby residences would be expected to result from WWTP operation at either site. Minimization of operational noise impacts would be accomplished through good engineering practice, including muffling blower intakes, noise exhausts or generators, housing motors, and using acoustical dampening and barriers around noisy equipment.

Construction of the WWTP would result in the alteration of sensitive areas due to filling. Although coastal wetland resources would be avoided at either site, some minor filling would be necessary at Site 1A, and filling of approximately 2000 square feet of wetlands and isolated patches of reeds would be required to construct the WWTP at Site 4A. No significant impacts to terrestrial ecology are predicted from siting the WWTP at either Site 1A or 4A, other than the irreversible impacts resulting from filling of wetlands during construction at Site 4A, as described above.

Cultural resource impacts associated with the location of a wastewater treatment plant in the City of New Bedford include impacts to historic, archaeological, visual, and recreational resources as well as socioeconomic impacts such as lost opportunity costs. A WWTP at Site 1A would be in close proximity to historic and archaeological resources because the site contains the Fort Taber Historical District and several other historic structures and artifacts potentially eligible for inclusion in the District or listing in the National Register of Historic Places. The Massachusetts Historic Commission advised the City that if the City selected Site 1A as its preferred site for the WWTP, a more detailed evaluation would have to be conducted to determine National Register Eligibility in accordance with the National Historic Preservation Act.

Location of a WWTP at Site 4A was predicted to have a moderate impact on historic and archaeological resources because although no National Register eligible resources have yet been identified, the site could potentially contain archaeological artifacts from prehistoric times, the War of 1812, and a 19th century candle factory. If the City selected Site 4A as its preferred site for the WWTP, a more detailed survey of the site and several adjacent properties would be required in order to comply with the National Historic Preservation Act

and develop any necessary mitigation for adversely affected National Register eligible resources.

The proposed WWTP is predicted to have a significant impact on visual resources at Site 1A but only a moderate impact at Site 4A. The existing conditions at Site 1A provide an open view of the ocean from the Fort Taber area and adjacent residential neighborhoods; thus there are a number of locations from which the WWTP would be visible. Mitigation measures to reduce the visual impacts of locating the new WWTP at Site 1A have been incorporated in the proposed Taber Park mitigation plan. The park improvements would rejuvenate the site, which is currently in disrepair, and significantly improve its appearance. The view of the site from the water would be improved when the existing treatment plant is demolished and plantings would be used along South Rodney French Boulevard to screen views of the new WWTP from the adjacent residential neighborhood.

At Site 4A, existing visual quality would only be moderately impacted because views of the site are limited by the adjacent industrial buildings and the hurricane barrier. The highway bordering the site to the west separates it from the only residential area from which the WWTP would be visible; thus views from that neighborhood would not be greatly degraded. Similar to Site 1A, the proposed neighborhood improvements in relation to mitigation of land use impacts at Site 4A (discussed in Section 7.3.2.2 of the Draft EIS) would also mitigate visual impacts at the site. The benefits of the proposed Taber Park plan at Site 1A and neighborhood improvements at Site 4A would also help to offset the potential socioeconomic impacts to the City associated with constructing a WWTP at one of its two remaining undeveloped waterfront sites.

Locating the WWTP at either candidate site would have a significant impact on recreational uses on-site. At Site 1A, tennis courts and playing fields would be displaced by construction of the WWTP. At Site 4A, there are many recreational uses including baseball, softball, basketball, soccer, and bicycle racing. These resources would all be displaced by use of the site for a WWTP. However, the impacts resulting from relocation would be mitigated by improved public access to the waterfront and the new recreational facilities that have been proposed as part of the Taber Park and Site 4A mitigation plans. These plans include provisions for picnic areas, hiking paths, and boating facilities.

The potential for on-site contamination was not expected to be a significant constraint to WWTP construction at either candidate site. Because Army activities at Site 1A have resulted in minor contamination (including contamination from fuel storage and waste oil), a Phase I Limited Site Investigation Report was prepared by the City in compliance with MGL Chapter 21e. After reviewing that report, the MA DEP Bureau of Waste Site Cleanup (Bureau) determined on January 27, 1992 that the U.S. Army Reserve Center at Fort Rodman should be classified as a non-priority site because it does not constitute a substantial hazard to health, safety, public welfare, or the environment. The Bureau also advised the City that any necessary remediation could take place during construction. Site 4A was also investigated as part of compliance with MGL Chapter 21e. Extensive test pitting activities revealed no evidence of significant contamination, though some minor contamination was detected at one location. For either site, any project impact with respect to on-site

contamination would be a positive one because remediation would take place prior to construction.

There was a difference between the two alternative sites in the projected socioeconomic impacts associated with locating the WWTP at Site 1A versus Site 4A. The cost of building the WWTP (capital and operation and maintenance) was roughly the same for both sites. However, the potential development revenues which might be realized at the two sites in the absence of a WWTP differed significantly. Potential alternate uses of Site 1A, which included combinations of housing, park land, and marina space, could have generated estimated annual tax revenues of up to $1.6 million. Although there could also have been non-quantifiable benefits associated with alternate development at Site 1A (e.g., additional housing, additional park land, improved access to the waterfront) the deed restrictions on portions of the site made it uncertain as to whether such plans could have been implemented.

The opportunity cost analysis in the Draft EIS estimated that alternate use of Site 4A for industrial or mixed uses such as the Palmer's Cove development could generate up to $3.4 million annually in property taxes to the City. Although the economic climate has changed since the opportunity cost analysis was performed and plans have been abandoned for the Palmer's Cove development, EPA still considers the site a good candidate for industrial or mixed use development due to the fact that it is privately owned with no complicating deed restrictions. In addition, development at Site 4A still has the potential to bring improvements to an under-utilized site, to be consistent with New Bedford Economic Development Commission's goal of increased industrial development, to improve access to the waterfront, and even possibly to lead to improvement or rehabilitation of surrounding neighborhoods.

2.2.2 Sludge Disposal Sites

2.2.2.1 Short-Term Impacts

Short-term, reversible impacts during construction of the solids disposal landfill may include increased traffic, fugitive dust and noise, and potential wetlands and ecological impacts. Approximately 13 car and 43 truck trips per day would occur during construction at either Site 40 or 47. Access to Site 47 would be along the railroad tracks from Shawmut Avenue with a bridge over the wetlands to the landfill. Traffic impacts due to construction at Site 47 would occur only during peak evening traffic (2 pm - 5 pm), when left-turning trucks could contribute to delays at the southbound on-ramp to Route 140. Traffic impacts during construction activities at Site 40 could include increased delays at the intersection of Rice Boulevard/Braley Road/Phillips Road between 3 pm and 4 pm on workdays. For this case, it was recommended that transport be scheduled so as not to occur during this hour of peak traffic at that location.

Fugitive dust emissions created during landfill construction could potentially cause an impact to off-site receptors. At both Site 47 and Site 40, fugitive dust emissions created during construction and operation should be mitigated through the use of good engineering practices such as sprinkling water or a dust suppressant on both access roads and the landfill area.

Noise from construction of solids disposal facilities at Site 47 would be audible only within about 400 feet of the site, which includes a portion of the golf course. Noise levels of up to 78 dBA at the edge of the course are predicted. No residences would be affected. Construction activities at Site 40 would increase noise levels at site boundaries, but noise increases at the nearest residences (Pine Hill Acres) would not be significant. Although Polaroid has four buildings closer to the eastern site boundary than the Pine Hill Acres development, the proposed access route would enter the site on the northern side. Also, Polaroid has a central air handling system and without open windows, operational noises would be expected to have little impact on that facility.

2.2.2.2 Long-Term Impacts

Construction of a 20-year solids disposal landfill at Site 47 would result in significant wetlands impacts. Specifically, construction of the Final Phase of the sludge landfill would result in filling of a large area of wetlands. Impacts to wetlands due to the extensive filling that would have to occur during construction of a Final Phase Landfill at Site 47 could not be reasonably mitigated. In contrast, no wetlands would need to be filled in order to develop only the initial phase of the sludge landfill at Site 47 as part of the alternative including use of chemically fixed sludge as daily cover at the Crapo Hill Landfill. The initial-phase landfill layout avoids wetlands and the proposed access road would bridge the wetlands on that portion of the site.

It is not anticipated that any wetland filling would be required for construction of a solids disposal facilities at Site 40, although the U.S. Army Corps of Engineers has not verified the federal wetland boundary at that site. If the City were to revisit use of Site 40 as part of its current supplemental sludge management facilities plan (see discussion in Section 3.1), further wetlands delineation would be required before making any determination of site acceptability. Nonetheless, potential impacts due to construction activity at Site 40 would include erosion and siltation, which could impact wetlands in the adjacent Acushnet Cedar Swamp. In addition, several species of special concern are reported to occur in the Acushnet Cedar Swamp and could be affected by development at Site 40 unless precautions are taken. To alleviate possible impact on the Acushnet Cedar Swamp and its special habitat, both buffer zones and erosion and sedimentation control measures (e.g., containment berms, use of double liners, and erosion control techniques such as silt curtains and haybales) would have to be implemented at Site 40.

Both Site 40 and Site 47 are currently vacant and there are no existing adjacent residential areas. Some areas adjacent to Site 47 are zoned for residential use, but they are far from the facility area and buffered by vegetation. Industrial uses around the sites (including the municipal solid waste landfill and incinerator adjacent to Site 47) would be compatible with the proposed solid waste facilities, however there are potential land-use conflicts associated with Site 40 that diminish its potential utility as a sludge disposal site. There is a proposal pending for an Eastern Energy cogeneration facility on this site. The project proponent has received a permit from the Energy Facilities Siting Council (currently being appealed), its air license from the DEP, has successfully completed the state environmental review process in

accordance with MEPA, and is currently negotiating purchase of the parcel from the owner of the site, Polaroid Corporation.

Traffic generated during operation of solids disposal facilities at either Site 40 or Site 47 would consist of 5 car and 14 truck trips per day. These would not result in significant impacts because the additional traffic would be only a small increase from existing conditions, and would be consistent with the general character of the routes.

The maximum seasonal high groundwater level at Site 47 is likely within four feet of the ground surface under most if not all of the site. Therefore, the State landfill design criterion of a 4 foot minimum separation between the bottom of the landfill liner and the maximum high groundwater level would not be met without raising the ground elevation of much of the area, resulting in potentially significant impacts. This same situation exists at Site 40. In addition, groundwater near Site 40 is currently used for industrial purposes, and a portion of the site has been preliminarily identified as being within the Zone II area of a possible future public drinking water supply (although the likelihood of that supply being developed is low because of other potential existing contamination problems). No groundwater supply impacts are anticipated at Site 47, however, mitigation would be required for either site to be suitable for a landfill. The sites would require extensive filling to ensure the required 4-foot separation between the bottom-most landfill liner and the seasonal high groundwater. In addition, more extensive investigations would have to be conducted at Site 40 to determine accurate boundaries for the Zone II area of the potential water supply. The conclusions of a preliminary Zone II analysis conducted by the City's engineers are summarized on page 4-21 of the Final EIS. It is the current policy of the Massachusetts Department of Environmental Protection that landfills not be constructed within the Zone II area of any existing or potential public drinking water supply. Therefore, the boundaries of such an area at Site 40 would dictate the size and layout of any potential landfill there. Because runoff from solids disposal facilities would be controlled at either site, no surface water impacts would be expected.

No significant air quality or odor impacts were predicted at Sites 40 or 47 because the sludge will undergo either chemical fixation or lime stabilization at the WWTP, which will minimize volatilization of organic material prior to transport to the disposal site. Also, there are no sensitive receptors in the immediate area of either site. EPA is aware that odor and consistency problems with one of the patented processes (ChemFix™) for chemical fixation of sludge have been encountered in isolated instances. However, as other patented processes are available, EPA believes these problems can be avoided entirely or addressed adequately through proper mitigation and contingency measures. Should it be determined that mitigation is not possible or not adequate to ensure the goal of no detectable odors, the City will have to address this issue in its Supplemental Sludge Management FP/EIR (see discussion in Section 3.1).

Polaroid expressed concern in comments on the Draft EIS that air pollutants from a sludge disposal facility at Site 40 could affect the company's photographic film production processes and products and generate odors detectable at their nearby facility. However, because the physical characteristics of chemically fixed sludge are such that little dust is produced, and

the landfilled material would be covered with soil daily, no significant impact on air quality or Polaroid's operations would be expected.

Again, because there are no residential areas or other sensitive receptors adjacent to either Site 40 or 47, noise impacts during operation of solids disposal facilities are not predicted to be significant. Noise level increases at the closest residential areas, the Pine Acres Subdivision (near Site 40) or the Hathaway Road/Witlow Street intersection (near Site 47), are predicted to be less than 1 dBA.

No visual impacts are predicted to result from operation of solids disposal facilities at either Site 40 or 47 because they are not near residences and views would be buffered by vegetation at either site.

Potentially significant archaeological artifacts were found during investigations at both Sites 40 and 47 and the Massachusetts Historic Commission advised the City that a Phase II detailed investigation should be conducted at the site selected for the landfill.

2.2.3 Effluent Outfall

2.2.3.1 Short-Term Impacts

Short-term reversible impacts on water quality and the benthic community are predicted to occur during construction for all three outfall alternatives under consideration. Dredging would be required for outfall options that require diffusers, and these dredging operations would temporarily resuspend bottom sediments into the water column. Sediments near the current discharge are extremely contaminated and during dredging activities in this area, polychlorinated biphenyls (PCB's) and other contaminants would be unavoidably dispersed into the water column, possibly resulting in some short-term water quality criteria violations. Although dredging would also be required during construction of a new diffuser at the 301(h) Site, the amount of material dredged and the contaminant levels in the sediment would be much lower.

Sediment control techniques such as silt curtains and barrier shields could be used to help confine sediment disturbance and minimize water quality impacts, where conditions will allow them to be deployed. Also, sensitive areas (e.g., shellfish beds, known spawning grounds, likely habitats for endangered species, archaeologically important areas), should be identified so their protection can be factored into the final design.

Short-term impacts for the rehabilitation alternative would result from the disposal of accumulated grit within the existing outfall pipe onto the sediments surrounding the discharge. Rehabilitation of the existing discharge includes removing the extensive amount of grit which has accumulated in several areas within the outfall. This grit, which contains extremely high concentrations of several heavy metals, would be pushed out of the outfall pipe and would cover some area of the bottom around the current discharge. This would result in increased sediment toxic concentrations and could potentially alter sediment grain

size in an area surrounding the outfall. A small area of the seabed would be covered with contaminated debris, threatening survival of benthic organisms and increasing risks from bioaccumulation. Recolonization of the area would be delayed until sediment reworking returns the sediments to a condition favorable for resettlement.

2.2.3.2 Long-Term Impacts

Irreversible impacts predicted to occur during construction are related to habitat loss. Approximately 1200 m^2 of seabed would be destroyed during construction of a diffuser at the 301(h) Site. Installation of a new pipe and diffuser at the existing outfall would result in the loss of 27,000 m^2 of benthic habitat. No irreversible impacts are predicted to result from rehabilitation of the existing outfall.

The presence of shipwrecks near the 301(h) Site increases the potential for archeological impacts during construction at this site. However, if the outfall remains at the Existing Site, there is much less potential for impacts due to the previously disturbed nature of the area. Due to time constraints, the City has postponed further marine archaeology work until a later date. Before any construction can begin, the City will have to provide MHC and EPA with complete information (previously requested by MHC in a 9/19/89 letter) regarding the identity, age, location, integrity, and potential significance of all shipwrecks in the area, in order to determine whether any mitigation measures will be necessary to avoid or minimize any anticipated impacts at the selected site in accordance with Section 106 of the National Historic Preservation Act.

Under worst-case conditions, secondary effluent discharge is predicted to result in levels of contaminants that exceed EPA's human health and aquatic toxicity water quality criteria for all three outfall alternatives. The number of exceedances would be greatest for the rehabilitation alternative and lowest for the 301(h) Site. The predicted exceedances of water quality criteria and standards at the candidate outfall sites may affect biological communities. Eight and four EPA water quality criteria for the protection of aquatic life were predicted to be exceeded at the Existing Site for the rehabilitation and new pipe with diffuser alternatives, respectively. In particular, predicted copper concentrations were higher than levels shown to be acutely toxic to blue mussels. One water quality criterion was predicted to be exceeded at the 301(h) Site.

The response of the biota to toxic chemicals in a discharge can be predicted by examining the results of whole effluent toxicity tests and by comparing water column concentrations of contaminants to aquatic life criteria and sediment contaminant concentrations to threshold values in the literature. No acute toxicity was predicted for any of the outfall alternatives, based on whole effluent toxicity testing done with a simulated secondary effluent. Using simulated effluent, chronic toxicity was predicted to occur for the rehabilitation alternative. A discharge at the Existing Site from a new pipe with a diffuser would have sufficient initial dilution to avoid chronic toxicity approximately 70% of the time. The 301(h) Site would have sufficient initial dilution to avoid chronic toxicity 99% of the time. Sufficient dilution to reach the no observable effects level would not be attained at the Existing Site with either alternative. It would be attained at the 301(h) Site 95% of the time.

The predicted chlorine residual concentrations around the Existing Site were above concentrations known to be acutely toxic to some marine species. Residual chlorine levels at the Existing Site (either option) at the edge of the mixing zone were predicted to exceed the EPA chronic criteria. The 301(h) Site was not predicted to have chlorine toxicity problems due to increased dilution capabilities and longer chlorine contact time (longer travel time in the outfall pipe), allowing for lower chlorine dosing at the plant.

A secondary effluent at either site would increase the nitrogen input into the area around the discharge. Nitrogen is often the limiting nutrient for phytoplankton and primary production in marine systems. It seems likely that additional nutrient input would result in increased primary productivity at both candidate sites, perhaps as much as double the current level at the 301(h) Site. Extremely high levels of primary productivity currently occur at the Existing Site due primarily to the current discharge. There is evidence to indicate that nutrient-limitation does not exist for part of the year and thus the input of additional nutrients from a new secondary discharge might slightly increase these high levels. The major result of a secondary discharge at the Existing Site would be a dramatic increase in the areal extent of this high level of productivity from the current estimated 1 square kilometer to approximately 6 square kilometers, or 2/3 of the Outer Harbor.

A secondary impact resulting from this high level of productivity is the deposition of high concentrations of organic carbon. The degradation of this organic material by natural processes results in low dissolved oxygen concentrations near the bottom.

Historical dissolved oxygen (DO) records indicated that periods of extremely low DO occurred in the bottom waters in areas near the existing discharge. The low DO concentrations were primarily the result of solids in the discharge and organic matter being deposited by the high levels of primary productivity being stimulated by the existing discharge. Additional data was collected using continuous DO meters in the summer of 1990, which indicated DO in some areas near the discharge dipped to below 5.0 mg/l for up to one week durations. Literature has indicated that extended exposure to DO concentrations below 5.0 mg/l can be toxic to sensitive species (e.g., American Lobster). DO never dropped below 5.0 mg/l and rarely dropped below 6.0 mg/l (the current State standard) near the 301(h) Site.

The State DO standard would probably be violated by all three outfall alternatives occasionally, but the major difference that occurs is the frequency, duration, and magnitude of the violations. The 301(h) Site would have many fewer DO violations, and DO concentrations are not predicted to fall below 5.0 mg/l. Dissolved oxygen concentrations resulting from a discharge at the Existing Site would be similar for the existing pipe or a discharge with a diffuser. The frequency of violations of the State's DO standard would be much greater than those experienced at the 301(h) Site. Also, the magnitude and duration of the violations would be greater at the Existing Site than at the 301(h) Site. Occasionally, DO around the existing discharge will fall below 5.0 mg/l, however, in general the duration of these low DO events are not of sufficient duration to cause a significant biological impact.

Effluent discharge is predicted to change the levels of trace metals and PCB's in the sediments. A discharge at the 301(h) Site would slightly elevate sediment concentrations of trace metals and PCBs in a small area around the discharge. This increase is due to the relatively low natural background concentrations currently found in this area and the naturally low sedimentation rate. This low natural sedimentation rate means that solids from the discharge make up a high percentage of all the solids being deposited into the sediments. Solids from the discharge possess high concentrations of contaminants.

A discharge at the Existing Site (with or without the diffuser) would actually result in a decrease in the sediment concentrations of many contaminants. This is primarily due to the current extremely high concentrations of contaminants in the sediments. The sedimentation rate at the Existing Site is much greater, so solids from the discharge are somewhat diluted by a naturally high sedimentation rate. Due in part to existing conditions, a discharge at the Existing Site would result in a large area of extremely high concentrations of PCBs and trace metals in the sediments. A discharge at the Existing Site will result in a larger area of much higher concentrations of contaminants than a similar discharge at the 301(h) Site.

The concentrations of contaminants in the sediments at the Existing Site would exceed several threshold values. EPA has not yet developed sediment toxicity criteria; however a sediment bioaccumulation criterion does exist for PCB's. PCB levels in sediments were predicted to continue to exceed this criterion at the Existing Site, but would not exceed it at the 301(h) Site.

Effluent discharge is also predicted to increase sediment organic carbon levels by approximately 4% at the Existing Site, and 9% at the 301(h) Site. Again, the greater increase at the 301(h) site is due to the lower natural sedimentation rate at that site, and, should the existing discharge cease, the total organic carbon level at the Existing Site would remain much higher than that at the 301(h) Site for some period of time due to the effects of the existing discharge.

Organic carbon inputs to sediment resulting from enhanced primary production would add to the organic carbon input from the effluent. Sediment organic enrichment has a range of effects on the underlying benthic community. In some cases, enrichment enhances benthic productivity, while in other cases a stress-tolerant benthic community results. The benthic community at the Existing Site is currently heavily stressed, thus any increase in organic carbon would not likely alter community structure. The predicted increase in organic carbon from a discharge at the 301(h) Site is minor, thus the benthic community structure is not likely to be altered.

Neither of the candidate outfall areas contain critical habitat for threatened or endangered species during any of their life stages. Although higher levels of contaminants and more frequent plume surfacing would occur at the Existing Site in comparison to the 301(h) Site, endangered and threatened species rarely occur in the project area, so the probability of adverse impacts to these species at either site is low.

Aesthetic impacts are related to the amount of time that the discharge plume reaches the surface, and would be most severe at the Existing Site, where the discharge plume would reach the surface all (under the rehabilitation option) or nearly all (for the new pipe and diffuser option) of the time. The plume would surface a little more than half of the time at the 301(h) Site. At the 301(h) Site, when the plume did surface, it would be much more dilute and much farther from shore, further lessening aesthetic impacts.

No changes in the potential for nuisance algae blooms (such as red or brown tide) were predicted for either site, and shoreline impacts from an outfall at either site are not expected.

Other impacts were also considered in evaluating the outfall alternatives. The long duration, high complexity, and need for disposal of large quantities of excavated material for construction of the 301(h) alternative obviously cause increased costs, currently estimated at $70 million. At the Existing Site, installation of a new pipe and diffuser would involve construction of moderate duration and complexity. Disposal of contaminated sediments for this alternative would pose a logistical and costly challenge as well as an environmental risk. Construction costs, not including disposal of this material, are estimated at $20 million. The rehabilitation option at the Existing Site has the lowest impact in terms of construction duration, complexity, and cost ($4-5 million). However, some level of additional treatment would be needed in order to correct predicted toxicity problems at this site. This could include an intensive pretreatment/source reduction program to decrease the amount of toxics reaching the treatment plant or additional wastewater treatment processes designed to remove problematic toxic pollutants once they have been fully identified. The cost of such toxicity reduction measures has not been determined, however because the necessary toxicity reduction is quite large, it is likely that the costs of such measures could be high.

The ability to meet future water quality needs must also be considered in addition to the present needs. After full secondary treatment has been provided, the outfall's flexibility in meeting future water quality criteria is dependent on its potential for dilution. Both options at the Existing Site are less able to meet the anticipated water quality needs of the future than the 301(h) Site.

The only potentially feasible way of avoiding the adverse water quality and biological impacts associated with outfall operation at the Existing Site is reduce the amount of toxic and organic materials in the secondary effluent being discharged. This could be effected to some degree by implementation of a Toxicity Reduction and Evaluation program. This program would identify the following:

- the agent(s) responsible for the effluent toxicity problems;
- locations of important sources toxic agents;
- locations of important sources of pollutants predicted to exceed EPA Water Quality;

- correlations between different land uses and delivery of certain pollutants through CSOs;
- a measure of the total in-plant capacity for removal of these pollutants; and
- a framework for allocating the treatment plant's pollutant removal capacity among polluters/regions in the watershed.

Implementation of the program should encourage (1) an evaluation of future land use and zoning decisions and city-wide growth trends in light of their anticipated demand on the treatment plant, and (2) cooperation between the City of New Bedford and private industry through pretreatment pollutant reductions and/or transfers of allowable pollutant allocations. The low dilution provided by the current outfall makes it unlikely that all toxicity problems could be mitigated at this site even after implementation of an extensive Toxicity Reduction and Evaluation program.

3. EPA DECISION

3.1 Environmentally Acceptable Options

As summarized in the previous sections, in the Draft and Final EISs, EPA evaluated the potential impacts of various wastewater treatment management options, and identified mitigation measures which could be used to reduce the predicted impacts for each potential WWTP, sludge landfill, and effluent outfall site use. In doing so, it was necessary to take into consideration the feasibility of the integrated plan to provide a reliable management program for the full project planning period (1995-2015). Although each component of the plan was addressed separately, it was essential in considering alternative sites and technologies to ensure that the interrelated components would work together as an integrated treatment system.

Table 8 summarizes EPA's acceptable management options for the three primary components of the facilities plan: 1) secondary wastewater treatment plant siting, construction, and operation; 2) sludge treatment and disposal; and 3) effluent discharge and outfall siting. All of the options listed in Table 8 have been determined to be environmentally acceptable to EPA with some mitigation required.

Table 8

ENVIRONMENTALLY ACCEPTABLE MANAGEMENT OPTIONS

Secondary WWTP	Solids Disposal	Effluent Outfall
Site 1A	Crapo Hill	301(h) Site with Diffuser
Site 4A	Site 47; Initial Phase Only	Existing Site with Diffuser *

* - Contingent on meeting the regulatory requirements outlined on pp. 34-35

It should be noted that Table 8 differs from Table 5.8 in the Final EIS in that Site 40 has been removed from the list of environmentally acceptable alternatives because of several unanswered questions concerning the site. Specifically, a Corps of Engineers wetlands delineation would be required to ensure that no wetlands would be impacted, and more extensive investigations would have to be conducted to determine accurate boundaries for the Zone II area of potential water supply (which the landfill layout would have to then avoid). Land use constraints could also preclude the use of Site 40 for a sludge landfill given the status of the Eastern Energy proposal competing for use of that site (see discussion in Section 2.2.2.2). These issues were not pursued because Site 47 was the recommended site for the backup landfill. EPA believes that Site 40 should not remain in the list of acceptable sludge management options without further analysis. Although information gathered to date on Site 40 would not appear to preclude its use as a sludge landfill, additional studies would be needed before its environmental acceptability could be fully determined. Until such time that supplemental studies are conducted to address the unresolved issues concerning Site 40 (discussed above), it is EPA's position that a backup landfill at Site 40 should not be considered an environmentally acceptable sludge management option.

The Draft and Final EISs found the City's recommended plan for sludge disposal, reuse of chemically-fixed sludge as daily cover material at the proposed Crapo Hill landfill with backup lime stabilization and a 5-year backup sludge-only landfill at Site 47 to be environmentally acceptable; however, there currently is some question as to the implementability of that plan. The construction of the Crapo Hill landfill will require a Proposition 2-½ override vote in both New Bedford and Dartmouth and there have been some reports of odor and consistency problems with one of the patented processes (ChemFix™) for chemical fixation of sludge in isolated instances (see discussion in Section 2.2.2.2).

In response to concerns that the Proposition 2-½ override might not pass, that chemical fixation may not prove to be viable, and other issues concerning the sludge treatment and disposal plan, the City has initiated supplemental sludge management facilities planning. The purpose of the Supplemental Sludge Management FP/EIR is to develop an alternative long-term (20-year) sludge management plan in the event that the recommended plan proves infeasible. The supplemental sludge facilities planning will be conducted in two phases. Phase 1 will include an identification and preliminary screening evaluation of all reasonable alternatives (including Site 40); Phase 2 will include a more detailed evaluation of only the most promising options (CDM, Memorandum to Alan Slater, DEP, and Susan Coin, EPA Region I, February 20, 1991). The following are included among the objectives of the Phase 1 preliminary evaluation:

- Update the status of the Phase 2 Final Wastewater Facilities Plan recommendation to reuse chemically fixed sludge as daily cover material at the proposed Crapo Hill landfill
- Summarize projected sludge quality and quantity
- Summarize the status of the proposed Site 47 sludge-only landfill design and the estimated landfill capacity
- Define the additional disposal capacity required to provide the City with a 20-year sludge management plan
- Develop a list of alternatives, including the following:
    - Request for proposals for private-sector residuals treatment and disposal for both short-term and long-term options
    - Volume-reduction technologies such as sludge incineration and sludge drying at a new facility (possibly at the site of the existing Shawmut Avenue landfill incinerator)
    - Additional sludge-only landfill construction at Site 40, at the proposed Crapo Hill site, or at the existing Shawmut Avenue landfill site to occur as the proposed Site 47 landfill reaches its useful life
    - Disposal and/or sludge reuse options at existing or proposed facilities at locations outside City limits but within the New England states and upstate New York

Given continued uncertainties regarding the implementability of the City's recommended plan, EPA concurs with the City's decision to initiate supplemental sludge management facilities planning. EPA's continued approval of the use of chemical fixation to treat the sludge is contingent upon implementation of any necessary mitigation to preclude detectable odors from the treated sludge. Although there remain uncertainties as to the viability of the

proposal to chemically fix the sludge (as discussed above), this should not effect decisions concerning the other parts of the plan (WWTP and outfall) because space for sludge processing was factored into the area requirements for the WWTP and sludge processing, whatever technology is ultimately selected (with the possible exception of composting), can be performed at the WWTP site.

Should alternative management options for sludge disposal become necessary, EPA will review and assess the alternatives presented in the Supplemental Sludge Management FP/EIR as appropriate under NEPA. If necessary under 40 CFR § 1502.9(c), a Supplemental Final EIS addressing alternative sludge management options would be prepared.

Throughout the planning process, EPA's role has been to evaluate the City's proposed program and alternatives to it in accordance with NEPA to ensure that the sites and technologies chosen are environmentally acceptable and will result in long term compliance with the Clean Water Act. All the components of the City's recommended plan were found to be environmentally acceptable except for the outfall as discussed below.

In the City of New Bedford's Supplemental Final Facilities Plan/EIR, its recommended outfall alternative was to continue using its existing 60-inch cast iron outfall after rehabilitation by cleaning out all debris and installing a high density polyethylene liner in the cleaned pipe. EPA's Draft EIS concluded, however, that the potential environmental impacts resulting from secondary effluent discharge at the existing site would be unacceptable and concluded that only a new outfall and diffuser at the 301(h) site would be environmentally acceptable.

Although the Draft EIS only considered the three outfall alternatives listed in Section 2.1.3 of this ROD, in the Final EIS, in an effort to find an environmentally acceptable and more cost effective solution for the City, EPA also considered a fourth alternative -- rehabilitation of the existing pipe with addition of a diffuser at the Existing Site. The impacts associated with this alternative are expected to be similar to and no worse than the predicted impacts for the alternative of dredging a trench and placing a new outfall pipe with a diffuser at the Existing Site.

A discharge at the Existing Site with a diffuser would still pose some regulatory problems. To address these problems the City would need to satisfy the following regulatory requirements:

- Develop a Use Attainability Study for the purpose of downgrading some defined area of the waterbody from Class SA to Class SB. This would be done to more accurately reflect the uses associated with this waterbody. SA waterbodies have as uses open shellfishing and excellent habitat for marine biota. Neither of these uses will be met in the vicinity if the existing outfall, even with a diffuser.

- Develop an enforceable site-specific DO criterion for some area of water contiguous to the outfall. The current DO standard for SA waters is 6 mg/L; the current standard for SB waters is 5 mg/L. It is predicted that a secondary discharge at the

existing site with a diffuser will violate the SA DO standard and the SB DO standard in the bottom waters under critical summer conditions. Under the new Massachusetts water quality standards, a site-specific DO criterion may be developed for bottom waters, provided that the criterion is protective of designated uses.

- Demonstrate a reduction in effluent toxicity such that toxicity will not be predicted to occur outside the mixing zone.

If these 3 regulatory requirements are met, then a discharge are the Existing Site with a diffuser would also be an environmentally acceptable outfall option.

3.2 Recommended Management Option

The City of New Bedford, as the entity that will have to build and operate the wastewater treatment facilities, has the primary voice in determining what combination of sites and technologies would most optimally serve its needs for secondary wastewater treatment and discharge and sludge management. EPA's role is to evaluate the City's proposed plan and alternatives to it in accordance with NEPA and to ensure that the sites and technologies selected are environmentally acceptable and will result in long-term compliance with the Clean Water Act.

The City considered engineering, environmental, and institutional issues together with the realities of its economic situation and came up with a proposed plan (including the Taber Park mitigation measures) which will bring the City into compliance with the Clean Water Act, minimize costs, and guarantee improvements for public access to Fort Rodman.

In accordance with Section 1505.2(b) of the NEPA regulations, the ROD must identify the alternatives that EPA deems environmentally preferable. This discloses to the public EPA's assessment of the alternatives on solely environmental grounds. Thus, environmentally preferable alternatives are those which EPA believes would result in the least damage to the biological and physical environment and which, all other considerations aside, would best protect, preserve, and enhance historic, cultural, and natural resources. In determining its environmentally preferred alternatives, EPA did not consider other important decision-making factors such as economics, engineering, or institutional issues. The designation of options as environmentally preferred was conducted solely for the purposes of full disclosure and compliance with NEPA regulations, and does not in any way dictate which options are finally recommended or implemented after consideration of all decision-making factors.

3.2.1 Wastewater Treatment

Although both sites are environmentally acceptable, the environmentally preferred site for the WWTP would be Site 4A if a decision were to be made based strictly on environmental factors. As presented in Table 7.3-1 in the Draft EIS and summarized in Section 2.2.1 of this ROD, when the two alternative WWTP sites are compared based simply on potential

environmental impacts, the predicted impacts were comparable for most impact categories but greater at Site 1A (without considering mitigation) in the areas of traffic, noise, flood hazard, historic and archaeological resources, and visual impacts. Site 1A, however, is more compatible with the existing wastewater conveyance system than is Site 4A. When all things are considered, including mitigation plans, the margin of difference between Site 4A and Site 1A is relatively small.

The City's reasons for selecting Site 1A for the WWTP were that it is most compatible with the existing sewer piping system, it leaves other sites with higher economic potential available for development, it guarantees improvements for public access to the waterfront and historical resources at Fort Rodman, it is the least-cost option, and no private land would have to be taken to acquire the site because it is government-owned. The City considered engineering, environmental, and institutional issues together with the realities of its economic situation and came up with a proposed plan (including the Taber Park mitigation measures) which will bring the City into compliance with the Clean Water Act, minimize costs, and guarantee improvements for public access to Fort Rodman. EPA feel these were valid reasons for selecting Site 1A over Site 4A and thus supports the City's decision.

3.2.2 Sludge Treatment and Disposal

EPA's environmentally preferred sludge management option coincides with the City's recommended plan -- reuse of chemically-fixed sludge as daily cover material at the proposed Crapo Hill landfill with a 5-year backup sludge-only landfill at Site 47. Like the City of New Bedford, EPA supports beneficial reuse of sludge and sludge products. This reuse goal, together with the limited landfill capacity (based on potential for environmental impacts) available within the City of New Bedford, makes sludge reuse as cover material at the Crapo Hill landfill in Dartmouth the environmentally preferred alternative. Sites 40 and 47 were both considered as candidate sites for the backup landfill and the predicted environmental impacts were compared in Table 7.4-1 of the Draft EIS and summarized earlier in this ROD. The predicted impacts summarized in Table 7.4-1 were comparable for most impact categories (with the exception of socioeconomic resources and wetlands), however, some of the information in that table is no longer current. Since the time the DEIS was published, a proposal has gone forward for an Eastern Energy cogeneration facility on roughly the same portion of Site 40 as where the proposed landfill would have been located. This project, a significant conflicting land use, is currently well into the permitting process. In addition, supplemental studies would be required before Site 40's environmental acceptability could be fully determined (see discussion in Section 3.1). Given the land use constraints and uncertainties as to the extent and location of wetlands on-site and potential for water supply impacts at Site 40, Site 47 is environmentally preferable and thus the recommended site for the backup landfill.

3.2.3 Effluent Outfall

After an extensive technical analysis of supplemental water quality monitoring data collected in Buzzard's Bay during the summer of 1990 (presented in Chapter Two of the Final EIS), EPA concluded that the 301(h) Site would be the environmentally preferred outfall location (discussed further in Section 2.2.3) because of its greater dilution capabilities, its greater compliance with water quality criteria, and the potential improvement that would result in dissolved oxygen concentrations near the existing discharge. The selection of the 301(h) Site as the environmentally preferred alternative is supported by the information in the summary of outfall siting criteria for the three alternatives presented in Table 7.5-1 of the Draft EIS, and by an additional technical analysis of supplemental water quality monitoring data collected in Buzzard's Bay during the summer of 1990 (presented in Chapter Two of the Final EIS).

EPA recognizes that the City's selection of the inner outfall site was driven by economic as well as environmental factors. It has been estimated that moving the outfall to the 301(h) Site would increase the cost of the project by nearly $70 million. EPA agrees with the City that when cost is factored into the decision, the difference between the environmentally preferable alternative versus the other environmentally acceptable alternative may not be large enough to justify the additional expense. Thus, EPA feel this was a valid reason for selecting the Existing Outfall Site over the 301(h) Site and supports the City's decision contingent upon addition of a diffuser and implementation of the outfall conditions discussed in Section 3.1.

3.2.4 Summary of Recommendations

With the mitigation measures outlined in Section 4 of this Record of Decision, EPA believes that the City of New Bedford's recommended plan of secondary wastewater treatment at Site 1A, reuse of chemically-fixed sludge as daily cover material at the proposed Crapo Hill landfill with a 5-year backup sludge-only landfill at Site 47, and effluent discharge through the existing outfall pipe will be environmentally acceptable for reliable wastewater treatment and disposal throughout the full 20-year planning period, assuming a diffuser is added to the existing 60" outfall pipe and the regulatory requirements discussed in Section 3.1 are met.

Therefore, recognizing the City's primacy in determining what combination of sites and technologies would best serve its needs and economic constraints, EPA approves the City of New Bedford's proposed wastewater management plan contingent upon the outfall conditions discussed above in Section 3.1 and with the understanding that should alternative management options for sludge disposal become necessary (e.g., if Crapo Hill does not obtain the Proposition 2-1/2 override required for its construction), EPA will review and assess the alternatives presented in the Supplemental Sludge Management FP/EIR as appropriate under NEPA. If necessary under 40 CFR §1502.9(c), a Supplemental Final EIS addressing alternative sludge management options will be prepared.

4. MITIGATION

The following is a discussion of mitigation measures that EPA feels the City of New Bedford should take in order to minimize the potential for any adverse environmental impacts resulting from implementation of the recommended wastewater management plan. This discussion is also contained in Chapter 5 of the Final EIS.

Implementation of these mitigation measures is an integral part of the environmental acceptability of this plan. Therefore, in order to ensure that these mitigation measures are implemented, EPA will include appropriate requirements in whatever permits are issued by the Agency for the project, such as NPDES permits (for any discharges of treated wastewater effluent or stormwater).

4.1 Secondary Wastewater Treatment Plant

Selection of Site 1A for the WWTP is predicated on specific mitigation measures as summarized below.

Land Use and Zoning Siting the WWTP at Site 1A will result in land-use impacts both to the existing programs at Fort Rodman and, to a lesser degree, to the adjacent residential areas. The impacts of the WWTP and its operations will be reduced by using screening and buffer areas around the facility, as well as minimizing the noise and odors associated with the plant by covering all process tanks. Those land use impacts associated with the plant will be mitigated by the creation of Taber Park which will enhance the unique waterfront and historic portions of the site. The impacts associated with the displacement of the existing programs at Site 1A will be mitigated by moving those programs to newly renovated facilities elsewhere in town (for details, see below). The benefits of Taber Park and the new education center will substantially reduce the land use impacts of siting the plant at Site 1A.

Neighborhood Improvements

A key component of the proposed WWTP at Site 1A is the development of a public park (Taber Park) around the perimeter of the facility. This is to ensure that the valuable waterfront at Fort Rodman is preserved for public use. The proposed Taber Park will provide public access to over a mile of multi-faceted waterfront recreational land, and will also provide a buffer between the existing residential and waterfront land uses and the proposed WWTP. Using a network of paths, wooded areas, and open areas, the new park will integrate the development of picnic areas, an educational center, swimming, biking, boating, and jogging facilities with the rehabilitation of some of the City's significant historic resources and ocean overlooks. The park will link recreational waterfront areas on the east and west sides of Clarks Point.

Relocations

PACE Head Start -- the City's plan is to relocate the private nonprofit federally funded preschool program for low-income families to the Greene School; the renovation design is completed and construction is scheduled for completion in March 1992.

Early Learning Child Care, Inc. -- the City's plan is to relocate the private nonprofit day care program, currently under contract with the Department of Social Services, to Building #6 at Hillman Street; the renovation design is complete, construction is scheduled for completion by March 1992.

Camp Kennedy -- the City's plan for this City-sponsored summer recreation program is to renovate four on-site buildings, scheduled for completion by 1996. The program will be relocated to temporary facilities until the renovations are completed.

Sea Lab Program -- the City's plan for this summer educational program is to renovate two on-site buildings and construct a new building on site, scheduled for completion by 1996.

Alternative High School -- the City's plan for this federally funded program for special-needs students is to relocate it to Building #5 at Hillman Street; the renovation design is complete and construction is scheduled for completion by March 1992.

Special Needs Program -- the City's plan is to relocate this program, which provides recreational and educational programs for handicapped adults, to Building #9 at Hillman Street; the renovation design is complete and construction is scheduled for completion by March 1992.

Noise Noise impacts resulting from operation of the WWTP at Site 1A are expected to be minimal due to acoustical muffling. Plant operational noise will be barely perceptible at residences along South Rodney French Boulevard. Noise impacts associated with construction of the plant will be significant during construction phases. However, these phases will be of limited duration and the construction noise impacts will only occur during daytime hours. Concerns related to noise were addressed in greater detail as responses to comments in Chapter Four of the Final EIS.

Odors and Air Toxics Odor impacts from operation of a WWTP at Site 1A should not be noticeable at nearby residences along South Rodney French Boulevard. The use of covered tanks and wet scrubbers on vented gases will reduce odorous emissions from the plant significantly so that perceptible odor thresholds will not be exceeded at any point around the plant perimeter.

To ensure that air toxic criteria will not be exceeded at perimeter locations around the WWTP, covered tanks and carbon absorption units will control emissions of the organic compounds typically associated with wastewater treatment. The impacts from the majority of these compounds will be less than one-tenth of the current air quality criteria for these compounds. Sludge produced by the plant will be chemically fixed, thus minimizing odor, and will be removed in covered trucks, specially designed for this type of application.

Wetlands No significant wetlands impact will result from development of WWTP at Site 1A. Construction activities will be concentrated toward the center of the site, away from the coastal bank and beach areas. To further ensure that there are no wetlands impacts, buffer zones will be maintained between construction areas and sensitive wetland areas. Proposed improvements to waterfront areas (e.g., regrading and landscaping done as part of the Taber Park development) will avoid impact to coastal waterfront areas.

Storm Protection The design of the WWTP at Site 1A will include protecting the plant against flooding and storm damage that could otherwise result from major storms. EPA has determined that the construction of the WWTP at Site 1A would not constitute a "critical action" requiring protection from a storm of 500-year magnitude. A critical action, as defined in Executive Order 11988 is one that, if flooded, would create an added dimension to the flood disaster. Nevertheless, EPA, and the Federal Emergency Management Agency (FEMA) recommended that a WWTP built at Site 1A be designed to withstand greater than a 100-year flood. The plant design is geared to protect against the 500-year stillwater level. The City plans to implement the following actions to provide protection at the 500-year stillwater level (no wave action):

- constructing all facilities outside of the coastal high hazard zone;
- raising site grading to above elevation 11.5 ft.;
- constructing all first floors of buildings above elevation 13.5 ft.;
- for buildings with basements, insuring that water cannot reach basements until flood level exceeds 13.5 ft.;
- providing stoplogs or equivalent for all garage entrances to buildings to keep water out up to elevation 13.5 ft.; and
- mounting drives above elevation 13.5 ft. on all process tankage.

These and other measures will ensure that equipment and buildings are protected from flood damage from storms greater than the 100-year flood. Construction of the plant on Site 1A will include a variety of erosion-control measures to prevent damage to

coastal wetland areas by siltation and erosion. These measures include the use of hay bales and siltation fences.

Visual Aesthetics The aesthetic impact of siting the WWTP at Site 1A has received careful attention, and every effort is being made to mitigate this impact. EPA concurs with the City's recommendations for mitigating aesthetic impacts. The creation of Taber Park and the enhancement of the Historic District and waterfront areas will create a major beneficial aesthetic impact on the area around Fort Taber. The proposed mitigation should offset any negative aesthetic impact associated with the presence of a large secondary treatment facility. In addition, the plant is designed to screen the facility from the surrounding area, including keeping the plant profile low and using plantings and trees to screen views of the facility. These measures will substantially mitigate the aesthetic impact of locating the plant at Site 1A.

Historic and Archaeological Features Site 1A contains a number of historic structures. Because Site 1A was chosen by the City as the preferred location for the WWTP, a more detailed evaluation was conducted to determine National Register Eligibility in accordance with the National Historic Preservation Act. The Boston University Office of Public Archaeology conducted the Phase II investigation at Fort Rodman on behalf of the City of New Bedford.

The investigation concluded that the Allen/Howland Farmstead lacks sufficient integrity to warrant its inclusion in the National Register of Historic Places. Forty-two other structures on the site (including the officers' quarters, World War II structures, and Battery Milliken) contribute to the historic district and are eligible for inclusion in the district. The existing Fort Taber Historic District, which includes Fort Taber and several batteries, is excluded from the plant construction area, however, the proposed treatment plant layout will impact a large number of these structures. Therefore, efforts to preserve (through layout modification), relocate, or record data from these historic structures are being made. Because the site provides little opportunity for major changes to the plant layout, the focus of the mitigation efforts will be on data recovery before the structures are removed.

These mitigation measures are described in Chapter Five of the Final EIS. The proposed site improvements, creation of Taber Park, and the proposed enhancement of the existing Historic District, will be a significant improvement over current site conditions. The existing treatment plant, which is directly adjacent to Fort Taber, will be demolished (and the site graded and seeded) and the Taber Park design will incorporate historic uses to the fullest extent possible. Specific mitigation measures are being developed as part of the consultation process under Section 106 of the National Historic Preservation Act. The Massachusetts Historical Commission, EPA, the Massachusetts Department of Environmental Protection (DEP), the U.S. Army, and the Advisory Council on Historic Preservation are working together to prepare a Memorandum of Agreement for the project. A Draft MOA has been prepared and is currently undergoing agency review.

Currently, historic structures from the Endicott-Taft period and the World War II period are to be removed, relocated on-site, or preserved as follows (MHC Information Summary, March 27, 1991);

- Endicott-Taft Period structures to be removed:
  - Radio Shack
- Endicott-Taft Period Structures to be relocated on site:
  - NCO Quarters
  - Fire Apparatus Building
  - Quartermaster and Commissary Store House
  - Post Exchange
- Endicott-Taft Period structures to be preserved:
  - Officers Quarters
  - Engineer Storehouse
  - Bakehouse
  - Batteries Barton-Walcott 1 and 2
  - Battery Gaston
  - Battery Craig
  - Battery Cross
- World War II Period structures to be removed:
  - Recreation Building
  - Ten Enlisted Men's Barracks
  - Four Mess Halls
  - Company Administration Building
  - Four Company Day Rooms
  - Ward Building
  - Post Exchange
  - Officer's Quarters and Mess Hall
  - P.E. Lumber Storage Building
  - Maintenance Garage
- World War II Period structures to be preserved:
  - Gas Chamber
  - Storage
  - Battery Milliken

The existing Army Maintenance Building, constructed in the 1960's, is also proposed to be removed. It should be noted that the structures within the Fort Taber Historic District will not be physically impacted (MHC Information Summary, March 27, 1991).

Site Remediation Because Army activities at Site 1A have resulted in minor contamination (including contamination from fuel storage and waste oil), remediation will be necessary. All cleanup activities should follow Massachusetts Contingency Plan (MCP) regulations. EPA does not expect remediation to interfere with site preparation and WWTP construction. In order to minimize delays to achieving compliance with the consent decree schedule, the removal of the underground storage tanks, asbestos, and contaminated soils should be accomplished concurrently with other site preparation activities. The City should adhere to its plans to remove the underground storage tanks as part of the construction contract. During excavation and dewatering activities, contaminated groundwater may be encountered in isolated areas and should be treated prior to discharge or dewatering. Ambient air monitoring and engineering controls should be implemented as needed during construction.

4.2 Sludge Disposal

The preferred management option for sludge disposal of reusing chemically fixed sludge as daily cover material at the proposed Crapo Hill landfill with a 5-year backup sludge-only landfill at Site 47 required specific mitigation measures as summarized below.

The City has proposed to construct a backup sludge-only landfill and access road at Site 47 with a goal of no wetlands impact. In order to avoid wetlands, the landfill option recommended for Site 47 is a 5-year, rather than a 20-year landfill. The 5-year capacity will also provide an environmentally acceptable alternative for temporary use should the Crapo Hill landfill not obtain the Proposition 2-1/2 override required for its construction.

Wetlands The recommendation of Site 47 for a backup sludge-only landfill with a 5-year capacity includes design features to minimize wetlands impacts. The more precise wetlands delineations performed for the City by Normandeau Associates in July, 1990, which was confirmed by the U.S. Army Corps of Engineers, indicated some potential wetlands ares along the proposed golf course access road. The western edge of the golf course just beyond the fairways is close to extensive areas of wetlands vegetation supported by poorly drained soil. In response, the City revised its plans and will instead construct an access bridge to the site in order to avoid impacts to existing wetlands. Although it adds to the cost of the facilities plan, EPA supports this design, as it is protective of existing wetlands at Site 47.

Floodplain Protection Construction of a landfill at Site 47 will avoid any areas within the 100-year floodplain. The delineation of this line was reconfirmed through further analyses of potential flooding within the local drainage basin. Runoff of surface water from the operating areas of the landfill will be captured and routed to a

leachate collection system. A leachate pumping station, consisting of a separate, pre-fabricated wet well and dry well, will be constructed. The dry well will contain two non-clog sewage pumps with appropriate controls. Leachate will be pumped to a gravity sewer that connects to a sewer along Shawmut Avenue. In order to control transport of eroded soils and solids, sedimentation basins will be constructed in exposed areas of the landfill. All site runoff will pass through a sedimentation basis prior to discharge to surrounding wetlands.

Groundwater Potential groundwater contamination from the solids disposal landfill was also considered. Site 47 was selected in part because of lack of potential groundwater sources in the area and hence, the low potential for impact of aquifer water supplies. The design of the landfill, including double liners the leachate collection system described above, and groundwater monitoring programs should ensure that the landfill will not lease contaminants to the groundwater.

Historic and Archaeological Features Site 47 contains one small area of archaeological sensitivity and a Phase II detailed investigation was conducted to better define the significance of this area. The report concluded that no further archaeological work would be necessary at Site 47 due to the low density of artifacts and lack of internal complexity. In a July 8, 1991 letter to the City, the Massachusetts Historical Commission (MHC) concurred that Site 47 contains no archaeological resources eligible for National Register listing and that no mitigation will be required under Section 106 of the National Historic Preservation Act.

In summary, given the remaining uncertainties regarding the implementability of the City's recommended plan, EPA concurs with the City's sludge management strategy, which includes initiation of supplemental sludge management facilities planning (outlined in Section 3.1). Should alternative management options for sludge disposal become necessary, EPA will review and assess the alternatives presented in the Supplemental Sludge Management FP/EIR as appropriate under NEPA. If necessary under 40 CFR 1502.9 (c), a Supplemental Final EIS addressing alternative sludge management options would be prepared.

4.3 Secondary Effluent Outfall

The discharge from the secondary treatment plant will receive a National Pollutant Discharge Elimination System (NPDES) permit. This permit will set acceptable limits for a variety of pollutants in the discharge. The City will be required to submit monthly reports detailing the treatment plant's ability to meet its discharge limits. The permit will also contain several monitoring requirements, which will alert regulators to potential water quality problems. Whole effluent toxicity testing will be required on several sensitive marine species to determine potential toxic effects in the environment. Monitoring of dissolved oxygen (DO) near the point of discharge will be done to monitor any changes in DO as a result of the discharge.

Marine Archaeological Features In order to determine whether there are any resources (shipwrecks) potentially eligible for the National and State Register of Historic Places that could be affected by outfall renovations (i.e. construction at the 301(h) Site or addition of a diffuser to the Existing Site), an underwater archaeological documentation survey was conducted in the Spring of 1989. The study did not include information on the identity, age, location, integrity, and potential significance of all of the shipwrecks in the area. Only three of the known wrecks in the study area were discussed in that report. Without complete data, MHC has been unable to determine whether or not these resources are potentially eligible for the National and State Register of Historic Places, and whether or not the outfall will affect these resources.

If the outfall is moved to the 301(h) Site, these resources could be impacted during construction of the new outfall pipe. It is less likely that use of the existing outfall with a diffuser would disturb any archaeological resources because diffuser construction would take place in a previously disturbed area.

If the City opts to add a diffuser to the existing outfall rather than moving it to the 301(h) Site, it is possible that no mitigation will be required. The Massachusetts State Historic Preservation Officer has agreed with the City that cleaning and lining the existing outfall pipe will have no effect on underwater archaeological resources. Due to time constraints, the City has postponed further marine archaeology work until a later date. Before construction of the diffuser can begin, however, the City will have to provide MHC and EPA with supplemental information (previously requested by MHC in a 9/19/89 letter) regarding the identity, age, location, integrity, and potential significance of all shipwrecks in the area. If MHC's review of supplemental information concludes that there would likely be significant impacts, mitigation measures will be taken to avoid or minimize any predicted impacts. Any additional action required of the City will be specified in a Memorandum of Agreement on accordance with Section 106 of the National Historic Preservation Act.

5. CONCLUSION

EPA has conducted an independent environmental review of the City of New Bedford's plans for implementation of secondary wastewater treatment, as directed by the National Environmental Policy Act. This process has been subject to extensive public scrutiny, through several public meetings, monthly meetings of a joint MEPA/NEPA citizen's advisory committee, a hearing on the Draft EIS, and public comment on both the Draft and Final Environmental Impact Statements. EPA believes that this open process has resulted in a fair and reasonable conclusion.

After careful and objective analysis of a range of reasonable alternatives, EPA has, with the mitigation measures and contingencies stipulated in the preceding sections, approved the City of New Bedford's proposed secondary wastewater treatment management plan:

- Secondary Wastewater Treatment at Site 1A
- Reuse of chemically-fixed sludge as daily cover material at the proposed Crapo Hill landfill with backup lime stabilization and a 5-year backup sludge-only landfill at Site 47
- Use of the existing 60-in cast iron outfall after rehabilitation (cleaning out all debris and installing a high density polyethylene liner in the cleaned pipe) and addition of a diffuser.

APPENDIX A

APPENDIX A

RESPONSE TO COMMENTS ON THE FINAL EIS

COMMENTS RECEIVED

As part of the environmental review process for this Environmental Impact Statement, a 60 day public comment period followed the issuance of the Draft EIS in December 1989 and a 30 day comment period followed the issuance of the Final EIS in July 1991. Responses to comments submitted on the Draft EIS were provided in Chapter 4 of the Final EIS. Similar to the Draft EIS, the Final EIS was distributed to the Citizen's Advisory Committee, a technical advisory group, libraries or other repositories, state and federal agencies, the City of New Bedford, and other interested parties.

EPA has reviewed each comment letter on the Final EIS in preparing the Record of Decision, and the approach used in responding to comments here parallels that used in responding to comments on the Draft EIS (the same issue categories have been used). Each comment letter has been given an identification number, and has been reproduced in Appendix B. Table A-1 presents a matrix for locating the issues raised in each comment letter, corresponding to the issue headings for the responses given below.

Some comments received were either very general or expressed the writer's opinion without addressing a particular issue. These comments are categorized as "Other" in Table A-1 and were considered, but do not require a direct response. The "Other" category also includes a few miscellaneous comments that were not related to any of the other issue categories.

Some comments received by EPA incorporated comments on City of New Bedford (CDM) documents by reference. These comments are responded to specifically here only if they relate directly to EPA's Final EIS. However, all of these comments have been read and considered as part of the decision-making process. Most of the program-specific questions raised in the Save Fort Rodman Committees's August 8, 1991 comment letter to MEPA on New Bedford's "Volume IX, Supplemental Environmental Impact Report, Additional Information, Final, 1991" were addressed in detail in New Bedford City Planner Richard Bohn's October 1, 1991 letter to MEPA (see copy provided in Appendix C). The substance of some comments had been addressed previously in the Draft or Final EIS or is directly covered in this Record of Decision. In such cases, the reader is referred to the appropriate section of the relevant document.

AIR QUALITY, ODORS, AND NOISE

One commentor was concerned about the noise that would result from drilling and blasting at the Fort Rodman site and asked whether new test borings taken in 1991 change previous predictions as to the duration of blasting, drilling and stone crushing.

Table A-1

Public and Agency Comments Received on Final EIS

ID #	NAME	Affiliation or Residence	AQ, Odor, & Noise	Cultural Resources	Ecology	Land Use	Policy & Regs.	Public Health	Socioeconomic	Technology/Design	Transportation/Traffic	Water Quality/Resources	Other
01	Delia Sylvia	Resident, New Bedford											*
02	Natalie Arnett	Save Ft. Rodman Committee	*	*		*				*	*		*
03	Stephen Hickox	Camp,Dresser & McKee										*	*
04	Paul Taurasi	State DEP										*	
05	Edward Bretschneider	Polaroid Corp.	*			*						*	
06	Joseph Ignazio	ACOE, Waltham, MA											*

The new test borings were consistent with the previous assessment, so the predicted frequency and duration of drilling and blasting remains unchanged (see Section 6.4.1 of the Draft EIS). CDM has informed EPA that no stone crushing will be required (Susan Coin, EPA 1/9/92 telephone conversation w/ Liz Beardsley, CDM).

Polaroid reiterated its dissatisfaction with the air quality assessment at Site 40, the Final EIS responses to their comments on that subject, and EPA's continued inclusion of Site 40 in the list of environmentally acceptable options for sludge disposal in the Final EIS. The company asked that the actual composition of New Bedford's sludge and its potential air quality impacts on Polaroids's products and operations be evaluated and that EPA commit to the issuance of a supplemental EIS regarding these issues to ensure full public review.

EPA concurs with Polaroid that further assessment of outstanding environmental issues related to Site 40 (including air quality) is needed before its environmental acceptability for use as a sludge landfill can be fully assessed. Therefore, EPA has removed Site 40 from the list of acceptable sludge management options (see Section 3.1 and Table 2 of this ROD).

EPA appreciates Polaroid's concern that studies be based on the actual composition of the City's sludge. However, its "actual" composition will not be known until the secondary treatment plant is operational. In the meantime, we continue to maintain that the estimates of projected sludge quality, based on sound data and conservative assumptions, are adequate for NEPA review purposes.

Given the continued uncertainties regarding the implementability of the City's recommended plan, EPA concurs with the City's decision to initiate supplemental sludge management facilities planning (outlined in Section 5.2.2 of the Final EIS). Should alternative management options for sludge treatment and/or disposal become necessary, EPA will review and assess the alternatives presented in the Supplemental Sludge Management FP/EIR as appropriate under NEPA. Should Site 40 be identified as a remaining viable alternative, EPA's review would include a more detailed evaluation of the potential for air quality impacts on Polaroid's products and operations The supplemental FP/EIR would be conducted under MEPA and thus there would be adequate opportunity for public review. EPA would be an active participant in this review process and, if necessary under 40 CFR Section 1502.9(c), a Supplemental Final EIS addressing alternative sludge management options would be prepared. EPA will not commit to issuance of a supplemental EIS, however, until such time as the need for one is demonstrated.

CULTURAL RESOURCES

One commentor asked EPA to explain what was meant by "stabilization of the existing Fort Taber structure" which was listed as planned mitigation under the "Cultural Resources" section of EPA's response to comments on the Draft EIS (page 4-5 Final EIS).

Portions of Fort Taber are currently structurally unstable and that the City plans to make repairs to stabilize the historic fort so that it will be safely accessible to the public. At one point in the planning process, the City had considered fully restoring Fort Taber to allow tours, etc.; however, because this was not expressed to be a priority during the public meetings held in the Fall of 1990 to solicit suggestions for Taber Park and to establish priorities for mitigation improvements at Site 1A, the effort was scaled back and the emphasis was placed on safety and accessibility improvements.

EPA stated in the response to comments on the Draft EIS that "planned mitigation...will have a positive impact on the cultural resources at Site 1A". One commentor asked that we identify the referenced "cultural resources".

The cultural resources to which we were referring are Fort Taber and the historic batteries on-site. These resources are shown in Figure A-1.

LAND USE

One commentor asked that we provide further details concerning the New Bedford City Council's May 1990 vote approving the selection of Fort Rodman as the site for the WWTP. The commentor was concerned that the City Councilors may have voted without knowing that the majority of the cost saving measures proposed for Site 1A in Section 13 of the January 1990 Final FP/EIR were not approved by EPA, DEP, and MEPA.

EPA representatives were not present at that vote, however, the vote was 6 to 5 in favor of approving the ranking of Site 1A first and Site 4A second for the siting of the proposed secondary WWTP (a copy of the City Council's resolution is included in Appendix D).

It is difficult for EPA to know just what information the councilors had available to them prior to the May 1990 vote. However, a March 5, 1990 MEPA certificate stated that the January 1990 Final FP/EIR did not adequately resolve all the comments made on the Draft FP/EIR and that revisions made to the draft recommended plan (as a result of an informal value engineering analysis) were not adequately supported by analysis. That certificate requested the preparation of a supplemental report to respond to all unresolved concerns. City representatives were also told at a March 8, 1991 meeting with federal and state agencies that most of the proposed cost saving measures would not be accepted.

One commentor asked whether the fact that the Standard Times Field property (Site 4A) was to be sold at auction by the mortgagee on August 28, 1991 would negate one of the Mayor's arguments for choosing Site 1A over Site 4A -- that the City should not take private property by eminent domain when a suitable public-owned site exists.

This is probably not as strong an argument in favor of Site 1A as it once was due to current economic conditions; however, the mayor's preference for using public land for a public benefit project (such as a WWTP) rather than taking private property remains valid.

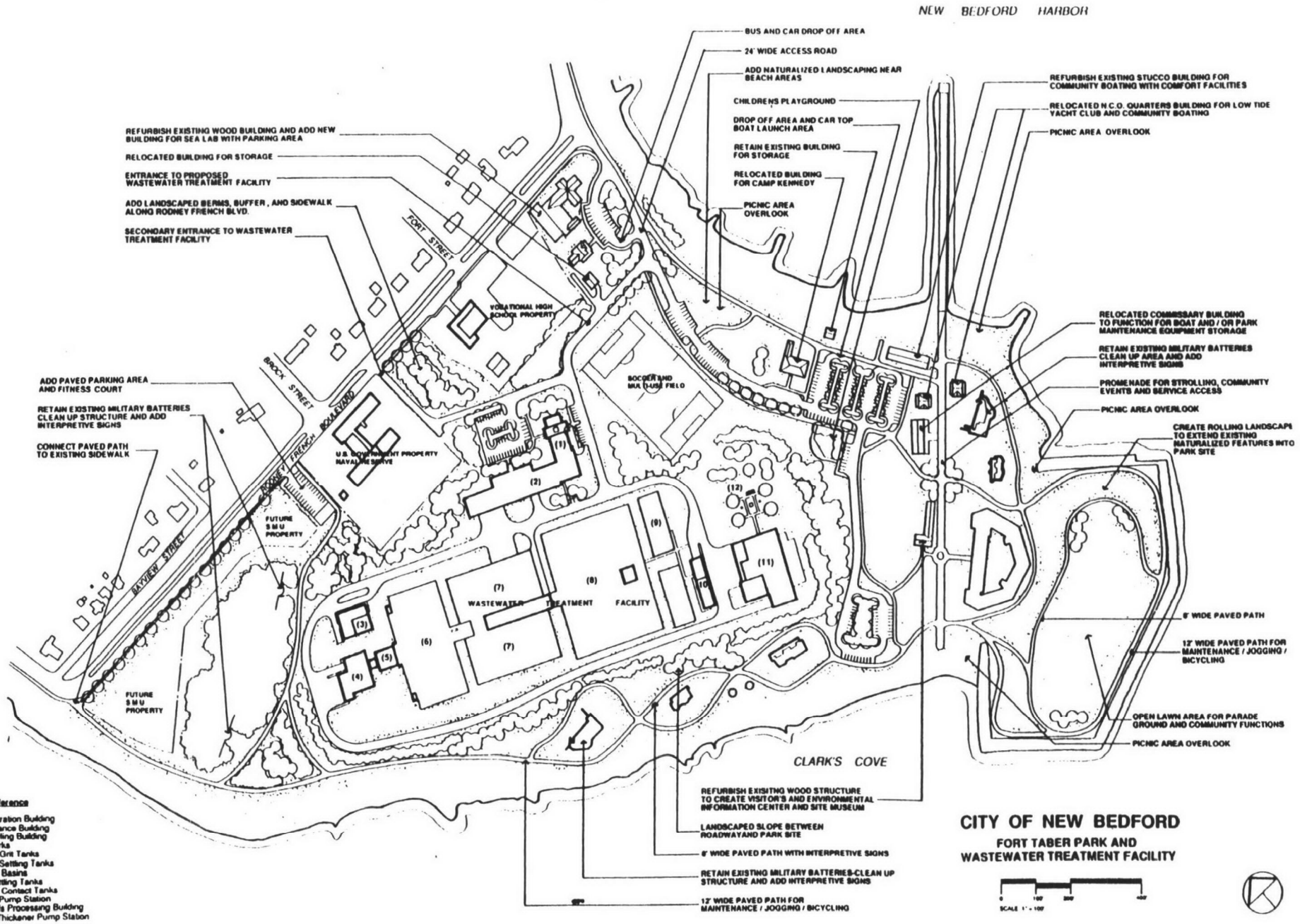

NEW BEDFORD HARBOR
BUS AND CAR DROP OFF AREA
24' WIDE ACCESS ROAD
ADD NATURALIZED LANDSCAPING NEAR BEACH AREAS
CHILDRENS PLAYGROUND
DROP OFF AREA AND CAR TOP BOAT LAUNCH AREA
RETAIN EXISTING BUILDING FOR STORAGE
RELOCATED BUILDING FOR CAMP KENNEDY
PICNIC AREA OVERLOOK
REFURBISH EXISTING STUCCO BUILDING FOR COMMUNITY BOATING WITH COMFORT FACILITIES
RELOCATED N.C.O. QUARTERS BUILDING FOR LOW TIDE YACHT CLUB AND COMMUNITY BOATING
PICNIC AREA OVERLOOK
REFURBISH EXISTING WOOD BUILDING AND ADD NEW BUILDING FOR SEA LAB WITH PARKING AREA
RELOCATED BUILDING FOR STORAGE
ENTRANCE TO PROPOSED WASTEWATER TREATMENT FACILITY
ADD LANDSCAPED BERMS, BUFFER, AND SIDEWALK ALONG RODNEY FRENCH BLVD.
SECONDARY ENTRANCE TO WASTEWATER TREATMENT FACILITY
FORT STREET
VOCATIONAL HIGH SCHOOL PROPERTY
SOCCER AND MULTI-USE FIELD
BROCK STREET
RODNEY FRENCH BOULEVARD
U.S. GOVERNMENT PROPERTY NAVAL RESERVE
ADD PAVED PARKING AREA AND FITNESS COURT
RETAIN EXISTING MILITARY BATTERIES CLEAN UP STRUCTURE AND ADD INTERPRETIVE SIGNS
CONNECT PAVED PATH TO EXISTING SIDEWALK
FUTURE SMU PROPERTY
KATHRYN STREET
FUTURE SMU PROPERTY
WASTEWATER TREATMENT FACILITY
RELOCATED COMMISSARY BUILDING TO FUNCTION FOR BOAT AND / OR PARK MAINTENANCE EQUIPMENT STORAGE
RETAIN EXISTING MILITARY BATTERIES CLEAN UP AREA AND ADD INTERPRETIVE SIGNS
PROMENADE FOR STROLLING, COMMUNITY EVENTS AND SERVICE ACCESS
PICNIC AREA OVERLOOK
CREATE ROLLING LANDSCAPE TO EXTEND EXISTING NATURALIZED FEATURES INTO PARK SITE
8' WIDE PAVED PATH
12' WIDE PAVED PATH FOR MAINTENANCE / JOGGING / BICYCLING
OPEN LAWN AREA FOR PARADE GROUND AND COMMUNITY FUNCTIONS
PICNIC AREA OVERLOOK
CLARK'S COVE
REFURBISH EXISTING WOOD STRUCTURE TO CREATE VISITOR'S AND ENVIRONMENTAL INFORMATION CENTER AND SITE MUSEUM
LANDSCAPED SLOPE BETWEEN ROADWAY AND PARK SITE
8' WIDE PAVED PATH WITH INTERPRETIVE SIGNS
RETAIN EXISTING MILITARY BATTERIES-CLEAN UP STRUCTURE AND ADD INTERPRETIVE SIGNS
12' WIDE PAVED PATH FOR MAINTENANCE / JOGGING / BICYCLING
Building Reference
1 Administration Building
2 Maintenance Building
3 Air Handling Building
4 Headworks
5 Aerated Grit Tanks
6 Primary Settling Tanks
7 Aeration Basins
8 Final Settling Tanks
9 Chlorine Contact Tanks
10 Effluent Pump Station
11 Residuals Processing Building
12 Gravity Thickener Pump Station
CITY OF NEW BEDFORD
FORT TABER PARK AND
WASTEWATER TREATMENT FACILITY
SCALE 1" = 100'

Figure A-1

That same commentor questioned whether the deed restrictions at Fort Rodman are still applicable and if not, whether that would negate another of the mayor's arguments in favor of Site 1A --that because of the existing deed restrictions at Fort Rodman, it could never support tax revenue-producing development.

There seems to be some misunderstanding on this commentor's part concerning the conditions under which the deed restrictions could be removed. The agencies involved (National Park Service, Department of Education, etc.) agreed to cooperate with the City's efforts to remove the deed restrictions and acquire the parcels in question because the land was to be used for a public benefit project. Indeed, the commentor made reference to a Senate bill authorizing the City to use certain land "for the construction and operation of a wastewater treatment plant and related facilities". Efforts to remove the deed restrictions for reasons other than construction of the court-ordered secondary WWTP would likely not have been successful.

That commentor also questioned whether the mayor's argument that development of Taber Park would not be possible if Site 4A was chosen is valid given the fact that the City now has a $900,000 grant for Taber Park which the commentor understood was not contingent upon construction of a WWTP.

Again, there seems to be some misunderstanding by the commentor as to the nature and conditions on the $900,000 grant. The EOEA Urban Self-Help Grant for 90% matching funds from the MA Executive Office of Environmental Affairs Division of Conservation is being made available to the City contingent upon the City's co-funding of the Taber Park improvements. If they were not constructing the WWTP and spending funds on the Taber Park mitigation plan, they would not be eligible for the EOEA matching funds and the grant opportunity would have to be forfeited.

A commentor wanted to correct our erroneous statement on p. 4-11 of the Final EIS that the New Bedford Vocational Technical High School Marine Industries Program will not be displaced, but rather, will be leaving.

The New Bedford City planner has verified that the New Bedford Regional Vocational Technical High School recently decided to end its marine education program due to lack of student interest.

One commentor expressed continued concern over location of the WWTP outside the hurricane barrier at Site 1A and asked about flood insurance costs and why the City hadn't applied to FEMA for a floodplain map revision.

The existing primary WWTP at Site 1A has flood insurance and the new secondary WWTP will as well. Although the exact cost is not known, CDM informed EPA that the cost to insure the existing facility is $1800 per year. EPA does not believe that this cost is included in the WWTP operation and maintenance costs presented in Table 5.5 on page 5-9 of the Final EIS, however, the number is expected to be small enough that it would not

significantly affect the calculation of total project cost. The City applied to FEMA for a floodplain map revision on December 10, 1991.

A commentor reiterated the potential land use conflicts between consideration of Site 40 for a sludge landfill and Eastern Energy Corporation's (EEC) plan to build a cogeneration facility on Site 40.

EPA is aware of the status of the EEC proposal (see discussion on p. 12 of this Record of Decision). This potential land use conflict was a factor in EPA's decision to withdraw Site 40 from the list of environmentally acceptable alternatives (see Section III A).

TECHNOLOGY/DESIGN

A commentor asked why EPA's response to a comment on the Draft EIS concerning potential damage from salt water/air to electronic and computer equipment at Site 1A (p. 4-18 FEIS) made a comparison to Site 4A when comparisons were not made in responses to comments on other issues such as mitigation, relocation, traffic, etc.

EPA does not feel that there was any bias in the way we responded to comments on the Draft EIS. Although it is true that comparisons between the two WWTP sites were not included in all sections of the response to comments, those comparisons were made for each impact area in Chapter 6 of the Draft EIS. The responses to comments presented in Chapter 4 of the Final EIS were geared toward the specific questions raised and in the case of the aforementioned response, we felt it was logical to point out that the effects of salt water/air on electronic components is a concern to any marine coastal facility and thus this would not be a potential discriminator between the two candidate locations for siting the WWTP.

TRANSPORTATION/TRAFFIC

A commentor asked that EPA present not only a comparison of the number of truck trips, but also a comparison of the size of trucks that will be used for the new WWTP versus the size of those currently used for the existing WWTP.

Most of the additional traffic generated in association with the new secondary WWTP will be automobile traffic. As for the truck traffic, the 20 cubic yard 10 wheeler trucks for transporting sludge will make 8 round trips to and from the WWTP during business hours. Because the existing plant only has primary treatment, no sludge is hauled off-site. The trucks presently used at the primary WWTP are for septage dumping, chemical delivery, and transport of personnel. No data on the specific size of those trucks is available; however, it is expected that the number and size of trucks employed at the new secondary WWTP for the non-sludge hauling purposes listed above will be comparable to those presently used at the primary treatment plant.

WATER QUALITY/RESOURCES

Outfall Issues

A commentor disagreed with EPA's statement that some area of receiving water around the discharge would need to be downgraded if site-specific criteria are adopted.

EPA believes that some area around the existing discharge should be reclassified, because the uses of its current classification are not being attained. The current classification of the receiving water is SA, which includes the following designated uses: excellent habitat for fish, other aquatic life, and wildlife, and for primary and secondary contact recreation; shellfishing without depuration in approved areas; and excellent aesthetic value.

The area around the existing discharge is highly impacted and being considered for Superfund status. A variety of studies with shellfish, lobsters, and flounder taken near this area and in New Bedford Outer Harbor have indicated above normal incidence of health problems (leukemia in hard shell clams, shell rot in lobsters, and tumors in flounder). Based on these studies and predicted conditions resulting from a secondary wastewater treatment discharge, EPA believes that the receiving waters around the discharge cannot be considered excellent habitat for fish and other aquatic life. EPA believes that the receiving waters should be reclassified to more accurately reflect the actual uses, and to enable the City to meet appropriate water quality standards.

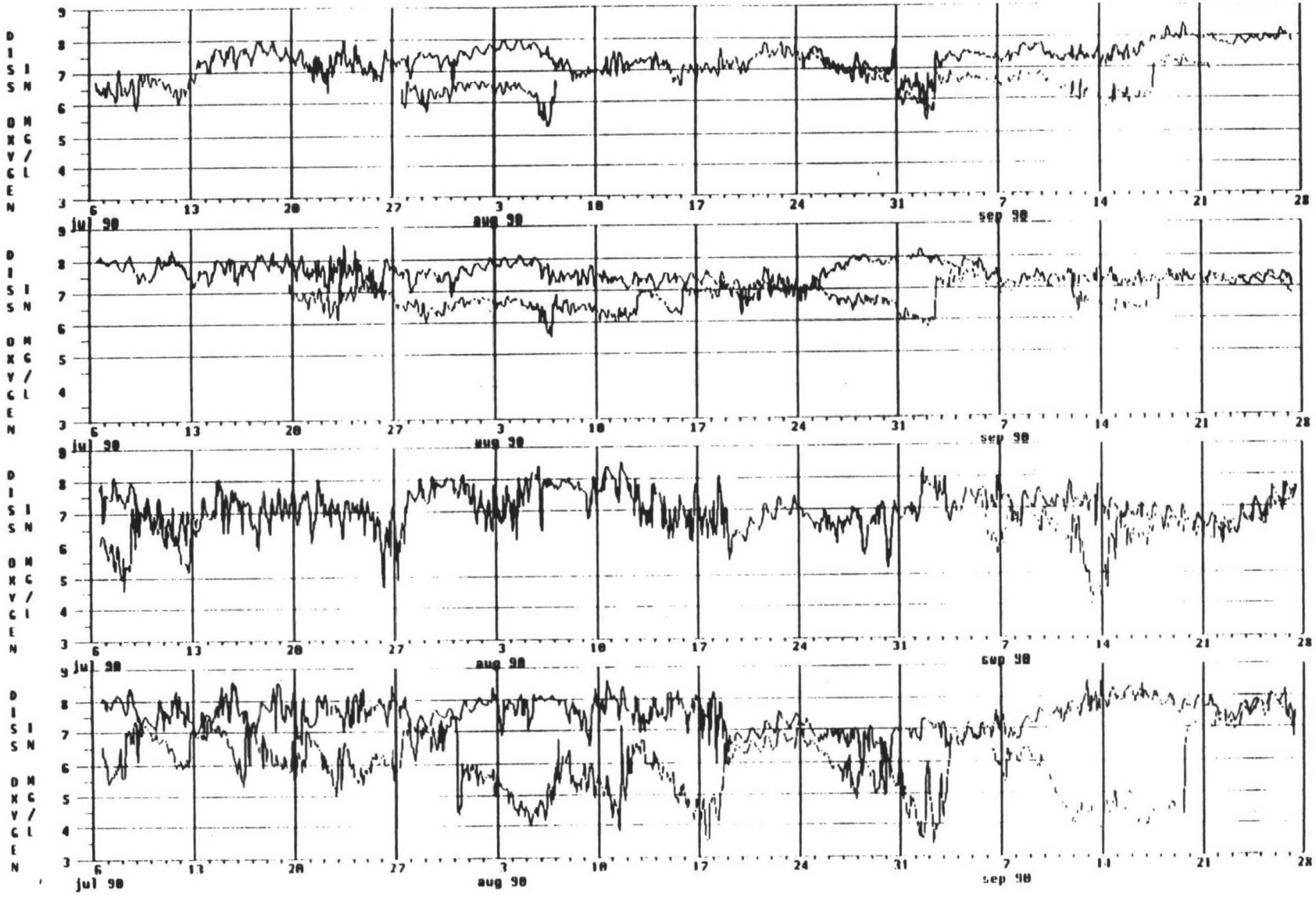
One commentor disagreed with the statement that the monitoring of dissolved oxygen missed the critical time period in the bottom waters at Meter 2.

The bottom water meter at Station 2 did not record data from July 14 to September 6. During this time period, the bottom water meter at Station 3 recorded extended stretches of dissolved oxygen below the State standard and also recorded the lowest dissolved oxygen value of the deployment. For this area of the coast, late August/early September is typically the time of highest water column stratification and thus lowest bottom water dissolved oxygen concentrations. Figure A-2 shows the low DO levels recorded at Station 3 during this period.

One commentor was unclear about EPA's conclusion that some area around Station 3 exhibits a local dissolved oxygen pattern.

Based on comparisons of data collected at similar times at different locations, Station 3 on several occasions (August 3-7, August 17-18) possessed distinctly different patterns than the other Stations. This suggests that at times, local influences may affect Station 3, but not other locations within the Outer Harbor and Buzzards Bay (see Figure A-2).

One commentor felt that it should be mentioned that Inner New Bedford Harbor may be contributing some water with low dissolved oxygen contributions to the Outer Harbor.



City Of New Bedford, Massachusetts
Wastewater Facilities Plan

Figure A-2

DISSOLVED OXYGEN DATA AT MOORINGS

CDM Supplemental EIR, Vol. VIII, 1991

EPA agrees that the Inner Harbor may contribute some water containing low dissolved oxygen concentrations to the Outer Harbor.

One commentor was concerned that the conservative method used to estimate nitrogen flux from the Inner Harbor to the Outer Harbor may have overrepresented this source.

The analysis used in the Final EIS was an assessment of how changes in nitrogen would affect primary productivity and eventually dissolved oxygen concentrations. For this analysis, major sources to the Outer Harbor were estimated. The contribution from the Inner Harbor was estimated by determining a water column concentration of nitrogen, estimating water exchange, and then doing a mass flux calculation. This did not consider nitrogen that had already been assimilated by phytoplankton and would be transported out of the Inner Harbor. It was beyond the scope of our analysis to estimate that value. For the level of the analysis, EPA believes that the estimate of nitrogen contribution from the Inner Harbor is reasonable.

One commentor stated that within the text of the FEIS, the reason for the shellfish closure around the existing discharge was misstated. The text claimed that the shellfish closure was due to PCBs.

The closure for bivalve shellfish is due to high concentrations of fecal coliform. The lobster closure is due to high concentrations of PCBs.

One commentor was concerned that the value used for sediment oxygen demand (SOD) was too high.

The value used in this analysis was the conservative one used by the City in its Draft FP/EIR. New information was then generated by the City for its Final FP/EIR, and that information revealed that a lower SOD value would be more appropriate. EPA agrees that the new information is more appropriate to use in this analysis; however, because the use of this value is not significantly different from the estimate EPA used and would not change the conclusions drawn from the analysis, EPA does not feel any further analysis is warranted.

Other Water Quality Issues

Polaroid was dissatisfied with EPA's evaluation of potential water resource impacts at Site 40 and the Final EIS response to their comment on that subject. The company asked EPA to require a thorough evaluation of water quality and supply issues prior to any final determination of the environmental acceptability of Site 40 for sludge disposal and voiced the opinion that EPA should commit to preparing a supplemental EIS regarding these issues to ensure full public review.

As stated in a previous response to a comment from Polaroid on air quality issues (see page A-3), EPA concurs with Polaroid that further assessment of outstanding environmental issues related to Site 40 (including water quality and supply and wetlands issues) is needed before its environmental acceptability for use as a sludge landfill can be fully assessed. Therefore,

EPA has removed Site 40 from the list of acceptable sludge management options (see Section 3.1 and Table 2 of this ROD).

As stated before, given the continued uncertainties regarding the implementability of the City's recommended plan, EPA concurs with the City's decision to initiate supplemental sludge management facilities planning (outlined in Section 5.2.2 of the Final EIS). Should alternative management options for sludge treatment and/or disposal become necessary, EPA will review and assess the alternatives presented in the Supplemental Sludge Management FP/EIR as appropriate under NEPA. And should Site 40 be identified as a remaining viable alternative, EPA's review would include a more detailed evaluation of the potential for water resources impacts on Polaroid's products and operations The supplemental FP/EIR would be subject to environmental review under MEPA and thus there would be adequate opportunity for public review. EPA would be an active participant in this review process and, if necessary under 40 CFR Section 1502.9(c), a Supplemental Final EIS addressing alternative sludge management options would be prepared. EPA will not commit to issuance of a supplemental EIS, however, until such time as the need for one is demonstrated.

Polaroid believes EPA should require a more detailed delineation of wetlands, evaluation of wetlands impacts, and identification of any necessary mitigation measures prior to any final determination of the environmental acceptability of Site 40 for sludge disposal and should commit to the issuance of a supplemental EIS to ensure full public review of these issues.

See above response.

OTHER

There seems to be concern on the part of some Fort Rodman area residents that the park has been down-sized from original plans and that "public facilities" planned as part of the Taber Park mitigation plan will not be available to the public because of use by the on-site programs. One commentor questioned whether the South End residents in the vicinity of Site 1A would really be receiving "neighborhood improvements" from the Taber Park mitigation plan or whether they would more accurately be termed on-site improvements.

The overall park area, in excess of 40 acres, actually increased during the design process. Although the Sea Lab program will remain on-site, the Sea Lab site has not been counted as park acreage, although its landscape plan has been designed to blend into the park and visually, will be part of it. The development of Taber Park was detailed in the City's Supplemental Environmental Impact Report, July, 1991; however, several changes have occurred since that time as the result of the planning and design process.

First, the WWTP design evolved into a more compact facility, shifting slightly to the west, with the sludge handling building as far away from the residential area as possible. These

changes were made in response to suggestions by the City Council and supported by local residents.

Second, public meetings were held in the Fall of 1990 to solicit suggestions for Fort Taber Park and to establish priorities for mitigation improvements. The selections and priorities of the public and the design review committee were directly incorporated into the design of Taber Park. Additional meetings were held in March 1991 and October 1991 to discuss and clarify the final design. As a result of these changes, the final design for Taber Park includes greater park area than the original plan from the Draft and Final FP/EIRs. Table A-2 shows the approximate acreage for each use category for existing and proposed conditions. Recreation area will increase from about 3 acres to about 36 acres. In addition, the renovations (picnic facilities, paths, and landscaping) within the 11 acre historic district will support passive recreation.

As for the concern that the on-site non-profit agencies would utilize the recreation and parking facilities so that the facilities would not be equally accessible to the general public, the park is specifically dedicated to use by the general public. Taber Park will be open from dawn to dusk to everyone. In terms of the children's playground, the only on-site group likely to use the playground is Camp Kennedy. This program provides many other recreational activities (swimming, archery, etc.) and is not anticipated to conflict with neighborhood users of the playground. Furthermore, the playground will never be closed to the public during park hours; if such a conflict did arise, the City would be required to find or create new facilities for Camp Kennedy. Public parking is also not anticipated to be a problem (see response below to a specific comment related to parking).

Taber Park has been designed to provide public access to multi-faceted waterfront recreational land and to also provide a buffer between the existing residential and waterfront land uses and the proposed WWTP. As far as EPA is concerned, Taber Park (as proposed and detailed below), because it is adjacent to the South End neighborhood and readily accessible to them, would truly be a benefit to the neighborhood, not simply "on-site" improvements as suggested by one of the commentors.

The park's main features are a one-mile plus network of publicly-accessible paths/trails, two multi-use playing fields, a soccer field, additional open lawn areas, picnic facilities, refurbishment of Fort Taber, a community boathouse, information signs, an environmental center, a children's playground, and lighted parking areas. The children's playground will consist of custom designed play structures that can accommodate around 100 children, mostly enclosed by a combination of benches, tables, seating walls, and a four foot high metal picket fence. The play structures will include slides, bridges, nets, ladders, climbing walls, sandboxes, swings, and bouncing animals. The structure will serve a variety of children's age groups.

In the passive recreation areas, the park will include additional benches, picnic tables, and waste receptacles throughout the site including areas along the western shore of the site by the military batteries. Additional amenities will include an exercise station, drinking fountains, bike racks, and substantial landscaping improvements.

Table A-2

Fort Rodman Present and Future
Land Uses

	Present		Future	
Land Use	acres	%	acres	%
WWTP	7.1	9	21.7	27
Active Recreation	2.9*	4	7.8	10
Passive Recreation	0	0	28.5	36
Education	21.7	27	5.1	7
U.S. Military	14.1	18	2.6	3
Historic District	11.2	14	11.2**	14
Other***	22.4	28	2.5	3
Total	79.4	100	79.4	100

* Includes facilities in severe disrepair.

** The renovation of the historic district includes making the area more accessible. This will be done through the refurbishing of the existing fort and batteries, relocation of an existing historically significant structure within the district, and the addition of pathways and landscaping to facilitate passive recreation. This area will thus become an important combination historic and recreation resource.

*** Includes underutilized land and portions of South Rodney French Boulevard.

1991 correspondance to Susan Coin, EPA from Liz Beardsley, CDM

Area Residents are concerned that the proposed 229 parking spaces on Site 1A will not be adequate for public use given their use by personnel from the agencies that are to be relocated on-site and the fans and players who will be using the soccer field.

The WWTP and the existing New Bedford Vocational Technical School have separate parking areas and are not included in the 229 total spaces. The City has estimated that the number of spaces should be adequate to serve both the on-site users and the general public. Table A-3, based on information provided to EPA by CDM in a 1/23/92 letter, summarizes the anticipated parking requirements of the on-site programs.

Table A-3

User Group	Est. No. of Spaces	Times	Comments
Camp Kennedy	40 (staff)	summer only; weekdays	children are bussed
Low Tide Yacht Club	8 (staff) + 20 (others)	July-August only	
Sea Lab	12 (staff)	summer only; weekdays	children are dropped off or bussed
Soccer Players	40 (2 Teams w/coaches)	year-round; weekends	
Total	120 maximum		

The remaining spaces -- approximately 110 -- could be used to serve the general public, including users of the children's playground and other park facilities, as well as the soccer players, coaches, and fans. Note also that the majority of the parking spaces are located at overlooks or are not near to the cluster of non-profit agencies and would not be expected to be used by those groups. The three existing parking lots near East Beach (just north of the site) will also have improved vehicular and pedestrian access and landscaping.

One commentor expressed concern that the City has not found satisfactory alternate locations for the programs which must be relocated off-site from Site 1A in order to allow for construction of the proposed WWTP.

The City of New Bedford has worked directly with each of the programs undergoing permanent off-site relocation regarding site selection and design of new facilities. Representatives from those programs have all expressed support of their proposed new sites and the relocation plan, which was submitted to the Bureau of Relocation of the

Massachusetts Executive Office of Communities and Development for approval under MGL Ch.79A, was approved on July 29, 1991.

The same commentor also questioned the suitability of the proposed sites selected for temporary off-site relocations.

Sea Lab: The City's ultimate plan for the Sea Lab program is to renovate two on-site buildings and construct a new building on-site (scheduled for completion by 1996). In the meantime, the City is still working with the Sea Lab program to identify a temporary site adjacent to the water to accommodate this summer program while its new facilities are being prepared. The program may utilize an existing New Bedford school.

Camp Kennedy: EPA concedes that the temporary relocation of this summer recreation program to Keith Jr. High School will not provide the same kind of outdoor seashore atmosphere that it currently has. However, Camp Kennedy will only be in these temporary facilities for four summers and during that time, the campers will have access to a swimming pool and athletic facilities not available at the current location.

Marine Program: This program will not require relocation. According to the director of the New Bedford Regional Vocational Technical High School, the school has ended its marine education program due to a lack of student interest. Only four students graduated last year and budget reductions at the school forced the closing.

One commentor wanted to know whether installation of the proposed security gates would interfere with truck access to the WWTP.

The park will include a series of gates that can be closed as portions of the park are closed at night. The main security gate for the park will be placed after the turnoff for the WWTP so that access to the treatment plant can remain open while the park is closed.

One commentor asked what group(s) will utilize the Environmental Information Center and wanted to know the cost of asbestos removal for that building.

The City of New Bedford, in developing the mitigation program, believed it would be important to provide an information center on-site dedicated to public information about the environment -- the ultimate reason for the project. The City has included the environmental information/education center in the final site layout plans. The center will be housed in a renovated existing building with historic significance. EPA does not know the actual cost for the asbestos removal, but CDM has informed us that the costs associated with renovation, including necessary asbestos removal, are accounted for in the total project costs presented thus far. The City plans to use the center as a museum and information center with space available to environmental groups that request it. The center could include exhibits relating to the history of Clarks Point, information about the City's wastewater system, and other environmental projects. The center will not be ready for use until 1997 or later and at this point in time the City has not actively pursued securing specific tenants. It is expected that

such newly renovated space will be in demand and the City will be able to fill it with appropriate groups.

One commentor questioned whether the proposed "beach restoration" will simply be a clean up project.

A total of $800,000 in mitigation funds has been earmarked for beach restoration. Although design has not been completed, the plan is to make major improvements to the public beaches (East and West Beaches) and simply clean up the beaches on the project site (because of their rocky nature, there has historically been limited public interest in using them).

One commentor asked for more details on the proposed picnic areas and overlooks.

The City plans to clean the batteries, to develop and implement a planting plan (grass and other plantings), and to install park furniture such as picnic tables, benches, and trash receptacles. Figure A-1 shows the proposed location of the picnic areas and overlooks.

One commentor believed that the planned demolition, grading, and seeding of the present primary WWTP site at Site 1A should not be considered a site improvement because the Fort Rodman area would gain this area without the construction of a new plant.

Although it is true that the existing treatment plant will be decommissioned when the new treatment plant is built, it would not necessarily be demolished nor would funds likely be made available for grading and seeding if the plant were built at Site 4A.

One commentor was concerned that Table 5.6 in the Final EIS is not up-to-date, but instead based on 1988 figures. That commentor also wanted to see a comparison of costs for Site 4A.

Table 5.6, based on 1990 estimated costs, was checked in the Fall of 1991 and is still considered to be a good estimate of anticipated project costs. If anything, projected engineering costs may actually have gone down due to the slow economy. Unfortunately, cost estimates for Site 4A have not been updated since the Draft EIS because it was not part of the recommended plan. For this reason, the 1990 estimated cost figures in Table 5.6 for the recommended plan (including a WWTP at Site 1A) cannot really be compared to Site 4A; however, EPA expects that any economic conditions affecting the cost figures for Site 1A (e.g. economic downturn, inflation) would affect the figures for Site 4A in a comparable way and therefore, they would remain approximately the same relative to each other.

One commentor asked about the current status of the proposed Howard Avenue septage receiving facility.

The need for a new septage receiving facility was identified in the facilities planning process. The City's facilities plan identified the existing Howard Avenue pumping station as the site

for the facility if the WWTP is located at Site 1A; the Site 4A alternative included a new on-site septage receiving facility. Costs of the septage receiving facility were included in the estimates for each site; however, the cost was considered an off-site cost for Site 1A and an on-site cost for Site 4A.

At the present time, the City has decided that the existing Howard Avenue pump station would not be suitable for renovation as a septage receiving facility. The main reason is that the facility has inadequate space for vehicles; the facility could accommodate only one vehicle, and no waiting vehicles. The City remains committed to relocation of the septage receiving facility, however, and continues to carry its cost in the project budget. The City will notify EPA and DEP when it identifies a new location for the septage receiving facility. In the meantime, changing the location of the septage receiving facility should not make an appreciable difference in the estimated costs for Site 1A and would not affect the analysis for Site 4A at all because septage receiving would still be an on-site cost if the WWTP were located at Site 4A.

APPENDIX B

'OURNEAU-SURPRENANT-LETOURNEAU
Union Street, Box B-969, New Bedford, MA 02741

LS&L
ATTORNEYS AT LAW

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(508) 994-5200
FAX (508) 990-7930

July 9, 1991

Building Inspector of the
City of New Bedford
Building Department
City Hall
133 William Street
New Bedford, MA 02740

RE: Denis R. Silva, 979 Rodney French Blvd; Maurice Metcalfe, 903 Rodney French Blvd; Charles L. Goulart, 15 Brock Avenue; Thomas Kelleher, 199 Bay View St.; Diana B. Duarte, 193 Bay View Street;

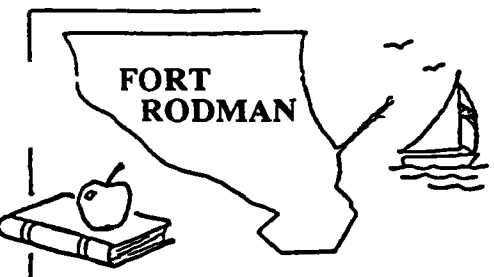
Dear Mr. Landreville:

We are the owners of land surrounding Fort Rodman in New Bedford. Our property and those in our area are in a single family residence district. The City of New Bedford by and through the Mayor is in the process of building a secondary waste water treatment plant on land located in Fort Rodman in violation of the zoning laws. Such a plant is not allowed on land zoned for Residential purposes.

Pursuant to Mass. G.L. c.40A §7 we hereby request that you enforce the zoning ordinance against the City of New Bedford and I request a report of the action you take on this matter and the reasons therefore within fourteen days.

Sincerely yours,

RAYMOND A. LETOURNEAU
Attorney for the above-named land owners



SAVE FORT RODMAN COMMITTEE

406 W. RODNEY FRENCH BLVD.
NEW BEDFORD, MA. 02744
TEL. (508) 992-9659

August 10, 1991 **02**

Ms. Ann Rodney
U. S. Environmental Protection Agency
Region I
1 Congress Street
Boston, Mass.

Dear Ms. Rodney:

Re: Wastewater Treatment Facilities for
the City of New Bedford, Ma.
EOEA #0425
Final Environmental Impact Statement
July 1991

We would like to take this opportunity to thank EPA for allowing our Committee to respond to your FEIS, and, therefore, enclose our comments.

We also enclose a copy of our August 6th, 1991 comments to M.E.P.A. relative to relocation and mitigation, which we request you include as part of our comments.

We wish to advise that we do not agree with your conclusions and feel that after reading your statement, if the plant is constructed at Site 1A, we can all "write off" the whole area. The only project we will have on this last parcel of coastal property in New Bedford is an Industrial Complex.

Very truly yours,

SAVE FORT RODMAN COMMITTEE

Natalie B. Arnett

Natalie B. Arnett,
Executive Director

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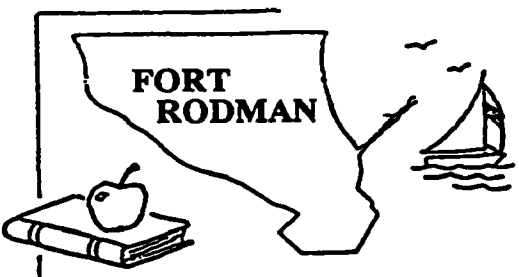

SAVE FORT RODMAN COMMITTEE

406 W. RODNEY FRENCH E
NEW BEDFORD, MA. 0274
TEL. (508) 992-9659

August 10, 1991 **02**

RE: WASTEWATER TREATMENT FACILITIES FOR THE CITY OF NEW BEDFORD, MA. E.O.E.A. #6425
FINAL ENVIRONMENTAL IMPACT STATEMENT - JULY 1991

The "Save Fort Rodman Committee" comments on the captioned statement are as follows:

4.1 AIR QUALITY, ODORS, AND NOISE

Page 4-3 Your statement mentions noise at Fort Rodman as a result of drilling and blasting. You state blasting would be necessary and would occur 4 to 5 times daily, as isolated blasts lasting for perhaps several seconds, for approximately 6 months.

After new test borings taken in 1991, which we assume you have access to, what will be the duration of blasting, drilling and stone crushing? How many times daily and how many months?

4.2 CULTURAL RESOURCES

Page 4-5 You mention that planned mitigation, which includes STABILIZATION of the existing Fort Taber structure . . . Will you kindly explain "stabilization" as referred to in this instance? This is the first time we have seen this word used in reference to Fort Taber.

You mention safety and accessibility improvements, and the paving of the area in front of the Fort, will have a **positive impact** on the cultural resources that will result if the plant is built at Fort Rodman (Site 1A). Please identify the CULTURAL RESOURCES.

4.4 LAND USE CONFLICTS

Page 4-9 Your report states that in May 1990, the New Bedford City Council voted and approved the selection of Fort Rodman. . . . This vote should be further explained to all interested parties. We refer to M.E.P.'S statement of March 5, 1990, after the Mayor's Revised Recommended Plan was submitted. M.E.P.A. stated that "significant revisions to the recommended plan have raised additional serious concerns relative to mitigation commitments and fundamental issues of plant, design, facility siting and facilities plan adequacy". The City was told at a meeting on March 8, 1991, in Boston with federal and state agencies that most of their cost saving measures would not be accepted, as you have also

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stated on page 4-5 of your Final EIS.

The Mayor, knowing that these savings would not be realized or accepted by the agencies, continued to LIE to the City Council and the people of New Bedford, through his political paid ads in our local newspaper.

The Mayor submitted his motion to the City Council, for approval of the Fort Rodman site, and after their vote, made statements publicly that thereWAS NO $20 to $30 million savings plan at Fort Rodman!

Page 4-10 Epa mentions the Mayor's reasons for choosing Fort Rodman (Site 1A):

#1) "THE CITY SHOULD NOT TAKE PRIVATE PROPERTY BY EMINENT DOMAIN".
The mortgagee of the property known as "The Standard-Times Field" has advertised that said property will be sold at auction on the 21th day of August 1991. Does this, therefore, negate this reason?

The statement also states that the Mayor supports the City Council in developing solutions to the restrictions on the deeds at Fort Rodman. Should you not correct this statement to read just the opposite? The Mayor is looking to the City Council for support. In December 1990, the Mayor requested a vote of the city council on a petition for an act in the state legislature permitting the use of parcels of land at Fort Rodman, for educational, park, public health, and other municipal purposes, thereby lifting the previous deed restrictions.
This same Mayor in May of 1991, had his lawyers draft Senate Bill 1500. which was filed as a "Home Rule Petition": however the phraseology in SB 1500, was not the same wording as the "Home Rule Petition". Said bill was presented to the Senate for their vote. The bill clearly stated "for the construction and operation of a wastewater treatment, collection, and disposal plant and related facilities"(a copy of said wording is attached herewith).
We were apprised of this fact by our repersentative, Antonio Cabral, who subsequently was able to have the language changed to reflect the "Home Rule Petition" of the City Council vote.

#2 -The statement is made that "because of the existing deed restrictions at Fort Rodman, it could never support tax -revenue-producing development". Here again, if the deed restrictions are not applicable, this also negates his as it now becomes residentially zoned.

#3 -The last reason in part stated "Development of Taber Park would not be possible if the Standard-Times Field site was chosen". This mayor now states that he has a $900,000. grant for Taber Park, which is not contigent on construction of a WWTP, therefore, is not this reason invalid also?

Page 4-10 With reference to the zoning at Fort Rodman, we wish to advise that our Committee has commenced legal action against the City of New Bedford on this matter.

Page 4-11 You include N. B. Vocational Tech. High School Marine Industries Program as <u>not</u> being displaced. It has now been made public that they will be leaving. You may recall in our previous comments to the agencies, that we stated this program was vacating Fort Rodman. This was later denied by the City Planner in a letter to Natalie B. Arnett, of our committee. Incidentally, this letter dated March 21st, 1991, was allegedly mailed to Mrs. Arnett; however, never received by her. We received a copy of said letter at our meeting in Boston with Ms. Susan Tierney.

Page 4-11 You state that commentors expressed concerns over location of the WWTP (Site 1A) outside the hurricane barrier. Our committe is still deeply concerned with this problem and are not pleased with your comments. We have been advised that the City will be obligated to obtain Flood Insurance at Fort Rodman. Can anyone at EPA advise the cost for this coverage? Is this cost already in the WWTP operation and maintenance cost - Table 5.5 on page 5-9?

Why has the City not applied to F.E.M.A. for a map revision at Fort Rodman of the flood plain?

Page 4-13 When speaking of Visual Aesthetics EPA states "the prettier the view, the more people want to see it". The view is there already - there is no other spot in the City of New Bedford where the people can view the ocean on three sides, with the Elizabeth Islands in view and an expansive view of Buzzards Bay. The only problem here is that with a WWTP on this site, the "pretty view" will be lost forever.

4.8 TECHNOLOGY/DESIGN

Page 4-18 Concerns over potential damage from salt water/air to electronic and computer equipment -- Why is there a comparison here between Both Site 1A & 4A? Why is there no comparison of other issues, such as, mitigation, relocation, real estate values,

trucking/traffic, visual aesthetics, land use conflicts, just to name a few? We believe this to be bias.

4.9 TRANSPORTATION/TRAFFIC

Page 4-19 Comparisons are made of the number of truck trips when the plant will be operating. Why don't the agencies and Camp, Dresser, McKee also compare the size of the trucks that will be used, so we can have a clear comparison? It certainly does not make any sense to make a statement regarding the number of truck trips when the present plant has only one building. There should be a clarification on this issue, in view of the fact that the proposed plant will have 12 buildings, and generate triple the amount of sludge. Again we point out that these are residential roads with beaches, boat ramps, etc. along the major routes.

4.11 OTHER

Page 4-30 With reference to bias, we would like to point out that the Camp, Dresser, McKee drafts were most certainly biased. When referring to Fort Rodman (Site 1A) the drafts repeatedly stated that by locating the plant at 1A, Buzzards Bay would have cleaner waters. No where in these drafts, did CDM make the same statement about the Standard-Times Field (Site 4A). We wonder why?

NEIGHBORHOOD IMPROVEMENTS

Page 5-4 EPA states that the development of a public park around the perimeter of the facility will ensure that the VALUABLE waterfront at Fort Rodman will be preserved for public use. The waterfront will lose its distinction as "VALUABLE" if a WWTP is constructed at the site. This is the reason we have such deplorable conditions at the site now -- the present WWTP is situated there.

In view of the true definition of "neighborhood", what will the neighborhood receive in the line of improvements? All the so-called "neighborhood improvements" are on site, are they not? Our answer to the questions is "ZERO"!

The neighbors of Fort Rodman will receive nothing but aggravation, noise, odors, air toxics, dust, blasting, heavy vehicular traffic, just to mention a "few" (improvements).

Page 5-12 - 5.2.5. Implementation considerations.
E.P.A. refers to the various tables; namely, Table 5.6 and 5.7. Is there anyone who can "honestly" say that any of the measures for cost savings at Fort Rodman exclusively, are realities?

- Tables 5.4, 5.5 and 5.6 reflect 1988 figures. Can't Camp, Dresser, McKee or the City of New Bedford compute up-to-date figures or do we all live with costs that are now 3 years old? We would also like to see a comparison of costs at the Standard-Times Field.

Page 5-15 5.3.1. Secondary Wastewater Treatment Plant

Reference is again made to the City Council vote (May 1990). We repeat again that this should not be a valid reason for EPA'S consideration of Fort Rodman. The vote of the City Council was taken before the members of the Council were aware that the so'called cost savings wer in fact an illusion.

Again EPA refers to Neighborhood Improvements, when in actuality the "neighbors" are receiving nothing in improvements.

Page 5-19 5.3.1.1 - Land use and zoning.

EPA states that "land-use impacts . .. will enhance the unique waterfront and historic portions on the site. A "UNIQUE" waterfront does not need enhancing, if so, it would not be "UNIQUE".

SENATE . . . . . No. 1500

By Mr. MacLean, a petition (accompanied by bill, Senate, No. 1500) of William Q. MacLean, Jr., Joseph B. McIntyre and Robert M. Koczera (with the approval of the mayor and city council) for legislation to authorize the city of New Bedford to use certain land for the construction and operation of a wastewater treatment plant and related facilities. State Administration.

The Commonwealth of Massachusetts

In the Year One Thousand Nine Hundred and Ninety-One.

AN ACT AUTHORIZING THE CITY OF NEW BEDFORD TO USE CERTAIN LAND FOR THE CONSTRUCTION AND OPERATION OF A WASTEWATER TREATMENT PLANT AND RELATED FACILITIES.

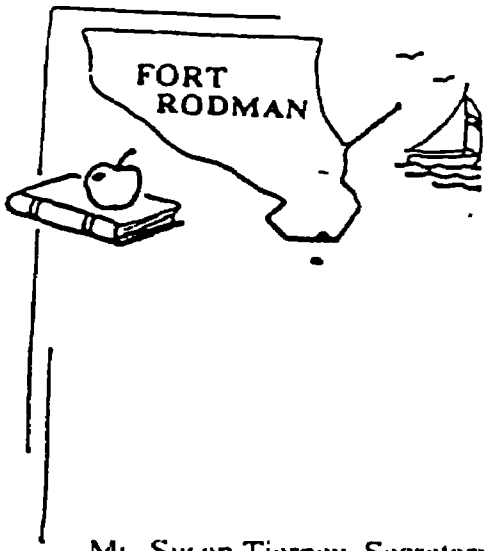
Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:

SECTION 1. Notwithstanding the provisions of any general or special state or local law or ordinance to the contrary, the City of New Bedford is hereby authorized to use certain land in said city, portions of which may have been or were acquired or used for public park, recreational or educational purposes, for the construction and operation of a wastewater treatment, collection, and disposal plant and related facilities, and for other facilities and uses, including but not limited to public and private education, recreation and historic facilities and uses, whether directly by said city or indirectly through its agents, lessees or others.

The land is bounded and described as follows:

Certain land in the City of New Bedford located in an area known as Clark's Point (Fort Rodman) and consisting of seven parcels of land, bounded and described as follows:

Parcel 1. Beginning at a point in the northerly line of Rodney French Boulevard (South), distant westerly therein 168 feet from the easterly line of Brock Avenue; then South 70°-09'-52" West in said northerly line of Rodney French Boulevard (South), 844.22



SAVE FORT RODMAN COMMITTEE
406 W. RODNEY FRENCH BLVD.
NEW BEDFORD, MA 02744
TEL. (508) 992-9659

August 8, 1991

Ms. Susan Tierney, Secretary
Executive Office of Environmental Affairs
Commonwealth of Massachusetts, MEPA Unit
100 Cambridge Street
Boston, Massachusetts 02202

Re: City of New Bedford, MA
Secondary Wastewater Treatment Plan
E.O.E.A. #6425

Dear Ms. Tierney:

On behalf of the Save Fort Rodman Committee and residents of the city of New Bedford, please find enclosed comments on Camp Dresser & McKee Inc's "Volume IX, Supplemental Environmental Impact Report Additional Information Final 1991." The comments address the issues of:

1. Relocations from Fort Rodman Site

2. Project Mitigation Taber Park

PERMANENT OFF-SITE RELOCATIONS

The permanent off-site relocations that must take place to locate the secondary Waste Water Treatment Plant at Fort Rodman involve educational programs. Early Learning Child Care Inc., PACE/Headstart, Alternative High School, and the Special Needs Program are in a unique educational setting at Fort Rodman. The Fort Rodman setting provides the students with a protected and secluded open space area separated from the traffic and activities associated with the inner city.

The City of New Bedford has had difficulty in obtaining for these programs an equitable and cost efficient alternative to there present facilities as proven by the numerous changes that the relocation plan has undergone. Currently, the City is to relocate the programs to various buildings -- the Hillman Street Complex, Thomas Greene School, and the Ben Rose Community Center. The buildings are in congested, heavily trafficked areas of the City and are in need of costly major renovations.

Early Learning Child Care Inc.:

Relocated to Building 6 of the Hillman Street Complex, this program services one hundred fifteen (115) students. The Hillman Street Complex houses many of the City's department and other offices. The proposed outdoor playground for the pre-school children is located across a major thoroughfare. Lead paint is present in the complex but its removal is not listed in any of the specifications. The presence of lead paint was one of the reasons why the Poor Farm site was eliminated as a relocation consideration. What will be the cost for removal of the lead paint?

Special Needs Program:

Relocated to Building 9 of the Hillman Street Complex, this program services the educational and recreational needs of thirty (30) handicapped adults.

Alternative High School:

Relocated to Building 5 (Girl's Gym) of the Hillman Street Complex, this program services one hundred (100) special needs students. The young people enrolled in this program are students that cannot conform to a structured educational atmosphere and also have difficulty functioning in a typical classroom setting. Representatives of the New Bedford School Department, recalling when the Alternative High School was originally at Hillman Street, stated that the program had been a complete failure there. Due to the Hillman Street Complex being a multi-use building, it was difficult to maintain control over who was entering and exiting the building. As a result, the Alternative High School's students found it easy to come and go from the vast complex. The moving of the program to Fort rodman eliminated many of the problems hindering the program and it became successful. The Fort Rodman site afforded the instructors privacy and security that enabled them to conduct their classes without outside interference and confusion. The instructors had a location to give troubled youth private guidance by removing them from a problem situation and walking with them around the grounds or on the beach. To relocate the program back into an atmosphere were it has already been proven unsuccessful is absurd. (See pictures of Hillman Street Complex)

The Hillman Street Complex is in need of major renovations involving work in the following areas. masonry is in need of cleaning and repair, repair and replacement of miscellaneous metals, flashing and sheet metal, metal roofing, and siding; sealants and caulking are required; metal windows; finish hardware; plaster work, including gypsum drywall; replacement of composite stone, ceramic tile, quarry tile, resilient flooring including carpeting, painting; hydraulic elevator, plumbing, sprinkler systems; HVAC system; electrical system; not mentioned are drainage, underground utilities, lead cleaning and lead paint removal.

The Specifications have since been recalled due to the omission of additional renovations that would be required on this building.

PACE/Head Start:

This program is to be relocated to the Thomas Greene School and to Ben Rose Community Center. This program is Federally funded and services two hundred forty (240) pre-school students from low-income families. Two hundred twenty (220) of the students will be relocated to the Greene School. The Greene School has been vacant for many years and has deteriorated. It is in a thickly settled and heavily trafficked location across from a public housing project. The school is situated on a corner lot with minimal play space. The outside area measures 5400 square feet and, therefore, does not meet the Federal criteria of seventy-five (75) square feet per pupil. A total of sixteen thousand five hundred (16,500) square feet would be required to meed Federal criteria.

The Thomas Greene School (see pictures enclosed) is in need of major renovations involving work in the following areas: unit masonry repairs; repairs and replacement of miscellaneous metals, building insulation flashing, sheet metal, sealants, caulking, glass and glazing, wood windows, finish hardware, gypsum drywall systems, resilient flooring, including carpeting, painting and finishing; hydraulic elevator.; plumbing, sprinkler, HVAC and electrical systems; not mentioned are drainage and underground utilities.

The specifications have since been recalled due to the omission of additional renovations that would be required on this building.

Ben Rose Community Center:

CDM has not included, in their report, that twenty (20) of the Head Start students will be permanently housed in the Ben Rose Community Center. This building is located in one of the most dangerous sections of the City due to the high crime and drug dealing activities that take place. Sometime during August 3, 4, and 5, 1991 the building was fired upon. Bullet holes can be seen in the windows and children's play equipment in the building. The safety of these children is in question. This is also evidenced by the fact that there are iron bars placed on all the windows of the center. The front of the building is painted over with drawings and the words "Rest in Peace" in very large letters. The building next door is vacant, boarded up, and labeled with no trespassing signs. The center's plan area of twelve hundred (1200) square feet also does not meet Federal Guidelines and abuts the back yards of the adjoining housing project. (See pictures enclosed.)

ON-SITE RELOCATIONS WITH TEMPORARY OFF-SITE MOVE

Sea Lab:

The Summer Marine Biology Program which services one hundred forty (140) students. It will be relocated during construction to a downtown location on the working waterfront and not to Roosevelt Junior High School as last stated by CDM.

All facilities needed to property conduct Sea Lab are not available at this location. Classroom space for one hundred forty (140) students is needed. While at Fort Rodman, the students had the advantage of a private beach for their water related activities and studies. Now the students will be bussed to West Beach which is heavily utilized by the public because it is the only City beach with lifeguards.

Camp Kennedy:

This Summer Recreation Program services two hundred ten (210) children. The temporary move is to existing school facilities and fields. Locating Camp Kennedy in a school setting lacks the outdoor seashore atmosphere associated with summer camp. For many of these city children, Camp Kennedy provides them with their only contact with an outdoor, open-space, sea-shore atmosphere. This will definitely be lacking while the camp is situated in a school setting.

Fort Rodman Marine Program:

This was previously referred to as the Low Tide Yacht club. It was given this new name in an attempt to justify its existence as a teaching program while, in reality, it is a private sailing club on city owned land.

The City of New Bedford has gone to great lengths to find locations for all these recreational and educational programs. The City established certain characteristics when reviewing potential sites: (1) already owned by the city, (2) suitable for the proposed program, (3) immediate availability, (4) of historic interest and in need of renovation, and (5) located in areas which would be compatible with the proposed use.

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After reviewing CDM's report and being familiar with the locations, questions must be raised regarding some of the characteristics. The immediate availability of these buildings is not guaranteed due to all the major renovation work that must occur. Also, the locations of the buildings themselves are not necessarily in areas appropriate as educational settings for the children. The process seems foolhardy and unnecessary when the current placement of these programs at Fort Rodman meets all the guidelines.

MITIGATION

The Access Road

The existing road into Fort Rodman is the main road to Fort Tabor and the educational facilities now located at Fort Rodman. Although the city lists the new access road as a mitigation measure, it is required as the main access to the new Waste Water Treatment Plant. This road will be utilized by the relocated programs -- Sea Lab, Camp Kennedy, The Fort Rodman Marine Program, The Soccer Field, and the general public who desire to use the park facilities. This is also the entrance to the historic district (Fort Tabor). All this will be shared with the daily functions at the Waste Water Treatment Plant and the sludge trucks that will be entering an exiting every hour. The road is not capable, in its present condition, of handling the sludge trucks, therefore, we feel this is a construction cost, not a mitigation cost.

Parking

The city has proposed two hundred twenty-nine (229) parking spaces. With the addition of the on-site relocated agencies, these parking spaces will be utilized by the instructors and personnel and fans and players of the relocated soccer field. How many spaces does that provide the public? This is a necessity brought on by relocation.

Gate House

The letter of March 21st from the City Planner states an elaborate network of security devices, including a gate house. As the Save Fort Rodman Committee reported previously, the city eliminated all but the gates that would be closed at dusk. This was reported to us at a meeting with the City Planner long before he reported this elaborate system to the agencies in the March 21st letter. The City Planner also stated that the gates would be locked at dusk. Since this is the main access road to the Waste Water Treatment Plant, how will the sludge trucks, which operate on an hourly basis, enter the Waste Water Treatment Plant?

Environmental Information Center:

The building that is proposed as an Environmental Information Center is identified as the building containing asbestos and is so labeled with a "Danger" sign. What will be the cost of making this building safe for public use? What organization will utilize this building?

Marine Program:

The vocational high school Marine Program has been eliminated at Fort Rodman. In the letter from the city dated March 21st, the City Planner stated that there were no plans to ask this program to move. However, the program is, in fact, moving and there will no longer be a Marine Program.

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The Vocational High School has had no recent budget cuts and as a matter of fact the Marine Program has just been awarded two (2) grants of $10,000 and $25,000 respectively. Boats have also been donated to the program for the use of the students.

South Rodney French Boulevard

South Rodney French Boulevard will not have the promised improvements described in earlier issues. The DPW's plan to widen the road is not a mitigation. This will have to occur before any improvements to the South side of the Boulevard can be made.

The Beach Restoration

The beach restoration is simply a clean up project. The buffer area is adjacent to the new access road and will be in disarray because of road construction that will be needed for the main access road for the Waste Water Treatment Plant.

Picnic Areas and Overlooks

CDM has only told us what they will not do. The only plans are to clean batteries and plant grass. Is this a mitigation?

Play Areas and Exercise Center

The large play area proposed will be provided for the agencies being relocated on-site. Will a park visitor be allowed to utilize these playground features during the summer months when Camp Kennedy is in session?

Fort Tabor Site Improvements

The city plans to secure the historic Fort Tabor and clean it up. This is solely for cosmetic purposes and will not allow tourists or students, or the public to tour this unique attraction. The city plans to have signs to tell visitors what is contained in Fort Tabor instead of allowing walking tours.

The location of the present Waste Water Treatment Plant will be graded and seeded. This plant will be demolished no matter which location is selected for the new Waste Water Treatment Plant. This is not a mitigation. It should be a construction cost. Fort Rodman would gain this area without the construction of a new plant.

Path System

The construction of a path system is one of the few additions to this property that does not fall under a construction or relocation category.

Multi-use Playing Field

Due to the fact that the city could not relocate the Federally Funded Soccer Field, it has been relocated on-site with parking for forty (40) cars. There are a multitude of soccer players associated with this league that will be using this field. The parking lot associated with this field will not even accommodate the teams, manages and coaches. This will eliminate the parking lot from public use.

Sea Lab

Sea Lab which is an on-site relocation will be housed in two refurbished buildings and one newly constructed building at the entrance to the site. Parking spaces will be made available. This on-site relocation will mean a down-sizing of Tabor Park. This Marine Program, as part of the

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curricular, will utilize the beaches and therefore limit the area for public use. The school will be located outside of the security gate.

Howard Avenue

The Howard Avenue Pumping Station was required to accept septage of the leaching beds from the surrounding towns. This was a mitigation measure not mentioned with the on-site mitigations but it was a mitigation measure only on Site 1A (Fort Rodman). This proposal was undertaken to eliminate the additional truck traffic that would be traveling through this residential neighborhood. The estimate of ninety (96) trucks per week (192 round trips) would add a substantial burden to the already significant truck traffic that the Waste Water Treatment Plant would generate.

There is no mention in the mitigation section as to where the septage trucks would deposit to if Howard Avenue is not an acceptable location. This is also an added expense as there would be no need for a second septage depository if The Standard-Times Field, Site 4A, is the location of the Waste Water Treatment Plant.

SUMMARY

We are concerned about the on-going changes to the mitigation plans at Fort Rodman.

The draft states that the park area has increased due to the down-sizing of the Waste Water Treatment Plant. We note, however, that the original plan for the Fort Rodman complex was to only include the Fort Taber Historic District, the Low Tide Yacht Club, Sea Lab, and the Waste Water Treatment Plant. The remainder of the property was to be developed for a public park. Due to the inability of the city to relocate Camp Kennedy and the federally funded soccer field, these programs are now remaining on the Taber Park site. The latest plan calls for the following on-site additions:

1. Sea Lab: One (1) newly constructed building, two (2) renovated buildings, and parking facilities.

2. Camp Kennedy will occupy four (4) renovated buildings, outside recreational areas, beach privileges and parking facilities.

3. The Fort Rodman Marine Program (formerly Low Tide Yacht Club, a private boating facility) will occupy three (3) renovated buildings and control of the renovated boat house facilities.

4. Federally-funded Soccer Field: used by a soccer league and has parking for forty (40) cars. This area was previously designated for a multipurpose playfield.

These additional nine (9) buildings and parking facilities will take an enormous area of Taber Park from public use. The on-site presence of these programs points out the impossibility and inability of the City to find locations of equal atmosphere and surroundings for them. It also means that any money spent in relation to these programs must come from relocation funds.

The Mayor announced, on several occasions, that $7.3 million had been earmarked for mitigation and neighborhood improvements. This was to give the host neighborhood so-called

"sweeteners" to lessen the impact of the Waste Water Treatment Plant. Relocation funds, however, were to be a separate category with separate funding.

Most of the area designated for "public use", except for the jogging paths, grassed areas and parking areas are on the site of the present Waste Water Treatment Plant. This area will be available for this use without the presence of a Waste Water Treatment Plant on this site.

The Army, despite being an economic advantage to the city, is already a casualty of the proposed Waste Water Treatment Plant siting. The most recent casualty is the Vocational Marine Program.

The City-run Agencies are remaining on-site while the educational facility, having a choice, is moving out. This should point out that being on a complex with a Waste Water Treatment Plant is not where an educational program would choose to locate. We feel that locating the federal and city agencies on-site would be detrimental. CDM states that even the best constructed Waste Water Treatment Plants will have odors.

The Save Fort Rodman Committee would like to request that the agencies not allow the Waste Water Treatment Plant to be built on Fort Rodman because they too recognize the fact that the City is unable to fulfill the mitigation or off-site relocation plans that were proposed. Additionally, this proposal calls for the hourly trucking of sludge which would prove a disruption to the on-site educational facilities, the neighbors in a residential 'A' neighborhood, a highly utilized public recreational and beach area, and the entire peninsula.

There is another alternative Site 4A, The Standard-Times Field, which is located off a four-lane highway and is properly zoned. This site can be obtained immediately as the land is to be auctioned off on August 28, 1991. The City could obtain this property at a tremendous cost savings.

The Mayor has announced he would like to go ahead with a $30 million loan to begin with relocations. However, current agencies could remain on site with the repairs they may need being made with other funding. The site of the current Waste Water Treatment Plant which will be demolished as part of the construction cost could become part of a park and be funded with the $900,000 grant which the Mayor has already acquired. Fort Tabor would then be able to be designated an "historic building" making it eligible for funds to restore it and allow it to finally become the tourist attraction it would never be with a Waste Water Treatment Plant as its neighbor.

The Mayor has said that the reasons for selecting Fort Rodman as his preferred site were:

1. The Standard-Times Field is privately owned and he frowned on acquiring land by eminent domain.

   This land has been foreclosed on and is on the auction block. Our sources have informed us it could be acquired for $2 million dollars

2. That Fort Rodman is already City owned land

   The millions of dollars needed to relocate agencies presently occupying the site and the mitigation measures needed to justify this selection will far exceed the $2 million needed to acquire the Standard-Times Field.

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3. Fort Rodman is in need of repair.

There are repairs needed on some of the buildings. These projects can be addressed and funded through other means. The city has already received a $900,000 Grant to be used at Fort Rodman. These funds could be the beginning of making Fort Rodman a "true park", and gaining acceptance as a National Historic Landmark. New Bedford would finally have a true seashore tourist attraction that would be enjoyed for generations. All of which will not be possible if a Waste Water Treatment Plant is allowed to locate at the site.

If there are any questions concerning this report, please feel free to call:

Marilyn Pontes (508) 993-6076
Natalie Arnett (508) 992-9659

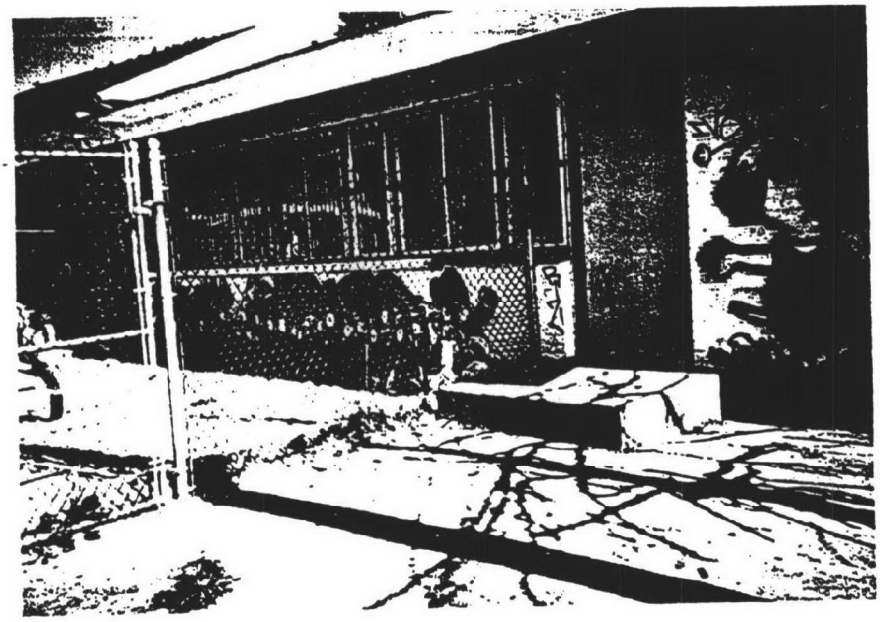
Respectfully submitted,

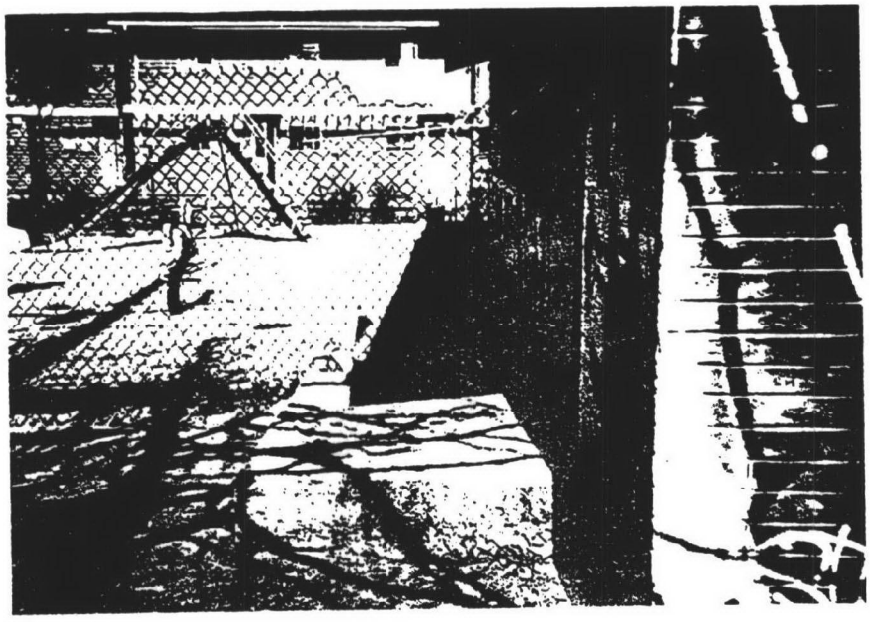
Marilyn Pontes

MAP:mao

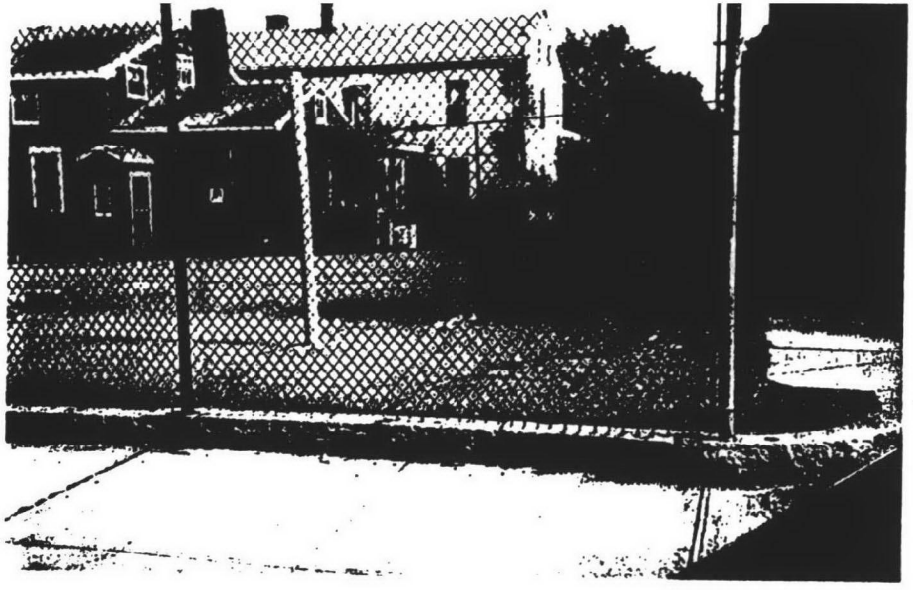
Enclosures

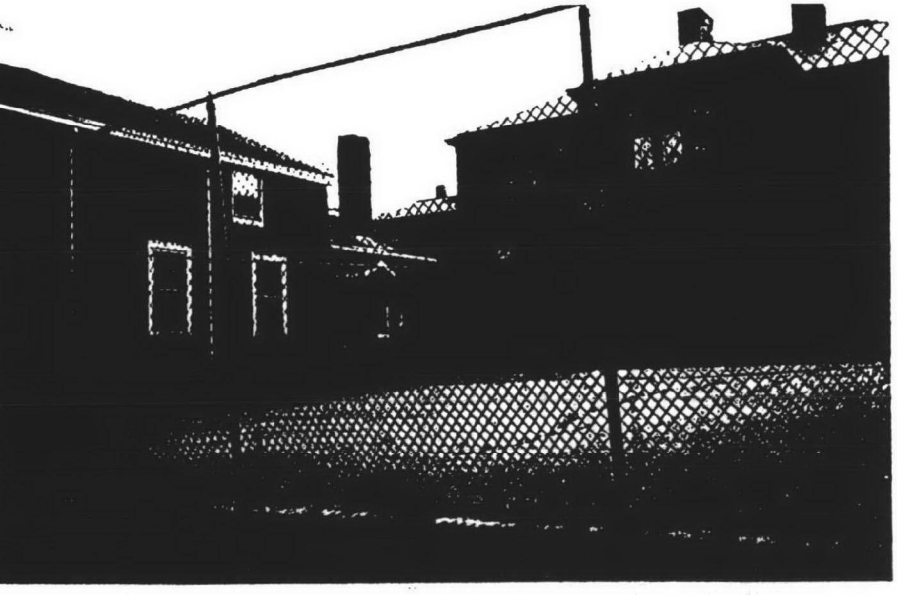
cc: Ms. Susan Coin, E.P.A.
Mr. Alan Slater, MA. DEP
Mr. Jan Smith, MA. CZM





PACE/Head Start
Permanent relocation Site for 20 Pre-school Children





PACE/Head Start
Relocation Site for 220 Head Start Pre-school Children
(Greene School)

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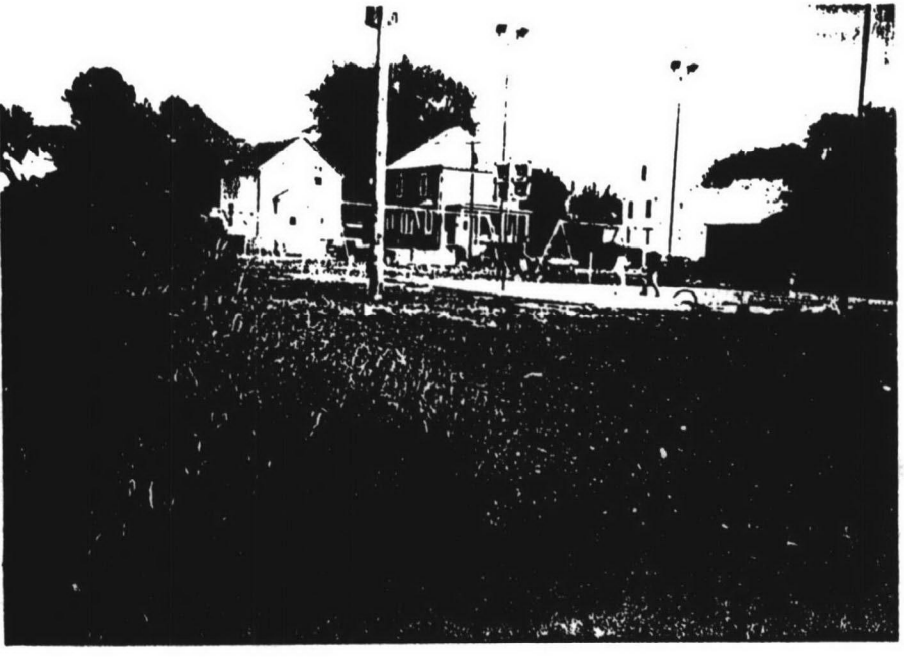

HILLMAN STREET COMPLEX

Relocat ite for Early Learning Child Care, Inc., Spe Needs Program, and Alternative High School

CDM

environmental engineers, scientists, planners, & management consultants

CAMP DRESSER & McKEE INC.

Hospital Trust Tower
One Hospital Trust Plaza
Providence, Rhode Island 02903
401 751-5360

12 August 1991

03

Ms. Ann Rodney
Water Management Division
U.S. EPA, Region 1
JFK Federal Building, WQE
Boston, MA 02203

Dear Ms. Rodney,

For the City of New Bedford, we are writing to submit comments on the Final EIS for the New Bedford Wastewater Treatment Facilities.

We found the document generally to be accurate and consistent with the City's Facilities Plan/EIR. On one component of the recommended plan, the outfall location, the EIR and EIS disagree. It is our opinion that the additional cost of the 301(h) site is prohibitive and unwarranted, given its associated environmental benefits and detriments. The City believes that use of the existing outfall, without a diffuser, is the best practicable option at this time. We are aware that this issue will be the subject of future negotiation, and look forward to its resolution at the appropriate time.

Specific comments are discussed below.

1. Page 2-1: The text states that DO data were not available for the lower meter for station M2 in September. Figure 2.3 of the FEIS shows that data were available from this station begining September 6. The text also implies that the DO data for M2L missed the "non-critical period." Actually, we did collect and present data at M2L during this period, which occurred in mid-September when M3L experienced its longest duration excursion below 6 mg/l.

2. Page 2-9: We are unclear about the "area" in the statement "the area around station M3 occasionally exhibits a distinctly local DO pattern." The 1988-89 measurements (see Volume IV, Section 4 of the final FP/EIR) show that the SOD at station B3 (that closest to M3) was typically in the middle of the range of other stations. This fact does not support the idea of a local DO pattern at this station.

3. Page 2-13: Portions of Section 2 discuss the role of the Inner Harbor as a major contributor of DO-demanding material (e.g., BOD) to the Outer Harbor. We wish to point out further that the lowest DO levels measured were in the Inner Harbor, making this water a direct contributor of low DO water to the Outer Harbor.

4. Page 2-25: We feel that the conservative method used to approximate the loading from the Inner Harbor may significantly overrepresent the load from this source. First, the station inside the Inner Harbor is not very distant from the Fairhaven WWTP discharge, which could raise nutrient concentrations. Second, the value depends highly on the assumption that the total volume of the tidal prism is well mixed with Outer Harbor water before a change of tide (i.e., the tide flowing in).

5. Page 4-24: The current shellfish closure around the outfall terminus is due to coliform bacteria levels, not PCBs as stated in the text. The lobster and bottom fish closure is partially due to PCBs.

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6. Page 4-29: The FEIS responds to an MCZM comment regarding the need for an Ocean Sanctuaries Act (OSA) variance. The response was incorrect, as the City has not applied for a variance from the OSA. The variance may not be required, and we will be pursuing this question with Massachusetts Department of Environmental Management (DEM), the administering agency. (Please note also that DEM has not promulgated the OSA variance regulations as of this date.) If DEM determines a variance is required, the City will apply for the permit.

7. Page 5-26: This section discusses the archeological investigations at Site 47. Since publication of the FEIS, the Massachusetts Historical Commission has determined that the site contains no archaeological resources eligible for listing. Thus, the project can proceed without further study or mitigation.

8. Page A-7: The analysis of existing conditions in the FEIS uses an SOD of 1.5 g-O^2/m^2/day. The FEIS does not attribute the source of this value. The highest value of measured SOD during the 1988-89 field program was 1.26 g-O^2/m^2/day (see Table 4-9 of Volume IV). In the SOD analysis for the final FP/EIR (see Section 8.0 of Volume IV), we suggested that the most appropriate way to estimate SOD across the Outer Harbor was to use the average of the highest measured SODs from the outfall station and its two flanking stations. This resulted in a value of 1.1 g-O^2/m^2/day.

Thank you for the opportunity to comment on this document. Please call Bernadette Kolb at (617) 252-8000 if there are any questions.

Sincerely,

CAMP DRESSER & McKEE INC.

for Stephen J. Hickox
Senior Vice President

cc: Mike Glinski, New Bedford
Jim Small, CDM
Joe Ridge, CDM
Bernadette Kolb, CDM
Susan Coin, EPA
Alan Slater, DEP

Commonwealth of Massachusetts
Executive Office of Environmental Affairs
Department of Environmental Protection

Daniel S. Greenbaum
Commissioner

04

August 12, 1991

Ann Rodney
U.S. EPA, Region I
WQE, JFK Federal Building
Boston, MA 02203

Re: New Bedford
Final EIS

Dear Ms. Rodney:

The Department of Environmental Protection (DEP) has reviewed the Final Environmental Impact Statement (July 1991) for Wastewater Treatment Facilities for the City of New Bedford, MA. DEP is in agreement with the recommendations of the EIS with the exception of the following comment:

We disagree with the EPA position that some defined area of the receiving water would need to be downgraded from SA to SB if site specific criteria for the area of the discharge are adopted. It is DEP's position that reclassification is not necessary required if site specific criteria are adopted. The EPA and the DEP, Bureau of Resource Protection, Division of Water Pollution Control will need to further discuss this matter relative to its implications for the New Bedford project in specific and the application of the state Water Quality Standards in general.

Thank you for the opportunity to comment on this document. If you should have any questions, please call Alan Slater of my staff at (617) 292-5749.

Very truly yours,

Paul A. Taurasi, P.E.
Assistant Commissioner

PAT/ADS/nm

cc: Camp Dresser & McKee, Attn: James W. Small
Coastal Zone Management, Attn: Jeffrey R. Benoit
Russell, Isaac, DWPC, TSB

Polaroid Corporation
100 Duchaine Boulevard
New Bedford, Massachusetts 02745

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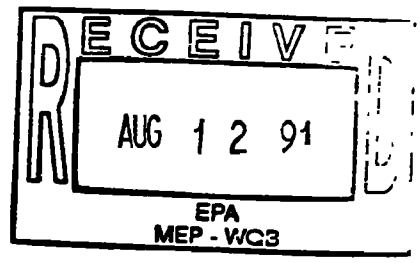
August 12, 1991



BY HAND

Ms. Ann Rodney
Program Assistant
U.S. EPA, Region I
Water Quality Branch, WQE
One Congress Street - 11th Floor
Boston, Massachusetts 02203

Re: Final Environmental Impact Statement
Wastewater Treatment Facilities
City of New Bedford, Massachusetts

Dear Ms. Rodney:

Polaroid has reviewed the Final Environmental Impact Statement ("Final EIS") for the Wastewater Treatment Facilities for the City of New Bedford (the "City"), as well as the Draft Environmental Impact Statement ("Draft EIS") and portions of the Wastewater Facilities Plan submitted by the City to the MEPA Unit of the Massachusetts Executive Office of Environmental Affairs ("EOEA"). This letter summarizes Polaroid's comments on these documents and addresses more particularly the responses contained in the Final EIS to Polaroid's previous comments on the evaluation of sludge disposal site alternatives.

I. Summary

The sludge disposal sites proposed by the City include Site 40, which is owned by Polaroid and which is located adjacent to Polaroid's New Bedford plant. Polaroid has significant concerns about the potential environmental impacts on Polaroid's sensitive manufacturing operations that could result from placement of a sludge disposal landfill on Polaroid's New Bedford property, and the Company has raised

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these concerns in its comments on the Draft EIS which were submitted on February 12, 1990 (copy attached as Exhibit A) and its comments submitted to the MEPA Unit. In addition, in July 1990, Polaroid furnished the City's consultant, Camp Dresser & McKee, Inc. ("CDM"), with a report (copy attached as Exhibit B) prepared at Polaroid's expense by Dr. Edgar B. Gutoff, a chemical engineering consultant, to facilitate consideration of potential impacts on Polaroid's sensitive manufacturing operations of a sludge landfill located at Site 40. These submissions document Polaroid's efforts to ensure that the potential impacts of a sludge disposal landfill at Site 40 are properly evaluated as part of the NEPA review process. Based on its review of the Final EIS, Polaroid believes that its concerns have not been adequately addressed in this process.

According to the Final EIS, EPA decided not to address all of Polaroid's concerns therein because the City's recommended plan does not call for the use of Site 40 for sludge disposal unless the two preferred alternatives, the Crapo Hill Landfill and Site 47, cannot be used. In addition, the Final EIS contains numerous statements that further study would be needed if Site 40 were to be used for sludge disposal. Nevertheless, the Final EIS has listed Site 40 as an acceptable management option for solids disposal. Final EIS, Table 5.8. Indeed, the Final EIS states: "All of the options listed in Table 5.8 have been determined to be environmentally acceptable to EPA." Final EIS at 5-15. See also Final EIS at 5-25. This determination is clearly inconsistent with the fact that many issues relative to Site 40 have not been addressed and the statements throughout the Final EIS that selection of Site 40 will necessitate further study. The determination is particularly disturbing in light of the significant questions about whether it will be possible to use the Crapo Hill Landfill or Site 47 for sludge disposal.

Polaroid believes that the attention to issues relative to Site 40 has been inadequate to support any determination that the site is acceptable for sludge disposal. In addition, Polaroid is concerned that the determination of acceptability could allow the City to select Site 40 for sludge disposal without properly addressing Polaroid's valid concerns in the NEPA review process. Accordingly, Polaroid believes that EPA's Record of Decision should retract the determination of acceptability for Site 40 and make clear that, based on current information, Site 40 is not acceptable for sludge disposal. Polaroid also believes that the Record of Decision should state that Site 40 should not be considered further as a sludge disposal option unless and until appropriate evaluation of all

outstanding issues has been completed and a supplemental EIS has been issued. This approach would be similar to that taken by the Secretary of the Massachusetts EOEA and would not preclude approval of the City's current recommended plan to allow the design process to go forward, if EPA considers such approval appropriate.

II. Discussion

A. Background

Polaroid owns two parcels of land in the New Bedford Industrial Park -- a 126-acre parcel which is the site of the Company's unique film negative manufacturing operation and will be the site of a new Polaroid manufacturing facility now under construction, and an adjacent 390-acre undeveloped parcel which includes Site 40. Polaroid has studied its undeveloped property in connection with the proposed construction of a cogeneration facility by Eastern Energy Corporation ("EEC") on a portion of the undeveloped land. As a result of this study, Polaroid concluded that one-third of the land should be retained for Polaroid's future needs and that two-thirds of the land could be used for industrial development by others, such as EEC, provided that such development is compatible with Polaroid's current and future operations. Accordingly, Polaroid is concerned about the potential impacts of a sludge disposal site on operations at its existing and planned manufacturing facilities, as well as on the future use of Polaroid's undeveloped land by the Company or for possible industrial development by others.

Polaroid's existing New Bedford film negative manufacturing plant employs 450 people and produces coatings which are very sensitive to environmental agents. This facility manufactures 99% of the Company's light-sensitive silver halide-based coatings which are used by other Polaroid plants throughout the world. The Company's new facility now under construction will employ between 100 and 150 people and will manufacture new imaging products, with the primary product being a laser-type imaging product. An important factor in Polaroid's choice of New Bedford as the location for its facilities was the City's clean air and water, both of which are necessary in the manufacture of the Company's photosensitive materials. Another factor was the availability of the City water supply and a groundwater supply to accommodate future expansion. The existing New Bedford facility is the heart of Polaroid's world-wide photographic film operations, and, therefore, any potential detrimental impacts of the sludge disposal operation are of tremendous concern to the Company.

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B. Polaroid's Comments on Draft EIS

1. Introduction

Because the Final EIS does not provide substantive responses to most of the issues raised in Polaroid's comments on the Draft EIS, it is appropriate to reiterate the most important of those issues. In its comments on the Draft EIS, Polaroid urged that the City's wastewater facilities plan and the EIS address fully, both in scope and in depth of technical analysis, the proposed sludge site's potentially serious impacts on Polaroid's ability to continue its operations in New Bedford, as well as on plans for future use of Polaroid's undeveloped property. Polaroid expressed concern that its very sensitive coating process could be disrupted, or its products harmed, by air or water pollutants from the sludge itself, from chemicals used to attempt to render the sludge inert or to control air emissions, or from construction and operation of any sludge disposal facility on the site.

2. Air Pollution

In particular, Polaroid stated its belief that the Draft EIS's analyses and conclusions regarding air pollutants based on a predicted composition of the sludge derived from literature, rather than from experience in New Bedford, were insufficient, and the Company requested that the potential air emissions actually be identified and that field contamination tests be performed on Polaroid's film products to determine the impact of such emissions. Polaroid listed certain chemicals known to adversely affect Polaroid's operations, even if present in only small concentrations. These include mercury compounds, nitro-substituted compounds, phenazines, thiazines, sulfur compounds, aldehydes, iron compounds, lead compounds, tin compounds, bacteria, and all strong reducing agents. Polaroid noted that impacts of the sludge disposal facility which may not be harmful to the environment or the public health may still have a detrimental effect upon Polaroid's operations and products. In this regard, Polaroid pointed out that EEC had already participated in tests on Polaroid film products in connection with the proposed cogeneration facility, in order to assure Polaroid that EEC's emissions would not harm Polaroid's film negative manufacturing operations and possibly threaten the entire Company's film business. Polaroid asked that determinations be made as to whether these chemicals could be expected to be present due to operation of the sludge disposal site and whether the amounts present could affect Polaroid's products and operations.

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3. Water Quality and Supply

With respect to impacts on water quality, Polaroid urged that the EIS indicate clearly whether Site 40 is within the Zone 2 boundary of any existing or potential water supply well and that it consider whether the use of Site 40 for sludge disposal would comply with applicable regulations governing the location of such facilities. Polaroid observed that the location of the sludge disposal operation in such close proximity to a water supply would constitute a "significant" rather than a "moderate" constraint on the use of Site 40 as a sludge disposal facility. Polaroid also expressed concern that siting the proposed sludge disposal operation on Site 40 could result in the leaching of materials harmful to the Company's operations into the groundwater supply. Polaroid noted that, although the facility would have a double liner and leachate collection and monitoring system, no mechanical or manmade system can be totally reliable. In addition, Polaroid asked that the EIS address the expected life of the liner, the possibility of premature liner failure, and measures to be taken to respond to leaks and the effectiveness of such measures. As to the potential impacts of the sludge disposal facility on future water supplies, Polaroid noted that, due to increased demand on the City's existing surface water supplies, Polaroid's operations might require groundwater from the site or the vicinity in the future, and thus Polaroid expressed reservations about any operation which could jeopardize the quality of that groundwater.

4. Other Environmental Issues

In its comments on the Draft EIS, Polaroid also stated that sludge and runoff from the proposed sludge disposal facility could contaminate soil and surface water, and the Company expressed concern about such impacts on both its property and the environmentally sensitive Acushnet Cedar Swamp State Reservation. Polaroid raised questions about the extent and contours of wetlands on and adjacent to Site 40, and stated that the capacity of Site 40 for sludge disposal may have been overestimated. In addition, because of the proximity of Site 40 to Polaroid's facility and to a possible future expansion area for the Company, Polaroid stated concerns about the potential negative effects of the sludge disposal site in the areas of public health, aesthetics, noise, and odor.

5. Land Use Conflicts

Finally, Polaroid pointed out that the EIS did not adequately address conflicts between the proposed sludge

disposal operation and alternative potential uses of Polaroid's undeveloped land or the impediments to acquisition and use of such land for sludge disposal. As noted above, one such plan for the property is for EEC's cogeneration plant, which would: (a) make Polaroid more competitive by providing energy directly to Polaroid; (b) provide approximately 600 construction jobs and 80 full-time jobs; (c) provide additional tax revenues to the City; and (d) supply southeastern Massachusetts with much needed electrical energy for schools, homes, and businesses.

C. June 1990 Report by Edgar B. Gutoff

To ensure that impacts on Polaroid's products and processes were given due consideration in the City's planning process, Polaroid engaged Dr. Edgar B. Gutoff, a consulting chemical engineer whose specialties include photographic emulsions, to identify, in a preliminary way, the potential risks to Polaroid's sensitive operations and products posed by the use of Polaroid's property for sludge disposal. Dr. Gutoff was formerly employed by Polaroid and is thus very familiar with Polaroid's operations and products. Dr. Gutoff's report highlighted the potential impacts on Polaroid's processes and products which should be more extensively evaluated prior to selection of Site 40 as a sludge disposal site. This report was furnished to the City's consultant, CDM, in July 1990.

Dr. Gutoff's report documented the extreme sensitivity of photographic manufacturing processes and products to numerous contaminants. In particular, Dr. Gutoff's research showed that such processes and products are sensitive to oxidizing and reducing agents, materials that can affect pH, sulfur compounds, metals, and organics. Dr. Gutoff pointed out that many of these photographically active substances are known to be present in the influent to the New Bedford wastewater treatment plant and in the primary sludge from the plant and can be expected to be present in the sludge disposed of at whatever disposal site is selected. He also explained that additional photographically active substances may be formed during or as a result of the wastewater and sludge treatment process. Thus, according to Dr. Gutoff, the sludge could well contain constituents which would negatively affect Polaroid's processes and products.

Dr. Gutoff's report discussed the fact that photographically active constituents of the sludge will inevitably be released from the sludge disposal facility via air emissions or leachate. He reinforced Polaroid's concern that complete capture of all contaminants cannot be expected

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even in a "best case" scenario, and noted that, while safeguards and stabilization are planned, human error and mechanical failure could allow the release of these substances into the air or into groundwater in such a way that they would affect Polaroid's processes and products. Dr. Gutoff pointed out that the City predicted the eventual generation and venting of "landfill gas" composed primarily of methane, carbon dioxide, trace organic compounds, and reduced sulfur compounds, and that such venting of gases could significantly affect Polaroid's highly sensitive processes. In addition, he concluded that Polaroid's future use of a well on its property for process water could be affected by contaminated leachate emanating from a sludge disposal site.

Dr. Gutoff's report raised serious questions about the possible impacts of a sludge disposal facility on Polaroid's sensitive processes and products, none of which were considered when Site 40 was selected as an alternative sludge disposal site. Polaroid submitted Dr. Gutoff's report to the MEPA Unit amd to the City's consultant, CDM, and, based on the report, Polaroid requested that the City evaluate potential impacts of the sludge landfill on Polaroid's operations and products. Polaroid further requested that any costs of modifying Polaroid's plant and processes to eliminate environmental impacts of the sludge landfill be assessed and factored into the siting decision. Polaroid asserted that, unless the City of New Bedford can demonstrate that negative impacts to Polaroid's processes and products will not occur, the sludge landfill should not be sited in the vicinity of Polaroid's facility.

D. Polaroid's Comments on Final EIS

1. Introduction

The Final EIS acknowledges many of Polaroid's comments on the Draft EIS, but it repeatedly states that EPA did not choose to respond to Polaroid's concerns because the City's recommended plan does not include sludge disposal at Site 40. See, e.g., Final EIS at 4-3 (sludge composition), 4-8, 4-9 (wetlands delineation), 4-21 (groundwater impacts). In addition, the Final EIS states that a number of significant issues would require further analysis before Site 40 could be selected for sludge disposal. These issues, which are discussed in greater detail below, include air pollution impacts, water quality and supply impacts, wetlands delineation, and land use conflicts.

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In spite of the foregoing, the Final EIS lists Site 40 as an acceptable management option for solids disposal. Final EIS, Table 5.8. See also Final EIS at 5-15, 5-25. Furthermore, this designation could be used to justify selection of Site 40 by default, without further evaluation in the NEPA review process, if the City's preferred sludge disposal sites cannot be utilized. This scenario is a real possibility given the limitations and uncertainties associated with use of those sites. See Final EIS at 4-7, 4-9, 4-14, 4-15, 5-10.

2. Air Pollution

The Final EIS acknowledges Polaroid's concerns about the sensitivity of the Company's products and processes and the potential effects of air contaminants that may be associated with municipal sludge. The EIS states, in fact, that there have been odor and consistency problems with the sludge fixation process (ChemFix) proposed by the City. Final EIS at 4-17. Furthermore, the EIS indicates the need for mitigation measures to address certain air pollution issues, see Final EIS at 4-3, 4-17, and apparently assumes that such measures will be available and will be implemented. However, because the recommended plan does not include sludge disposal at Site 40, the Final EIS denies Polaroid's request that the actual composition of New Bedford's sludge and its potential air quality impacts on Polaroid's products and operations be evaluated.

In light of EPA's characterization of Site 40 as an acceptable option for sludge disposal, Polaroid believes that the Final EIS's manner of addressing air pollution issues associated with sludge disposal is inadequate. Polaroid is particularly concerned about the reliability and effectiveness of the proposed fixation process and the system planned to contain air emissions at the sludge disposal site and about the risk that emissions of harmful gases or particles from the landfill may affect Polaroid's ability to operate at its present location. While the proposed fixation system and gas collection system may be considered adequate for some purposes, they may not be adequate at Site 40 given the ultra-sensitive nature of Polaroid's products and processes.

Based on the air pollution issues raised in Polaroid's comments on the Draft EIS and Dr. Gutoff's report, Polaroid believes that EPA should require, prior to any determination of acceptability regarding Site 40 and any further consideration of the site for sludge disposal, studies based on the actual

composition of the City's sludge to determine whether the proposed stabilization process and any mitigation measures necessary in connection with maintenance of the landfill or the capture of air emissions will ensure protection of Polaroid's sensitive processes and products from all possible harmful air contaminants./1/ Polaroid also believes that EPA should commit to the issuance of a supplemental EIS regarding these issues to ensure full public review of such matters.

3. Water Quality and Supply

The Final EIS recognizes the validity of Polaroid's concerns that a sludge landfill might adversely affect water resources in the vicinity of Site 40 and that this could affect both Polaroid's ability to use the groundwater for its current and future operations and the City's ability to use the groundwater for a public drinking water supply. Indeed, the Final EIS states that "[t]he major impact associated with operation of a sludge disposal landfill at Site 40 would be potential contamination of groundwater." Final EIS at 4-22. In addition, the Final EIS acknowledges the need for mitigation measures to protect water resources and the uncertainty about the extent of groundwater resources in the area of Site 40. However, it defers, or declines to evaluate, several major issues relating to surface water and groundwater and indicates that EPA has decided to rely on other reviewing agencies to ensure that water quality and supply are protected. Final EIS at 4-21, 4-22.

In light of the determination that Site 40 is an acceptable option for sludge disposal, Polaroid believes that EPA's abdication of responsibility for evaluating the acknowledged potential impacts of a sludge landfill on valuable water resources is an inadequate response to the concerns raised by the Company. Polaroid believes that the potential water quality impacts of sludge disposal at Site 40 on the Company's sensitive processes and products must be carefully evaluated prior to any determination that Site 40 is acceptable for a sludge landfill, and the Company is particularly concerned about the effectiveness and reliability of the liner and

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/1/ In determining the toxicity of the sludge in connection with such studies, Polaroid believes that EPA's current toxicity characteristic leaching procedure, not the superseded EP toxicity test, should be utilized. See Final EIS at 4-15.

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leachate collection system proposed for the landfill. In addition, Polaroid believes that the impacts of sludge disposal at Site 40 on the Company's and the City's possible future use of groundwater in the area must be evaluated. In this regard, in a letter dated September 25, 1990 (copy enclosed as Exhibit C), Polaroid provided the City's consultant with information on groundwater resources in the area and with a drawing indicating the locations of groundwater wells on Polaroid's property. According to a 1976 report prepared for Polaroid by D.L. Maher Co. (copy attached as Exhibit D), Wells No. 2 and 8 as shown in the aforementioned drawing offer potential for development. Based on preliminary testing, the report concludes that Well No. 2 would have a maximum yield of 111 gallons per minute ("GPM"), or approximately 160,000 gallons per day ("GPD"), and that Well No. 8 would have a maximum yield of 1076 GPM, or approximately 1,550,000 GPD. The Final EIS recognizes the need to evaluate the zones of contribution for wells such as these and to re-examine the determination of acceptability. Final EIS at 4-22, 4-23.

Based on the foregoing and on Polaroid's comments on the Draft EIS, there remain, even by the standards stated by EPA in the Final EIS, significant unresolved water quality and supply issues relating to the acceptability of Site 40 for sludge disposal. Polaroid believes that EPA should require, prior to any determination of acceptability regarding Site 40 and any further consideration of the site for sludge disposal, a thorough evaluation of the water quality and supply issues to determine whether Polaroid's operations and valuable water resources will be protected, and should commit to the issuance of a supplemental EIS regarding these issues to ensure full public review.

4. Wetlands Delineation

According to the Final EIS, there remain significant questions concerning the extent of wetlands on Site 40, which is in the vicinity of the Acushnet Cedar Swamp. The EIS indicates that such wetlands might be affected by erosion of surface soils during construction and subsequent sedimentation, and that mitigation measures would therefore be needed. Moreover, the Final EIS states that the federal wetland boundary has not been verified because Site 40 is not part of the City's recommended plan, and that if the City proposes to use Site 40 for sludge disposal, "EPA will assess any new information provided prior to making a determination of acceptability." Final EIS at 4-8, 4-9.

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The foregoing is contradicted by Table 5.8 of the Final EIS, which states that use of Site 40 for sludge disposal is an acceptable option. See also Final EIS at 5-15, 5-25. Polaroid agrees that a delineation of wetlands on Site 40 is needed and believes that the results of such a delineation, as well as evaluation of wetlands impacts and identification of necessary mitigation measures, are important to determining the suitability of Site 40 for sludge disposal. Accordingly, Polaroid believes that EPA should require evaluation and resolution of these issues prior to any determination of acceptability regarding Site 40 and any further consideration of the site for sludge disposal, to determine whether Site 40 is appropriate for such use, and should commit to the issuance of a supplemental EIS to ensure full public review of these issues.

5. Land Use Conflicts

The Final EIS correctly concedes that "there are potential land-use conflicts associated with Site 40 that diminish its potential utility as a sludge disposal site." Final EIS at 4-12, 4-13. In particular, EEC is actively pursuing its plan to build a cogeneration facility on Site 40, and the likelihood of this project being carried out was greatly enhanced when the Massachusetts Energy Facilities Siting Council recently issued its conditional approval of EEC's petition to construct its facility. In addition, it should be noted that if Site 40 is taken by eminent domain, the City will be deprived of the significant employment and revenue opportunities that would result from development of the EEC facility and any other industrial facilities that might be constructed at the site. Moreover, the delays inherent in such a taking may make it difficult for the City to implement the sludge management component of its wastewater facilities plan in a timely manner. The foregoing factors continue to weigh against the selection of Site 40 for sludge disposal.

6. Conclusions and Recommendations

Polaroid objects to the inclusion of Site 40 in the list of acceptable management options, particularly in light of the fact that the Final EIS expressly reserves several key issues raised by Polaroid's comments on the Draft EIS and identifies significant environmental issues which must be reviewed in advance of use of Site 40 for sludge disposal. Polaroid is extremely concerned that the ambiguous message of the Final EIS regarding Site 40 could allow the site to be selected for sludge disposal without the timely consideration merited by the

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Company's serious concerns. Given the potentially significant obstacles to, and limitations on, the use of the City's recommended sludge disposal sites, the lack of evaluation of issues raised by Polaroid might ensure that these issues are not considered until Site 40 has been selected by default. This would be an unacceptable situation.

Polaroid believes that the Record of Decision must be consistent with the level of evaluation of Site 40 which has been performed and with EPA's own statements regarding the need for further studies prior to selection of Site 40. Accordingly, Polaroid believes that the Record of Decision should retract the determination of acceptability for Site 40 and make clear that, based on current information, Site 40 is not an acceptable option for sludge disposal. In addition, Polaroid urges EPA to require adequate evaluation of the issues raised in the Company's comments on the Draft EIS, in Dr. Gutoff's report, and herein, prior to any further consideration of Site 40 for sludge disposal. Polaroid further urges EPA to commit to the issuance of a supplemental EIS addressing these matters in order to provide an opportunity for public review and comment, as would have been the case if responses to Polaroid's comments had been provided in the Final EIS. As discussed herein, it is particularly important that the following matters be evaluated: (1) the actual sludge composition, the reliability and effectiveness of the sludge fixation process and planned mitigation measures, and the potential impacts of air emissions on Polaroid's products and processes; (2) potential surface water and groundwater impacts of the sludge disposal and the reliability and effectiveness of the liner and leachate collection system and planned mitigation measures; (3) the location of areas of contribution of existing and potential water supply wells; and (4) the location of wetlands, their effect on the suitability of the site for sludge disposal, and the potential impacts of sludge disposal on wetlands.

The issues raised by Polaroid and acknowledged by EPA in the Final EIS are more than sufficient to trigger the requirement for a supplemental EIS. The discussion in the EIS demonstrates that selection of Site 40 would be a fundamental change from the recommended plan, a change that is certainly "relevant to environmental concerns" and therefore necessitates a supplemental review under 40 C.F.R. § 1502.9(c)(1)(i), and that such a review would be entirely consistent with the objectives of NEPA. See 40 C.F.R. § 1502.9(c)(1), (2). Moreover, Polaroid is entitled to have a response to its previously submitted comments in accordance with 40 C.F.R.

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§ 1502.9(b), and failure to consider Polaroid's concerns in a timely manner would be contrary to the NEPA objectives stated in 40 C.F.R. § 1502.2(e) that "alternatives discussed in environmental impact statements shall encompass those to be considered by the ultimate agency decisionmaker."

The approach described above would not preclude EPA from approving the City's recommended plan, if the Agency considers such action appropriate, to allow the design process to go forward. Indeed, this approach would be similar to that adopted by the Secretary of the Massachusetts EOEA in his November 26, 1990 Certificate, which requires the submission of an additional Supplemental Final Environmental Impact Report covering a number of issues, including sludge landfill siting. However, such action would ensure that the valid concerns raised by Polaroid are evaluated and that the analyses necessary to satisfy the requirements of NEPA are conducted at a meaningful time in the decision-making process.

Sincerely,

POLAROID CORPORATION

Edward Bretschneider OB

Edward Bretschneider
Plant Manager

DCM/mm
Enclosures

cc: Governor William F. Weld
Janet G. McCabe, Esquire,
MEPA Unit
Michael Glinski,
City Planner, City of New Bedford
Lawrence D. Wordon,
Commissioner of Public Works, City of New Bedford
Steven Hickox
Camp Dresser & McKee
Susan M. Cooke, Esquire,
Goodwin, Procter & Hoar

XP-0034/p
8/7/91

DEPARTMENT OF THE ARMY
NEW ENGLAND DIVISION, CORPS OF ENGINEERS
424 TRAPELO ROAD
WALTHAM, MASSACHUSETTS 02254-9149

REPLY TO
ATTENTION OF

August 15, 1991

06

Planning Directorate
Impact Analysis Division

Ms. Ann Rodney, Program Assistant
U.S. Environmental Protection Agency
Region 1, JFK Building, WQE-1900c
Boston, Massachusetts 02203

Dear Ms. Rodney:

New England Division has reviewed the Final Environmental Impact Statement (dated July 1991) on the Wastewater Treatment Facilities for the City of New Bedford, Massachusetts.

The Final EIS adequately responds to all issues raised in our comment letter (dated February 20, 1990) on the draft EIS. We believe the document fully complies with the intent and procedural requirements of NEPA.

The FEIS notes that wetlands filling for the proposed access road to the secondary landfill site will be avoided by bridging the wetlands on a pile-supported structure. Plans for this work and any other proposed work in wetlands should be submitted to our Regulatory Division for our review before we can concur with that statement. Any questions on the regulatory permit aspects of the project should be directed to the Regulatory Project Manager, Ms. Paula Levin at (617) 647-8493 our Regulatory Division.

Sincerely,

Joseph L. Ignazio
Director of Planning

APPENDIX C

City of New Bedford

CITY PLANNING DEPARTMENT

City Hall • 133 William St. • New Bedford, MA 02740 • (508) 979-1489

John K. Bullard, Mayor

Richard F. Bohn, City Planner

October 1, 1991

Ms. Susan Tierney, Secretary
Executive Office of Environmental Affairs
Commonwealth of Massachusetts, MEPA Unit
100 Cambridge Street
Boston, Massachusetts 02202

Re: City responses to comments from the Save Fort Rodman Committee and others regarding the City of New Bedford Secondary Wastewater Treatment Plan, E.O.E.A. #6425.

Dear Ms. Tierney:

I am in receipt of a copy of a letter to you from the Save Fort Rodman Committee, dated August 8, 1991, as well as recent correspondence to Mr. Robert Donovan, Acting Regional Director of DEP, regarding City plans for relocations and park construction in connection with the above referenced project. The City's responses to the comments are as follows:

Permanent Off-site Relocations

The construction of a new wastewater treatment facility gives the City a unique opportunity to achieve two important goals at once; it will allow several educational and social service agencies currently housed in outmoded and deteriorated facilities to be relocated to vastly improved quarters, and it will allow the City to renovate other existing buildings of significant historic value, which would have otherwise remained vacant and perhaps permanently lost to the City. Each of the programs undergoing permanent off-site relocation has worked directly with the City on both the selection of new sites, and the design of new facilities. Representatives of these programs have all supported, in writing, their proposed new sites, and copies of their letters are attached to this letter. Each of these programs is discussed in more detail below. No money

earmarked for "mitigation" improvements will be spent for any relocation activities.

Early Learning Child Care Inc.
As indicated on bid documents, the playground area required for this day care program is located on the same grounds as the facility--children will not have to cross any driveway or street areas to reach it. All lead paint and asbestos abatement work will be completed prior to occupancy. Total renovation costs for this program and the Recreation Department's Special Needs Program are in excess of $700,000. Construction work is scheduled to begin on or about October 15, 1991.

Alternative High School
This program will completely occupy Building 5 in the renovated Hillman Street Complex, and will be physically separate from other buildings in the complex. The new facility will provide the program with more and better space than it currently has, and allow room for future program expansion. The building will have only one main entrance and alarmed emergency exits. Total renovation costs for the building are in excess of $1,800,000 and any lead or asbestos abatement work will be completed prior to occupancy. Construction work is scheduled to begin in November.

PACE/Head Start Program
This program does not operate for a full day, and therefore is not required to meet the seventy-five square foot per child outdoor play space requirement. The requirement, nevertheless, will be met through the utilization of a recently constructed playground several houses lots away from the site. Because it is located on the same block as the Head Start site, children will not have to cross any streets to reach it. Unlike the program's current location at Fort Rodman--at the extreme south end of New Bedford, this location is more convenient for families utilizing the program, and will thus decrease transportation time for the children. The Ben Rose Community Center Head Start location is an addition to the Head Start Program, and not, therefore, part of the relocation plan.

Temporary Off-site Relocations

Because of their close connection with the waterfront, and their compatibility with the future Taber Park, several existing programs will be relocated back to the site in completely renovated historic buildings, after the completion of treatment plant construction. No "mitigation" funds will be used for these relocations.

Sea Lab
Although the possibility was considered, the temporary location for Sea Lab will not be downtown. The program, which operates only in the summer, may utilize an existing New Bedford School, but we also continue to work with the program to identify a temporary site adjacent to the water.

Camp Kennedy
A temporary relocation to Keith Jr. High would give campers access to a swimming pool and athletic facilities not available in their current location.

Mitigation

Access Road
The portion of the access road leading to the treatment plant has not been considered or budgeted as a mitigation item.

Parking
Not all park activities will be happening at once, and therefore the number of parking spaces will be shared by several user groups.

Gate House
A new gate house will be included in the park plan. The park includes a series of gates that can be closed as portions of the park are closed at night. The main security gate for the park occurs after the turnoff for the treatment plant so that access for the plant can remain open while the park is closed.

Environmental Information Center
All asbestos will be removed from renovated buildings.

Marine Program
According to the school's director, the New Bedford Regional Vocational Technical High School decided to end its marine education program because of a lack of student interest. Only four students graduated last year, and budget reductions at the school forced the closing.

Beach Restoration & South Rodney French Blvd.
Through a community review process conducted last summer, a total of $800,000 in mitigation funding was allocated to improvements along East and West Beach. Funding for improvements along South Rodney French Blvd. was set at a lower priority. Further public meetings will be held to review specific landscape designs. The City has requested that the State approve construction of these improvements now, rather than waiting until completion of the plant.

Park Improvements
With an overall park facility in excess of 40 acres, there is clearly no conflict between the use of the park by public recreational and educational programs (such as Camp Kennedy) and general park users. (The Sea Lab site has not been counted as park acreage, although its landscape plan has been designed to blend into the park and will be visually part of it.) Shared use is common in all City parks, and helps to assure that city children who participate in these organized activities will enjoy the benefits that go along with an having this unique recreational resource. This park is also a direct mitigation benefit to the immediate neighborhood since local

residents will have the most convenient access to it, and benefit from any appreciation of property values resulting from it.

By placing the treatment plant in the center of the site and screening it from view, the most valuable portion--the waterfront perimeter--will be preserved and improved for public enjoyment.

In summary, without the selection of the Fort Rodman site for the proposed treatment facility, there would have been no way for the City of New Bedford to assure the development of a public park on the site, the renovation of existing historic buildings, or the renovation of existing obsolete program facilities now located there.

Sincerely,

Richard F. Bohn
City Planner

rb/sub2fr
Attachments

cc: Susan Coin, EPA
Alan Slater, Mass DEP
Joe Ridge, CDM

APPENDIX D

CITY OF NEW BEDFORD

IN CITY COUNCIL

31 - 192

April 26, 1990

RESOLUTION OF THE NEW BEDFORD CITY COUNCIL APPROVING THE RANKING OF THE FORT RODMAN SITE (1A) FIRST AND THE STANDARD TIMES FIELD SITE (4A) SECOND FOR THE SITING OF THE PROPOSED SECONDARY WASTEWATER TREATMENT PLANT.

CITY CLERK'S OFFICE
NEW BEDFORD, MASS.
APR 23 12 09 PM '90
JANICE A. DAVIDIAN
CITY CLERK

IN CITY COUNCIL, April 26, 1990

Charter Ruled. Janice A. Davidian, City Clerk

IN CITY COUNCIL, May 1, 1990

Adopted - Yeas 6, Nays 5. Janice A. Davidian, City Clerk

Presented to the Mayor for approval May 3, 1990

Janice A. Davidian, City Clerk

Approved May 7, 1990 John K. Bullard, Mayor

A true copy, Attest:

J. a Di C.M.C.

City Clerk, New Bedford, MA