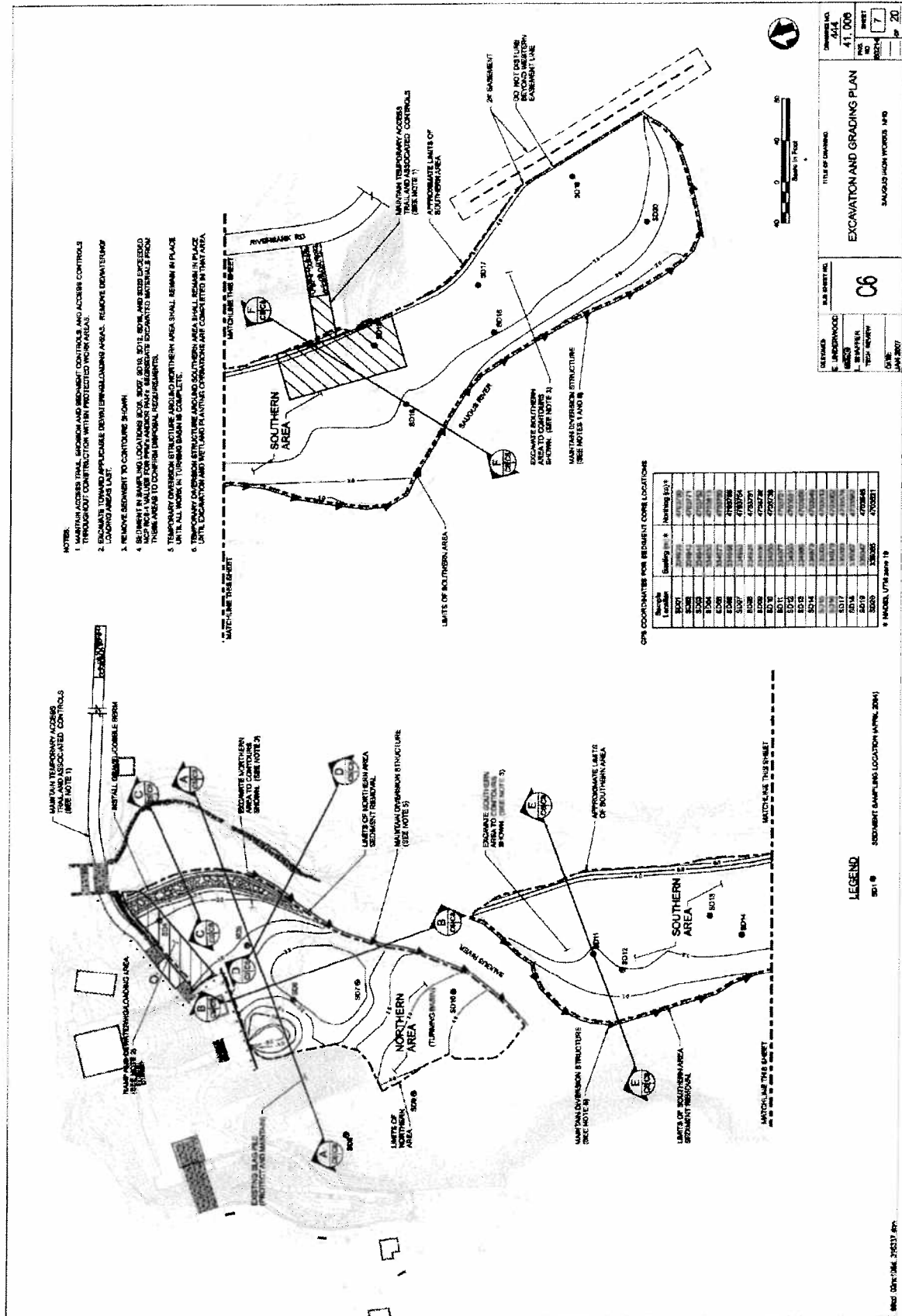


**Errata Sheet for Environmental Assessment Titled  
Restore Saugus River Turning Basin and Dock  
Saugus Iron Works National Historic Site**

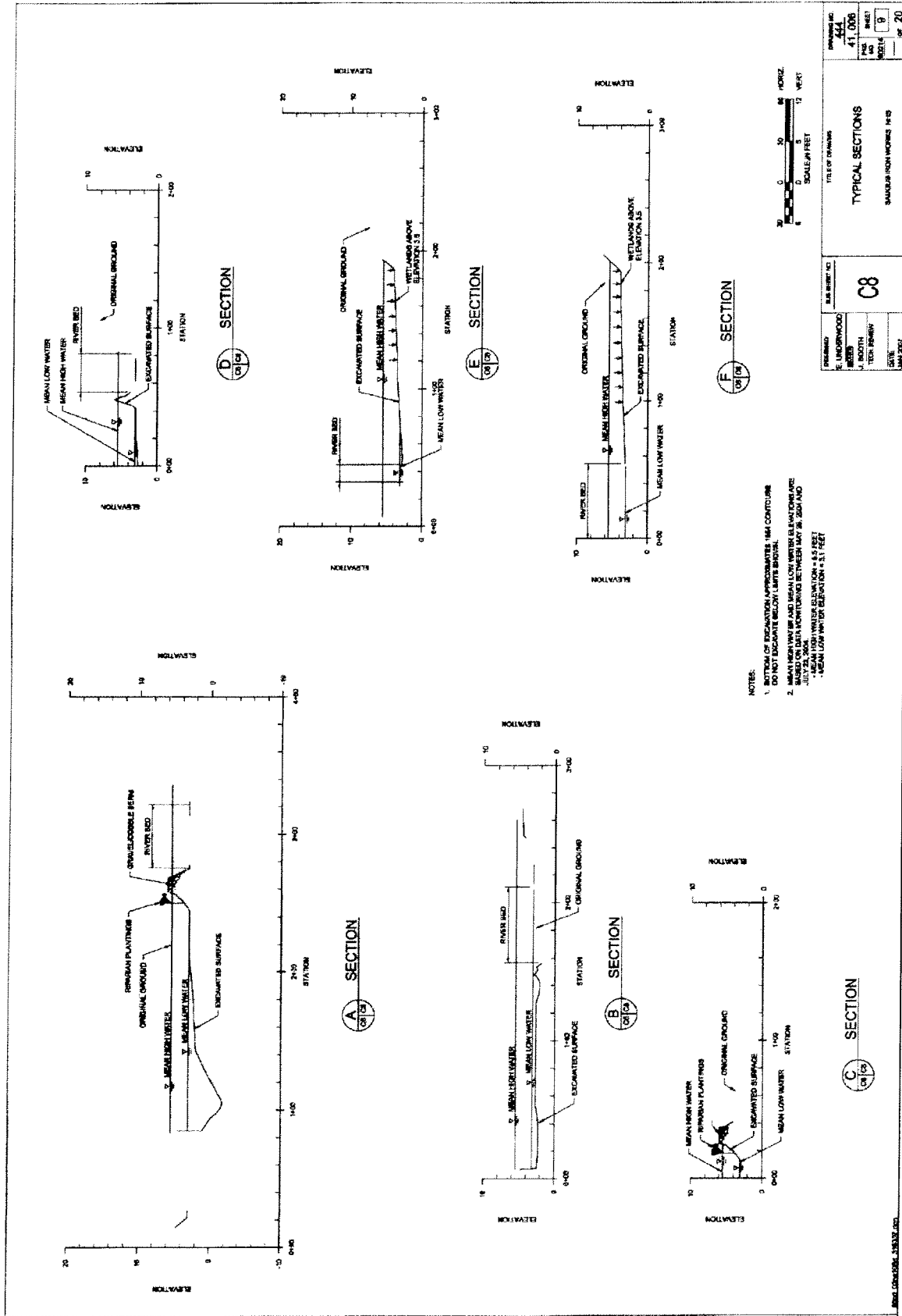
- 1) On pages ix and 2-14, the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR) states "Only post-1954 deposited sediments would be removed from the turning basin therefore any pre-1954 sediments would remain." The text is incorrect and should read "Only post-1957 deposited sediments would be removed from the turning basin..."
- 2) On page 4-3, Saugus River Herring Restoration Habitat Assessment, the EA/DEIR states "A habitat assessment for the Saugus River will be conducted by the Saugus River Watershed Council..." This information is from an earlier draft of the EA/DEIR and is out of date. The Saugus River Herring Restoration Habitat Assessment was conducted by the Saugus River Watershed Council in 2005, with a final report published in January 2006.
- 3) On page 4-3, Rumney Marshes, the EA/DEIR states "In addition, a Salt Marsh Restoration Plan for the Rumney Marshes ACEC is being drafted under the leadership of the Massachusetts Wetlands Restoration Program..." This information is from an earlier draft of the EA/DEIR and is out of date. The Salt Marsh Restoration Plan for the Rumney Marshes has been completed and published.
- 4) On page 4-15, Section 4.4.6 Unique, Essential, or Important Fish or Fish Habitat, the EA/DEIR states "Per consultation from NMFS, there are no known species of threatened or endangered status under NMFS jurisdiction in the Saugus area, although rainbow smelt is listed as a species of concern." This section did not include a detailed discussion of potential project impacts to rainbow smelt. Since rainbow smelt are listed as a species of special concern, an expanded discussion of potential impacts to this species should have been presented. However, a detailed discussion of expected fisheries responses to the proposed action was presented in Section 2.9.7. In brief, no adverse impacts to rainbow smelt are anticipated from the proposed action because no impacts to the Saugus River channel and substrate within the project area, the present location of rainbow smelt spawning activity, are proposed. Several design changes that detract from the objective of restoring the historical landscape of the historic site have been made at the request of the MA Division of Marine Fisheries to minimize potential impacts to diadromous resources, particularly rainbow smelt. These changes include raising the grading elevations of the restored turning basin, installing a gravel berm to maintain the existing hydrology and geomorphology of the upper tidal reaches of the Saugus, and planting riparian vegetation along the gravel berm to maintain shading of the river channel in the area of rainbow smelt spawning activity. In addition, to protect the passage, spawning, and juvenile development of rainbow smelt, river herring, and American eel, no in-water, silt producing work would occur between February 15<sup>th</sup> and June 30<sup>th</sup>, as recommended by the MA Division of Marine Fisheries.
- 5) On pages ii, 2-2, 2-3, 2-4, 2-20, the EA/DEIR states "The preferred alternative would remove approximately 9,000 cubic yards of sediment..." This value is incorrect and was calculated prior to subsequent design changes that reduced the overall estimated volume of sediment. The correct volume of excavated sediment for the proposed action is approximately 7,200 cubic yards.
- 6) On page 2-2, Alternative B, the EA/DEIR states, "The final restored condition would provide approximately 0.90 acres of open water/mud flat habitat and 0.05 acres of

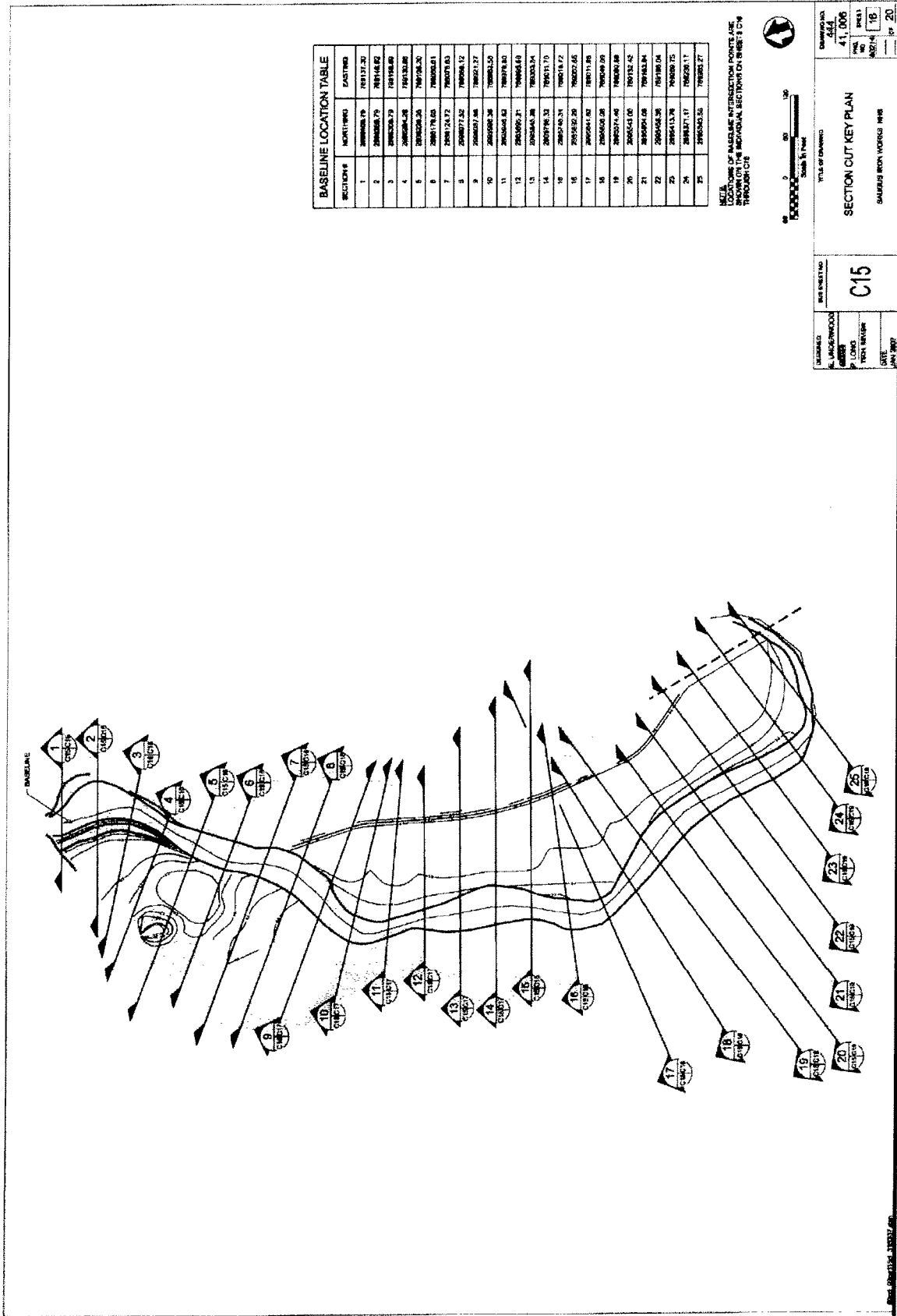
vegetated tidal wetland characterized by a diversity of native species.” The 0.05 acres for vegetated wetland is incorrect. Under the preferred alternative, a small area of 0.04 acres along the western side of the turning basin would become vegetated tidal wetland. The remaining 0.96 acres would be comprised of 0.90 acres of open water/mud flat habitat and 0.06 acres would become the gravel/cobble berm, which would be planted with shade-producing native shrubs and herbaceous perennials.

- 7) On page 2-3, Alternative B, the EA/DEIR states “The final condition would provide approximately 1.45 acres of intertidal mud flat habitat and 1.3 acres of vegetated tidal wetlands.” These acreage values were calculated prior to additional design changes and as such are slightly incorrect. The sentence should read “The final condition would provide approximately 1.47 acres of intertidal mud flat habitat and 1.28 acres of vegetated tidal wetlands .”
- 8) Appendix L of the EA/DEIR contains Draft Construction Documents for the project. Several of the draft construction drawings were not updated at the time the EA/DEIR was published. The affected sheets include C-6, C-7, C-8, C-15, and C-16. The length and height of the gravel/cobble berm depicted on these sheets was increased during stakeholder discussions to protect rainbow smelt spawning habitat in the Saugus River and maintain the integrity of the river channel adjacent to the project site. The drawings (Pages A-3–A-7) have been updated so that all the sheets accurately reflect these design changes. The change in the construction drawings will neither result in changes to the preferred alternative nor impacts to environmental resources different from those analyzed in the Environmental Assessment/Draft Environmental Impact Report.



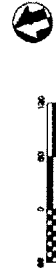




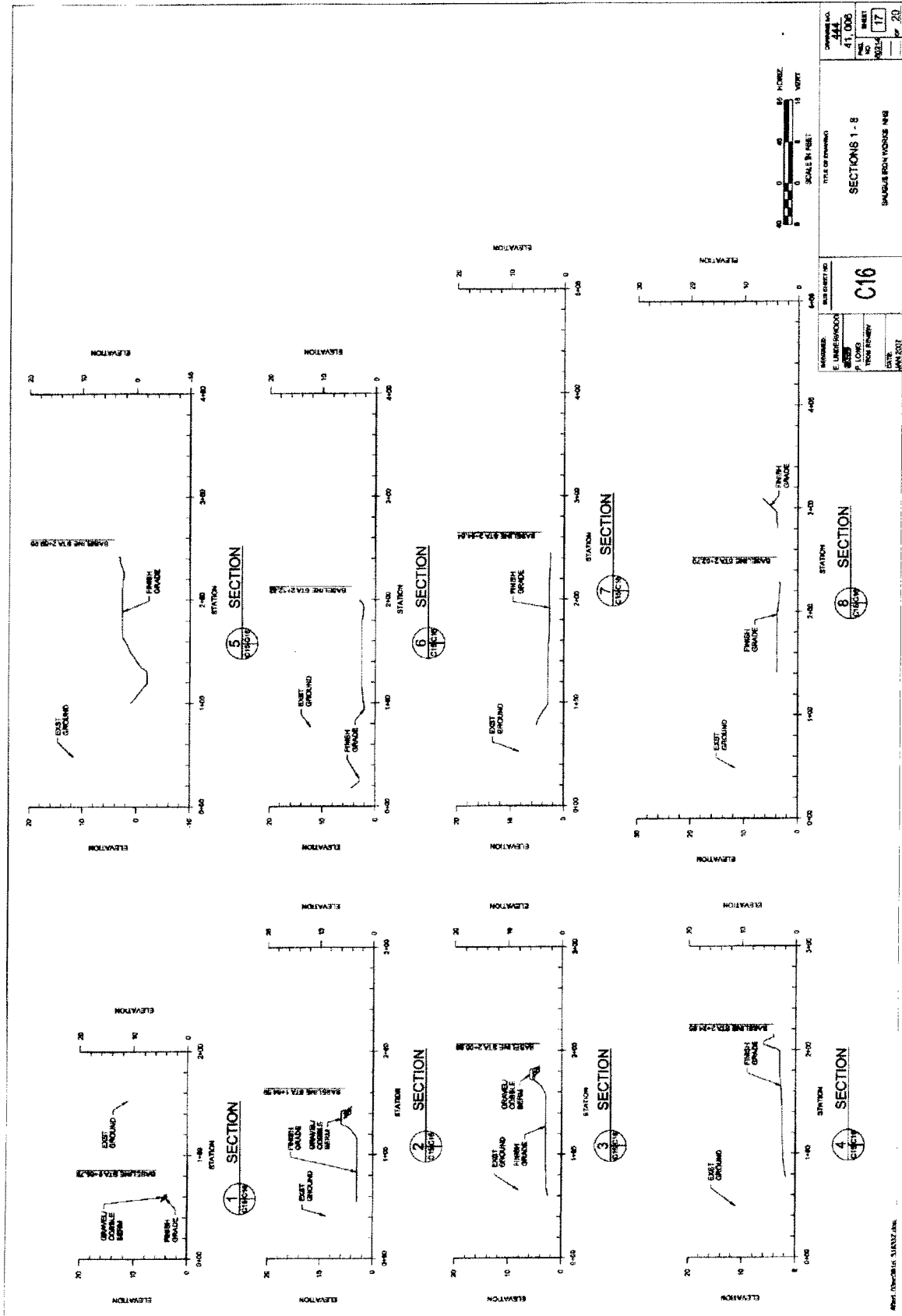


BASELINE LOCATION TABLE		
SECTION #	NORTHING	EASTING
1	789111.30	789111.30
2	789111.30	789111.30
3	789111.30	789111.30
4	789111.30	789111.30
5	789111.30	789111.30
6	789111.30	789111.30
7	789111.30	789111.30
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20	789111.30	789111.30
21	789111.30	789111.30
22	789111.30	789111.30
23	789111.30	789111.30
24	789111.30	789111.30
25	789111.30	789111.30

NOTE:  
LOCATIONS OF BASELINE INTERSECTION POINTS ARE  
BASED ON THE ASSUMED SECTION ON STREET C-14  
THROUGH C-15



DRAWING NO. <b>41,006</b>	SHEET NO. <b>18</b>	TOTAL SHEETS <b>20</b>
SECTION CUT KEY PLAN		
SAVING ROCK WORKS, INC.		
DATE <b>JAN 2007</b>	C15	TITLE OF DRAWING <b>SECTION CUT KEY PLAN</b>



## Public and Interagency Comments and Responses to Environmental Assessment

This attachment to the FONSI includes NPS's response to comments received during the initial 30-day public comment period for the *Environmental Assessment/Draft Environmental Impact Report for the Restore Saugus River Turning Basin and Dock* (Section 1) as well as a subsequent comment period for the Final Environmental Impact Report required to comply with the Massachusetts Environmental Policy Act (Section 2).

### **Section 1: Responses to Comments on the EA/DEIR Received During the Joint Comment Period, December 21, 2006**

#### **Massachusetts Historical Commission (MHC-1)**

**MHC-1:** *As indicated in the EA/Draft EIR, the National Park Service has coordinated closely with the Massachusetts Historical Commission in the development and planning of the proposed project, and the MHC concurred with NPS findings that the project would have "no adverse effect" (36 CFR 800.5b) on the Saugus Ironworks National Historic Site, a National Historic Landmark listed in the State and National Registers of Historic Places.*

**Response:** The project has been designed to avoid effects to archeological resources by limiting the proposed excavations to post-1957 sediments. Please note that the historic dam breach resulting in sedimentation of the Turning Basin area has been identified as occurring in 1954 and 1957. Based on our current understanding the most likely date is 1957. This will be clarified in an errata sheet. The errata will be attached to the Significance Finding on the EA, which will be sent to the distribution list for the EA/DEIR, and will also be accessible via [parkplanning.nps.gov](http://parkplanning.nps.gov). In the unlikely event that archeological resources are discovered during construction, work would halt and MHC would be consulted, as described in Section 2.6.13 of the EA/DEIR DEIR and per project specification 01350 – Archeological Protection. Additionally, the bulkhead and dock would be replaced in kind, with any structural components hidden to the eye (EA/DEIR 2.2). Finally, if stabilization of the slag pile becomes necessary, the MHC and NPS cultural resource managers would be consulted prior to work commencing (EA/DEIR Section 2.5.1).

#### **Massachusetts Board of Underwater Archaeological Resources (BUAR-1)**

**BUAR-1:** *...the Board indicated that based on the level of disturbance to the proposed project area resulting from both site development/historic restoration and the breach of an upstream dam (1957), and the fact that the proposed dredging is not expected to impact the pre-1957 stratigraphic level, it does not anticipate the proposed project will adversely impact submerged cultural resources. As no major changes have been proposed to the scope of activity, the Board is satisfied with the Draft Environmental Assessment/Impact Report and concurs with its findings that the proposed project will have "no adverse effect".*



**Response:** The project has been designed to avoid effects to archeological resources by limiting the proposed excavations to post-1957 sediments. In the unlikely event that archeological resources are discovered during construction, work would halt and NPS would consult with MHC and also notify BUAR immediately. The construction contractor would also adhere to requirements specified in Section 01350 – Archeological Protection for the protection of archeological resources contained in soil deposits. The construction contractor would be required, 30 days before start of ground-disturbing site work, to submit a Daily Work Schedule, detailing construction work in archeologically sensitive areas (i.e. the basin). Drawings must be keyed to contract documents and would include the following information:

Starting and ending dates of ground-disturbing construction.

Locations of temporary facilities, staging, dewatering, etc. for turning basin work.

Types of construction, specifically soil removal process, structure excavation, landscaping, and post construction clean-up.

Methods and equipment used for each type of construction.

Plan for relocating work in the event of temporary work stoppages at each archeologically sensitive area.

Also to ensure quality assurance, the construction contractor shall also meet with NPS Contracting Officer and NPS Archeologist to discuss Daily Work Schedule and equipment and special methods to be used in archeologically sensitive areas one week prior to work activity. Contractor shall ensure that approved Daily Work Schedule is followed throughout construction.

#### **Massachusetts Division of Marine Fisheries (DMF-1 thru DMF-6)**

**DMF-1:** *Marine Fisheries, together with other agencies and stakeholders, has participated in several meetings and site-visits and have provided comment and review on numerous design stages of this project...However, many of these comments were not adequately addressed in the DEIR and were not depicted on the project plans. We recognize the applicant's willingness to work with stakeholders and design a project that will not degrade diadromous resources and habitats. Therefore, in order to fully review the project, we request updated plans as well as information on proposed measures to avoid and minimize potential impacts*

**Response:** NPS is committed to protecting smelt spawning habitat in the Saugus River and acknowledges an error in sheet C8 of the drawings in Appendix L of the EA/DEIR for Restore Saugus River Turning Basin and Dock. The drawing shows the height of the gravel/cobble berm at the same elevation as mean high water (or 5.5'), whereas the correct height of the berm is planned to be six inches above mean high water (or 6'). Also please note that the correct length of the berm is reflected in sheet C6, whereas sheet C7 shows an earlier version of the plan with a shorter berm length. Section 2-2 of the document describes the purpose of the berm, as well as its length and width, but does not specify the height, which would be 6 inches above mean high water, or 6 feet relative to NAVD88. These changes will be outlined in the errata to the EA/DEIR

To maintain river flow and protect rainbow smelt spawning habitat, no work would take place within the river channel itself, and no work would take place in the river between February 15 and June 30. The integrity of the rainbow smelt spawning habitat would be

maintained by enhancing the gravel and cobble berm between the river channel and the proposed turning basin. The berm would be enhanced by removing invasive plant species, extending the dimensions of the berm to 150 feet long by 12 feet wide, raising the berm elevation to exceed mean high water by 6 inches with a gradual sloping toward the terminus, armoring with cracked stone to enhance stability and improve fish and eel habitat, and planting native woody species to maintain shade of the spawning area. It is noted that the baseline topographic survey performed during project planning shows the existing berm area varying between 5.4 and 6.0 elevation. As 5.5 feet is mean high water, the proposed gravel berm would be 6 inches above mean high water and would be at or above the existing berm elevation.

In addition, the proposed grade or bathymetry of the Turning Basin area was raised to protect stream flow conditions in the active channel in order to provide further protection of the smelt spawning habitat. The original concept design for the turning basin area was based on excavation drawings from 1950's restoration work, but was subsequently altered based on consultation with Marine Fisheries to ensure that the flow regime within the riffle area would be maintained.

Additionally, a monitoring plan would be instituted for a minimum of three years to determine the effectiveness of the restoration plan and allow for adaptive management actions if needed for the project (EA/DEIR 2.6.6). Components of the monitoring program would include vegetation, nekton, stream geomorphology and hydrology, sediment and water quality, and bird/wildlife utilization.

**DMF-2:** *The gravel/cobble berm depicted on plan drawings C7 and C8 should be constructed to a height at least 1 foot above MHW in order to provide a consistent hydrologic separation between the Saugus River and boat basin.*

**Response:** NPS remains dedicated to protecting diadromous resources in the Saugus River, and would continue to consult with Marine Fisheries through project construction, and would invite representatives to consult during berm construction. Based on several project scoping meetings including Marine Fisheries, the gravel berm has been raised 2 feet above the original design concept, and is proposed to be 6 inches above mean high water. This elevation would allow for occasional flooding, thereby promoting the growth of riparian/wetland vegetation. Without occasional flooding the berm could be vegetated with invasive species (e.g., Phragmites) and/or woody upland species. The berm would be armored with cracked stone, as recommended by Marine Fisheries, in order to enhance stability during storm events and provide additional fish habitat along the base of the berm.

**DMF-3:** *To maintain the existing river channel, attractant flow velocities, and critical riffle habitat for a greater distance the gravel/cobble berm should extend past cross section S (C6/C8) as is correctly depicted on plan C6 in the DEIR.*

**Response:** As discussed above in response to DMF-1, NPS acknowledges that plan C7 in the EA/DEIR is incorrect and would construct the berm to 150' long. This would extend the berm across Section D, as depicted on plan C6, which NPS interprets to be the correct section referred to in DMF-3, as there is no section S.

**DMF-4:** *The riparian plantings on the plan drawings C7 and C8 need to be of sufficient height and canopy dimension to restore essential shading along the gravel/cobble berm feature. Shade is an important element of the current anadromous fish passage and spawning habitat in this section of the Saugus River that must be restored.*

**Response:** Species selected for planting on the gravel/cobble berm are listed in Table 3, page 2-8 of the EA/DEIR. The proposed plantings include native woody riparian species, such as speckled alder, silky dogwood, and sweet gale, along with native herbaceous cover. The proposed species are common to stream banks of the regions fresh and brackish water streams and would provide the required shade. Larger plant material would be specified so that plant growth is optimized. The specified trees and shrubs would be balled/burlapped stock and / or container stock which would conform to the "American Standard for Nursery Stock – ANSI Z60.1-2004". Deciduous plant material would be subject to inspection and tagged at the nursery, which would not affect the right to reject such plants on or after delivery to the project site. NPS would continue consulting with Marine Fisheries to determine the final planting plan and design for the berm and invite representatives to cooperate with inspection of plants and review placement prior to planting.

**DMF-5:** *In –water silt producing work and herbicide treatments should be prohibited from February 15th through June 30th in order to protect the passage, spawning, and juvenile development of river herring, rainbow smelt and American eel. Adequate fish passage must also be maintained during this period.*

**Response:** NPS is committed to protecting the spawning grounds of the river herring, rainbow smelt, American eel and other anadromous fish species. No work would occur in the river between February 15th and June 30th (EA/DEIR 2.6.6).

**DMF-6:** *Sedimentation and erosion controls depicted in the plan drawings should be strictly monitored and maintained during excavation and construction to prevent impacts to adjacent spawning habitat.*

**Response:** The NPS requires strict adherence to the required Contractor Quality Control Plan. The Contractor would submit methods of performing, documenting, and enforcing quality control of all work. Plus, the NPS would have a Construction Management Representative (CMR) to perform on-site inspection and administration of the construction contract. The primary role of the CMR is to inspect the work of the construction contractor for progress, workmanship and conformance with the contract documents and permits. In addition, measures would be implemented to prevent Storm Water Pollution during construction activities, in accordance with Federal, State, and local regulations, and in accordance with the Storm Water Pollution Prevention Plan (SWPPP) for this project in accordance with Specification Section 01571.

#### **Massachusetts Department of Environmental Protection (DEP-1 thru DEP-9)**

##### **WETLANDS:**

**DEP-1:** *...the proposed wetlands work appears to meet the criteria for a limited project under the Wetland Protection Act (310 CMR 10.53)(4)) because it would improve the natural capacity of the resource areas to protect the interests identified in the Wetland Protection Act.*

**Response:** NPS is pleased that DEP agrees with the restoration benefits associated with this project and that the project meets the criteria of a limited project.

#### 401 WATER QUALITY CERTIFICATION:

**DEP-2:** *Pending final approval of the new regulations, which are scheduled for promulgation by the end of 2006, restoration projects such as this could be approved under 314 CMR Section 9.06.*

**Response:** The NPS appreciates this notification, and would expect to pursue 401 Water Quality Certification with DEP for this project.

#### EXCAVATION AND DREDGING:

**DEP-3:** *The DEIR, Appendix C includes an evaluation of alternative dredging methods and concludes that conventional wet excavation is the only practicable alternative. The selection of this alternative narrows the options for the types of equipment that can be used, equipment access, sites for dewatering of the sediment, and erosion and sedimentation controls. While these issues have been considered in Appendix C, Section 4, Sediment Removal Evaluation, they must be reevaluated. The Department acknowledges the following requirements, which are identified in this section for conventional wet excavation: low ground pressure equipment and or equipment mats, excavated material dewatering pad and layout area, and the potential for water treatment if contaminants are present. Although not discussed elsewhere in the DEIR, these measures should be included in the project plans and specifications.*

**Response:** The Marsh Characterization Report (Appendix C in the DEIR) presented a preliminary assessment of possible sediment excavation methods and procedures. The refined wet excavation, dewatering, and sediment control methods proposed for this project are described in more detail in Appendix D (Surface Water Pollution Prevention Plan) and Appendix H (Drainage and Stormwater Management Assessment). Regarding reevaluation of alternative methods, see also response to DEP-4.

**DEP – 4:** *In several places, the document recommends the use of silt fence backed with wire mesh, or "super silt fence" to act as a sediment barrier along the Saugus River Channel. This application of silt fence as a sediment barrier, within the tidal range of a river, would be inappropriate for this application, which is proposing removal of adjacent marsh. The dredging operation, proposing the removal of thousands of cubic yards of material underlying open water and fringing marsh demands a higher level of sediment protection than would be provided with the options presented in the document. The DEIR also recommends the use of silt fence around dewatering areas. The narrative implies the silt fence would "filter" dewatering product from the dredge spoil lay down areas. Again, this is an inappropriate use of silt fencing, which is a non-structural sediment barrier only.*

**Response:** A combination of sediment control measures would be employed during construction, including mechanical diversion dikes around the excavation area, a sediment trap behind the diversion dikes, and geotextile filter bags through which all accumulating water would be pumped. Silt fence would be used as a supplemental measure along the edges of the dewatering/loadout pad area to minimize silt getting back into the excavation from that area, and would also be used outside of the excavation area during placement of the mechanical dike and as a sediment control measure within the dewatering area (see illustration in response to DEP-6).

NPS acknowledges that work areas associated with the excavation, within a tidal basin, and adjacent to an ecologically sensitive river, would require measures to: 1) divert, to the extent possible, surface and tidal waters away from the excavation; and 2) contain sediment-laden water within the excavation to prevent the release of sediment or contaminants into the Saugus River channel. During the pre-design phase of the project,

the design team considered earth diversion dikes, silt curtains, super silt fence (e.g., chain-link fence-stabilized sediment fence) and mechanical diversion dikes. The analysis and justification for selecting mechanical diversion dikes is summarized below.

- Earth dikes, constructed of either imported soil or excavated materials, were determined to be inappropriate due to the small working area, disturbance issues, and potential impacts on the Saugus River during implementation, operation, and removal.
- Discussions with silt curtain vendors indicated that there would be insufficient water within or adjacent to the work areas to appropriately implement and operate silt curtains, even with innovative modifications. In addition, they would not divert river or tidal flows around the work areas.
- Chain-link supported sediment fence (super silt fence) was considered but was rejected after discussions with engineers who had tried unsuccessfully to utilize these in tidal areas. In addition, they would not divert river or tidal flows around the work areas.
- Mechanical diversion dikes, such as the Portadam system, were determined to be the appropriate system since the system has been successfully used to contain water within and/or divert water around the work areas and can be installed and removed with less impact and disturbance than earthen dikes.

All disturbed areas outside the tidal basin area are provided with sediment controls to collect any sediment as close as possible to the source. Alternatives considered included sediment fence and straw or hay bale dikes. It was determined that sediment fence is the best alternative since they are generally considered to be more effective than straw or hay bales.

Finally, water collecting within the work area would be allowed to accumulate within the sediment trap areas for initial suspended solids removal. The accumulated water would then be pumped from a sump pit within the sediment traps and then through geotextile filter bags to remove remaining suspended solids prior to discharge into the Saugus River.

**DEP – 5:** *The description of how effluent and dredge spoil areas will be sampled and treated to meet TSS, pH requirements, and chemical quality, prior to discharging the effluent back to the river, is not adequate.*

**Response:** The effluent from the dewatering operations/geotextile filter bags would be sampled, tested, and treated as necessary by the construction contractor to ensure that the effluent would meet the requirements of the 401 Water Quality Certificate prior to discharge to the Saugus River. The effluent would be discharged in a manner that would not cause erosion or flooding, or otherwise damage existing facilities, completed work, or adjacent property.

**DEP – 6:** *Generally, more attention should be given in the planning process to phasing the work schedule, dredge methodology, spoil handling, and effluent treatment than is evident from a review of the document in order to ensure that the environmental impacts are avoided and reduced. MassDEP recommends that the NPS select the combination of options that minimizes impacts the greatest extent. However, the final selection of dredging methods and mitigation measures for erosion and sedimentation controls may need to be made during permitting of a Water Quality Certificate, in order to take into consideration the results of additional sampling data that will be collected subsequent to the DETR.*

*Lastly, it appears from the DEIR that the cost differential among the erosion and sedimentation control measures could be a driving factor in the selection of techniques. Areas with higher contamination levels may need more elaborate and potentially more expensive erosion and sediment controls to prevent the release of contaminated sediment into the river than other areas. It should be possible to develop a staged dredging sequencing plan, possibly with intermediate settling basins, native soil berms, or other management techniques that do not require expensive control materials, to minimize the release of contaminated sediments. A well conceived and sequenced plan would help to ensure that the project is cost-effective.*

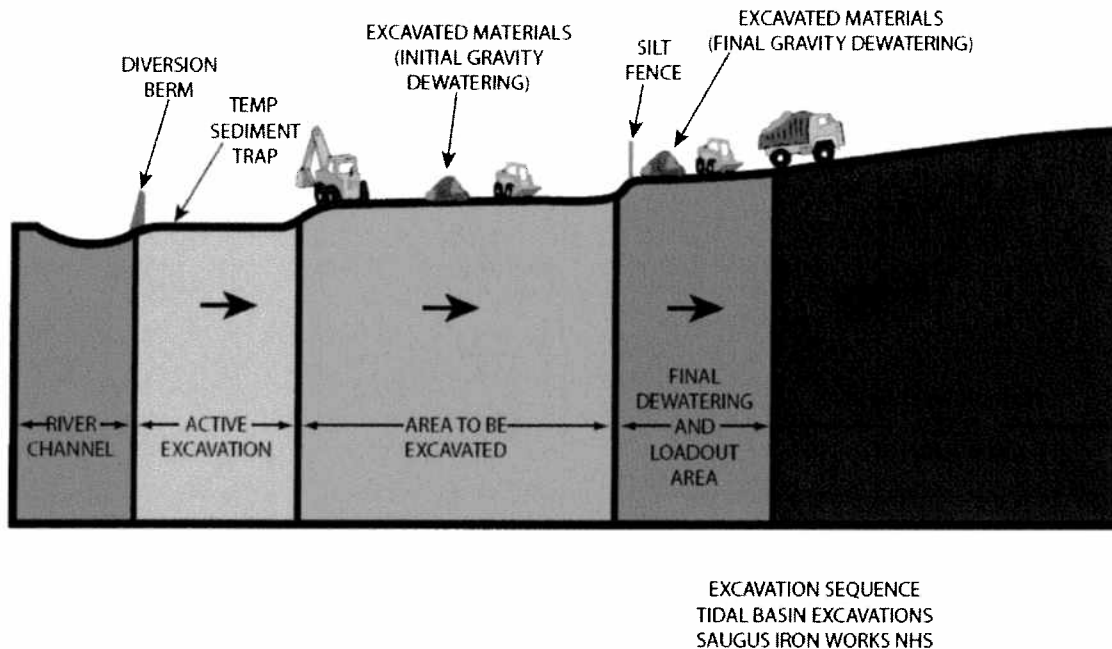
**Response:** A primary criterion from the beginning of the project has been minimization of disturbances outside the specified work areas due to ecologically sensitive areas within the Saugus River channel. As a result, access and operational areas were designed to use, to the extent possible, existing access trails, minimize disturbance to existing vegetation, and eliminate entirely any access or work within or across the Saugus River.

The project team considered conventional dredging and excavation with conventional excavation equipment. Conventional dredging was determined to be inappropriate at this site since, even with sediment removal to the specified limits, there is generally insufficient standing water to float a conventional dredge. In addition, there are no areas, either on the site, nor adjacent to the site, to install dewatering facilities necessary to dewater liquid dredge spoils.

The preferred method of removal is sediment excavation by conventional excavation practices with modifications to accommodate materials dewatering and control of potentially-impacted water within the excavation. A schematic showing the major components and sequence of the excavation and materials handling process are shown in the illustration below. These components include:

- Diversion of storm and tidal water around the work area (as described above),
- Excavation with conventional construction equipment,
- Initial and final materials dewatering areas within containment area, and
- Water containment and sediment controls.

Water collecting within the work area would include ponded water within the excavation, storm water, and water from excavated sediment dewatering. It would be allowed to accumulate within the sediment trap areas for initial suspended solids removal. The accumulated water would then be pumped from a sump pit within the sediment traps and then through geotextile filter bags to remove remaining suspended solids prior to discharge into the Saugus River.



**DEP -7:** *For permitting, MassDEP also will need a sediment dewatering and disposal plan that is designed appropriately for the contaminated materials being removed.*

**Response:** NPS appreciates the guidance. NPS would continue to work with DEP through the Section 401 Water Quality Certification process and follow through during contract administration to ensure that a sediment dewatering and disposal plan developed by the construction contractor would meet the requirements of the 401 Water Quality Certificate.

#### CONSTRUCTION PERIOD AIR QUALITY IMPACTS:

**DEP - 8:** *MassDEP recommends that the project proponent work with MassDEP to implement construction-period diesel emission mitigation, which could include the addition of after-engine emission controls such as oxidation catalysts or particulate filters.*

**Response:** NPS contract administration provides a mechanism for ensuring environmental protections from equipment/services used for projects. Division One Specification pertains to the administration of the project that would be under construction. The NPS Specification Section 01510 would consist of identifying temporary services required by the construction contractor to perform the work outlined in the contract documents. Included specifically would be a submittal requirement for construction-period Diesel Emission Mitigation. The construction contractor would be required to submit a written plan that would identify means to mitigate emission such as oxidation catalysts or particulate filters. The plan would be reviewed by NPS for approval, approval with notations or disapproved-resubmit.

All project submittals must adhere to Specification Section 01330 – Submittals. The construction contractor must sign, certifying that the submittal has been reviewed for accuracy, completeness, and compliance with the contract requirements (FAR 52.236-21). Section 01330 states that the terms and conditions of the contract require the construction contractor to satisfy the requirements of the individual specification sections. Submittals must be forwarded to the National Park Service Contracting Officer at least 30

days before need for approval. The submittal process is also tracked through the National Park Service's construction management representative.

**DEP - 9:** *Mass DEP recommends that project proponents require their contractors to use on-road sulfur diesel (LSD) fuel in their off-road construction equipment.*

**Response:** NPS facilities and operations demonstrate environmental leadership by incorporating sustainable practices to the maximum extent practicable in planning, design, siting, construction, and maintenance operations. NPS requirements for sustainable design and functionality include protection of the natural and cultural environments, resource conservation, energy conservation, pollution prevention, and fostering education about sustainable design and practices.

Also, as stated in the response to DEP-8, NPS contract administration provides a mechanism for ensuring environmental protections. Specifically, the National Park Service would request that the construction contractor use on-road sulfur diesel (LSD) in their off-road construction equipment as one means of being ecologically responsible to minimize the short term environmental impacts.

#### **Massachusetts Coastal Zone Management (CZM-1 thru CZM-6)**

**CZM-1:** *In that portion of the BVW where the invasive species will be removed and replaced with native habitat (1.45 acres), CZM agrees that the project constitutes an ecological restoration and an improvement over existing conditions that will improve the natural capacity to protect the WPA interests.*

**Response:** NPS is pleased to acknowledge that CZM supports the restoration benefits associated with the Southern Area and would like to take this opportunity to re-state our rationale for this position. At present, the 2.75 acre Southern Area of BVW is dominated by the invasive, Phragmites australis. There is an extensive literature documenting the degraded habitat value of Phragmites marshes (and in some cases Typha marshes as well) with respect to their role in supporting fish, bird, and other wildlife populations (e.g., Able and Hagen 2000, Raichel et al. 2003, Fell et al. 2003, Benoit and Askins 1999). It is proposed that this Southern Area be restored to 1.47 acres of native species BVW, along with 1.28 acres of intertidal mudflat. There are few, if any, examples in the literature documenting the ecological response of restoring hydrology and vegetation of brackish/freshwater tidal wetlands, but there is extensive evidence that macroinvertebrate, fish, and bird populations are enhanced with hydrologic and vegetation restoration of tidal salt marsh habitats (e.g., Peck et al. 1994, Roman et al. 2002, Brawley et al. 1998). NPS notes that this project would offer an opportunity to demonstrate and document the restoration of a brackish/freshwater tidal wetland. Project monitoring would assess the response of multiple environmental parameters to the restoration work, which would contribute to the knowledge base of the scientific community and stakeholder agencies.

The ecological habitat value of the remaining 1.28 acres of the Southern Area would not be lost, but converted from the existing Phragmites-dominated BVW to intertidal mudflat and open water habitat, thereby increasing the overall habitat diversity of the site and better reflecting the range of habitats associated with tidal systems. The role of intertidal mudflats as important habitat for shorebirds, wading birds, waterfowl, and invertebrate prey populations (for both fish and birds) is well-documented (e.g., Whitlatch 1982, Schneider and Harrington 1981, Quammen 1982, Wilson 1990).

The 1.0 acre Northern Area, or Turning Basin, is presently dominated by Typha, along with the non-native invasive species purple loosestrife and multiflora rose. This degraded



fish and wildlife habitat would be restored to 0.9 acres of intertidal mudflat/open water habitat and 0.07 acres of native species BVW, and 0.03 acres of initially non-vegetated intertidal riparian berm, which NPS expects to be naturally colonized over time. It is noted that as restoration of the Turning Basin area proceeds, it is expected that submerged aquatic vegetation would naturally colonize portions of the Basin. Submerged aquatic vegetation, including several species of Potamogeton (pond weed) and Ruppia maritima (widgeon grass), presently occur throughout the upper tidal Saugus River at the project area, but at this time NPS can not predict with any degree of certainty the spatial area of the newly restored open water habitat that may be colonized by these aquatic species. This would be quantified through the monitoring program.

**CZM-2:** *CZM believes that the generalized assessment provided in Appendix F is inadequate to support the conclusion that the functions lost by the removal of vegetation will be replaced or improved by the proposed non-vegetated mudflat and open water system.*

**Response:**

The proposed restoration project, including both the Northern and Southern Areas would convert habitat from degraded BVW to habitats of native species BVW and intertidal mudflats/open water. Based on field reconnaissance and review of literature on functions of degraded and restored wetland types, NPS has concluded that the wetland functions of BVW as identified in the Massachusetts Wetlands Protection Act would not be compromised. As identified in the EA/Draft EIR and supporting documentation, NPS concludes the following for each of the eight interests protected by the Wetlands Protection Act.

Protection of Public and Private Water Supply: This function is not applicable to the existing or proposed condition.

Protection of Groundwater Supply: This function is not applicable to the existing or proposed condition.

Flood Control and Storm Damage Prevention: Although vegetated wetland habitat (BVW) would be reduced with the proposed restoration activity, which would reduce the function of this lost BVW for flood control and storm damage prevention, it is expected that the flood attenuation functions of this upper reach of the tidal Saugus River would be retained. The restored vegetated wetland would slow current velocities and provide water removal through evaporation/transpiration (at least during the growing season), while the proposed mudflat and shallow water area (along with the potential for colonization of submerged aquatic vegetation) would allow for sheet flow and reduce tidal flow energy and flow velocities through frictional drag (e.g., Pethick 1996). It is also noted that approximately 7,200 cubic yards of material is proposed for removal from the area. Although this would not contribute significantly to decreasing storm flow velocities, it would increase the flood storage capacity by as much as 4.6 acre-feet.

Prevention of Pollution: By establishing mud flat habitats and restoring high quality native BVW, this project would maintain the pollution prevention function of the wetland area. In addition, the removal of contaminated sediments would reduce the overall pollutant levels in the basin. With regard to the water quality improvement function there is extensive literature on the role of vegetated wetlands in serving as sinks for nutrients and metals (Williams et al. 1994). Further, the restored mudflats and open water habitats would be depositional habitats and as microbial and microalgal communities develop it is expected that they would perform a similar pollution retention function. The role of mudflats as important sites for accumulating and processing organic sediments is documented (e.g., Galois et al. 2000).

Protection of Land Containing Shellfish: Riverfront Areas, presently serving a role of buffer to coastal habitats would not be affected by the proposed project. Areas that are disturbed during the proposed construction activity would be restored to pre-construction condition. In addition, the restored mud flat habitat would provide new shellfish habitat, although given the low salinity of the upper tidal reaches of the Saugus River the restored shellfish species may not be those of commercial or recreational importance.

Protection of Fisheries: The EA/DEIR, section 2.9.7 contains extensive documentation on the expected fisheries responses to the proposed action. In brief, no impacts to the Saugus River bed, the present location of rainbow smelt spawning activity, are proposed. At the recommendation of the MA Division of Marine Fisheries, a 150 ft long gravel berm is proposed to maintain the existing hydrology and geomorphology of the upper tidal reaches of the Saugus River. As noted in the response to CZM-1 there is extensive literature documenting the degraded habitat value of Phragmites marshes with respect to their role in supporting fish populations. A restored BVW would provide improved access to the marsh surface by juvenile fish species (e.g., enhanced opportunities for feeding and refuge from predation). The proposed mudflat and open water habitat is expected to provide enhanced forage opportunities for fish species (e.g., benthic invertebrate community) and refuge from predation by the submerged aquatic vegetation community that is expected to develop.

Protection of Wildlife Habitat: The project would not alter the majority of the existing wildlife habitat of the riparian corridor on site, including the bank resource areas on both sides of the river. The alteration of the existing BVW from degraded to restored native BVW and open water/mud flat would be expected to improve avian habitat functions. During a recent survey of avian utilization of the tidal Saugus River at the project area, no shorebirds were observed utilizing the Northern or Southern vegetated wetland or tidal river. Waterbirds, such as Great Blue Heron, Black-crowned Night Heron, and gulls, along with waterfowl (Mallard, Canada Geese) were observed foraging in the tidal river, but not within the existing Phragmites and Typha dominated BVW. With removal of existing BVW and replacement with native species BVW and establishment of intertidal mudflat it is expected that the wildlife support function of the Northern and Southern Areas would be improved. Bird habitat function has been improved at restored Phragmites wetlands (e.g., Brawley et al.1998) and the role of mudflats in providing essential habitat for shorebirds, wading birds, and waterfowl is well-documented (e.g., Whitlatch 1982, Quammen 1982, Wilson 1990).

**CZM-3:** *Additionally, we believe that it contradicts 310 CMR 10.55(3) regarding the significance of BVW to seven of the eight interests protected by the Wetlands Protection Act.*

*CZM notes that the existing BVW, although ecologically degraded, does provide some functions for most of the interests identified for BVWs at 310 CMR 10.55.*

*The FEIR should clearly compare resource area functions for wildlife habitat, fisheries habitat, pollution prevention, storm damage prevention, and flood control between the existing BVW and the proposed open water mudflat. The methodology for such an [sic.] assessment should be clearly described.*

**Response:** See response to CZM-2. The functional assessment performed in association with this project was based on extensive field data collection to document existing conditions throughout the upper tidal reaches of the Saugus River. The predicted response to the restored habitat with regard to the resource area functions as identified in the MA Wetlands Protection Act are based on existing literature and best professional judgment. Literature citations included throughout this Response Memorandum are as follows:

- Able, K.W. and K.M. Hagan. 2000. Effects of common reed (*Phragmites australis*) invasion on marsh surface macrofauna: response of fishes and decapod crustaceans. *Estuaries* 23: 633-646.
- Benoit, L.K. and R. A. Askins. 1999. Impact of the spread of *Phragmites* on the distribution of birds in Connecticut marshes. *Wetlands* 19: 194-208.
- Brawley, A.H., R. S. Warren, and R. A. Askins. 1998. Bird use of restoration and reference marshes within the Barn Island Wildlife Management Area, Stonington, Connecticut, USA. *Environmental Management* 22: 625-633.
- Fell, P.E., R. S. Warren, J.K. Light, R.L. Rawson, Jr., and S.M. Fairley. 2003. Comparison of fish and macroinvertebrate use of *Typha angustifolia*, *Phragmites australis*, and treated *Phragmites* marshes along the lower Connecticut River. *Estuaries* 26: 534-551.
- Galois, R., G. Blanchard, M. Seguignes, V. Huet, and L. Jossard. 2000. Spatial distribution of particulate organic matter on two estuarine intertidal mudflats: a comparison between Marennes-Oleron Bay (France) and the Humber Estuary (UK). *Continental Shelf Research* 20: 1199-1217.
- Peck, M.A., P.E. Fell, E.A. Allen, J.A. Gieg, C.R. Guthke, and M.D. Newkirk. 1994. Evaluation of tidal marsh restoration: comparison of selected macroinvertebrate populations on a restored impounded valley marsh and an unimpounded valley marsh within the same salt marsh system in Connecticut, USA. *Environmental Management* 18: 283-293.
- Pethick, J.S. 1986. The geomorphology of mudflats. Pages 185-211 in *Estuarine Shores: Evolution, Environments and Human Alterations* (editors, K.F. Nordstrom and C.T. Roman), J. Wiley and Sons, New York.
- Quammen, M.L. 1982. Influence of subtle substrate differences on feeding by shorebirds on intertidal flats. *Marine Biology* 71: 3339-3343.
- Raichel, D.L., K.W. Able, and J.M. Hartman. 2003. The influence of *Phragmites* (common reed) on the distribution, abundance, and potential prey of a resident marsh fish in the Hackensack Meadowlands, New Jersey. *Estuaries* 26: 511-521.
- Roman, C.T., K.B. Raposa, S.C. Adamowicz, M.J. James-Pirri, and J.G. Catena. 2002. Quantifying vegetation and nekton response to tidal restoration of a New England salt marsh. *Restoration Ecology* 10: 450-460.
- Schneider, D.C., and B. A. Harrington. 1981. Timing of shorebird migration in relation to prey depletion. *Auk* 98: 801-811.
- Whitlatch, R.B. 1982. *The Ecology of New England Tidal Flats: A Community Profile*. US Fish and Wildlife Service, Biological Services Program, Washington, DC. FWS/OBS-81/01. 125 p.
- Williams, T.P., J.M. Bubb, and J.N. Lester. 1994. Metal accumulation with salt marsh environments: a review. *Marine Pollution Bulletin* 28: 277-290.
- Wilson, W.H. Jr. 1990. Relationship between prey abundance and foraging site selection by Semipalmated Sandpipers on a Bay of Fundy mudflat. *Journal of Field Ornithology* 61: 9-19.

**CZM-4:** *If net functions (and WPA interests) are to be lost as a result of this proposal, CZM believes that the project should not be considered under limited project provision but instead be evaluated as a variance project under WPA regulations.*

**Response:** NPS will continue to fully comply with WPA interests and regulations, and notes that DEP stated in their comment letter that the proposed project appears to meet the criteria for a limited project under the Wetland Protection Act (DEP comment letter to EOE#13563, dated 12/8/06, cc: to MCZM). NPS submits that the proposed project would meet the interests of the WPA due to numerous long term improvements, including:

- Removal of existing polluted sediments and improved pollutant attenuation,
- Improved wildlife habitat diversity, particularly avian and fish forage in restored mud flats,
- Restoration of diverse native fresh/brackish tidal marsh with both high marsh and low marsh plant assemblages. This is considered high priority natural community type by the Massachusetts Natural Heritage and Endangered Species Program,
- Stabilization of the existing slag pile, a contamination risk,
- Facilitation of the removal of the downstream Hamilton St. weir, and
- Demonstration of fresh/brackish tidal marsh restoration, and documentation of the restoration through an extensive monitoring program that contribute to the knowledge base of the scientific community and stakeholder agencies.

**CZM-5:** *Mitigation could be provided to contribute to the WPA interests, and one possible effort might be to further explore opportunities to remove the downstream weir.*

**Response:** NPS continues to facilitate the removal of the Hamilton Street weir which would enhance fish and wetland habitat in the Saugus River and provide more opportunity for recreational activities. Because the weir is located outside of park boundaries and is not under NPS jurisdiction, NPS is currently partnering with several organizations, including the town of Saugus, the Massachusetts Riverways Program, the Saugus River Watershed Council, the Essex Shipbuilding Museum, and Essex National Heritage Area to remove the weir. (EA/DEIR 1.7.1).

The NPS has worked with the Town of Saugus, which has identified an historic plan identifying the weir on a town right-of-way. The NPS has recently received a verbal acknowledgment that the Town owns the land on which the weir was built, and a commitment from the town to assist in the removal of the weir. NPS has also established a working relationship with Massachusetts Riverways, as well as the Corporate Wetlands Restoration Partnership to assist in acquiring the necessary resources to plan and implement weir removal.

See response to DMF-1 for NPS extensive mitigations designed to protect and enhance fisheries habitat.

A full discussion of mitigation measures designed for the project is presented in Section 2.6 of the EA/DEIR, as well as the Draft Section 61 Findings submitted to DEP and MCZM. NPS would commit to these measures, including all those identified in the MEPA Certificate on the DEIR, and these measures would be included in project contract documentation and the monitoring plan. Mitigation and minimization measures associated with the proposed project include:

- Sediment excavation would only occur in the upper layers that have been deposited since 1957, ensuring the preservation of archeological resources.
- Continuous monitoring would be conducted throughout sediment excavation work to identify the 1957 elevation.
- Silt fencing would be installed around the project area and remain for the duration of project activities
- A temporary diversion dike and sediment barrier would be installed around the excavation perimeter prior to excavation and would remain throughout excavation activities.
- Water would be controlled during construction and sediment would be removed from all accumulating water.
- Semi-annual monitoring would be conducted for a minimum of 3 years to ensure successful establishment of native wetland habitat
- Natural floodplain, native emergent freshwater tidal wetland habitat, and intertidal mudflat habitat would be restored.
- Contaminated sediments and Phragmites - dominated wetland would be replaced with diverse native tidal marsh, open water / mud flat and riparian berm habitats.
- No work would be performed in the active channel to preserve spawning habitat of rainbow smelt and other diadromous resources.
- A gravel and cobble berm measuring 150' long by 12' wide would be installed at an elevation of 6 inches above mean high water, or 6 feet relative to NAVD88 The berm would be planted with native woody vegetation to maintain channel and protect and enhance smelt habitat
- Weekly monitoring of anadromous fish and American eel populations would be conducted throughout the spawning season for a minimum of 3 years, in partnership with Massachusetts Division of Marine Fisheries and the Saugus River Watershed Council.
- Long term benefits would be provided to the public through the increased ability to experience the restored cultural landscape and native river and wetland system, as well as increased boater access to this stretch of river and to the park's dock.
- Numerous measures would be taken to restrict access to public safety hazards, to provide environmentally benign materials, and to utilize materials and methods that would reduce maintenance needs.
- Facilitation of the removal of the Hamilton St. weir would continue.
- Project work, including operation of equipment would be limited to daylight hours, and monitor noise would be monitored.
- One road would be used for site ingress and one for egress.

**CZM-6:** *The proposed project is subject to CZM federal consistency review, and therefore must be found consistent with CZM's enforceable program policies.*

**Response:** NPS is committed to enhancing WPA interests wherever possible and to complying with the maximum extent practicable with CZM's enforceable policies. NPS looks forward to continuing to work with CZM and other agencies as project efforts move forward.

**Saugus River Watershed Council (SRWC-1 thru SWRC-9)**

**PROJECT ALTERNATIVES**

**SRWC-1:** *The Saugus River Watershed Council supports the project concept described as Alternative B, the preferred alternative recommended by the National Park Service.*

**Response:** Comment acknowledged. The NPS appreciates the support of SRWC.

**PROTECTING RAINBOW SMELT SPAWNING HABITAT**

**SRWC-2:** *Based upon our discussions with staff from Marine Fisheries, the gravel/cobble berm design proposed in the EA/DEIR for this project would not adequately protect smelt spawning habitat because the berm would be under water during mean high water conditions (Appendix L, Sheet C8).*

**Response:** As stated in our response to Marine Fisheries, the NPS acknowledges that the berm design as depicted in sheet C8 is incorrect and will be fixed in the errata to the EA/DEIR. Although, it should be noted that the existing berm is at elevation 5.5 feet (mean high water), thus the proposed gravel berm will be 6 inches above the existing berm elevation.

**SRWC-3:** *Section 4.6 of the DEIR state, "Banks provide shade that moderates water temperatures, as well as providing breeding habitat, escape cover and food, all of which are significant to protection of fisheries. Bank areas would be maintained under the proposed condition." This statement is not consistent with the proposed berm which would replace an existing bank. As proposed, the existing bank would be completely excavated and then replaced by a berm of lower elevation and different sediment and vegetation.*

**Response:** NPS agrees that there would be a change to a portion of bank within the project area where it would be replaced by a berm. All other banks would be maintained under existing conditions. The berm itself would be constructed to an elevation higher than mean-high water, as described in response to comment DMF-1, and the cobble for the berm was selected to enhance the existing riffle habitat within the river channel and maintain berm stability based on recommendations by the Division of Marine Fisheries. Plantings on the berm would be native species that have been selected to provide shade and that would be expected in the native riparian system. NPS would continue to work with the Division of Marine Fisheries to refine the planting plan and berm design. It is noted that the existing natural stream bank in the berm area varies between 5.4 and 6.0 feet relative to NAVD88. Mean high water elevation is 5.5 feet. The restored berm would be at elevation 6 feet, or 6 inches above mean high water and at or above the grade of the existing stream bank.

**SRWC-4:** *The final elevation, vegetation, and design of the berm should be developed in consultation with the Division of Marine Fisheries...*

**Response:** Note comments on DMF- 1. NPS is committed to protecting and enhancing the smelt spawning habitat and would continue to consult with the Division of Marine Fisheries regarding the final design of the berm.

**WETLAND RESOURCES**

**SRWC-5:** *Although it is difficult to assess the value of one wetland type vs. another, we believe that the proposed project with appropriate mitigation and long-term monitoring could result in improved wetland habitat and resources overall.*

**Response:** NPS would be committed to instituting an intensive three-year monitoring plan (Appendix E) to determine the effectiveness of the restoration plan and allow for adaptive management actions, if needed for the project, as well as long term monitoring of select resources including water quality and diadromous resources. NPS views this as a demonstration/educational project to protect and study brackish and fresh water tidal marshes and mudflats, an uncommon and high priority type of natural community in Massachusetts, and to disseminate the results to the public and other agencies.

## **WATER QUALITY AND OTHER MONITORING**

**SRWC-6:** *The project proponent proposed long-term monitoring that would evaluate conditions of vegetation, wildlife, water quality, and fisheries. This plan should be adequate as long as it includes contingency follow-up plans in the event that problems are identified by the monitoring.*

**Response:** NPS' commitment to long term monitoring would include an annual professional review of the project during the initial three year monitoring period. The professional review would be conducted by an adaptive management team consisting of the NPS, the Massachusetts Division of Marine Fisheries, the Saugus River Watershed Council, and any other interested stakeholders. These annual reviews would allow an opportunity to review monitoring results and identify any problems that might require corrective measures.

## **PUBLIC ACCESS / CHAPTER 91**

**SRWC-7:** *...we recommend that a more formal canoe ramp/launch area be included as part of the public access requirements of a Chapter 91 license.*

**Response:** NPS welcomes greater recreational use of the river and hopes that this project and the partnership project to remove the Hamilton Street weir would allow greater access along the river. NPS is concerned, however, about granting uncontrolled access to the park during hours when the park is closed, as well as the effect to the historic landscape that a canoe ramp may entail. NPS would work with partners, including the Watershed Council and the Essex Shipbuilding Museum to allow water access to the park during special events and to allow the public to experience the arrival and departure of reproductions of the types of historic ships that once supplied the Iron Works with raw materials.

## **MITIGATION**

**SRWC-8:** *The Saugus River Watershed Council strongly supports any project that would remove the weir. We have indicated our willingness to provide volunteer support for a removal project to improve navigability and improve water flow into the proposed tidal basin and marsh restoration areas.*

**Response:** See comments on CZM- 5. NPS is committing to partnering with stakeholders to remove the Hamilton Street weir and appreciates the support offered by the Saugus Watershed Council in this endeavor.

## ENVIRONMENTAL CONSEQUENCES

**SRWC-9:** *Some of the information in Section 4 of the DEIR is out of date. The Saugus River Herring Restoration Habitat Assessment referred to in this section as “to be conducted” was conducted primarily in 2005 with a final report published in January 2006.... The Salt Marsh Restoration Plan for the Rumney Marshes Area of Critical Environmental Concern referenced on page 4-3 as “being drafted” has also been completed and published. Section 4.4.6. This section should include a full discussion regarding potential project impact on rainbow smelt, a federally listed species of special concern.*

**Response:** NPS appreciates the SWRC’s careful reading of the EA/DEIR and will include the updated information and refine the discussion of potential impacts to the rainbow smelt population in the errata to the EA/DEIR. The EA/DEIR, section 2.9.7 contains extensive documentation on the expected fisheries responses to the proposed action. In brief, no impacts to the Saugus River bed, the present location of rainbow smelt spawning activity, are proposed. It should be noted that several design changes that detract from the objective of restoring the historical landscape of the historic site have been made at the request of the MA Division of Marine Fisheries to minimize potential impacts to diadromous resources including rainbow smelt. These changes include raising the grading elevations of the restored turning basin, installing a gravel berm to maintain the existing hydrology and geomorphology of the upper tidal reaches of the Saugus River, adding cracked stone armoring to the berm, and planting woody riparian vegetation along the berm. These changes should minimize any impacts to rainbow smelt and should enhance the quality of the spawning habitat in the vicinity of the berm.

### Andrew B. DeSantis, Saugus, MA (DeSantis-1)

**DeSantis-1:** *As a resident of Saugus and the Saugus River Watershed, I would like to express my full support of this project and for the preferred alternative ‘B’. I also support any efforts to remove the Hamilton Street weir to make the Saugus River more navigable to canoes and similar water craft.*

**Response:** Comment acknowledged. As described in NPS’s previous response to CZM-5, NPS is committed to facilitating the removal of the Hamilton Street weir.

## **Section 2: Response to Additional Comments from the Massachusetts Department of Environmental Protection Received During the MEPA Comment Period on the Final EIR**

### **Section 61 Finding**

*“Lacking details, the Draft Section 61 Findings does not capture how the project construction is planned to be carried out to avoid, minimize, and mitigate environmental damage. In order to make the Draft Findings a more useful working document for state permit agencies that need to prepare Section 61 Findings, MassDEP recommends, at a minimum, revisions to Table A by either adding more details from the relevant appendices or by referencing applicable pages in the appropriate appendices. In addition a schedule for the proposed construction and mitigation activities should be provided.”*



**Response:**

The NPS is committed to avoiding, mitigating and minimizing environmental impacts resulting from project construction and documentation as summarized in Table A, and has made updates to Table A as suggested.

The anticipated schedule for the project has been included in the Revised Draft Section 61 Findings.

The project contract documents specifically address project requirements. Special Construction Requirements are listed in the project specifications, including:

- The Saugus River is an ecologically sensitive tidal river. Contractor shall conduct work and related activities in a manner that prevents disturbance and /or discharge of sediment, silt, or any other contaminants into the river at all times.
- Archeological features and artifacts may be present within the specified work areas. Contractor shall conduct work, and related activities, in a manner that prevents disturbance outside the specified horizontal and vertical limits of the work. If artifacts are encountered, or suspected, work shall cease until National Park Service archeological personnel approve the resumption of work.
- Spawning of rainbow smelt occurs within the Saugus River from March through May. No work shall occur within the vicinity of the Saugus River channel from February 15 through June 30. Work in other areas, such as site preparation, demolition, etc. may occur upon written approval by the Contracting Officer.
- The Contractor must provide sufficient measures and conduct his work in a manner as to prevent any disturbance, instability, or erosion to the existing slag pile located near the eastern edge of the work area.

In addition, in each solicitation by the National Park Service, the Request for Proposal specifically addresses:

Section E, E.1 52.246-12 - Inspection of Construction, b:

The Contractor shall maintain adequate inspection system and perform such inspections as will ensure that the work performed under the contract conforms to contract requirements. The Contractor shall maintain complete inspection records and make them available to the Government. All work shall be conducted under the general direction of the Contracting Officer and is subject to Government inspection and test at all places and at all reasonable times before acceptance to ensure strict compliance with the terms of the contract.

Per Section I, I.5 1489.236-73 Archeological Findings:

(a) Petroglyphs, artifacts, burial grounds or remains, structural features, ceremonial, domestic, and archeological objects of an nature, historic or prehistoric, found within the construction area, are the property of and will be removed only by the Government. Should Contractor's operations uncover or his employees find any archeological remains, Contractor shall suspend operations at the site of discovery; notify the Contracting Officer immediately of the findings; and continue operations in other areas.

Included with the notification shall be a brief statement of the location and details of the findings. Should the temporary suspension of work at the site result in delays, or the discovery require archeological studies resulting in delays or additional work for Contractor, he will be compensated by an equitable adjustment under the General Provisions of the Contract.

Per Section 1, 1.76 52.236-09 Protection of Existing Vegetation, Structures, Equipment, Utilities and Improvements:

(a) The Contractor shall preserve and protect all structures, equipment, and vegetation (such as trees, shrubs, and grass) on or adjacent to the work site, which are not to be removed and which

do not unreasonably interfere with the work required under this contract. The Contractor shall only remove trees when specifically authorized to do so, and shall avoid damaging vegetation that will remain in place. If any limbs or branches of trees are broken during contract performance, or by the careless operation of equipment, or by workmen, the Contractor shall trim those limbs or branches with a clean cut and paint the cut with tree-pruning compound as directed by the Contracting Officer.

(b) The Contractor shall protect from damage all existing improvements and utilities

(1) at or near the work site, and

(2) on adjacent property of a third party, the locations which are made know to or should be known by the Contractor. The Contractor shall repair any damage to those facilities, including those that are the property of a third party, resulting from failure to comply with the requirements of this contract or failure to exercise reasonable care in performing the work. If the Contractor fails or refuses to repair the damage promptly, the Contracting Officer may have the necessary work performed and charge the cost to the Contractor.

#### **Wetlands 1**

*"According to the Marsh Characterization Report in Appendix C, the preferred project alternative (Alternative B) proposes the removal of up to 14,000 cubic yards of sediment from two wetland areas referred to as the Northern Area Turning Area and the Southern Area... The Draft Section 61 Finding, however, indicates that the preferred alternative would dredge 7,200 cubic yards of sediment from the combined areas. The DEIR does not clarify the issue; it indicates that a total volume of 9,000 cubic yards would be dredged from both areas (page 2-2)."*

#### **Response:**

The preferred alternative presented in the Marsh Characterization Report has been changed significantly since that report was prepared, based on comments and input from various stakeholders and permitting agencies. The subsequent changes resulted in a reduction in the estimated sediment volume that would be removed through implementation of the preferred alternative.

On pages ii, 2-2, 2-3, 2-4, 2-20, the EA/DEIR states "The preferred alternative would remove approximately 9,000 cubic yards of sediment..." This value is incorrect and was calculated prior to subsequent design changes that reduced the overall estimated volume of sediment. The correct volume of excavated sediment for the proposed action is approximately 7,200 cubic yards. This error will be corrected in an errata sheet to the DEIR.

#### **Wetlands 2**

"MassDEP advises that in accordance with the recent 401 Water Quality Certification regulation changes in 314 CMR 9.07 (11), dredged material placed at upland locations other than under 314 CMR 9.07(6), (9), and (10) shall be managed subject to provisions of the Solid Waste Regulations at 310 CMR 16.00 and 19.000 and relevant guidelines and policies."

#### **Response:**

These requirements for the proper management of the excavated material will be incorporated into the project specifications.

#### **Excavation and/or Dredging 1**

*"Consideration should be given to the applicability of a groundwater discharge permit for the effluent discharge, and contingency options within the previously identified contingency plan should be available in the event that larger volumes of contaminated sediments need to be handled, as well as disposed.."*