THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS

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FEIR REVIEW OF OPTION #3:
REGIONAL SAUGUS RIVER
FLOODGATE PROJECT

February 20, 1990

CERTIFICATE OF THE SECRETARY OF ENVIRONMENTAL AFFAIRS ON THE FINAL ENVIRONMENTAL IMPACT REPORT

PROJECT NAME	: Flood Damage Reduction Study
PROJECT LOCATION	: Lynn, Malden, Revere and Saugus
EOEA NUMBER	: 6497
PROJECT PROPONENT	: U.S. Army, Corps of Engineers
DATE NOTICED IN MONITOR	: January 20, 1990

The Secretary of Environmental Affairs herein issues a statement that the Final Environmental Impact Report submitted on the above project adequately and properly complies with the Massachusetts Environmental Policy Act (G.L.,c.30,s61-62H) and with its implementing regulations (301 CMR 11.00).

The comment letters from state agencies who have a major role in the implementation of this project indicate a continuing significant difference in philosophy from the Corps of Engineers, co-proponents with the state, regarding the advisability of this project as it relates to new development along the state's coastline and protection of development already in place. My office has designated the Metropolitan District Commission as lead state agency for flood control efforts for the Saugus River Estuary, and the Coastal Zone Management Office must find consistency in both the state and federal actions to that end. The larger question is whether this project represents sound policy and is one for which state funds should be expended.

However, the question of the moment is whether the Final EIR has presented an analysis sufficient to describe the potential environmental impacts of the project if it is pursued and if sufficient mitigation has been presented to allow all state agencies to either avoid or minimize those impacts. It is to this question that I will address the current Certificate. The decision as to whether this project represents an appropriate expenditure of public funds at this time is one which I and the relevant agencies within my Secretariat will resolve in the near term.

Among the important issues and requests contained in the

comment letters are: the viability of the marsh, the role of major storms in the sediment budget of the marsh, the ability to retrofit the proposed structures in the event of a 3 to 4 foot sea level rise, the effectiveness of flood proofing and evacuation, the responsibility of the facility manager, the lack of a Draft Section 61 finding, the role of the communities in the management of the area, final cost sharing responsibilities, land acquisition responsibilities, requests for preparation of a generic environmental impact report and a request for major and complicated designation under the MEPA regulations. These issues are addressed individually below. It is my conclusion that they have been sufficiently addressed to allow the decisions to be made as required by law.

MARSH VITALITY - Several commentors suggest that by stopping the peak of flooding events, the marsh complex would shift in composition and boundary. It should be noted that all marshes have been identified as existing below elevation 7. The proposed operation of the tide/storm barriers calls for closure of the barrier when the tide event has reached elevation 7, when all marsh would be inundated. At that time the Saugus River would continue to flow and most of the tributary land area not blocked by tide gates would continue to drain as well. Thus the water level behind the barrier will peak at levels above elevation 7. In addition, wind action within the estuary will continue to act on the water body to create internal circulation and tend to decrease salinity gradients as at present. Since no significant changes in tidal exchange, or low or mid tide levels are anticipated with the main gate and the "tainter" gates, I agree with the EIR conclusions that mitigation has been included to minimize the potential marsh impacts of the storm barrier.

MARSH BUILD-UP - Commentors have suggested that storm event sediment transport will be crucial to the survival of the salt marsh with sea level rise. It should be noted that the estuary is located behind a barrier beach which would be expected to contribute significant quantities of sand (sediments) during future storm events with sea level rise if it were not heavily developed and protected by structures at this time. The combination of these two factors limits the quantity of sand which would occur as a result of overwashes. The second major source of sediments are those from the river system. These are not changed by the barrier, or may be enhanced slightly as the flow gradient may continue longer into the basin behind the barrier. The last source of sediments is from reversals in river flow. Sediments delivered to the mouth of the river can move some distance upstream. In the case of the Saugus River, the

protection of Nahant and its causeway limit the ability of storms to deliver sediments to the river mouth. Only storms from the Southeast are significant in moving sands from the River beach to the river mouth. With the gates open until the storm surge reaches 7 feet, a significant period of sediment transport is preserved. Only long term monitoring of marshes will determine if they can adjust to sea level changes as they occur. This EIR is not the place to require such basic research.

WETLAND MITIGATION - Commentors have identified the state policy as requiring greater than one for one compensation for loss of wetland resource areas. I concur with that information and conclude that enough information is contained in the DEIR and FEIR for the appropriate state agencies to require the needed mitigation. The DEIR identified greater areas for mitigation as the amount of area thought to be altered was much greater. I conclude that the state regulatory programs can require the needed mitigation as they evaluate the project for the needed variances. There is a provision in the Wetland Protection Act to allow the DEP to rule on wetland alteration projects prior to the conservation commissions when the project involves more than one community. That process appears appropriate in this instance.

FACILITY CHANGES DUE TO SEA LEVEL RISE - The EIR has stated that the structures will be designed so that sea level changes up to 3 or 4 feet can be accommodated if future study determines that such changes are desirable, feasible and environmentally acceptable. A request by the state sponsor for the Corps to conduct an investigation under the Corps Section 216 authority for modifications to authorized projects would initiate the study. The capability to respond to sea level rise has been requested by state agencies.

EVACUATION/FLOODPROOFING - Comments indicate that many feel that evacuation and floodproofing are viable options and must be used to avoid any of the identified impacts to the environment. I am persuaded by the evidence in the EIR that flooding events in this particular estuary are difficult to predict in time to allow orderly evacuation. Study has indicated that combinations of events during the storm are in many cases crucial to the decision making and many false emergencies would have to be declared under the existing conditions. This information will be further reviewed as the state decides whether to endorse and participate in the recommended project.

FACILITY MANAGEMENT - The Corps of Engineers has determined that it can not manage the proposed facility and that

the state proponent would be the likely manager. Assuming that the determination is made to proceed with this project, I agree that this is acceptable and that the management agency must be responsible for both operation and maintenance of all facilities and that the agency must also take an aggressive stance in following all proposed development in the flood storage area and the adjacent floodplain. The basin will operate as in inland flood storage areas after construction of a flood barrier and any loss of flood storage capacity will be significant and must be, under the Wetlands Protection Act, compensated. The manager will be aggrieved under any Order of Conditions which does not protect the flood storage, and must therefore appeal the decision to the state. I will, through the MEPA Unit, make sure that all projects requiring MEPA review are consistent with this requirement. The ACEC status of the estuary will bring most proposed alterations within the estuary under MEPA review. A further responsibility of management will be to bring to the attention to appropriate local, state and federal agencies, any flood plain activity which has not been seen through the permitting process. I expect that a comprehensive management document determining local, state and federal responsibilities will be developed prior to any construction, and I encourage all interested parties to follow its development. The Environmental Monitor can serve as a vehicle to publicize developments.

STATE/LOCAL FUNDING - Once the environmental review is completed it is time to work out the split in responsibility between the state and the local communities who benefit from the flood protection. I fully expect this to be resolved prior to state commitment to the program.

ACQUISITION OF FLOOD STORAGE LANDS - Comments have suggested that the land acquisition may not occur. It is my position that the land acquisition is now a part of the program and that it must occur. If that fact should change, the environmental review of the project would be reopened in response to notification of project change.

SECTION 61 FINDINGS - The most serious issue raised is the lack of Draft Section 61 findings in the document as required by the scope and again in the Certificate on the DEIR. I am disappointed that the draft is not included, but conclude that its absence is not fatal as several summaries of impacts and mitigation are included. These include Table 5.1 of Section 2, Table 1 following page EIS-2 of Section 2 and the last pages of Appendix K. I should note that some of the conclusions as to potential impact are given after redesign to minimize impacts and

the Section 61 Findings should so indicate. My call for a Draft finding in the EIR was to assist all state agencies in carrying out their mandated responsibilities. In lieu of the Draft in the EIR, I ask that the state sponsor prepare a Draft finding which I will publish in the Environmental Monitor for comments from the public.

GEIR/MC STATUS - Finally I have been asked by state agencies and others to consider requiring that a Generic Environmental Impact Report on flood control all along the state coastline in response to sea level be required prior to any state decision to participate in this project. I have also been asked to invoke Major and Complicated status under the MEPA Act, presumably so I can require a further series of reports prior to completion of the environmental review for this project. First, both of these decisions are properly made when the ENF is filed, not at the review of a FEIR. I do not find that the conditions in the Saugus River Estuary are typical of our coastline. It may be desirable to review the state response to flooding forecasts over the next 30 to 100 years but I do not think this project is the proper vehicle for that review. Major and Complicated status is reserved for projects where a long series of decisions must be made as it allows incremental approval of a project. The decision to be made for this project is whether it should go forward, and if so, what mitigation is necessary. I conclude that the normal EIR process is appropriate.

February 20, 1990
Date

John DeVillars, Secretary

Comments received :
MCZM - 2/12/90
CLF - 2/9/90
SWIM - 2/5/90
MACC - 2/6/90
Lynn Planning Board - 2/6/90
SAVE - 1/25/90
DMF - 2/6/90
Revere City Council - 2/2/90
Mayor of Revere - 1/25/90
Point of Pines YC - 1/23/90
MDC - 2/9/90

JD/DES/ds

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