

REGIONAL FLOODGATES: CORPS RECOMMENDATION
FOR SENATOR EDWARD MARKEY
9 February 2021

Email To: Mr. Scott Acone, Deputy District Engineer for Project Management
US Army Corps of Engineers, New England District

1. Purpose: Senator Edward Markey intends on working with the Congressional Delegation to initiate legislation in March to re-authorize the Regional Saugus River Floodgate Project (aka. Saugus River and Tributaries Flood Damage Reduction Project, MA) in the Water Resources Development Act of 2022, as reported by Mr. Paul Rupp, Revere's former Director of Planning. The Regional Project would protect over 5,100 buildings in Everett, Lynn, Malden, Revere and Saugus, MA against the worst coastal storm likely to occur and sea level rise. Sen. Markey's staff recently told Mr. Rupp that in March they'd be looking for the Corps' recommendation on re-authorization. This is a heads up to this inquiry and a summary why the Corps should consider supporting the re-authorization to save about 9 years of re-planning (to avoid the New Study Start) and expedite protection for the region.
2. Regional & State Support: The state previously supported the Regional Project. Four mayors and town manager signed a support letter on August 26, 2020. Also a state legislator sent a supporting letter to the Governor and Environmental Secretary, a letter to the Corps from the Revere City Council, and an overwhelming vote of support from the Saugus Town Meeting Members. Senator Markey stated his support for the project to Mr. Rupp. Revere plans to initiate a Regional Advocacy Team to educate communities and agencies which hopefully would generate a renewed letter of support, ideally in March, from the Secretary of Energy and Environmental Affairs which is so critical to realizing the Project. The Governor supports solutions to protect coastal communities from sea level rise.
3. Regional Project Remains Preferred: The Regional Project, before being placed on hold in 1993, had cost \$8.6 million for planning and design, and was only a year away from starting construction. The Regional Project remains the preferred alternative since it alone:
 - a) protects the entire region against the worst coastal storm likely to occur (the Standard Project Northeaster) plus sea level rise with potential damages at \$1.25 billion (2020 price level);
 - b) produces the highest net economic benefits, benefits grow faster than costs with rising sea levels;
 - c) has the opportunity alone to restore 500 acres of the 1,600 acre salt-water Saugus/Pines River Estuary that provides flood water storage and would be acquired in fee, lacking in other alternatives;
 - d) includes nonstructural features, eg acquire, protect and manage the Estuary and dune restoration; and
 - e) has minimal environmental impacts, eg. Floodgates designed to maintain natural Estuary flushing.

The following summarizes major issues to consider before making a recommendation, hopefully, favorable to the communities support of the Regional Project.

4. Coastal Flood Risk, Damages & Benefits: The region is experiencing more frequent flooding, and the record tide level in 2018 exceeded the Blizzard of '78's 100 year tide level when 3,100 buildings were flooded. The risk, prevented damages or benefits are increasing due to the accelerated rate of sea level rise (approaching a foot since '78) and expected to continue to increase faster than the historical rate (used initially to compute benefits). Benefits will also increase from damages prevented to an additional 1,100 buildings in the Town Line Brook area of Revere, Malden, and Everett; and 300 buildings in the Upper Saugus River area of Saugus not previously evaluated.

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5. Regional Project Features & Costs: I reviewed the shoreline a few months ago and there has been no significant change in the shoreline and therefore in the Project features. The floodgates foundation et. al. were designed for a 4 foot rise in sea level and for ease of raising the structure for each foot of rise. Costs rose with inflation to about \$230 million ('20 p.l.), and a minimal increase in costs occurs with each foot of sea level rise, as compared to a significant increase in benefits. Floodgate openings significantly exceed the required river flow as to avoid any impact on the 1,600 acre Estuary.

6. Regional Project Environmental Issues: The MA Environmental Secretary's Certificate (20 Feb 1990) stated that the "...project adequately & properly complies with MEPA.." and then assigned the MDC to support and sponsor the project. On major issues the Secretary reported that:

a) "Marsh Vitality" would be "minimally impacted" since "all marsh is inundated" when gates are closed;

b) "Marsh Buildup" will not change since the "estuary is located behind a developed barrier beach" and "the river system will not change" (due to modeling 9-gated openings);

c) "Land Acquisition" (for flood storage) "is part of the program and must occur"; and

d) "Evacuation and Flood Proofing", "...flooding events in this particular estuary are difficult to predict in time to allow orderly evacuation." These responses should not change.

Federal and state agencies, et. al. supported breaching the abandoned I-95 embankment once the Regional Project is built, to restore flushing to 500 acres of the upper estuary. This effort was under design when placed on hold when the Regional Project was stopped in 1993. The Congressionally Authorized Regional Project was put on hold in 1993 (after several Secretaries had supported it) since a new MA Environmental Secretary, an environmental activist from Rhode Island, was opposed to construction along the coast and, reportedly, wanted to review nonstructural solutions... never done.

7. Nonstructural Plans: this alternative was rejected by the communities since: only 7% of structures could be partially protected with flood proofing or raising; no protection for

transportation or other infrastructure; and difficulty to evacuate 10,000 to 30,000 people. These concerns remain.

8. Local Protection Plans: This alternative to protect five locations was rejected by the communities because of the required 10 miles of walls, up to 12 feet high along the shores which impact aesthetics and views, impact wetlands and provide a lower level of protection than the Regional Project, benefiting only 86 percent of buildings. These concerns remain.

9. Details on these issues and copies of letters, the Certificate and a Brochure are located on the project's website: saugusriverfloodgates.com.

Please contact me if you have any questions at 617-633-3974, or bobandbjhunt@hotmail.com.

Robert G. Hunt
Former Corps of Engineers Project Manager

Copies sent to: Secretary Kathleen Theoharides, Exec. Office of Energy and Environmental Affairs

Commissioner Jim Montgomery, MA Dept. of Conservation and Recreation