

**FAIRFIELD FLOOD & EROSION CONTROL BOARD
ACTIVITY SUMMARY**

SECTION 1 "HARD" FLOOD CONTROL PROJECTS

PROJECT ID	PROJECT NAME	APPROXIMATE COST	GRANT PROGRAM	GRANT AWARD AMOUNT	DATE SUBMITTED COMMENT DATE	STATUS	DESCRIPTION AND COMMENTS
1-A	Pine Creek Dike elevation	\$7,692,308	ACOE Project			Tighe & Bond initial report completed July, 2013 ACOE profer received August, 2014	Increase height of existing dike by 2 to 5 ft.. Harden the western 1,600 ft. fully exposed to L.I.Sound. Remaining 3,500 ft. at the north side of Pine Creek stays unarmored.
			CDBG-DR	\$300,000	07/15/15 9/16/2015 thru 3/15/16	Grant Awarded	Final acceptance of Grant by RTM on 2/29/16 a.) ACOE is still evaluating alternate plans. b.) The ACOE will not be able to fund this project scope under their \$5MM program ceiling.The \$300K grant might be used to assist Fairfield in meeting the Municipal participation funding that will be required under the ACOE's \$3 Million, 3 year feasibility study, or, 'Himes' Plan', encompassing Fairfield & New Haven counties. See Item O below.
	Fairfield Beach Storm Damage Protection Feasibility Study				04/11/16	ACOE issued a Coastal Engineering Report on 3/30/2016 NOTE NAME CHANGE	This study encompassed the entire beach area and generally followed the measures included in our 2015 Master Plan, it highlighted the importance of adopting a set level of protection which the individual but interrelated measures would be designed to. The ACOE also produced a new Statement of Work that is under review to determine next steps for this re-visioned project.
					06/15/17	in Capital Plan	Recognizing the South Pine Creek Dike is still in jeopardy of being overtopped by a major storm, DPW has included \$2,000,000 in the Capital Plan for 2020/21. Scope details are presently unknown.
					11/15/17	Grant Transferred	The \$300,000 Study Grant was transfereed to the Riverside Drive Tide gate Project - Item # 1-W below.
					12/19/18	new activity	RACE has developed a maintenance plan for our Conservation Dept to reduce the vegetation which can compromise the integrity of the Dike. It will be done, over time by Conservation/DPW personnell.
					11/01/19	data point	This item was included in the ACOE Feasibility Study for the whole Town. Project cost was very expensive and will not go forward - at this time.
1-D	Wastewater Plant Hardening	Total Project Cost \$3,088,000	CDBG-DR		Submitted: 7/2/2114		Construct dike around WTP and Town Yard to prevent coastal flooding. "Hump" One Rod Highway.
		\$2,316,000 Grant Amount		\$2,316,000	12/19/14 03/18/15	Grant Awarded Grant received 12/19/14	At some point this will tie in with the Grand Plan Dike. The Town Share of \$772,000 will probably be funded by WPCA
					12/14/16	Design and permitting continues	DEEP permits required from both "Dams" and "Flood Plain" groups. Design issues are resolved. Expect the Construction RFP will be issued in late Fall, 2017.
					6/15/2017 & 11/14/17	At DEEP Review Still no response A/O 11/14/17	Permit plans complete and permit applications submitted to DEEP in April, 2016. Construction document preparation awaiting any final DEEP comments. Expect construction RFP to be issued in Winter, 2017/18.
			Grant end date extended to 6/30/2019		05/16/18	DEEP to published intent to approve on 5/18/18 in CT POST	Final bid package can now be completed. Short timeframe to complete construction. Must expedite all facets to assure completion by the Grant end date. Some risk of cost adjustment when the <i>real</i> bids come in.
					10/17/18	On HOLD due to Funding Issues	Bids came in almost 2X the expectations. Value Engineering effort is completed. Request to CT HUD for increased grant was made 9/6/18. Microgrid is tied to this project.
					12/19/18	awaiting CT HUD	We are hopefull the additional funds will be granted
		Final cost at \$7.4MM	Deadline moved to 9/30/20	Total grant amount now \$3.332MM	11/01/19	PROCEEDING	Funding in place, all board & RTM approvals received. Contract has been awarded to Holzner Electric. Mobilization is underway.
1-G	South Benson Pumping Station	\$5,000,000	CDBG-DR		August 13,2014	Under Review by State	Install pumping station to evacuate flood waters (coastal or rain) from the low lying basin East of Penfield Road.
					03/18/15	Grant Denied 12/19/2014	

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		\$300K	CDBG-DR Second Tranche		10/21/15	Reactivated this mitigation measure	Town will submit a \$300K Grant Application in mid-November for a CDBG study grant to develop engineering plans and estimates for this project.
		\$300,000			12/14/15	Grant Application	Grant submitted 11/5/15. This is for a 100% STUDY GRANT to include the pump station itself with necessary improvements to the contributing storm sewer system east of Penfield Road.
				\$300,000	12/30/15	Grant Awarded	Final acceptance by RTM on 2/29/16
					06/15/17	Underway	Design Effort continues. Expect final report in September which will include cost estimates necessary to budget or apply for Grant money to design and construct the pump station and the necessary storm sewer upgrades
					11/14/17	Effort Continues	Final Report received. Application made for a \$10MM FEMA Grant to help with funding. Project is two parts: 1) construct pump station (\$10 - 13MM) 2) replace storm sewer system - over time - (\$7MM)
				\$300K Grant deadline extended to 12/31/18.	05/15/18		Personnel change at CT FEMA put a bump in the funding request progress. Looking at a project scope of construct the Pump House and outfall plus the Storm Sewer Trunk Line.
		\$13,000,000			10/17/18		Final issuance of the Study will be before Grant expires in December. Just waiting for word on the FEMA \$10MM Grant application status.
					12/19/18	Awaiting Final Study	Final study not yet received. Might ask for an extension of the Grant
		\$24MM			11/01/19		Study completed. Project in the Town Capital Plan for 2021/2022 at a cost of \$24MM
1-N	Shoreline Resiliency Improvements at Penfield Beach	\$225,000	CDBG-DR	\$225,000	12/19/14	Grant Awarded	
					03/15/16	Penfield Pavilion reconstruction has begun	The Flood Management Certification process disclosed a problem with the CDBG-DR grants applicable to the main building. The PBC will not alter the bulkhead and tie in plans. .
					07/16/16	Timber Bulkhead removed in June per DEEP recommendation	After discussions with DEEP the "non-regulation" Timber Bulkhead has been removed. FECB and the Town will develop an alternate method of providing an elevation +12 ft. flood mitigation measure across the Penfield property with maximum erosion capability that is consistent with DEEP recommendations.
					12/14/16	Replacement project "in the works"	An RFP was issued and a Design Firm identified. The Town is currently investigating an appropriate funding strategy since use of the original Grant funding including the Town match share is problematical.
					06/15/17	in process	Town requested an extension for the Grant acceptance period pending identification of an alternate project . Hurdles will be transferring Grant Funds to an alternate project, obtaining the town match and gaining DEEP approvals for such project.
					11/20/17	Project restarted	The project identified in RFP 2017-34 to install a hardened, vegetated dune across the Penfield site has been re- authorized for the first phase. We expect this will establish the parameters and costs for a project that will receive DEEP approval. Detailed Design will follow in Phase 2. Grant expiration was extended to September, 2019 .
				Note that grant extension is to 6/30/19 not the date noted above	05/15/18	In Progress	Design approach incorporating a Geotube reinforced beach at elevation 12 was selected. Discussions underway to identify a funding strategy (Increase grant amount, Town share in-kind work) since initial estimated cost of construction is double the original amount.
					10/17/18	At DEEP	Flood Management Certification application has been at DEEP since 9/7/18. Awaiting word.
					12/19/18	Project in Jeopardy	11/29/18 Reply from DEEP is not favorable. Basically, they are rejecting a Flood and Erosion control structure at that site. Town considering next steps.
					01/16/19	Reevaluating	This project's grant \$ was re-allocated to WWTP. Continue to find DEEP acceptable solution...
					11/01/19	will revisit after FEMA issues are resolved	The rejection of the FEMA Grant, although not a tangible component of a solution to flooding across the site, has resulted in DEEP considering nothing until that issue is resolved. The decision to reject the Town's first appeal been appealed to FEMA's D.C Office. Expect response in Dec.

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1-O	ACOE study for CT shoreline. Jim Himes initiative	\$3MM			a.) 3/18/2015 & b.) 9/16/15		a.) This is a 3 year, \$3MM study to devise an overall shoreline plan for CT. It has just been announced. b.) Any project benefitting Fairfield would require a funds matching by the Town.
					10/21/15		See update at Item A above. While this will help Fairfield, accumulating the municipal share of funding from all the other affected towns may prove to be a significant hurdle for this project.
					04/11/16		The program will start in May-June period with the initial \$300K match provided by the DEEP but dolled out \$25K at a time.
					12/14/16	Project Stalled	The funding was reduced from \$3MM to \$600,000. Deliverable scope will be severely impacted by this 80% budget reduction.
		\$2MM +			05/15/18	Project rejuvenated	ACOE and CT DEEP are revisiting the funding which may result in a total budget of \$1MM +. There are now 5 Towns that will be the focus of the study; Fairfield, Stratford, Milford, West Haven and New Haven. ACOE Project Manager, Byron Rupp, expects actual study work will begin this summer.
					10/17/2018 & 12/19/2018	In Progress	Held meeting with ACOE 8/8/18. They expect to publish an initial report in November.
					01/16/19	Ongoing	No interim report to be issued. Final Report in June 2019. Meeting with ACOE 2/5/19
					10/01/19	Project at an End	Final Readiness Study with a Tentatively Selected Plan for Fairfield was issued on 6/7/19. To further study would cost the Town some \$600K. A subsequent project might have an implementation cost to the Town of, perhaps \$190MM (35% of total project cost - 65% by ACOE). The plan was presented to BOS on 6/19/19 and was not supported.
1-P	Engineered Beaches	\$59,000		\$100,000	06/17/15	Planning stage	This project would establish a documented baseline for our beaches so that future storm losses of sand might be replenished using FEMA Funding
					09/03/15	Grant Awarded	Town received a \$100K Study Grant initiated by the Conservation Department. Town approval process to begin.
					06/15/17	Report Complete	The report has been sent to the DEEP for their review and comment. The intent is to redistribute existing sand to attain the design profiles for our public beaches. The report is available on the FECB Webpage.
					11/15/17	Awaiting DEEP comments	The intent is to minimally recontour our beaches as suggested in the study and then begin the biennial surveys and maintenance to continue that benchmark profile
					03/15/18	awaiting schedule	DEEP offered no comments. Slight regrading of existing sand is anticipated, perhaps Fall of 2018. The grading at Penfield Beach will co-ordinate with item N above.
					10/17/18		Penfield Beach final OK still not received. Timing unknown. Work to be done during fall/winter season.
					12/19/18	Awaiting ACOE approval	Still looking to doing work this winter. ACOE approval <i>should</i> be close.
11/01/19	STILL Awaiting ACOE	See item 2-C also.					
1-U	Fairfield Beach Road Drainage				ONGOING		Recognition that dry access along the peninsula is becoming an irritant / safety / quality of life issue for residents
					11/20/19	Work in progress	DPW revising storm drainage measures in the 1300 /1400 block. This is a minor, interim action to address specific "puddling" locations.
1-Va	LOWER Rooster River Flood Mitigation Project				12/22/15	Renew old project funding request to The State	Mr. Tetreau wrote Gov. Malloy requesting funds under the State Grant-In-Aid Program. This is an old never executed project being renewed.
					11/14/17	Underway	Stantec has begun work. Expect final Report in Summer, 2018
					10/17/18		Draft Report completed, final revisions being done. Needs to go to CT for final review (was paid for by CT) then it will be published - expect early in 2019.
					12/19/18	Ongoing	10/25/18 flooding has exacerbated the scope of this problem. STANTEC report expected soon. STANTEC reoport updates the LOWER RR status
1-Vb	UPPER ROOSTER RIVER, inland Flooding				6/15/2017 & 11/14/17	Plans under development	Rooster River is eroding the streambank in the vicinity of 236 Woodside Circle. Funding approved by RTM 2/27/17. Project design is impacted by pending resolution of unapproved construction by previous property owner.

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					10/17/18	STALLED	Area was further eroded during recent severe rain event. Banks need stabilization.
					11/14/18	Re-invigorated	Project scope expanded to include the upper reaches of the river in light of recent rain event flooding. Plan is to work Jointly with Bridgeport. Have engaged Milone & McBroom to analyze rain and flow characteristics and suggest potential storage alternatives.
					12/19/18	ongoing	Holding public meetings. Presentations on FECB Webpage. As far as the Woodside Circle property, see item 2D on "SOFT" list.
					11/20/19	ongoing	M&M presented a 4/15/19 study showing alternative measures of providing detention in the upper reaches of the RR. They recently completed a draft plan ranking potential detention sites which is being evaluated by Town Engineering Dept. The Capital Plan includes \$1.25MM in 2021/2022 to execute a selected measure.
1-W	Replace Riverside Drive Tide Gates	\$3,720,000			06/15/17	on Capital Plan	Submitted for 2017-18 Capital Plan by DPW / Conservation. These Tide Gates were judged in dire need of replacement by both Tigh & Bond and Milone & MacBroom.
					11/14/17	Project underway	Transfer of \$300K (Item #1-A to Item #1-W) will 100% fund the engineering study and design of replacement Tide Gates. PO issued to T&B for Phase 1 of design.
					03/15/18	Project Scope Change	Design development suggested consideration of combining the tide gate work with replacement of the 1947 bridge - it is 71 years old now. Additionally, the current Sewer Main Replacement project involves a reverse siphon that exists beneath the bridge. Town Management has approved T&B to proceed to design the combined project which should realize a substantial cost avoidance over independent tasks separated by some years.
					05/15/18 10/17/2018 & 12/19/2018		T&B working on combined design. Design study completed. Cost estimate is \$3.2MM - excluding the cost of sewer component. Doing value engineering now and will have to get funding approval for now higher project value from Town bodies.
		\$3,720,000			11/01/19	in Progress	Permit requests submitted to DEEP and ACOE. The Capital Budget now in process includes \$3.72MM in year 2019/2020 for this project.
1-X	Repair/Upgrade various SRT Tide Gates along the shoreline	\$2,676,000			6/15/2017 & 11/14/17	on Capital Plan	Total of 4 SRT installations were submitted for the Capital Plan years 2018 / 2019 & 2020. Priorities are based on a Tigh & Bond Study done in August, 2016.
1-Xa	South Pine Creek Outfall Reconstruction	\$225,000 (for Phase 1)			03/15/18	RFP was issued 4/5/18	This item is approved to complete the design, construction documents and permitting necessary to rebuild the triple Tide Gate Assembly located on the walking path beyond the ball field on Old Dam Road. Approved by Town Boards - RTM on 2/26/18. Eventual construction cost will be approximately \$1,000,000.
					05/15/18	Project underway - awarded to RACE Coastal Engineering	The cost came in below expectations. Considering extending the scope to points that could eventually tie-in to an enhanced (raised) South Pine Creek Dike structure
					01/16/19	Ongoing	RACE will complete feasibility/planning study soon. Pre-Application Questionnaire submitted to DEEP early January, 2019
		\$1,668,529*			11/20/19		Dialog with State Historic Preservation Office (SHPO) regarding disposition of the cast iron "railroad bridge" has been disappointing. Their current posture is that we cannot destroy the structure but must relocate it to a location where it will be used as a walk bridge. This poses many difficulties. *listed value is on the Capital Plan for 2020/2021.
UPDATED: November 2019							Note that updates are in red text for clarity.

Note that some older / completed / inactive line entries are hidden to reduce printed document length. Electronic copy of complete, Excel document is available upon request to FECB.

SECTION 2 "SOFT" MITIGATION & RESILIENCE TOPICS

This Section 2 is new at 11/20/19

ACTIVITY ID	PROJECT NAME	APPROXIMATE COST	GRANT PROGRAM	INVOLVED PARTIES	DATE SUBMITTED COMMENT DATE	STATUS	DESCRIPTION AND COMMENTS
2-A	Include requirements of 20/50 by 2050 in future Zoning Permits			all	9/17/19 initial entry	put on list	This is associated with the POCD, item 2-B below.
2-B	POCD revision			all	11/20/19	ongoing	FECB must maintain the ongoing dialog with P&Z Department to assure the topics of Climate Change, SLR, shoreline resilience, Flood mitigation, Identification of Zones of Risk are represented in the forward looking POCD.
2-C	Fairfield Beach Road			all	10/21/15		FECB identified this as an important area to address. Erosion, land use and Dry access are all quality of life issues for this neighborhood; all are expected to be impacted by Climate Change. The value of Engineered Beaches (see item 1-P) must be better understood as it applies to the private beaches along our shoreline. What should be done for those beaches between our 5 Town Beaches?
2-Ca	Fairfield Beach Road Shoreline Erosion Mitigation				10/17/18		A project to arrest the continuing erosion of the residential dunes on the L I Sound side of the peninsula is needed. Communication with the ACOE suggests the scope and cost of a meaningful mitigation measure is beyond their normal program constraints.
					12/19/18	Ongoing	OBG Engineers presented observations on erosion mitigation measures, permitting hurdles and funding strategies at a public meeting 10/16/18
					01/16/19	Ongoing	A second presentation by GZA Engineers was held 12/12/18. Public invited. Requested a priced proposal from both CBG and GZA to do a high level overview of our Mitigation Alternatives.
					11/20/19	Ongoing	The Fairfield Beach Residents Association (FBRA) funded a minor study by OBG to show mitigation projects that have been executed in other state as a comparison to how our DEEP treats similar items. Report will be a basis to continue discussion with "James Albis" / DEEP to attempt to identify permissible approaches to shoreline stabilization
2-Cb	Pine Creek Bulkhead Line				12/19/18	started	Years ago, the Town had a plan to incrementally construct a bulkhead along the south side of Pine Creek to a common, stipulated elevation. This was intended to prevent streambank erosion and high tide roadway flooding. FECB will restart the effort. Concerned about DEEP dictates.
2-Cc	Roadway flooding and elevation						Reference item 1-z. Town Engineering Dept. will continue to evaluate elevations and drainage details along FBR to evolve a plan to mitigate sunny day flooding and future SLR.
2-D	ROOSTER RIVER, 236 Woodside Circle	\$350,000			6/15/2017 & 11/14/17	Plans under development	Rooster River is eroding the streambank in the vicinity of 236 Woodside Circle. Funding approved by RTM 2/27/17. Project design is impacted by pending resolution of unapproved construction by previous property owner.
					10/17/18	STALLED	Area was further eroded during recent severe rain event. Banks need stabilization.
					11/1/19	In Litigation	The Town is pursuing legal measures to obtain the property.
2-E	Establish an FECB Newsletter			Becky, Dick	10/16/19 initial entry	Targeting a Winter 2019 first issue in December	Expect this will be a quarterly Newsletter emailed to the entire resident mailing list available to the Town. Objective is to educate the residents and keep the topic on their awareness horizon.
Note that some older / completed / inactive line entries may be hidden to reduce printed document length. Electronic copy of complete, Excel document is available upon request to FECB.							Note that updates are in red text for clarity.