

RESILIENT EAST HADDAM



Kleinfelder

East Haddam

Project Site Overview

The study area is located along the lower reach of Succor Brook in East Haddam near its confluence with the Connecticut River. The area encompasses local roads, residences, businesses, and key regional assets such as the Goodspeed Opera House and other Goodspeed buildings. It also overlaps with the East Haddam Historic District and is being considered for redevelopment. In addition, the municipal wastewater treatment plant and a sewage pump station are located in the study area.

Technical Analysis

Kleinfelder conducted hydrologic and hydraulic modeling to assess current and future flood risks in the study area, identifying key locations for mitigation. With stronger storms expected by mid-century, the analysis showed increased threats to critical assets and historic structures if no action is taken. Kleinfelder also modeled mitigation options to compare scenarios.

Working with CIRCA, Kleinfelder also projected future Connecticut River flood conditions to evaluate vulnerabilities at the WWTP and Pump Station.

Concept Designs

Alternative	Description	Cost	BCA
Alt 1	Remove Tenney Rehearsal Studio; restore Succor Brook channel; relocate rehearsal studio	\$1,870,000 + \$563,000 (if elevating Creamery Rd. buildings)	1.11
Alt 2	Alt 1 + Replace Creamery Rd box culvert with wider bridge; re-construct right bank & expand floodplain capacity	\$3,420,000	0.75
Alt 3	Alt 1+ 2 + Construct floodwall & earthen berm; raise Artists Village driveway; add bypass culvert at Norwich Rd,	\$6,710,000	0.37
WWTP & Pump Station	Build impermeable barrier around WWTP and dry floodproof to 100-yr flood level, Elevate pump station electrical & controls above 100-yr flood level	-	-

Recommendations

- Kleinfelder recommends that the Town of East Haddam implement Alternative 2 at a minimum. Alternative 2 consists of removing and relocating the rehearsal studio, widening the stream channel, and replacing the Creamery Rd culvert with a widened bridge.
- Flooding is anticipated to continue to occur at certain properties along Creamery Road in all scenarios. Thus, it is recommended that the town do outreach to individual property owners on flood mitigation measures.
- To protect the WWTP and Pump Station from the future 100-year Connecticut River flood, Kleinfelder recommends:
 - Floodproof WWTP with 3.2-ft barrier to 15.2 ft NAVD88
 - Elevate WWTP generator to 15.2 ft NAVD88
 - Raise pump station equipment & generator to 15.2 ft NAVD88

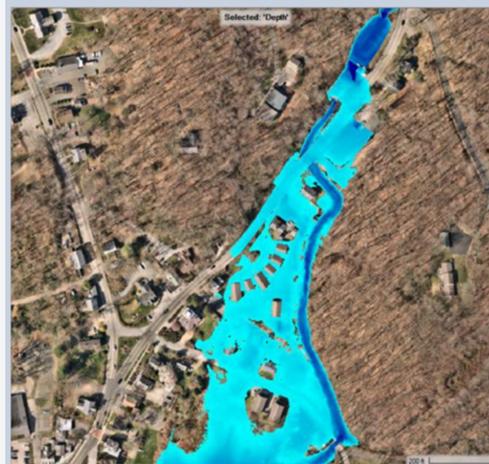


Study Area in Downtown East Haddam

Project Objectives

- Identify interventions to reduce risks to Goodspeed facilities, residences, and businesses near Succor Brook, as well as the Town's WWTP and Pump Station
- Identify new locations for Goodspeed rehearsal and administrative buildings
- Account for stakeholder feedback in the development of alternatives.
- Develop a BCA focusing on understanding options for alternatives and phasing, cost estimates, and funding opportunities

Present-day 100-year flood, no build condition



Present-day 100-year flood, with mitigation



Modeled results of Alternative 2

Stakeholder Engagement

- Monthly Project Team Meetings
- 4 Citizen and Technical Advisory Committee Meetings
- 2 Public Workshops

Implementation & Action Plan

- Confirm approach with stakeholders & property owners
- Plan relocation of Tenney Rehearsal Studio
- Secure funding for next design phase
- Complete surveys, geotech work, & flood model updates
- Develop schematic design, permitting & cost refinements
- Advance to final design & construction documents
- Procure and select contractor

For more information visit: <https://resilientconnecticut.uconn.edu/resilient-east-haddam/>

