

RESILIENT JEWETT CITY

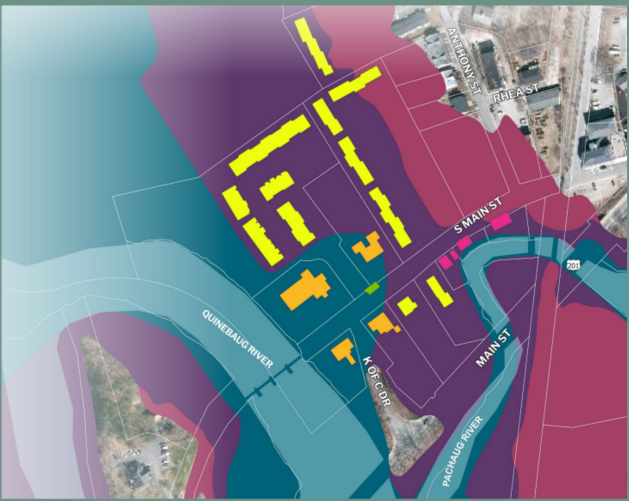
Fuss & O'Neill



Jewett City & Griswold

Project Site Overview

Jewett City, a borough within Griswold, spans about one square mile at the confluence of the Quinebaug and Pachaug Rivers and has a population of 3,328. The Town of Griswold is recognized as one of Connecticut's most fiscally distressed municipalities. This study focuses on the South Main Street neighborhood, which includes three condo associations (72 units), nine residential properties (including subsidized housing at the Reliance House and a mix of single- and multi-family buildings), and a sewer pump station damaged and repaired after a 2010 flood. The area faces recurring flood risks from river overtopping and challenges from extreme heat, with limited access to cooling centers for vulnerable residents.



LEGEND

- Building could likely be floodproofed
- Building could potentially be floodproofed
- Building unable to be floodproofed
- Pump Station
- FEMA Floodway
- FEMA 1% Annual Chance Flood Hazard Zone
- FEMA 0.2% Annual Chance Flood Hazard Zone

Buildings impacted by riverine flooding in Jewett City

Concept Designs

Category	Description	Cost	BCA
Residential Buildings Alt 1	Floodproof 16 buildings + acquire 3 homes to demolish.	\$3,735,000	1.63
Residential Buildings Alt 2	Floodproof condos + acquire 9 homes to demolish.	\$7,925,000	1.46
Residential Buildings Alt 3	Construct a floodwall (minimum height of 12-feet along the Quinebaug River, and a minimum height of 17-feet along the Pachaug River).	\$14M	0.66
Pump Station Alt 1	Leave the pump station as is. Perform a Condition Investigation (CCTV) of the sanitary sewer collection system, waterproof manholes, and install backflow preventers.	\$1.6M	--
Pump Station Alt 2A	Short term recommendation: deployable aluminum flood barriers.	\$200,000	--
Pump Station Alt 2B	Permanent 11.5-ft floodwall around station.	\$400,000	--
Pump Station Alt 3	Long Term Recommendation: replace pump station with floodproof facility.	\$1M	--
Pump Station Alt 4	Abandon pump station, and replace with a low-pressure system.	\$4.8M	--
Heat Alts	Cool Zone at Veterans Memorial Park, a Cool Corridor along Main Street, designating the school district and Municipal Center as cooling centers, and adding bus stop shelters.	--	--

Project Objectives

- Alleviate extreme flood risk in the South Main Street neighborhood, including the condo associations and the Jewett City/Griswold wastewater treatment plant (WWTP).
- Reduce extreme heat risk throughout the Borough of Jewett City.
- Ensure strategies are funding-eligible under programs such as FEMA and the CT DCRF.

Recommendations

- Residential Buildings (Alternative 2):**
- Acquire 9 residential properties.
 - Dry floodproof condo buildings.
 - Replace windows/doors at or below first floor with floodproofed alternatives.
 - Apply waterproof membranes to building foundations and inside walls.
 - Raise and protect utilities.
- Sewer System & Pump Station (Alternative 2A and 3):**
- Secure funding for short-term pump station protection.
 - Pursue state and federal funding for long-term protection OR phased sewer improvements.
- Heat**
- Add shade structures & street trees along pedestrian routes to create "Cool Corridors".
 - Provide shelters at key SEAT bus stops.
 - Develop designated "Cool Zones" (e.g., schools, public buildings).
 - Increase the number of cooling centers, improve communication about locations and hours and create a support network of businesses & community groups.

Technical Analysis

The FEMA flood map for Jewett City, updated on August 1, 2023, shows that 1% Annual Chance Flood elevations have risen about five feet since 2011, expanding hazard zones by up to 400 feet. This shift now places more buildings, including the Anthony St. Condos, within both the 1% and 0.2% flood zones. Looking ahead, climate models project flood elevations could rise another two to five feet by 2054 under high emissions scenarios.

CIRCA's Climate Change Vulnerability Index (CCVI) also finds Jewett City highly exposed to extreme heat with limited adaptive capacity.

Next steps

- Pursue scoping studies and implementation grants through the DEEP Climate Resilience Fund and FEMA programs.
- Embed resilience projects into local capital improvement planning.
- Engage property owners, refine project designs, conduct a formal benefit-cost analysis, plan for reuse of acquired properties.
- Prepare state and federal grant applications for implementation.

Stakeholder Engagement

- Monthly Project Team Meetings
- Four meetings with an Advisory Committee
 - The Town of Griswold and the Borough of Jewett City
 - The Griswold Health and Safety Committee
 - The River Run Townhouses
 - The Pachaug River Commons

For more information, visit: <https://resilientconnecticut.uconn.edu/resilient-jewett-city/>

