Private Wells: Identifying Neighborhoods at Risk and Options to Improve Resilience

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Private Well Facts

It is estimated that...

• There are 322,578 private residential wells in CT
• Over 820,000 people are served by their own well

Did you know...

• Private wells are not regulated by the U.S. EPA
• Private well owners are responsible for testing and maintaining their well – local health departments and districts have the authority
Task Objectives

- Determine where in the 4 coastal counties there are private wells
- Identify neighborhoods that are vulnerable to flooding and rely primarily on wells
- Recommend strategies for improving private well resiliency
Where are the Wells?
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FEMA Flood Zones
At Risk Neighborhoods

Flood Bridge Road, Southbury
At Risk Neighborhoods

Flood Bridge Road, Southbury
At Risk Neighborhoods

Hopeville Pond, Griswold
At Risk Neighborhoods

Sandy Hook, Newtown
At Risk Neighborhoods
Saugatuck River, Weston
At Risk Neighborhoods
Saugatuck River, Westport
At Risk Neighborhoods

- Meadowbrook Manor, Brookfield
- Still River Floodplain, Brookfield
- West Lake/Clear Lake, Guilford & North Branford
- Rogers Lake, Old Lyme
- Little Meadow Road, Haddam
- Hopp Brook & Long Swamp Brook, Middlebury
- Housatonic River, Oxford
- Downtown West Redding, Redding
Private Well Resilience Strategies

- Drainage Project
- Property Acquisition
- Water Main Extension
- Well Protection
- Relocate Well on Site
- New Public Water System
- Smart Development

Well water casing extension - Oxford, CT
Eastern Water Solutions
Well Protection

Retrofitting wells to protect against flooding events

FEMA suggests:
- Extending the well casing 2 feet above known flood elevation
- Installing a sanitary cap or seal
- Install a backflow valve
- Placing grout between the casing and the bore hole

Protect Wells From Contamination by Flooding, FEMA

Montana Water Quality District
Water Main Extension

Mulberry Point, Tuttles Point & Long Cove Neighborhoods
Guilford, CT

- Project is expected to stretch roughly 2.4 miles
- This project could service approximately 145 homes
- Extension will alleviate salt water intrusion concerns and any septic contamination issues that residents may be experiencing

Wellhead located on Daniel Ave. in Guilford
Property Acquisition

River Trail Road, Southbury

Demolition

Open Space

Source: Prime Publishers
Best Practices

• Elevate your wellhead
• Test your well regularly
• Connect to public water supply if available
• Have a backup generator or a plan for storage
• Use steel casing for new wells, and implement protective devices for moving floodwater exposure
Thank you!

- CT Department of Public Health
- UConn
- MMI
- Local Health Directors