



Mitigation Assessment Team Report on

Midwest Floods of 2008

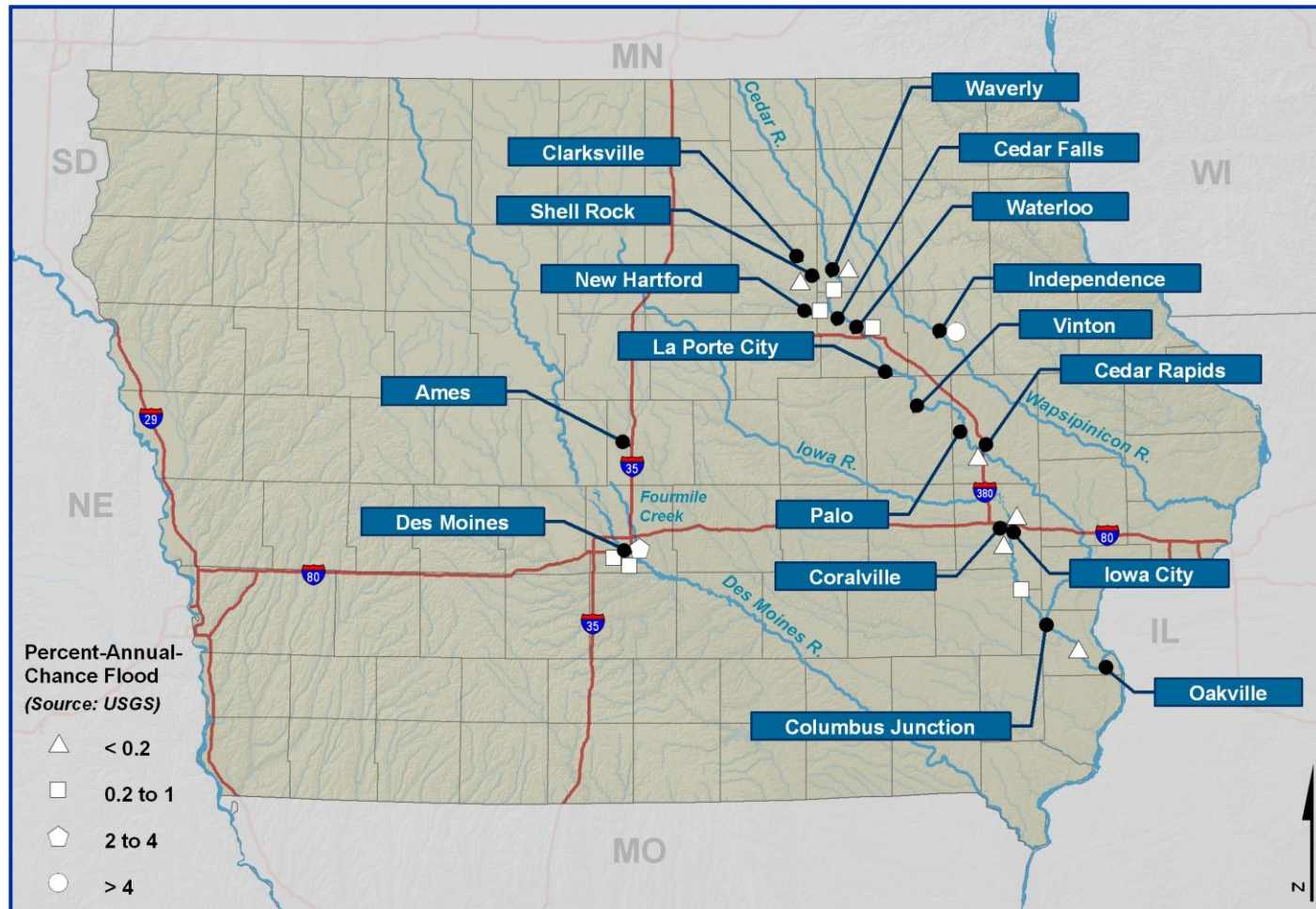
In Iowa and Wisconsin



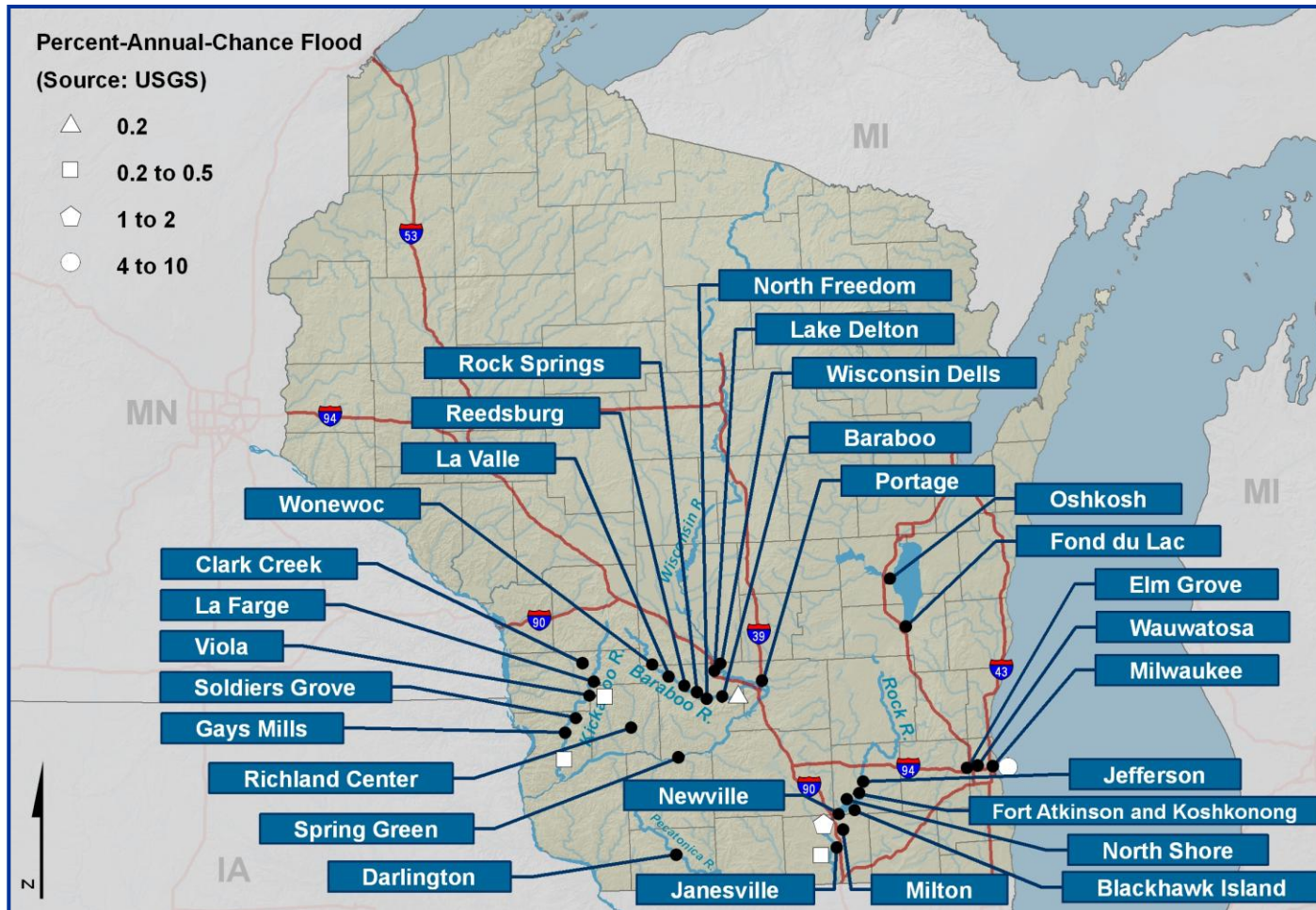
FEMA



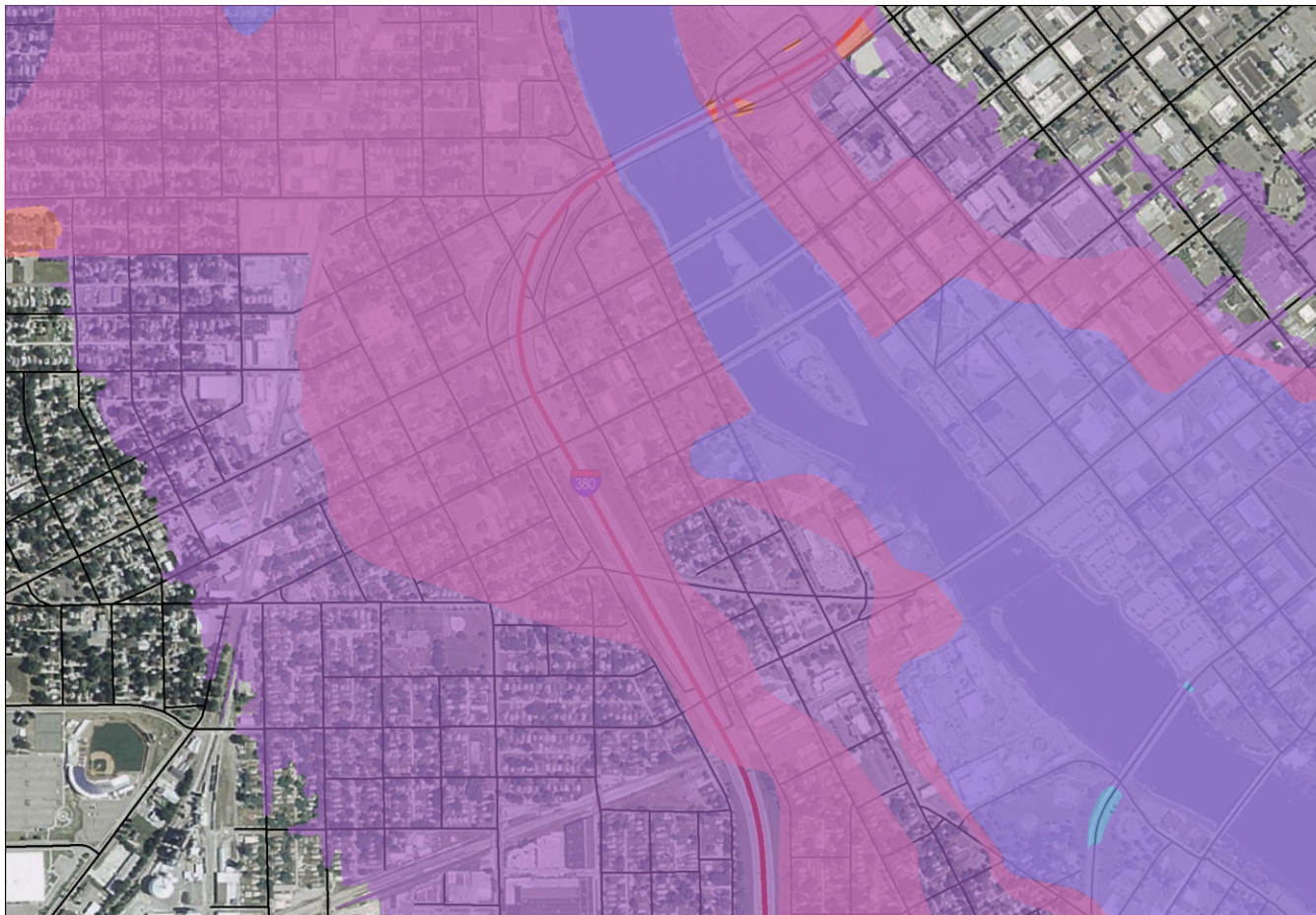
Iowa Rivers and MAT Visits



Wisconsin Rivers and MAT Visits

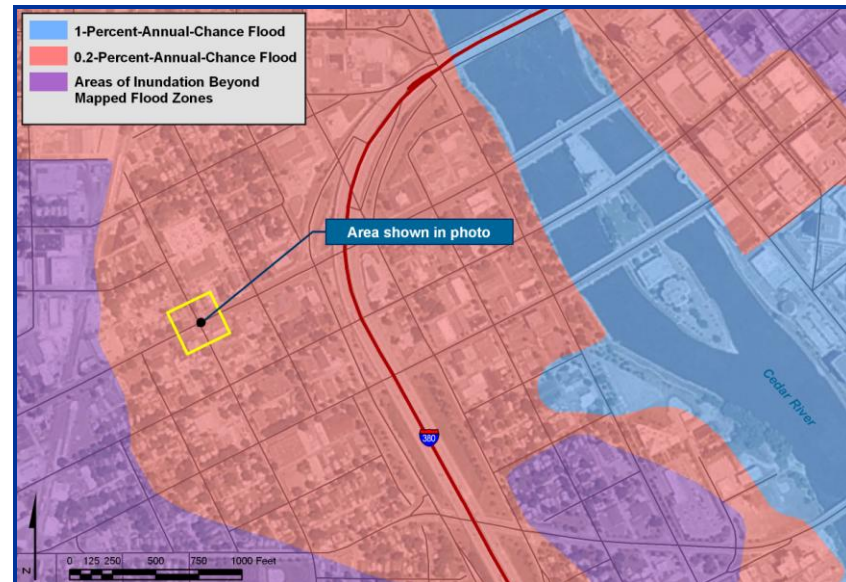


Cedar Rapids Flood Zones and Actual Inundation



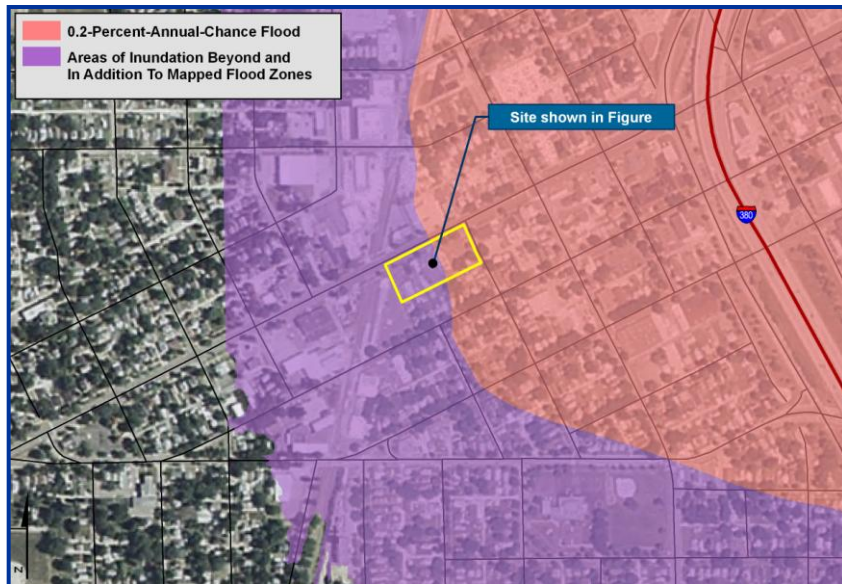
FEMA

Cedar Rapids, Iowa



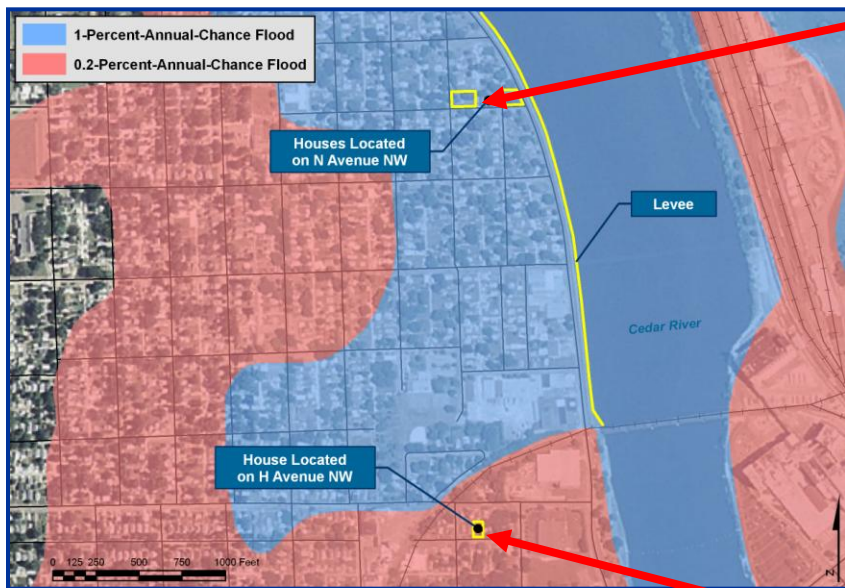
FEMA

Cedar Rapids, Iowa

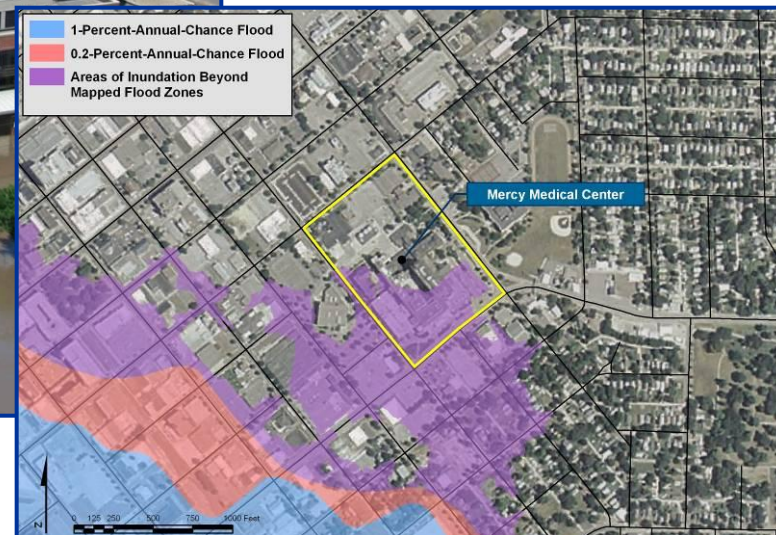
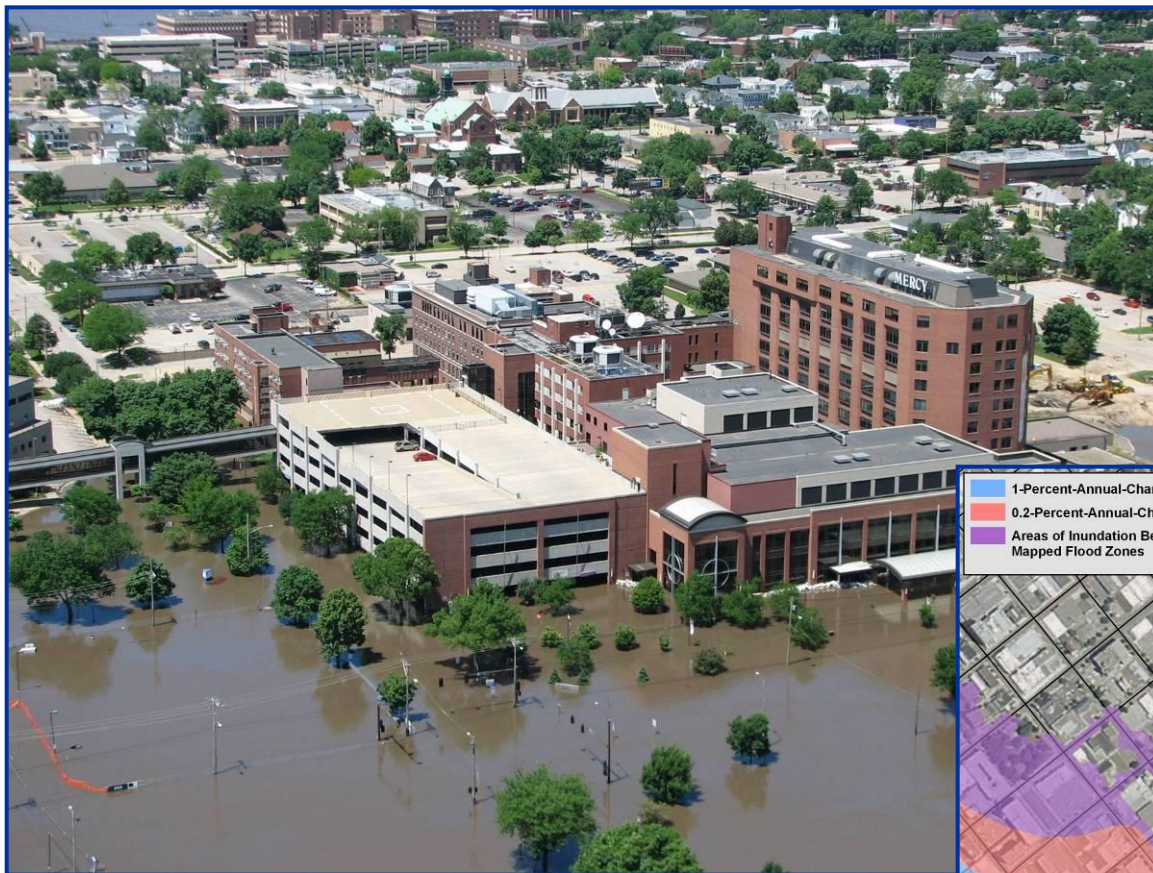


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Cedar Rapids, Iowa

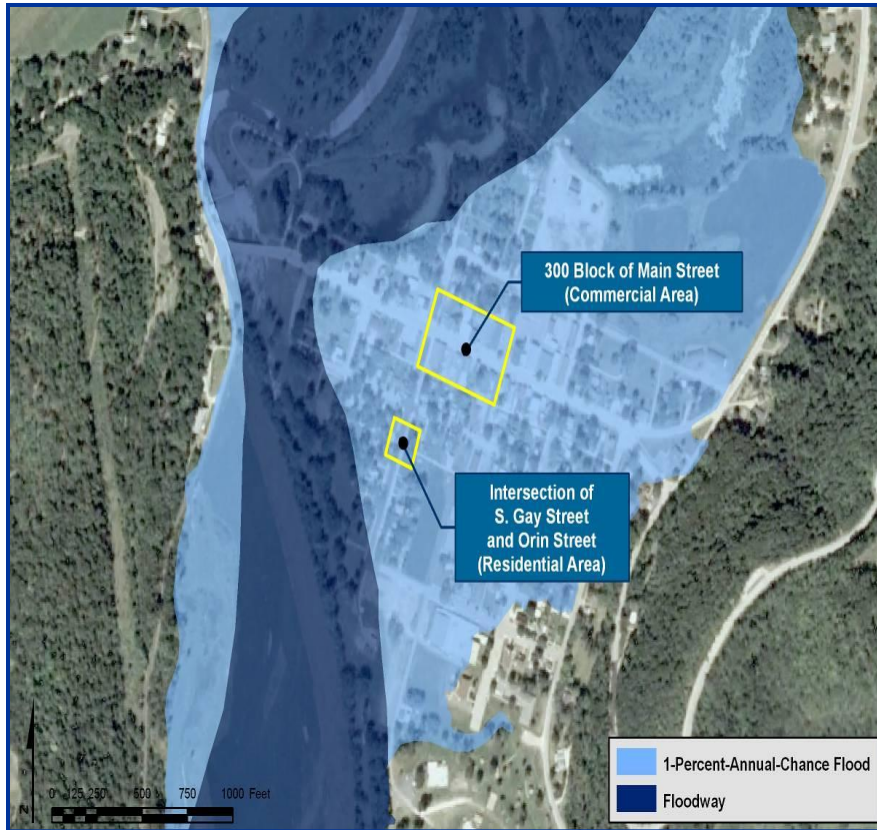


Flooding at Mercy Medical Center



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Gays Mills, Wisconsin



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Reedsburg, Wisconsin



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Numerous Foundation Wall Failures



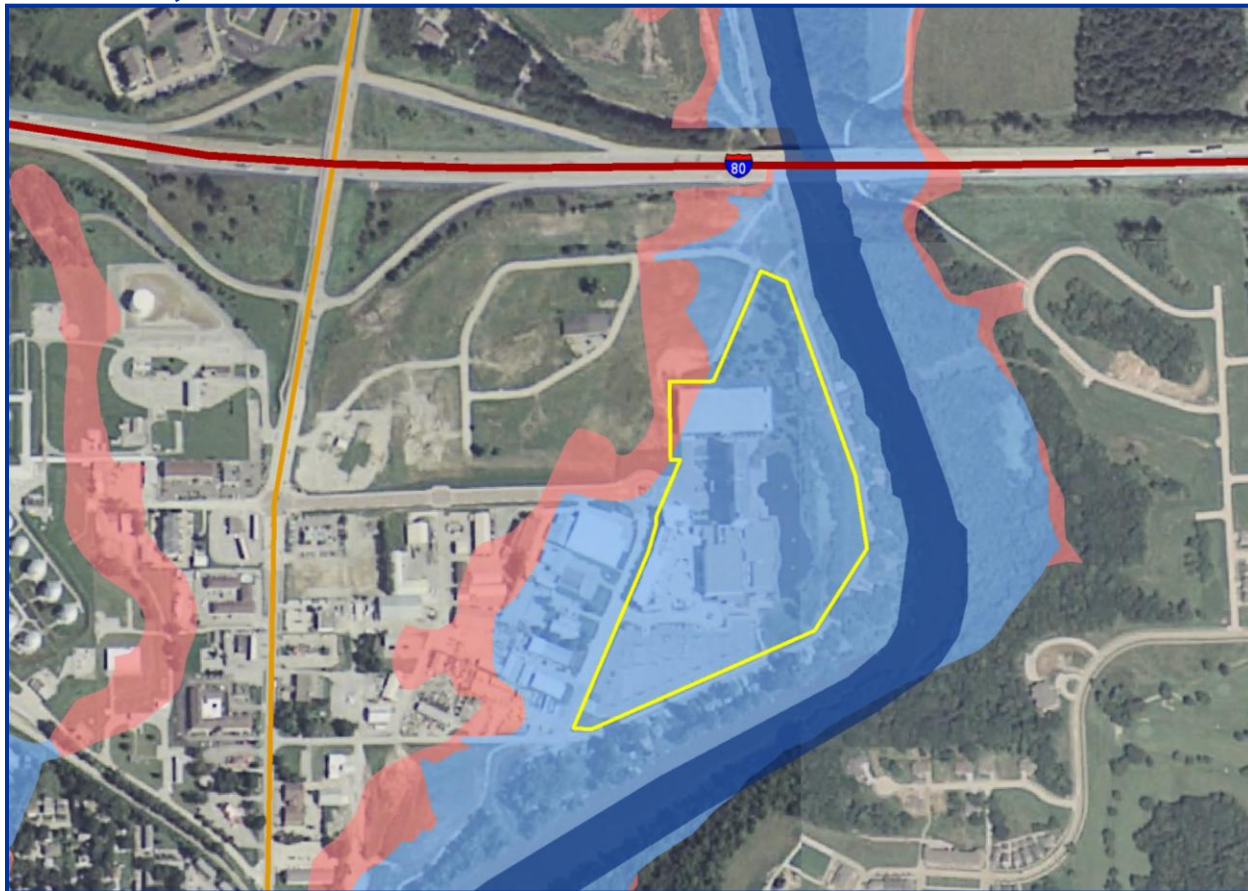
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Prematurely Pumped Water Out of Basement



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Coralville, Iowa



FEMA

Coralville, Iowa



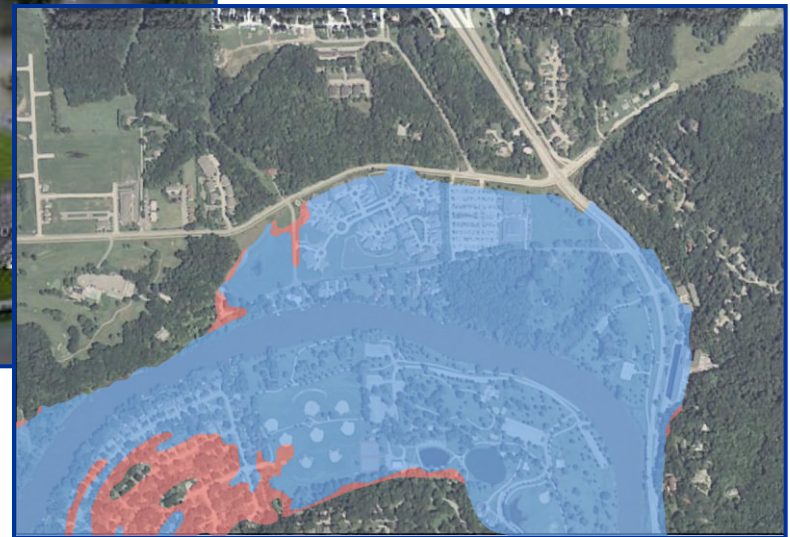
FEMA

Coralville, Iowa



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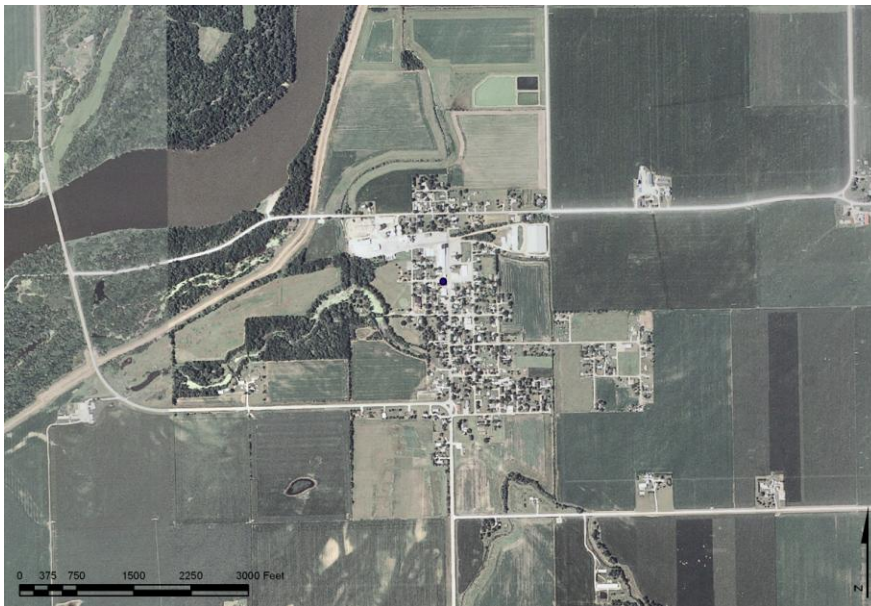
Idyllwild Subdivision



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Oakville, Iowa



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Oakville, Iowa



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Oakville, Iowa



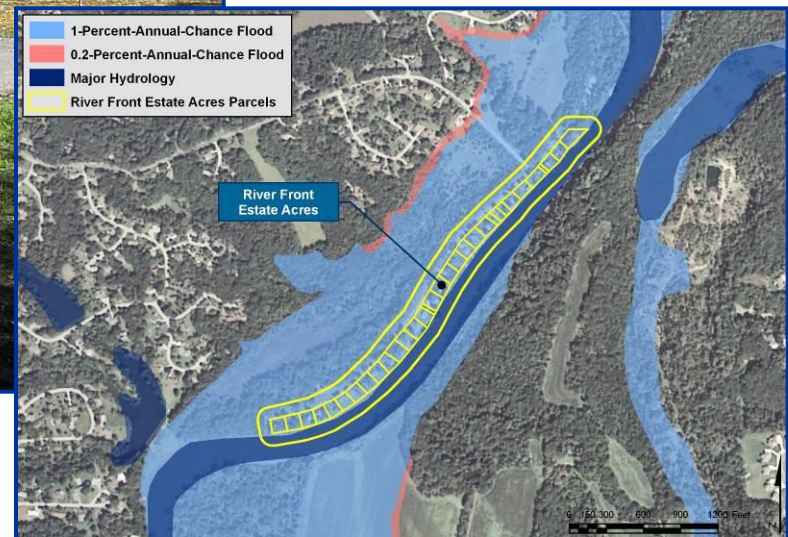
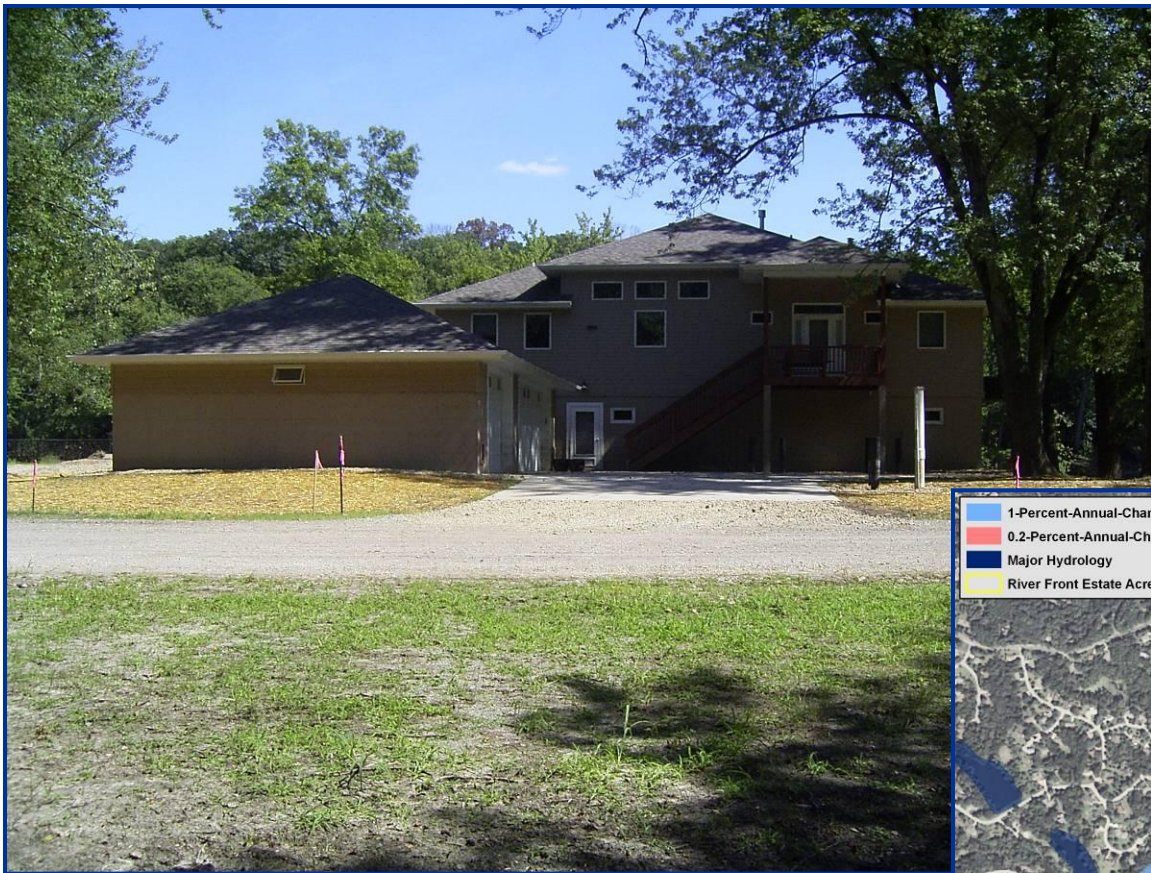
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Oakville, Iowa



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Recent Elevated Construction



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Openings



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Elevation, Post-Event



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Elevation, Post-Event



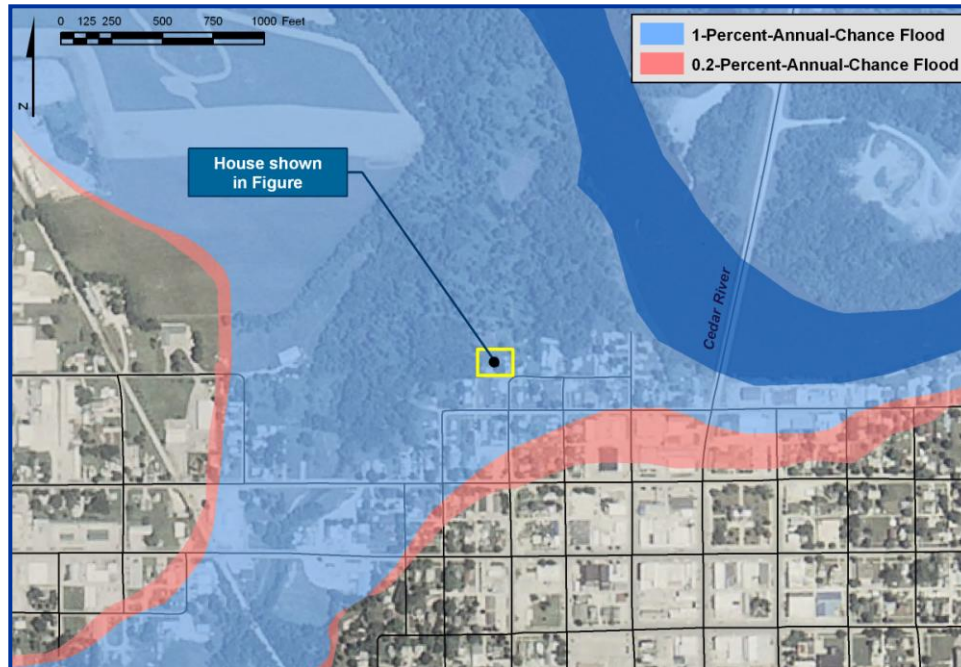
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Elevation, Post-Event



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Elevation, Post-Event



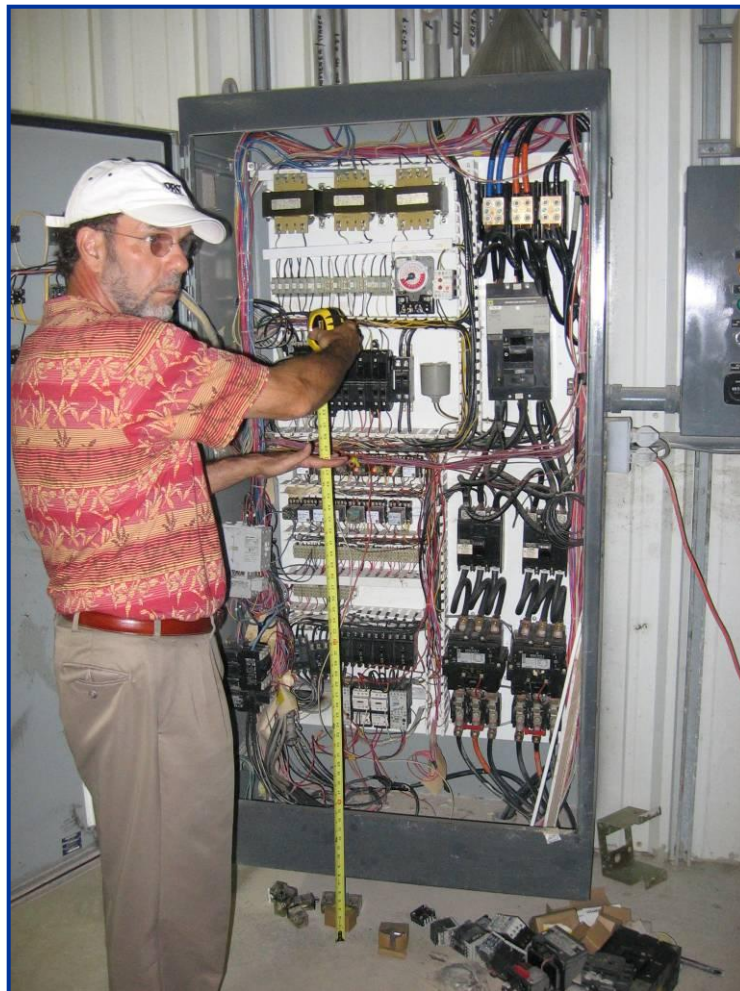
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Dry Floodproofing



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Poorly Located Utilities



Raised Utilities, Pre-Event



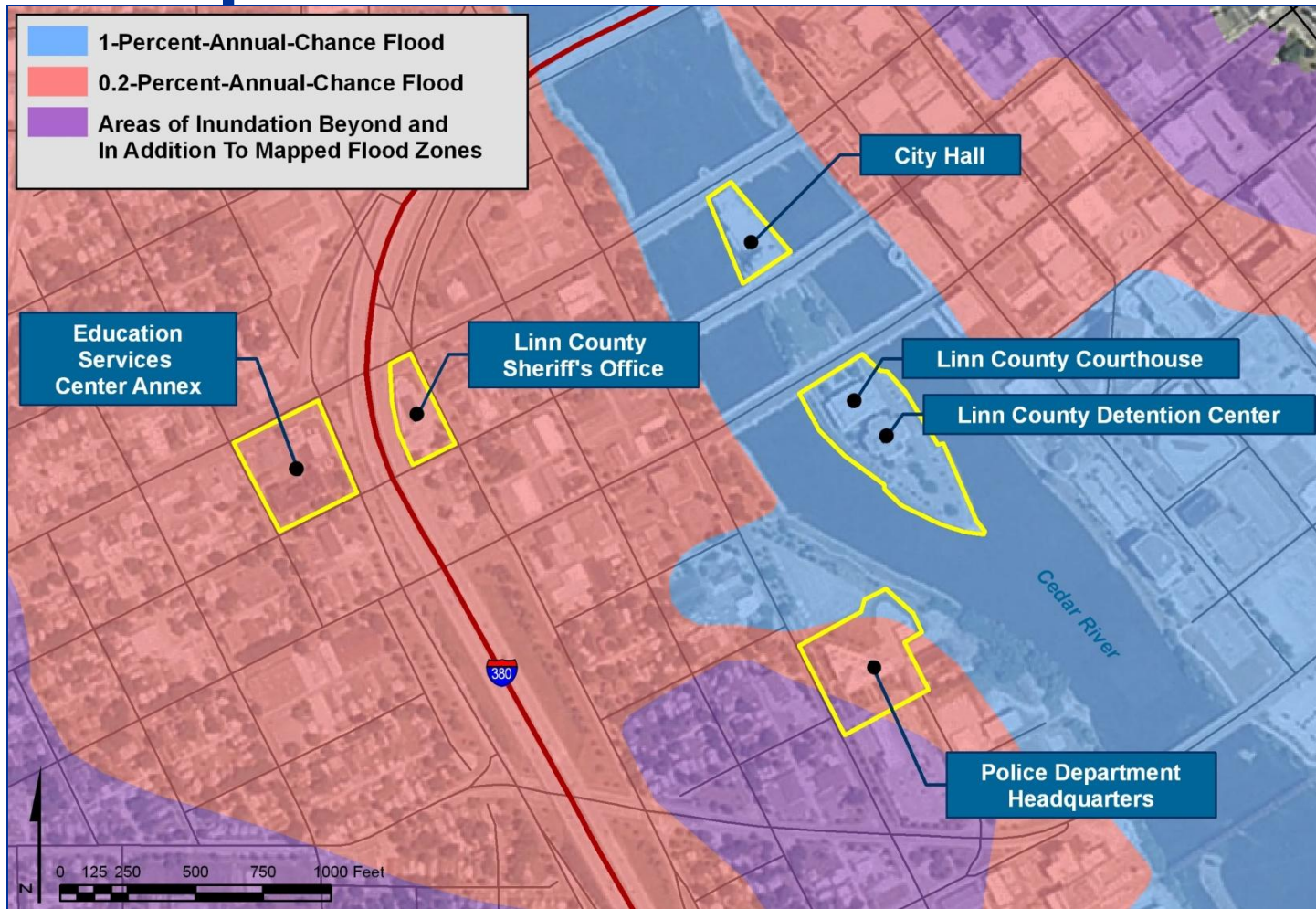
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Raised Generator, Post-Event



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Cedar Rapids Critical Facilities



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Cedar Rapids Critical Facilities



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Underground Parking Structure



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Access Tunnel to Courthouse



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CRPD Headquarters



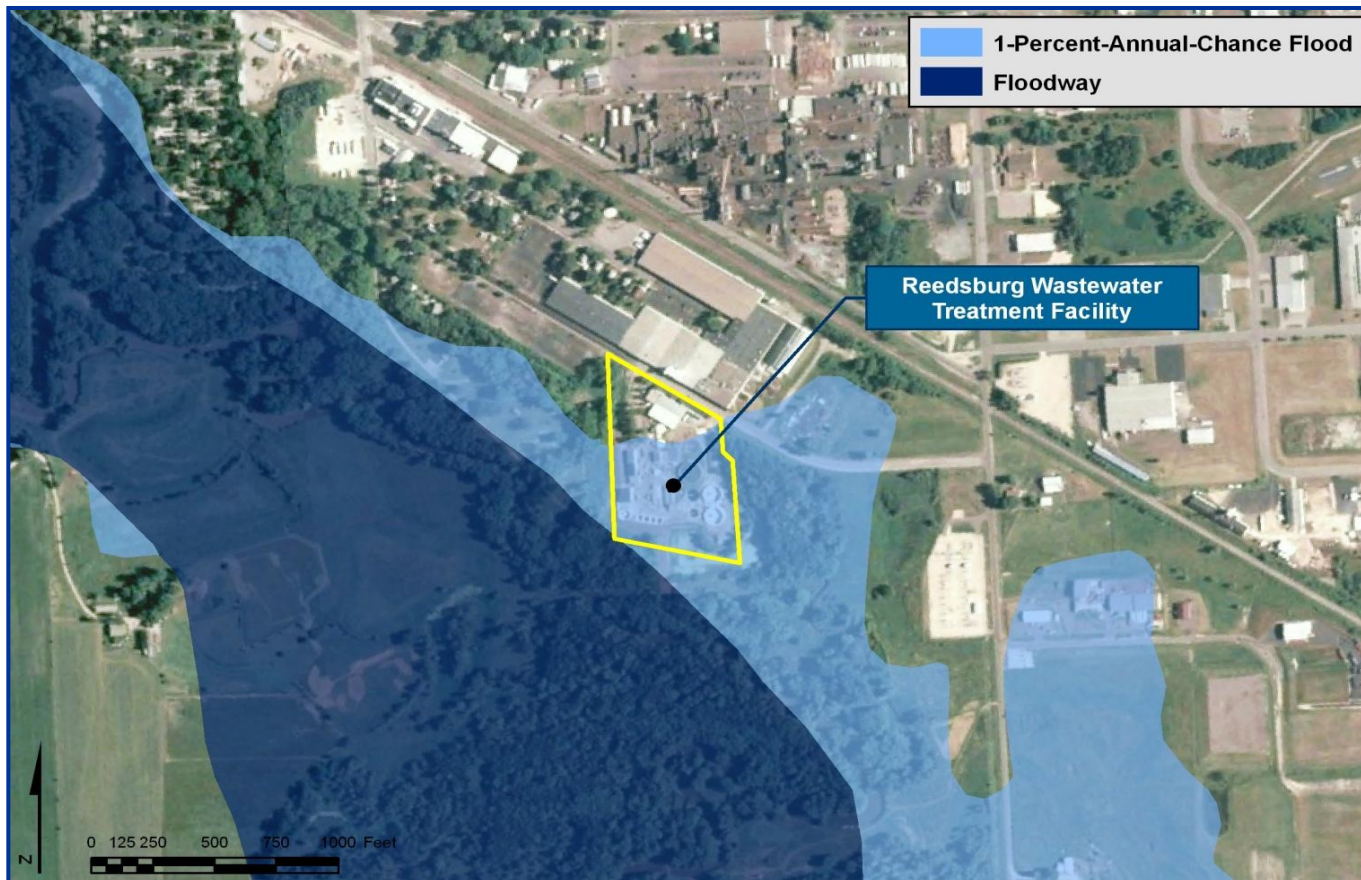
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CRPD Headquarters



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Reedsburg WWTF



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Reedsburg WWTF



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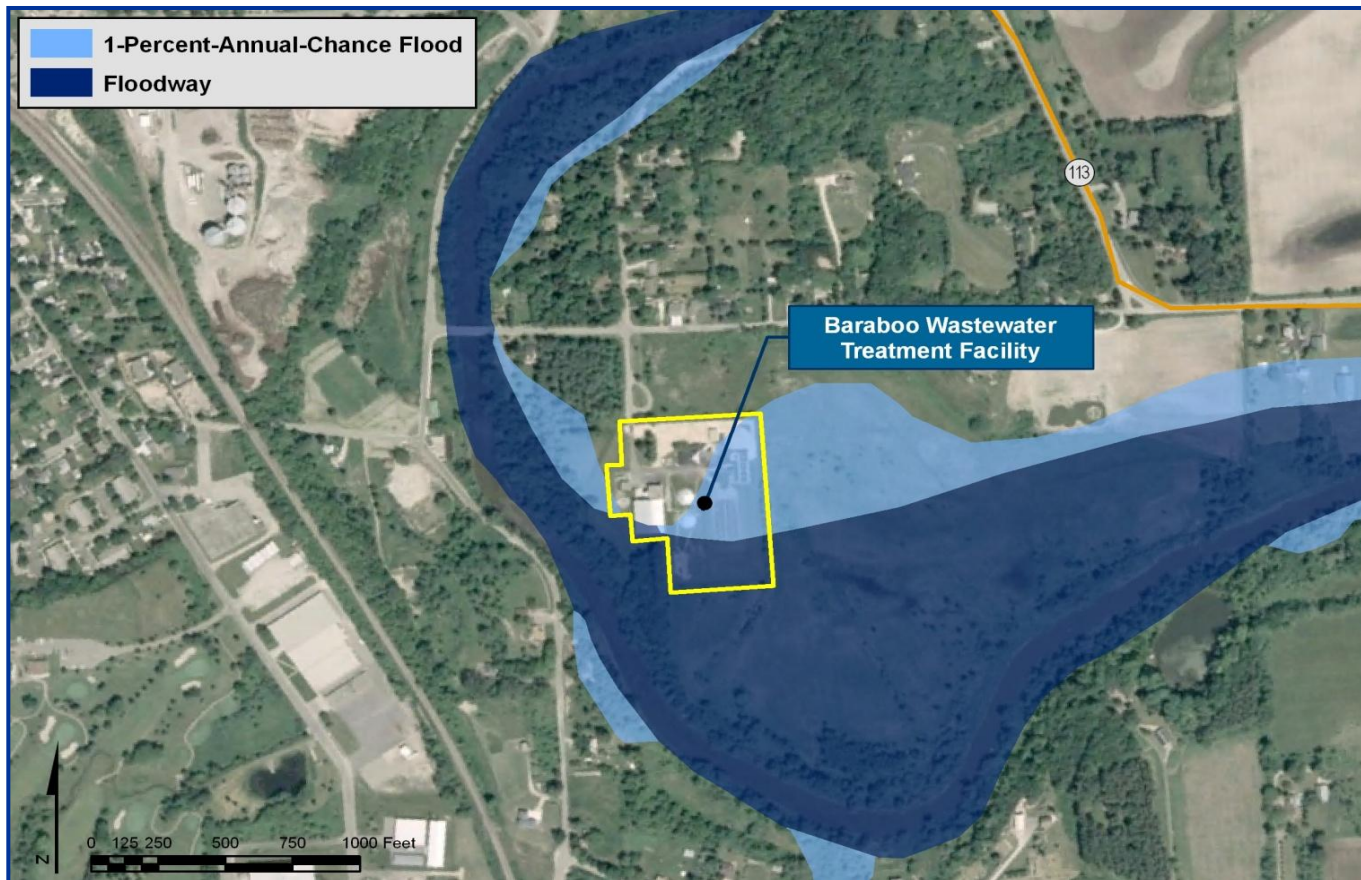
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Reedsburg WWTF Access Road



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Baraboo WWTF



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Baraboo WWTF



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Baraboo WWTF



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Baraboo WWTF Access Road



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Des Moines Water Works



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Des Moines Water Works

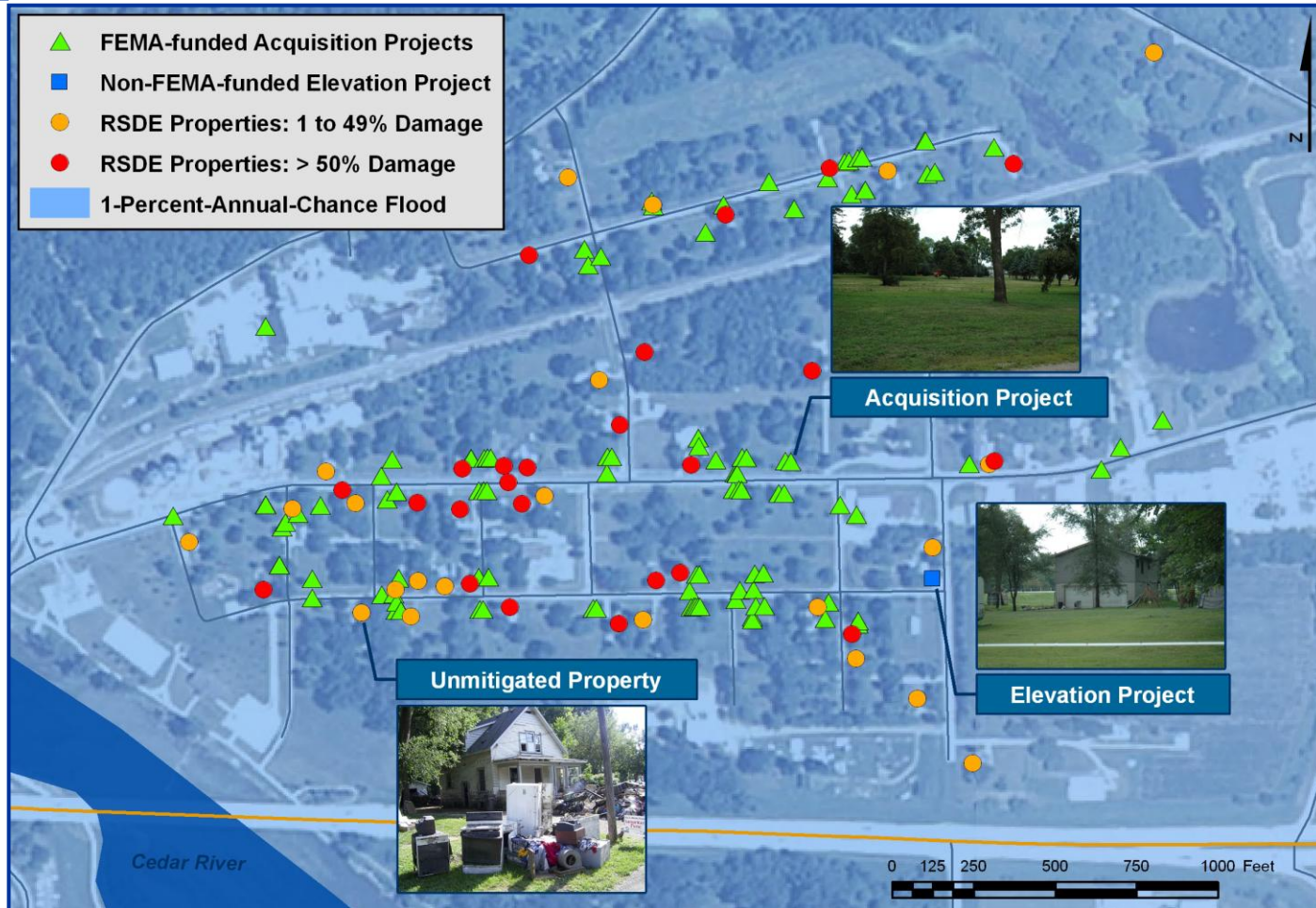


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Floodplain Debris



Acquisitions



Conclusions and Recommendations

- Basements
 - removing/filling in the basement when rebuilding
 - reinforcing foundation walls during repairs
 - outreach on hazard associated with prematurely pumping water out of their basements
- Foundations
 - importance of securing existing buildings that are being elevated on new foundations
 - openings in foundation walls in accordance with published FEMA guidance



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Conclusions and Recommendations

- Residential development
 - elevation as it relates to new construction and adopting freeboard requirement for additional protection
 - substantial improvements and repair of substantially damaged properties
 - consideration of installing backflow prevention valves to prevent avoidable flooding in buildings



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Conclusions and Recommendations

- Critical Facilities
 - site selection for new and replacement facilities
 - location of equipment and utilities
 - systematic reduction of inflows from major users
 - staging of emergency equipment
- Mitigation grant programs
 - Acquisition



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Conclusions and Recommendations

- Floodplain management
 - flood risk communication
 - promotion of the National Flood Insurance Program Community Rating System
 - sources of debris in the floodplain
 - locally run programs to fund mitigation projects
 - flood insurance and mapping



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FEMA Building Science

Flood/Wind Building Science Helpline:

FEMA-BuildingScienceHelp@dhs.gov

(866) 927-2104

<http://www.FEMA.gov/Rebuild/BuildingScience>



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