

Jefferson-Chalmers **WATER** Project

Water Access, Technology, Education and Recreation

Keep Sewage out of Basements & Canals • Keep Stormwater out of the System • Keep Great Lakes out of the Neighborhood

WATER RESOURCE MANAGEMENT CHALLENGES IN THE JEFFERSON-CHALMERS COMMUNITY



City of Detroit – City Planning Commission
March 16, 2023

PRESENTED BY: JAY C. JUERGENSEN
JUERGENSEN+ASSOCIATES, LLC
FOX CREEK PROPERTIES II, LLC




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A – Use Fox Creek Gates and Other Assets to Mitigate Flooding and End Sewage Discharges

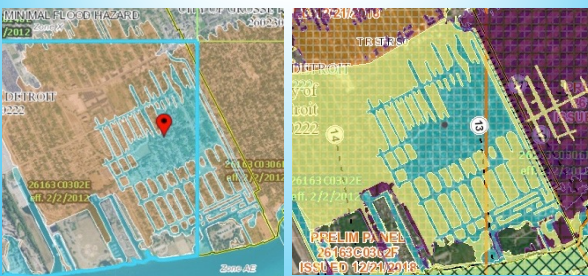


US Army Corps of Engineers predicts high Great Lakes levels → NWS predicts strong easterly winds and/or when their System issues Flood Warning → City and State safety and emergency management determine water will breach → GLWA activates the Fox Creek Gates and lower its water level → FLOOD IMPACT MITIGATED

18 Millions Gallons

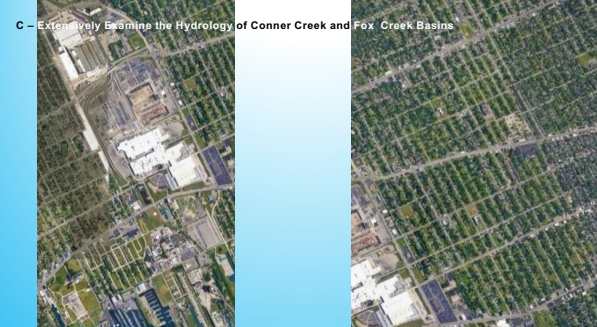
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B – Examine Impact of Flood Insurance Rate Maps and Take Actions to Reduce Insurance Costs



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C – Extensively Examine the Hydrology of Conner Creek and Fox Creek Basins



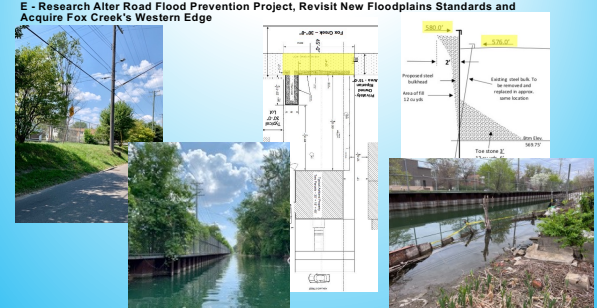
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D – Modify and Increase Floodplain and Stormwater Capacity with Innovation



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E - Research Alter Road Flood Prevention Project, Revisit New Floodplains Standards and Acquire Fox Creek's Western Edge

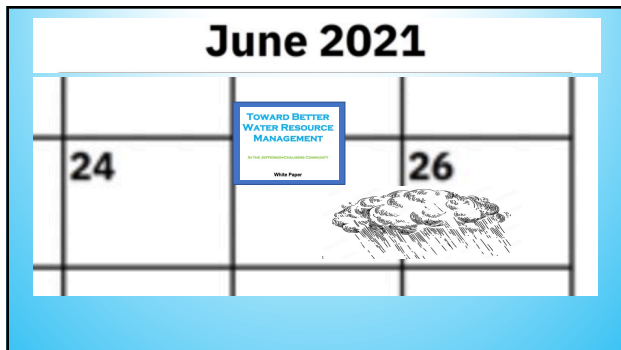


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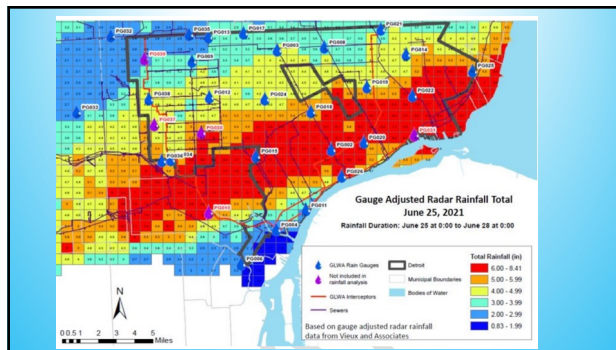
F - Leverage Every Possible Federal Resource Available to Implement Eligible Projects and Pursue Philanthropy



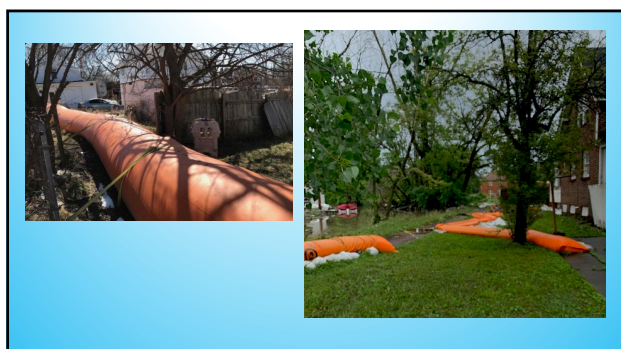
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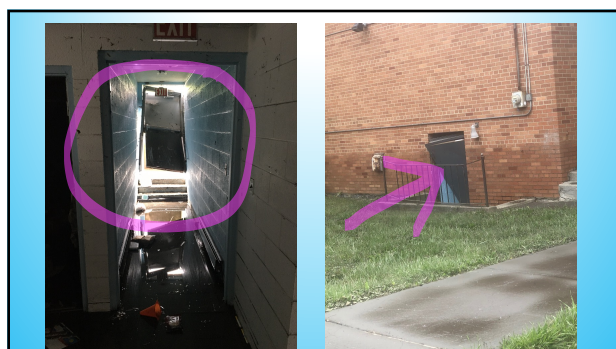
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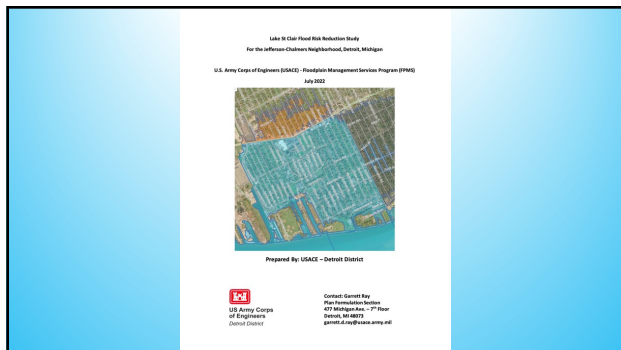
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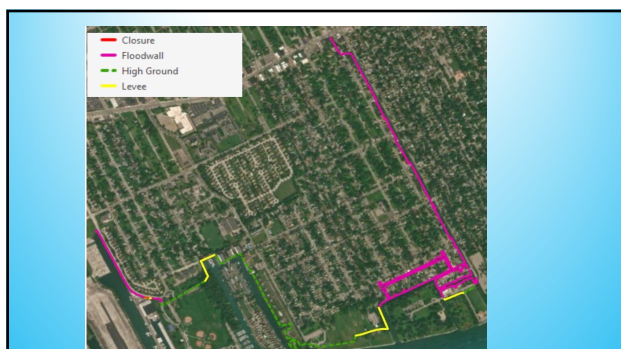
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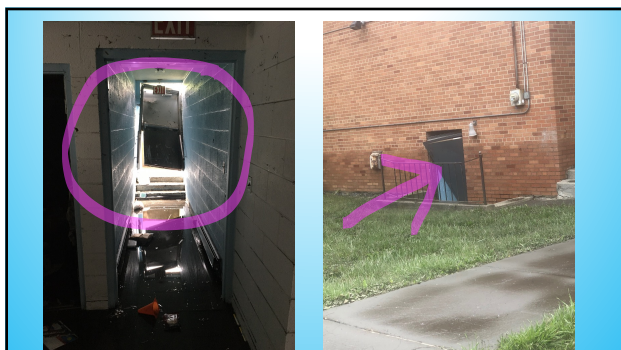
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ORGANIZE, INFORM, SHARE AND IDENTIFY & TAKE ACTION
PRESENTATIONS, MEETINGS, TOURS, NEWS ARTICLES AND COMMUNITY MEETINGS

- City Council Green Task Force - Water Subcommittee
- Detroit Future City - Land + Water Works Coalition
- City of Detroit Homeland Security and Emergency Management (hosted over 40 Senior City staff from BSEED, DWSD, Mayor's Office, City Planning Commission, P&DD, Detroit Building Authority, and GLWA, etc.)
- City Planning Commission (CPC)
- City Council (Seven of Nine as of Oct. 21)
- Councilwoman Latisha Johnson – District 4 and Staff (regular meetings)
- State Rep Joe Tate (weekly meetings)
- State Senator Stephanie Chang (regular meetings)
- County Commission Tom Killeen
- Laura Verona, District Manager, EGLE
- LaShonda Davis, Deputy Chief Operating Officer, Mayor's Office
- Detroit Future City (funded the printing of 40 copies of the paper)
- Jefferson East Staff
- Eastside Community Network Staff
- Detroit Water & Sewerage Department Engagement

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CRAINS DETROIT BUSINESS

FORUM FLOODING

Cooperation — and money — can solve water problem in Jefferson-Chalmers

By Jay C. Juergensen, President & Founder, Juergensen Associates, LLC

U.R.C.

U.S. Army Corps of Engineers (USACE) Floodplain Management Services Program (FPMSP)

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Lake St Clair Flood Risk Reduction Study
 For the Jefferson-Chalmers neighborhood, Detroit, Michigan

U.S. Army Corps of Engineers (USACE) Floodplain Management Services Program (FPMSP)

July 2022

Prepared By: USACE - Detroit District

US Army Corps of Engineers
 Detroit District

Contact: Garrett By
 480 Ford Road
 48226 Michigan Ave - 7th Floor
 Detroit, MI 48226
 garrett_b@usa.army.mil

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JEFFERSON-CHALMERS
 WATER PROJECT
 WATER
 ACCESS
 TECHNOLOGY
 EDUCATION &
 RECREATION.

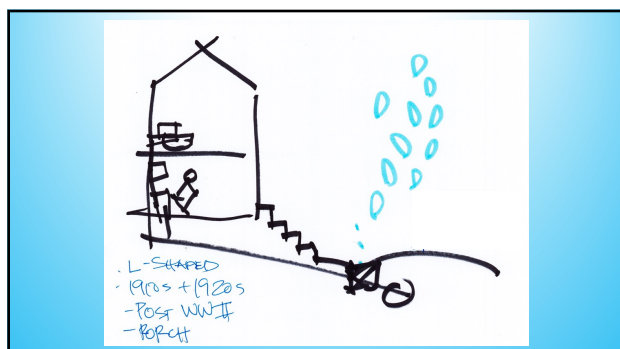
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JEFFERSON-CHALMERS
 WATER PROJECT
 KEEP
 -SEWAGE -BASEMENTS
 -STORMWATER CANALS
 -GREAT LAKES
 OUT!!

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CSO

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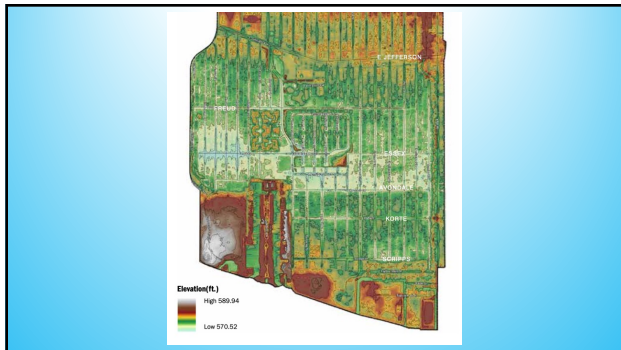
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FIRM

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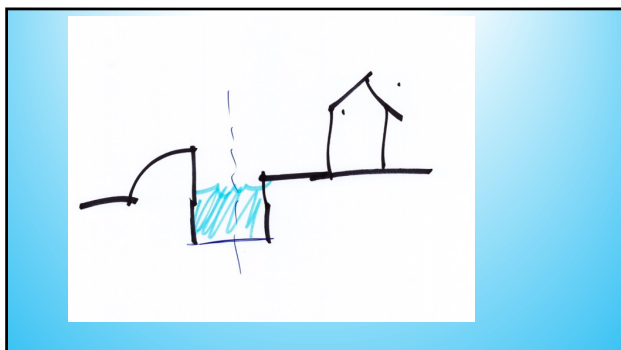
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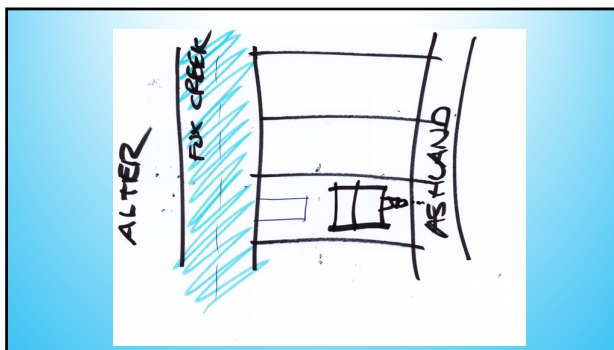
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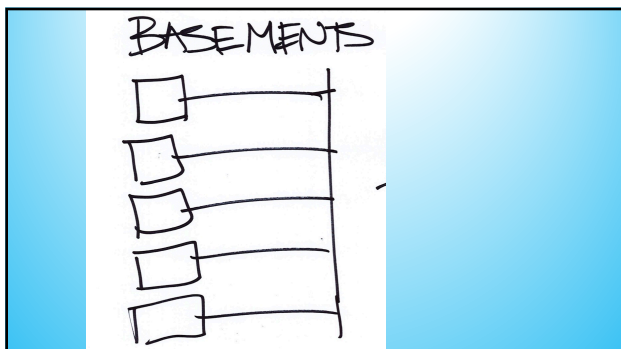
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Community Residents Experts Water

Jefferson-Chalmers WATER Project Community Residents Feedback Form

| | | | | | |
|---|----|---|----|----|---------|
| City | EA | T | EE | EE | Project |
| PROJECT (provide name and address) | | | | | |
| PROJECT ADDRESS (provide street address) | | | | | |
| PROJECT PHONE (provide phone number) | | | | | |
| PROJECT EMAIL (provide email address) | | | | | |
| PROJECT WEBSITE (provide website URL) | | | | | |
| PROJECT CONTACT (provide contact name) | | | | | |
| PROJECT CONTACT PHONE (provide contact phone number) | | | | | |
| PROJECT CONTACT EMAIL (provide contact email address) | | | | | |
| PROJECT CONTACT WEBSITE (provide contact website URL) | | | | | |
| PROJECT CONTACT TITLE (provide contact title) | | | | | |
| PROJECT CONTACT ORGANIZATION (provide contact organization) | | | | | |
| PROJECT CONTACT ADDRESS (provide contact address) | | | | | |
| PROJECT CONTACT CITY (provide contact city) | | | | | |
| PROJECT CONTACT STATE (provide contact state) | | | | | |
| PROJECT CONTACT ZIP (provide contact zip code) | | | | | |
| PROJECT CONTACT COUNTRY (provide contact country) | | | | | |
| PROJECT CONTACT LANGUAGE (provide contact language) | | | | | |
| PROJECT CONTACT TIMEZONE (provide contact timezone) | | | | | |
| PROJECT CONTACT AVAILABILITY (provide contact availability) | | | | | |
| PROJECT CONTACT COMMENTS (provide contact comments) | | | | | |

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Jefferson-Chalmers WATER Project

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Engineering Report

TABLE 3: PROJECT COST SUMMARY

| Project Category | Total Project Costs | |
|---|-------------------------|-------------------------|
| A. Water Quality | 978,726,496.22 | 1,312,880,713.79 |
| B. Stormwater Reduction and Management | 106,345,739.79 | 114,161,292.46 |
| C. Flood Protection | 111,187,583.23 | 138,288,041.13 |
| D. Floodplain Management and Flood Insurance Rate Map Changes | 45,000.00 | 440,000.00 |
| Total Project Costs | 1,196,304,821.24 | 1,556,990,047.38 |

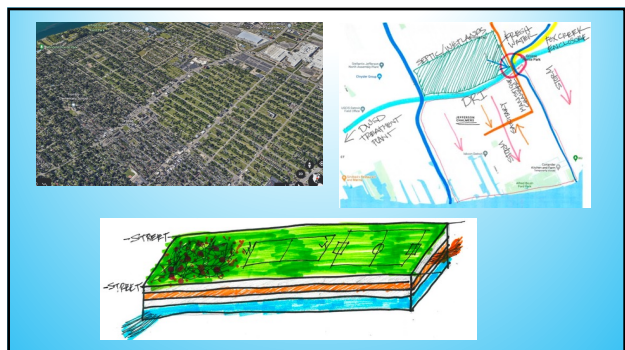
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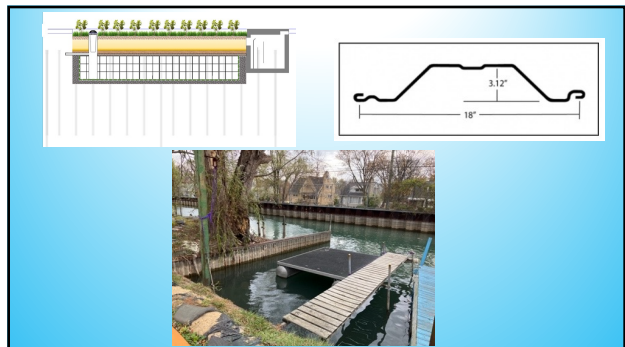
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Proposed Projects to Modify Floodplain + Flood Insurance Maps (LOMR or CLOMR)

| Proposed Use of Funds | | | |
|--|--|----------------------|----------------------|
| 19 C2: Riparian Habitat and Shoreland in Riverbank Parks in Bold and Pro-Food (Comprehensive Flood Protection and Shoreline Restoration) | | 21,885,146.00 | 23,388,076.00 |
| 19 C1: Fox Creek and Linked Canals Sewer | | 9,375,285.48 | 11,482,715.29 |
| 21 C: Small Improvements in Bayview Yacht Club or Topographical Changes near Bay View Yacht Club | | 2,207,880.51 | 5,922,246.05 |
| Totals: | | 33,468,312.00 | 40,793,037.34 |
| Proposed Sources of Funds | | | |
| CDBG-DR (Restore the \$10M in the DRAFT Action Plan) | | 10,000,000.00 | |
| EPA - Habitat Restoration | | 9,250,000.00 | |
| EPA - Shoreline Restoration | | 1,000,000.00 | |
| State Contribution | | 20,000,000.00 | |
| County Contribution | | 1,000,000.00 | |
| Total: | | 41,250,000.00 | |

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D. FLOOD MITIGATION STUDY: FLOODPLAIN MANAGEMENT AND FLOOD INSURANCE RATE MAP (FIRM) MODIFICATIONS

Project Costs:

| Activities | Cost Range |
|--|-----------------------------|
| D1. Task 1 - Review FEMA Hydrologic & Hydraulic (H&H) Study • Purpose: Determine basis for existing floodplain | 5,000 - 5,000 |
| D2. Task 2 - Data Collection & Surveying • Purpose: Understanding Flood Depths at Homes/Structures | 30,000 - 35,000 |
| Tentative Analysis - Subtotal | 35,000 - 40,000 |
| Tasks 1 and 2 will solely determine which of the three (3) Options is feasible based upon the underlying engineering. | |
| D3. Option A - Letter of Map Amendment (LOMA) • No Change to Existing Floodplain Goal: Show Structures are above the FEMA Flood depth (Note: Much of this work can be done without a Professional Engineer (PE), cost includes advice, counsel and guidance by PE) | 10,000 - 15,000 |
| D4a. Option B - Letter of Map Revision (LOMR) • Revise Existing Floodplain Goal: Update existing flood analysis to more detail to show structures above FEMA flood depth (Note: Includes \$5,000 fee for FEMA Review) | 50,000 - 75,000 |
| D4b. Option C - Conditional Letter of Map Revision (CLOMR) • Develop a Project to Change/Reduce the Existing Floodplain Goal: Identify project(s) that will reduce flooding (Note: Costs dependent on size, scope, scale, quantity of project(s) necessary to change/reduce flooding) | 250,000 - 400,000 |
| Total (Dependent on Option Selected) | \$45,000 - \$440,000 |

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Changes in Flood Hazard Determinations
Federal Register Oct 28, 2022

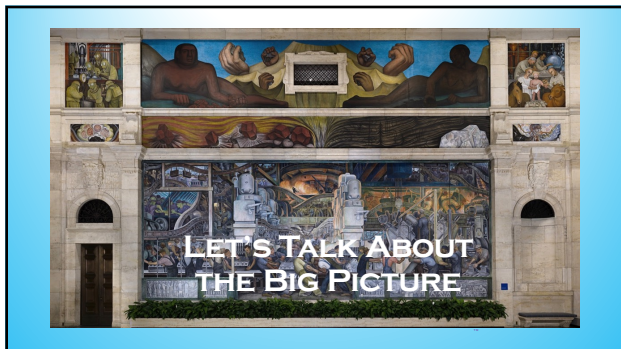
87 Fed. Reg. 65224 (Oct. 28, 2022) [Copy Citation](#)

AGENCY:
Federal Emergency Management Agency, Department of Homeland Security.

SUMMARY:
New or modified Base (1 percent annual chance) Flood Elevations (BFEs), base flood depths, Special Flood Hazard Area (SFHA) boundaries or zone designations, and/or regulatory floodways (hereinafter referred to as flood hazard determinations) as shown on the indicated [Letter of Map Revision \(LOMR\)](#) for each of the communities listed in the table below are finalized. Each LOMR revises the Flood Insurance Rate Maps (FIRMs), and in some cases the Flood Insurance Study (FIS) reports, currently in effect for the listed communities.

| Michigan: | | | | | |
|----------------------------------|---------------------------------------|---|--------------|--------|--|
| Saginaw (FEMA Docket No. B-2230) | City of Frankenthum (21-05-3420P) | City and Township Government Center, 240 West Genesee Street, Frankenthum, MI 48734 | Jul. 7, 2022 | 260188 | |
| | Tim Hilder, Supervisor, | City and Township Government Center, 240 West Genesee Street, Frankenthum, MI 48734 | | | |
| Saginaw (FEMA Docket No. B-2230) | Township of Frankenthum (21-05-3420P) | Township of Frankenthum, P.O. Box 245, Frankenthum, MI 48734 | Jul. 7, 2022 | 260895 | |
| | Tim Hilder, Supervisor, | City and Township Government Center, 240 West Genesee Street, Frankenthum, MI 48734 | | | |

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- No Long-Term Recovery Resources
- CDBG-DR Eligible Activities
- Environmental Health

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