



FM Area Diversion Project Update

Jason Benson, Executive Director

Agenda

- 01 Project Overview
- 02 Diversion Channel Progress
- 03 Southern Embankment Progress
- 04 In-Town Progress
- 05 Flood Insurance



Project Overview

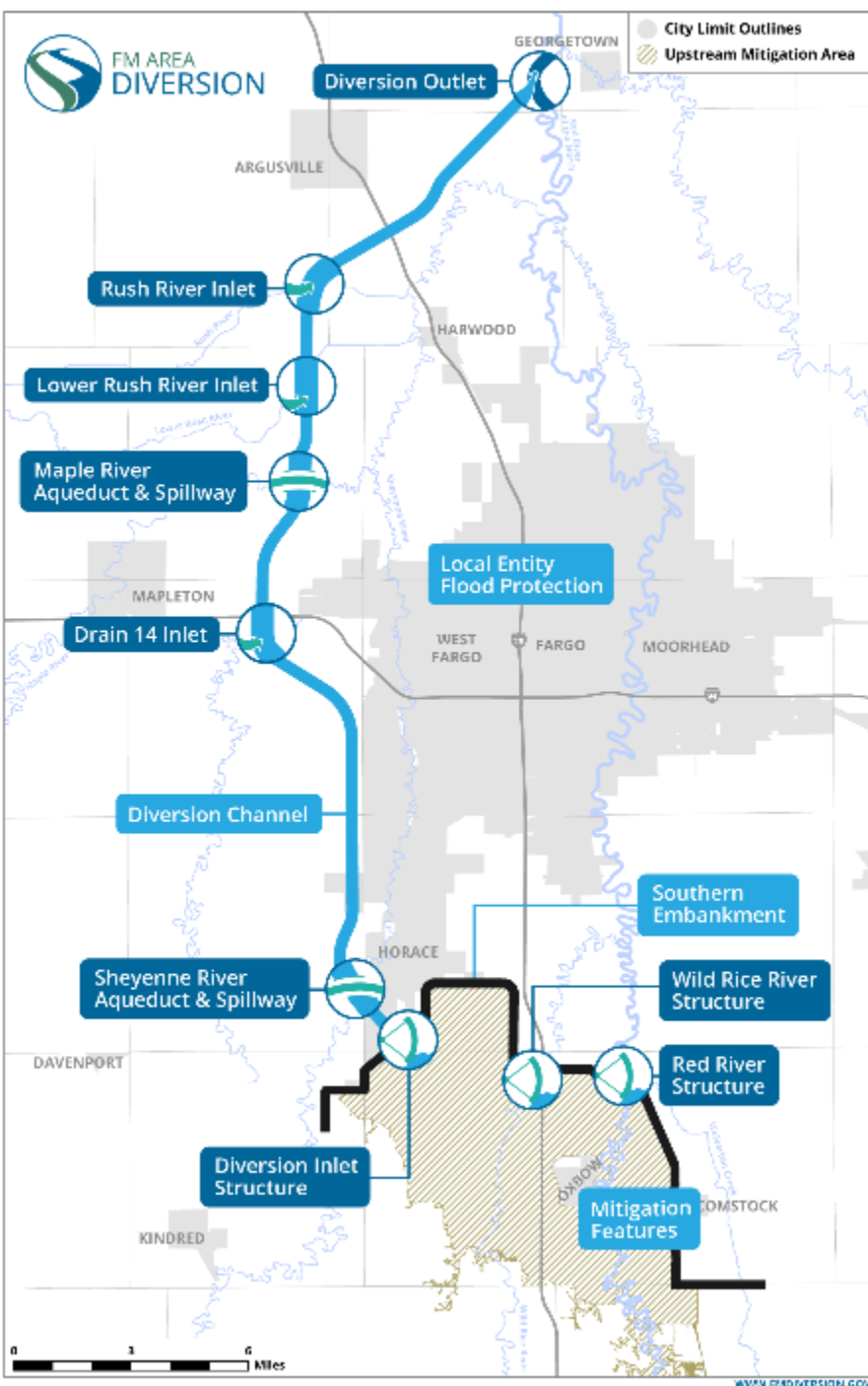
Project Goals

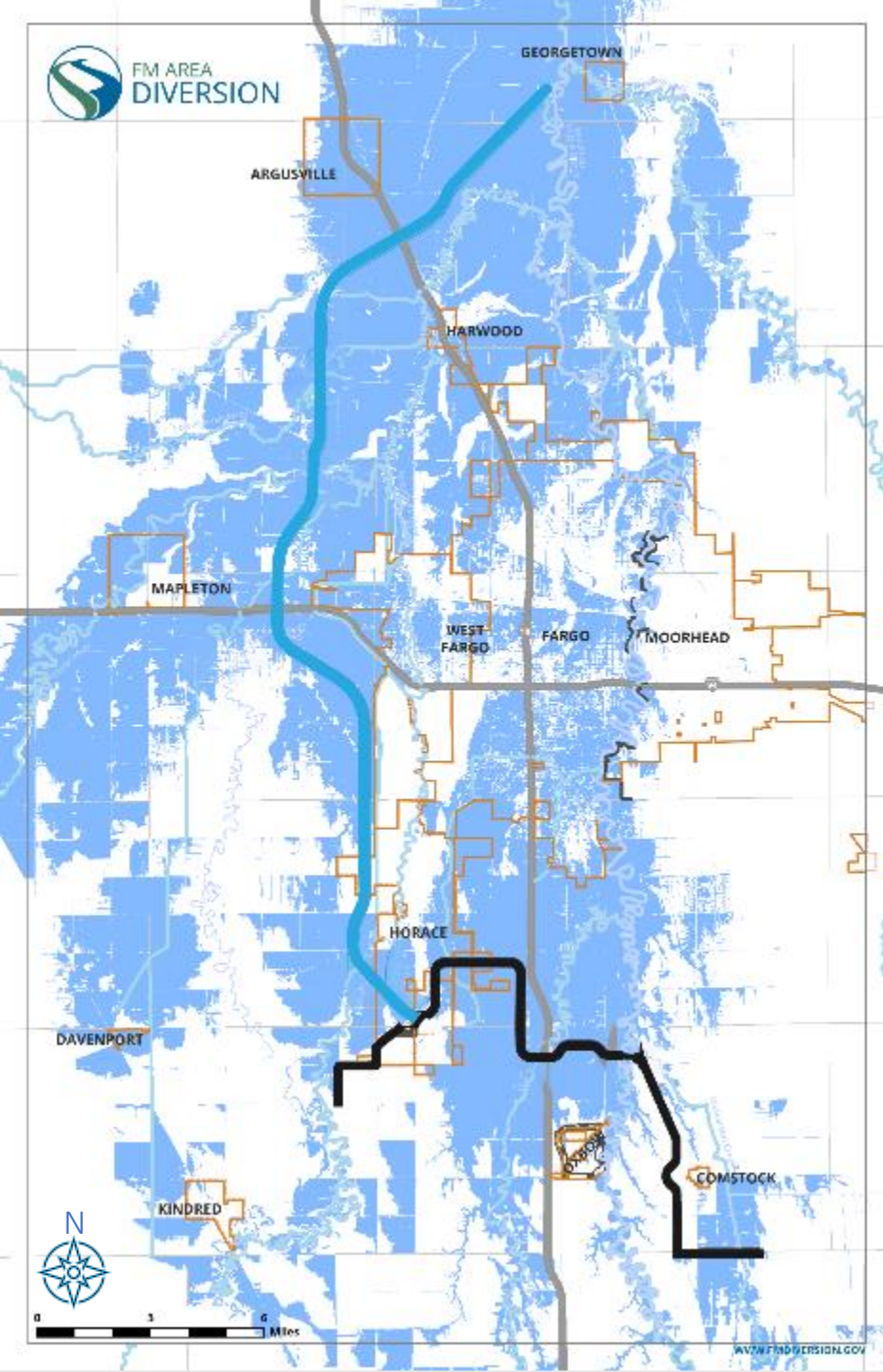
100-year flood protection minimum

37-foot river stage through town

500-year fightable protection

40-foot river stage through town



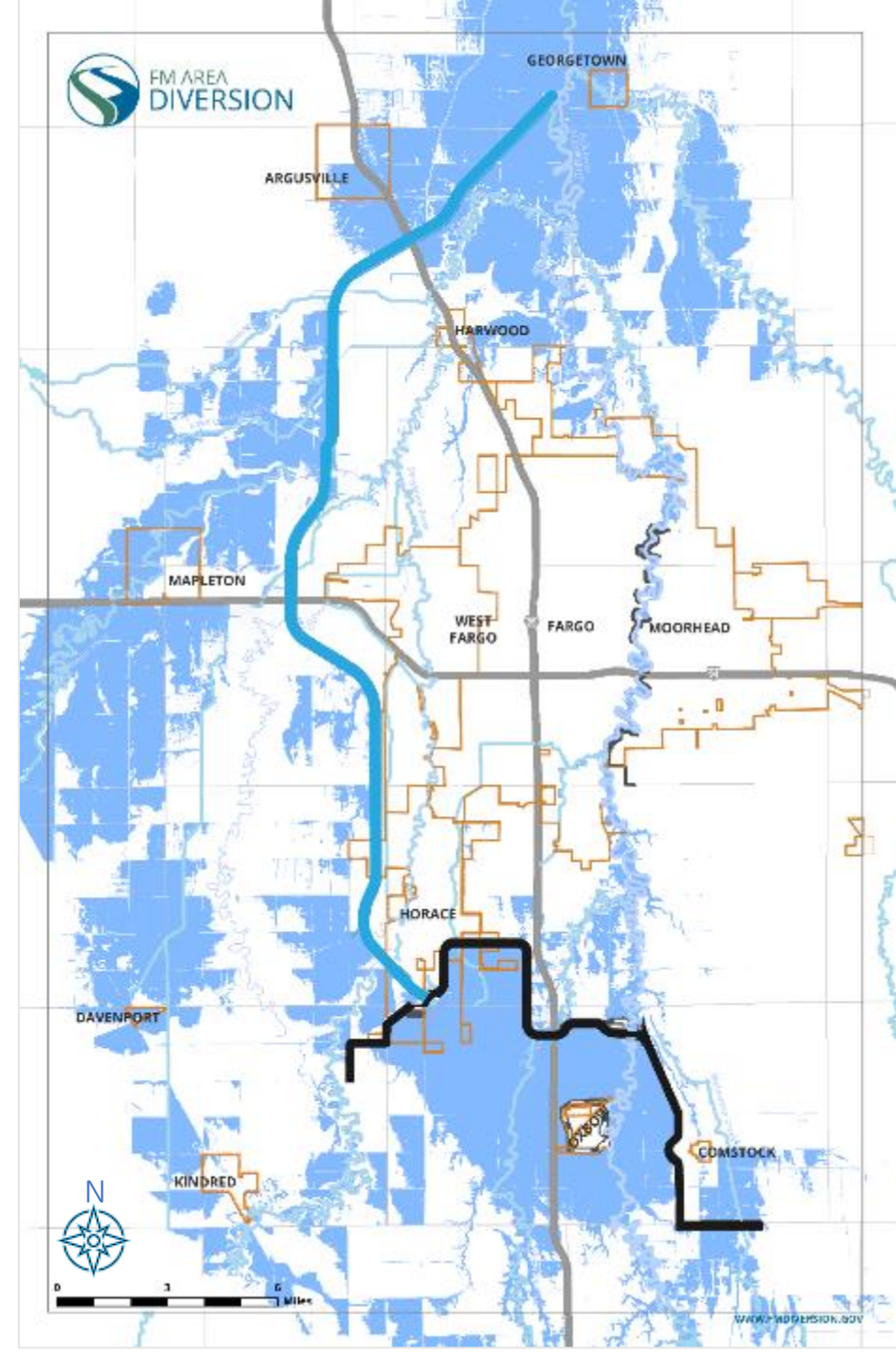


100-Year Floodplain

Existing Conditions



With Project



2024 Year in Review

68 Components Under Construction



316K
Hours Put on P3 Machinery



**US Army Corps
of Engineers®**



800
Boulders Placed
at Drayton Dam

>80
Tb of Data Collected
from Drone Surveying



28M
CY of Material Excavated



850K
CY of Material Excavated for the Southern
Embankment & OHB Levee



24 Miles of
Piling Driven



23K
CY of Concrete
Placed



42K
CY of Concrete Placed at the
Red River Structure



16
Miles of Piling
Driven at RRS



3,508
Trees Planted



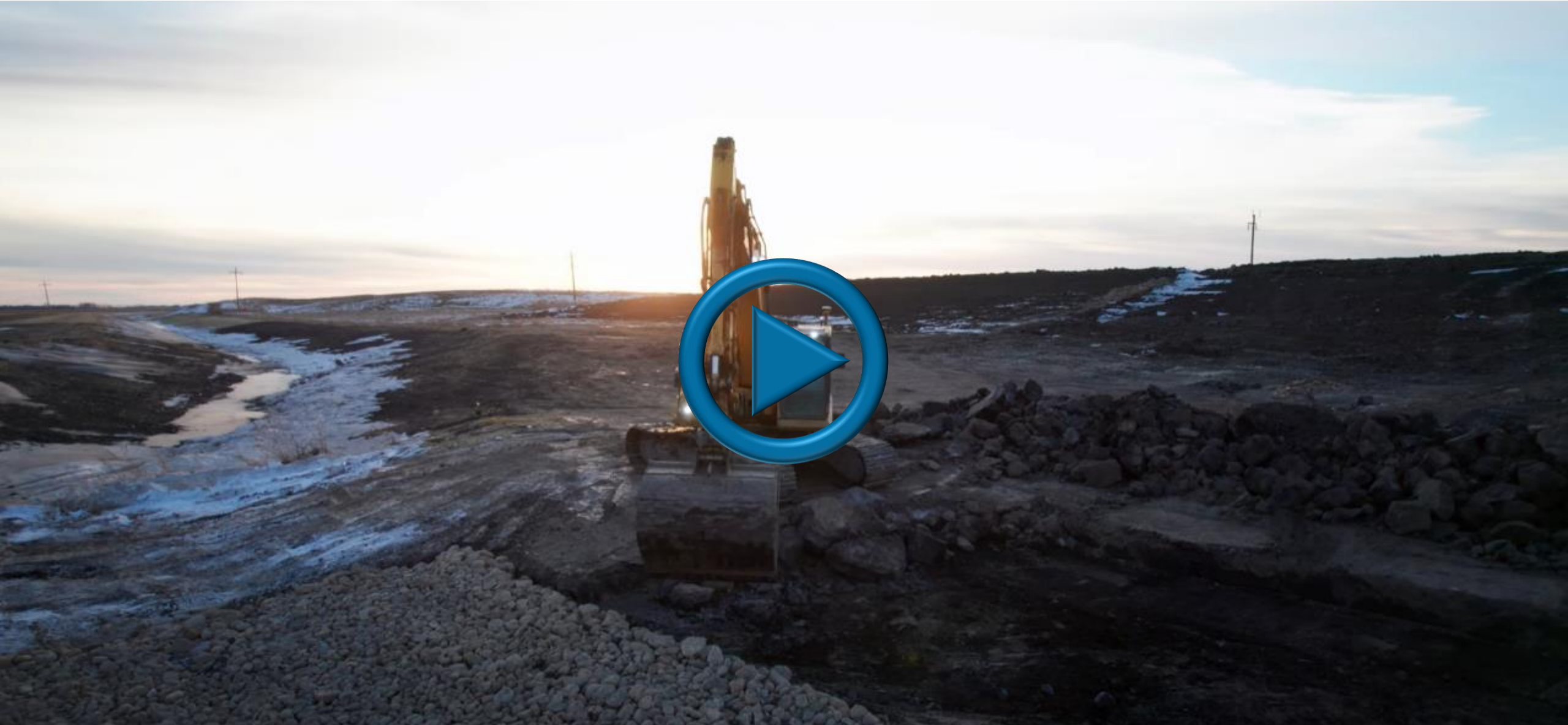
1,077
Acres of Native
Grasses
Planted

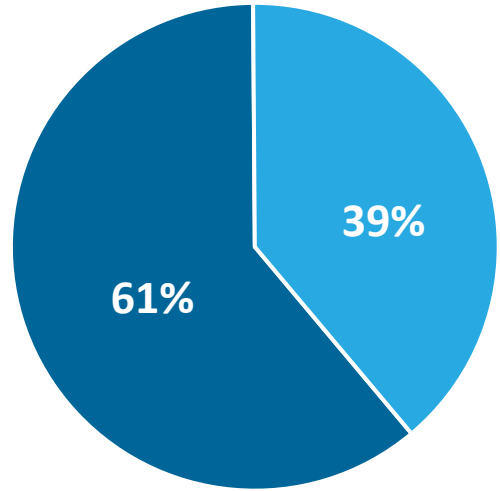


6
Stormwater Lift Stations
Worked On



Project Flyover

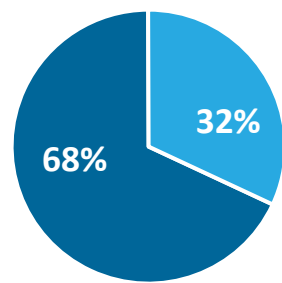




■ Completed ■ Remaining

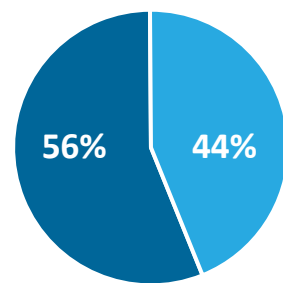
FM Area Diversion Total

Construction Completion



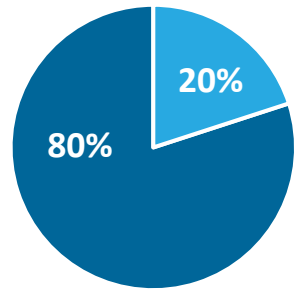
■ Completed ■ Remaining

Federal Work



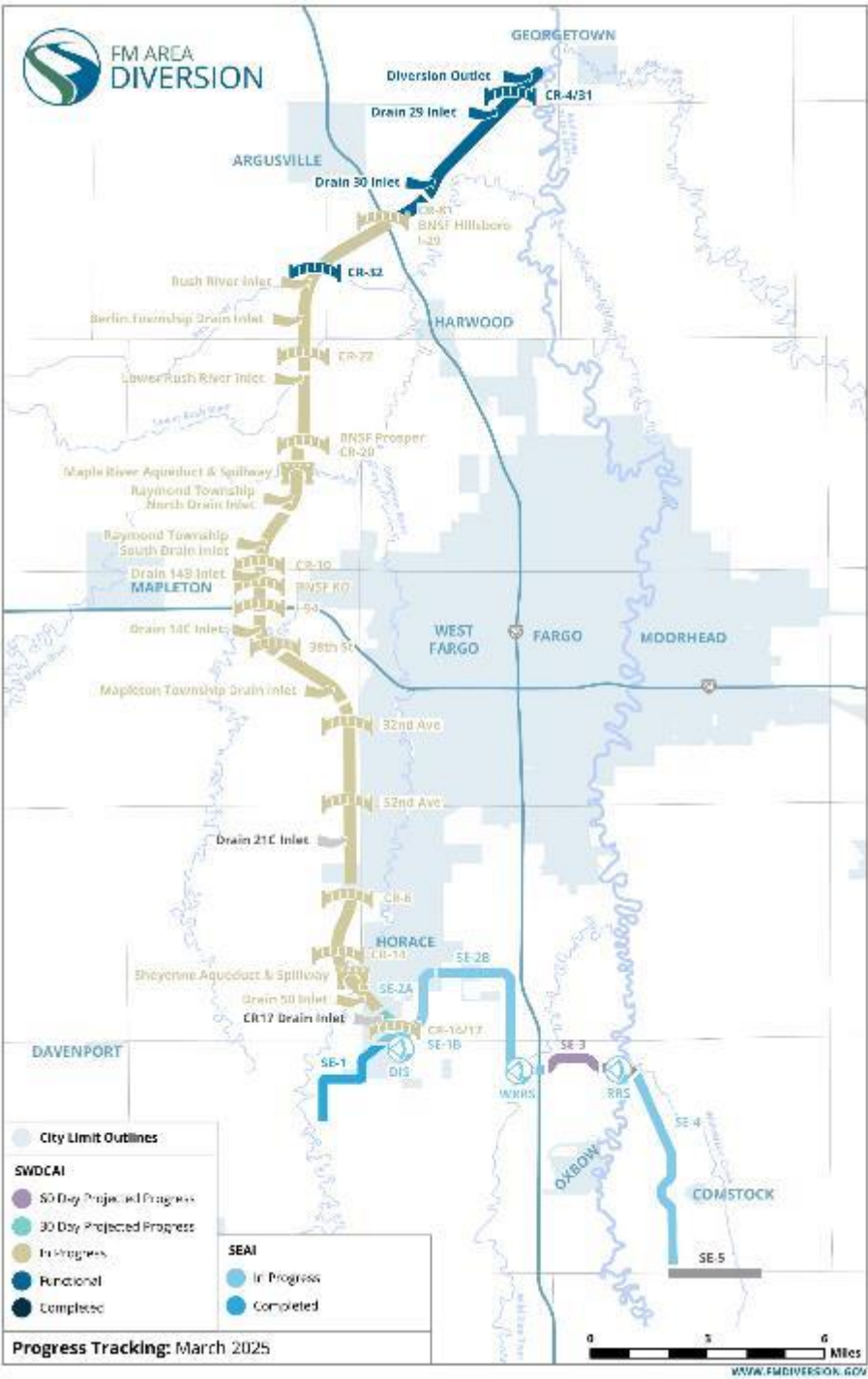
■ Completed ■ Remaining

P3 Work



■ Completed ■ Remaining

In-Town Work



Stormwater Diversion Channel & Associated Infrastructure Portion

Stormwater Diversion Channel



Construction Overview

Builder: ASN Constructors
(P3)

Start Date: August 2022

Scheduled Completion:
Early 2027

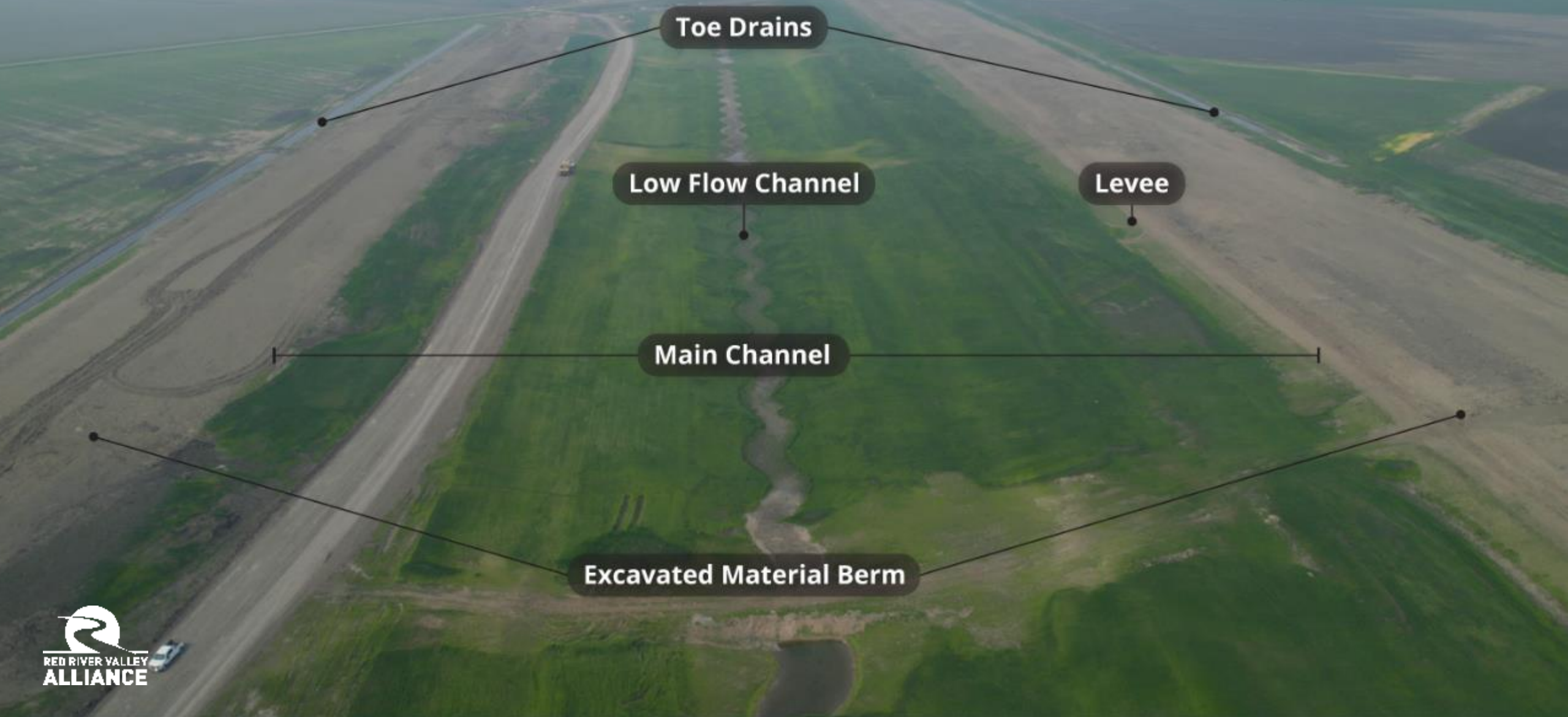
Component Details

Length: 30 miles

Excavation Totals: 45 million
cubic yards

Utility Relocations:
coordinating with 18
companies

Stormwater Diversion Channel



Aqueduct Design



Maple River Aqueduct



Construction Overview

Builder: ASN Constructors (P3)

Start Date: June 2023

Scheduled Completion: Q4 2025

Component Details

Length: 250 feet

Width: 50 feet

Concrete: 10,000 cubic yards

Piling: 48,194 linear feet of H pile

Sheyenne River Aqueduct



Construction Overview

Builder: ASN Constructors
(P3)

Start Date: 2024

Scheduled Completion:
early 2027

Component Details

Length: 250 feet

Width: 35 feet

Concrete Used: 8,000 cubic
yards

Piling: 9,642 linear feet of
sheet pile

Diversion Outlet



Construction Overview

Builder: ASN Constructors (P3)

Start Date: 2023

Completed: 2024

Component Details

Length: 1,500 feet

Width: 300 feet

Riprap: 24,000 cubic yards

Boulders: 450+ placed as rock weir to promote fish passage



Interstate & Railroad Crossings



I-94



I-29



BNSF Hillsboro



BNSF Shoofly



BNSF Prosper



BNSF KO

County Road Construction



County Road - Deck Pour



County Road - Deck Forming



County Road - Girders



County Road - Substructures



County Road - Piling



County Road - Preload

Drains & Inlets



Drain 14B



Drain 14C



Drain 29



Drain 30



Lower Rush Inlet



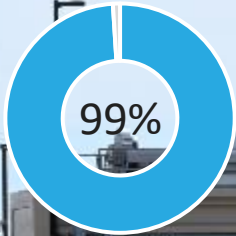
Rush River Inlet



US Army Corps
of Engineers®

Southern Embankment & Associated Infrastructure

Diversion Inlet Structure



Construction Overview

Builder: Ames Construction
(USACE contractor)

Start Date: 2017

Scheduled Completion:
2025

Component Details

Excavation: 264,000 cubic yards

Steel Piling: 55,400 linear feet

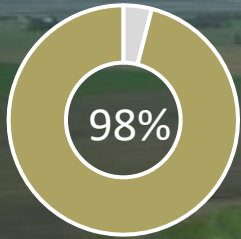
Concrete: 11,700 cubic yards

Riprap: 20,000 cubic yards

Gates: 50 feet wide by 26 feet tall



Wild Rice River Structure



Construction Overview

Builder: Ames Construction
(USACE contractor)

Start Date: 2020

Scheduled Completion:
2025

Component Details

Excavation: 420,000 cubic yards

Steel Piling: 70,200 linear feet

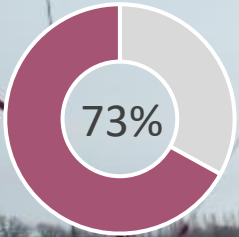
Concrete: 13,000 cubic yards

Riprap: 14,500 cubic yards

Gates: 40-by-40 feet



Red River Structure



Construction Overview

Builder: Ames Construction
(USACE contractor)

Start Date: 2022

Scheduled Completion:
March 2026

Component Details

Excavation: 1.8 million cubic yards

Steel Piling: 87,000 linear feet

Concrete: 72,000 cubic yards

Riprap: 26,200 cubic yards

Gates: 50 feet wide by 52.5 feet tall

December 2024



Southern Embankment



Reach 1A – 100% Completed



Reach 1B – 29% Completed



Reach 2A – 76% Completed



Reach 2B – 37% Completed



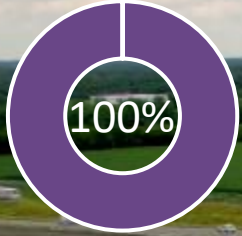
Reach 4 – 5% Completed

Up Next

Reach 3 – Contract awarded in January 2025 to HSG Park Joint Venture 2 in 2025

Reach 5 – Starting in 2025

I-29 Grade Raise



Construction Overview

Builder: Industrial Builders Inc. (USACE contractor)

Start Date: 2021

Completed: 2024

Component Details

Length: 4.2 miles

Excavation: 1.2 million cubic yards

Steel Piling: 13,000 feet

Concrete: 387,000 cubic yards

Riprap: 11,700 cubic yards



Size Comparisons



FARGODOME
h=125ft



HJEMKOMST CENTER
h=~100ft



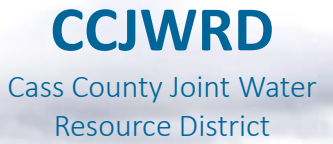
RED RIVER STRUCTURE
h=80ft



WILD RICE RIVER STRUCTURE
h=59ft



DIVERSION INLET STRUCTURE
h=46ft



Local Entity Flood Protection

In-Town Flood Protection



Construction Overview

Projects began in 2009 to allow for up to 37 feet of floodwater to flow safely through town

Project Details

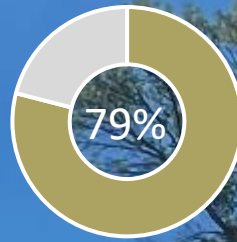
18 stormwater lift stations

259 property acquisitions

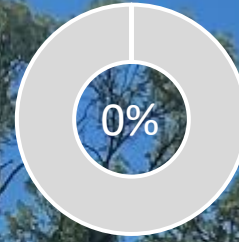
4.4 miles county road improvements/
grade raises

26.2 miles of levees/floodwalls

In-Town Flood Protection



Moorhead



Clay County



Construction Overview

Projects began in 2009 to allow for up to 37 feet of floodwater to flow safely through town

Project Details

19 storm structure modifications

276 property acquisitions

4 miles road improvements/grade raises

12.7 miles of levees/floodwalls

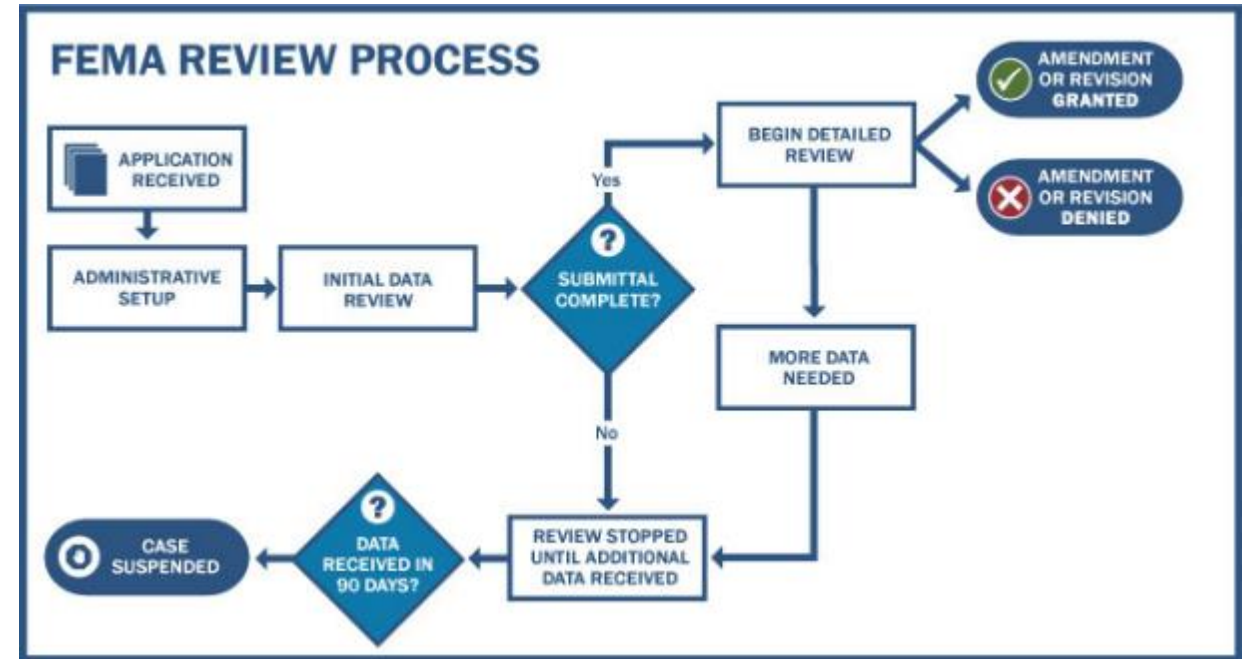


METRO
FLOOD
DIVERSION
AUTHORITY

Flood Insurance Process & Implications

What's a CLOMR?

- Conditional Letter of Map Revision
- FEMA's comment on a proposed project that may change the floodplain or probability of flooding
- Receiving a CLOMR is the first step in certifying property is protected from a 100-year flood event
- Does not revise the current National Flood Insurance Program (NFIP) map
- Building permits cannot be issued based on a CLOMR



Does this impact flood insurance?

No, not yet. Once built and certified by FEMA, the mandatory flood insurance requirement for thousands of people will be removed.

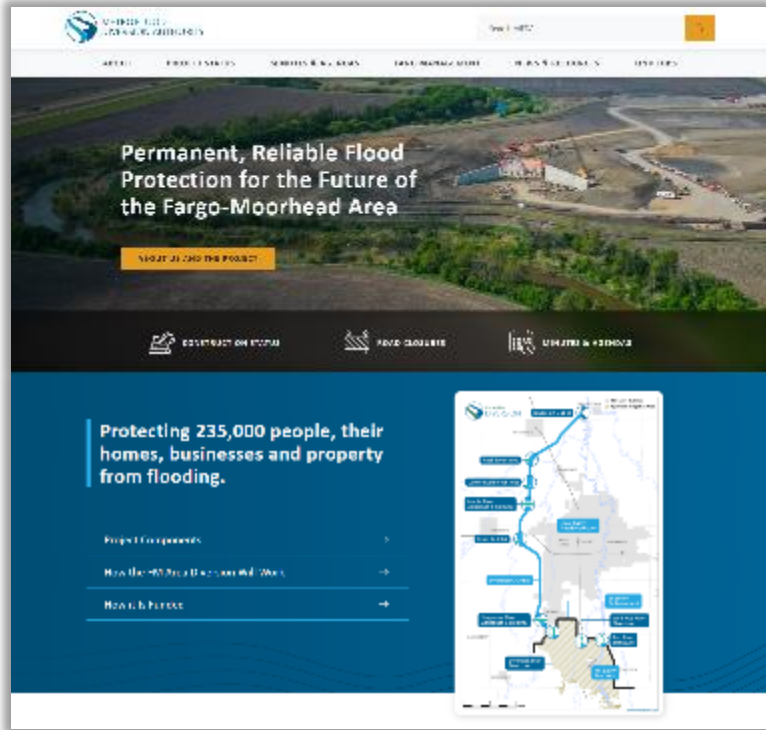
What happens after a CLOMR?

Once the FM Area Diversion is ready to operate, the MFDA will ask FEMA to look at its flood map and lift the insurance requirement since the project will provide certifiable protection. The requirement can be lifted with a Letter of Map Revision, or LOMR.



Flood Insurance Rate Map

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