AMP-ing up FIRM Production

TFMA 2023 Conference

Miguel Segura and Ethan Guyer

Delivering a better world

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Meet our team

Miguel Segura
GIS Manager

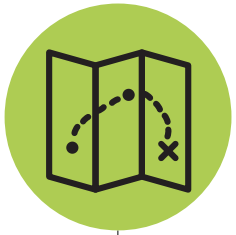
Ethan Guyer
GIS Specialist

Agenda

- History of Flood Mapping
  - Timeline
- Automated Map Production
  - What’s Need for AMP
  - Importance of FIRM Database
  - Benefits of AMP
  - Helpful Links
- Questions

History of Flood Mapping

Timeline



First Floodplain Maps
Maps based on a historical flooding event, helping maintain waters for commerce.

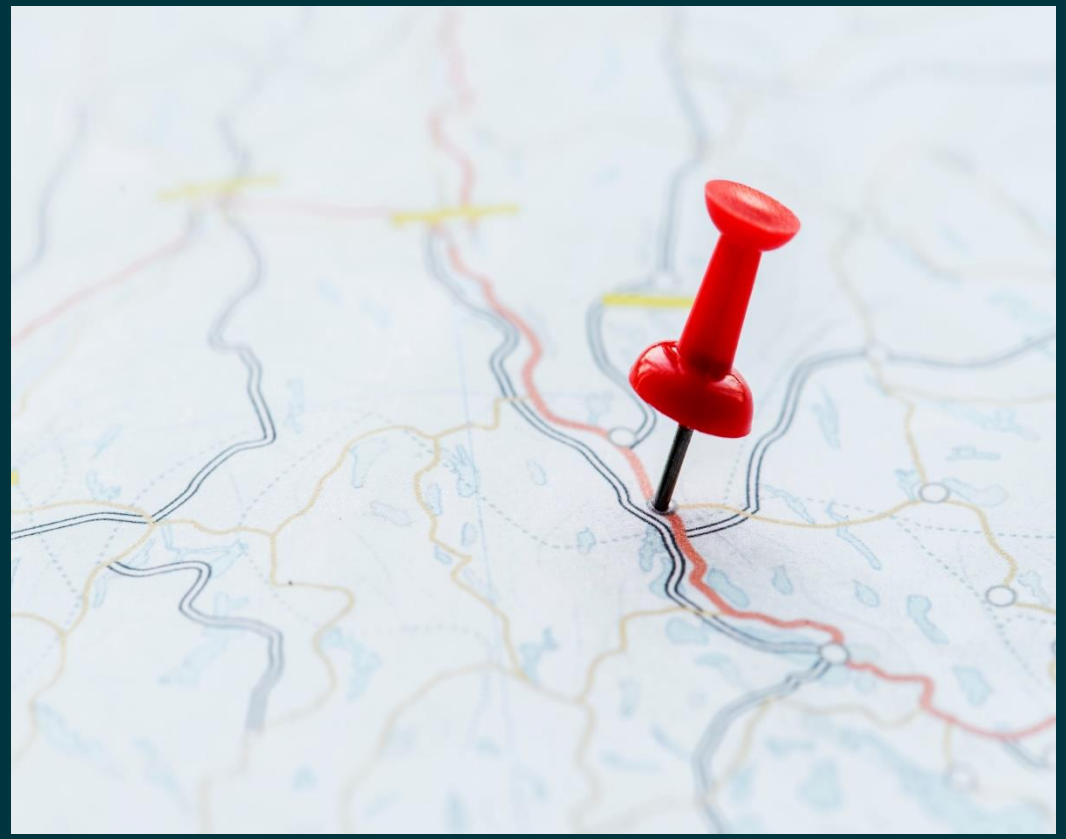
Flood Hazard Boundary Maps
Map shows special flooding in high-risk areas identified as zone A

Risk Maps
Improving hazard mitigation with panels and interactive maps

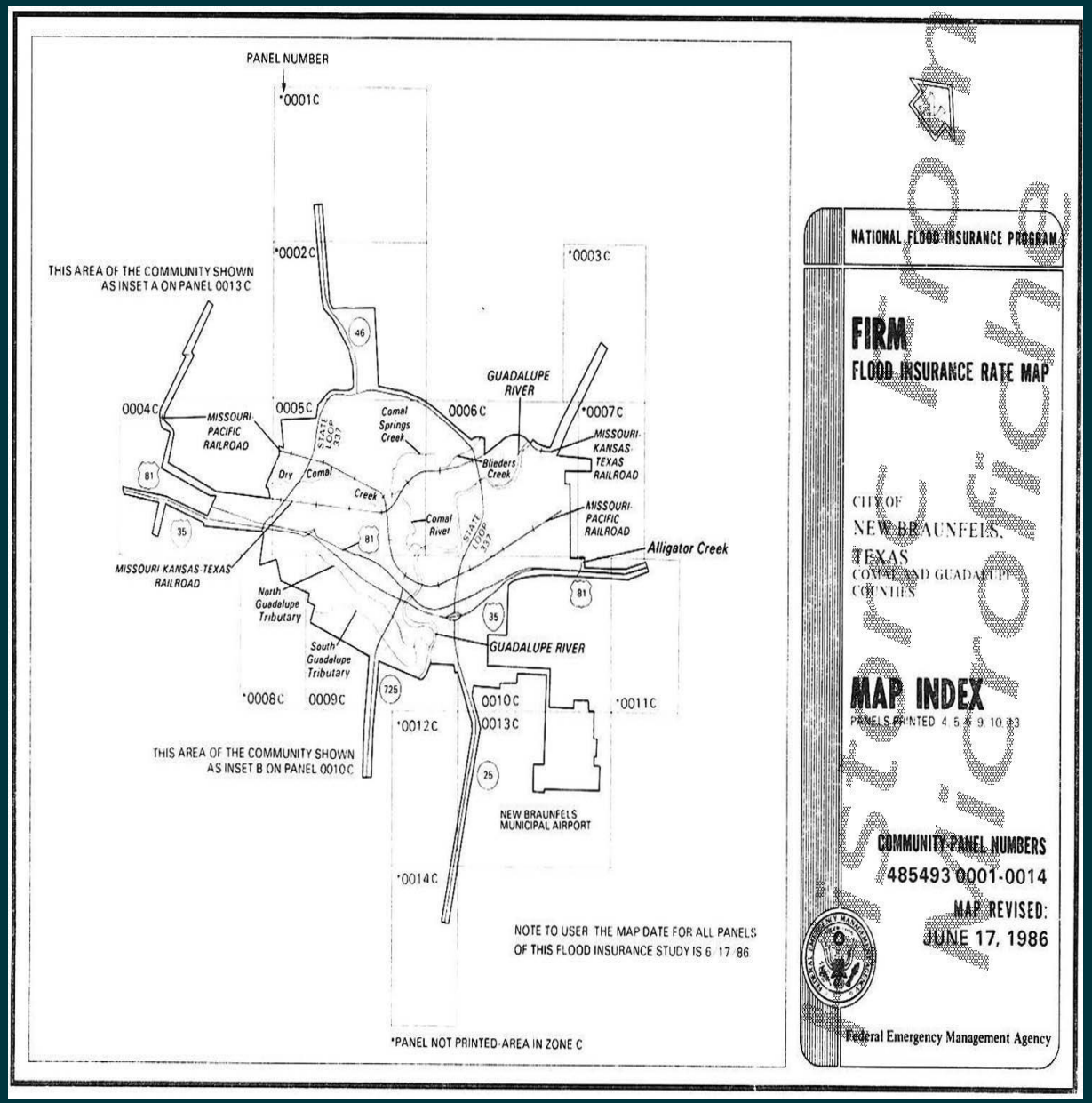
Use of NFIP Map
Created from the National Flood insurance Act in 1968

Map Modernization
Making flood mapping accessible to the public

First Floodplain Maps



- Maps that pioneered the way for maps that we use today.
- Goal was to maintain waters for commerce
- Based on historic weather events

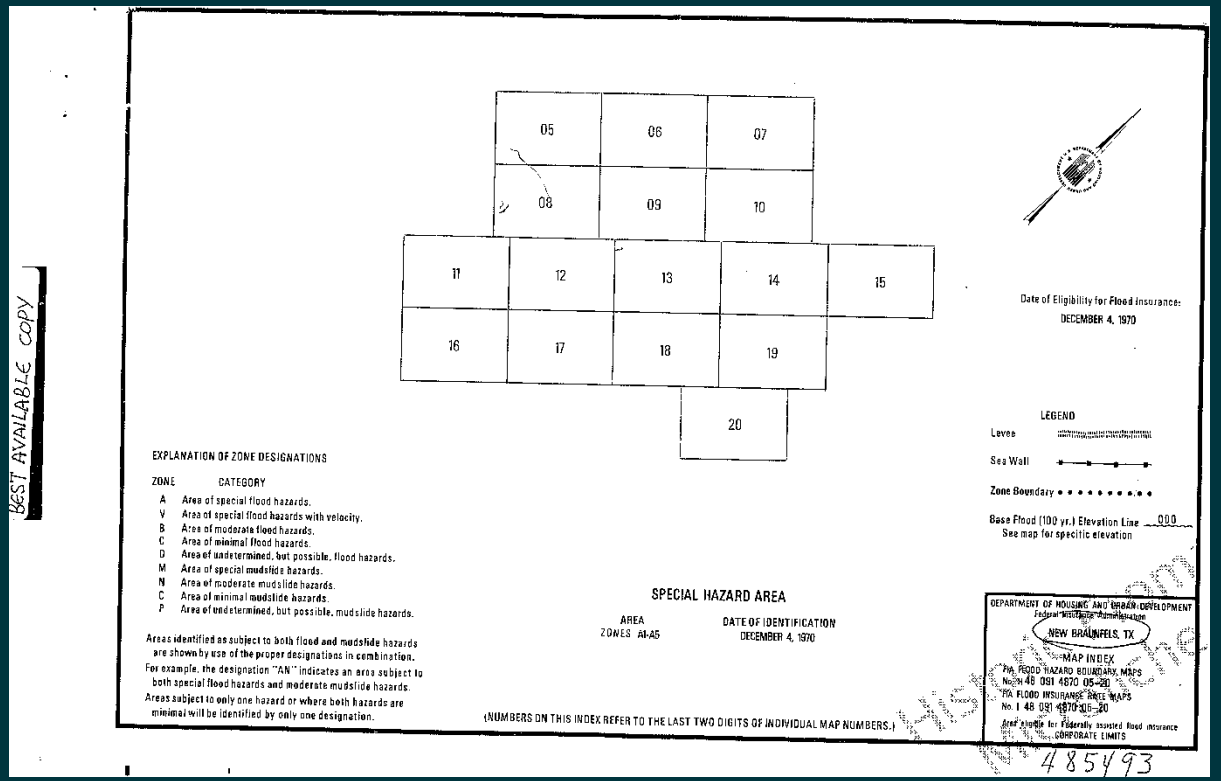


Use of NFIP Maps

- Created from the National Flood insurance Act in 1968
- NFIP is a program designed to aid communities flooding events
- Uses FIRM panels to show communities area of flood risk, to prepare communities

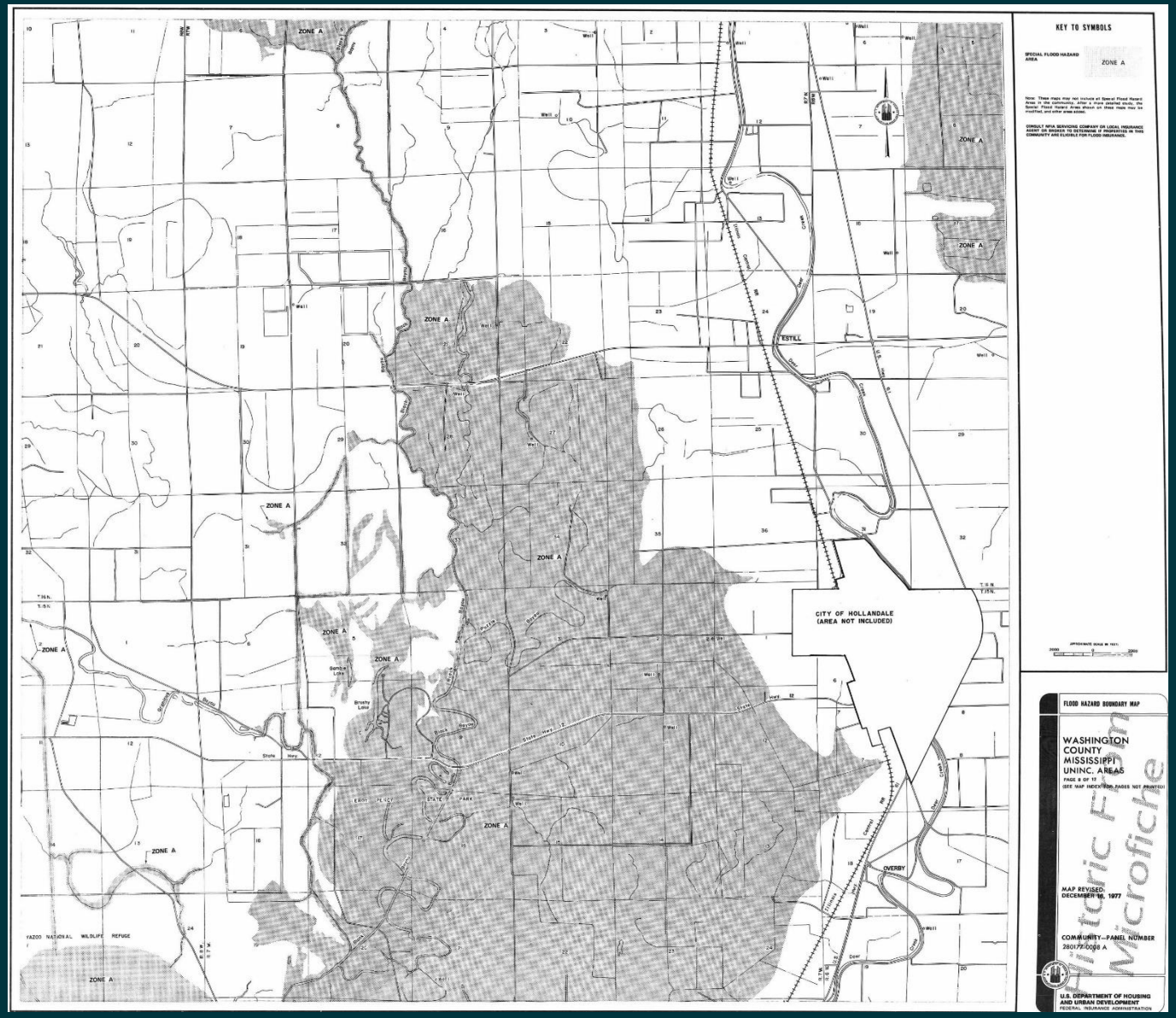
Use of NFIP Maps

Flood Hazard Boundary Maps

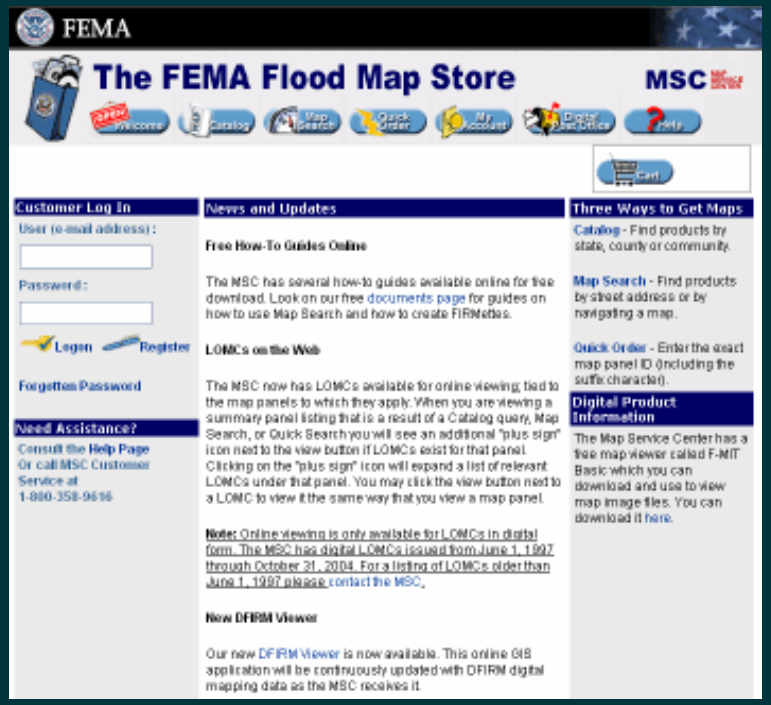


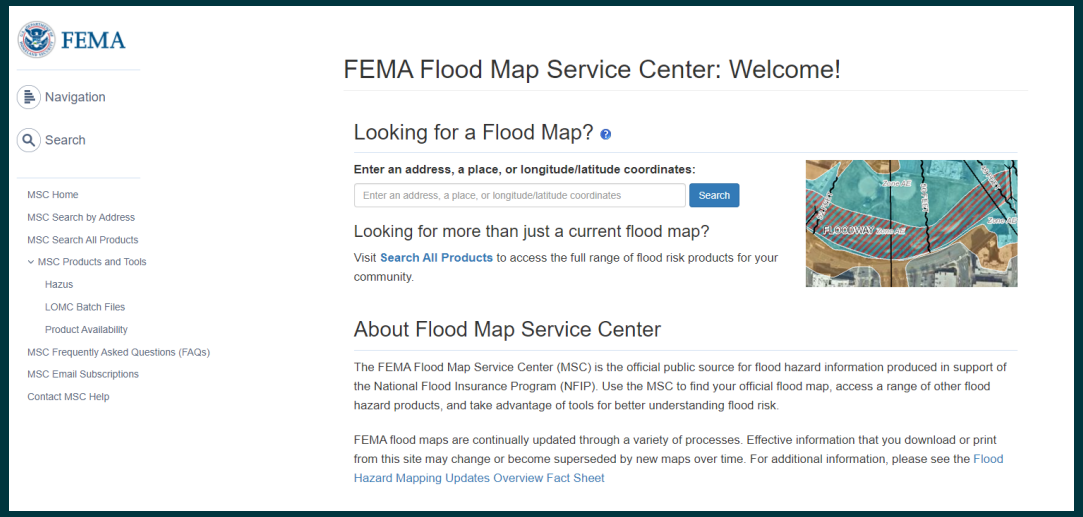
- Adds details of special flood hazards in area
- Showed communities special flood hazard areas
- Works alongside NFIP

Flood Hazard Boundary Maps



Historic Firm Microfiche

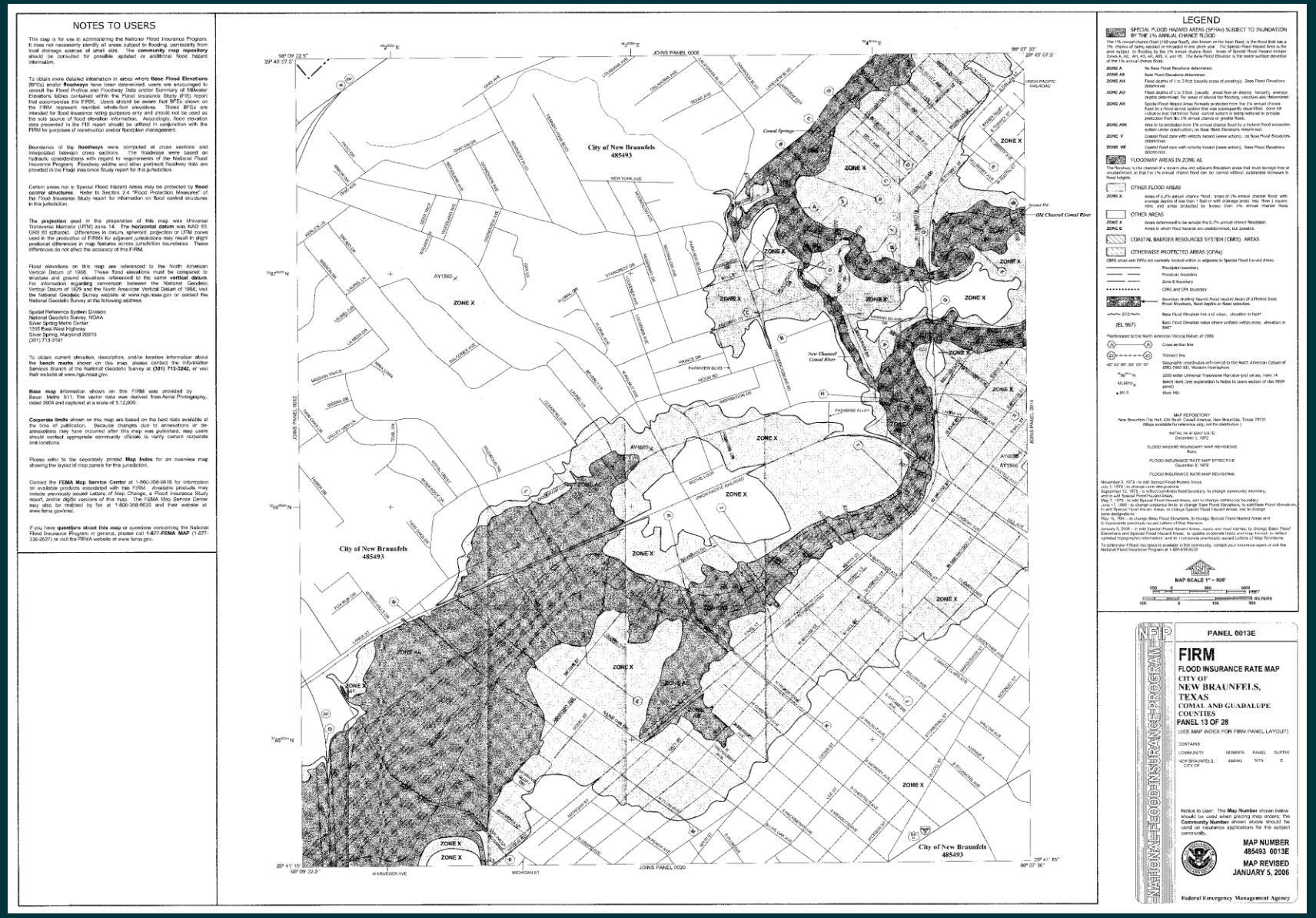




Map Modernization

- Updating maps into current and accessible digital data.
- Able to access all data on participating counties
- Panels provide information to user with extensive legend

Map Modernization



NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures in this jurisdiction.

The **projection** used in the preparation of this map was Universal Transverse Mercator (UTM) zone 14. The **horizontal datum** was NAD 83, GRS 80 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at www.ngs.noaa.gov or contact the National Geodetic Survey at the following address:

Spatial Reference System Division
National Geodetic Survey, NOAA
Silver Spring Metro Center
1315 East-West Highway
Silver Spring, Maryland 20910
(301) 713-3191

To obtain current elevation, description, and/or location information about the **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at **(301) 713-3242**, or visit their website at www.ngs.noaa.gov.

Base map information shown on this FIRM was provided by Bexar Metro 911. The vector data was derived from Aerial Photography, dated 2004 and captured at a scale of 1:12,000.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map showing the layout of map panels for this jurisdiction.

Contact the **FEMA Map Service Center** at 1-800-358-9616 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, a Flood Insurance Study report, and/or digital versions of this map. The FEMA Map Service Center may also be reached by fax at 1-800-358-9620 and their website at www.fema.gov/msc.

If you have **questions about this map** or questions concerning the National Flood Insurance Program in general, please call **1-877-FEMA MAP** (1-877-336-2627) or visit the FEMA website at www.fema.gov.

LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A — No Base Flood Elevations determined.
ZONE AE — Base Flood Elevations determined.
ZONE AH — Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO — Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR — Special Flood Hazard Areas formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99 — Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V — Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE — Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X — Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X — Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D — Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are generally located within or adjacent to Special Flood Hazard Areas.

- Floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- 513 — Base Flood Elevation line and value; elevation in feet*
- (EL 987) — Base Flood Elevation value where uniform within zone; elevation in feet*

*Referenced to the North American Vertical Datum of 1988

- A — A — Cross section line
- B — B — Transect line
- 97° 07' 30", 32° 07' 30" — Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere
- 5000-foot Universal Transverse Mercator grid values, zone 14
- MLS810 — Bench mark (see explanation in Notes to Users section of this FIRM panel)
- Mi 8 — River Mile

MAP REPOSITORY
New Braunfels City Hall, 424 Scott Casdorf Avenue, New Braunfels, Texas 78131
(Maps available for reference only, not for distribution.)

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
December 1, 1972

FLOOD HAZARD BOUNDARY MAP REVISIONS
None

FLOOD INSURANCE RATE MAP EFFECTIVE
December 1, 1972

FLOOD INSURANCE RATE MAP REVISIONS
November 3, 1973 - to add Special Flood Hazard Areas
July 1, 1974 - to change zone designations
September 4, 1974 - to change Special Flood Hazard Areas, to change community boundary, and to add Special Flood Hazard Areas
May 7, 1976 - to add Special Flood Hazard Areas, and to change community boundary
June 17, 1980 - to change umpossa limits; to change Base Flood Elevations; to add Base Flood Elevations; to add Special Flood Hazard Areas; to change Special Flood Hazard Areas; and to change zone designations
May 15, 1981 - to change Base Flood Elevations; to change Special Flood Hazard Areas and to incorporate previously issued Letters of Map Revision
January 5, 2006 - to add Special Flood Hazard Areas; to revise and reset map(s); to change Base Flood Elevations; to change Special Flood Hazard Areas; to change zone designations; to reflect updated topographic information; and to incorporate previously issued Letters of Map Revisions

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 500'

PANEL 0013E

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP
CITY OF
NEW BRAUNFELS,
TEXAS
COMAL AND GUADALUPE
COUNTIES
PANEL 13 OF 28
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

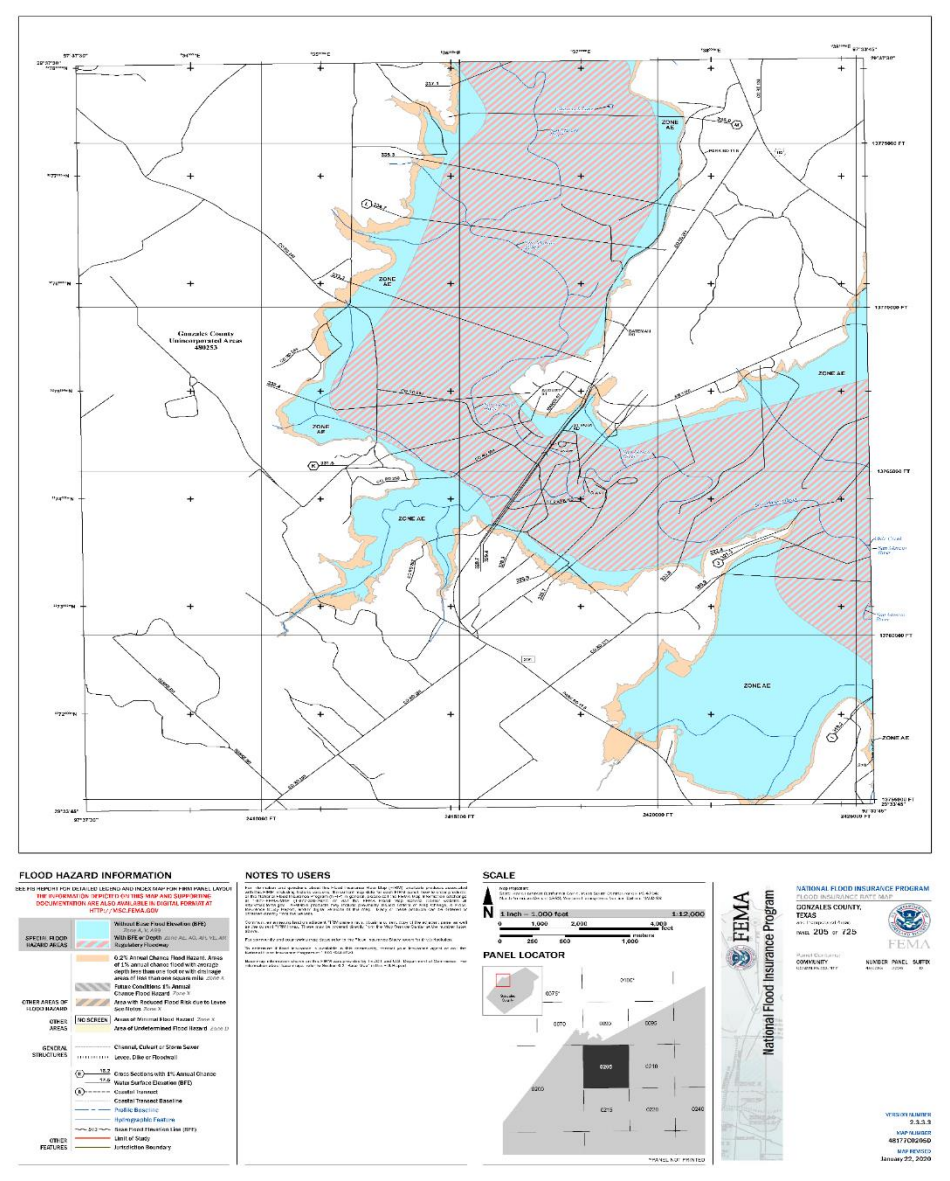
COMMUNITY	NUMBER	PANEL	SUFFIX
NEW BRAUNFELS, CITY OF	485493	0013	E

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
485493 0013E
MAP REVISED
JANUARY 5, 2006

Federal Emergency Management Agency

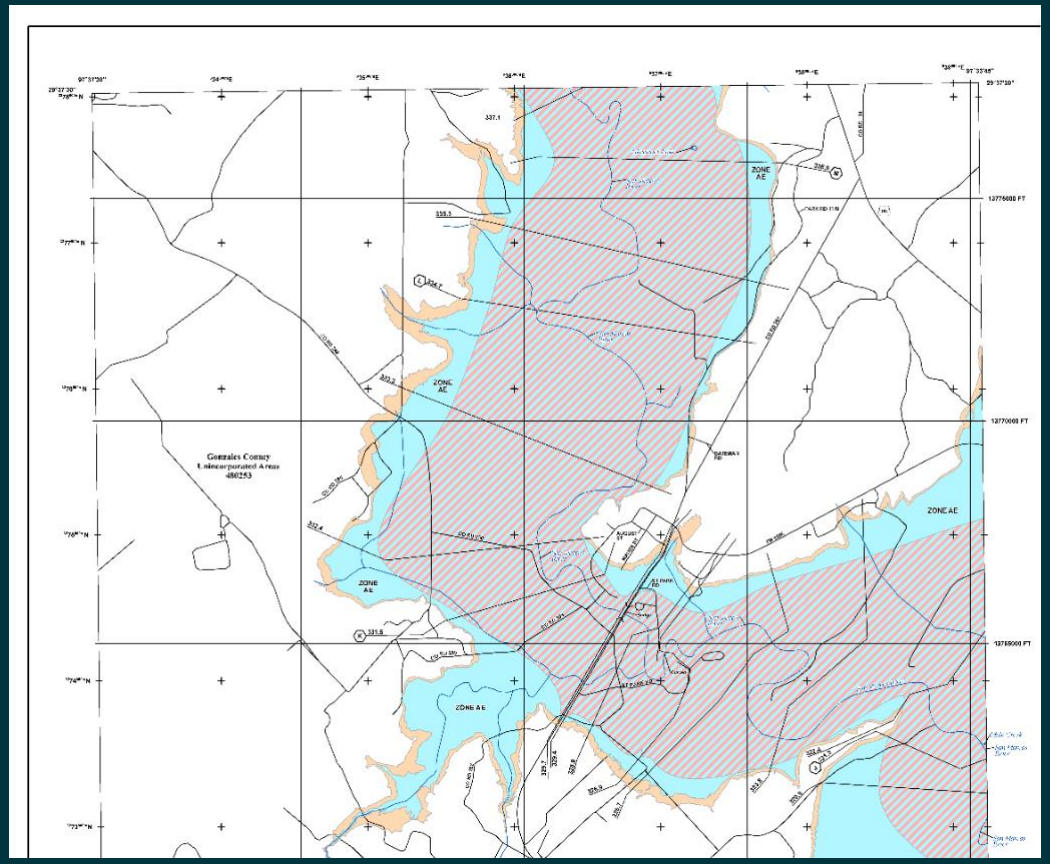
aecom.com

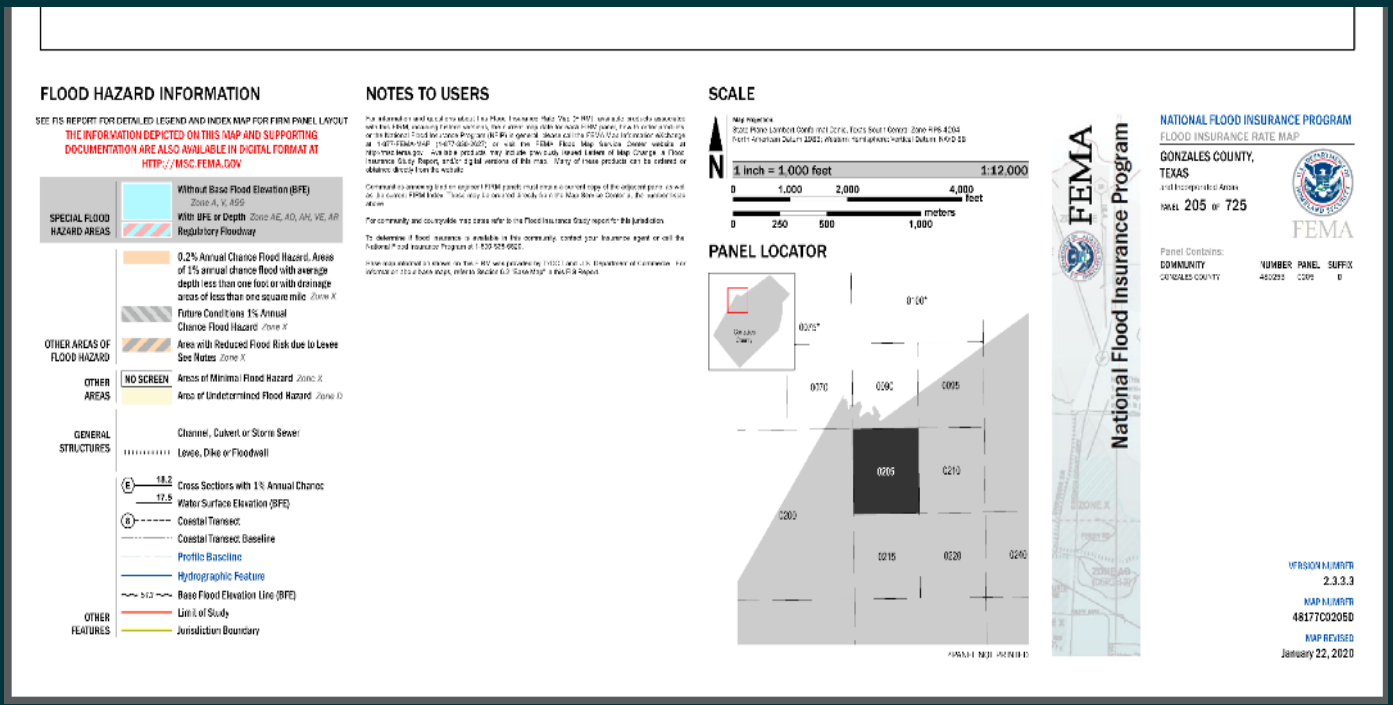


Risk Maps

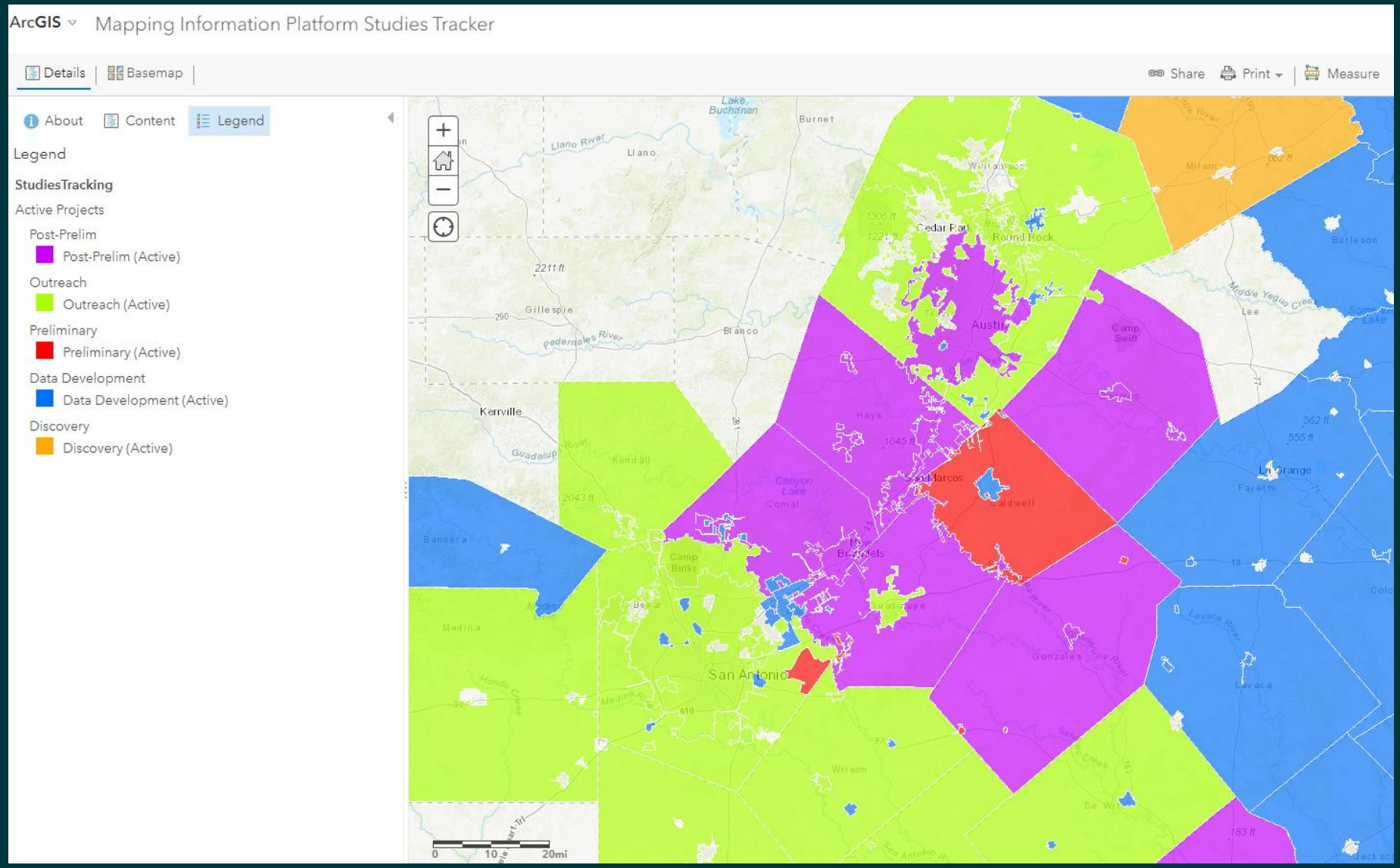
- Colored and detailed information on maps
- Involves interactive maps that help communities understand and visualize data
- Add the location of panel in the map

Risk Maps


ZONE AE
Gonzales County
Unincorporated Areas
480253


FLOOD HAZARD INFORMATION
SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT
THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT HTTP://MSC.FEMA.GOV
SPECIAL FLOOD HAZARD AREAS
Without Base Flood Elevation (BFE)
Zone A, V, A99
With BFE or Depth Zone AE, AO, AH, VE, AR
Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD
0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
Future Conditions 1% Annual Chance Flood Hazard Zone X
Area with Reduced Flood Risk due to Levee See Notes Zone X
OTHER AREAS
NO SCREEN
Areas of Minimal Flood Hazard Zone X
Area of Undetermined Flood Hazard Zone D
GENERAL STRUCTURES
Channel, Culvert or Storm Sewer
Levee, Dike or Floodwall
OTHER FEATURES
Cross Sections with 1% Annual Chance
Water Surface Elevation (BFE)
Coastal Transect
Coastal Transect Baseline
Profile Baseline
Hydrographic Feature
Base Flood Elevation Line (BFE)
Limit of Study
Jurisdiction Boundary
NOTES TO USERS
SCALE
1 inch = 1,000 foot
1:12,000
0 1,000 2,000 4,000 feet
0 250 500 1,000 meters
PANEL LOCATOR
0205
0210
0200
0215
0220
0240
FEMA
National Flood Insurance Program
NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP
GONZALES COUNTY, TEXAS
and Incorporated Areas
PANEL 205 OF 725
FEMA
Panel Contains:
COMMUNITY NUMBER PANEL SUFFIX
GONZALES COUNTY 480253 0205 D
VERSION NUMBER
2.3.3.3
MAP NUMBER
48177C0205D
MAP REVISED
January 22, 2020

Risk Maps Projects



Automated Map Production (AMP)

Introduction to AMP

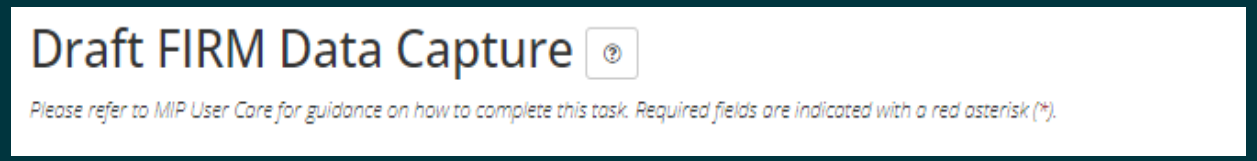
- To support the Flood Risk Program with creating automated FIRM Panels and Indexes.
- Incorporated by FEMA for all projects funded in fiscal year 2020 and later.
- Goal is to help providers eliminate manual edits to FIRM Labels, Notes to User text, and Title Block
- AMP Panels are generated once the appropriate task has passed FEMAs FIRM Database Verification Tool (DVT) check.
  - Once Passed the FIRMs and Index can be found in the “RFIRM” folder within the studies file structure. NOTE this folder is a “Read Only” folder, one cannot make edits after AMP has ran.
  - Within ever RFIRM Folder you will find a .txt file called ‘AMP_Generation Status”, this file will give you a status update on AMP production.

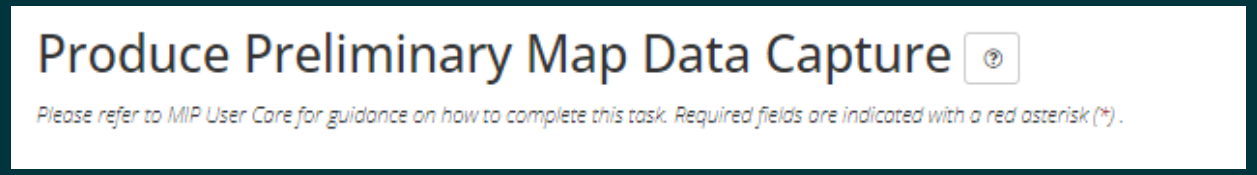
What's needed to Run AMP?

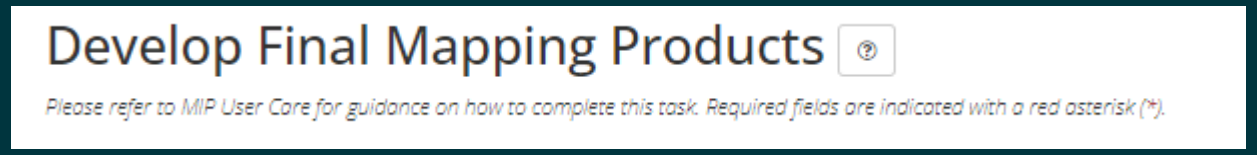
MIP Access

Mapping
INFORMATION PLATFORM
FEMA
Welcome Miguel | Log Out | Manage User Profile | FEMA Dictionary | MIP Help?
Home | Studies Post Launch TIPs | Tools & Links | Workbench | MIP User Care | MARS
Tools For Professionals
» Learn about eLOMA
» cHECk-RAS
» RASPLOT
» Hazus
More Tools
Tips and Tutorials
» How to Read a Flood Map
» Read a Flood Insurance Study
» Become a Cooperating Technical Partner
More Tips and Tutorials
Questions?
For general website or tools support, contact a Technical Support Specialist by calling 1-877-FEMA-MAP (1-877-336-2627) or via email.
For questions related to Flood Hazard Mapping, contact a Map Specialist by calling 1-877-FEMA-MAP or via email.
COMMUNITY OUTREACH
EDUCATION
RISK COMMUNICATION
Project Planning
Mapping
Preliminary Issuance
Assessment
Effective Issuance
Mitigation Planning
SUSTAINABILITY
MIP User Care
» MIP User Care Home
» Studies
» Amendments
» Revisions
Online LOMC
ONLINE LOMC
Apply for a Letter of Map Change
Learn More
News and Highlights
» Regularly Scheduled System Maintenance Windows
Studies Tracker Map
Ever wonder if there is a FEMA Flood Risk MAP Study in your community? Check out the Studies Tracker Map!

Project/Task that requires FIRM Panels (Draft DFIRM, Preliminary, Final Mapping)







Passing DVT Report

Submission Status

Metadata Validation Results	Passed	(View Details for Metadata Validation)
FIS/FIRM Validation Results	Passed	(View Details for Preliminary Validation)
DVT Validation Results	Passed	(View Details for DVT Validation)

RFIRM Folder

File Explorer

User Guide (Download Adobe Acrobat Reader).
Keyboard Access Assistance

The MIP File Explorer portal may be used to navigate and access directories and files located on the MIP J: and K: drives.
The ability to modify specific folders is based on a user's permissions and project workflow status within the MIP.
Please direct questions regarding data access or permissions to FEMA-RiskMAP-ITHelp@fema.dhs.gov

Legend

(r--) - read only
(rw-) - read and write
(rwd) - read, write, and delete

File Path:
J:/FY2023/23-06-0039S/Preliminary - FY21|Phase 3 - Prelim|Love County, OK 05/Produce Preliminary Products Data Capture - Produce Prelim Product|FY21|Love County, OK - 01/RFIRM

Search By MIP Case Number [ ] Search

Explorer View

- J(r--)
- K(r--)

Case Number View

- J(r--)
  - 23-06-0039S(r--)
    - Preliminary - FY21|Phase 3 - Prelim|Love County, OK 05(r--)
      - Produce Preliminary Products Data Capture - Produce Prelim Product|FY21|Love County, OK - 01(rw-)
        - FIS(rwd)
        - **RFIRM(r--)**
- K(r--)
  - 23-06-0039S(r--)

File Name	Size	Last Modified
40085C0025C.pdf	34 MB	10/11/2023 10:02:44 AM
40085C0050C.pdf	39 MB	10/11/2023 10:14:01 AM
40085C0075C.pdf	40 MB	10/11/2023 10:24:48 AM
40085C0100C.pdf	40 MB	10/11/2023 10:33:19 AM
40085C0125C.pdf	42 MB	10/11/2023 10:44:49 AM
40085C0150C.pdf	43 MB	10/11/2023 10:54:32 AM
40085C0175C.pdf	39 MB	10/11/2023 11:06:37 AM
40085C0200C.pdf	37 MB	10/11/2023 11:19:34 AM
40085C0225C.pdf	39 MB	10/11/2023 11:28:55 AM
40085C0235C.pdf	30 MB	10/11/2023 12:44:49 PM
40085C0245C.pdf	33 MB	10/11/2023 12:52:12 PM
40085C0250C.pdf	37 MB	10/11/2023 01:21:37 PM
40085C0255C.pdf	34 MB	10/11/2023 12:58:53 PM
40085C0265C.pdf	32 MB	10/11/2023 01:06:17 PM
40085C0275C.pdf	40 MB	10/11/2023 01:14:57 PM
40085C0300C.pdf	38 MB	10/11/2023 11:37:05 AM
40085C0325C.pdf	39 MB	10/11/2023 11:44:48 AM
40085C0350C.pdf	39 MB	10/11/2023 11:51:38 AM
40085C0375C.pdf	18 MB	10/11/2023 11:58:19 AM
40085C0400C.pdf	18 MB	10/11/2023 12:08:07 PM
40085C0425C.pdf	40 MB	10/11/2023 12:23:28 PM
40085C0450C.pdf	36 MB	10/11/2023 12:30:57 PM
40085C0475C.pdf	41 MB	10/11/2023 12:37:46 PM
[illegible]	692 KB	10/11/2023 01:22:28 PM
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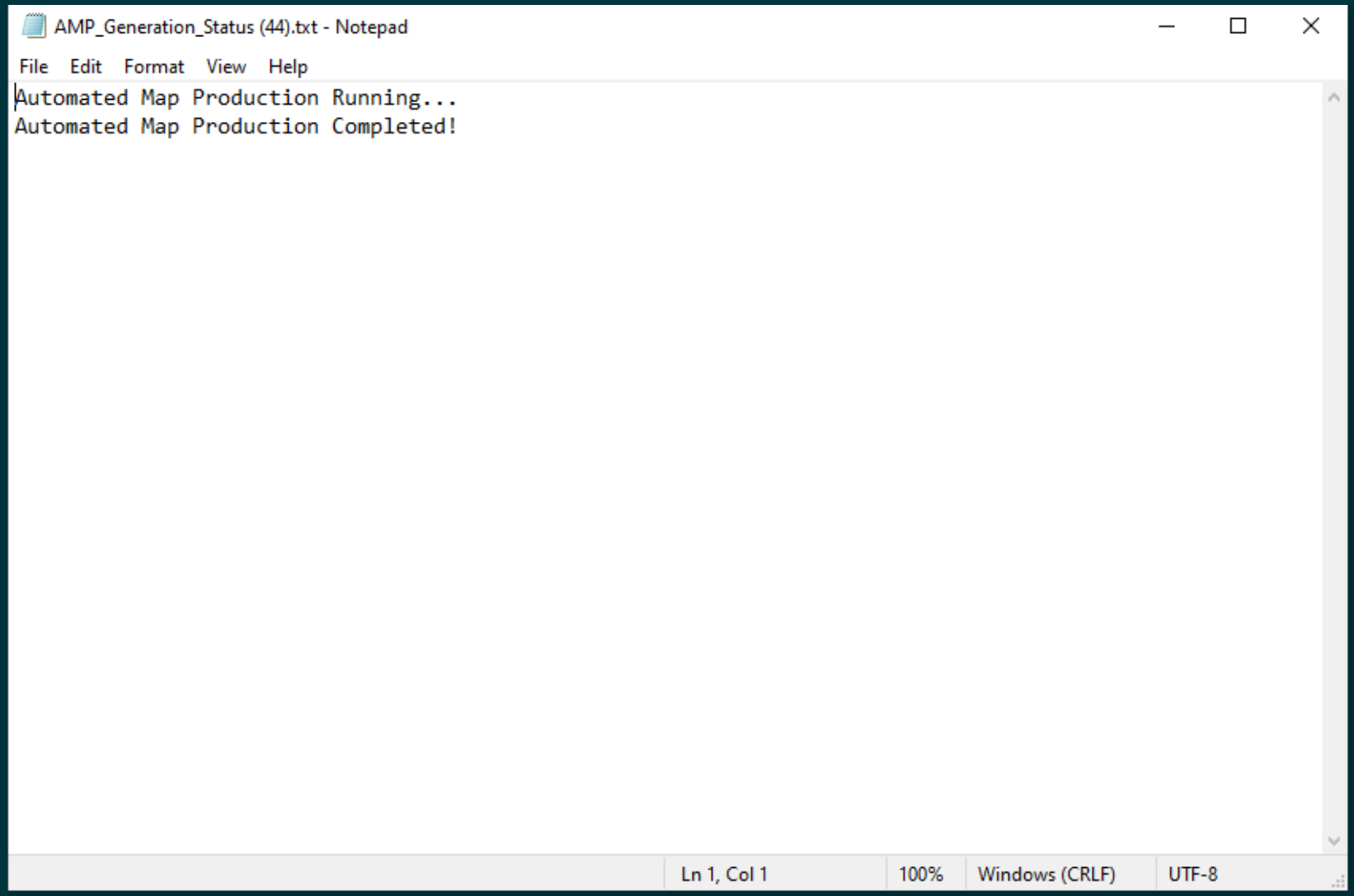
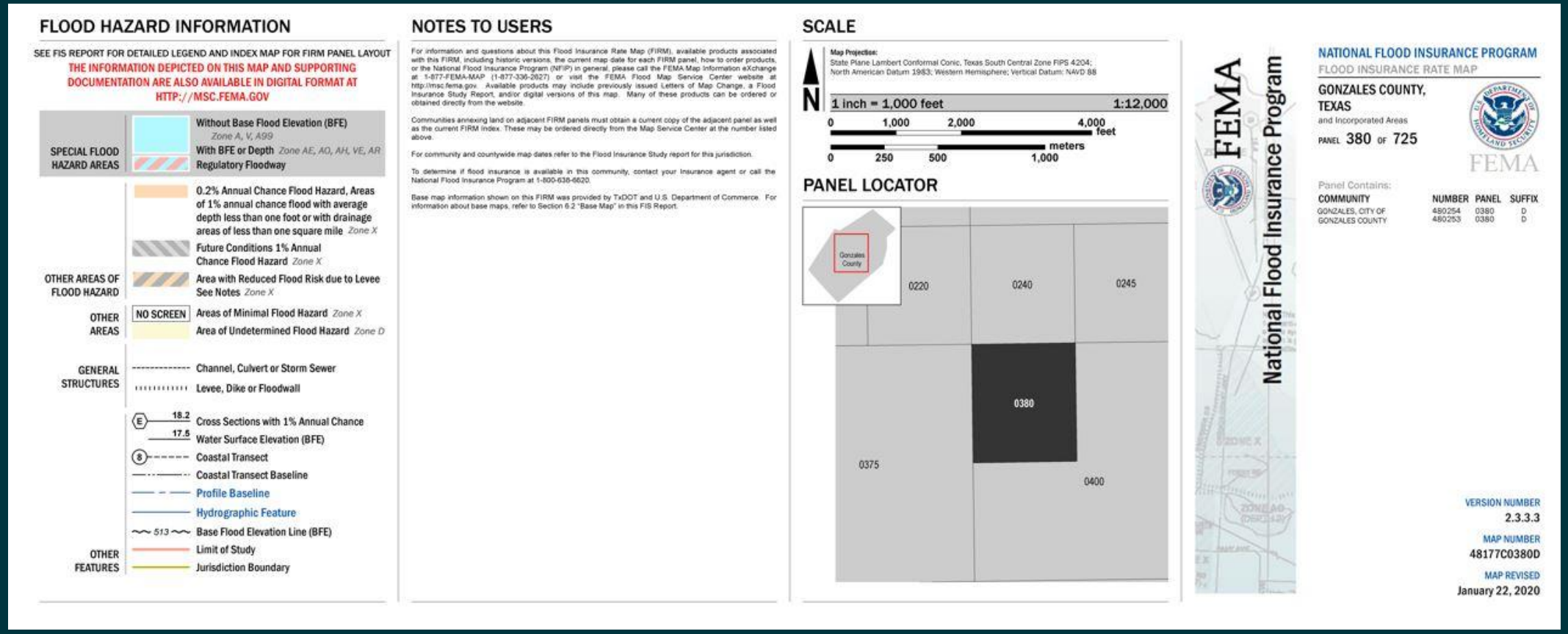
AMP_Generation_Status.txt



What's the difference?

Manual FIRM Layout



FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT HTTP://MSC.FEMA.GOV

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee See Notes *Zone X*

OTHER AREAS
- NO SCREEN Areas of Minimal Flood Hazard *Zone X*
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert or Storm Sewer
- Levee, Dike or Floodwall

OTHER FEATURES
- (E) 18.2 / 17.5 Cross Sections with 1% Annual Chance Water Surface Elevation (BFE)
- (8) Coastal Transect
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature
- 513 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary

NOTES TO USERS

For information and questions about this Flood Insurance Rate Map (FIRM), available products associated with this FIRM, including historic versions, the current map date for each FIRM panel, how to order products, or the National Flood Insurance Program (NFIP) in general, please call the FEMA Map Information eXchange at 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA Flood Map Service Center website at http://msc.fema.gov. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the website.

Communities annexing land on adjacent FIRM panels must obtain a current copy of the adjacent panel as well as the current FIRM index. These may be ordered directly from the Map Service Center at the number listed above.

For community and countywide map dates refer to the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your Insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

Base map information shown on this FIRM was provided by TxDOT and U.S. Department of Commerce. For information about base maps, refer to Section 6.2 "Base Map" in this FIS Report.

SCALE

N

Map Projection:
State Plane Lambert Conformal Conic, Texas South Central Zone FIPS 4204;
North American Datum 1983; Western Hemisphere; Vertical Datum: NAVD 88

1 inch = 1,000 feet 1:12,000

0 1,000 2,000 4,000 feet

0 250 500 1,000 meters

PANEL LOCATOR

NATIONAL FLOOD INSURANCE PROGRAM

FLOOD INSURANCE RATE MAP

GONZALES COUNTY, TEXAS

and Incorporated Areas

PANEL 380 OF 725

FEMA

Panel Contains:

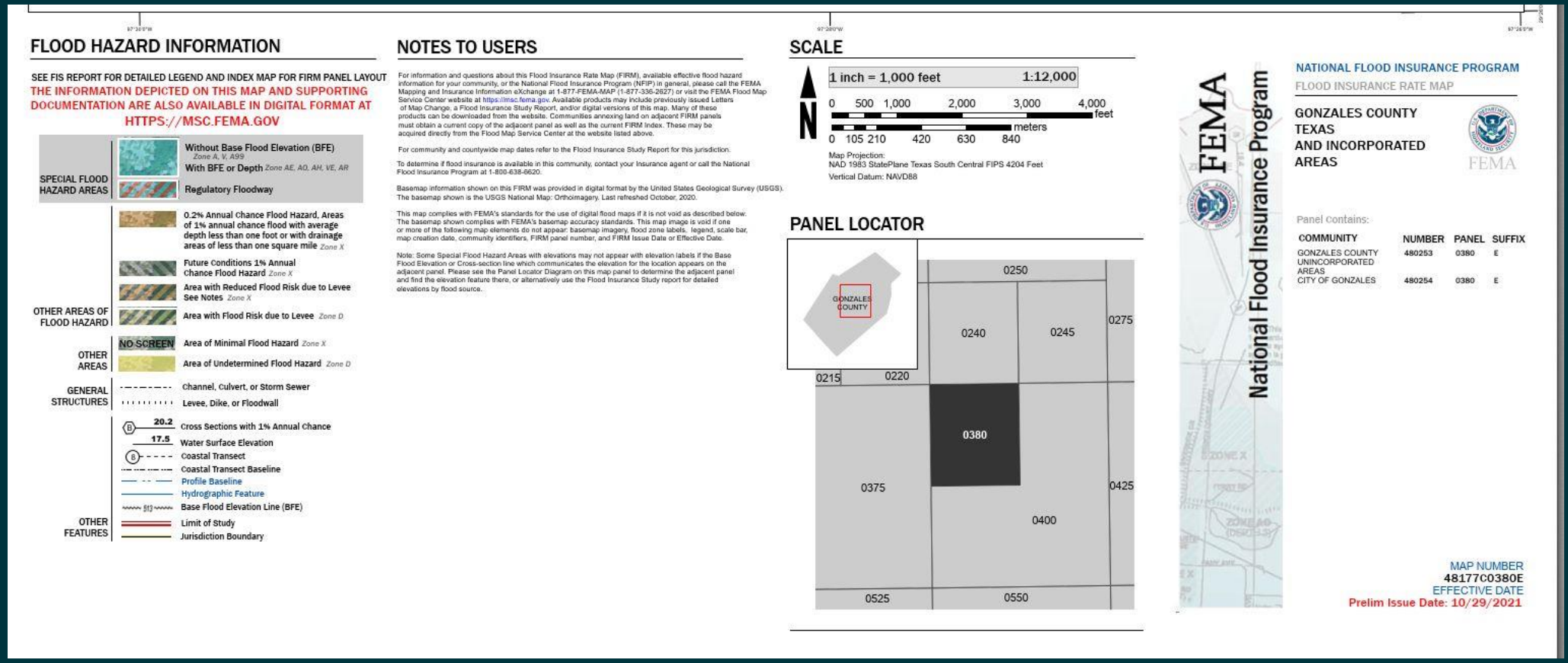
COMMUNITY	NUMBER	PANEL	SUFFIX
GONZALES, CITY OF	480254	0380	D
GONZALES COUNTY	480253	0380	D

VERSION NUMBER
2.3.3.3

MAP NUMBER
48177C0380D

MAP REVISED
January 22, 2020

AMP FIRM Layout



FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT HTTPS://MSC.FEMA.GOV

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee See Notes *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary

NOTES TO USERS

For information and questions about this Flood Insurance Rate Map (FIRM), available effective flood hazard information for your community, or the National Flood Insurance Program (NFIP) in general, please call the FEMA Mapping and Insurance Information eXchange at 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA Flood Map Service Center website at https://msc.fema.gov. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be downloaded from the website. Communities annexing land on adjacent FIRM panels must obtain a current copy of the adjacent panel as well as the current FIRM Index. These may be acquired directly from the Flood Map Service Center at the website listed above.

For community and countywide map dates refer to the Flood Insurance Study Report for this jurisdiction.

To determine if flood insurance is available in this community, contact your Insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

Basemap information shown on this FIRM was provided in digital format by the United States Geological Survey (USGS). The basemap shown is the USGS National Map: Orthoimagery. Last refreshed October, 2020.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards. This map image is void if one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM Issue Date or Effective Date.

Note: Some Special Flood Hazard Areas with elevations may not appear with elevation labels if the Base Flood Elevation or Cross-section line which communicates the elevation for the location appears on the adjacent panel. Please see the Panel Locator Diagram on this map panel to determine the adjacent panel and find the elevation feature there, or alternatively use the Flood Insurance Study report for detailed elevations by flood source.

SCALE

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1 inch = 1,000 feet 1:12,000

0 500 1,000 2,000 3,000 4,000 feet

0 105 210 420 630 840 meters

Map Projection:
NAD 1983 StatePlane Texas South Central FIPS 4204 Feet
Vertical Datum: NAVD88

PANEL LOCATOR

GONZALES COUNTY

0250 0240 0245 0275 0215 0220 0380 0375 0425 0400 0525 0550

FEMA

National Flood Insurance Program

NATIONAL FLOOD INSURANCE PROGRAM

FLOOD INSURANCE RATE MAP

GONZALES COUNTY
TEXAS
AND INCORPORATED
AREAS

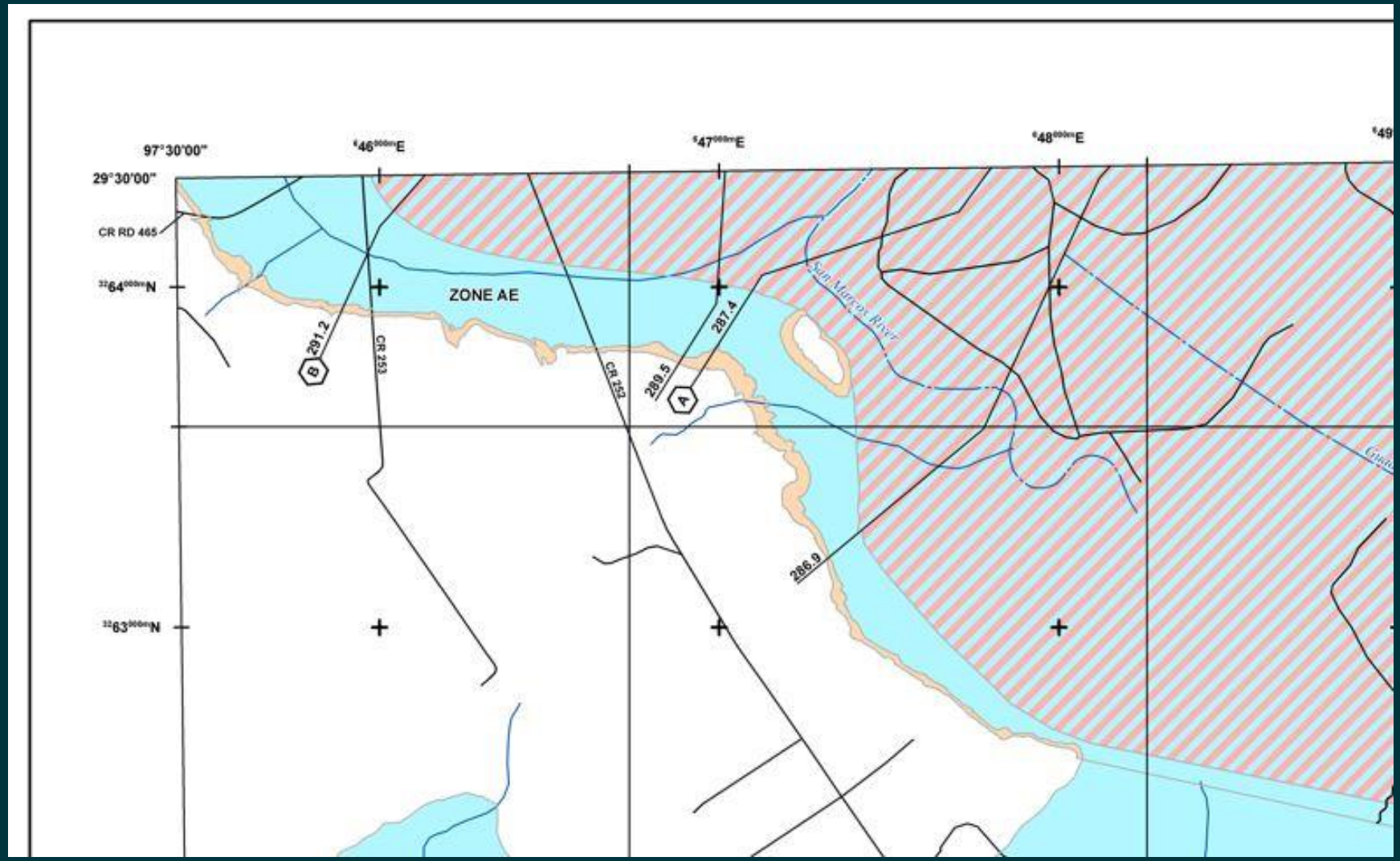
FEMA

Panel Contains:

COMMUNITY	NUMBER	PANEL	SUFFIX
GONZALES COUNTY UNINCORPORATED AREAS	480253	0380	E
CITY OF GONZALES	480254	0380	E

MAP NUMBER
48177C0380E
EFFECTIVE DATE
Prelim Issue Date: 10/29/2021

Manual Map Body



AMP Map Body

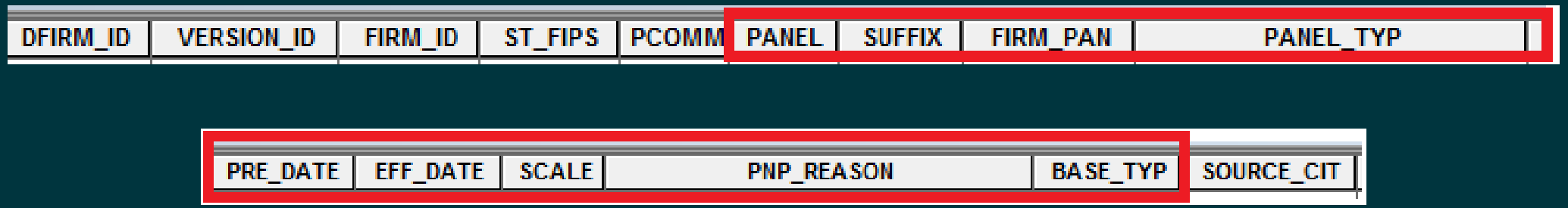
Importance of the FIRM Database

- The database plays a pivotal role in symbolizing features and generating labels within AMP FIRMs
- Labels are directly linked to the features and tables in the database.
  - S_Gen_Struct
  - S_Pol_Ar
  - S_Firm_Pan
  - S_Wtr_Ln/ S_Profil_Basln
  - S_Transport
  - S_Fld_Haz_Ar/Ln
  - S_XS
  - S_Levee
  - Study_info

S_Firm_Pan

AMP Related Fields

- Panel, Suffix, Firm_Pan, Panel_Typ, Pre_Date, Eff_Date, Scale, PNP_Reason, and Base_Typ
- Must Submit Firm Panel for entire county



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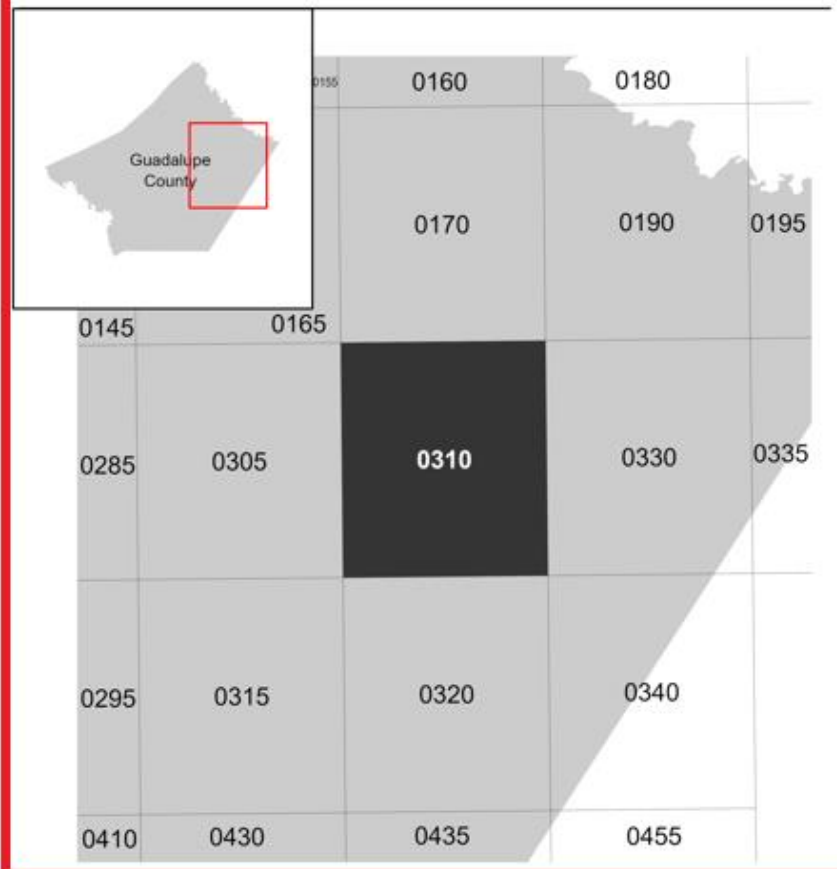
0 105 210 420 630 840 meters

Map Projection:
NAD 1983 StatePlane Texas South Central FIPS 4204 Feet
Vertical Datum: NAVD88

PANEL LOCATOR



FEMA

National Flood Insurance Program

NATIONAL FLOOD INSURANCE PROGRAM

FLOOD INSURANCE RATE MAP

GUADALUPE COUNTY TEXAS AND INCORPORATED AREAS

FEMA

Panel Contains:

COMMUNITY	NUMBER	PANEL	SUFFIX
GUADALUPE COUNTY UNINCORPORATED AREAS	480266	0310	G

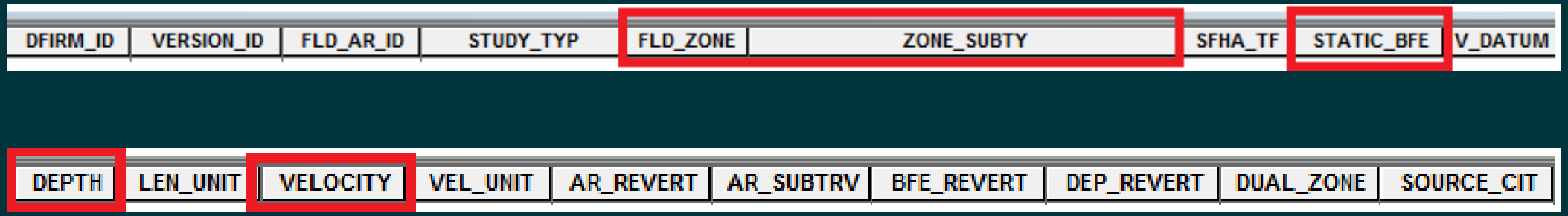
MAP NUMBER
48187C0310G
EFFECTIVE DATE
February 22, 2024

aecom.com

S_Fld_Haz_Ar

AMP Related Fields

- Fld_zone, Zone_Subty, Static_BFE, Depth, Velocity



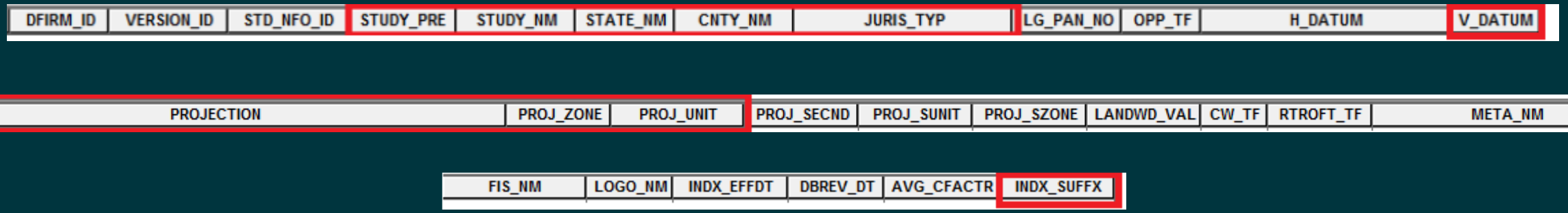
ZONE AE
460.2
454.6
450.9
TANNENBAU
Guadalupe County
Unincorporated Areas
480266
LIFEGATE LN
COYOTE BEND
450
ZONE A
466

Canyon Lake
ZONE AE
(EL 946)
Guadalupe River
COLLEEN DR
CONNIE DR
CONNIE DR
IRENE DR
VILLAGE SHORE DR
VILLAGE VIEW DR
VILLAGE
SOUTH ACCESS RD

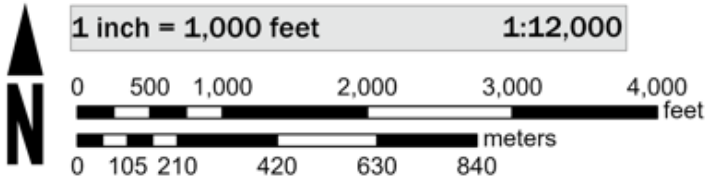
Study_Info

AMP Related Fields

- Projection, Proj_Zone, Proj__Unit, Study_Pre, Study_Nm, State_Nm, Cnty_Nm, Juris_Typ, Indx_Suffx

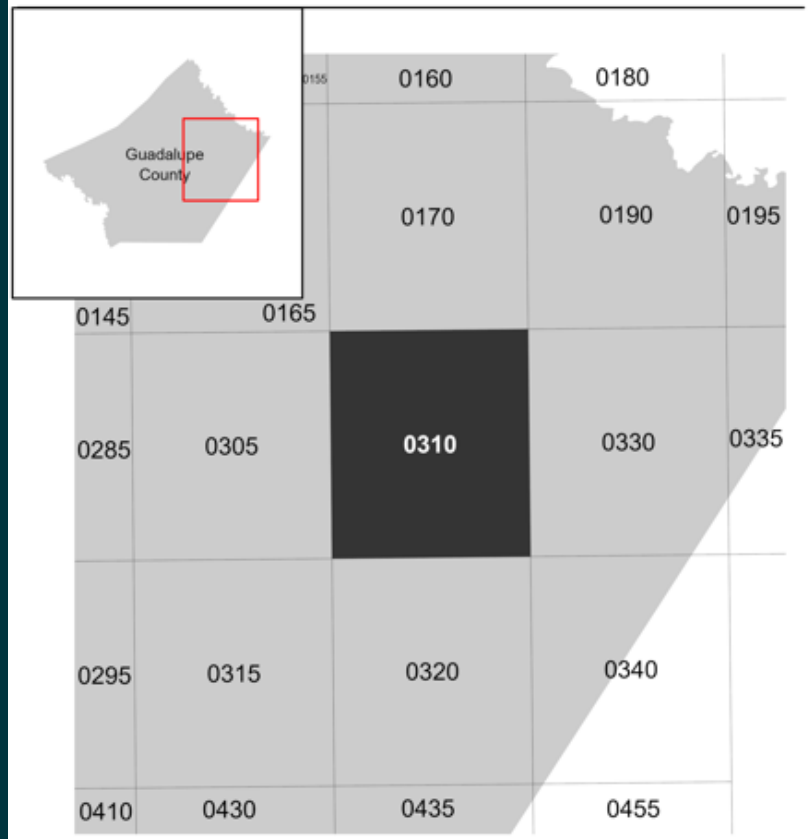


SCALE



Map Projection:
NAD 1983 StatePlane Texas South Central FIPS 4204 Feet
Vertical Datum: NAVD88

PANEL LOCATOR



FEMA

National Flood Insurance Program

NATIONAL FLOOD INSURANCE PROGRAM

FLOOD INSURANCE RATE MAP

GUADALUPE COUNTY TEXAS AND INCORPORATED AREAS

FEMA

Panel Contains:

COMMUNITY	NUMBER	PANEL	SUFFIX
GUADALUPE COUNTY UNINCORPORATED AREAS	480266	0310	G

MAP NUMBER
48187C0310G
EFFECTIVE DATE
February 22, 2024

Benefits of using AMP.

- Eliminate Manual Label Placement
- Simplified Breakout Panel Creation
- Prioritizing FIRM Database Focus
- Eliminates human error and reduces the risk of a due process errors.
  - Misspellings
  - Incorrect WSEL data entry
  - Missing Labels
- More counties can be mapped at a faster rate due to eliminating Manual production.

Helpful links and Resources

- FIRM Panel / Database / Domain Code Technical References
  - https://www.fema.gov/flood-maps/guidance-reports/guidelines-standards/technical-references-flood-risk-analysis-and-mapping

- Automated Map Production (AMP Best Practices)
  - https://hazards.fema.gov/femaportal/usercare/guidesAndDocs/Documents/AMP_Best_Practices.pdf

- Risk Map IT Help
  - FEMA-RiskMAP-ITHelp@fema.dhs.gov

Questions?

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Ethan Guyer –
Ethan.Guyer@aecom.com

AECOM

Delivering a better world