

A photograph of the City of Miramar City Hall, a large, light-colored building with a central tower and a red-tiled roof. The building is surrounded by palm trees and a paved plaza with a central fountain. The text "City of Miramar CITY HALL" is visible on the building's facade. A large, stylized white "W" is overlaid on the right side of the image.

City of Miramar, FL FMP & PPI

FMPC Meeting #1 – Planning Process Kickoff

Agenda & Introductions



Introductions

Agenda

Introductions

Community Rating System (CRS) Overview

Project Overview

Why Plan?

CRS Activity 510 Floodplain Management Planning

- FMP Requirements & Planning Process
- Stakeholder Coordination
- Public Outreach
- Risk Assessment

CRS Activity 330 Program for Public Information

- PPI Requirements & Planning Process
- Topics & Messages

Next Steps



Introductions

Introductions

- Welcome!
- Opening Remarks

City of Miramar, FL Project Leads

Nixon Lebrun, Floodplain Administrator/
Building and Planning Department

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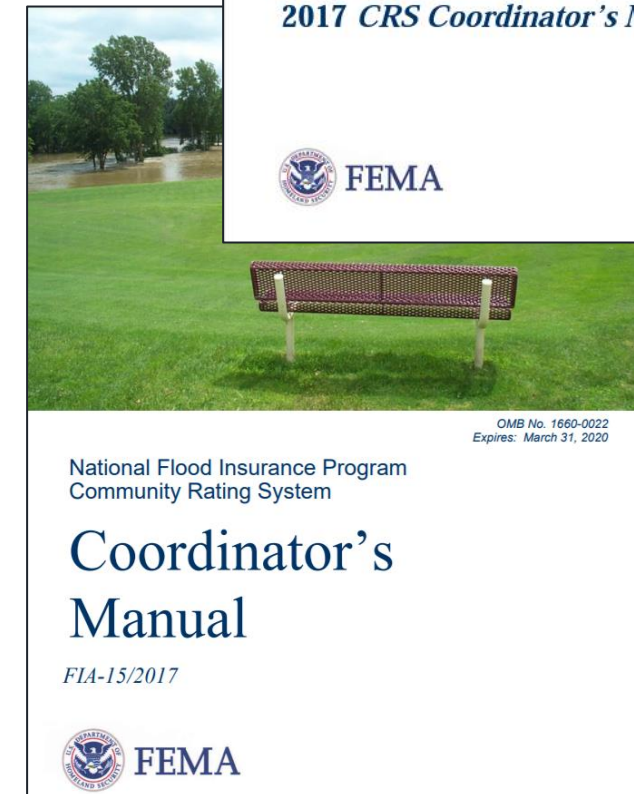
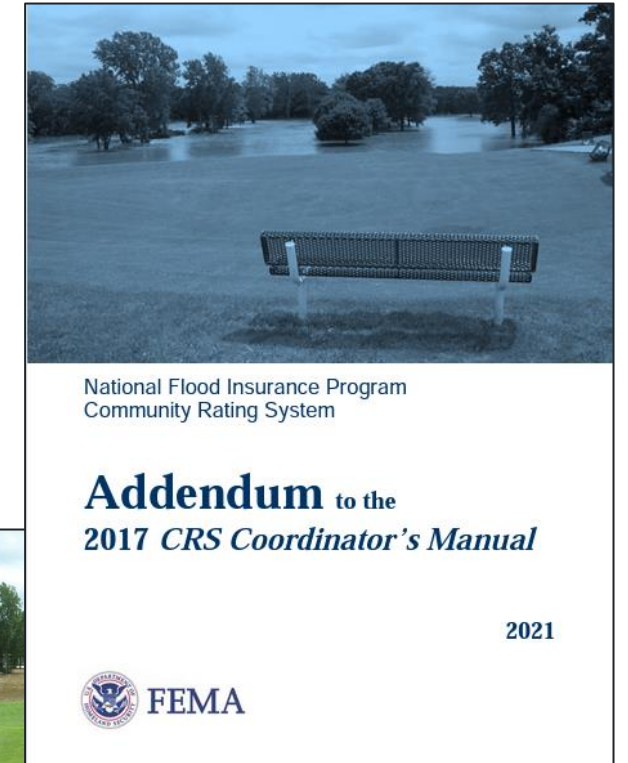
Community Rating System (CRS) Overview



Community Rating System

- FEMA NFIP Voluntary Program
- Point-based system with 10 classes
- 5% premium discount for every 500 points earned
- Encourages higher standards than the NFIP minimum

Table 110-1. CRS classes, credit points, and premium discounts.			
CRS Class	Credit Points (cT)	Premium Reduction	
		In SFHA	Outside SFHA
1	4,500+	45%	10%
2	4,000–4,499	40%	10%
3	3,500–3,999	35%	10%
4	3,000–3,499	30%	10%
5	2,500–2,999	25%	10%
6	2,000–2,499	20%	10%
7	1,500–1,999	15%	5%
8	1,000–1,499	10%	5%
9	500–999	5%	5%
10	0–499	0	0



Community Rating System

Goals of the Program:

1. Reduce flood damage to insurable property
2. Strengthen and support the insurance aspects of the NFIP
3. Encourage a comprehensive approach to floodplain management

NATIONAL FLOOD INSURANCE PROGRAM

FLOOD INSURANCE MANUAL

April 2021



Insurance Data

Community:	MIRAMAR, CITY OF	State:	FLORIDA
County:	BROWARD COUNTY	CID:	120048

Program:	Regular	Emergency Entry:	10/18/1973	Regular Entry:	12/01/1977
Status:	PARTICIPATING			Status Effective:	12/01/1977

Current Map:	07/31/2024	Study Underway:	YES	Level of Regs:	D
FIRM Status:	REVISED			Initial FIRM:	12/01/1977
FHBM Status:	SUPERCEDED BY FIRM			Initial FHBM:	01/18/1974

Probation Status:	
Probation Effective:	Probation Ended:
Suspension Effective:	Reinstated Effective:
Withdrawal Effective:	Reinstated Effective:

CRS Class / Discount:	08 / 10%	Policies in Force:	2,497	
Effective Date:	10/01/2022	Insurance in Force:	\$801,891,000.00	
CAV Date:	07/08/2019	No. of Paid Losses:	1,777	
CAE Date:	06/14/2024	Total Losses Paid:	\$3,653,009.44	
	Workshop Date:	03/17/2025	Sub. Damage Claims Since 1978:	7
	GTA Date:	03/19/2025	Data Sharing Agreement Type:	
	Community Website:	http://www.miramarfl.gov	Data Sharing Agreement Date:	
<input type="checkbox"/> Tribal Community				
<input checked="" type="checkbox"/> Community Violations Tracker		<input type="checkbox"/> HMGP Projects		
<input type="checkbox"/> ICC Claims		<input type="checkbox"/> FMA Projects		

2,497 policies in force

\$801m in coverage

\$3.65m in paid claims

7 substantial damage claims

Project Overview



Activities for CRS Class Improvement

Activity 510 – Floodplain Management Planning

A community-wide plan to evaluate existing and future flood hazard risks and vulnerabilities and recommend activities for risk reduction

Supports an approach to flood mitigation that integrates with other community goals, objectives, and plans

Activity 330 – Program for Public Information

Ongoing public information effort to design and disseminate messages that the community determines are most important to flood safety and protection of natural floodplain functions

Provides opportunity for credit for creative outreach projects that address unique community information needs

Why Plan?



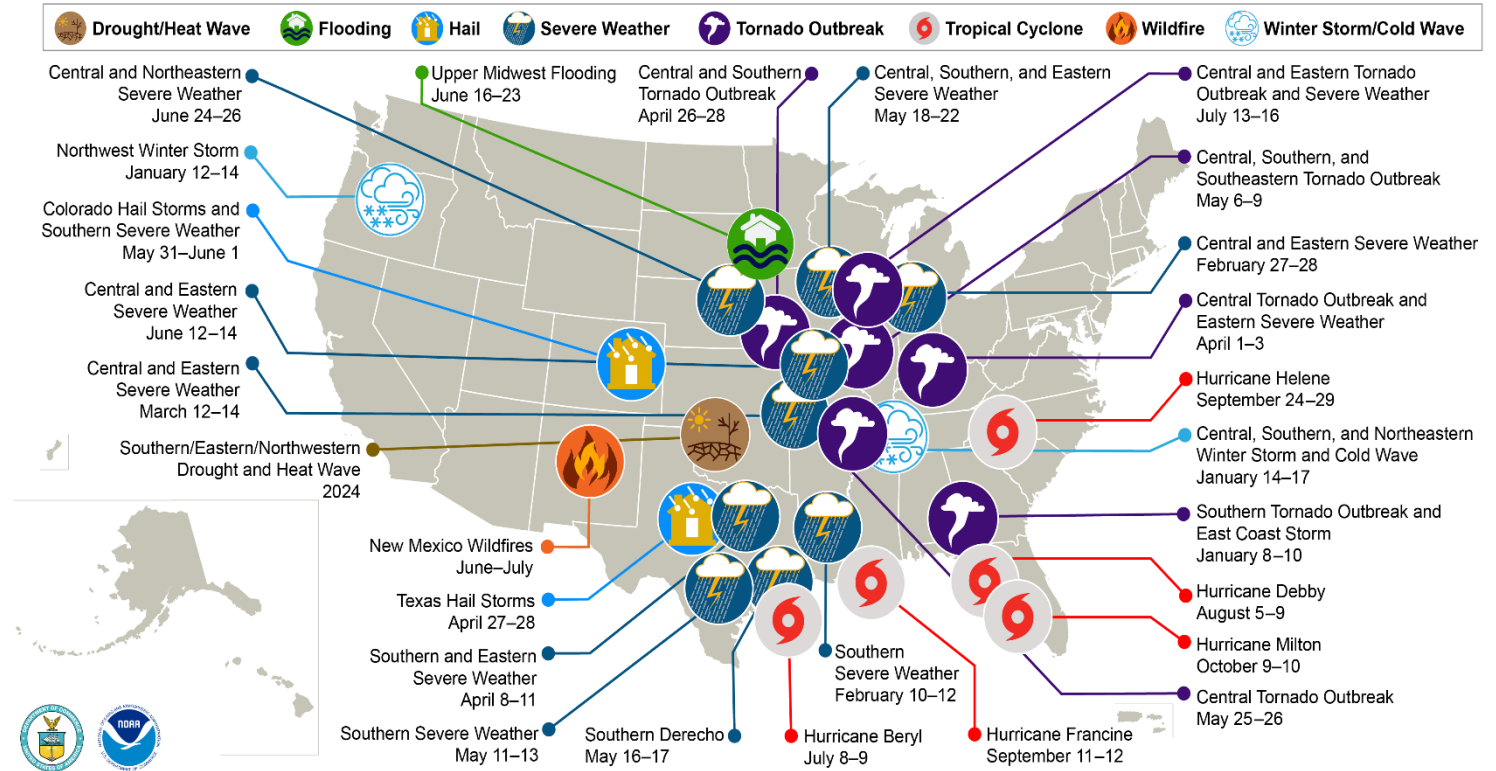
Why Plan?

Trends in Disasters

Trends resulting in increased costs for disaster response and recovery:

- Population and community growth = greater exposure to risk
 - More people living in hazardous areas
 - More buildings and infrastructure
- Hazards events occurring with more frequency and/or intensity

U.S. 2024 Billion-Dollar Weather and Climate Disasters



This map denotes the approximate location for each of the 27 separate billion-dollar weather and climate disasters that impacted the United States in 2024.

In 2024 there were 27 weather/climate disaster events in the U.S. with losses exceeding \$1 billion each

Six of these disasters have been flood-related hazards.

Trends in Disasters

Costliest Disasters **across the United States** since 1980




Disaster	Total Estimated Cost*	Deaths
Hurricane Katrina (2005)	\$201.3B	1,833
Hurricane Harvey (2017)	\$160.0B	89
Hurricane Ian (2022)	\$119.6B	152
Hurricane Maria (2017)	\$115.2B	2,981
Hurricane Sandy (2012)	\$88.5B	159
Hurricane Ida (2021)	\$84.6B	96
Hurricane Helene (2024)	\$78.7	219
Hurricane Irma (2017)	\$64.0B	97
Hurricane Andrew (1992)	\$60.5B	61
U.S. Drought/Heatwave (1988)	\$54.6B	454
Midwest Flooding (1993)	\$46.3B	48

**Events in bold
included impacts
in Florida**

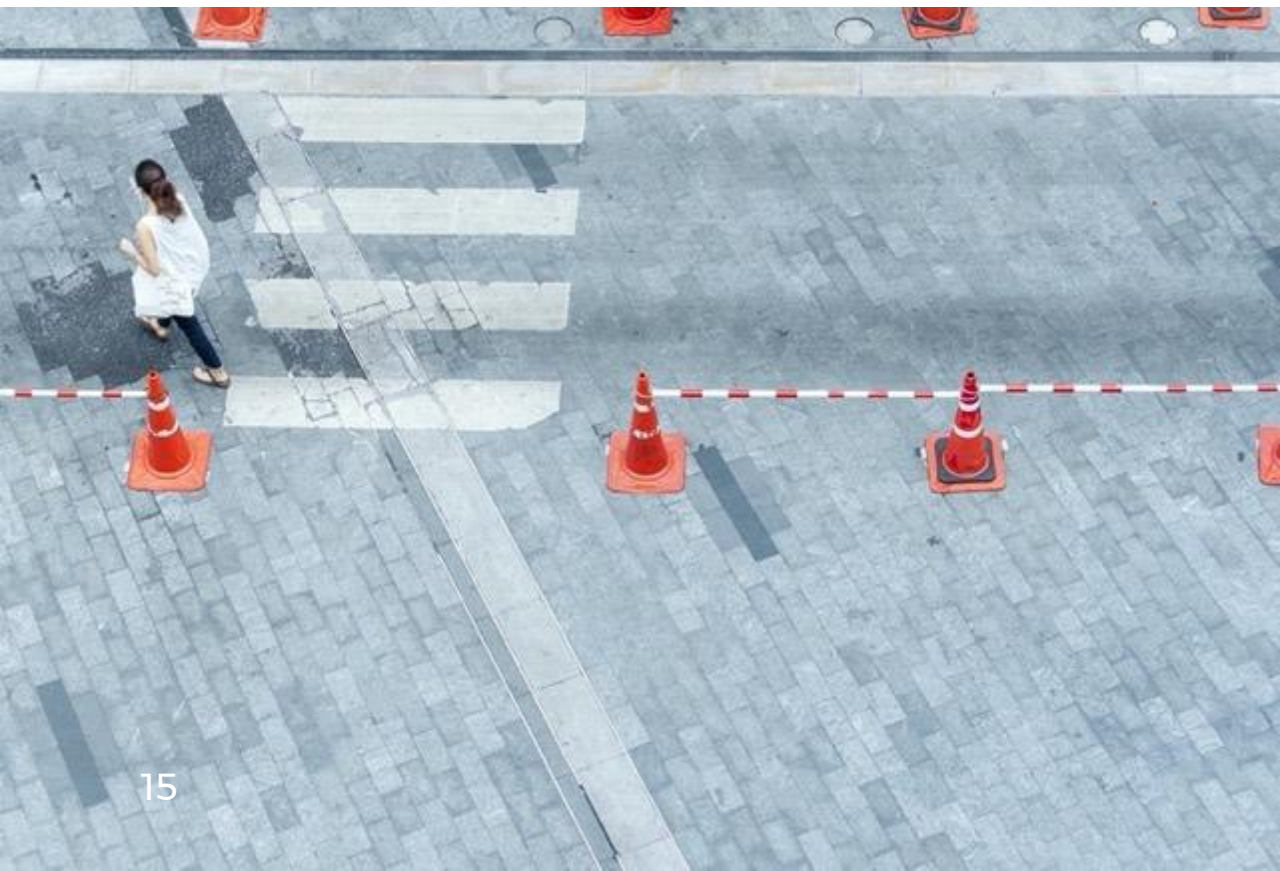
CPI adjusted to 2024 dollars; reflects total cost and deaths across entire impacted area;
Source: <https://www.ncei.noaa.gov/access/billions/events>

Why Hazard Mitigation is a Priority

- 1 The **spiraling costs of response and recovery**; the cost of doing nothing is too much
- 2 Many **events are predictable and repetitive**; we know what to expect
- 3 Loss reduction activities can be **effective, cost-beneficial, and environmentally sound**
- 4 There are **legal and moral responsibilities** to prevent future disasters
- 5 There are **funds available** to help

National Benefit-Cost Ratio Per Peril <small>*BCR numbers in this study have been rounded</small>		Federally Funded	Beyond Code Requirements
Overall Hazard Benefit-Cost Ratio		6:1	4:1
 Riverine Flood		7:1	5:1
 Hurricane Surge		Too few grants	7:1
 Wind		5:1	5:1
 Earthquake		3:1	4:1
 Wildland-Urban Interface Fire		3:1	4:1

Planning for Mitigation Helps to Break the Disaster Cycle



Mitigation is any **sustained action** taken to **reduce or eliminate long-term risk** to human life and property

FMP Planning Process



44

Revised as of October 1, 2018

Emergency Management
and
Assistance

Project Overview

Disaster Mitigation Act (DMA) Planning Requirements

What is DMA? Why is it Important?

- Outlines the planning requirements that local governments must follow
- Provides continued eligibility for mitigation funds, pre- and post-disaster funding
- Guides mitigation activities in a coordinated & economical manner
- Integrates into other existing planning mechanisms
- Directs future development and informs wise planning and building
- Reduces losses and makes communities more disaster resistant



Phase 1

Organize Resources



Phase 2

Assess Risks



Phase 3

Develop a Mitigation
Strategy



Phase 4

Adopt and Implement

Activity 510 CRS Planning Requirements

CRS Activity 510 Floodplain Management Planning

10-Step planning process aligns with the four phases of DMA

This plan will follow a blended planning process; to meet the requirements of both programs



DMA Process	CRS Process
Phase I - Organize Resources	
§201.6(c)(1)	Step 1. Organize to Prepare the Plan
§201.6(b)(1)	Step 2. Involve the Public
§201.6(b)(2) & (3)	Step 3. Coordinate
Phase II - Risk Assessment	
§201.6(c)(2)(i)	Step 4. Assess the Hazard
§201.6(c)(2)(ii) & (iii)	Step 5. Assess the Problem
Phase III - Mitigation Strategy	
§201.6(c)(3)(i)	Step 6. Set Goals
§201.6(c)(3)(ii)	Step 7. Review Possible Activities
§201.6(c)(3)(iii)	Step 8. Draft an Action Plan
Phase IV - Plan Maintenance	
§201.6(c)(5)	Step 9. Adopt the Plan
§201.6(c)(4)	Step 10. Implement, Evaluate, and Revise the Plan

Activity 510: Floodplain Management Planning

10-Step Planning Process

Phase I: Organize Resources

1. Get organized
2. Plan for public involvement
3. Coordinate with other departments and agencies

Phase II: Risk Assessment

4. Identify the hazard(s)
5. Assess the risks

Phase III: Develop a Mitigation Plan

6. Set planning goals
7. Review mitigation alternatives
8. Draft and action plan

Phase IV: Adoption and Implementation

9. Adopt the plan
10. Implement, evaluate, and revise

Activity 510: CRS Credit by Step

Table 3. Comparison of the Planning Processes			
Mitigation Planning Elements*	CRS Planning Steps**	Max Points	Average
A. Planning Process	1. Organize to prepare the plan	15	10
	2. Involve the public	120	34
	3. Coordinate	35	10
	10. Implement, evaluate, revise	26	5
B. Hazard Identification and Risk Assessment	4. Assess the hazard	35	25
	5. Assess the problem	52	29
C. Mitigation Strategy	6. Set goals	2	2
	7. Review possible activities	35	20
	8. Draft an action plan	60	42
D. Plan Update	10. Implement, evaluate, revise 5-year update	See Element A	
E. Plan Adoption	9. Adopt the plan	2	2
		382	171
* The planning elements are per Local Mitigation Plan Review Guide and its Plan Review Tool ** The 10 steps are detailed in Activity 510, Section 512.a, Floodplain Management Planning (FMP) in the CRS Coordinator's Manual			

**31% of total
FMP credit is
in Step 2**

Planning Process

Step 1: Get Organized

- Form the Floodplain Management Planning Committee (FMPC)

Membership on the FMPC must be:**50%**Local staff &
officials**50%**Residents &
stakeholders**Responsibilities of the FMPC:**

- Attend the four committee meetings
- Provide capability information
- Provide mitigation action ideas
- Identify new mitigation actions
- Review and provide feedback on draft documents



Planning Process

Step 2: Plan for Public Involvement

- Credit criteria for public involvement:
 - Public kickoff meeting
 - Public meeting to review the draft plan
 - Public participation on the FMPC
 - Other opportunities to get involved:
 - Website and social media information
 - Public survey
 - Flyers
 - Draft documents for public review

City of Miramar, FL Floodplain Management Plan Public Survey

The City of Miramar is preparing a Floodplain Management Plan to identify and assess our community's flood hazard risks and determine how to best minimize or manage those risks.

This survey is an opportunity for you to share your opinions and participate in the mitigation planning process. The information you provide will help us better understand your flooding problems and concerns and can lead to mitigation activities that help lessen the impacts of future floods.

1. What is your affiliation with the City of Miramar?

☐ I live in Miramar

☐ I work in Miramar

☐ I visit Miramar for shopping/recreation

☐ Other

2. Have you ever experienced or been impacted by high water or flooding in Miramar?

☐ Yes

☐ No

3. If you answered "Yes" to question 2, please explain your experience with flooding and provide the location of the incident:

Step 3: Coordinate with Stakeholders

- Potential Stakeholders (in addition to stakeholders on the FMPC):
 - FEMA Region 4
 - NOAA, NWS, other federal agencies
 - FDEM, FDEP, other state agencies
 - Broward County
 - Neighboring communities
 - Local agencies & Non-profits
 - Businesses
 - Colleges & universities
 - Others?
- Stakeholders will be invited to contribute data and input, review drafts, and attend public meetings



FEMA



NOAA



Step 4: Assess the Hazards

Hazard Identification

- *What can happen here?*
- Hazard list will coordinate with the 2023 Florida State Hazard Mitigation Plan and the 2023 Broward County Local Mitigation Strategy

Risk Assessment

- *How does each hazard occur in the planning area?*
- Profiles the hazards: description, location maps, severity, past occurrences, and probability of future occurrence
- Potential future flood conditions based on climate change, development, and other changes
- Areas likely to flood in the future

Potential Hazards for Inclusion in the Plan:

- **Coastal Flood**
- **Stormwater and Localized Flooding**
- **Dam & Levee Failure**
- **Tropical Cyclone**

Step 5: Assess the Problem

Vulnerability Assessment

- *What will be affected or impacted?*
- Property, critical facilities, people, economy, natural resources, cultural and historic resources
- Qualitative and quantitative methodologies for analysis
- GIS datasets will enable spatial analysis of vulnerability

Capability Assessment

- *How can we implement mitigation?*
- Planning & regulatory resources, administrative & technical resources, financial resources, past mitigation efforts, etc.

Planning Process

Step 5: Assess the Problem

Collect updated data on local assets

- Buildings (*building footprints and parcel data provided in GIS*)
- Critical facilities (*provided in GIS*)
- Critical infrastructure
- Drainage hotspots/complaints
- Repetitive loss data
- Economic assets?
- Natural resources?
- Historic and cultural resources?

GIS data enables spatial analysis



Critical facilities and critical infrastructure will be categorized into **FEMA lifeline** categories

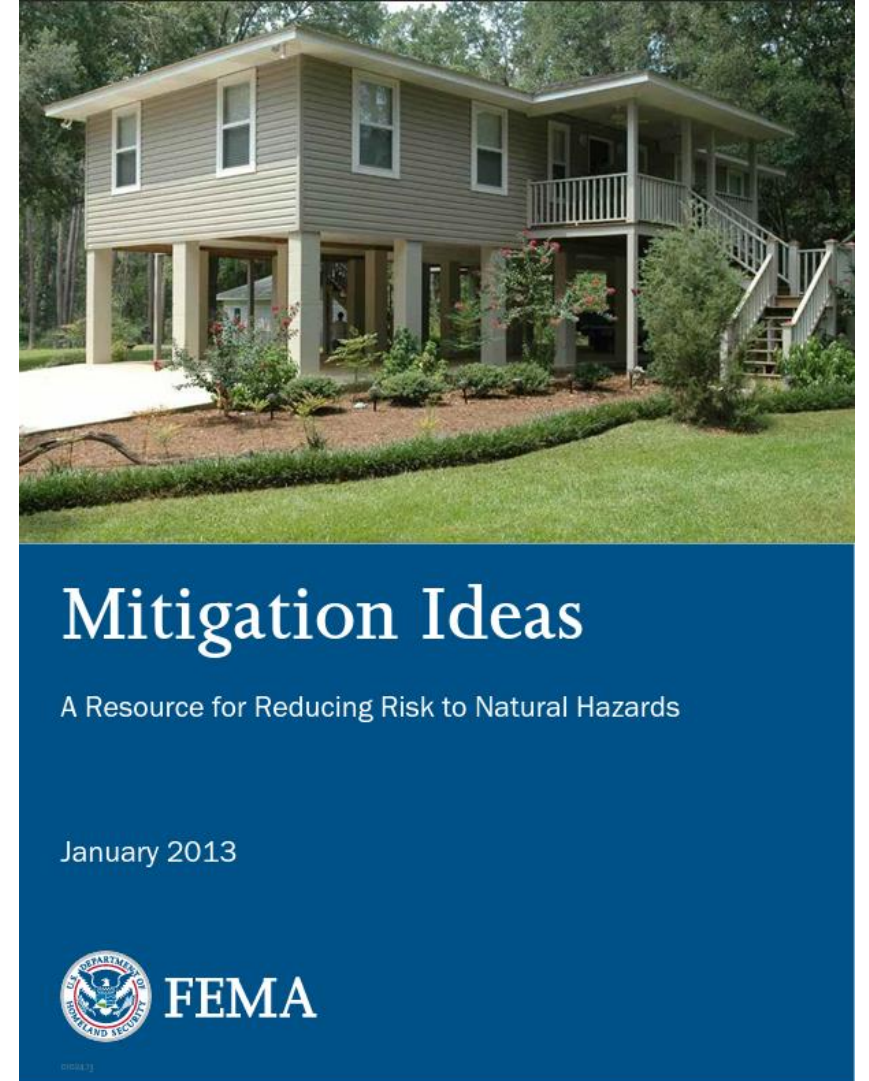
Step 6: Set Goals

- Set Planning Goals
 - Develop goals to guide the identification of mitigation projects
 - Consider public feedback, existing plans, broader City goals, etc.



Step 7: Review Possible Activities

- Consider action ideas from each of FEMA's mitigation categories:
Prevention, Property Protection, Structural Projects, Emergency Services, Natural Resource Protection, and Public Education
- Consider any actions you would like pursue for grant funding
- Consider actions in existing plans (LMS, Capital Improvement Plan)



Step 8: Draft an Action Plan

- Develop and prioritize mitigation actions for all identified and evaluated hazards
- Who will be responsible, when will projects be completed, how will projects be funded, etc.

Action Item	Project	Hazards Addressed	Goals Met	Priority	Responsible Department/Agency	Mitigation Category	Funding Source	Timeframe
1	Coordinate with SFWMD on structural flood mitigation and flood-related education and outreach.	Flood: Coastal and Inland, Hurricane & Tropical Storm, Sea Level Rise, Coastal/Canal Bank Erosion	1	High	Village of Palmetto Bay Community & Economic Development, Public Services	Structural Projects, Public Information	Operating budget; additional funds TBD for structural projects	1-2 years
2	Pursue the acquisition and demolition of repetitive loss properties.	All Hazards	2	Low	Village of Palmetto Bay Building Department, Community & Economic Development, Planning & Zoning	Property Protection	HMGP, BRIC, FMA, other federal and state grant funds	5+ years
3	Adopt an increased freeboard requirement.	Flood: Coastal and Inland, Hurricane & Tropical Storm, Sea Level Rise, Flood: Stormwater/Localized, Coastal/Canal Bank Erosion	4	Low	Village of Palmetto Bay Building Department	Prevention	Operating budget	2 years
4	Expand GIS capabilities and resources to increase flood risk awareness and support further mitigation planning.	All Hazards	1, 4	High	Village of Palmetto Bay Planning & Zoning	Prevention	Operating budget	6 months – 1 year
5	Provide targeted and general flood education and outreach to the community in accordance with the Program for Public Information.	All Hazards	1	High	Village of Palmetto Bay Community & Economic Development	Public Information	Operating budget	5+ years
6	Pursue funding to support protection and/or retrofitting of existing septic systems.	All Hazards	2	High	Miami-Dade County w/ Village of Palmetto Bay	Property Protection	Federal, state and local grant funds	2+ years
7	Prohibit the installation of new septic systems within identified high-risk areas.	All Hazards	4	High	Village of Palmetto Bay Building Department, Planning & Zoning	Prevention	Operating budget	1-2 years
8	Coordinate with FDEM and Miami-Dade County to access and distribute more detailed topographic data (2-ft contour intervals) for improved flood risk modeling and planning.	All Hazards	1, 4	Medium	Village of Palmetto Bay Planning & Zoning	Prevention	Operating budget	5+ years
9	Incorporate flood mitigation into future updates of the Comprehensive Plan.	All Hazards	4	High	Village of Palmetto Bay Community & Economic Development	Prevention	Operating budget	1-2 years

Step 9: Adopt the Plan

Step 10: Implement, Evaluate, and Revise

- City of Miramar must adopt the plan by resolution
- Ongoing plan maintenance includes at least annual meetings of the FMPC to review the plan
 - Quarterly meetings are recommended to encourage progress and maximize CRS credit for the plan
- Plan will continue to undergo a full update every five years

PPI Planning Process



Activity 330: Program for Public Information

7-Step Planning Process

1. Establish a PPI Committee
2. Assess the Community's Public Information Needs
3. Formulate Messages
4. Identify Outreach Projects to Convey the Messages
5. Examine Other Public Information Initiatives
6. Prepare the PPI
7. Implement, Monitor, and Evaluate the Program



Protect Natural Floodplain Functions

Floodplains are a natural component of the County's environment. Understanding and protecting the natural functions of floodplains helps reduce flood damage and protect resources. When flooding spreads out across the floodplain, its energy is dissipated, which results in lower flood flows downstream, reduced erosion of the streambank and channel, deposition of sediments higher in the watershed and improved groundwater recharge. Floodplains are scenic, valued wildlife habitat. Poorly planned development in floodplains can lead to streambank erosion, loss of valuable property, increased risk of flooding to downstream properties and degradation of water quality. Did you know that it is illegal to throw anything- ANYTHING AT ALL! - into the lakes, canals, or other waters of the County? Do you know that nothing but stormwater is allowed to go into the storm drains located in streets, rights-of-way and parking lots? Dumping of materials into our waters or drains pollutes those waters, clogs our storm drains and leads to flooding in our neighborhoods. For questions, or to report obstructions or violations, call the Public Works Department at **407-836-7900** or **311**.

Hurricane Preparedness

Orange County employs many methods of communicating important information to you before, during and after emergencies or disasters. Many communication tools are available for us to use and for you to have available to receive such messages. These tools include television, radio, cell phones and smart phones, email and dedicated radio receivers. The methods we use include the Emergency Alert System (EAS), Orange County TV (OTV), OCAlert and OCFL Alert, NOAA Weather Radio and Amateur (Ham) Radio. Visit [Ready.gov](http://www.ready.gov) to learn what actions to take in the event of a hurricane watch or alert in your area.

For more information about flood safety or the NFIP, please note the following: www.floodsmart.gov www.ready.gov/floods or 1-888-379-9531

Reduce Stormwater Flooding

- 💧 Install Low Impact Development (LID) techniques to help manage stormwater on site instead of allowing it to run off into the stormwater drainage system.
- 💧 Install rain barrels under down spouts or extend down spouts away from your home into a rain garden. Don't direct your down spouts into your driveway letting water flow directly into the street.
- 💧 For more information about LID techniques you can implement on your property, contact the Stormwater Management Division at **407-836-5612**.

Be Aware of Other Hazards

As an Orange County resident you need to be aware of other hazards that could impact your property, one of which can be sinkholes. If you witness any sinkholes occurring in County streets or in County-owned property, please contact the Public Works Department at **407-836-7900** or **311**. Sinkholes can be a dangerous hazard for traffic and residents. Although the County is not authorized to fix sinkholes on private property, we can try to assist home and business owners with options they can use to resolve this issue.

Work With Your Neighbors on Drainage Problems

Changes you make to grading and drainage patterns on your property can affect your neighbors. Before changing grading or diverting runoff from your property, talk to your neighbors about ways you can collaborate. Remember, when building or grading, always maintain a clear area between lots for drainage.

Some drainage problems may be too widespread or costly to address on your own. Consider working with your neighbors and contact the Stormwater Management Division at **407-836-5612** to discuss mitigation options.

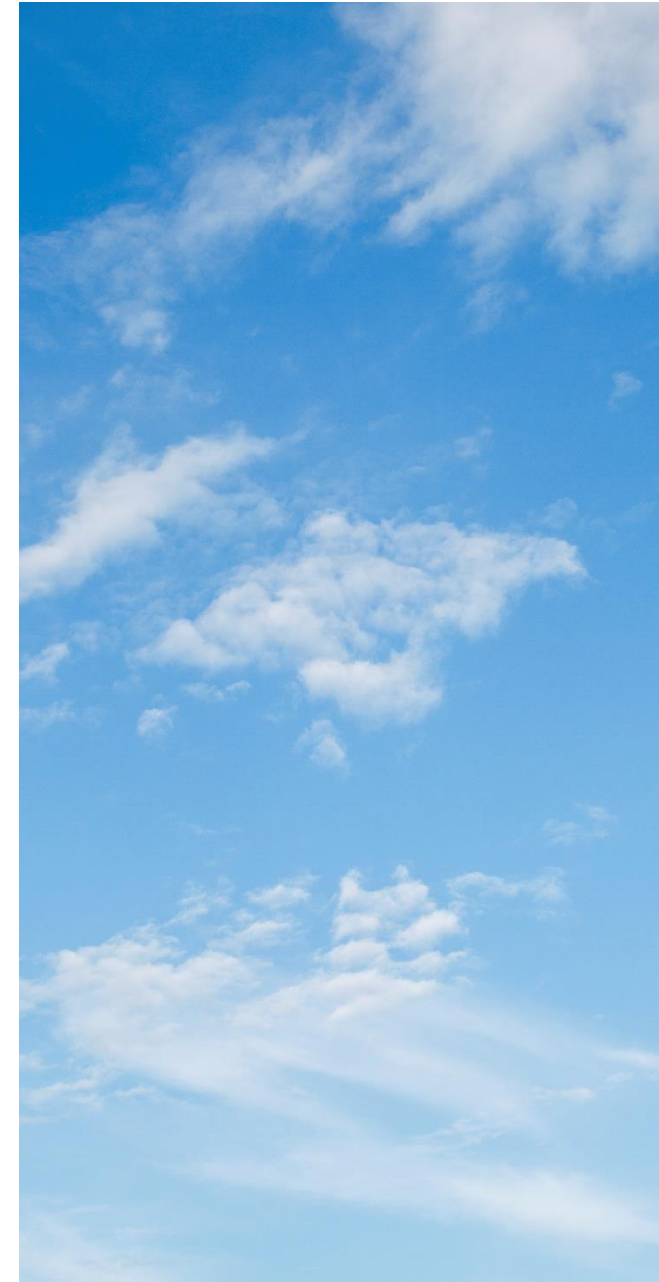
PPI Planning Process

1. Establish a PPI Committee

- The FMPC will serve as the committee for both processes
- Includes staff from the community (Floodplain Administrator, Public Information Officer, etc.) and outside stakeholders (residents, business owners, real estate and insurance agents, etc.)

2. Assess the Community's Public Information Needs

- Identify Priority Areas
- Assess Flood Insurance Coverage
- Determine Priority Audiences
- Inventory Other Public Information Efforts



PPI Planning Process

3. Formulate Messages

- CRS Priority Topics
- Four Additional Topics

4. Identify Outreach Projects to Convey the Messages

- Review & update existing outreach projects
- What is working and what is not working?

Table 330-1. CRS topics and example messages.	
Six Priority Topics	Example Messages
1. Know your flood hazard	Your property is subject to flooding by the Roaring River You are in a repetitively flooded area Call 555-1234 to find out the flood hazard for your property
2. Insure your property for your flood hazard <i>NOTE: At least one project must include a message on this topic</i>	Ask your insurance agent if you are covered for flood damage Renters should buy flood insurance for their contents Take advantage of a low-cost Preferred Risk Policy
3. Protect people from the hazard	Turn around, don't drown Know the flood warning signals: one long blast of the siren means a flash flood along Silver Creek Designate a place where your family can rendezvous after an evacuation order is issued
4. Protect your property from the hazard	Replace your flooded furnace with one elevated above the flood level Store your valuables and insurance papers upstairs in a waterproof container We can help you get a grant to elevate your home. Call us at _____
5. Build responsibly	Get a permit from . . . before you build Don't build or grade within 10 feet from the property line so you don't alter the drainage between homes Use only licensed contractors who know the rules
6. Protect natural floodplain functions	Protect our turtle nesting areas: stay off the beach after sunset Report broken silt fences: they help keep our streams clean Don't trash the river—that's where we get our drinking water
* <i>NOTE: All the messages are examples. Communities should develop messages that are pertinent to this flooding conditions.</i>	

PPI Planning Process

5. Examine Other Public Information Initiatives

- Activities other than outreach projects:
 - How to improve the community's website
 - What technical assistance is needed
 - How to publicize flood protection services

6. Prepare the Program for Public Information

- Document must be adopted by City Commission

7. Implement, Monitor, and Evaluate the Program

- Annual Review
- Update every five years

In This Section

Office of the City Manager

Building Planning & Zoning

Building, Permits &
Inspections

Planning & Zoning

Miramar Maps/GIS

Sustainable Living

Floodplain Management

Neighbors Helping
Neighbors

Floodplain Management

Effectively immediately, all new Elevation Certificates and/or Dry Floodproofing Certificates for Nonresidential Structures must be on the latest FEMA forms which were released on July 7, 2023: [FEMA 2022 Elevation Certificate & Instructions \(PDF\)](#)

The Federal Emergency Management Agency (FEMA) Elevation Certificate (EC) and Dry Floodproofing Certificate for Non-Residential Structures are currently under review at the Office of Management and Budget (OMB). Until the review process is complete, the Building Division of the Building, Planning & Zoning Department will continue to accept the existing forms (with the November 30, 2022 expiration date).

Please note that, although the Elevation Certificate (EC) form may expire, a finished construction EC previously completed and certified for a structure does not expire, unless there is a physical change to the building that invalidates prior information reported.

New Public Website Makes it Easier for Property Owners to Access Flood Risk Data for Individual Properties

Next Steps



Public Outreach Strategy

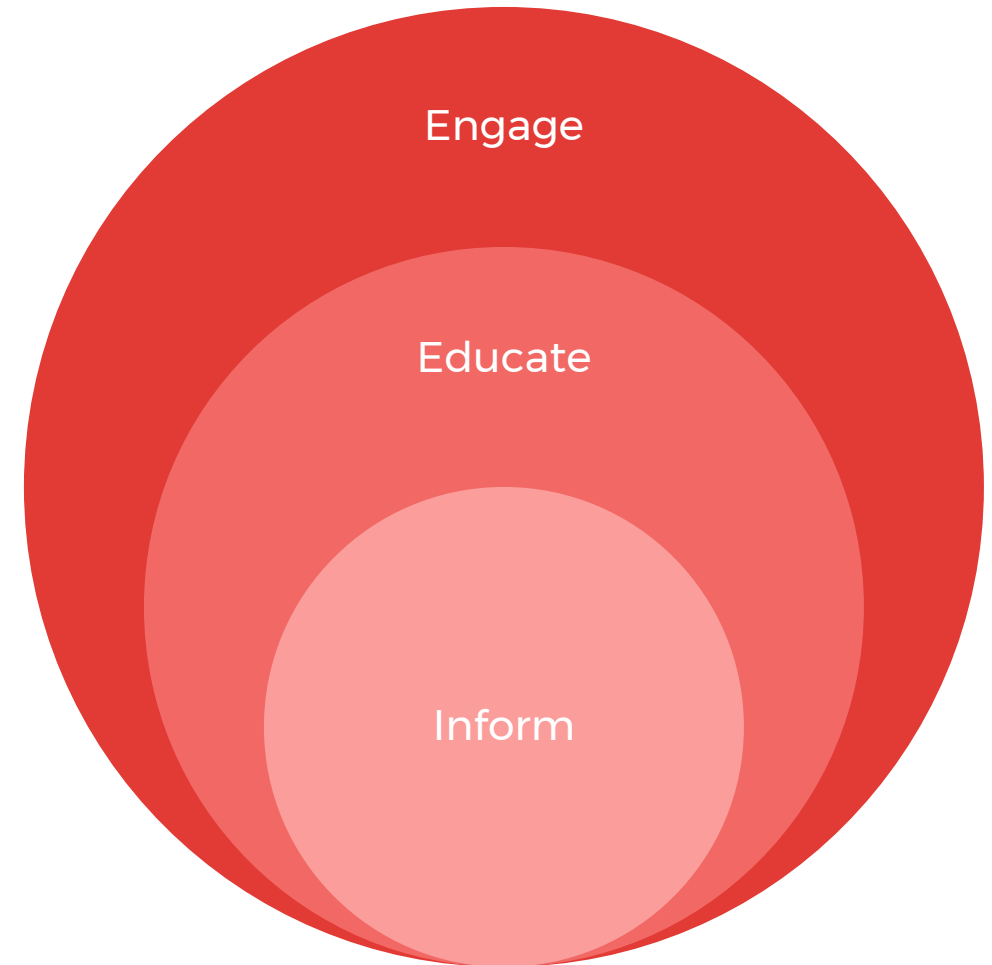
Public survey

FMP information on the City's website or project website:

- Meeting announcements
- Meeting agendas, minutes, and presentations
- Public survey link and comments submission
- Draft documents for review
- Information on the hazards

Other opportunities:

- Informational flyer/handout
- Social media, news media
- Stakeholders and local partnerships





Next Steps

Project Schedule

June

Project Kickoff Meetings
Committee & Public Meetings

August

Meeting 2
FMP Risk Assessment Review
PPI Target Areas/Audiences and Topics

October

Meeting 3
FMP Capability & Mitigation Strategy
PPI Outreach Projects

December/January

Final Draft Plan Review Meetings
Committee & Public Meetings

Next Steps

What's Next

WSP team action items:

- WSP team will begin work on the risk and vulnerability assessment
- Schedule public kickoff meeting and second FMPC meeting

Requests for FMPC input:

- Share the public survey link/QR code
- Send WSP any necessary data

City of Miramar, FL Floodplain Management Plan Public Survey



<https://forms.office.com/e/21q3q12ur7>



Thank you



wsp.com