

County of Monroe

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Date: January 14, 2020

To: Monroe County BOCC

From: Lori Lehr, CFM, Community Rating System (CRS) Coordinator

Subject: Monroe County Local Mitigation Strategy Progress Report

Background

Monroe County, Florida, and its incorporated municipalities of the Village of Islamorada, City of Layton, City of Key Colony Beach, City of Marathon, and the City of Key West, undertook development of this 2015 Update of the *Local Mitigation Strategy* (LMS) because of its awareness that natural hazards, especially hurricane and flooding hazards, may affect many people and property. The 2015 Update replaces the 2010 and 2005 Updates of the 1999 LMS. The LMS is a requirement associated with receipt of certain federal mitigation grant program funds administered by the Florida Division of Emergency Management (FDEM) and the Federal Emergency Management Agency (FEMA).

Chapter 14.2 of the LMS states: "As required by State statute (Chapter 27P-22) and to ensure the Local Mitigation Strategy is current and continues to serve the interests of residents and visitors, the As required by State statute (Chapter 27P-22) and to ensure the Local Mitigation Strategy is current and continues to serve the interests of residents and visitors, the LMS Working Group will perform an evaluation by comparing the text of the LMS to actual events and status of ongoing or completed mitigation initiatives listed in Chapter 13 and, as applicable, each community's chapter. If appropriate, annotations will be prepared every year."

As a requirement to participate in the Community Rating System, the Monroe County, must adopt and annually evaluate the LMS as their floodplain management planning document. The City is required to submit, as part of the annual CRS recertification process, an annual evaluation report on the progress in implementing the LMS. This report is prepared to meet Community Rating System Activity 510 Floodplain Management Planning, Element 512.a. Step 10. implement, evaluate and revise.

The Local Mitigation Strategy Committee has met twice in 2017. In 2018, multiple Local Mitigation Strategy meetings were dedicated to updating the Local Mitigation Strategy to address post Hurricane Irma short and long-term action items to address post-disaster projects and activities.

A copy of the Monroe County Local Mitigation Strategy (2015) is available at the Monroe County Emergency Management website: <http://www.monroecounty-fl.gov/911/Local-Mitigation-Strategy>

Annual Progress Report Preparation, Distribution and Availability:

This report was prepared by Lori Lehr, CRS Consultant for Monroe County. The Monroe County Local Mitigation Strategy Committee is currently updating the action items and projects in the plan as part of the post-Irma recovery effort. This progress report reflects the progress goals and objectives in the Local Mitigation Strategy as well as the progress of the projects that were updated post-Irma.

The annual progress report is made available to the Board of County Commissioners, the media, and the public via the Monroe County website. A copy of the report is sent annually to the State of Florida NFIP Coordinator's office via email.

Review of action items specific to Unincorporated Monroe County:

At the March 5, 2015 meeting, three initiatives for the Working Group "as a whole" were discussed and accepted and two initiatives were discussed and added during the June 23, 2015 conference call.

The value of for developing new initiatives and projects to address risk was discussed at both the January and March meetings. Several of the primary initiatives to address flood risk are participation or advancement in CRS program and addressing increase future risk caused by sea level rise. CRS is a priority because it is an established program that provides incentives to take multiple approaches to address flood risk and it provides flood policy holders with discounts once thresholds are met. Several Working Group and community-specific initiatives are geared toward CRS participation.

The basis for the additional initiatives and projects listed in the table below: *2015 High Priority Mitigation Initiatives* is updated to reflect the progress of each of the initiatives as they relate to Monroe County Unincorporated.

Working Group, Identified Mitigation Initiatives – Notice of Intent and the *Monroe County LMS NOIs – Irma* are to address areas of greatest risk and hazards with greatest impacts. As a chain of islands, Monroe County is dependent on critical infrastructure along the Overseas Highway right-of-way which if damaged, would have a devastating impact to most residents and businesses. For this reason, evaluating protection of critical infrastructure is a top priority.

2015 High Priority Mitigation Initiatives: Working Group

Initiative 2015-001	Establish a Monroe County CRS User's Support Group
Jurisdiction/Entity	Monroe County and municipalities
Description	Establish a CRS User's Support Group for both current participating jurisdictions, for efforts to improve their ratings, and the other four communities that are looking to join the program. This group initiative supports several of the community specific initiatives. Currently, Layton participates in the Miami-Dade User's Group which is inconvenient due to distance.
Hazards	Flooding, Hurricane/Tropical Storm, Sea Level Rise
Potential Funding Sources	Staff time and external support as needed
Estimated Time Frame	2016
Progress	CRS User's Support Group was formed in early 2016 to facilitate the PPI Committee. The Group has not met post Irma. The PPI Committee formed out of the group meets 2 times per year.
Initiative 2015-002	Repetitive Loss Areas (Flood)
Jurisdiction/Entity	Monroe County and municipalities
Description	Verify Repetitive Loss Property Data Monroe County and municipalities that decide to participate in the CRS or that already participate in the CRS will verify the repetitive loss property data obtained from FEMA. The NFIP maintains records of past flood insurance claims and tracks properties that have received multiple claims. These properties and similarly situated buildings present likely opportunities for mitigation. Verifying the data serves two purposes: it helps the NFIP improve its records, and it helps identify Repetitive Loss Areas.
	Prepare Repetitive Loss Area Maps Monroe County and municipalities that prepare Repetitive Loss Area Analyses will identify repetitive loss areas within their jurisdiction using the methods described in FEMA/CRS guidance. The County Growth Management Department will use the identifications, along with the address list of

	<p>repetitive loss properties provided by the municipalities, to prepare Repetitive Loss Area Maps. Key Colony Beach is preparing its Repetitive Loss Area map in 2015 and a county-sponsored workshop was held on 03/05/15 to help other communities.</p> <p>Identification of Repetitive Loss Areas helps identify property owners who may be interested in reducing their exposure and working with the communities to seek mitigation funds.</p>
Hazards	Flooding, Hurricane/Tropical Storm, Sea Level Rise
Potential Funding Sources	Staff time
Estimated Time Frame	Data verification (annually for CRS communities) Repetitive Loss Area Maps (upon request)
Progress	<p>Repetitive loss areas were established for the 2016 CRS application. Repetitive loss areas maps were prepared using the FEMA Privacy Act guidelines. Outreach was sent to each developed parcel address in the established repetitive loss areas. The outreach was sent as part of the Monroe County Multi-Jurisdictional Program for Public Information Adopted by the Monroe County BOCC on April 12, 2017.</p> <p>Monroe County completed an extensive Repetitive Loss Area Analysis that was adopted by the Monroe County Board of County Commissioners.</p>
Initiative 2015-003	Support efforts in Monroe County to address the potential negative impacts related to climate change including sea level rise
Jurisdiction/Entity	Monroe County and municipalities

Description	<p>Monroe County is the most vulnerable partner that participates in the SE FL Compact with respect to climate change induced sea level increases. Critical resources like the primary source of drinking water as well as homes, businesses and infrastructure are directly at risk. The LMS should actively support its own Climate Change actions plans and support the implementation of a Regional Collaborative Climate Action Plan with the neighboring counties through the Southeast Florida Regional Climate Compact to address the impacts of sea level rise and other related climate change impacts.</p>
Hazards	Flooding, Hurricane/Tropical Storm, Sea Level Rise
Potential Funding Sources	Staff time
Estimated Time Frame	Ongoing
Progress	<p>The County has been working with a consortium of professionals bringing their expertise to focus on communitywide responses for long-term solutions to the impact of rising sea levels. A focus group has toured and evaluated our community and produced a report (GreenKeys Plan) outlining potential solutions.</p> <p>The County completed an update to the GreenKeys Plan. The update was scored and meets the CRS requirement for the CRS Class 4 prerequisite of having an adopted watershed management plan in place and adopted by the governing body.</p>

Initiative 2015-004	Promote hurricane and flood awareness to residents and businesses.
Jurisdiction/Entity	Monroe County and municipalities
Description	<p>Once residents and businesses become more aware of their risk, they are more likely to take steps to mitigate their property and support community efforts to mitigate. Risk awareness can be challenging in most parts of Florida with long intervals between events and with new residents moving from other parts of the country. The LMS Working Group should actively seek effective risk communication information and opportunities to promote steps businesses and residents can take to reduce their flood and hurricane risk.</p>
Progress	<p>As part of the County’s participation in the CRS program, the county implemented a program of public information to promote unified awareness messages to the public. The messages encourage citizens to take action to protect against and prepare for, future flooding hazards.</p> <p>The program requires that the governing committee meet twice a year to assess the messages and outreach project for effectiveness on change citizen’s behavior. In November of 2018, the committee revised some messages and project due to lessons learned from Hurricane Irma. No updates were made during the meeting in 2019.</p>

Discussion of objectives not reached or behind in scheduled implementation:

The Monroe County LMS Work Group maintains an evolving list of project initiatives that includes many site-specific initiatives (Appendix F, as of mid-2015). This list may be modified periodically. The list has three distinct “tabs” that result from distinct steps in the process:

- **Step One: Preliminary Identified Mitigation Initiatives – Notice of Intent** (initiatives may be placed on the list with a minimum amount of information).
- **Step Two: Prioritized Mitigation Initiatives** (when an entity is prepared to seek funding and has sufficient detail, the Characterization Form is completed and the LMS Ranking Subcommittee develops the prioritization ranking).
- **Step Three: Completed/Removed/Unconfirmed Mitigation Initiatives** (initiatives that have been completed, with or without external funding, or which have been removed/dropped, or for which the entity has not provided sufficient information to keep it on one of the other lists).

The table below is the updated *Identified Mitigation Initiatives – Notice of Intent Table post Irma*. The initiatives were submitted to the LMS Working Group for inclusion on November 25, 2019. The implementation of the initiatives is noted in the table and have been replaced with post-Irma initiative that are more closely related to the priorities set by the State of Florida for post-disaster grand funding.

Project Title	NOI Submitted (Y/N)?	Preliminary Project Cost	Potential Funding Source	Score	Comments	Federal Share	Non-Federal Share
Safe room enhancements for County EOC in conjunction with design and construction of new facility	Yes	10,000,000	HMGP; PDM; FMA	475	Awarded HMGP DR-4337	7,500,000	2,500,000
Transmission Water Crossing Structure	Yes	10,500,000	HMGP; PDM; FMA	450	Submitted HMGP DR-4337	7,875,000	2,625,000
Sea Oats Beach Transmission Line Relocation	Yes	6,500,000	HMGP; PDM; FMA	445	Submitted HMGP DR-4337	4,875,000	1,625,000
Self-Supporting Transmission Poles	Yes	6,000,000	HMGP; PDM; FMA	445	Submitted HMGP DR-4337	4,500,000	1,500,000
Local Mitigation Strategy Update	Yes	700,000	PDM	420	Awarded PDM	525,000	175,000
[Fire] Station 20 FEMA 361 Saferoom for First Responders	Yes - Existing	6,000,000	HMGP; PDM; FMA	405	Submitted HMGP DR-4337	4,500,000	1,500,000
EOC Upgrades	Yes - New NOI	281,400	PDM	405		211,050	70,350
Transmission Pole Water Crossing	Yes	8,171,954	HMGP; PDM; FMA	395	Submitted HMGP DR-4337	6,128,966	2,042,989

Project Title	NOI Submitted (Y/N)?	Preliminary Project Cost	Potential Funding Source	Score	Comments	Federal Share	Non-Federal Share
Tide Valves and Outfall Improvements (Drainage)	Yes - New NOI	4,658,082	HMGP; PDM; FMA	395	Submitted HMGP DR-4337	3,493,562	1,164,521
Force Main Relocation Project (Infrastructure Hardening)	Yes - New NOI	2,330,000	HMGP; PDM; FMA	395	Submitted HMGP DR-4337	1,747,500	582,500
Wastewater System Mitigation	Yes - Existing	600,000	HMGP; PDM; FMA	385	Submitted HMGP DR-4337	450,000	150,000
City-wide Communications Network	Yes - Existing	150,000	PDM;	380		112,500	37,500
Emergency Generators and Fuel Trailers for Critical Facilities	Yes - Existing	175,000	HMGP; PDM	380	Submitted HMGP DR-4337	131,250	43,750
Distribution Water Crossing Overhead to Underground	Yes	35,000,000	HMGP; PDM; FMA	380		26,250,000	8,750,000
Water Supply Protection, Stock Island Reverse Osmosis Facility	Yes	48,000,000	HMGP; PDM; FMA	375	Submitted HMGP DR-4337	36,000,000	12,000,000
Marathon Generation	Yes	40,000,000	HMGP; PDM	370	Submitted HMGP DR-4337	30,000,000	10,000,000
Wind-Retrofit(s) of Public Service Facilities	Yes - New NOI	3,500,000	HMGP; PDM; HLMP	370	Submitted HMGP DR-4337	2,625,000	875,000
Improve Satellite Communication	yes	257,190	PDM	365		192,893	64,298
Generators for Critical Facilities (5)	Yes - New NOI	278,000	HMGP; PDM	365	Submitted HMGP DR-4337	208,500	69,500
Fire Station 3 - FEMA 361 Upgrades	Yes - New NOI	10,000,000	HMGP; PDM; FMA	365	Submitted HMGP DR-4337	7,500,000	2,500,000
Marathon Coastal Hardening and Resiliency	Yes - Existing	1,200,000	HMGP; PDM; FMA	350	Submitted HMGP DR-4337	900,000	300,000
Wind-Retrofit(s) of First Responder Facilities	Yes - Existing	650,000	HMGP; PDM	350	Submitted HMGP DR-4337	487,500	162,500
Critical Facility Hardening	Yes - Existing	290,000	HMGP; PDM; CDBG-DR; CDBG-MIT	345		217,500	72,500
Backup Generators for Critical Facilities	Yes	200,000	HMGP; PDM; CDBG-DR; CDBG-MIT	345		150,000	50,000
Wastewater Treatment Facilities	Yes - Existing	3,155,528	HMGP; PDM; FMA	340	Submitted HMGP DR-4337	2,366,646	788,882
Main Feeder Pole Replacement	Yes	3,000,000	HMGP; PDM; FMA	340	Submitted HMGP DR-4337	2,250,000	750,000
Emergency Communications and Warning Upgrades	Yes	600,000	PDM; CDBG-DR; CDBG-MIT; Port Security	335		450,000	150,000
Emergency Back-Up Power for	Yes -	500,000	HMGP; PDM	335	Submitted HMGP DR-4337	375,000	125,000

Project Title	NOI Submitted (Y/N)?	Preliminary Project Cost	Potential Funding Source	Score	Comments	Federal Share	Non-Federal Share
Critical Facilities	Existing						
Marathon Office/Warehouse Storm Hardening	Yes	3,000,000	HMGP; PDM	335		2,250,000	750,000
Dennis Street and Venetia Street Outfall (Drainage)	Yes - Existing	1,309,459	HMGP; PDM; FMA	335	Submitted HMGP DR-4337	982,094	327,365
Overseas Highway/Sea Oats Beach Flood and Erosion Protection	Yes - Existing	10,000,000	HMGP; PDM; FMA	325	Submitted HMGP DR-4337	7,500,000	2,500,000
Flemming Street & Grinnell Street Gravity Injection Well (Drainage)	Yes - Existing	450,000	HMGP; PDM; CDBG-DR; CDBG-MIT	325		337,500	112,500
County-Wide Emergency Back-Up Power Enhancement for Critical Facilities	Yes	6,000,000	HMGP; PDM	320	Submitted HMGP DR-4337	4,500,000	1,500,000
Acquisition and Demolition of Flood-Prone Properties	Yes - New NOI	1,500,000	HMGP; PDM; FMA; CDBG-DR	320	Submitted HMGP DR-4337	1,125,000	375,000
Patricia & Ashby St Pump Station Well (Drainage)	Yes - New NOI	150,000	HMGP; PDM; FMA	315	Submitted HMGP DR-4337	112,500	37,500
Indian Key "Fills" / U.S. 1 Shoreline Protection and Hardening	Yes - Existing	1,950,000	HMGP; PDM; FMA; CDBG-DR; CDBG-MIT	310		1,462,500	487,500
Fogerty Avenue and 3rd St Pump Assist (Drainage)	Yes - Existing	6,800,000	HMGP; PDM; FMA; CDBG-DR; CDBG-MIT	310		5,100,000	1,700,000
Village-Wide Shoreline Hardening Project	Yes - New NOI	3,000,000	HMGP; PDM; FMA; CDBG-DR; CDBG-MIT	310		2,250,000	750,000
Harris Avenue and 10th St Expanded Neighborhood Project (Drainage)	Yes - Existing	5,625,000	HMGP; PDM; FMA; CDBG-DR; CDBG-MIT	310		4,218,750	1,406,250
Post-Disaster [Flood] Recovery Plan	Yes - Existing	40,000	PDM; FMA	310		30,000	10,000
SR 905 Distribution Underground Project	Yes	5,000,000	HMGP; PDM; CDBG-DR; CDBG-MIT	305		3,750,000	1,250,000
White Street & Petronia Street Gravity Injection Well	Yes - Existing	450,000	HMGP; PDM; FMA; CDBG-DR; CDBG-MIT	305		337,500	112,500
Flood-Proofing for Fire Stations (3)	Yes - New NOI	300,000	HMGP; PDM; FMA	300	Submitted HMGP DR-4337	225,000	75,000
Wind-Retrofit(s) of Historically and Culturally Significant Facilities	Yes - New NOI	4,500,000	HMGP; PDM; HLMP; CDBG-DR; CDBG-MIT	300		3,375,000	1,125,000

Project Title	NOI Submitted (Y/N)?	Preliminary Project Cost	Potential Funding Source	Score	Comments	Federal Share	Non-Federal Share
Harden Material Distribution Center	Yes	9,262,500	HMGP; PDM; CDBG-DR; CDBG-MIT	295		6,946,875	2,315,625
Phone System/Communications Upgrades	Yes	400,000	PDM; Port Security	290		300,000	100,000
Marathon Stormwater Pumping	Yes - Existing	350,000	HMGP; PDM; FMA; CDBG-DR; CDBG-MIT	285		262,500	87,500
Wind Retrofit of County Facilities	Yes	8,837,280	HMGP; PDM; HLMP	275	Submitted HMGP DR-4337	6,627,960	2,209,320
Garrison Bight/Wahoo Pier Hardening	Yes - New NOI	2,175,000	HMGP; PDM; FMA; CDBG-DR; CDBG-MIT	245		1,631,250	543,750
Twin Lakes and Sands Subdivision Drainage Improvement and Roadway Elevation Project	Yes	3,900,000	HMGP; PDM; FMA	240	Submitted CDBG-DR	2,925,000	975,000
Residential Wind Retro-fitting Project	Yes	1,925,000	HMGP; PDM; HLMP; CDBG-DR	240		1,443,750	481,250
Elevation of Floodprone Residential Properties	Yes - New NOI	1,800,000	HMGP; PDM; FMA; CDBG-DR; HLMP	240		1,350,000	450,000
Trailer Park Acquisition and Reconstruction Site A	Yes	4,800,000	HMGP; PDM; FMA; CDBG-DR; HLMP	235		3,600,000	1,200,000
Trailer Park Acquisition and Reconstruction Site B	Yes	3,025,000	HMGP; PDM; FMA; CDBG-DR; HLMP	235		2,268,750	756,250
Trailer Park Acquisition and Reconstruction Site C	Yes	2,100,000	HMGP; PDM; FMA; CDBG-DR; HLMP	235		1,575,000	525,000
Trailer Park Acquisition and Reconstruction Site D	Yes	3,900,000	HMGP; PDM; FMA; CDBG-DR; HLMP	235		2,925,000	975,000
Trailer Park Acquisition and Reconstruction Site F	Yes	5,800,000	HMGP; PDM; FMA; CDBG-DR; HLMP	235		4,350,000	1,450,000
County-wide Road Elevation and Drainage Improvements (Phase 1 of 2)	Yes	367,200,000	HMGP; PDM; FMA; CDBG-MIT	230		275,400,000	91,800,000
Residential Dry-Floodproofing Program	Yes - Existing	236,000	HMGP; PDM; FMA; CDBG-DR	230		177,000	59,000
Acquisition - Demolition of Residential Structures	Yes		HMGP; PDM; FMA; CDBG-DR	220	Submitted HMGP DR-4337	0	0
Residential Mitigation Reconstruction Project	Yes	22,500,000	HMGP; PDM; FMA; CDBG-DR; HLMP	210		16,875,000	5,625,000
Elevate Buildings Located within Floodprone Areas	Yes	5,225,000	HMGP; PDM; FMA; CDBG-DR	200	Submitted HMGP DR-4337	3,918,750	1,306,250

Project Title	NOI Submitted (Y/N)?	Preliminary Project Cost	Potential Funding Source	Score	Comments	Federal Share	Non-Federal Share
HM Strategies Planning Support	Yes - New NOI	75,000	PDM	200		56,250	18,750
Retrofit historic church and update structure to be a safe place to house and feed members of community during and after a disaster	Yes	165,000	HMGP; PDM; HLMP	180		123,750	41,250
Repetitive Loss Property Mitigation Planning Support	Yes - Existing	45,000	HMGP; PDM; FMA; CDBG-DR	160		33,750	11,250
West Martello Seawall Improvements	Yes	500,000	HMGP; PDM; FMA	150		375,000	125,000
Emergency Generator for Critical Facility	Yes - New NOI	101,240	HMGP; PDM		Awarded PDM	\$75,930.00	25,310
Storm Hardening of Electrical Service to Critical Government Facilities	Yes - New NOI	3,145,000	HMGP; PDM; CDBG		Submitted PDM	\$2,358,750.00	786,250
		\$696,992,393				525,178,975	175,059,658

The Monroe County LMS Working Group held one meeting in 2019. Additional meetings scheduled were deferred to 2020 to allow for the consultant currently working on the Strategy update time to collect information from all the jurisdiction before proceeding with meeting directed at the required 2020 update. It is anticipated that that multiple meeting will be held in 2020 however, the current Covid-19 pandemic may delay the 2020 meeting schedule further.

Conclusion:

This concludes the 2019 Monroe County LMS progress report. Please direct comments or questions to:

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