LEE COUNTY MULTIJURISDICTIONAL

PROGRAM FOR PUBLIC INFORMATION

ABOUT FLOOD HAZARDS AND FLOOD INSURANCE RATE MAPS

A Comprehensive Outreach Strategy for

Bonita Springs

Cape Coral

Estero

Fort Myers

Fort Myers Beach

Unincorporated Lee County

Sanibel

Introduction

In August 1979, the City of Sanibel became the first community in Lee County to join the National Flood Insurance Program and adopt FEMA Flood Insurance Rate Maps. By 1984, all Lee County jurisdictions joined the program, which was created in 1968 to provide flood insurance to private property owners. Since then, newly incorporating jurisdictions in Lee County, an area of 521,000 acres or 813 square miles along the Gulf of Mexico in Southwest Florida, have followed this example and joined the NFIP.

When communities adopt Flood Insurance Rate Maps and flood hazard ordinances and enforce FEMA construction requirements, their residents become eligible to buy policies from the NFIP. This facilitates real estate transactions because flood insurance is required to obtain mortgages in the Special Flood Hazard Area as designated on FEMA flood maps. In addition, FEMA agrees to provide emergency disaster assistance to NFIP communities.

Beyond NFIP requirements, all jurisdictions in Lee County participate in the NFIP's voluntary Community Rating System. Under CRS guidelines, member communities agree to adopt and enforce higher regulatory standards for construction, record keeping and public outreach. In return for these higher standards, communities earn points that translate into flood insurance discounts. In 2011, municipal and county jurisdictions in Lee, Collier and Charlotte counties formed the Southwest Florida CRS Users Group to share ideas and mutual assistance toward the goal of higher standards of floodplain management.

In 2013, members of the CRS Users Group in Lee County agreed to enhance their communication outreach with a Multijurisdictional Program for Public Information, a new communication option offered in the 2013 CRS Manual. This document outlines the creation of this public information program for jurisdictions in Lee County, Fla.

Establishing the PPI Committee

The Lee County Multijurisdictional Program for Public Information began with the creation of a PPI Committee representing public stakeholders and local government staff. An organizational meeting was held June 3, 2014 for committee volunteers representing banking, real estate, public health, insurance and general business and residential interests from all the communities. The newly incorporated Village of Estero, which joined the NFIP effective Sept. 30, 2015, is participating in the committee in anticipation of completing its Community Rating System membership.

The Committee accomplished these tasks:

- Assess countywide public information needs and identify critical target audiences;
- Formulate important flood-related messages;
- Identify outreach projects to convey the messages;
- Examine other public information initiatives;
- Prepare this Program for Public Information document and have it adopted by the governing boards of member communities;
- Implement, monitor, and evaluate the program.

Final committee membership and schedule of resolution adoption is outlined here:

Lee County Multijurisdictional PPI Committee and Dates of PPI Adoption			
Community	**Public Members**	**Private Members**	**Resolution Adoption**
Bonita Springs	John Gucciardo, Assistant City Manager	Bob Rosier, President, Rosier Insurance	Bonita Springs City Council Res 15-63
Cape Coral	Wyatt Daltry, Planning Coordinator	Mary Briggs, Lee Memorial Health System, Director of Media Relations	Cape Coral City Council Res
Estero	Nick Batos, Mayor	Marilyn Edwards, Estero resident	Village of Estero Council Res 2016-01
Fort Myers	Brent Brewster, Flood Plain Manger	Danielle St. Onge, Realtor Association of Greater Fort Myers and the Beach	Fort Myers City Council Res
Fort Myers Beach	Megan Will, Floodplain Manager	Dave Anderson, Greater Fort Myers Beach Area Chamber of Commerce	Town of Fort Myers Beach Council Res
Unincorporated Lee County	Betsy Clayton, Public Information Officer Billie Jacoby, CRS Coordinator	Robbie Roepstorff, President, Edison National Bank Josh Overmyer, resident of North Fort Myers and SFHA	Lee Board of County Commissioners Res 15-11-22
Sanibel	Laura Wesserling, Deputy Building Official	Chris Heidrick, President, Heidrick & Company Insurance	Sanibel City Council Res 15-096

Details of the committee's meeting dates and attendance can be found in Appendix A.

The PPI Committee's final accomplishment can be summarized in the following charts of target audiences, outreach projects, messages and outcomes. An "at-a-glance" summary of all the projects by message and outcome codes is included in Appendix B for the use of Community Rating System reviewers.

After the charts are presented, the remainder of this document details how this Program for Public Information addresses specific Community Rating System Activities and how these audiences, messages and projects were chosen by the committee.

Target Audience	Outreach Project 1	Topics and Messages	Comments on Outcome	Schedule	Responsibility
Residents of repetitive loss areas	Annual Letter	1 – Learn your flood hazard, flood zone and map information.	R1 – Increased requests for FIRM information from the jurisdictions – to be tracked by each jurisdiction R2 – Increased hits to online zone look-ups and other floodplain management web pages, to be tracked by Lee County, which maintains the central GIS-based search engine;	February	Floodplain manager or CRS coordinator for each jurisdiction will send a letter to every residence in the repetitive loss area
		2 – Protect investment in property and contents with flood insurance.	R3 – Increase in the number of flood insurance policies, to be tracked by each jurisdiction		
		3 – Ask your community floodplain manager about flood protection assistance.	R4 – Increased calls for flood protection information and site visits, to be tracked by the jurisdictions		
		4 – Get a print or online copy of the Lee County All Hazards Guide.	R5 – Increased distribution of the Lee County All Hazards Guide; print versions to be tracked by Lee EOC and downloads to be tracked by all jurisdictions		
		5c – Before you remodel, learn about flood regulations and building codes.	R6 – Fewer violations for unpermitted or non-compliant construction; to be tracked by each jurisdiction		
		6b – Report blocked ditches, swales and canals.	R9 – Increased requests for action, to be tracked by each jurisdiction		
		7 – Choose your flood warning system.	R10 – Increased sign-up for personal notification, to be tracked by Lee County Emergency Management		

Target Audience	Outreach Project 2	Topics and Messages	Comments on Outcome	Schedule	Responsibility
Non-resident owners of houses in repetitive loss areas	Annual Letter	1 – Learn your flood hazard, flood zone and map information.	R1 – Increased requests for FIRM information from the jurisdictions – to be tracked by each jurisdiction R2 – Increased hits to online zone look-ups and other floodplain management web pages, to be tracked by Lee County, which maintains the central GIS-based search engine	February	Floodplain manager or CRS coordinator for each jurisdiction will send a letter to non-resident property owner in the repetitive loss area
		2 – Protect investment in property and contents with flood insurance.	R3 – Increase in the number of flood insurance policies, to be tracked by each jurisdiction		
		3 – Ask your community floodplain manager about flood protection assistance.	R4 – Increased calls for flood protection information and site visits, to be tracked by the jurisdictions		
		4 – Get a print or online copy of the Lee County All Hazards Guide.	R5 – Increased distribution of the Lee County All Hazards Guide; print versions to be tracked by Lee EOC and downloads to be tracked by all jurisdictions		
		5c – Before you remodel, learn about flood regulations and building codes.	R6 – Fewer violations for unpermitted or non-compliant construction; to be tracked by each jurisdiction		
		6a – Don't block natural flowways.	R8 – Fewer violations of unpermitted filling or blocking of natural flowways; to be tracked by each jurisdiction		
		7 – Choose your flood warning system.	R10 – Increased sign-up for personal notification, to be tracked by Lee County Emergency Management		

Target Audience	Outreach Project 3	Topics and Messages	Comments on Outcome	Schedule	Responsibility
Permit applicants	Build Responsibly brochure	1 – Learn your flood hazard, flood zone and map information.	R1 – Increased requests for FIRM information from the jurisdictions – to be tracked by each jurisdiction R2 – Increased hits to online zone look-ups and other floodplain management web pages, to be tracked by Lee County, which maintains the central GIS-based search engine;	Year-round	Floodplain manager or CRS coordinator will ensure this brochure is given to every permit applicant at the time of application
		2 – Protect investment in property and contents with flood insurance.	R3 – Increase in the number of flood insurance policies, to be tracked by each jurisdiction		
		4 – Get a print or online copy of the Lee County All Hazards Guide.	R5 – Increased distribution of the Lee County All Hazards Guide; print versions to be tracked by Lee EOC and downloads to be tracked by all jurisdictions		
		5b – Know the safety and insurance benefits of exceeding minimum standards.	R7 – Increase in construction projects that exceed minimum standards; to be tracked by each jurisdiction		
		6a – Don't block natural flowways.	R8 – Fewer violations of unpermitted filling or blocking of natural flowways; to be tracked by each jurisdiction		
		7 – Choose your flood warning system.	R10 – Increased sign-up for personal notification, to be tracked by Lee County Emergency Management		

Target Audience	Outreach Project 4	Topics and Messages	Comments on Outcome	Schedule	Responsibility
Media	Annual rainy season briefing	1 – Learn your flood hazard, flood zone and map information.	R1 – Increased requests for FIRM information from the jurisdictions – to be tracked by each jurisdiction R2 – Increased hits to online zone look-ups and other floodplain management web pages, to be tracked by Lee County, which maintains the central GIS-based search engine;	May	Lee County PIO will invite representatives of all media to an event where they can hear our messages and bank flood insurance and floodplain management information
		2 – Protect investment in property and contents with flood insurance.	R3 – Increase in the number of flood insurance policies, to be tracked by each jurisdiction		
		3 – Ask your community floodplain manager about flood protection assistance.	R4 – Increased calls for flood protection information and site visits, to be tracked by each jurisdiction		
		4 – Get a print or online copy of the Lee County All Hazards Guide.	R5 – Increased distribution of the Lee County All Hazards Guide; print versions to be tracked by Lee EOC and downloads to be tracked by all jurisdictions		
		5a – Get a permit before you build.	R6 – Fewer violations for unpermitted or non-compliant construction; to be tracked by each jurisdiction		
		6b – Report blocked ditches, swales and canals.	R9 – Increased requests for action, to be tracked by each jurisdiction		
		7 – Choose your flood warning system.	R10 – Increased sign-up for personal notification, to be tracked by Lee County Emergency Management		

Target Audience	Outreach Project 5	Topics and Messages	Comments on Outcome	Schedule	Responsibility
Media	Media Hazard Guide	1 – Learn your flood hazard, flood zone and map information.	R1 – Increased requests for FIRM information from the jurisdictions – to be tracked by each jurisdiction R2 – Increased hits to online zone look-ups and other floodplain management web pages, to be tracked by Lee County, which maintains the central GIS-based search engine;	May	Lee County PIO will distribute easy to access information regarding flood hazards for storm events
		2 – Protect investment in property and contents with flood insurance.	R3 – Increase in the number of flood insurance policies, to be tracked by each jurisdiction		
		3 – Ask your community floodplain manager about flood protection assistance.	R4 – Increased calls for flood protection information and site visits; to be tracked by each jurisdiction		
		4 – Get a print or online copy of the Lee County All Hazards Guide.	R5 – Increased distribution of the Lee County All Hazards Guide; print versions to be tracked by Lee EOC and downloads to be tracked by all jurisdictions		
		6b – Report blocked ditches, swales and canals.	R9 – Increased requests for action, to be tracked by each jurisdiction		
		7 – Choose your flood warning system.	R10 – Increased sign-up for personal notification, to be tracked by Lee County Emergency Management		

Target Audience	Outreach Project 6	Topics and Messages	Comments on Outcome	Schedule	Responsibility
Real estate and insurance agents, and lenders	Annual email	1 – Learn your flood hazard, flood zone and map information.	R1 – Increased requests for FIRM information from the jurisdictions – to be tracked by each jurisdiction R2 – Increased hits to online zone look-ups and other floodplain management web pages, to be tracked by Lee County, which maintains the central GIS-based search engine;	June	Floodplain manager or CRS coordinator for each jurisdiction will send a letter to every real estate and insurance agent and lender in the jurisdiction
		2 – Protect investment in property and contents with flood insurance.	R3 – Increase in the number of flood insurance policies, to be tracked by each jurisdiction		
		3 – Ask your community floodplain manager about flood protection assistance.	R4 – Increased calls for flood protection information and site visits; to be tracked by each jurisdiction		
		4 – Get a print or online copy of the Lee County All Hazards Guide.	R5 – Increased distribution of the Lee County All Hazards Guide; print versions to be tracked by Lee EOC and downloads to be tracked by all jurisdictions		
		5c – Before you remodel, learn about flood regulations and building codes.	R6 – Fewer violations for unpermitted or non-compliant construction; to be tracked by each jurisdiction		
		6b – Report blocked ditches, swales and canals.	R9 – Increased requests for action, to be tracked by each jurisdiction		
		7 – Choose your flood warning system.	R10 – Increased sign-up for personal notification, to be tracked by Lee County Emergency Management		

This PPI document will assist the jurisdictions in supporting the communication objectives of these CRS activities:

Map Information Service: All of these projects will publicize how to get FEMA Flood Insurance Rate Map information. The most common way to obtain this information is through an online look-up portal: http://leegis.leegov.com/floodzone. This information can be searched for any parcel in all of the jurisdictions by streets address, owner name or parcel ID numbers. The widely distributed Lee County All Hazards Guide promotes this service. In addition, all jurisdictions will provide this information by phone or in person at their offices, and several jurisdictions offer this information in writing through a FIRM letter. Information includes:

- All FIRM panel information,
- Flood zone and BFE, floodway or COBRA/OPA zone,
- Coastal High Hazard Area, Coastal Building Zone, Windspeed Building Risk Category,
- Evacuation Zone,
- Watershed ID and related issues,
- Grade elevation and issues related to the difference between grade and BFE.

Outreach Projects: This document implements both the Program for Public information and the Flood Response Preparation package under this activity. On behalf of all of the jurisdictions, the Lee County Emergency Operations Center and the Lee County PIO are responsible for flood response preparation and for communication during and after a storm. This pre-packaged information includes select messages from the PPI. For the convenience of the Community Rating System reviewers, Appendix C summaries the PPI messages in the format of the CRS scoring chart.

Hazard Disclosure: The PPI includes an annual email to real estate agents with messages that communicate the select CRS topics. It includes a copy of Lee County All Hazards Guide with the recommendation that they share it with their clients. That guide is loaded with information about how someone can learn the flood zone, map flood and other flood hazard details for any parcel in all of the jurisdictions. It also includes information about how their clients can contact the jurisdictions for site visits or other information. In addition, the State of Florida requires that flood zone and flood information is part of sale closing documentation.

Flood Protection Information: All PPI outreach projects include each jurisdiction's web site as an important conduit of information in the PPI. The jurisdictions will agree to a checklist of information to be placed on each jurisdiction's floodplain management home page. This same checklist would be offered to media and other partners. And, the jurisdictions are encouraged to embrace these website references in other outreach projects as well. The check list would include:

- The seven committee-selected communication topics and messages;
- Information about flood warning systems, flood hazard and evacuation maps, and links to flood safety precautions, and shelter locations, including special-needs shelters;
- Links to:
    - Additional flood hazard and flood insurance information, especially those topics for which the jurisdiction claims CRS credit;
    - FEMA's FloodSmart website;
    - Emergency operations centers;

- Elevation Certificate look-up;
- Rain gages.

Flood Protection Assistance: Jurisdiction staff provides one-on-one advice to anyone interested in protecting their building from flood damage. Some of these can be inexpensive, such as retrofitting an elevated foundation with the proper flood openings. Some can be expensive, such as elevating a slab-on-grade structure. Therefore the assistance includes a discussion of possible financial assistance and all relevant regulatory requirements. Some instances may include a site visit to determine the source of flood damage and to review alternative protection measures. These may be followed by a written summary of the flood problem and recommended alternatives. The reviews will include how elevating a building, retrofitting flood openings, and having the proper enclosed areas can reduce flood insurance premiums.

The committee discussed this service and made two recommendations:

First, in the past, the public has been advised of this service through an annual mailing to all properties in the community or all properties in the SFHA. This has proven to be very expensive and publicizes the service to many people who do not need it.

The committee discussed the real target audience in the Lee County multijurisdictional area. It was decided that in most cases the target audience would not be all properties in the community and that it would be more appropriate to identify a more narrow audience that are most likely to experience flooding and benefit from this assistance. This audience is not community-wide nor is it entirely in the SFHA.

When the communities mapped their repetitive loss areas, they followed a process designed to help decide which areas are at risk of flooding using NFIP data, local data, and statistics. First, the communities mapped structures that had received at least one or more flood insurance claim to the NFIP, then the dates of the claims were compared to the dates of known weather events to determine the potential causes of flooding. Topographic data was used to identify areas with significantly lower elevations than the developed areas with no flood claims. Two-foot contours and a LiDAR DEM were used as a background to help with visualization of topography. The process also looked at the areas that are most vulnerable to storm surge along the coast and shoreline, populated areas along interior waterways, areas that the communities have had detailed studies due to flooding and/or local knowledge of problematic flooding. The result of mapping the many layers of information is that the communities were able to better determine the areas and specific structures that may be subject to flooding. It was determined that their repetitive loss areas represent the audience that would most benefit from the flood protection assistance service.

While an annual notice to repetitive loss area properties will be the primary publicity vehicle for the service, it was decided that the assistance should also be included in other media that reach a wider audience, such as on each community's website, the All Hazards Guide, and notices to lenders, real estate agents, and insurance agents.

The second recommendation of the PPI committee was to make sure that the PPI's messages be conveyed to people receiving the assistance. For example, the memos or e-mails with the recommendations from the visit should include the following messages in one form or another:

- Protect your investment by buying or keeping a flood insurance policy (Message 2)

- Protect your family, too. Get a print or online copy of the Lee County All Hazards Guide. (Message 4)
- Learn about the building regulations and get a permit before you start. (Messages 5c and 5a)

As part of the annual PPI assessment, the requests for assistance will be cross-referenced to the addresses in the repetitive loss areas which will serve two purposes:

- Determine if the request for flood protection assistance has increased in the targeted outreach areas (Outcome R4)
- Add a data set used in the process of determining the repetitive loss areas.

Insurance Promotion: This PPI document includes communication that supports the goal of increasing flood insurance coverage. A lender sits on the PPI Committee. The PPI includes the assessment of NFIP coverage for number of policies in each jurisdiction in the AE and VE flood zones, and the number of policies covering residential and non-residential structures. An outcome for all six outreach projects is to increase the number of NFIP flood insurance policies in the jurisdictions. An elected official in each jurisdiction will send the letter to Repetitive Loss Area property owners and residents. This document establishes 2015 baseline coverage rates for single family residences and non-residential structures in each jurisdiction and sets the 2015 baseline number of policies for single-family homes, residential 2-4 units, other residential units, and non-residential structures.

Rep Loss Area Outreach: The PPI identifies repetitive loss areas as a target area and includes two outreach projects to separate target audiences: residents and non-resident owners of houses in repetitive loss areas. It also verifies that the outreach messages promote flood insurance, flood protection assistance and warning systems and response.

Drainage System Maintenance: Florida's Stream Dumping Regulations make dumping or obstructing flows in ditches and streams illegal. In this PPI, Outreach Projects 2 and 4 will bring the message "Don't' block natural flowways," to all permit applicants and non-resident owners of properties in repetitive loss areas. The message "Report blocked ditches, swales and canals," is delivered in Outreach Projects 1, 3, 5 and 6. The projects will outline the benefits of these messages, including reduction of neighborhood flooding. It will also include the consequences violating the Florida Statute.

Flood Warning and Response: Normally, the public is advised of this service through an annual mailing to all properties in the community or all properties in the SFHA. The committee favors an alternative approach for four reasons:

1. Government mailers are more likely to be tossed as junk mail than to actually be read and saved.
2. The expense of a multijurisdictional mailing to 119,424 structures is estimated to be approximately $47,770. This is based on a cost of $.40 per mailer including stationery and bulk mail rates. Due to the committee's desire to communicate several messages, it was decided that this communication would not be appropriate for a mailed postcard or a utility bill stuffer. Also note that no single utility company covers the entire jurisdiction. Not all of the jurisdictions have an existing mailer that can "piggy-back" for this mailing.

3. The most compelling reason the committee embraced the alternative is that many outreach projects already exist in the multijurisdictional area to communicate about flood warning systems and response as well as flood hazard and safety messages. These saturate the Southwest Florida area throughout the June 1-October 31 storm season. Led by the Lee County Emergency Operations staff, all jurisdictions participate in hurricane preparedness outreach. The Lee County EOC distributes 25,000 All Hazards Guides throughout the county. This guide includes an abundance of information about both criteria for 610 – notice of the warning system and recommended safety measures for a flood. Its hurricane preparedness seminars reach more than 3,500 people annually. In addition, all jurisdictions have newsletters and/or web sites that explain flood warning systems and hazards and promote safety information. Beyond that, stakeholder groups participate in hurricane season communication – all of which highlights flood warning and response information coupled with messages about flood hazard risks and safety measures. These include:
    - Four major newspapers with a combined circulation of more than 200,000: The News-Press, Naples Daily News, Florida Weekly – Fort Myers, and Breeze Newspapers – which has five community newspapers, all publish annual hurricane guides for both print and online distribution during June. In addition, these newspapers repeat this information often during hurricane season as part of their coverage of tropical storms, storm anniversaries and rainy season events.
    - NBC, CBS, ABC and Fox local television broadcast affiliates reach all of Southwest Florida with routine storm warning, response and hazard safety information. Each also posts an online Hurricane Guide and routinely references warning and response information and flood safety information as part of coverage of tropical storms, storm anniversaries and rainy season events.
    - WGCU, the Public Radio station affiliated with Florida Gulf Coast University and a communication partner with the Lee County Emergency Operations Center, and all major radio stations similarly broadcast this information.
    - The Lee County Electric Coop includes this information in its billing at least once annually – often more frequently in stormy seasons.
    - All local Publix and Home Depot stores distribute this information, and Home Depot holds several preparedness seminars at its stores during June.
    - In jurisdictions where Publix and Home Depot do not exist, smaller chains or private grocery and hardware stores fill this role.
    - The Lee County Public Information Officer conducted a survey of all major distributors of hurricane season guides and analyzed the content. Her survey found at least a dozen additional hurricane season outreach projects that re-distribute the flood warning and response and hazard safety information distributed by the Lee County Emergency Operations Center.
    - This information is posted in all libraries throughout Lee County.
4. The final reason the committee prefers the alternative outreach is that the news media is now the primary source of storm, weather and impending disaster information. However, every reporter, editor, anchor, blogger, etc. is communicating something different. An important objective of this PPI is to *encourage a unified message consistent with NFIP and CRS objectives*. That consistency will be extended to communication to insurance agents, real estate agents, lenders, residents of repetitive loss areas and non-resident owners of property in the repetitive loss areas. A clear and consistent message will be distributed in the way it is most likely to be received. Specifically, the flood warning system information will be communicated through the

message: Choose your flood warning system. The committee is encouraging individuals not simply to turn on the TV or radio to learn if a storm is coming, but to ***CHOOSE*** a method of personal notification. In this jurisdiction, those options include:

- **CodeRed** – A free telephone, text or email service;
- **LeeEvac for iPhone** – A free app for Apple devices that pushes evacuation notifications in real time during emergencies and which also allows users to search for evacuation zones by street address;
- **LeeEvac for Android** – A free app for Android devices that pushes evacuation notifications in real time during emergencies and which also allows users to search for evacuation zones by street address or by GPS;
- **Facebook** – This Facebook page posts real time updates about emergency conditions and always offers general preparedness information;
- **Twitter** – There are two Twitter accounts: @LeeEOC - offers purely emergency information, and @LCEMFL - offers also includes general and preparedness information;
- **IPAWS** – Lee County Public Safety is a FEMA Integrated Public Alert Warning System (IPAWS) Alerting Authority. We can utilize the IPAWS to alert and warn Lee County residents and visitors about serious emergencies through various means, including the Emergency Alert System (EAS), Wireless Emergency Alerts (WEA), and the National Oceanic and Atmospheric Administration (NOAA) Weather Radio.

Review of Mapping, Structure Location and Insurance Coverage

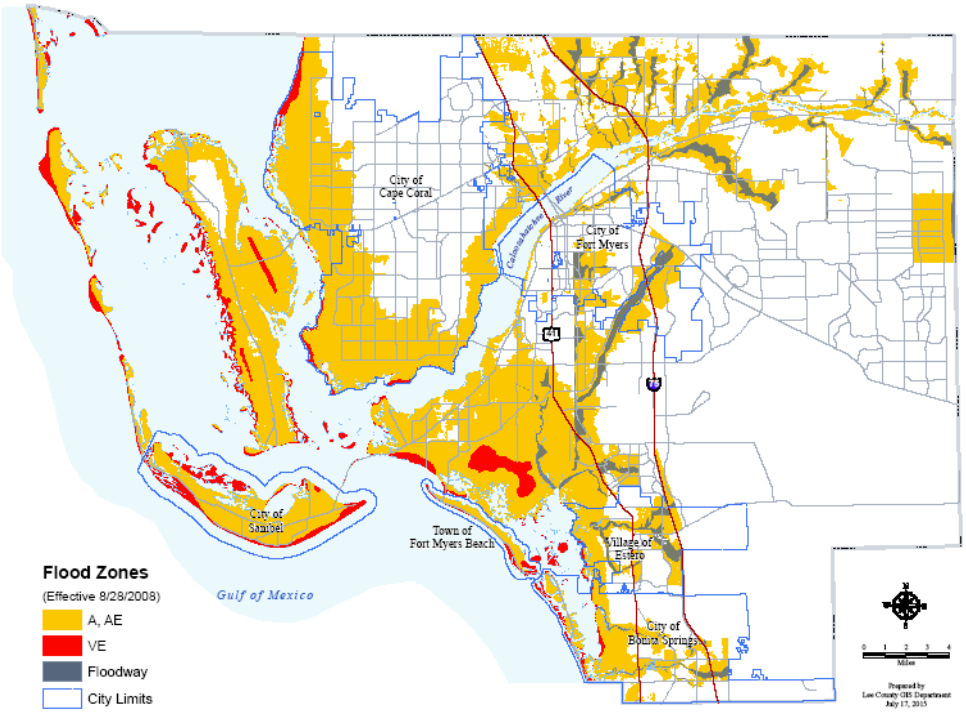
The committee began crafting its public information program with a review of countywide FEMA Flood Insurance Rate Maps, the Lee County Hurricane Evacuation Map, which was adopted as part of Lee County's Local Mitigation Strategy, and consideration of areas where the National Flood Insurance Program reported repetitive losses.

The committee was specifically interested in looking at V Zones, A and AE zones; regulatory floodways in the AE zones; X Zones outside the Special Flood Hazard Area; and repetitive loss areas in each of the communities.

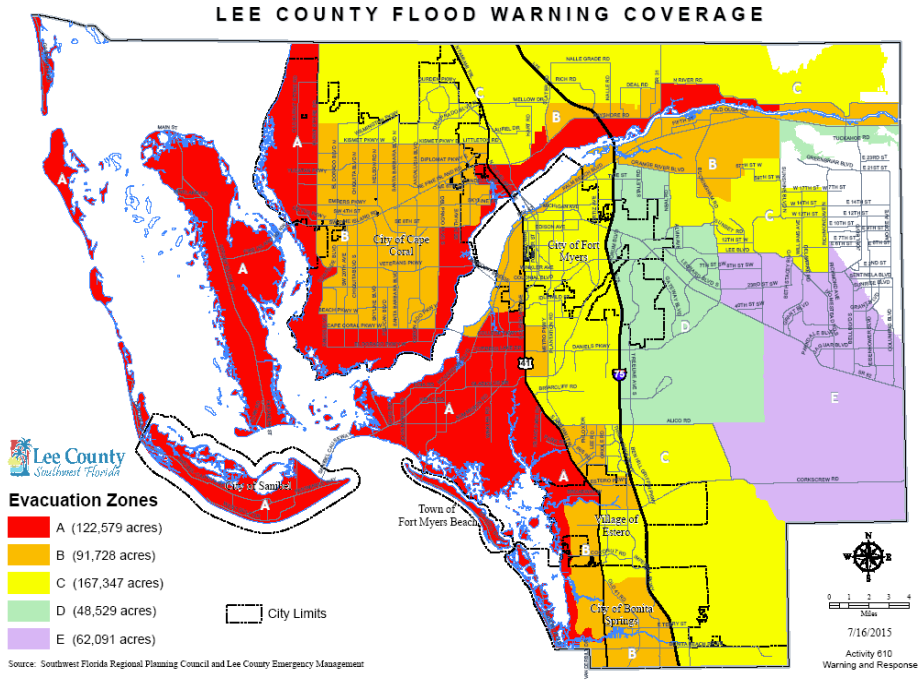
The Flood Insurance Rate Maps show that most of Lee County's communities include a mix of FEMA flood zones, with two exceptions:

- The barrier islands of Fort Myers Beach and Sanibel are mapped almost completely in the Special Flood Hazard Area and have no significant areas of X Zone;
- Because they are barrier islands and FEMA has mapped them exclusively with coastal modeling, neither Sanibel nor Fort Myers Beach has regulatory riverine floodways.

Lee County Flood Zones and Regulatory Floodways established by FEMA



In reviewing the Lee County Hurricane Evacuation Map, the committee noted that all V Zones from the FEMA Flood Insurance Rate Maps are included in Evacuation Zone A.



Descriptions of the flood zones, Evacuation Zone A and repetitive loss areas can be summarized in this table, which reflects ***zones in acres and repetitive loss properties in numbers of structures***:

	FLOOD INSURANCE RATE MAPS				EVACUATION MAP	NFIP Data
	V Zone	**A and AE**	**Regulatory Floodway**	**X Zone**	**Evacuation Zone A**	**Rep Loss Properties**
Bonita Springs	792	8,338	501	16,784	3,391	62
Cape Coral	1,269	32,431	28	40,218	25,262	2
Estero	115	6,280	1,194	9,985	2,695	1
Fort Myers	36	6,976	901	19,003	18	5
Fort Myers Beach	645	1,017	0	0	1,661	326
Lee County	9,680	105,271	8,413	251,076	78,925	197
Sanibel	2,727	8,015	0	4	10,745	61
Total Multijurisdictional Area	15,264	168,328	9,843	337,070	122,697	654

In addition to looking at the flood zones and other flood hazard features, the committee considered the number of structures located within the Special Flood Hazard Area in the V, AE and A zones, and outside the Special Flood Hazard Area in the X Zone.

Residential structures consistently comprise at least 90% of the SFHA structures in each community, with the exception of Fort Myers, where it is 88%.

Information gleaned from this review can be summarized in the following two tables:

Structure Count in The Special Flood Hazard Area				
Jurisdiction	**Land Use**	**Number of Structures**	**Total of Structures**	**Percentage of Total**
Bonita Springs	NON-RES	352	9,134	3.9%
	RES 1-4	8,518		93.3%
	RES 5 OR MORE	264		2.9%
Cape Coral	NON-RES	621	29,227	2.1%
	RES 1-4	27,977		95.7%
	RES 5 OR MORE	629		2.2
Estero	NON-RES	216	4,524	4.8%
	RES 1-4	4,182		92.4%
	RES 5 OR MORE	126		2.8%
Fort Myers	NON-RES	665	5,655	11.8%
	RES 1-4	4,588		81.1%
	RES 5 OR MORE	402		7.1%
Fort Myers Beach	NON-RES	150	3,071	4.8%
	RES 1-4	2,784		90.6%
	RES 5 OR MORE	137		4.5%
Lee County	NON-RES	3,797	62,617	6.1%
	RES 1-4	56,695		90.5%
	RES 5 OR MORE	2,125		3.4%
Sanibel	NON-RES	524	5,196	10.1%
	RES 1-4	4,423		85.1%
	RES 5 OR MORE	249		4.8%

Structure Count Outside the Special Flood Hazard Area				
Jurisdiction	**Land Use**	**Number of Structures**	**Total of Structures**	**Percentage of Total**
Bonita Springs	NON-RES	926	14,533	6.4%
	RES 1-4	13,211		90.9%
	RES 5 OR MORE	396		2.72%
Cape Coral	NON-RES	1,552	42,319	3.8%
	RES 1-4	40,297		95.2%
	RES 5 OR MORE	470		1.1%
Estero	NON-RES	264	11,381	2.3%
	RES 1-4	10,671		93.8%
	RES 5 OR MORE	446		3.9%
Fort Myers	NON-RES	2,678	16,760	15.98%
	RES 1-4	13,206		78.79%
	RES 5 OR MORE	876		5.23%
Fort Myers Beach	NON-RES	0	0	0
	RES 1-4	0		0
	RES 5 OR MORE	0		0
Lee County	NON-RES	4,999	88,685	5.6%
	RES 1-4	82,221		92.7%
	RES 5 OR MORE	1,465		1.7%
Sanibel	NON-RES	0	1	0
	RES 1-4	1		100%
	RES 5 OR MORE	0		0

Collect Flood Insurance Information

The Committee collected NFIP policy data updated as of June 2015 in two categories. First, the number of residential and non-residential structures that are insured is summarized in these tables.

Bonita Springs	Policies in Force	Premium	Insurance in Force
Single Family	3,601	$2,584,634	$1,018,508,500
2-4 Family	539	$276,822	$107,802,000
All Other Residential	3,385	$1,192,826	$648,374,200
Non Residential	162	$249,890	$64,382,900
Total	7,687	$4,304,172	$1,839,067,600

Cape Coral	Policies in Force	Premium	Insurance in Force
Single Family	24,263	$17,457,691	$6,807,001,200
2-4 Family	1,305	$714,142	$250,949,100
All Other Residential	6,298	$2,281,650	$968,686,500
Non Residential	433	$762,624	$186,428,400
Total	32,299	$21,216,107	$8,213,065,200

Fort Myers	Policies in Force	Premium	Insurance in Force
Single Family	2,420	$1,519,168	$666,345,800
2-4 Family	142	$74,506	$27,954,100
All Other Residential	2,328	$538,209	$533,836,000
Non Residential	357	$722,979	$163,534,600
Total	5,247	$2,854,862	$1,391,670,500

Fort Myers Beach	Policies in Force	Premium	Insurance in Force
Single Family	752	$1,472,743	$171,361,000
2-4 Family	181	$270,854	$37,885,100
All Other Residential	2,155	$1,008,029	$424,961,600
Non Residential	91	$343,534	$27,202,500
Total	3,179	$3,095,160	$661,410,200

Lee County and Estero	Policies in Force	Premium	Insurance in Force
Single Family	37,569	$29,482,789	$9,945,139,600
2-4 Family	9,348	$4,470,315	$1,761,470,600
All Other Residential	29,097	$10,271,974	$4,963,202,700
Non Residential	2,629	$5,220,373	$1,083,827,500
Total	78,643	$49,445,451	$17,753,640,400

Sanibel	Policies in Force	Premium	Insurance in Force
Single Family	3,167	$3,717,049	$965,807,100
2-4 Family	636	$853,437	$131,318,800
All Other Residential	4,167	$3,020,452	$712,038,200
Non Residential	449	$1,435,628	$134,824,000
Total	8,419	$9,026,566	$1,943,988,100

In the second category, the number of buildings in AE and VE FIRM zones that are insured is summarized.

Bonita Springs	Policies in Force	Premium	Insurance in Force
A01-30 & AE Zones	5,095	$2,634,413	$1,101,897,300
V01-30 & VE Zones	356	$719,184	$74,124,100

Cape Coral	Policies in Force	Premium	Insurance in Force
A01-30 & AE Zones	27,843	$19,441,499	$6,897,670,400
V01-30 & VE Zones	4	$10,926	$880,000

Fort Myers	Policies in Force	Premium	Insurance in Force
A01-30 & AE Zones	3,863	$2,137,968	$975,113,600
V01-30 & VE Zones	2	$13,667	$580,900

Fort Myers Beach	Policies in Force	Premium	Insurance in Force
A01-30 & AE Zones	2,498	$1,916,153	$560,935,200
V01-30 & VE Zones	681	$1,179,007	$100,475,000

Lee County and Estero	Policies in Force	Premium	Insurance in Force
A01-30 & AE Zones	65,232	$40,462,568	$14,389,566,800
V01-30 & VE Zones	2,820	$4,049,213	$481,045,300

Sanibel	Policies in Force	Premium	Insurance in Force
A01-30 & AE Zones	6,471	$5,738,677	$1,612,233,800
V01-30 & VE Zones	1,944	$3,281,768	$330,878,500

The Committee also collected insurance data regarding the value of policies.

	Policies in Force	Coverage in Force	Premiums in Force	Claims Submitted	Claims Paid	Total Payments
	As of June 30, 2015			Jan. 1, 1978 – June 30, 2015		
Bonita Springs	7,687	$1.8 billion	$4.3 million	9	5	$111,140
Cape Coral	32,299	$8.2 billion	$21.2 million	751	110	$800,137
Estero	3,632	Unavailable as of October 2015.		Unavailable as of October 2015.		
Fort Myers	5,247	$1.4 billion	$2.8 million	238	130	$1.5 million
Fort Myers Beach	3,179	$661.4 million	$3.1 million	340	281	$6.3 million
Lee County	75,011	$17.7 billion	$49.4 million	6,527	4,338	$59.1 million
Sanibel	8,419	$1.9 billion	$9.0 million	1,337	583	$7.3 million
Total Multijurisdictional Area	135,474	$31.7 billion	$89.8 million	9,202	5,447	$75.1 million

Determine Level of Flood Insurance Coverage

The committee was interested in looking at coverage rates by category of structure within the SFHA, particularly for single-family homes. However, the shared CIS data does not enable that specific analysis. Although the total number of policies is broken out by flood zone, the data does not distinguish the type of structure for policies in the SFHA. Where structural breakdowns are given, it's not possible to determine whether those structures are in or out of the SFHA.

The islands of Sanibel and Fort Myers Beach provide an exception for the specific category of single family residences, because every SFR structure – with the exception of one single-family house on Sanibel – is in the SFHA.

A similar conundrum appears with the analysis of the multi-family categories. The number of 2-4 family policies exceeds the number of structures in that category. In the all-other residential category,

coverage rates appear to be close to 100% (or over 100%) only because the number of policies for dwelling units is disproportionate to the number of multi-unit structures. Therefore coverage rates cannot be accurately calculated for any category that includes multi-family structures. This would include any "total" comparisons adding in the number of policies attributed to multi-family dwellings. Those coverage rates will be artificially high. To determine an accurate multi-family coverage rate, the jurisdictions would have to determine how many multi-family dwelling units are in each jurisdiction, and the NFIP would have to break out the policies for multi-family structures from the policies for multi-family units, many of which may be for contents only.

Therefore, the committee used the NFIP data to establish two important baselines:

1. The number of flood policies in the SFHA in each jurisdiction by residential and non-residential structure categories;
2. Jurisdiction-wide coverage rates for single-family residences and non-residential structures.

Baseline 2015 Number of NFIP Policies in the SFHA				
	Single Family	**2-4 Family**	**All Other Residential**	**Non Residential**
Bonita Springs	3,601	539	3,385	162
Cape Coral	24,263	1,305	6,298	433
Fort Myers	2,420	142	2,328	357
Fort Myers Beach	752	181	2,155	91
Lee County/Estero	37,569	9,348	29,097	2,629
Sanibel	3,167	636	4,167	449
Total Multijurisdictional Area	71,772	12,151	47,430	4,121

2015 Coverage Rates for All Single-Family and Non-Residential Structures					
Jurisdiction	**Structure Type**	**Structures in the SFHA**	**Total Structures**	**Total Policies**	**Total Coverage Rate**
Bonita Springs 5,451 policies in the SFHA	Single family	5,096	13,096	3,601	27%
	All Other Residential	3,686	9,653	3,385	
	Non-Residential	352	1,278	162	13%
	Total structures	9,134	23,667	7,687	
Cape Coral 27, 848 policies in the SFHA	Single Family	26,493	64,696	24,263	37%
	All Other Residential	2,113	4,677	7,603	
	Non-Residential	621	2,173	433	20%
	Total structures	29,227	71,546	32,299	
Estero 1,741 policies in the SFHA	Single Family	2,586	9,866	Not yet available; reflected in Lee County totals.	
	All Other Residential	1,722	5,559		
	Non-Residential	216	480		
	Total structures	4,524	15,905		
Fort Myers 917 policies in the SFHA	Single Family	2,922	12,939	2,420	19%
	All Other Residential	2,068	6,133	2,468	
	Non-Residential	665	3,343	357	11%
	Total structures	5,655	22,415	5,247	
Fort Myers Beach 3,179 policies in the SFHA	Single Family	2,373	2,373	752	32%
	All Other Residential	548	548	2,336	
	Non-Residential	150	150	91	61%
	Total structures	3,071	3,071	3,179	
Lee County 68,482 policies in the SFHA	Single Family	31,994	91,061	37,569	41%
	All Other Residential	28,826	51,445	38,445	
	Non-Residential	3,797	8796	2,629	30%
	Total structures	62,617	151,302	78,643	
Sanibel 8,419 policies in the SFHA	Single Family	3,655	3,656	3,167	87%
	All Other Residential	1,017	1,017	4,803	
	Non-Residential	524	524	449	86%
	Total structures	5,196	5,196	8,419	

Recommendations Related to the PPI Document and Insurance Coverage Outcomes

The committee acknowledged that the single-family coverage rates based on this analysis may appear artificially low for the jurisdictions with large areas outside the SFHA, especially Bonita Springs, Cape Coral and unincorporated Lee County. The committee recognizes the challenge in improving these coverage rates, especially considering the rising cost of flood insurance premiums and the high number of structures outside the SFHA, which are not mandated to have insurance. Another factor at play may be the high number of retired homeowners who do not have mortgages.

All of these factors contribute to the wide variation in single-family coverage rates among the jurisdictions. The committee wrestled with the question: Is the current NFIP coverage adequate? The committee feels it is not, but did not feel it was useful to assign some percentage or number-driven goal to the promotion of NFIP policies.

Therefore, the committee took a two-step approach to encouraging increased NFIP coverage throughout the multijurisdictional area:

1. Track the residential and non-residential coverage rates in each jurisdiction and the numbers of policies in the flood zones and among the residential and non-residential structures against the 2015 baselines established in this report.
2. The PPI document would be used to outline an information program to increase the NFIP protection for property.

This PPI document addresses the topic Insure Your Property with this message, "Protect investment in property and contents with flood insurance." This outreach is explored fully throughout this PPI document, and can be summarized here:

Message: Protect investment in property and contents with flood insurance	
Outcome: Increase the number of flood insurance policies	
Outreach Project	**Target Audience**
1 Annual letter – sent by elected official	Residents of repetitive loss area
2 Annual letter – sent by elected official	Non-resident owners of repetitive loss area
3 Build Responsibly brochure	Permit applicants
4 Annual rainy season briefing	Media
5 Media Hazard Guide	Media
6 Annual email	Real estate and insurance agents and lenders

Details of the annual review of insurance coverage are included in the Implementation, Monitoring and Evaluation section of this PPI. This includes the directive for an annual report to the governing bodies of each jurisdiction.

Target Areas and Audiences

With the review of maps and insurance policy data, the committee turned its attention to target areas and audiences.

Because Lee County communities have been members of the NFIP since the early 1980s, much of the construction here complies with NFIP standards. And, because the Florida Building Code has long

addressed hurricane and other flood-related issues, there are few significant flood-prone target areas in the community. The exception could be Fort Myers Beach, which is a barrier island with preFIRM development and the greatest concentration of repetitive loss properties. However, the committee felt that the messages targeted to Fort Myers Beach would also be needed throughout the Special Flood Hazard Area.

The other exception is the repetitive loss properties themselves, and by extension, the neighborhoods around those properties. The committee saw the residents of rep loss structures as a separate audience from the owners of these structures. This is particularly the case Southwest Florida where there are many seasonal residents and rentals.

The committee also agreed that construction permit applicants should be a target audience to encourage exceeding minimum requirements and to be aware of substantial improvement/substantial damage regulations in the SFHA. However, because they felt that building responsibly in areas outside the Special Flood Hazard Area is also important, they broadened this audience to all construction permit applicants with the goal of informing them about the safety and insurance benefits of exceeding minimum construction standards.

In addition, the committee identified two other target audiences, which are not only stakeholders who will benefit from the communication goals of the PPI and but also will pass that information to additional audiences. The media was selected not only because most people turn to news coverage to hear weather and storm reports, but also because they do not usually report a message consistent with NFIP and CRS objectives. Real estate and insurance agents and lenders, who deal routinely with NFIP issues, were also identified as a direct conduit to their clients. They can especially be useful to spread the word about flood map and flood protection services.

Therefore, the committee finalized its target audiences as:

- Residents and non-resident property owners within repetitive loss areas;
- Permit applicants;
- Real estate and insurance agents and lenders;
- The media.

The PPI Committee discussed that the media in the Lee County jurisdictions are both a target audience and an important source of communication outreach.

Assessment of Public Information Needs

An assessment of current outreach efforts to the target area and target audiences was done. It includes an inventory of existing outreach efforts, not only about flood insurance and floodplain management issues, but also about hurricanes and related topics. The period of this inventory was Jan. 1, 2013 through October 1, 2015.

A thorough assessment of media coverage was conducted by the Lee County Public Information Officer particularly to prepare for the 2015 hurricane season. This began with a collection of all hurricane guides or related special outreach projects done in 2014. The content was reviewed for common messages. As a second step, the PIO contacted all major media outlets and asked specific questions about their needs and interests for future coverage. This discussion included the most useful file types

for maps (vector files not jpg) and text (word processing documents rather than pdf) and how they prefer to receive information (electronic not print). The PIO determined that local media are willing and even eager to have additional information about hurricane and flood hazards in a ready-to-use format.

In the spring of 2015, the Lee County PIO conducted the first coordinated media outreach. It included:

- The Lee County All Hazards Guide expanded to include additional flood hazard messages converted to AP Style and burned to a disk,
- A special landing page on the Lee County Emergency Management website for the Hurricane Guide media kit so those without the disk could access the files and info.
- Tracked the hurricane guides and messaging as they came out in 2015.

In addition to reviewing communication by the media, the committee also looked at everything the jurisdictions distribute and post in libraries.

Private sector communication was also surveyed. Although there was a variety, the Committee specifically examined these, which reached a large number of people:

News media, including The News-Press, Naples Daily News, Breeze Newspapers, NBC-2, ABC-7, WINK (CBS), WINK Radio, Fox-4, WGCU (PBS)

- The media distributes weather, warning system, evacuation and emergency response information as needed as storms approach, during and after.
- Both major newspapers and the Breeze family of local newspapers and all four of the major broadcasters posted hurricane guides that include information about warning systems, preparation for storms, and storm safety.
- WINK produces an additional print version of the guide which it distributes.
- All media does news coverage on the anniversary of major storms. Since the last CRS site visit, this has included anniversary information about Hurricanes Charley and Wilma.
- All news media is included in news releases distributed by the Lee County PIO when the Lee County Emergency Operations Center is activated.

Home Depot and local hardware stores

- During hurricane season, Home Depot distributes hurricane preparation information that includes local warning systems and tips on preparation for storms and storm safety.
- Also during hurricane season, Home Depot stores hold presentations and workshops about storm safety.
- Both the print and presentation information covers advice in property protections and building standards.
- In small communities, like Sanibel Island and Fort Myers Beach, which do not have a Home Depot specifically, local hardware or drug stores distribute similar information.

Lee County Electric Cooperative (LCEC)

- At least once a year and more frequently in a busy storm season, the electric company billing includes information on local warning systems, preparation for storms, and storm safety.
- This billing stuffer is usually timed for hurricane season.

Libraries

- The Town of Fort Myers Beach Library and Lee County library system, which serves all the other jurisdictions, is a repository for all flood hazard and flood map information. Lee County's All Hazards Guide is also available.

- Information in the libraries covers local warning systems, preparation for storms, and storm safety.

Publix Grocery Stores

- Annually Publix distributes a hurricane guide that includes information about warning systems, preparation for storms, and storm safety. It is often the WINK guide.
- In small communities, like Sanibel Island and Fort Myers Beach, which do not have a Publix specifically, local stores distribute similar information.

Red Cross

- The Red Cross distributes warning system, evacuation and emergency response information as needed during storms.
- The Red Cross is also a distributor of 1,300 copies of the Lee County All Hazards Guide.

The committee made this over-arching conclusion: Only the jurisdictions are communicating information truly consistent with CRS and NFIP objectives. All other outreach saturates the community with information about flood warning and response information, emergency safety tips and general preparedness consistent with Activity 610. Despite this abundant (even redundant) communication, the coverage tended to encourage the community to watch their news outlet for breaking information. There was little encouragement to sign up for personal alert systems coming directly from the Lee County Emergency Operations Center. The media was seen not only as an under-utilized partner, but also as a potential distraction from CRS/NFIP messages.

The committee agreed outreach to the media could counteract this and reinforce unified messages. As a member of the PPI Committee, the Lee County PIO proposed two specific outreach projects to the media as a target group to improve this effort: a media briefing and a specific Hazards Guide for the media.

The inventory discovered these additional important "gaps" in communication:

- Most communication related to flood insurance and floodplain management is distributed by local governments. However, not all jurisdictions were communicating the same messages in a consistent, action-oriented way.
- Lee County's Public Safety Department produces an All Hazards Guide, but it lacks input from local floodplain mangers and does not support CRS messages. The committee recommended that the All Hazards Guide content be expanded to include consistent messages.
- Traditional print or broadcast outreach by the jurisdictions and the media is being supplemented by electronic communication, especially web sites. But the sites themselves are not an effective outreach because they have no consistent messages. The committee agreed that all jurisdictions should post key links (as outlined in the discussion of Flood Protection Information) and should encourage the media and others to post these links as well.

The following chart summarizes this assessment process.

Outreach Projects/Messages	Bonita Springs	Cape Coral	Fort Myers	Fort Myers Beach	Lee County/ Estero	Sanibel	Other
Annual outreach to SFHA residents about hazard warning systems and storm safety	Phone book ad	Direct mail	Phone book ad	Direct mail	Phone book ad	Direct mail	Media, Publix, Home Depot, LCEC, libraries, local stores
Annual letter to insurance, real estate agents about hazard warning systems and the risk of flooding	✓	✓	✓	✓	✓	✓	
Annual mailing to rep loss area property owners and residents about the risk of flooding and how to get additional assistance	✓	✓	✓	✓	✓	✓	
Annual hurricane preparedness information	✓	✓	✓	✓	✓	✓	Media, Publix, Home Depot, LCEC, libraries
All Hazards Guide – focuses on warning systems and storm preparation	Produced by Lee County Public Safety and distributed widely in all the jurisdictions and through many stores, living facilities, libraries, etc.						
Annual Storm Season Media Outreach					✓		
As-needed news outreach, including during storms	✓	✓		✓	✓	✓	Red Cross
FIRM letters on request	✓	✓		✓	✓	✓	
Presentations, workshops	✓	✓		✓	✓	✓	Home Depot
Storm anniversary outreach						✓	All media
Brochures available at Town Hall	✓			✓	✓	✓	
Advice on property protection and building standards	✓	✓	✓	✓	✓	✓	Home Depot, local stores
Site visits to discuss flooding and natural floodplain protection	✓	✓	✓	✓	✓	✓	

Formulate Messages and Outcomes

The Committee reviewed the recommended CRS outreach topics and chose seven. Specific, action-oriented messages were selected for each topic, which are labeled by the CRS topic number in the summary table.

Effective communication will result in measureable outcomes, which are labeled in the summary table as R for "results." Of course, it is presumed that a variety of other factors, including the rising cost of flood insurance, a relatively active or inactive hurricane season, a relatively dry or rainy summer season, could also affect the outcomes. Therefore, they are viewed as indicators, and not an exact measure of the success of these campaigns. These outcomes will be tracked as explained in the summary table and will be reported at an annual committee meeting. That meeting will be more fully explained in the Implementation, Monitoring and Evaluation section of this document.

Most of these messages are self-explanatory, but several bear additional comment.

"Choose your flood warning system" was specifically crafted to encourage all residents and audiences to take individual action to sign up for personal warning notification. This fulfills the "warning system" portion of 610, and therefore is a message in every outreach project.

"Get a print or online copy of the Lee County All Hazards Guide" was finally chosen after the committee considered a variety of flood safety messages like "Turn around Don't Drown," and "Obey Evacuation Notices." Because these messages mimic the tips and preparedness information already in the Lee County All Hazards Guide, which also includes the flood warning system information, the committee agreed that the most important task is to urge people to get a copy of the guide for complete information. This is a primary message in all six outreach projects, including those which encourage the media, real estate and insurance agents, and lenders to emphasize the messages in the guide, to post the guide on their websites and to pass along the links to their customers.

The Build Responsibly and Protect Natural Floodplain Functions topics include alternative messages to accommodate different target audiences.

The Build Responsibly message 5a, "Get a permit before you build," is targeted to media for widespread redistribution. 5b "Know the safety and insurance benefits of exceeding minimum standards" is aimed at permit applicants, real estate and insurance agents, and lenders. 5c "Before you remodel, learn about flood regulations and building codes" is aimed at both residents and non-resident owners in rep loss areas.

6a "Don't block natural flowways," is used in the outreach to permit applicants. The companion to this message, 6b "Report blocked ditches, swales and canals" was considered important enough to include in all of the other five outreach projects. Flat terrain and porous, sandy soil encourage standing water in this multijurisdictional area. One of the most useful tasks for residents is to let the jurisdictions know if there is a blockage so it can be cleared to improve drainage capacity before a serious storm event.

All Messages and Outcomes (Results)	
Messages	**Outcomes (Results)**
1. Know Your Flood Hazard	
1 – Learn your flood hazard, flood zone and map information.	R1 – Increased requests for FIRM information from the jurisdictions – to be tracked by each jurisdiction
	R2 – Increased hits to online zone look-ups and other floodplain management web pages, to be tracked by Lee County, which maintains the central GIS-based search engine
2. Insure Your Property	
2 – Protect investment in property and contents with flood insurance.	R3 – Increase in the number of flood insurance policies, to be tracked by each jurisdiction
3. Protect Property from Flood Hazard	
3 – Ask your community floodplain manager about flood protection assistance.	R4 – Increased calls for flood protection information and site visits; to be tracked by the jurisdictions
4. Protect People from Flood Hazard	
4 – Get a print or online copy of the Lee County All Hazards Guide.	R5 – Increased distribution of the Lee County All Hazards Guide; print versions to be tracked by Lee EOC and downloads to be tracked by all jurisdictions
5. Build Responsibly	
5a – Get a permit before you build.	R6 – Fewer violations for unpermitted or non-compliant construction; to be tracked by each jurisdiction
5b – Know the safety and insurance benefits of exceeding minimum standards.	R7 – Increase in construction projects that exceed minimum standards; to be tracked by each jurisdiction
5c – Before you remodel, learn about flood regulations and building codes.	R6 – Fewer violations for unpermitted or non-compliant construction; to be tracked by each jurisdiction
6. Protect Natural Floodplain Functions	
6a – Don't block natural flowways.	R8 – Fewer violations of unpermitted filling or blocking of natural flowways; to be tracked by each jurisdiction
6b – Report blocked ditches, swales and canals.	R9 – Increased requests for action, to be tracked by each jurisdiction
7. Prepare for Hurricanes	
7 – Choose your flood warning system.	R10 – Increased sign-up for personal notification, to be tracked by Lee County Emergency Management

Outreach Projects

After considering a long list of possible outreach projects, the committee selected these six. The products themselves will be designed to requirements of Activity 610 – Flood Warning and Response through the alternative outreach option 611 B (5c).

Outreach Project 1: Distribute an annual letter to residents in the Repetitive Loss Areas from the elected official who chairs the jurisdiction's governing board. This letter will go out in February, the peak of Lee County's visitor season. This outreach will deliver these messages:

- 1 – Learn your flood hazard, flood zone and map information;
- 2 – Protect investment in property and contents with flood insurance;
- 3 – Ask your community floodplain manager about flood protection assistance;
- 4 – Get a print or online copy of the Lee County All Hazards Guide;
- 5c – Before you remodel, learn about flood regulations and building codes;
- 6b – Report blocked ditches, swales and canals;
- 7 – Choose your flood warning system.

The letter includes how to contact the local communities and directs readers to websites.

Outreach Project 2: Distribute an annual letter to non-resident home owners in repetitive loss areas, also from the elected official who chairs the jurisdiction's governing board and also in February. Insurance and real estate agents and lenders on the committee felt strongly that this is likely to be a different audience from the residents because of the local likelihood that many dwellings are seasonally occupied or are rentals. The alternative message 6a was used here because the non-resident would be more likely to build something to obstruct a flowway than to notice one that is blocked in the neighborhood.

- 1 – Learn your flood hazard, flood zone and map information;
- 2 – Protect investment in property and contents with flood insurance;
- 3 – Ask your community floodplain manager about flood protection assistance;
- 4 – Get a print or online copy of the Lee County All Hazards Guide;
- 5c – Before you remodel, learn about flood regulations and building codes;
- 6a – Don't block natural flowways;
- 7 – Choose your flood warning system.

The letter includes how to contact the local communities and directs readers to websites.

Outreach Project 3: Each jurisdiction's floodplain administrator or CRS coordinator will ensure that all permit applicants are given a brochure to encourage them to learn about the safety and insurance benefits of exceeding minimum building standards for new construction and remodeling. This brochure is given regardless of whether the construction project is in or out of the SFHA. The messages are:

- 1 – Learn your flood hazard, flood zone and map information;
- 2 – Protect investment in property and contents with flood insurance;
- 4 – Get a print or online copy of the Lee County All Hazards Guide;

- 5b – Know the safety and insurance benefits of exceeding minimum standards;
- 6a – Don't block natural flowways;
- 7 – Choose your flood warning system.

The brochure directs readers to websites.

Outreach Project 4: The Lee County PIO will host an annual briefing for representatives of all media – particularly assignment editors and weather reporters. This presents the opportunity for persuasive, two-way communication with decision-making assignment editors as well as reporters. This enables the committee members, floodplain administrators, CRS coordinators and the Lee County PIO to interact with both reporters and assignment editors and respond to their needs. It is designed to push messages that will be useful annually in any storm event. It is important to note that although the media in Lee County saturates the area with storm warning and response information and general safety and preparedness tips, it does not present this information with consistent, action-oriented messages that reflect the NFIP/CRS topics. This event will not simply regurgitate the information in either the Media Hazard Guide or the Lee County All Hazards Guide.

This will be in May at the outset of the June 1-October 31 hurricane season, which is also the local rainy season. In addition to receiving information, editors and reporters can interview local floodplain managers, emergency response staff and PPI Committee members for stock photos and video to be used not only for hurricane and storm preparedness but also for prestorm coverage.

This will heavily urge the media to either link their web sites to the Lee County EOC and jurisdictional flood home pages or to post the recommended flood hazard links on their own web sites. These messages will be delivered, and they will fulfill the Activity 610 requirements:

- 1 – Learn your flood hazard, flood zone and map information;
- 2 – Protect investment in property and contents with flood insurance;
- 3 – Ask your community floodplain manager about flood protection assistance;
- 4 – Get a print or online copy of the Lee County All Hazards Guide;
- 5a – Get a permit before you build;
- 6b – Report blocked ditches, swales and canals;
- 7 – Choose your flood warning system.

Outreach Project 5: The Lee County PIO will produce and distribute an annual Media Hazard Guide with "ready to use" messages, information and maps for every media outlet as well as individual reporters. During a storm event, this prepared information will make it easy for media to access action-oriented, consistent messages, especially those supporting Activity 610 objectives. In addition to communicating the PPI messages, this outreach will also encourage the media to refer its audience to the jurisdictions' web sites, to FloodSmart and other important websites, and floodplain management staff for additional information. It will also encourage the media to post or reprint this information to their own websites and hurricane preparedness guides. The Lee County PIO will produce the guide with input from Lee County Emergency Management staff, floodplain managers and CRS coordinators. This will be done in coordination with May/June hurricane season coverage. Messages are:

- 1 – Learn your flood hazard, flood zone and map information;
- 2 – Protect investment in property and contents with flood insurance;

- 3 – Ask your community floodplain manager about flood protection assistance;
- 4 – Get a print or online copy of the Lee County All Hazards Guide;
- 6b – Report blocked ditches, swales and canals;
- 7 – Choose your flood warning system.

Outreach Project 6: Floodplain managers or CRS coordinators for each jurisdiction will distribute an annual email or letter to real estate and insurance agents, and lenders in June. In addition to communicating the PPI messages, it will also encourage the agents and lenders to post this information on their websites and pass it along to their clients. The messages will include:

- 1 – Learn your flood hazard, flood zone and map information;
- 2 – Protect investment in property and contents with flood insurance;
- 3 – Ask your community floodplain manager about flood protection assistance;
- 4 – Get a print or online copy of the Lee County All Hazards Guide;
- 5c – Before you remodel, learn about flood regulations and building codes;
- 6b – Report blocked ditches, swales and canals;
- 7 – Choose your flood warning system.

Flood Response Projects

The multijurisdictional PPI develops standards for the Flood Response Preparation package that is created annually by the Lee County Emergency Operations Center for distribution by the Lee County Public Information Officer if a flood event occurs. All jurisdictions have input into this package of information. During activation of the Lee County Emergency Operations Center, the Lee County PIO becomes the central spokesperson for the media. Where and when appropriate, however, references to contacts in each of the jurisdictions will be made. This is especially important for post-storm permitting. This information includes messages for broadcast and print media news releases, social media dissemination, and websites.

The chart below lists the messages – labeled as "E" for the flood protection and response communication – and their corresponding CRS topics. It also lists the outcomes – labeled as "O" – expected for these messages.

Flood Protection Messages		
Timing	**Message**	**Outcome**
As the storm or hurricane approaches (pre-storm)	E1 Obey evacuation notices (CRS7 Prepare for Hurricanes)	O1 People willingly and quickly evacuate
	E2 Tell family or friends about your evacuation plans (CRS4 Protect People.)	
	E3 Report blocked ditches, swales and canals (CRS6 Protect Natural Floodplain Functions)	O2 Flooding is reduced
After the storm (post-storm)	E4 Do life-saving and damage mitigation immediately (CRS3 Protect Property) (CRS4 Protect People)	O3 Injury and more serious property damage is mitigated
	Get a permit for permanent repairs. E5 (CRS5 Build Responsibly)	O4 New construction meets code

These are the projects that will deliver these messages:

FRP1 – Pre-storm News Releases: The Lee County Public Information Officer, who is a member of the PPI Committee, will include the E1, E2, E3 messages in all appropriate storm-related news releases.

FRP2 – Social Media Postings: The Lee County Public Information Officer, who is a member of the PPI Committee, will ensure that the E1, E2, E3 messages are included in Facebook, Twitter and all other social media communication prior to the storm.

FRP3 – News Briefings from the EOC: If the EOC is activated during an event, the Lee County Public Information Officer, who is a member of the PPI Committee, will include the E1, E2 messages in all media briefings.

FRP4 – Post-storm News Releases: The Lee County Public Information Officer, who is a member of the PPI Committee, will include the E4, E5 messages in all appropriate storm-related news releases.

FRP5 – Additional web postings: The Floodplain Administrators or CRS Coordinators for each jurisdiction will post additional E4, E5 messages on their permitting web pages. This is very important because the permitting offices of the different jurisdictions may alter their routine permitting processes as a result of the storm event. The storm-related permitting information must clarify these alternate guidelines.

These messages will be disseminated for all events in which the Lee County Emergency Operations Center is in pre-activation – during which the event is continually reviewed to determine whether a full activation is required – or in full activation.

Flood Response Projects					
Timing	**Audience**	Outcome	Message	Project	Assignment
Pre-storm	Media	O1, O2,	E1, E2, E3,	FRP1 Pre-storm news releases	Lee PIO
Pre-storm	Media, all residents and visitors	O1, O2,	E1, E2, E3,	FRP2 Social media postings	Lee PIO
Pre-storm	Media	O1	E1, E2	FRP3 News briefings in the EOC	Lee PIO
Post-storm	Media	O3, O4	E4, E5	FRP4 post-storm News releases	Lee PIO
Post-storm	Residents and owners of damaged property	O3, O4	E4, E5	FRP5 Additional postings on jurisdictions' permitting web pages	Floodplain Administrators or CRS Coordinators for each jurisdiction

Implementation, Monitoring and Evaluation

Floodplain managers and CRS coordinators will document their activities throughout the year. The PPI committee will meet annually no later than April 30 of each year to review those activities, evaluate their success and update the PPI document if necessary. Specific tasks of this implementation include:

- Floodplain managers and CRS coordinators will view Website content monthly to update content and test links.
- Floodplain managers and CRS coordinators will update structure counts and insurance statistics charts each time the NFIP distributes updated, repetitive loss information to any member jurisdiction and/or when new CIS information is available.
- The Lee County PIO will maintain an updated contact list of local media.
- Floodplain managers and CRS coordinators prior to the annual meeting of the PPI Committee will update their contact lists of licensed real estate and insurance agents and lending institutions.
- Floodplain managers and CRS coordinators will prepare a composite annual report to the PPI committee no later than April 30 of each calendar year to attest to accomplishment of the above tasks and will show the tracking of statistical outcomes including, but not limited to:
    - Requests for FIRM information from the jurisdictions;
    - Hits to online zone look-ups and other floodplain management web pages;
    - Number of flood insurance policies in force;
    - Requests for flood protection information and site visits from the jurisdictions, including a notation of which came from the Repetitive Loss outreach projects;
    - Number of printed copies distributed and downloads of the Lee County All Hazards Guide;
    - Violations for unpermitted or non-compliant construction;
    - Construction projects that exceed minimum standards;
    - Violations of unpermitted filling or blocking of natural flowways;
    - Reports of blocked ditches, swales and canals.
- In years when there is a storm event, these will also be tracked as outcomes of the Flood Response Projects. This is especially important because we haven't had enough local flooding to establish a good baseline.
    - Statistics on evacuation, including occupancy of shelters and traffic counts on major highways – if available;
    - General information on the extent of flooding;
    - General information on injuries and property damage;
    - Statistics on flood-related construction and violations for unpermitted work.

After the committee meets to review the year's outreach programs and the results of outcome monitoring, an annual evaluation report will be prepared and sent to the governing board of each jurisdiction. Where the evaluation shows revisions would be productive, such as dropping a project that is not having an effect on the desired outcomes, the committee may vote to adjust the projects accordingly.

Appendix A - PPI Committee Meeting Notes

June 3, 2014 – Organizational meeting, attendance included:

- Bonita Springs: John Gucciardo, Assistant City Manager, and Bob Rosier, Rosier Insurance;
- Cape Coral: Rick Sosnowski, Principal Planner, and Mary Briggs, Lee Memorial Hospital Communications Manager;
- Fort Myers: Brent Brewster, Floodplain Administrator, and Danielle St. Onge, Realtors Association of Greater Fort Myers and The Beach;
- Fort Myers Beach: Josh Overmyer, Floodplain Administrator;
- Lee County: Robert Stewart, Floodplain Administrator, and Robbie Roepstorff, Edison National Bank;
- Sanibel: Laura Wesserling, Deputy Building Official, and Chris Heidrick, Heidrick and Company Insurance.

July 23, 2015 – Discussion of messages, audiences, and potential projects; attendance included:

- Bonita Springs: John Gucciardo, Assistant City Manager, and Bob Rosier, Rosier Insurance;
- Cape Coral: Wyatt Daltry, Principal Planner, and Mary Briggs, Lee Memorial Hospital Communications Manager;
- Fort Myers: Brent Brewster, Floodplain Administrator, and Danielle St. Onge, Realtors Association of Greater Fort Myers and The Beach;
- Fort Myers Beach: Megan Will, Floodplain Administrator, and Dave Anderson, Fort Myers Beach Chamber of Commerce;
- Lee County: Tim Engstrom, Lee County assistant PIO; and Robbie Roepstorff, Edison National Bank; Billie Jacoby, Lee County CRS Coordinator;
- Sanibel: William Dalton, Emergency Management Director, and Chris Heidrick, Heidrick and Company Insurance;
- Also in attendance: Joan LaGuardia, Lee County Administration.

Sept. 15, 2015 – Refinement of messages and projects; discussion of templates; attendance included:

- Bonita Springs: John Gucciardo, Assistant City Manager, and Bob Rosier, Rosier Insurance;
- Cape Coral: Wyatt Daltry, Principal Planner;
- Estero: Marilyn Edwards, resident;
- Fort Myers: Danielle St. Onge, Realtors Association of Greater Fort Myers and The Beach;
- Fort Myers Beach: Megan Will, Floodplain Administrator;
- Lee County: Betsy Clayton, Lee County PIO; Billie Jacoby, Lee County CRS Coordinator; Josh Overmyer, resident;
- Sanibel: Laura Wesserling, Deputy Building Official, and Chris Heidrick, Heidrick and Company Insurance.
- Also in attendance: Joan LaGuardia, Lee County Administration.

Oct. 13, 2015 – Discussion of writing the PPI and designing the projects as alternative outreach options 611 B (5c) for Activity 610 and 362 A (4C) and 362 B (3) for this Activity360; ***final agreement*** of the projects, outcomes and overall approach of the document; attendance included:

- Bonita Springs: Bob Rosier, Rosier Insurance;
- Cape Coral: Wyatt Daltry, Principal Planner;
- Estero: Marilyn Edwards, resident;
- Fort Myers: Danielle St. Onge, Realtors Association of Greater Fort Myers and The Beach;
- Fort Myers Beach: Megan Will, Floodplain Administrator; Dave Anderson, Fort Myers Beach Chamber of Commerce;
- Lee County: Betsy Clayton, Lee County PIO; Billie Jacoby, Lee County CRS Coordinator; Robbie Roepstorff, Edison National Bank;
- Sanibel: Sandy Larsen, Assistant City Engineer; Chris Heidrick, Heidrick and Company Insurance;
- Also in attendance: Joan LaGuardia, Lee County Administration.

Appendix B – At-a-Glance CRS Summary

Project	Audience	Message	Outcome	Schedule	Responsibility
OP 1	Residents in repetitive loss areas	1, 2, 3, 4, 5c, 6b, 7	R1, R2, R3, R4, R5, R6, R9, R10	February	Floodplain manager or CRS coordinator for each jurisdiction
OP2	Non-resident owners of property in the repetitive loss areas	1, 2, 3, 4, 5c, 6a, 7	R1, R2, R3, R4, R5, R6, R8, R10	February	Floodplain manager or CRS coordinator for each jurisdiction
OP3	Permit applicants	1, 2, 4, 5b, 6a, 7	R1, R2, R5, R7, R8, R10	Year-round	Floodplain manager or CRS coordinator for each jurisdiction
OP4	Media	1, 2, 3, 4, 5a, 6b, 7	R1, R2, R3, R4, R5, R6, R9, R10	May	Lee County PIO
OP5	Media	1, 2, 3, 4, 6b, 7	R1, R2, R4, R5, R9, R10	May	Lee County PIO
OP6	Real estate and insurance agents and lenders	1, 2, 3, 4, 5c, 6b, 7	R1, R2, R3, R4, R5, R6, R9, R10	June	Floodplain manager or CRS coordinator for each jurisdiction

Appendix C – CRS Activity 330 Proposed Scoring

	330 Outreach Projects	Topics Covered								
		1. Hazard	2. Insure	3. People	4. Property	5. Build	6. Natural	7. Hurricane	OP	PPI
OP1	RL Residents letter	1	2	3	4	5c	6b	7	✓	✓
OP2	RL Non-resident owners letter	1	2	3	4	5c	6a	7	✓	✓
OP3	Permit applicant brochure	1	2		4	5b	6a	7	✓	✓
OP4	Media briefing	1	2	3	4	5a	6b	7	✓	✓
OP5	Media Hazard Guide	1	2	3	4		6b	7	✓	✓
OP6	Agents email	1	2	3	4	5c	6b	7	✓	✓
	330 Flood Response	Topics Covered								
		1. Hazard	2. Insure	3. People	4. Property	5. Build	6. Natural	7. Hurricane	OP	PPI
FRP1	Pre-storm news releases			E2			E3	E1	✓	✓
FRP2	Social Media postings			E2			E3	E1	✓	✓
FRP3	Media briefings in the EOC			E2				E1	✓	✓
FRP4	Post-storm news releases			E4	E4	E5			✓	✓
FRP5	Additional web postings			E4	E4	E5			✓	✓