VILLAGE OF KEY BISCAYNE

Office of the Village Manager

MEMORANDUM

Village Council
Mayra P. Lindsay, *Mayor*
Franklin H. Caplan, *Vice Mayor*
Luis F. de la Cruz
Theodore Holloway
Michael E. Kelly
Edward London
James S. Taintor

Village Manager
John C. Gilbert

DATE: August 25, 2015

TO: Honorable Mayor and Council Members

FROM: John C. Gilbert, Village Manager

RE: Local Mitigation Strategy

RECOMMENDATION

It is recommended that the Village Council adopt the Local Mitigation Strategy (LMS) as per the attached Resolution. This item is a requirement of the National Flood Insurance Program's Community Rating System (CRS), in which the Village has been participating in since 1998.

BACKGROUND

On May 5, 2015 the Division of Emergency Management in the State of Florida approved the Miami-Dade County LMS plan (attached as Exhibit "A") and instructed that all participating jurisdictions adopt the plan. The adoption of this plan will allow the Village to continue to obtain credit for the CRS recertification and reclassification process and has no fiscal impact to the Village.

The Federal Emergency Management Agency (FEMA) funded a national initiative to help communities develop local mitigation strategies that identify projects to mitigate the effects of natural disasters and to identify sources of funds to address those problems. The LMS serves as a reference tool for those seeking to understand the vulnerabilities that exist within Miami Dade County. This document also benefits Planning and Zoning by facilitating appropriate Comprehensive Development Master Plan update efforts.

The National Flood Insurance Program's (NFIP) Community Rating System (CRS) is a voluntary incentive program that recognizes and encourages community floodplain management activities that exceed the minimum NFIP requirements. Only segments of the plan have been attached hereto. The entire plan is extensive and is available on the Village's website in the document center, under the NFIP-CRS segment, should you wish to review the entire document.

Reviewed by Mr. Pablo A. Tamayo from Weiss Serota Helfman Pastoriza Cole & Boniske as to form and legal sufficiency.

RESOLUTION NO. 2015-

A RESOLUTION OF THE VILLAGE COUNCIL OF THE VILLAGE OF KEY BISCAYNE, FLORIDA, ADOPTING THE 2015 MIAMI-DADE COUNTY LOCAL MITIGATION STRATEGY; AUTHORIZING THE VILLAGE MANAGER TO IDENTIFY AND PRIORITIZE HAZARD MITIGATION GRANT PROGRAM PROJECTS TO BECOME A PART OF THE LOCAL AND STATEWIDE HAZARD MITIGATION STRATEGY; AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, the Federal Emergency Management Agency funded a national initiative to help communities develop local mitigation strategies that identify projects to mitigate the effects of natural disasters and to identify sources of funds to address those problems; and

WHEREAS, the State of Florida Department of Economic Opportunity entered into a contract with Miami-Dade County ("County") to provide the funding for the County and municipalities to jointly develop a Local Mitigation Strategy to become a component of the Statewide Mitigation Strategy; and

WHEREAS, the County entered into agreements with local municipalities to establish a unified process for developing the Local Mitigation Strategy and convey funds for participation in the plan development; and

WHEREAS, the Local Mitigation Strategy meets the State contract requirements and was accomplished with the participation of local governments, the Miami-Dade School Board, and a broad range of private not-for-profit agencies, businesses and universities coordinated by the County Office of Emergency Management; and

WHEREAS, the Village of Key Biscayne ("Village") wishes to participate and adopt the County's 2015 Adopted Local Mitigation Strategy (Exhibit "A"); and

WHEREAS, the Village Council finds this Resolution to be in the best interest and welfare

of the residents of the Village.

NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE VILLAGE OF KEY BISCAYNE, FLORIDA, AS FOLLOWS:

Section 1. **Recitals Adopted.** That each of the recitals stated above is hereby adopted and confirmed.

Section 2. **Adoption of the Miami-Dade County Local Mitigation Strategy.** The Village Council hereby adopts the County 2015 Local Mitigation Strategy, which is attached as Exhibit "A" to this Resolution.

Section 3. **Authorization.** The Village Manager is hereby authorized to identify and prioritize potential mitigation projects to be included within Miami-Dade County's Local Mitigation Strategy Plan.

Section 4. **Effective Date.** This Resolution shall become effective immediately upon adoption hereof.

PASSED AND ADOPTED this ____ day of August, 2015.

_____
MAYOR MAYRA PEÑA LINDSAY

ATTEST:

_____
CONCHITA H. ALVAREZ, MMC, VILLAGE CLERK

APPROVED AS TO FORM AND
LEGAL SUFFICIENCY

_____
VILLAGE ATTORNEY

EXHIBIT "A"

STATE OF FLORIDA

DIVISION OF EMERGENCY MANAGEMENT

RICK SCOTT
Governor

BRYAN W. KOON
Director

May 5, 2015

Ms. Cathie Perkins
Miami-Dade County Local Mitigation Strategy Chair
9300 Northwest 41st Street
Miami, Florida 33178

Re: Miami-Dade County Local Hazard Mitigation Plan Approved Pending Adoption

Dear Ms. Perkins:

This is to confirm that we have completed a State review of the Miami-Dade County Local Mitigation Strategy (LMS) update for compliance with the federal hazard mitigation planning standards contained in 44 CFR 201/6(b)-(d). Based on our review and comments, Miami-Dade County developed and submitted all the necessary plan revisions and our staff has reviewed and approved these revisions. We have determined that the Miami-Dade County LMS plan is compliant with federal standards, subject to formal community adoption, for the jurisdictions below:

Miami-Dade County

Upon submittal of a copy of all participating jurisdictions' documentation of their adoption resolutions to our office, we will send all necessary documentation to the Federal Emergency Management Agency (FEMA) who will issue formal approval of the Miami-Dade County LMS.

If you have any questions regarding this matter, please contact David M. Block at 850-413-9959 or david.block@em.myflorida.com.

Respectfully,

Miles E. Anderson,
Bureau Chief, Mitigation
State Hazard Mitigation Officer

MEA/dmb

Attachments: MEMORADUM: State approval of LMS plans under Program Administration by States (PAS)

Local Mitigation Strategy

LMS
Miami-Dade

Whole Community Hazard Mitigation
Part I: The Strategy

April 2015

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meetings held each year. The LMSWG endorsed this policy unanimously on September 20, 2001. However, any organization may substitute regular participation and attendance on an active LMS committee or subcommittee in lieu of attendance at the quarterly meetings. The agencies that are participating in the LMSWG are identified in *Part 4 Appendix B*.[4]

Municipal Participation
Within Miami-Dade County the following municipalities are active participants of the LMS.

City of Aventura	City of Hialeah Gardens	City of North Miami
Bal Harbour Village	City of Homestead	City of North Miami Beach
Town of Bay Harbor Islands	Village of Key Biscayne •	City of Opa-locka
Village of Biscayne Park	Town of Medley	Village of Palmetto Bay
City of Coral Gables	City of Miami	Village of Pinecrest
Town of Cutler Bay	City of Miami Beach	City of South Miami
City of Doral	City of Miami Gardens	City of Sunny Isles Beach
Village of El Portal	Town of Miami Lakes	Town of Surfside
City of Florida City	Miami Shores Village	City of Sweetwater
Town of Golden Beach	City of Miami Springs	Village of Virginia Gardens
City of Hialeah	City of North Bay Village	City of West Miami

Indian Creek Village opted to leave the LMS and the City of Islandia is no longer considered a municipality.

For simplicity sake of the document, municipalities will be referred to by only the name and not the full title e.g. City of Coral Gables will be referred to as Coral Gables.

LMS Sub-Committees (LMSS-C)

In order to streamline the Working Group's activities, various sub-committees may be formed, each addressing an area of concern as needed. Initially, committees were formed to deal with flooding, evacuations, funding, community education, external policy, agriculture and wildfires. The formation and disbandment of sub-committees is done in correlation with the trending issues that need addressing and participation from the working group members. The current listing of sub-committees may be found in *Part 4 Appendix C*.

[4] EMAP 4.4.2

- **Objective 1.3** Coordinate the impact of development with other jurisdictions to define and implement mutually beneficial goals, ensure consistency among adjacent land uses, and mitigate negative development impacts. This objective shall be made measurable by implementation of its policies.

The City of Hialeah Gardens has a Division of Emergency Management that is managed by Manuel Carrera. Mr. Carrera is responsible for coordinating disaster preparedness, response, recovery, and mitigation concerns for all City departments.

Homestead

City of Homestead Comprehensive Plan	June 2011
Future Land Use Element	
Objective 10: Hurricane Evacuation and Mitigation Ensure that development and redevelopment are consistent with hurricane evacuation plans. Measure 2: Maintain hurricane mitigation measures that are consistent with the Miami-Dade County Local Mitigation Strategy (LMS) and facilitate the approved evacuation plans. **Policy 10.1:** Development orders for new development and redevelopment shall be consistent with local and regional hurricane evacuation plans where applicable. **Policy 10.2**: Mitigate any identified deficiencies in storm damage resistance of critical public facilities and construct new facilities, if needed, to assist in the City's evacuation plans.	
Objective 11: Hazard Mitigation and Post-Disaster Redevelopment To the extent financially feasible, incorporate all prudent hazard mitigation needs and post-disaster redevelopment procedures into the City's capital improvement planning and Land Development Code. Measure: Number of capital improvement projects and/or amendments to the land development code successfully implemented to address hazardous mitigation needs and post disaster redevelopment procedures.	
Hazard Mitigation/ Post-Disaster Redevelopment Element	
Policy 4.3: Participate in the preparation/modification of the 409 Hazard Mitigation Plan.	
Objective 6: Implementation of the Local Mitigation Strategy (LMS) The City continues to work with the Miami-Dade EOC and other government agencies to implement the policies, ordinances and programs outlined in the LMS. Measure: Coordinate efforts with state and county agencies to bring the community together as a single mitigating entity. **Policy 6.1:** Participate in the improvements in the City's standing and classification in the Community Rating System (CRS), with the related consequences of making flood insurance under the National Flood Insurance Program (NFIP) more affordable and reachable, while improving the effectiveness in coping with flood hazards, problems and emergencies. **Policy 6.2:** Disseminate information on a repetitive basis with respect to the existence of flood hazards and the availability of measures to mitigate the problems presented by such hazards. **Policy 6.3:** Increase the level of coordination of mitigation management concerns, plans and activities at all levels of government. **Policy 6.4:** Improve and maintain cutting edge, state-of-the-art, and effectiveness of the City's emergency preparedness and disaster response capacity. Policy 6.5: Continue our commitment to the review, update and implementation of the local hazard mitigation strategy.	

Key Biscayne

The Village of Key Biscayne Office of Emergency Management (OEM) is responsible for coordinating disaster preparedness, response, recovery, and mitigation concerns for all Village departments. This section creates, updates, and administers the Village's Comprehensive Emergency Management Plan (CEMP), which provides the procedures for

the Village's response to all known hazards. The Village adopted the Miami-Dade County CEMP and developed their own municipal CEMP in 2006. This document is currently being updated. The OEM is headed by the Village Fire Rescue Department and collaborates with the members of the Village Administration, and all other Village Departments, and other members of the community. Activities include planning for a wide range of disasters, identifying projects that will mitigate the effects of disasters, and working towards recovery post-disaster.

The Village has a full time Certified Flood Plain Manager who is responsible for the implementation of the Community Rating System (CRS) and NFIP compliance with assistance from a CRS Coordinator and a Consultant. The Village of Key Biscayne has incorporated mitigation into their planning processes to include the following plans:

Village of Key Biscayne Code of Ordinances Plan	**December 2010**
Resolution No. 2010-53: Resolution of the Village Council Adopting the Miami-Dade County Local Mitigation Strategy	
Village of Key Biscayne Code of Ordinances Plan	**February 2014**
Section 30-73-Site Plan Review Procedures Item (f)(6)g: Description of methods to be implemented during construction to mitigate adverse quantity or quality impacts off-site.	
Village of Key Biscayne Comprehensive Emergency Management Plan	**September 2006**
Annex-IV: Recovery H. Hazard Mitigation Plan/Program	
The Village of Key Biscayne has adopted the Miami-Dade County Comprehensive Emergency Management Plan by reference.	
Village of Key Biscayne FMP Annual Progress Report for CRS Annual Recertification	**October 2014**
Progress on FMP implementation, as required in Section X of the FMP, falls within the context of CRS compliance Action Plans followed by the Village. The Action Plan Items are included and tracked through the Miami-Dade County Local Mitigation Strategy (LMS)	
Village of Key Biscayne Stormwater Master Plan Update	**June 2011**
2.3.3: Repetitive Loss Properties One of the activities involved with the Annual NFIP CRS Re-Certification process is the analysis of Repetitive Loss Areas (RLAs). The purpose of the analysis is to determine possible mitigation solutions to minimize the flood claims.	
Village of Key Biscayne Master Plan	**December 2008**
Future Land Use Element	
Objective 2.4 Hurricane Evacuation 9J-5.006 (3) (b) 5 Eliminate or reduce land uses which are inconsistent with applicable interagency hazard mitigation report recommendations and enhance the efforts of the Metro-Dade Office of Emergency Management by providing it with all relevant information. **Policy 2.4.1:** The Village shall regulate all future development within its jurisdiction in accordance with the Future Land Use Map which is consistent with the Interagency Hazard Mitigation Team Report, FEMA 955-DR-FL, August 1992. The Village shall periodically review and revise the Future Land Use Map in light of future interagency hazard mitigation reports in order to reduce or eliminate uses which are inconsistent therewith.	
Infrastructure Element	
Policy 1.1.2 9J-5.011 (2) (c) 1: During the first phase of drainage master plan implementation (to be initiated in 1994), the Village shall begin to mitigate to the extent technically and economically feasible direct stormwater outfalls into the canals and Biscayne Bay. Anticipated improvements include a series of catch basins, manholes and pipes for the collection of the stormwater and routing to pollution control structures and drainage wells	

Village of Key Biscayne Code of Ordinances Plan	December 2010
with emergency overflows. The pollution control devises (grease and oil separator) are to be provided before each drainage well to prevent contamination from entering. Emergency overflow structures are to be constructed at the existing outfalls and would discharge only when the storm events generates more than one inch of runoff. These improvements shall be designed to fully meet the specific standards set forth in Objective 1.1 above.	
Conservation and Coastal Management Element	
Policy 1.3.1: By the date required by state statute or sooner, the Village shall enact and enforce estuarine waterfront protection provisions in the land development code. The provisions will be drafted to assure that all applicable development permit applications are reviewed in the context of the mangrove protection policies of the State DEP and the waterfront policies of DERM. In particular, DERM Class 1 Permits pursuant to Section 24-58 of the Dade County Code shall be required for all construction seaward of the mean high water line. Such construction shall be designed to minimize environmental impacts and mitigate unavoidable impacts. This provision shall be interpreted to protect sensitive lands from sea wall and other related construction, but it shall not be interpreted as permitting construction seaward of the State Coastal Construction Control Line in violation of other policies of this Comprehensive Plan. **Policy 1.7.14:** The Village hereby designates DERM mangrove jurisdictional areas in the Village as environmentally sensitive lands which shall be protected from development unless their ecological value is replaced via mitigation. These DERM areas are mapped in Figure V-1 of the Data and Analysis of this Plan. **Policy 3.3.3:** During post-disaster recovery periods, after damaged areas and infrastructure requiring rehabilitation or redevelopment have been identified, appropriate Village departments shall use the post-disaster redevelopment plan to reduce or eliminate the future exposure of life and property to hurricanes; incorporate recommendations of interagency hazard mitigation reports; analyze and recommended to the Village Council hazard mitigation options for damaged public facilities; and recommend amendments, if required, to the Village Master Plan.	

Medley

Town of Medley Municipal Code of Ordinances	Enacted May 2014
Article V. Provisions for Flood Hazard Reduction	
Sec. 30-71. - General standards. In all areas of special flood hazard, all development sites including new construction and substantial improvements shall be reasonably safe from flooding, and meet the following provisions: (1)New construction and substantial improvements shall be designed or modified and adequately anchored to prevent flotation, collapse, and lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy; (2)Manufactured homes shall be anchored to prevent flotation, collapse, and lateral movement. Methods of anchoring may include, but are not limited to, use of over-the-top or frame ties to ground anchors. This standard shall be in addition to and consistent with applicable State of Florida requirements for resisting wind forces; (3)New construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage; (4)New construction and substantial improvements shall be constructed by methods and practices that minimize flood damage; (5)Electrical, heating, ventilation, plumbing, air conditioning equipment and other service facilities, including duct work, shall be designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding;	

Local Mitigation Strategy

LMS
Miami-Dade

Whole Community Hazard Mitigation
Part 2: The Projects

March 2015

Appendix 3– Project List

This list is maintained in WebEOC and updated by the individual agencies upon request by the LMS Coordinator, two times a year by June 30 and December 31, respectively. The updated lists are published in July and January every year. The WebEOC LMS Board will be used to pull current information as needed. The county, municipalities and all other members of the LMS Working Group reserve the right to, at any time, add to, delete from and in other ways change the order of priorities presented here. All entities participating in this program have agreed to undertake these initiatives, as necessary.[3]

[3] EMAP 4.4.2

Jurisdiction	Agency Responsible	Project Title	Project Description	Hazards	Identified Funding Source	Potential Grant Source	Estimated Costs	BCR	New Projects Date Added	Status	Completion Timeframe
Hospital/Medical	Mount Sinai	Elevate Seawall	Raise Mount Sinai's bayfront seawall, protect the infatructure including perimeter road and drainage from the effects of flooding and sea level rise.	Flood	Identified Grant Source	Mitigation Grant	3,000,000.00	0		Funding Applied for	unknown
Hospital/Medical	Mount Sinai	Energy Center 1	Relocate generators into a hurricane rated enclosure above storm surge within the Energy facility to mitigate the effects of high velocity wind, storm surge and flooding events.	Power Failure,Flood,Flood/Storm Surge,Health,Wind	Grant Awarded	Mitigation Grant	8,994,838.00	95		Project in Planning Stage	less than 6 months
Hospital/Medical	Mount Sinai	Energy Center 2	Retrofit the Energy facility with code plus wind, storm surge and flood enhancements above the current Florida building code standards.	Wind,Flood,Flood/Storm Surge,Health,Power Failure	Grant Awarded	Mitigation Grant	3,964,239.00	95		Project in Planning Stage	less than 6 months
Hospital/Medical	Mount Sinai	Greenspan Roof and Enclosures	Remove roof and replace all roof top enclosures with Miami-Dade County Hurricane Zone rated systems.	Wind	Grant Applied For	,HMGP Hazard Mitigation Grant Program	300,000.00	0		Funding Applied for	unknown
Hospital/Medical	Mount Sinai	Harden Aventura Emergency Room Buildings	Harden Mount Sinai Avenutra and Emergency Room including installing hurricane rated walls, windows, doors, concrete, stairwell pressurization and other systems to protect against high velocity, floor and storm surge events.	Wind	unknown	Mitigation Grant	950,000.00	0		Future Unfunded Project	unknown
Hospital/Medical	Mount Sinai	Harden Child Care Building	Harden the Child Care Building including installing hurricane rated walls, windows, doors, EIFS, stairwell pressurization and other systems to protect against high velocity wind, floor and storm surge events.	Wind	unknown	Mitigation Grant	750,000.00	0		Future Unfunded Project	unknown
Hospital/Medical	Mount Sinai	Harden Knight MRI/Wien Center Building	Harden the Knight Buildings including installing hurricane rated walls, windows, doors, EIFS, stairwell pressurization and other systems to protect against high velocity wind, floor and storm surge events and to raise valuable equipment.	Wind	unknown	Mitigation Grant	3,750,000.00	0		Future Unfunded Project	unknown
Hospital/Medical	Mount Sinai	Harden Research and Education Building	Harden the Education and Research Buildings including installing hurricane rated walls, windows, doors, EIFS, stairwell pressurization and other systems to protect against high velocity wind , floor and storm surge events.	Flood/Storm Surge,Flood,Health,Power Failure,Sea Level Rise,Security Breach,Storm Surge,Wind	unknown	Mitigation Grant	750,000.00	0		Future Unfunded Project	unknown
Hospital/Medical	Mount Sinai	Mitigate Storm Drainage	Mitigate the effects of storm surge and flooding by installing new drainage structures from buildings through surface lots, milling and resurfacing pavement to graduate surfaces and aid gravity water removal	Flood/Storm Surge	Identified Grant Source	Mitigation Grant	950,000.00	0		Project in Planning Stage	unknown
Hospital/Medical	Mount Sinai	Mitigate the Impact of Storm Surge	Install trunk line for necessary drainage	Flood/Storm Surge	unknown	Mitigation Grant	950,000.00	0		Future Unfunded Project	unknown
Hospital/Medical	Mount Sinai	Protect Critical Services	Relocate critical services to above flood level locations.	Flood	unknown	Mitigation Grant	2,000,000.00	0		Construction/Project Begun	unknown
Hospital/Medical	Mount Sinai	Protect Satellite Locations	Harden the Primary Care Satellite Building including installing hurricane rated walls, windows, doors, EIFS, stairwell pressurization and other systems to protect against high velocity wind, floor and storm surge events and to raise valuable equipment.	Wind	unknown	Mitigation Grant	1,450,000.00	0		Future Unfunded Project	unknown
Hospital/Medical	Mount Sinai	Protect the Cooling Towers	Air conditioning is essential for acute care patient safety, stemming the spread of infection and preventing frail patients - such as newborns and elderly. Protect the existing cooling towers by elevating and/or reinforcing them for flood and wind hazard.	Multiple (specify in comments Column T)	Other Internal Funding	Not Applicable	3,000,000.00	0		Project in Planning Stage	unknown
Hospital/Medical	Mount Sinai	Protect the Energy Center Facility Chillers	Retrofit and harden the Energy facility chillers to protect the supply of medically necessary A/C in the event of natural disaster.	All Hazards	Other Internal Funding	Not Applicable	2,000,000.00	0		Project in Planning Stage	unknown
Hospital/Medical	Mount Sinai	Protect the Oxygen Supply for the ER	Retrofit the Oxygen supply and redundant centralized ER energy supply with code plus wind, storm surge and flood enhancements above the current Florida building code standards.	Wind	unknown	,CDBG Community Development Block Grants/ Entitlement Grants,Disaster Recovery Initiative,HMGP Hazard Mitigation Grant Program,CDBG - Community Development Block Grant	1,300,000.00	81		Future Unfunded Project	> 1 year
Hospital/Medical	Mount Sinai	Protect the Power Supply	Purchase of 12 synchronized generators to protect the patient power supply.	Power Failure,Health	Grant Awarded	,Grants and Loans for Public Works & Development Facilities	5,000,000.00	92		Funding Secured	6 mos to 1 year
Hospital/Medical	Mount Sinai	Relocate Operating Rooms	Relocate operating rooms, contents, equipment and critical functions from ground floor to wind rated protective above ground addition.	Wind	unknown	Mitigation Grant	16,500,000.00	0		Future Unfunded Project	unknown
Hospital/Medical	Mount Sinai	Utility Bridge and Power Distribution	Provide hurricane rated structures to protect all redundant power equipment and ensure its connection to the central energy plant.	Wind,Flood/Storm Surge,Flood,Health,Power Failure,Technological Disruption,Other	Grant Awarded	,HMGP Hazard Mitigation Grant Program	7,351,169.00	93		Project in Planning Stage	less than 6 months
Key Biscayne	Key Biscayne	Additional Training	The Key Biscayne Fire Department will provide additional emergency management training to all Fire Department personnel to achieve Incident Command System (ICS) 300 and 400 levels. These courses are provided by the Emergency Management Institute (EMI) for free in Maryland. The ICS-300 Course is the Intermediate ICS for Expanding Incidents which provides training and resources for personnel who require advanced knowledge and application of the ICS, expanding on information covered in the ICS-100 and ICS-200 courses. The ICS-400 Advanced ICS course expands on the ICS 100 through ICS 300 courses offering advanced application of ICS. Estimated cost per attendant per week	Multiple	Unknown/None	Mitigation Grant	2,500.00	73	11/11/2014	Future Unfunded Project	24 months

Jurisdiction	Agency Responsible	Project Title	Project Description	Hazards	Identified Funding Source	Potential Grant Source	Estimated Costs	BCR	New Projects Date Added	Status	Completion Timeframe
Key Biscayne	Key Biscayne	CERT Readiness	The Community Emergency Response Team (CERT) is a readiness program which provides training in basic emergency response to the local residents and business owners immediately following a disaster prior to receipt of professional assistance. The program educates a community about natural and man-made disaster preparedness. The training consists of basic first aid, maintenance of traffic safety, utilities safety, rescue operations and other. The program requires the Village to have training personnel, outreach to community, registration, administrative assistance, conduct classes, and provide refresher training annually.	,Flood,Power Failure,Sea Level Rise,Health,Flood/Storm Surge,Technological Disruption,Wild Fire,Wind	Unknown/None	Mitigation Grant	150,000.00	76	11/11/2014	Future Unfunded Project	12 months
Key Biscayne	Key Biscayne	Coastal Dune Vegetation	As a coastal community, the dune system in the Village of Key Biscayne is the first line of defense against storms. A maintenance program is in place to maintain a healthy dune system by ensuring only native vegetation is present. The root system of native vegetation is extensive and strong. It acts as a securing mechanism for the sand and prevents beach erosion. The removal of exotics and replanting project was completed in September, 2014, when 1,800 square yards of exotic species named Scavola Frutescens (Hawaiian seagrapes) were removed. Re-vegetation resulted in the re-planting of 2,500 Sea Oats. The Village will continue to monitor the vegetation on an annual basis to identify any exotic vegetation and plan the replanting with native species. Next inspection is scheduled for July 2015.	,Flood,Flood/Storm Surge,Storm Surge,Wind,Other	Other Internal Funding	Not Applicable	10,000.00	78	11/12/2014	Funding Secured	12 months
Key Biscayne	Key Biscayne	Comprehensive Review of Local Laws and Regulations	Those Local Regulations pertaining to the mitigation of hurricane and flooding hazards were evaluated and updated, including analysis of issues, for opportunities and formulation of proposals with respect to the existing provisions related to Base Flood Elevations, Substantial Improvements, Flood Insurance Rate Maps (FIRM) and the consideration of a Freeboard Regulation.	Flood	Other Internal Funding	Not Applicable	5,000.00	0		75% complete	2014
Key Biscayne	Key Biscayne	CRS Outreach Program	This project involves establishing a community outreach program to comply with Community Rating System (CRS) requirements under Activity 330.	Flood/Storm Surge	Other Internal Funding	Not Applicable	10,000.00	0		Project in Planning Stage	2014
Key Biscayne	Key Biscayne	Drainage Improvements on East Heather Drive	This project is the recommended alternative resulting from the Stormwater Master Plan Update 2010. The problem area studied in detail involved the flooding in the vicinity of the East Heather Drive between Crandon Blvd and Ocean Drive. Conveyance testing on existing drainage wells in the Village has shown to be very effective. Therefore, this proposes installation of three (3) drainage wells to be located along the intersections of East Heather Drive and Caribbean, Gulf and Pacific Roads.	Flood	Other Internal Funding	Not Applicable	839,225.00	0		Project in Planning Stage	2014
Key Biscayne	Key Biscayne	Drainage Improvements on Fernwood Road & Hampton Road	This project proposes the installation of a drainage well near the corner of West Enid Drive and Ridgewood Road. This would allow the flood waters that would otherwise back-up along the Hampton Road repetitive loss properties a new path to exit the drainage system.	Flood	Other Internal Funding	Not Applicable	465,275.00	0		Funding Secured	2015
Key Biscayne	Key Biscayne	Elevate Repetitive Loss Properties	Elevate existing foundation, to base flood elevation (BFE), of seven (7) houses along East Drive south of Key Colony. Estimated Cost per individual residence ranges from $250K to $1.1 million	,Flood,Flood/Storm Surge,Storm Surge	Unknown/None	Mitigation Grant	1,100,000.00	59	11/12/2014	Future Unfunded Project	5 years
Key Biscayne	Key Biscayne	Emergency Operation Center	This location already acts as the center of emergency operations since it houses the life-saving rescue equipment, vehicles, personnel, communications systems, etc. to respond to emergency events. However, the current facility does not have a "hardened room" or "safe room" from where to operate in case of a major hurricane, tornado, or other life-threatening hazard. A modification to the existing structure requiring hardening and structural retrofits to meet the minimum regulatory requirements to withstand major hurricanes of Category 4 or 5 would be necessary. The project would involve identification of location and creation of a no-window safe room with concrete block walls and all related electrical wiring for emergency communication equipment to maintain	,Power Failure,Technological Disruption,Security Breach,Wind,Flood/Storm Surge	Unknown/None	Mitigation Grant	35,000.00	77	11/11/2014	Future Unfunded Project	30 months
Key Biscayne	Key Biscayne	Envrionmental Forum	The programs includes continued participatioin at Miami-Dade County LMS meetings, Floodplain Roundtable Discussions, Hurricane Conferences, FDEP and FEMA training seminars and others.	Other	Other Internal Funding	Not Applicable	10,000.00	0		Other	2014
Key Biscayne	Key Biscayne	Erosion Control Web Q&A and Response System	This project involves establishing a standard operating procedure for inspection program, focused on construction sites, as well as public areas within the village, to assure that policies and regulations with respect to erosion and sedimentation control are effectively followed and enforced, as per NPDES regulation requirements.	Multiple	Other Internal Funding	Not Applicable	10,000.00	0		Project in Planning Stage	2014
Key Biscayne	Key Biscayne	Feasibility Study for Additional open Space Preservation	Revised since no longer study. Land has been identified for potential open space	Other	Other Internal Funding	Not Applicable	35,000.00	0		Other	2014
Key Biscayne	Key Biscayne	Flap Gates at Outfalls	This project is one of the alternatives resulting from the Stormwater Master Plan Update 2010. A total of 16 flap gates at the outfalls are proposed to reduce the impact of high tide conditions for those periodic events that coincide with an inland storm event. The gates could help prevent the inflow of seawater in the conveyance system, thereby allowing stormwater runoff on the island to enter the stormsewer system instead of ponding on private property and public right of ways.	Flood	Other Internal Funding	Not Applicable	626,700.00	0		Funding Secured	2018
Key Biscayne	Key Biscayne	Hardening of Village Hall Generator	This project involves enhancing hazard protection by installing storm proof shutters and doors to protect the existing generator structure adjacent to the Village Hall. This generator is currently exposed and can be damaged or destroyed during a severe storm event. The generator is essential to providing emergency power to the Village Police Department.	Wind	Unknown/None	Mitigation Grant	200,000.00	47		Future Unfunded Project	2018
Key Biscayne	Key Biscayne	New Stormwater Outfall Construction	This project proposes construction of 1,800 LF of 18-inch RCP stormwater outfall with associated relining of piping leading to outfall as part of the drainage improvement plan to mitigate the repetitive flood claims at 24 Crandon Boulevard.	Multiple	Unknown/None	Mitigation Grant	210,000.00	0		Funding Secured	2015
Key Biscayne	Key Biscayne	Purchase of Emergency Vehicles	During a flood event, the expensive emergency vehicles are limited in their response effort due to vehicle height and the depth of flooding. Purchase of two (2) to four (4) raised vehicles would improve level of service and response time. The vehicles can be gasoline or diesel fueled with emergency lights, sirens, and have 4x4 capability with 32-inch to 35-inch tires at a minimum. Estimated Cost is based per vehicle.	,Health,Security Breach,Storm Surge,Flood/Storm Surge	Unknown/None	Mitigation Grant	75,000.00	70	11/11/2014	Future Unfunded Project	24 months

Jurisdiction	Agency Responsible	Project Title	Project Description	Hazards	Identified Funding Source	Potential Grant Source	Estimated Costs	BCR	New Projects Date Added	Status	Completion Timeframe
Key Biscayne	Key Biscayne	Reverse 911 Community Notification System	During emergency conditions such as hurricanes, tornadoes, floods, the Village relies on several media for public warning dissemination. The Village will purchase and install the Reverse 911 Community Notification System to supplement the current procedures available to Village emergency operators. This system will augment the speed of message delivery through use of the existing phone system and maximize the number of message recipients during an emergency event to ensure the Villages 12,000+/- citizens receive the life-saving instructions. Estimate cost includes dispatcher's salaries.	,Technological Disruption	Unknown/None	Mitigation Grant	105,000.00	73	11/11/2014	Future Unfunded Project	24 Months
Key Biscayne	Key Biscayne	Stormwater outfall Rehabilitation	This project proposed rehabilitation of 175 LF of 12-inch RCP stormwater outfall with associated relining of piping leading to outfall due to deterioration from salinity.	Multiple	Other Internal Funding	Not Applicable	50,000.00	0		75% complete	2013
Key Biscayne	Key Biscayne	Traffic Signage & Pavement Marking Improvements Master plan	This project will propose improvements to existing signage and pavement markings throughout the Village in order to provide consistency for safety of all pedestrian traffic including ADA compliance, pedestrians, bicyclists, strollers and golf cart users.	Other	Capital Improvement	Not Applicable	40,000.00	0		25% complete	2015
Key Biscayne	Key Biscayne	Village K-8 Center Stormwater Pump Station	The area around the Key Biscayne K-8 learning center has endured chronic flooding throughout the years. Due to budget constraints two (2) gravity wells are being designed and installed to alleviate some of the flooding at the southwest corner of the school and the other at the northeast area. A new pump station at the northeast corner of the school is the preferred option within an existing utility easement. The well at the northeast end will be installed such that it can be converted to an injection well in the future and connected to the future pump station.	,Flood,Flood/Storm Surge,Sea Level Rise,Storm Surge	Other Internal Funding	,HMGP Hazard Mitigation Grant Program	350,000.00	70	11/12/2014	Project in Planning Stage	30 Months
Medley	Medley	Drainage Improvements Phase I	1.Intersection of N.W. South River Drive and N.W. 109th Street - new drainage installation and concrete paving for flood prone area. These improvements will include design and construction. Estimated construction cost of $190,000.00.	,Flood,Health	Unknown/None	Mitigation Grant	190,000.00	97	7/8/2014	Project in Planning Stage	Unknown
Medley	Medley	Drainage Improvements Phase II	N.W. 102nd Street (from N.W. 95th Avenue to FEC Railway right-of-way, and N. W. 104th Street from N.W. 95th Avenue to FEC Railway right-of-way). Drainage installation and paving of flood prone area. Estimated construction cost of $450,000.00.	,Flood,Health,Power Failure	Unknown/None	Mitigation Grant	450,000.00	96	7/8/2014	Project in Planning Stage	Unknown
Medley	Medley	Drainage Improvements Phase III	N.W. 91st Court (from N.W. 100th Street to N.W. 101st Street). Drainage installation and paving of low-to-moderate income community that is prone to flooding during rain events. This project is needed to improve the improper and undersized system. Estimated construction cost of $270,000.00.	,Flood,Health	Unknown/None	Mitigation Grant	270,000.00	100	7/8/2014	Project in Planning Stage	3 years
Medley	Medley	Drainage Improvements Phase IV	N.W. 96th Street (from its intersection with N.W. 89th Avenue to its terminus, and N.W. 97th Street from its intersection with N. W. 89th Avenue to its terminus). Drainage installation and paving for low-income community with severe flooding due to rain events. Estimated construction cost of $900,000.00.	,Flood,Health,Power Failure	Unknown/None	Mitigation Grant	900,000.00	100	7/8/2014	Project in Planning Stage	Unknown
Medley	Medley	Flood Mitigation Area South	Design and Construction of interconnected drainage system, cross drains to provide much needed protection from flooding events during periods of light to normal rain.	,Flood	Grant Applied For	Mitigation Grant	2,300,000.00	88	11/20/2014	Project in Planning Stage	2017
Medley	Medley	Medley Public Services Facilities Strengthening	Strengthening of Public Services Building	,Wind,Flood	Unknown/None	Mitigation Grant	800,000.00	84	11/20/2014	Future Unfunded Project	Unknown
Medley	Medley	NW South River Drive Drainage Improvements	Drainage improvements for this flood prone area.	,Flood,Wind	unkown	Mitigation Grant	2,000,000.00	98	11/20/2014	Project in Planning Stage	Unknown
Medley	Medley	Paving & Drainage Improvements	1.Intersection of N.W. South River Drive and N.W. 109th Street - new drainage installation and concrete paving. Estimated construction cost of $190,000.00. 2. N.W. 102nd Street (from N.W. 95th Avenue to FEC Railway right-of-way, and N. W. 104th Street from N.W. 95th Avenue to FEC Railway right-of-way). Drainage installation and paving. Estimated construction cost of $450,000.00. 3.N.W. 91st Court (from N.W. 100th Street to N.W. 101st Street). Drainage installation and paving. Estimated construction cost of $270,000.00. 4. N.W. 96th Street (from its intersection with N.W. 89th Avenue to its terminus, and N.W. 97th street from its intersection with N. W. 89th Avenue to its terminus). Drainage installation and paving. Estimated construction	,Flood,Health,Power Failure	Unknown/None	Mitigation Grant	1,810,000.00	96	7/8/2014	Project in Planning Stage	> 1 year
Medley	Medley	Russian Colony Canal Bank Stabilization	Canal Bank Stabilization along North side of NW 106 Street	,Flood	Unknown/None	Mitigation Grant	2,000,000.00	92	11/20/2014	Future Unfunded Project	Unknown
Medley	Medley	Tobie Wilson Park Flood Proofing & Strengthening	Flood Proofing and strengthening of facility	,Flood	unknown	Mitigation Grant	800,000.00	90	11/20/2014	Future Unfunded Project	2 years
Medley	Medley	Town Hall Building Strengthening	Town Hall Building Strengthening through Impact Windows, Second Floor Backyard and Community Safe Room	,Flood	Unknown/None	Mitigation Grant	800,000.00	96	11/20/2014	Future Unfunded Project	3 years
Miami	Miami	77: S. Miami Ave and Side Street Drainage Improvements	This project will provide drainage improvements for the area approximately bounded by I-95 and East Coast Greenway, S. Miami Ave., SW 16 Rd., and SW 25 Rd. The new drainage facilities will include but may not be limited to a combination of exfiltration drains, deep drainage wells, and storm water pump station(s). Road improvements include milling and resurfacing, reconstruction, new or repair sidewalks, curb and gutter, ADA ramps, re-grade or re-sodding swale areas, repair or replace damaged or disfigured traffic signs, and tree plantings	Flood/Storm Surge	Capital Improvement	,Public Assistance Program,HMGP Hazard Mitigation Grant Program,PDM - FEMA Pre-Disaster Mitigation Grant Program	3,500,000.00	69		Future Unfunded Project	Unknown
Miami	Miami	Acquire Portable Pumps and Generators	Trailer-mounted portable pumps are needed to remove floodwaters during and after major storms. The City's Public Works Department has recently acquired four (4) portable trailer mounted pumps (6 inch suction pipe). In addition portable generators are needed to supply power to tools that are used in a variety of applications following a disaster. The city has identified a need for six of these portable generators.	Flood/Storm Surge	Capital Improvement	,HMGP Hazard Mitigation Grant Program,PDM - FEMA Pre-Disaster Mitigation Grant Program	70,000.00	79		Future Unfunded Project	Unknown
Miami	Miami	Anchor Park Fixtures	This project would replace unsecured park furnishings, such as tables and chairs, with permanently installed ones, such as those with concrete footings. This would help prevent damages caused by high winds and water that could mobilize these items, causing unnecessary damage to people and property.	All Hazards	Identified Grant Source	,PDM - FEMA Pre-Disaster Mitigation Grant Program	150,000.00	87		Future Unfunded Project	Unknown