

# Local Mitigation Strategy

**LMS**  
Miami-Dade



## Whole Community Hazard Mitigation Part 2: The Projects



November 2014

*This page left intentionally blank.*

**TABLE OF CONTENTS**

**INTRODUCTION ..... 1**

**METHODOLOGY ..... 1**

**PROJECT SUBMITTAL AND TRACKING..... 1**

**PROJECT REQUIREMENTS..... 1**

**UPDATES AND REPORTS ..... 3**

**PROJECT ADMINISTRATION AND IMPLEMENTATION ..... 3**

**LETTERS OF SUPPORT ..... 4**

**PROJECT ARCHIVING ..... 4**

**PROJECT DELETION ..... 4**

**PRIORITIZING MITIGATION INITIATIVES..... 5**

**APPENDIX 1– SAMPLE PROJECT ..... 11**

**APPENDIX 2– PROJECT LIST ..... 13**

*This page left intentionally blank.*

## INTRODUCTION

Part 2 of the Miami-Dade Local Mitigation Strategy (LMS) – The Projects – is a compilation of projects identified by Working Group members for mitigation measures/actions they have completed, are pursuing or one day hope to implement and how they are submitted, tracked, maintained and prioritized.

## METHODOLOGY

Over the years the listing of LMS projects have shifted from primarily being a tool to identify unfunded projects with hopes of securing mitigation grants to a tool to identify any project a stakeholder is implementing or hopes to implement that will make our community more resilient. We are utilizing the LMS to showcase the work being performed and the projects envisioned to lessen the impacts of disasters on our communities.

### Project Submittal and Tracking

In 2013 a web-based LMS Project board was developed in our incident tracking software known as WebEOC. This system allows LMSWG members to input new projects and update existing projects at any time throughout the year. The LMS Coordinator is responsible for the review of the projects and providing an update the State of Florida every January. The LMS Coordinator will post an update of the current list of projects every January and July on the LMS website - <http://www.miami-dade.gov/fire/mitigation.asp>

It is the responsibility of the LMSWG members that post projects to ensure the projects are compliant with the local and FEMA requirements identified below. The LMS Coordinator may also require additional information. Agencies with projects will be notified of any additional requirements and when possible provided six months to come into compliance.

### Project Requirements

Below is a list of the project fields and identification of requirement:

Project List Field	Level of Requirement	Comments
Agency Type	Local Requirement	Must be utilized to tie project to agency
Agency	Local and FEMA Requirement	Must be utilized to tie project to agency
Project Title	FEMA Requirement	Satisfies Name and Description
Entry type	FEMA Requirement	Satisfies New, Deferred, Completed or Deleted
Original Date of Entry	Default	Identifies when the project was first put in the LMS Project list.

Project List Field	Level of Requirement	Comments
Last Updated	Default	Identifies last date of update. If an agency fails to review and update projects on an annual basis they can be made inactive.
Hazard	Local Requirement	Allows us to sort hazard type for potential funding and identify flood projects in support of Part 7
Project Type	Local Requirement	Allows us to sort for funding options by type of project
Mapper Label	Not Required at this time	For future use for mapping
Address	Local Requirement	Will allow us to geo-code and map projects
Longitude and Latitude	Local Suggestions	Will aid in future mapping of projects
Flood Basin	Local Requirement for Flood projects, Local Suggestion for ALL projects	Allows us to identify where mitigation projects for flooding have been identified and facilitate additional coordination and mapping. May assist with showing effectiveness of mitigation projects after significant rain events.
Completion Time Frame	FEMA Requirement	If a project is unfunded provide your best estimation as to when this project could be completed.
Mitigation Goals	Local Requirement	Shows alignment with LMS
Funding Source	FEMA Requirement	FEMA lists this a potential funding source, we split this to also identify internal funding sources or potential grant sources
Grant Source (Potential or secured)		
Is a Match Required	Local Requirement	May assist us with identifying projects for global match opportunities
Match Identified	Local Requirement	
Estimated Costs	Local Requirement	We are required to include this in the County Annual report.
Global Match	Local Requirement	Identifies if the project may be able to be used a global match for another project in need of a match
Project Description	FEMA Requirement	
Comments	Reserved for additional notations	LMS Coordinator notates and changes or requests for letters of support in this area.
Attachments	Local Suggestion	Allows the agency to place supporting documents in the database with the record.
Name, Email and Phone	Local Requirement	Allows LMS Coordinator to contact POC directly regarding projects
BCA Completed and BCA score	Required only when funding source requires this information.	Must be completed if a letter of support is requested and the funding source requires it.
Self-Prioritization	Local Requirement	Identifies agency priorities.
Benefit Cost Review	FEMA Requirement	Provides a score based on Suitability, Risk Reduction and Cost and Time.

The LMS Coordinator, will, as able, notify the point of contact for projects that may be missing information. The LMS Coordinator will utilize the information provided to develop documents and other supporting documents such as maps to track mitigation projects.

The projects are listed in this document in a table format which is an abridged version of the full project description maintained in the WebEOC LMS Board. Additional information on listed projects is available to all stakeholders with project accounts. Anyone wishing to have an account to add or review projects should make a request to the LMS Coordinator at [mdlms@miamidade.gov](mailto:mdlms@miamidade.gov) or 305-468-5429.

## **Updates and Reports**

As stated in Part 1, the LMS is updated on an annual basis and as part of a regular update and monitoring process. An annual update of the LMS is provided to the State by January 31<sup>st</sup> every year and the documents are subsequently posted on the local website. To keep the project list updated, agencies with listed projects are requested to review and update them within WebEOC on a semi-annual basis by June 30 and December 31 respectively. *Part 2* of the LMS will be updated on the website in January and July, following a review of the updates by the LMS Coordinator.

In October every year the LMS Coordinator is required to provide a report to Miami-Dade Fire Rescue as part of the Department's Annual Preparedness Report that is submitted to the County Mayor. The LMS Coordinator compiles information on projects that have been completed, are under construction, or are funded but not yet started since the previous year's report. This information is derived from the LMS Project list and is another way to showcase on an annual basis the progressive mitigation work being accomplished.

At all times, the latest published version of the LMS will be posted on the Miami-Dade County Internet website – <http://www.miamidade.gov/fire/mitigation.asp> – for public review and commentary. Any comments received through this medium will be incorporated through the revision process identified in *Part 1*. An email address, [mdlms@miamidade.gov](mailto:mdlms@miamidade.gov), has been established for such commentary, which is strongly encouraged.

The projects are listed in this document in Appendix 2 in a table format which is an abridged version of the full project description maintained in the WebEOC LMS Board. Appendix 1 shows a sample project as it is found in the WebEOC LMS Board. Additional information on listed projects is available to all stakeholders with project accounts. Anyone wishing to have an account to add or review projects should make a request to the LMS Coordinator at [mdlms@miamidade.gov](mailto:mdlms@miamidade.gov) or 305-468-5429.

## **Project Administration and Implementation**

The projects listed in Appendix 2 reflect the mitigation initiatives identified by members of the LMS Working Group. The initiator of the projects will be responsible for implementation and administration. Due to the variable nature of procurement and con-

tracting procedures; availability of resources; and weather conditions, accurate implementation timelines are difficult to predict. Therefore, implementation timelines may not be developed for some projects until a funding source is identified and the factors above can be determined relative to the prevailing operating environment. Grant requirements may also dictate project implementation timelines for the appropriate recipient. If the project is funded through a grant, the grantee is responsible for implementing these projects as outlined in the grant's regulations.

## **Letters of Support**

The LMS Coordinator will write a letter of support for grant opportunities when a listed project has all of the required information provided. The LMS Coordinator will notify the requestor, if additional information is needed to be added to the project in order for a letter of support to be provided. Requests for letters must, at a minimum, be requested 10 working days in advance of the required deadline. Late requests may not be able to be facilitated. The LMS Coordinator will make notations in the Comments section as to date and action taken.

The agency requesting a letter of support must be an active participant of the LMS, meaning they comply with the requirements set forth in *Part 1* of the LMS. Currently the requirement is that they must attend at least two of the four quarterly meetings held each year or an equivalent committee or sub-committee meeting as a substitution.

## **Project Archiving**

The LMS Coordinator will archive a project once it has been marked as completed by the stakeholder. The LMS Coordinator will review the project file to ensure that all information has been included before it is officially archived. Archiving it will move it from the Active projects view to the Archive view. The LMS Coordinator will make notations in the Comments section as to date and action taken.

## **Project Deletion**

From time to time stakeholders may wish to delete a project from the Project List. The LMS Coordinator will review any project that has been identified for deletion and call to discuss the project with the point of contact to verify that this is the desired action. Sometimes it may be better to make a project Inactive rather than completely delete it, in case it may be a project that may be revisited at a later date. If the project is truly desired to be deleted the LMS Coordinator will send a confirmation email to the point of contact that this action has occurred.

## **PRIORITIZING MITIGATION INITIATIVES**

Once the vulnerability assessment and risk analysis are complete and the hazard mitigation opportunities have been identified, proper priorities must be established concerning each proposed project's impact on life safety, on quality of life, cost effectiveness and value to the overall community including but, by no means limited to, value as compared to other similar projects especially during times of limited funding availability. The Miami-Dade Office of Emergency Management is responsible for soliciting, securing, evaluating, and generally acting as the technical & administrative staff for the management of the prioritization process and for the coordination of the implementation of initiatives selected for priority treatment.

The prioritization process has been divided into three parameters: suitability, risk reduction potential and cost. Within each parameter are recommended measures to be considered during prioritization of the project. This process is known as the Benefit Cost Review (BCR) and was updated in October 2013. Table 1 is the BCR that is utilized within the WebEOC LMS Board to meet the prioritization process requirement. Each agency when they add a project to the LMS Project List is required, as of June 31, 2014, to complete a self-prioritization process.

It is important to note that this will be one level of consideration when limited funding sources are available to fund projects in Miami-Dade County. Other considerations include but are not limited to:

- criteria of the available funding source
- overall cost of a project in relation to the total monies available
- readiness of projects for submittal
- ability to meet any match obligations
- ability of project to be completed within any designated grant period
- evaluation of other current and future mitigation funding opportunities
- review of other current or impending mitigation measures that when combined may provide a more comprehensive, community or countywide resiliency

There may be situations when the window for a funding opportunity is very limited and in situations like this, projects that are "shelf-ready" may be put ahead of projects that may have a higher priority. The LMS Steering Committee will work to maximize opportunities for funding and will be called upon by the LMS Coordinator when circumstances arise that require additional considerations to be made.

The LMS Coordinator or designated representative will act as the committee facilitator. The committee's primary function will be to review and act on recommendations with respect to its evaluation of mitigation initiatives and its ranking of the priorities for their implementation.

**Table 1: Miami-Dade LMS Project Benefit Cost Review**

<b>Initiative Being Scored:</b>					
<b>Name of Applicant:</b>					
<b>Project Cost:</b>					
<b>Parameter</b>		<b>Weighting Factor</b>	<b>Scoring Criteria</b>	<b>Score</b>	<b>Points</b>
<b>Suitability</b>		<b>30%</b>			
1	Appropriateness of the Measure	35%	<p><b>5 - High:</b> Reduces vulnerability and is consistent with Local Mitigation Strategy (LMS) goals and plans for future growth.</p> <p><b>3 - Medium:</b> Needed, but does not tie to identified vulnerability.</p> <p><b>0 - Low:</b> Inconsistent with LMS goals or plans.</p>		
2	Vulnerability to Hazards	15%	<p><b>5 - High:</b> Project addresses 2 or more hazards, includes consideration for sea level rise impacts.</p> <p><b>3 - Medium:</b> Project addresses at least 2 hazards.</p> <p><b>1 - Low:</b> Project addresses one hazard.</p>		
3	Lifespan of mitigation measure and consideration of future risk	15%	<p><b>5 - High:</b> Expected to last\address hazards for 40 or more years.</p> <p><b>3 - Medium:</b> Expected to last\address hazards for 20-39 years.</p> <p><b>1 - Low:</b> Expected to last\address hazards less than 20 years</p>		
4	Environmental Impact	10%	<p><b>5 - Positive effect</b> on the environment.</p> <p><b>3 - No effect</b> - environmentally neutral.</p> <p><b>0 - Adverse effect</b> on the environment.</p>		
5	Consistent with Existing Legislation and/or Policies	10%	<p><b>5 - High:</b> Consistent with existing laws and policies.</p> <p><b>3 - Medium:</b> New legislation or policy changes needed, but no conflicts identified.</p> <p><b>1 - Low:</b> Conflicts with existing laws, regulations and/or policies, requires waivers.</p>		
6	Consistent with Existing Plans and Priorities	15%	<p><b>5 - High</b> - Consistent with existing plans and priorities.</p> <p><b>3 - Medium</b> - Somewhat consistent with current plans and priorities.</p> <p><b>1 - Low</b> - Conflicts with existing plans and priorities. Does not fit in with identified initiatives.</p>		
	Parameter Subtotal	100%	<b>sum of parameter scores; max =</b>		
<b>Suitability subtotal</b>			<b>(sum of parameter scores) / (maximum possible score)</b>	<b>100%</b>	

Parameter		Weighting Factor	Scoring Criteria	Score	Points
<b>Risk Reduction</b>		<b>55%</b>			
1	Scope of Benefits	15%	<p><b>5 - High:</b> Benefits multiple jurisdictions.</p> <p><b>3 - Medium:</b> Benefits more than half but not all of the municipalities and/or the unincorporated area.</p> <p><b>1 - Low:</b> Benefits less than half of the municipalities and/or the unincorporated area.</p>		
2	Potential to Protect or Save Human Lives	30%	<p><b>5 - High:</b> More than 1,000 lives.</p> <p><b>3 - Medium:</b> Up to 1,000 lives.</p> <p><b>1 - Low:</b> No lifesaving potential.</p>		
3	Supports Protection of Critical Infrastructure or Continuity of Essential Services	20%	<p><b>5 - High:</b> Project will ensure continuity of operations for critical infrastructure or essential services for disaster response.</p> <p><b>3 - Medium:</b> Project will support critical infrastructure or essential services with loss/damage history.</p> <p><b>1 - Low:</b> Project will support infrastructure or services without loss/damage history.</p> <p><b>0 - Neutral -</b> Project has no impact on community infrastructure or services.</p>		
4	Repetitive Damages Corrected	10%	<p><b>5 - High:</b> Alleviates repetitive loss. Property must have been damaged in the past by a disaster event.</p> <p><b>3 - Medium:</b> Repetitive loss may have occurred but was not documented.</p> <p><b>1 - Low:</b> No effect on repetitive loss.</p>		
5	Economic Effect or Loss During Lifespan of the Project	10%	<p><b>5 - Minimal</b> economic loss (project improves resiliency of the community, does not increase risk of other adjacent areas/buildings.)</p> <p><b>3 - Moderate</b> economic loss (project may help minimize disruption and economic losses).</p> <p><b>1 - Significant</b> economic loss (project not likely to minimize economic impact of the community).</p>		
6	Number of People to Benefit	15%	<p><b>5 - High:</b> More than 100,000 people.</p> <p><b>3 - Medium:</b> 10,000 to 100,000 people.</p> <p><b>1 - Low:</b> Fewer than 10,000 people.</p>		
	Parameter Subtotal	100%	<b>sum of parameter scores; max =</b>		
<b>Risk Reduction Subtotal</b>			(sum of parameter scores) / (maximum possible score)		<b>100%</b>

Parameter		Weighting Factor	Scoring Criteria	Score	Points
<b>Cost and Time</b>		<b>15%</b>			
1	Estimated Costs*	30%	*(This score combines a weighted factor of Initial and Maintenance/Operating Costs)		
	<i>i. Initial Cost (including design, project management, research...)</i>	75%	<b>5 - Low:</b> \$0 to \$100,000. <b>3 - Moderate:</b> \$100,001 to \$1 million. <b>1 - High:</b> More than \$1 million.		
	<i>ii. Maintenance/ Operating (Annual/ Deployment) Costs</i>	25%	<b>5 - Lower costs:</b> Less than 5% per annum of the initial cost. <b>3 - Moderate costs:</b> 5-10% per annum of the initial cost. <b>1 - Higher costs:</b> More than 10% per annum of the initial cost.		
2	Affordability	30%	<b>5 - Good:</b> Project is easily affordable. Has been budgeted or a grant for this project is available and the likelihood of success is high. (If a match is needed, it is available.) <b>3 - Moderate:</b> Project is somewhat affordable. Grants for this project are available and the likelihood of success is moderate. (If a match is needed, high confidence that it could be obtained.) <b>1 - Poor:</b> Project is very costly for the agency. Grants for this project are limited. (If a match is needed, there may be difficulty in obtaining a match.)		
3	Complexity of Implementation	20%	<b>5 - Low:</b> This project is feasible, acceptable to most in the community, and does not require a public vote or hearing that may delay implementation. (Or has already been approved and accepted.) <b>3 - Moderate:</b> This project is feasible, may have some opposition from the community and may require specialized permitting or a public hearing or vote that may delay implementation. <b>1 - High:</b> This project is feasible, may have some opposition from the community, and will require either specialized permitting, or a public hearing or vote that will delay implementation.		
4	Completion Timeframe	20%	<b>5 - High:</b> 6 months or less from time of funding. <b>3 - Medium:</b> 6 months to 1 year from time of funding. <b>1 - Low:</b> more than 1 year from time of funding.		
	Parameter Subtotal	100%	<b>sum of parameter scores: max =</b>		
<b>Cost Subtotal</b>			<b>(sum of parameter scores) / (maximum possible score)</b>		<b>100%</b>
* Estimated costs are comprised of two secondary parameters: initial and maintenance/operating costs					

<b>SUITABILITY</b>	<b>30%</b>		100%	
<b>RISK REDUCTION</b>	<b>55%</b>		100%	
<b>COST</b>	<b>15%</b>		100%	
<b>TOTAL</b>	<b>100%</b>			

For a working Microsoft Excel worksheet of the LMS Prioritization Matrix send an e-mail request to: [mdlms@miamidade.gov](mailto:mdlms@miamidade.gov).

**For further information please contact:**

Cathie Perkins  
LMS Coordinator  
9300 NW 41<sup>st</sup> Street  
Miami, FL 33178  
(305) 468-5400  
[Cathie.perkins@miamidade.gov](mailto:Cathie.perkins@miamidade.gov)  
[mdlms@miamidade.gov](mailto:mdlms@miamidade.gov)

website: <http://www.miamidade.gov/fire/mitigation.asp>

## Appendix 1– Sample Project



### LMS Project List

---

**Record Details:**

Agency Type	County Departments
Agency	Emergency Management
Project Title	Arnold Hall Shelter Retrofit
Entry Type	New Project
Original Date of Entry	5/30/2014
Last Updated	07/01/2014 10:04:09
Status	Future Unfunded Project

**Hazard**

Flood Flood Storm Surge Health Sea Level Rise	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Power Failure Wind
--	--	-----------------------

**Project Type:** Infrastructure (Building)

**Mapper Label:**

**Address:** 10901 Coral Way, Miami, FL 33195

**Longitude:**

**Latitude:**

**Flood Basin:** 03

**Completion Time Frame:** 1 Year from Start

**Mitigation Goals:** Promote mitigation measures for critical facilities.

**Funding Source:** Unknown/None

**Is a Match Required?** Unknown

**Match Identified:** No

**Grant Source (Potential or Secured)**

Beach Erosion Control Projects Capital Fund Emergency/Natural Disaster Funding CDBG Community Development Block Grants/Entitlement C CDBG Community Development Block Grants/State's Progr	<input type="checkbox"/> <input type="checkbox"/>	
---	--	--

Select Multiple Elements by Holding the CTRL Button

**Estimated Costs:** 1,175,000.00

**Global Match:** Unknown

**Project Description:**

Structural renovation to bring this facility up to shelter code. This includes wall support and roof bracing improvements. Electrical upgrade for sustainability during use as an evacuation center/shelter. The upgrade would prepare the building is electrically ready for high demand. HVAC and generator upgrade would prepare the building's D-C system and provide a generator for constant shelter requirements.

**Comments:**

**Attachment #1:**

**Attachment #2:**

**Attachment #3:**

**Name:** Lou Slada

**Email:** lslada@miamidade.gov

**Phone:** 305-456-5437

**WCA Completed:**

**WCA Score:**

**Self Prioritization Score:** 1

**Benefit Cost Review:** 85

*This page left intentionally blank*

## **Appendix 2– 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.

Agency	Project Title	Status	Hazards	ProjectType	Potential Grant Sources	Funding Source	Flood Basin	Estimated Costs	GlobalMat	BCR	Project Description
Aventura	NE 191st ST Imporvements	Project in Planning Stage	,Flood	Infrastructure (Water/Sewer/Drainage)		Capital Improvement	North Biscayne Bay	650,000.00			53 Installation of drainage wells and ancillary drainage infrastructure to reduce stormwater pollutants to Biscayne Bay and reduce flood duration on City roadway.
Aventura	NE 29 PL Phase II	Project in Planning Stage	,Flood	Infrastructure (Water/Sewer/Drainage)		Capital Improvement	North Biscayne Bay	350,000.00	No		51 Reconstruction of existing storm sewer system with exfiltration trenches and ancillary drainage and roadway infrastructure to reduce stormwater pollutants to Biscayne Bay.
Aventura	NE 29 PL Phase I	Project in Planning Stage	,Flood	Infrastructure (Water/Sewer/Drainage)		Capital Improvement	North Biscayne Bay	500,000.00			57 Interconnection of two drainage networks, installation of exfiltration trenches and ancillary drainage infrastructure to reduce flooding duration on City roadway and reduce stormwater pollutants to coastal water body.
Aventura	Stormwater Drainage Projects		Flood	Infrastructure (Water/Sewer/Drainage)							3 The city of Aventura is 3.2 square mile community located along the Intracoastal Waterway in northern Miami-Dade County. Since its inception, the city has emphasized the importance of drainage and stormwater management in minimizing the inconvenience to its residents during the annual hurricane season. The city has determined that the following areas are in need of storm drainage and roadway improvements: NE 191st St. is a continuous problem area during heavy rainfall and it should be addressed.
Aventura	Storm Surge/ Wind Protection	Future Unfunded Project	,Flood,Flood/Storm Surge,Health	Infrastructure (Building)		Unknown/None		100,000.00			86 Building Storefront Flood Gates
Aventura	Purchase Communications Information Equipment		Communications Failure	Equipment							0 During an emergency, it is critical that emergency personnel are able to communicate with one another. This project entails purchasing equipment, such as radios and additional cellular phones, to assist emergency personnel in responding to an emergency. The Aventura Police Department maintains a communication system that services the local community.
Aventura	Development of Floodplain Management Plan		Flood	Other							0 The city is interested in obtaining grant funds to hire a consultant to develop a floodplain management plan. Ordinance No. 97-19 created a Flood Damage Prevention Ordinance to enforce mitigation efforts throughout the city with regards to flooding. An ordinance is not a plan however and the creation of a floodplain management plan may benefit the community in a more positive "rating" within the Community Rating System, thereby allowing residents to obtain lower flood insurance premiums. The floodplain management plan is a requirement of NFIP if repetitive loss properties are greater than 10. The city currently has 2 repetitive loss properties.
Biscayne Park	Eighteen Foot Tall Wall along FEC right-of-way.		Security/Terrorism	Other				700,000.00			0 Reduces risk of damage to community by train wreck caused by sabotage or accident. Reduces crime risk from hobos moving through our community.
Biscayne Park	Bucket Truck		Security/Terrorism	Equipment				95,000.00			0 Purchase bucket truck to facilitate trimming of canopy before and after hurricanes, reducing damage and debris volume. Also provides inexpensive portable location for overhead police surveillance of suspected criminal activities.
Biscayne Park	Municipal AM Radio Broadcast station		Communications Failure	Notification				50,000.00			0 Allow issuing of timely information 24/7. Has capacity broadcast, operate without grid power for 2 days, store repeat messages and ability to allow instant timely broadcast messages.
Biscayne Park	Facility Hardening		Wind	Infrastructure (Building)				125,000.00			0 Enhance log cabin (village offices) survivability by installing storm proof doors, windows and shutters.
Biscayne Park	New Municipal/Public Safety Building		Security/Terrorism	Infrastructure (Building)				856,000.00			0 Begin preliminary design work, on a new building to house administration, the police department and Miami-Dade Fire/Rescue (now under negotiations). The administration and police department are now temporarily housed in a historically designed real log cabin built in 1933.
Catholic Charities	New Life - Generator		Power Failure	Equipment				120,000.00			0 Requesting funds for acquisition and installation of an electric generator. This will allow the program for the continuation of use of the facility to provide shelter services to the homeless population
Catholic Charities	Centro Hispano - Generator		Power Failure	Equipment				120,000.00			0 Requesting funds for acquisition and installation of an electric generator. This will allow the program for the continuation of use of the facility to provide Head Start Child Development Services in the event of power outage
Catholic Charities	Good Shepherd - Generator		Power Failure	Equipment				120,000.00			0 Requesting funds for acquisition and installation of an electric generator. This will allow the program for the continuation of use of the facility to provide Head Start Child Development Services in the event of power outage
Catholic Charities	St. Luke's Prevention - Generator	Future unfunded project	Power Failure	Equipment				120,000.00			0 Requesting funds for acquisition and installation of an electric generator. This will allow the program for the continuation of use of the facility for treatment in the event of power outage
Catholic Charities	St. Luke's Prevention - Storm Shutter/Windows	Future unfunded project		Equipment				280,000.00			0 Installation of storm shutter and storm window for continuity of operations for recovery services for clients with substance abuse and mental health issues
Coral Gables	Fire Station 2 Mitigation	Future Unfunded Project	,Other	Infrastructure (Building)	,HMGP Hazard Mitigation Grant Program	Capital Improvement		280,000.00	Unknown		78 This Hazard Mitigation Project would provide for Hurricane Code Plus Apparatus Bay doors to Coral Gables Fire Station 2 (525 South Dixie Highway Coral Gables, Florida 33146). This enhancement would provide for the continuous operation of this emergency management facility. Gables Fire Station 2 provides for sheltering of emergency response personnel; apart from fire fighters, during a hurricane activation. The current station was constructed in 1961 and the garage doors in our apparatus bay(s) need to be upgraded as they do not meet code nor provide for adequate protection of the structure. The current configuration has experienced a myriad of maintenance and reliability issues. The City has identified this project as a priority to maintaining continuity of operations. The requested enhancement is paramount to strengthening the City's emergency response capability. This project would provide for fire apparatus bay doors to Miami-Dade County Building Code "Plus" for a total of 8 doors at an estimated cost of 280,000 - (35,000/per door).
Coral Gables	Basin Inflow and Infiltration Upgrade	Future Unfunded Project	Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)	Emergency Operations Flood Response and Post Flood Response	Unknown/None	C3	1,179,793.00	Unknown		88 An inflow and infiltration (I&I) program has been developed to reduce extraneous rain and groundwater that enters the City's wastewater collection system. It is anticipated that by implementing this program, the occurrence of Sanitary Sewer Overflows, which have a negative impact on the environment and public health, will be reduced as well as capital, operating and maintenance costs.
Coral Gables	Storm Water Outfalls	Future Unfunded Project	Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)	Post-Disaster Funding Programs	Unknown/None	DA-2	500,000.00	Unknown		78 Rehabilitation of positive outfalls by cleaning and lining the system to prevent future blockage caused by build-up of bi-valve organisms critical to prevent flooding and health hazards
Coral Gables	Elevating Sanitary Sewer Lift Stations Generator at Station D	Future Unfunded Project	Sea Level Rise	Infrastructure (Water/Sewer/Drainage)	Post-Disaster Funding Programs	Unknown/None	C3	45,000.00	Unknown		62 Elevate existing sanitary sewer lift station generator in flood prone area to comply with requirements of MDC DERM and to ensure the operation of the sanitary sewer lift station in the event of inland flooding from storm surge and wind driven rain.
Coral Gables	Elevating Sanitary Sewer Lift Stations Generator at Station F	Future Unfunded Project	Sea Level Rise	Infrastructure (Water/Sewer/Drainage)	Post-Disaster Funding Programs	Unknown/None	C3	45,000.00	Unknown		62 Elevate existing sanitary sewer lift station generator in flood prone area to comply with requirements of MDC DERM and to ensure the operation of the sanitary sewer lift station in the event of inland flooding from storm surge and wind driven rain.
Coral Gables	Historical City Hall Hurricane Shutters	Future Unfunded Project	Wind	Infrastructure (Building)	Post-Disaster Funding Programs	Unknown/None		80,000.00	Unknown		47 Install permanent hurricane window screens to minimize future lossess from high wind
Coral Gables	City Hall Anex Hurricane Shutters	Future Unfunded Project	Wind	Infrastructure (Building)	Post-Disaster Funding Programs	Unknown/None		45,000.00	Unknown		47 Install permanent hurricane window screens to minimize future lossess from high wind
Coral Gables	Acquisition of City Hall Emergency Generator	Future Unfunded Project	Multiple	Equipment	Post-Disaster Funding Programs	Unknown/None		80,000.00	Unknown		58 Acquisition of a power generator to provide emergency power to the City Hall to ensure the accessibility of computerized records in the event of storms, hurricanes and natural disasters.
Coral Gables	Acquisition of Coral Gables Public Works, Public Service and Automotive Department Facility Emergency Generator	Future Unfunded Project	Multiple	Equipment	Post-Disaster Funding Programs	Unknown/None		175,000.00	Unknown		56 Acquisition of a power generator to provide emergency power to the Public Works facility which houses the utility telemetry and communications systems and is critical to pre and post man-made or natural disaster emergency operations.
Coral Gables	Acquisition of City Pump Station G Emergency Generator	Future Unfunded Project	Multiple	Equipment	Post-Disaster Funding Programs	Unknown/None	C3	100,000.00	Unknown		56 Acquisition and installation of a power generator to provide emergency power to City Sanitary Sewer Pump Station G to prevent sewage over-flows, that would create health hazards, in the event of storms, hurricanes and natural disasters.
Coral Gables	Metal Freestanding Traffic Safety Signs & Trailer	Future Unfunded Project	Multiple	Equipment	Post-Disaster Funding Programs	Unknown/None		30,000.00	Unknown		78 Major storms result in power outages and obstructing debris on the roadways. Portable traffic safety signs will provide the safety needed for traffic control. An open trailer to house and transport the portable signs is needed to transport the portable traffic safety signs.
Coral Gables	Acquire Portable Pumps & Generators	Future Unfunded Project	Multiple	Equipment	Post-Disaster Funding Programs	Unknown/None		20,000.00	Unknown		61 Trailer mounted portable pumps and accompanying generators are needed the remove floodwaters during and after major storms.
Coral Gables	Fire Station #3 Hurricane shutters	Construction/Project Begun	Wind	Infrastructure (Building)	Post-Disaster Funding Programs	Unknown/None		88,000.00	Unknown		47 Install permanent hurricane window screens to minimize future lossess from high wind
Cutler Bay	Caribbean Boulevard Bridge Project	75% complete	,Flood,Health,Sea Level Rise,Storm Surge	Other		Other Internal Funding	C100	0.00	Unknown		95 Widening of the bridge to increase water flow and reduce the bottle neck effect.
Cutler Bay	Caribbean Boulevard JPA Project and Gap 1	Construction/Project Begun	,Other,Flood	Infrastructure (Roadway)		Other Internal Funding	C1	11,173,054.00	No		88 This project goals include maintaining a 2 lane road with designated turn lanes. The addition of traffic calming measures, traffic circles, crosswalks. It was also designed to eliminate driveway ponding, and rutted swales. Additional safety and aesthetic components were added: Curbing, Landscaping, Lighting, Bus shelters.
Cutler Bay	SW 97th Ave Drainage Improvement	Project Complete	,Flood	Infrastructure (Roadway)		Other Internal Funding	C1	291,494.00			0 Addition of Outfall along with new drainage structures. Removal and treatment of water from roadways and adjacent properties
Cutler Bay	SW 216th Street and SW 97th Ave Traffic Circle	Project Complete	,Other	Traffic Control			C1	204,486.00	No		0 Traffic calming circle, for the intersection of SW 216th St and SW 97th Ave. Crosswalks.

Agency	Project Title	Status	Hazards	ProjectType	Potential Grant Sources	Funding Source	Flood Basin	Estimated Costs	GlobalMat	BCR	Project Description
Cutler Bay	Old Cutler Road JPA	Project Complete	,Flood	Infrastructure (Roadway)		Other Internal Funding	C1	7,524,319.00			0 The projects goal was to, along with Miami-dade, reinstate a 2-1/2 mile section of road with its historic character. At the same time we addressed current deficiencies, drainage, lighting, physical appearance and traffic related problems.
Cutler Bay	Drainage Improvements - Port Royale Section 5 Sub-Basin		Flood	Infrastructure (Water/Sewer/Drainage)		Grant Applied For	C1	360,000.00			94 The purpose of the Town of Cutler Bay Stormwater Master Plan was to identify opportunities to protect surface water quality and reduce flooding within the limits of the Town of Cutler Bay, Florida. The following priority drainage sub-basins was identified and studied as part of the Stormwater Master Plan: Port Royale Section 5 Sub-Basin.
Cutler Bay	Drainage Improvements - Bel Aire Section 1.1 Sub-Basin		Flood	Infrastructure (Water/Sewer/Drainage)		Grant Applied For	C1	820,000.00			96 The purpose of the Town of Cutler Bay Stormwater Master Plan was to identify opportunities to protect surface water quality and reduce flooding within the limits of the Town of Cutler Bay, Florida. The following priority drainage sub-basins was identified and studied as part of the Stormwater Master Plan: Bel Aire Section 1.1 Sub-Basin.
Cutler Bay	Drainage Improvements - Saga Bay Section 1.8 Sub-Basin		Flood	Infrastructure (Water/Sewer/Drainage)		Grant Applied For	DA-4	240,000.00			90 The purpose of the Town of Cutler Bay Stormwater Master Plan was to identify opportunities to protect surface water quality and reduce flooding within the limits of the Town of Cutler Bay, Florida. The following priority drainage sub-basins was identified and studied as part of the Stormwater Master Plan: Saga Bay Section 1.8 Sub-Basin
Cutler Bay	Drainage Improvements - Saga Bay Section 1.6 Sub-Basin		Flood	Infrastructure (Water/Sewer/Drainage)		Grant Applied For	DA-4	170,000.00			94 The purpose of the Town of Cutler Bay Stormwater Master Plan was to identify opportunities to protect surface water quality and reduce flooding within the limits of the Town of Cutler Bay, Florida. The following priority drainage sub-basins was identified and studied as part of the Stormwater Master Plan: Saga Bay Section 1.6 Sub-Basin
Cutler Bay	Portable Traffic Light Signals		Power Failure	Traffic Control		Other Internal Funding		140,000.00			82 During power outages, the traffic lights are inoperable, causing a potential hazard. Portable traffic signals will provide the safety that is needed for traffic control. The town anticipates that it will need ten portable traffic signals to adequately handle an emergency situation.
Cutler Bay	Debris Removal		All Hazards	Other		Other Internal Funding		400,000.00			89 The town presently maintains a list of contractors that have agreed to provide debris removal services following a disaster. The town would develop a Comprehensive Debris Clearance (CDC) plan that would list the names and phone numbers of debris removal contractors, identify potential debris storage sites, removal methods, and provide for special programs. Contracts would be negotiated in advance and monetary damages would be due to the town if the contractor fails to perform. The study also would analyze how the town could best coordinate debris removal activities with related post-disaster service performed by Miami-Dade County. The town welcomes debris removal assistance along federal, state and county roadways, but recognizes that it will need to provide its own service along for most of the smaller, local roadways within the town.
Cutler Bay	Develop a Debris Plan		All Hazards	Equipment		Other Internal Funding		80,000.00			85 Develop and implement town wide debris removal plan using G.P.S. for data acquisition and G.I.S. for mapping. If the town's proposed debris management plan will coordinate the efforts of the Miami-Dade County's Coordinated Debris Clearance (CDC) Program
Cutler Bay	Storm Water Outfalls		Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)		Other Internal Funding		500,000.00			86 Clean and service line positive outfalls to prevent future blockage caused by build-up of bivalve organisms throughout the town's 11 miles of canals.
Cutler Bay	Cutler Bay Waterway Conveyance Improvements		Flood	Infrastructure (Water/Sewer/Drainage)		Other Internal Funding		270,000.00			88 Remove sediments from the Cutler Bay waterway that have built up over time which are causing bank flooding due to the major reduction in channel depth and cross section, as well as causing impassable locations to boat traffic. Preliminary tests show sediment as clean.
Cutler Bay	Flood Zone Data GIS System	50% complete	Flood	Other		Other Internal Funding		140,000.00			88 This project will fund the creation of a GIS system to support several activities of the town's National Flood Insurance Community Rating System program including mapping, annual outreach and notification, and the maintenance of all flood zone designations and other data for all real property folio numbers within the town. In addition, the project will integrate town's data into Miami-Dade County's GIS system tailoring products generated for town use. The additional information generated by this system will be essential for the preparation of detailed flood mitigation reports and allow users to track conditions by specific property location. This data will then be utilized to clearly identify and designate low lying areas, which will streamline flood prevention efforts when designing new systems and upgrading existing drainage systems.
Cutler Bay	Municipal AM Emergency Radio Broadcast Station		All Hazards	Outreach		Grant Applied For		85,000.00			11 Allow issuing of timely information 24/7. Has capacity broadcast, operate without grid power for 2 days, store repeat messages and ability to allow instant timely broadcast messages.
Cutler Bay	Emergency Portable Air Conditioner Units		All Hazards	Equipment		Grant Applied For		120,000.00			81 Purchase emergency portable air conditioner units for computer rooms and office areas for all essential operating areas. Town Hall serves as the town's emergency operations center, maintains computer systems and services. The portable air conditioner units would prevent these systems and services from damage and malfunction. Four units are necessary.
Cutler Bay	Preventive Pruning of Existing Town Tree Inventory		Wind	Other		Other Internal Funding		285,000.00			82 This project's purpose is twofold: to minimize storm generated debris and protect infrastructure from tree related storm damage. Studies show that by practicing proper structural pruning methods such as appropriate crown reduction and canopy thinning, tree and limb failures are reduced during storm events. Therefore, properly pruned trees produce less debris and minimize infrastructure damage. This project proposes to create a program that provides regularly scheduled pruning of trees planted by the town within the right of way in order to provide structural integrity and thereby mitigate and clean-up costs and property damage caused by weather events. The department would utilize local contractor services to accomplish project goals. All pruning performed will conform to the International Society of Arboriculture and ANSI A-300 standards.
Cutler Bay	Removal of Australian Pines and other Exotics		Wind	Other		Other Internal Funding		85,000.00			84 Debris removal after a storm is an expensive and time-consuming process. Fallen trees can delay the re-entry process by blocking access to roads and properties. This project would create a permanent ongoing tree removal program. It would ensure removal of exotic trees on public rights of way. The exotics would be replaced by appropriate native trees that will enhance the town's tree canopy. The town will maintain the new native trees.
Cutler Bay	Satellite Phones		Wind	Equipment		Other Internal Funding		55,000.00			86 Purchase emergency portable air conditioner units for computer rooms and office areas for all essential operating areas. Town Hall serves as the town's emergency operations center, maintains computer systems and services. The portable air conditioner units would prevent these systems and services from damage and malfunction. Four units are necessary
Cutler Bay	Community Emergency Response Teams (CERT)		All Hazards	Outreach		Other Internal Funding		40,000.00			81 This project's goal is to establish CERTS for the town. When an emergency or disaster occurs at anytime and anyplace in the town, trained CERT volunteers will be ready and able to respond to save lives and protect property. CERT members will be able to do the greatest good for the greatest number after a disaster, while protecting them from becoming victims. This program will include but not be limited to basic medical treatment procedures, scene safety, securing utilities, and other hazards, and some rescue operations.
Cutler Bay	Drainage Improvements - Saga Bay Section 1.2 Sub-Basin		Flood	Infrastructure (Water/Sewer/Drainage)		Grant Applied For	DA-4	300,000.00			82 The purpose of the Town of Cutler Bay Stormwater Master Plan was to identify opportunities to protect surface water quality and reduce flooding within the limits of the Town of Cutler Bay, Florida. The following priority drainage sub-basins was identified and studied as part of the Stormwater Master Plan: Saga Bay Section 1.2 Sub-Basin
Cutler Bay	Purchase Computerized Equipment Storage for Vital Public Records		Communications Failure	Equipment		Other Internal Funding		75,000.00			23 The Town of Cutler Bay was incorporated in 2005. Adequate daily back-up and off-site storage of vital public records has not been addressed in the new town. Planning for storage and back-up of vital records is well timed while the town's computer systems are being created.
Cutler Bay	Portable Traffic Control Signs		Power Failure	Equipment		Other Internal Funding		200,000.00			71 Effective and efficient communication is vital to allow for the rapid evacuation of citizens prior to the impact of a hurricane in Cutler Bay. With a residential population of 41,579 people and a commuter population that at least doubles the affected population during the work week, traffic jams are a certainty. Portable traffic control signs that provide scrolling text messages would allow traffic to be directed to alternative routes and to provide other vital information to motorists. The portable signs have other uses besides assisting in evacuations: they can be used to display information during events such as fire/rescue emergencies, hazardous material spills, special events and terrorist incidents. These signs display a test message that is easily programmed into the unit and can be moved using most any town vehicle with a trailer hitch. The town of Cutler Bay would purchase 4 of these units at a cost of about \$50,000 each, plus additional trailer hitches for town vehicles.
Cutler Bay	Storm Shutters for Town Buildings		Wind	Infrastructure (Building)		Grant Applied For		120,000.00			91 This project would install hurricane shutters and reinforced doors on all municipal buildings not already so protected. The shutters and doors are designed to prevent hurricane force winds and debris from breaking the windows and allowing wind, water and debris to enter the structures. The proposed modifications would allow these buildings to not only survive the hurricane with less damage to the structure and the property stored inside, but also reduce the financial impact to the town.
Cutler Bay	Drainage Improvements - Cutler Ridge Section 5 Sub-Basin		Flood	Infrastructure (Water/Sewer/Drainage)		Grant Applied For	C1	1,580,000.00			88 The purpose of the Town of Cutler Bay Stormwater Master Plan was to identify opportunities to protect surface water quality and reduce flooding within the limits of the Town of Cutler Bay, Florida. The following priority drainage sub-basins was identified and studied as part of the Stormwater Master Plan: Cutler Ridge Section 5 Sub-Basin.
Cutler Bay	Drainage Improvements - Pine Tree Manor Sub-Basin		Flood	Infrastructure (Water/Sewer/Drainage)		Grant Applied For	C1	390,000.00			87 The purpose of the Town of Cutler Bay Stormwater Master Plan was to identify opportunities to protect surface water quality and reduce flooding within the limits of the Town of Cutler Bay, Florida. The following priority drainage sub-basins was identified and studied as part of the Stormwater Master Plan: Pine Tree Manor Sub-Basin
Cutler Bay	Drainage Improvements - Saga Bay Section 1.7 Sub-Basin		Flood	Infrastructure (Water/Sewer/Drainage)		Grant Applied For	DA-4	670,000.00			87 The purpose of the Town of Cutler Bay Stormwater Master Plan was to identify opportunities to protect surface water quality and reduce flooding within the limits of the Town of Cutler Bay, Florida. The following priority drainage sub-basins was identified and studied as part of the Stormwater Master Plan: Saga Bay Section 1.7 Sub-Basin

Agency	Project Title	Status	Hazards	ProjectType	Potential Grant Sources	Funding Source	Flood Basin	Estimated Costs	GlobalMat	BCR	Project Description
Cutler Bay	Development of Floodplain Management Plan	Project Complete	Flood	Outreach		Grant Awarded		120,000.00			90 The town is interested in obtaining grant funds to hire a consultant to develop a floodplain management plan. Ordinance No. 09-10 created a Flood Damage Prevention Ordinance to enforce mitigation efforts throughout the town with regards to flooding. An ordinance is not a plan however and the creation of a floodplain management plan may benefit the community in a more positive rating within the Community Rating System, thereby allowing residents to obtain lower flood insurance premiums. The floodplain management plan is a requirement of NFIP if repetitive loss properties are greater than 10. The town currently has over 100 repetitive loss properties.
Cutler Bay	Flood Insurance Research Project		Flood	Outreach		Grant Applied For		90,000.00			85 This project will be part of the work required for the Community Rating System (CRS) and will involve the research of town properties, which do not have flood insurance and the reasons therefore. This effort would result in an action program designed to increase the number of properties covered by the flood insurance. The project will also review the validity of the BFE as reflected on the FIRM and explore the possibilities of variable flood insurance rates that distinguish within the same flood zone between properties that are flood prone and vulnerable to flooding hazards and those which are not and/or have taken steps to correct the potential problem.
Cutler Bay	Canal Bank Erosion Protection		Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)		Grant Applied For		350,000.00			93 Design and construct erosion protection structures and bank stabilization projects along town canals which are vulnerable to bank erosion due to storm surge or inland flooding. This project includes the removal of undesirable debris, trees, predominantly Australian pines and ficus, located in close proximity to the canal bank. These trees are prone to falling during a severe windstorm or hurricane causing flow obstructions as well as damage to the canal bank resulting in increased erosion. We must also schedule regular maintenance of town canals to restore flow.
Cutler Bay	Drainage Improvements - Bel Aire Section 6 Sub-Basin		Flood	Infrastructure (Water/Sewer/Drainage)		Grant Applied For	C1	310,000.00			83 The purpose of the Town of Cutler Bay Stormwater Master Plan was to identify opportunities to protect surface water quality and reduce flooding within the limits of the Town of Cutler Bay, Florida. The following priority drainage sub-basins was identified and studied as part of the Stormwater Master Plan: Bel Aire Section 6 Sub-Basin.
Cutler Bay	Purchase Communications Emergency Equipment		Wind	Equipment		Other Internal Funding		65,000.00			79 During an emergency, it is critical that emergency personnel are able to communicate with one another. This project entails purchasing equipment, such as radios and additional cellular phones, to assist emergency personnel in responding to an emergency. The State of Florida is currently working to establish statewide frequencies that agencies would be able to use to speak with each other when responding to calls for assistance. During the four hurricanes that struck Florida in 2005, however, radios and cell phones were rendered inoperable in some areas after the initial strikes. The emergency radios can operate for a short distance should the antenna be damaged or fail following an event.
Cutler Bay	SW 212th Street	75% complete	Flood	Infrastructure (Water/Sewer/Drainage)		Grant Applied For	DA-4	390,000.00			92 SW 212 Street Drainage Improvements from SW 87th Avenue to SW 85th Avenue
Cutler Bay	Drainage Improvements - Bel Aire Section 1.2 Sub-Basin	Project in Planning Stage	Flood	Infrastructure (Water/Sewer/Drainage)		Grant Applied For	C100	660,000.00			85 The purpose of the Town of Cutler Bay Stormwater Master Plan was to identify opportunities to protect surface water quality and reduce flooding within the limits of the Town of Cutler Bay, Florida. The following priority drainage sub-basins was identified and studied as part of the Stormwater Master Plan: Bel Aire Section 1.2 Sub-Basin
Cutler Bay	Reduction of Floating Debris		Flood	Infrastructure (Water/Sewer/Drainage)		Other Internal Funding		60,000.00			85 This proposal will demonstrate the usefulness of low-cost best management practice (BMP) devices in reducing the volume of floating debris that is being washed into Cutler Bay's canals. This floating refuse eventually ends up in the federally protected marine sanctuary of Biscayne Bay. The objective is to start a remedial program in Cutler Bay's urban drainage basin by installing or retrofitting the existing curb inlets with prefabricated curb grates and leaf collecting baskets. These BMP are expected to reduce the volume of floating trash and debris by as much as 20% and also prevent the clogging of the town stormwater system.
Cutler Bay	Canal Cleaning and Shaping Town wide		Flood	Infrastructure (Water/Sewer/Drainage)		Other Internal Funding		750,000.00			82 Dredging of the approximately 11 miles of inland canals located with the Town of Cutler Bay would restore depth and bottom contour. This restoration would directly impact the ability of the canal to hold tidal flooding and minimize flooding of surrounding properties during significant weather events. This dredging project would require funds for hydrographic surveys and bottom contours to determine the scope of work and cost. Dredging requires permits from the State, USACE, and DERM. A hydrographic survey will be required along with soil sampling of the proposed dredged materials. Mitigation work may be required to compensate for damaged ecosystems and will be determined by DERM prior to dredging.
Cutler Bay	Drainage Improvements - Saga Bay Section 1.1 Sub-Basin		Flood	Infrastructure (Water/Sewer/Drainage)		Grant Applied For	DA-4	800,000.00			90 The purpose of the Town of Cutler Bay Stormwater Master Plan was to identify opportunities to protect surface water quality and reduce flooding within the limits of the Town of Cutler Bay, Florida. The following priority drainage sub-basins was identified and studied as part of the Stormwater Master Plan: Saga Bay Section 1.1 Sub-Basin
Cutler Bay	Drainage Improvements - SW 97th Avenue Sub-Basin		Flood	Infrastructure (Water/Sewer/Drainage)		Grant Applied For	C1	1,200,000.00			80 The purpose of the Town of Cutler Bay Stormwater Master Plan was to identify opportunities to protect surface water quality and reduce flooding within the limits of the Town of Cutler Bay, Florida. The following priority drainage sub-basins was identified and studied as part of the Stormwater Master Plan: SW 97th Avenue Sub-Basin
Cutler Bay	Drainage Improvements - SW 87th Avenue Sub-Basin		Flood	Infrastructure (Water/Sewer/Drainage)		Grant Applied For	C100	1,000,000.00			90 The purpose of the Town of Cutler Bay Stormwater Master Plan was to identify opportunities to protect surface water quality and reduce flooding within the limits of the Town of Cutler Bay, Florida. The following priority drainage sub-basins was identified and studied as part of the Stormwater Master Plan: SW 87th Avenue Sub-Basin.
Cutler Bay	Town Hall/EOC Hardening Project (Impact Resistant Windows)		Wind	Infrastructure (Building)		Grant Applied For		630,000.00			82 Town Hall / Emergency Operation Center Building existing exterior glazing proposed scope would be to retrofit structural elements to reinforce the existing curtain wall system and install transparent interior polyester laminate which would be secured to the existing reinforced frames.
Cutler Bay	Town Hall/EOC Hardening Project (Mechanical HVAC System)		All Hazards	Infrastructure (Building)		Grant Applied For		228,000.00			77 Town Hall / Emergency Operation Center's the building envelope is composed of the roof and the roof equipment. Reroofing the 13,000 would cost approximately \$158,000. Reinforcement of the building rooftop mechanical systems would include bracing, wind barriers and replacement of some outdated minor equipment. An estimate for this work would be approximately \$70,000.
Cutler Bay	Town Hall/EOC HVAC System		Wind	Equipment		Grant Applied For		610,000.00			75 Town Hall / Emergency Operation Center's current HVAC system cannot be operated during a storm event. Therefore, a new per floor dedicated HVAC system (a conventional direct expansion system with roof mounted air handler) would need to be installed for the first two floors which are designated as the EOC facility. The approximate cost for providing this retrofit system of HVAC would be approximately \$275,000.00 per floor. Further, a chase/mechanical space would be required of approximately 200 SF per floor.
Cutler Bay	Town Hall/EOC Hardening Project (Exterior Walls)		Wind	Infrastructure (Building)		Grant Applied For		728,000.00			77 Town Hall / Emergency Operation Center Building's glazing, the building also has an Exterior Insulating Finish System (EIFS) as its main enclosing system below the glazing. The current system will not meet either current wind or missile impact of any sort. This system will need to be completely replaced is the building envelope is to meet current hardening/category 5 storm by combining the structural reinforcement of the glazing with that of the wall below the cost of replacing this system with an approved exterior wind rated system could be mitigated.
Doral	Hardening of new City of Doral Government Center	Project Deleted	Wind	Infrastructure (Building)	PDM - FEMA Pre-Disaster Mitigation Grant Program	Unknown/None		750,000.00	Unknown		0 The new City of Doral Government Center will serve as symbol for the City and provide residents and businesses of Doral with a well-organized and accessible government facility. The Center will also serve as the City's gathering point and main operations center for all non-police employees at the moment of responding to a natural or manmade disaster. The hardening of this building will include the necessary means to protect the structure against heavy hurricane winds, such as window protection.
Doral	Installation of Storm Shutters at City of Doral Park Facilities	Future Unfunded Project	Wind	Infrastructure (Building)	PDM - FEMA Pre-Disaster Mitigation Grant Program	Other Internal Funding		200,000.00	Unknown		56 This project involves the installation of storm shutters at the Parks & Recreation Buildings. The protection of these facilities is critical to ensure continuity of City services.
Doral	Point of Distribution	Future Unfunded Project	Multiple	Infrastructure (Building)	PDM - FEMA Pre-Disaster Mitigation Grant Program	Unknown/None		700,000.00	Unknown		53 This project will include the construction and equipment for a building at JCB Park that will serve as the City of Doral "Point of Distribution" center. This facility will serve as a center for information, services and supplies following disaster.
Doral	Acquisition of Emergency Generators	Future Unfunded Project	Power Failure	Equipment	PDM - FEMA Pre-Disaster Mitigation Grant Program	Other Internal Funding		300,000.00	Unknown		72 This project would involve the acquisition of power generators to support critical facilities and operations throughout the City. This is a mitigation project that ensures the continued operation of critical City facilities and the appropriate level-of-service for City residents during and after a disaster event. These generators would supply the following facilities: Parks. Quantity: 3. Supply power to 3 parks that will serve as distribution centers. Public Works Dept. Quantity: 25. Supplies power for the operation of traffic control signals during power outage.
Doral	Retrofit of Traffic Signals to Include Transfer Switches	Funding Applied for	Power Failure	Traffic Control	PDM - FEMA Pre-Disaster Mitigation Grant Program	Other Internal Funding		140,000.00	Unknown		79 This project will provide for the installation of transfer switches for the traffic signals at each of the major intersections in the City of Doral. This will allow the use of generators to keep the signals operating during power outages and reduce the traffic fatalities due to absence of signalization.
Doral	Installation of Transfer Switch for Emergency Power	Funding Secured	Power Failure	Other	PDM - FEMA Pre-Disaster Mitigation Grant Program	Other Internal Funding		50,000.00	Unknown		75 This project will provide for the installation of a transfer switch to Morgan Levy Park located in the City of Doral. The facility was constructed to withstand category four hurricane winds, as a result this facility will be utilized as a location for the City to distribute and administer both force account labor as well as volunteers after an event. This is a mitigation project that ensures the continued operation of critical city facilities and the appropriate level-of-service for City residents during and after a disaster event.

Agency	Project Title	Status	Hazards	ProjectType	Potential Grant Sources	Funding Source	Flood Basin	Estimated Costs	GlobalMa	BCR	Project Description
Doral	Acquisition of Emergency Vehicles and Equipment	Future Unfunded Project	Multiple	Equipment		Unknown/None		1,600,000.00	Unknown	50	This project would involve the acquisition of vehicles and support equipment to access and mitigate affected areas throughout the City. These vehicles will be assigned to the following departments: Wastewater Vac-Truck - Public Works - Qty: 1 - Purpose: Clean sewer debris. 4WD Back How w/ Clamp Bucket - Public Works -Qty: 1 - Purpose: Clear Debris. Front Loader w/ Clamp Bucket - Public Works - Qty: 2 - Purpose: Clear Debris. Stormwater Vac-Truck - Public Works - Qty: 1 - Purpose: Clean Storm Drains. 50 Yard Roll-off Containers - Public Works - Qty: 2 - Purpose: Debris clean-up/pick-up. Water Filtration Truck - City Hall (Operations Center) - Qty: 1 - Purpose: Source of Potable Water. Ice Machines - City Hall (Operations Center) - Qty: 2 - Purpose: Emergency Operations.
Doral	5 Yr. Stormwater Improvements CIP	Project in Planning Stage	,Flood	Infrastructure (Water/Sewer/Drainage)		Capital Improvement	C4	5,945,000.00		82	5 Year Stormwater Improvements Capital Improvement Plan developed after the 2013 Stormwater Master Plan (SWMP) Update. SWMP Update provided a 5 year capital improvement plan for stormwater improvements throughout the City. Through the analysis performed on the 2013 SWMP Update problem areas throughout the City were identified. The City was then divided into sub-basin and the sub-basins were ranked. Conceptual designs and cost estimates were prepared for stormwater improvements proposed on highest ranking sub-basins. Stormwater improvements were proposed for residential and commercial areas to mitigate flooding and repetitive losses. 5 Year CIP: Year 1 - Estimated Cost: \$1,215,040 Year 2 - Estimated Cost: \$1,017,150 Year 3 - Estimated Cost: \$1,265,749 Year 4 - Estimated Cost: \$1,047,694 Year 5 - Estimated Cost: \$1,398,536
Doral	Pump Station to Address Repetitive Flooding Losses	Other	Flood	Infrastructure (Water/Sewer/Drainage)		Unknown/None	C4	2,500,000.00	Unknown	58	The installation of improved storm water conveyance system and pump station required to relieve flooded streets, storm sewers, and properties that have shown repetitive loss during flooding events. This pumps station is necessary to provide water transmission capabilities in case of severe flooding; thereby decreasing damage to low lying areas.
El Portal	Little River Canal (Canal C-7) Seawall Remediation Project	Project in Planning Stage	,Flood,Flood/Storm Surge,Sea Level Rise,Storm Surge	Beach/Seawall	,EMPA - Emergency Management Program Assistance,HMGP Hazard Mitigation Grant Program	Unknown/None	C7	5,000,000.00		0	The C-7 Canal serves two main purposes: 1) to provide flood protection and drainage for the basin, and 2) to maintain adequate groundwater table elevation to prevent saltwater intrusion. The Canal was designed to provide runoff conveyance from a 100-year storm; however, since much of this basin was agricultural during the design and construction of the conveyance, the current capacity may be inadequate due to significant residential and commercial development in the drainage basin. Currently, SFWMD operates two control structures in the C-7 basin. The Village has recognized the need for a proactive approach to managing flooding problems. While the capacity of the C-7 Canal may be inadequate to handle the volume of runoff it currently receives, this problem is exacerbated by the Village's outdated drainage system, which does not have the capacity to handle and treat the volume of runoff at various locations throughout the Village. As a result, the Village experiences flooding after even minor storm events. This project involves the reconstruction and upgrade of the existing seawall and back of the C-7 Canal for the entire length of the Village of El Portal
El Portal	Village of El Portal Stormwater Improvements	25% complete	,Flood,Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)	,Emergency Operations Flood Response and Post Flood Response,FMA - Flood Mitigation Assistance	Capital Improvement	C7	5,000,000.00		0	This project is part of the Villages Stormwater Mast Plan prepared in 2002. Phase I – IV was completed between 2007-2012, which consisted of the installation of gravity stormwater piping and the installation of outfalls for installed systems and future phased systems. The Village is situated geographically at the northeastern portion of Miami – Dade County with Biscayne Boulevard bordering the eastern limits of the Village, Interstate 95 bordering the western limits and the C-7 Canal (Little River) bordering the Village's southern limit. Adequate stormwater drainage is one of the fundamental concerns to the prosperity and livelihood of the community. The Village's goal is to enhance its stormwater infrastructure, while protecting and preserving its natural resources. Also, the Village's wastewater needs to rely entirely on septic tank and drain field technology. The performances of these systems are typically hindered by adverse rising groundwater conditions caused by severe storm events.
Emergency Management	Arnold Hall Shelter Retrofit	Future Unfunded Project	,Power Failure,Wind	Infrastructure (Building)		Unknown/None	C4	1,175,000.00	Unknown	85	Structural renovation to bring this facility up to shelter code. This includes wall support and roof bracing improvements. Electrical upgrade for sustainability during use as an evacuation center/shelter. The upgrade would prepare the building is electrically ready for high demand. HVAC and generator upgrade would prepare the building's A/C system and provide a generator for current shelter requirements.
Emergency Management	Reilly Coliseum	Future Unfunded Project	,Power Failure,Wind	Infrastructure (Building)		Unknown/None		1,175,000.00	Unknown	85	Structural renovation to bring the facility up to current shelter code. Wall support6 and roof bracing improvements. The upgrade would bring the structure up to withstand the current code conditions for shelters. Electrical upgrade for sustainability during use as an evacuation center/shelter. The upgrade would prepare the building to be electrically ready for high demand. HVAC and generator upgrades for sustainability during use as an evacuation center/shelter. The upgrade would prepare the building's A/C system and provide a generator for current shelter requirements.
Emergency Management	Arnold and Edward Hall Connector Shelter Retrofit	Future Unfunded Project	,Wind,Power Failure	Infrastructure (Building)		Unknown/None		220,000.00	Unknown	80	Structural renovation to bring the facility up to current shelter code. Wall support and roof bracing improvements. The upgrade would allow the facility to stand up to the minimum code requirements for shelters as of today's code. Electrical upgrade for sustainability during use as an evacuation center/shelter. The upgrade would prepare the building is electrically ready for high demand. HVAC and generator upgrades for sustainability during use as an evacuation center/shelter. The upgrade would prepare the building's A/C system and provide a generator for current shelter requirements.
Emergency Management	Arnold Hall South Shelter Retrofit	Future Unfunded Project	,Wind,Power Failure	Infrastructure (Building)		Unknown/None		615,000.00	Unknown	80	Structural renovation to bring up to current shelter code. Wall support and roof bracing improvements will bring the structure up o the minimum shelter requirements of today's code. Electrical upgrade for sustainability during use as an evacuation center/shelter. The upgrade would prepare the building is electrically ready for high demand. HVAC and generator upgrades for sustainability during use as an evacuation center/shelter. The upgrade would prepare the building's A/C system and provide a generator for current shelter requirements.
Emergency Management	Edwards Hall Shelter Retrofit	Future Unfunded Project	,Power Failure,Wind	Infrastructure (Building)		Unknown/None		1,215,000.00	Unknown	85	Structural renovation to bring up to current shelter code. Wall support and bracing improvements. The upgrade would bring the facility up to today's shelter code requirements. Electrical upgrade for sustainability during use as an evacuation center/shelter. The upgrade would prepare the building is electrically ready for high demand. HVAC and generator upgrades for sustainability during use as an evacuation center/shelter. The upgrade would prepare the buildings A/C system and provide a generator for current shelter requirements.
Emergency Management	Arnold Hall South Shelter Retrofit	Future Unfunded Project	,Power Failure,Wind	Infrastructure (Building)		Unknown/None		510,000.00	Unknown	80	Structural renovation to bring the facility up to current shelter code. Includes wall support and roof bracing improvements. The upgrade would make the building stand up to the minimum shelter requirements of today's code. Electrical upgrade for sustainability during use as an evacuation center/shelter. The upgrade would prepare the building is electrically ready for high demand. HVAC and generator upgrades for sustainability during use as an evacuation center/shelter. The upgrade would prepare the building's A/c system and provide a generator for current shelter requirements.
Fire Rescue	Miami-Dade Fire Rescue Drainage Improvements	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	HMGP Hazard Mitigation Grant Program	Unknown/None		500,000.00		48	This project involves the Improvement of the drainage system in the MDRF/EOC /MDRF Training Facility Headquarters' parking Area. During any type of heavy rain the south end of the property floods. As a result the waters that accumulate pose the risk of damaging millions of dollars of emergency equipment, personnel property and structural damage to the building itself. Estimated cost: \$500,000
Fire Rescue	Miami-Dade Fire Station Roof Rehabilitation	Future Unfunded Project	Wind	Infrastructure (Building)	HMGP Hazard Mitigation Grant Program	Unknown/None		600,000.00		88	The project involves the actual hardening of the roof and structure to meet regulatory requirements and withstand category four or five hurricanes for facilities which maintain rescue engines, trucks and equipment, valuable personnel and computers. The average estimated value of the vehicles and equipment at these stations is \$2,000,000. Estimated Cost: \$ 600,000
Fire Rescue	Miami-Dade Fire Rescue Station Rehabilitation for Air Rescue South	Future Unfunded Project	Wind	Infrastructure (Building)	HMGP Hazard Mitigation Grant Program	Unknown/None		1,000,000.00		90	This project will enhance the county's emergency response capabilities in responding to citizens' immediate disaster and medical needs. The project involves the actual hardening of the roof and structure as well as the hanger for Air Rescue apparatus. This hardening will enable the structure to meet regulatory requirements and withstand category four or five hurricanes for facilities which maintain rescue apparatus and valuable MDRF equipment. The average estimated value of the apparatus and equipment is \$3,000,000. Estimated cost \$1,000,000.
Fire Rescue	Roof Rehabilitation for Miami-Dade Fire Rescue Headquarters	Future Unfunded Project	Wind	Infrastructure (Building)	HMGP Hazard Mitigation Grant Program	Unknown/None		1,000,000.00		95	The project involves the actual hardening of the roof and structure to meet regulatory requirements and withstand category four or five hurricanes. The average estimated cost: \$1,000,000
Florida City	Demolition of Dilapidated Structures	Future Unfunded Project	Wind,Health	Infrastructure (Building)	,CDBG Community Development Block Grants/ State's Program,Disaster Recovery Initiative	Unknown/None	Florida City	350,000.00		60	Because of the housing crisis, there are a number of housing structures in the City that have been abandoned by property owners. These structures are rapidly deteriorating and could become a hazard in the event of a major storm. Because they are not being maintained, some have been vandalized and are frequently open to the elements. These housing structures need to be demolished to prevent parts of them from becoming debris in a major wind event.

Agency	Project Title	Status	Hazards	ProjectType	Potential Grant Sources	Funding Source	Flood Basin	Estimated Costs	GlobalMat	BCR	Project Description
Florida City	Sealing the Palm Drive Canal	Future Unfunded Project	Flood/Storm Surge,Other	Infrastructure (Water/Sewer/Drainage)	,Disaster Recovery Initiative,HMGP Hazard Mitigation Grant Program,CDBG - Community Development Block Grant	Unknown/None	Florida City	3,500,000.00			81 The Palm Drive Canal is the main drainage structure in the city to transmit storm runoff to the Atlantic Ocean. Most of the underground drainage in the city eventually ends up in this canal. The open canal collects trash and debris over time and requires constant cleaning to remain free flowing. It is also a safety hazard because of the two lanes of traffic on each side. In the floods of 2004-05, the canal overflowed due to its inability to handle the volume of storm water because of siltation and trash blocking the culverts. Part of the open canal is in Homestead so the project has an effect on both cities.
Florida City	Drainage at the Depot and Pioneer Museum	Future Unfunded Project	Flood,Health	Infrastructure (Water/Sewer/Drainage)	,Public Assistance Program,CFLP - Community Facilities Loan Program	Unknown/None	Florida City	500,000.00			54 The City owns the Pioneer Museum and the Historic Depot on North Krome Avenue. Because of the elevation of US 1, the ground around the Depot and Museum will often be covered with water for an extended period following a major rain event. Since the parking is a grassed area surrounding the building, the parking area cannot be used until the ground dries out. The City desires to construct a porous surface parking area with French drains to deal with the flooding and parking issues simultaneously.
Florida City	Scattered Site French Drain Project	Future Unfunded Project	Flood,Storm Surge	Infrastructure (Water/Sewer/Drainage)	,Emergency Operations Flood Response and Post Flood Response,HMGP Hazard Mitigation Grant Program	Unknown/None	Florida City	500,000.00			70 The City has several low areas that accumulate a moderate amount of standing water following a significant rain event. Water may stand for several days before it slowly percolates into the ground. Constructing drainage structures in these locations will reduce the potential damage to residential and commercial buildings.
Florida City	Rehabilitation of Friendland Manor Drainage System	Funding Secured	Flood,Health	Infrastructure (Water/Sewer/Drainage)	Disaster Recovery Initiative	Grant Awarded	Florida City	192,000.00			68 The drainage culverts under Friendland Manor have collapsed in several places. The funds will be used to televise the existing underground drainage, determine where the problems are, and replace the collapsed culverts.
Florida City	Storm Water Culverts Under West Palm Drive	Future Unfunded Project	Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)	,CDBG Community Development Block Grants/ State's Program,Disaster Recovery Initiative,HMGP Hazard Mitigation Grant Program	Unknown/None	Florida City	800,000.00			64 Palm Drive runs east and west and divides the City in two parts. Near NW 8th Avenue and Palm Drive, the property on the northern side of Palm Drive is much lower than the center of Palm Drive. During a significant rain event, the rain creates a small pond on the north side of Palm Drive until the water gets high enough to sheet flow over Palm Drive. There are no houses low enough to flood, but the streets can become impassable. This will also eventually weaken Palm Drive's road base. South of Palm Drive, the City has developed an underground culvert and storm water transmission system to move storm water from Friedland Manor Subdivision to a ten acre holding pond south of the City. To solve the ponding issue, the City wants to construct culverts under Palm Drive and join them to the existing storm water culverts four blocks away in Friedland Manor Subdivision so that storm water will flow to a system designed for that purpose.
Florida City	Sewer Hookups, Laterals, and Septic Tank Abandonment	Future Unfunded Project	Flood/Storm Surge,Health	Infrastructure (Water/Sewer/Drainage)	,CDBG Community Development Block Grants/ State's Program	Unknown/None	Florida City	500,000.00			62 Within the City there are a number of houses that are still on septic tanks for various reasons. Some are not adjacent to a sewer line and cannot hook up to the sanitary sewer system. Many families are very low income and cannot afford to pay the construction cost of hooking up to the sanitary sewer system and properly abandoning their septic system. There are a few commercial locations where no sewer service is available and businesses are operating on septic systems. The CRA has funded the cost to hook up low income households in the Community Redevelopment Area and the City has used grant funding to hook up many more. However, the City needs the funding to address the remainder of the needed hookups, gravity lines, lift stations, and septic tank abandonments. In hurricanes as recent as 2005, there was flooding in neighborhoods that covered septic tanks and they no longer operated properly. In some instances, pollution from the septic tanks and field lines escaped from the system and contaminated yards. Correction of this problem will prevent pollution of the groundwater.
Florida City	Repair of Sewer Lines Based on the Evaluation Study	Future Unfunded Project	Health,Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)	CDBG Community Development Block Grants/ State's Program	Identified Grant Source	Florida City	2,000,000.00			75 The city is required by the county's settlement order with DEP to undertake a full evaluation of the city's sewer lines to determine where infiltration and exfiltration may be occurring. The study must be undertaken over time so that the system is tested in both the rainy season and the dry season. The City has completed that study and has determined where repairs are necessary. Repair of these lines will reduce the health hazards associated with septic tanks that pollute the groundwater. Now that the city has determined where the sewer lines are allowing exfiltration and infiltration, the city must begin to address the repair or replacement of those lines. Because the city had undertaken a large multi-year sewer line replacement project following Hurricane Andrew, the City found that there are many sections of the city that have minimum issues. There are other parts of the city where the lines are very old and most of any problems that were discovered there.
Florida City	Public Building Retrofit	Future Unfunded Project	Wind,Flood/Storm Surge	Infrastructure (Building)		Unknown/None	Florida City	500,000.00			75 The city owns several buildings that need to be shuttered to protect them from wind damage in the event of a major hurricane. The buildings are the Pioneer Museum and Depot Buildings, the city-owned building occupied by the Department of Juvenile Justice, and the city Water Treatment Plant.
Florida City	Potable Water Gate Valve Project	Future Unfunded Project	Health,Flood	Infrastructure (Water/Sewer/Drainage)	,CDBG Community Development Block Grants/ State's Program	Unknown/None	Florida City	850,000.00			60 The City provides potable water to the residents and businesses located in Florida City. Much of the system is older and the gate valves in some areas have failed. When a gate valve fails, the City can no longer shut off the water to a small area in the event of damage to a water line. Instead, a larger geographic area must be closed off during the repair period causing many more people to be without drinking water. The safety issue arises related to fire hydrants. There is a likelihood of greater damage from a fire during these times when closing gate valves causes a discontinuance of water service to large areas. Installing more gate valves and replacing those that are frozen open will provide a safety benefit to our community.
Florida City	Water Works Systems Improvement Project	Future Unfunded Project	Health,Flood	Infrastructure (Water/Sewer/Drainage)	,CDBG Community Development Block Grants/ State's Program	Unknown/None	Florida City	900,000.00			54 The city and its engineer have identified a number of scattered improvements required to eliminate problems of infiltration and exfiltration, which is clearly important for protection of water quality, to improve circulation of water within the system, to improve fire flow, and to insure compliance with current code. The work involves replacing/repairing damaged sections of pipe, increasing sections of 2" pipe with 8" pipe, installing four fire hydrants, and related tasks.
Florida City	Additional Water Tower	Future Unfunded Project	Wind	Infrastructure (Water/Sewer/Drainage)	,CDBG Community Development Block Grants/ State's Program	Unknown/None	Florida City	2,000,000.00			58 The city needs an additional water tower for additional storage capacity. During hurricanes and electrical power outages, the existing water tower go on backup generation to keep the water moving in the distribution system, but the pumps are unable to push water into the tower to keep the water pressure at optimum levels. An additional water tower would provide adequate storage in the event of an incident where the power was down for an extended period of time.
Florida City	Backup for the City Drinking Water System	Future Unfunded Project	Wind,Health	Infrastructure (Water/Sewer/Drainage)	,CDBG Community Development Block Grants/ State's Program,Public Works and Economic Development Program,Public Assistance Program	Unknown/None	Florida City	2,100,000.00			56 The city has discussed an inter connection to the water system operated by the Florida Keys Aqueduct Authority. The connection would provide a backup source of drinking water to the city should the city's water treatment plant suffer damage or should the city's elevated tanks be damaged in a hurricane. The city is near a possible inter-connect to the Florida Keys Aqueduct Authority.
Florida International Unive	Harden Graham University Center		Wind	Infrastructure (Building)				3,750,000.00			0 The Graham University Center building on the Modesto Maidique campus necessitates overall structural hardening including the fortification of the building frame assembly, windows, doors, other openings and roofing system. Additionally roof mounted equipment will be better secured and other external protective measures undertaken. The Graham Center also serves as the backup shelter for Monroe County residents, and as such, demands additional strengthening. Hardening the Graham University Center will ensure the safety and security of all occupants and the protection of essential property and other important assets.
Florida International Unive	Harden Chemistry and Physics Building		Wind	Infrastructure (Building)				1,000,000.00			0 The Chemistry & Physics building on the Modesto Maidique campus requires hardening of its external envelop including all windows, doors, other openings and roof assemblies. Further, the building needs to enclose the roof at the ends of the structure to better reduce wind loads over a roofed over internal courtyard. In addition, the facility houses multiple research and teaching laboratories which require proper ventilation equipment in the form of approximately twelve existing roof mounted fume hood stacks and other critical mechanical equipment; all of which necessitates hardening. Additionally other roof mounted equipment will be better secured and added external protective measures undertaken. Finally, the building's supporting emergency generator and the MECH air handlers at the main roof requires a re-routing of the air intake to avoid the potential for electrical shorts by water infiltration. Chemistry and Physics houses all of the primary chemistry instructional labs, as well as the chemistry department's stockroom.

Agency	Project Title	Status	Hazards	ProjectType	Potential Grant Sources	Funding Source	Flood Basin	Estimated Costs	GlobalMat	BCR	Project Description
Florida International Unive	Harden Engineering and Computer Science Building		Wind	Infrastructure (Building)				1,600,000.00			0 The Engineering and Computer Science building on the Modesto Maidique campus requires hardening of its external envelop including all windows, doors, other openings and roof. In addition, the structure houses multiple research and teaching laboratories which require proper ventilation equipment in the form of roof mounted fume hood stacks and other critical mechanical equipment; all of which necessitates hardening. Additionally other roof mounted equipment will be better secured and added external protective measures undertaken. Finally the facility has a vulnerable emergency power back up system. The generator sits unprotected at ground level and needs to be elevated and enclosed. The associated fuel tanks also require a protective enclosure. Both projects will ensure continuity of operations during and following a high wind or other disaster event. ECS houses numerous computer science research activities, networking projects, the computer science department and college of arts and sciences. The facility also supports numerous marine biology research labs, which contribute to the survival and understanding of South Florida's ecological system. The support of this facility is critical to the academics of the university, as well as the future members of information technology fields.
Florida International Unive	Harden Owa Ehan Building		Wind	Infrastructure (Building)				250,000.00			0 The Owa Ehan building on the Modesto Maidique campus requires hardening of its external envelop including all windows, doors & other openings. In addition, the structure houses multiple research and teaching laboratories which require proper ventilation equipment in the form of roof mounted fume hood stacks and other critical mechanical equipment; all of which necessitates hardening. Additionally other roof mounted equipment will be better secured and added external protective measures undertaken. The facility supports numerous marine biology research labs, which contribute to the survival and understanding of South Florida's ecological system. Hardening the Owa Ehan building will ensure the safety and security of all occupants and the protection of essential property and other important assets.
Florida International Unive	Harden Health and Life Sciences (HLS) II		Wind	Infrastructure (Building)				500,000.00			0 The HLS II building serves as one of the key laboratories for medical research for the new FIU medical school program on the Modesto Maidique campus. Though constructed to meet current building code, the facility has vulnerable roof top equipment including fume hood stacks that extend horizontally up 25 feet that require enhanced safeguarding. In addition, FA intakes and MECH air handlers on the main roof are in need of a protective enclosure. The emergency backup power for the facility is a generator unit that sits unprotected at ground level and needs to be elevated & enclosed. In addition the associated fuel tanks also require an enclosure. Combined this will ensure continuity of operations during and following a high wind or other disaster event. By hardening the HLS building, the vital medical research being conducted daily will be safeguarded and the new FIU medical program secured.
Florida International Unive	Harden Vierter Haus Building		Wind	Infrastructure (Building)				750,000.00			0 The Vierter Haus Building on the Modesto Maidique campus requires overall fortification of its external envelope including all windows, doors and other openings. Additionally roof mounted equipment will be better secured. While full student evacuation occurs at a Category 2 or higher hurricane, the building structure still requires overall hardening to minimize displacement and critical asset losses. Reinforcing vulnerable areas of the structure will assist FIU in better protecting students, reducing potential losses and assuring a swift recovery.
Florida International Unive	Develop Warning, Education, and Traffic Management Plans		Security/Terrorism	Traffic Control				400,000.00			0 A challenge for emergency management is to mitigate potential loss of life and suffering that could result from failures by the public to respond appropriately to evacuation orders. Studies show that households will often delay evacuation until the point when the road system becomes jammed, and then give up on leaving. The wide range of income, family composition, age, health, culture, and other demographic differences in the South Florida population make evacuation response hard to predict (particularly non-evacuation vs. shadow evacuation). Current understanding is inadequate to predict and plan for problems in evacuation response behavior. Without this understanding, it is difficult to adequately model traffic congestion and clearance times for evacuation zones. Evacuation for a major hurricane will be as bad or worse and impossible to model without knowing evacuation rates, timing, destinations, and routes. In less densely populated areas much of this information can be obtained from current behavioral studies but, in South Florida, large-scale in-depth surveys are needed to get the required information. For a number of years the Institute for Public Opinion Research (IPOR) at Florida International University has been discussing these issues with Miami-Dade County emergency management and doing such behavioral studies as research funding allows. This activity has pointed to the need for a comprehensive behavioral study connected to dynamic transportation modeling carried out in close collaboration with local authorities to produce an evacuation plan that can be relied on to mitigate loss of life.
Florida International Unive	Harden Wolfsonian Museum		Wind	Infrastructure (Building)				535,000.00			0 The Wolfsonian Museum is located on Miami Beach in close proximity to the Atlantic Ocean. The facility houses a priceless art collection of design objects from the early 1900's and is housed in facilities from the same historic era as its artifacts. As such, the facility is in urgent need of fortification to ensure the preservation of both its invaluable contents and protection of its historic structures. Specifically, all windows, doors & other openings will be hardened. Hardening the Wolfsonian Museum will ensure the security and protection of precious artwork and other essential assets.
Florida International Unive	Harden Wolfsonian Annex		Wind	Infrastructure (Building)				975,000.00			0 The Wolfsonian Annex is located on Miami Beach in close proximity to the Atlantic Ocean. The facility houses a priceless art collection of design objects from the early 1900's and is housed in facilities from the same historic era as its artifacts. As such, the facility is in urgent need of fortification to ensure the preservation of both its invaluable contents and protection of its historic structures. Specifically, all windows, doors & other openings will be hardened. Hardening the Wolfsonian Annex will ensure the security and protection of precious artwork and other essential assets.
Florida International Unive	Harden Academic II Building		Wind	Infrastructure (Building)				750,000.00			0 The Academic II Building on the Biscayne Bay campus necessitates hardening of its external envelope including all windows, doors and other openings. Additionally roof mounted equipment will be better secured. While full student evacuation occurs at a Category 2 or higher hurricane, the building structure still requires overall hardening to minimize displacement and critical asset losses. Reinforcing vulnerable areas of the structure will assist FIU in better protecting students, reducing potential losses and assuring a swift recovery
Florida International Unive	Harden the Wolfe University Center		Wind	Infrastructure (Building)				950,000.00			0 The Wolfe University Center on the Biscayne Bay campus needs to harden its external envelope including all windows, doors and other openings. Additionally roof mounted equipment will be better secured. While full student evacuation occurs at a Category 2 or higher hurricane, the building structure still requires overall hardening to minimize displacement and critical asset losses. Reinforcing vulnerable areas of the structure will assist FIU in better protecting students, reducing potential losses and assuring a swift recovery.
Florida International Unive	Harden Academic One (ACI) Building		Wind	Infrastructure (Building)				750,000.00			0 The Academic One building on the Biscayne Bay campus requires strengthening of its external envelop including all windows, doors and other openings. In addition roof mounted equipment will be better secured and other external protective measures undertaken. While full student evacuation occurs at a Category 2 or higher hurricane, the building structure still requires overall hardening to minimize displacement and critical asset losses. Reinforcing vulnerable areas of the structure will assist FIU in better protecting students, reducing potential losses and assuring a swift recovery.
Florida International Unive	Harden BBC Library		Wind	Infrastructure (Building)				750,000.00			0 The Biscayne Bay campus is located directly adjacent to Biscayne Bay and has a campus library that houses over one million books, many of which are rare or irreplaceable. To better mitigate against the potential for damages the structure requires an overall hardening of its external envelop including all windows, doors and other openings. Additionally roof mounted equipment will be better secured and other external protective measures undertaken. Hardening of the BBC Library will protect invaluable property and important assets and will ensure the uninterrupted delivery of educational support services to FIU students immediately following a disaster.
Florida International Unive	Harden Primera Casa/Charles Perry (01 PC) Building		Wind	Infrastructure (Building)				250,000.00			0 The Primera Casa/Charles Perry building on the Modesto Maidique campus houses the main administrative offices, the University's datacenter and many classrooms. As such, the building demands enhanced protection of the structural envelop including hardened glazing on the storefront and other external protective measures. Additionally the building houses multiple laboratories which require proper ventilation equipment in the form of roof mounted fume hood stacks and other critical mechanical equipment; all of which necessitates hardening. Additionally other roof mounted equipment will be better secured. Hardening the 01 PC building will ensure the safety and security of all occupants and the protection of essential property, records and other important assets.
Florida International Unive	Harden Bay View Housing		Wind	Infrastructure (Building)				0.00			0 The Biscayne Bay campus is located in directly adjacent to Biscayne Bay and has the Bay View Housing buildings as resident halls for student housing. While full student evacuation occurs at a category 2 or higher hurricane, the building structures still require overall hardening to minimize displacement and critical asset losses. Reinforcing vulnerable areas of the structure will assist FIU in better protecting students, reducing potential losses and assuring a swift recovery.
Florida International Unive	Harden Health and Life Sciences (HLS) Building I		Wind	Infrastructure (Building)				625,000.00			0 The HLS building serves as one of the principal laboratories for medical research for the new FIU medical school program on the Modesto Maidique campus. Though constructed to meet current building code, the facility has vulnerable roof top equipment including fume hood stacks that extend horizontally up 25 feet that require enhanced safeguarding. In addition, FA intakes and MECH air handlers on the main roof are in need of a protective enclosure. The emergency backup power for the facility is a generator unit that sits unprotected at ground level and needs to be elevated & enclosed. In addition the associated fuel tanks also require an enclosure. Combined this will ensure continuity of operations during and following a high wind or other disaster event. By hardening the HLS building, the vital medical research being conducted daily will be safeguarded and the new FIU medical program better secured.

Agency	Project Title	Status	Hazards	ProjectType	Potential Grant Sources	Funding Source	Flood Basin	Estimated Costs	GlobalMat	BCR	Project Description
Florida International Unive	Hurricane Andrew 20 Year Anniversary Miami Science Museum Exhibition		All Hazards	Outreach				0.00			0 The hurricane exhibition will explore the extent to which these powerful storms have shaped the physical and social landscape of South Florida. Featuring the technologies and expertise of the Florida International University based International Hurricane Research Center, aspects of this exhibition will give visitors the opportunity to investigate the instruments and methods used to predict, track and measure these awesome storms. Dramatic images and incredible video provide graphic evidence of the enormous impact of hurricanes throughout the region. Historic artifacts provide evidence of the intensity of the storm and document the local devastation caused by Hurricane Andrew and other epic storms. An interactive wind tunnel allows visitors to physically experience increasing levels of wind speed, while virtual world exhibits provide opportunities to explore the eye of a hurricane, or manipulate wind speed to observe the exponential increase in damage. Hands-on interactives explain the basic concepts of evaporation, convection and rotation underlying the genesis of hurricanes. Practical information is also available here, including examples of the latest in alert systems, construction technologies, protective materials and emergency kits. Tapping into the breadth and depth of personal experiences and sentiments related to hurricanes, Miami Science Museum will invite visitors to share their stories, creating a changing array of objects, images, narratives and recordings.
Golden Beach	Bridge Replacement										0 The town of Golden Beach includes three islands that are accessible only by fixed bridges. The FDOT recently evaluated the three bridges and replaced the bridge #875700 - Verona Avenue and Golden Beach Canal: Bridge # 875701 - The Strand over Golden Beach Canal - Rating: 40.5 Bridge # 875702 - Navona Ave. over Golden Beach Canal - Rating: 62.8
Golden Beach	The Town Hall/Emergency Operation Center										0 The existing Town Hall, which houses all of the Town's vital records and has been identified as a critical facility, is in need of significant modifications or replacement. The current Town Hall building has limited space, which hinders the ability for employees to adequately respond to the community's needs. A modification option would include the expansion of the current Town Hall building, providing much-needed expanded record storage, additional administrative offices for the current staff, and will allow the Town to comply with all ADA requirements. This complex will provide an approved Emergency Operation Center which will enhance the health and life safety issues for residents. It will become a one-stop center for all emergency needs following a declared emergency event. A replacement facility, if constructed, could be built on Town owned land on A1A, providing a Community Center which could include Town Administration offices, enabling the current Town Hall location to be converted to a recreation building or a recreation area and park.
Golden Beach	Emergency Generators							50,000.00			0 An emergency generator will guarantee continued operation of the storm water system and the Town Hall/Emergency Operation Center and Police Substation in the event of power outages. The town is located in a coastal environment, and is subject to storms and hurricanes.
Golden Beach	Roadway/Streetscape Improvement							2,987,310.00			0 This project will provide safety for all pedestrian traffic including ADA compliance, pedestrians, bicyclists, and strollers use throughout the town of Golden Beach by reducing vehicular speeds, lane narrowing, radical reduction at corners, delineation and deviation, pavers, and the landscape effect and enhanced lighting. In addition to these aspects of the project, the Town plans to shift the current centerline of the Golden Beach Drive roadway pavement three (3) feet east to achieve a balanced impact on the private properties on either side of the roadway to accommodate new sidewalks, valley gutter curbing, landscaping, and much more. Currently, there are no sidewalks along this main thoroughfare and therefore; pedestrians, bicyclists, joggers, etc. all share the roadway with motorized traffic. This is a situation that is potentially unsafe, unfriendly, and poses serious concerns to the town's administrators, elected officials, and residents. This plan proposes constructing a new 4-foot sidewalk along the entire west side of the street. In addition to the aforementioned aspects of the roadway improvement project, this plan includes implementing traffic calming measures and minor street improvements.
Golden Beach	Underground Placement of Utilities							6,900,000.00			0 The electrical, telephone, and cable lines that serve both the town of Golden Beach and adjacent communities are currently affixed to aboveground poles. As a coastal community, the town is vulnerable to service disruptions caused by storms and hurricanes. Within the first phase of the storm water construction areas, the utility lines were underground; however there are insufficient funds available to continue this as the storm water phase's progress.
Golden Beach	Storm Water Drainage System Improvements							4,635,000.00			0 The proposed project is the completion of the storm water facilities as per our storm water Master Plan. The project will mitigate the flooding and saltwater intrusion problems exhibited in the areas west of State Road A1A. This area includes the following five drainage basins: South Parkway Basin, North Parkway Basin, Massini Basin, Center Island Basin, and North Island Basin. The project will include the construction of catch basin inlets, manholes, storm sewer pipes, drainage wells, and three stormwater pump stations. In addition to the flooding mitigation, the proposed drainage systems will enhance the water quality of storm water discharges from the mainland to the Intracoastal Waterway by diverting the first stage of runoff to drainage wells.
Homestead	Drop-Off Site	Other	Wind,Flood/Storm Surge	Equipment		Unknown/None		900,000.00	Unknown		0 Designation and or acquisition of a 1.5-acre debris and trash drop-off site and its related mulching equipment for the convenience of City residents during and after disaster. This site is needed as an additional mitigation tool to dispose unwanted materials and debris before and after a disaster event that would otherwise become a threat to the life and property of City and area residents. Intergovernmental coordination with Miami-Dade County and Florida City is crucial in the site selection process.
Homestead	Improvements to Existing Buildings	Future Unfunded Project	Flood	Infrastructure (Building)		Unknown/None		500,000.00	Unknown		0 This project involves the improvement to critical department buildings that are below the flood level to prevent flooding during and after a storm event.
Homestead	Motorsports Water Storage Tank Equipment	Future Unfunded Project	All Hazards	Equipment		Capital Improvement		500,000.00	Unknown		0 This equipment will help maintain Chlorine residual in the SE quadrant of the City through its loop distribution system.
Homestead	Public Works & Services	Future Unfunded Project	Security/Terrorism	Equipment		Capital Improvement		400,000.00	Unknown		0 Public Works & Services: Vulnerability Assessment/Emergency Plan for the Wastewater Treatment Plant as required by EPA. This is necessary to assess the vulnerability of international threats and natural disasters.
Homestead	Parks & Recreation Security Enhancement	Future Unfunded Project	Security/Terrorism	Equipment		Unknown/None		220,000.00	Unknown		0 Parks & Recreation: Each gate to be operated remotely and there will be a telephone and camera at each gate to include: Harris Field, William F. Dickinson Center, Phicol Williams Center, JD Redd and Roby George Park, cameras will also be placed to view the entire Perimeter of the building.
Homestead	Culvert removal at Keys Gate	Future Unfunded Project	Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)		Capital Improvement		200,000.00	N/A		0 Culvert removal at Keys Gate: To remove an existing culvert in the middle of a drainage canal to enhance the flow and relieve flooding, during and after a storm event.
Homestead	Sidewalks/ Roadway Improvements	25% complete	All Hazards	Infrastructure (Roadway)		Capital Improvement		200,000.00	No		0 This project consists of a citywide roadway/sidewalk/bridge evaluation to identify and improve weak points in the infrastructure. These projects are crucial due to main roadways being used by many as evacuation routes before, during, and after emergency events. Sidewalks/Roadway Improvements: To implement a citywide evaluation to target areas in need.
Homestead	Emergency Supplies and Equipment	Other	All Hazards	Equipment		Unknown/None		200,000.00	Unknown		0 This project involves the acquisition of tools, supplies, and small equipment to handle different emergencies during a disaster event. These tools and equipment will help in the mitigation process for areas of the City that need cleaning, debris pick-up and removal before, during, and after a disaster event. The Police, Public Works and Services, Development Services and Parks and Recreation are the departments involved in this action. Among these tools and equipment are 48 hour emergency supply kits for 150 essential personnel and damage assessment teams such as cameras, first aid kits, weather gear, communications equipment and debris removal power equipment, along with mobile flood relief pumps will be needed.
Homestead	Economic Incentives & Education Information Package	Future Unfunded Project	Flood/Storm Surge	Infrastructure (Building)		Unknown/None		175,000.00	Unknown		0 This mitigation project involves the creation of a package of economic incentives to encourage City property owners to undertake flood protection measures such as elevating structures above the Base Flood Elevation (BFE), flood proofing improvements and the like. This project would involve the research of funding sources and low interests loans to help owners pay to elevate or rebuild structures, and finding means of offsetting the costs of the flood mitigation work. This project also involves public education through advertising and awareness programs about the mitigation measures necessary that must be taken before a disaster event to minimize the threat to life and property.
Homestead	Acquisition of airboats and flat boats	Future Unfunded Project	Flood	Other		Unknown/None		154,000.00	Unknown		0 Both, airboats and flat boats are required to access areas of extensive flooding to assist residents during the disaster event and in the recovery phase. These boats will be used by the Homestead Police Department. Flat Boats: Seven (7) Airboats: Six (6)
Homestead	Tree Trimming in City of Homestead	Future Unfunded Project	Wind	Other		Unknown/None		150,000.00	Unknown		0 This project involves the acquisition of contractual services for tree trimming at City parks, facilities and roadways. The proper pruning and thinning of tree canopies would be extremely beneficial in minimizing potential damage to buildings, electrical components, vehicles, and other property; and result in a pay back in a reduction of post-event casualty pay-outs.
Homestead	Vegetation work and maintenance equipment	Future Unfunded Project	Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)		Unknown/None		100,000.00	Unknown		0 Vegetation work and maintenance equipment: To clear aquatic vegetation around canals and ditches before, during, and after a storm event.
Homestead	Customer Service & Finance Security Enhancement	Future Unfunded Project	Security/Terrorism	Equipment		Unknown/None		65,000.00	Unknown		0 Customer Service & Finance: Installation of cameras, intruder detection devices, and additional security needs.
Homestead	City Hall Security Enhancement	Future Unfunded Project	Security/Terrorism	Equipment		Unknown/None		60,000.00	Unknown		0 Cameras will be placed to view the entire area of City Hall, reconstruct all exit doors with bullet-resistant doors, installation of intruder detection devices and additional needs, public message boards.
Homestead	Police Station Security/Hardening	Future Unfunded Project	Security/Terrorism	Equipment		Capital Improvement		50,000.00	N/A		0 Cameras will be placed to view the entire area of the Police Department, reconstruct the rear door of the P.D. with a bullet-resistant door, installation of three concrete poles in the front of the Police Station protecting the front door entrance.

Agency	Project Title	Status	Hazards	ProjectType	Potential Grant Sources	Funding Source	Flood Basin	Estimated Costs	GlobalMat	BCR	Project Description
Homestead	Acquisition of emergency generators: Police	Future Unfunded Project	All Hazards	Equipment		Unknown/None		180,000.00	Unknown	0	18 Generators- These generators would supply power at 18 critical traffic intersections. The cost is for the generators, transfer switches, and security boxes for the generators.
Homestead	Retrofitting the New City Hall/Divisional EOC to Withstand a Category 5 Hurricane through Structure Hardening and Impact Resistant Windows and Doors	Future Unfunded Project	Wind,Flood/Storm Surge,Power Failure,Security Breach,Technological Disruption	Infrastructure (Building)	,HMGP Hazard Mitigation Grant Program,EOC Emergency Operations Center Grant Program	Identified Grant Source		3,958,500.00	Unknown	0	The new EOC will be located on the second floor of the new City Hall building. It is a rectangular shaped layout providing 1600 SF (57"x28') of useable space. The Homestead EOC is designed to accommodate four major sections (Operations, Planning, Logistics, and Human Needs) encompassing 16 Emergency Functions. The Homestead Divisional EOC when activated serves the residents of the City of Homestead, Florida City, Cutler Bay and the Miccosukee Tribe.
Homestead	GIS that locates all city utilities	Other	All Hazards	Infrastructure (Water/Sewer/Drainage)		Unknown/None		5,000,000.00	Unknown	0	GIS containing information on location of and capacity of all public utilities: Create GIS that locates all city utilities (water, sewer, drainage, electric) so problems can readily be located in an emergency.
Homestead	Upgrade OCB's (Oil Circuit Breakers) with VCB's (Vacuum Circuit Breakers)	25% complete	Health	Infrastructure (Building)		Capital Improvement		200,000.00	N/A	0	This mitigation project involves the replacement of Medium and High Voltage oil circuit breakers in three of the City Electric Substations. The oil breakers are potential hazard environmental equipment that in the event of a failure, they will cause a great environmental damage due the oil spill caused by the circuit breaker tank rupture. The changing to Vacuum Circuit breakers with a clean interruption device other than oil will reduce the City exposure to the cost associate with the Environmental Response Action that must be taken after mineral oil discharge on the grounds from a failure of a Transmission or Distribution oil filled Circuit Breaker
Homestead	Protective Measure for Critical Facility Systems	Future Unfunded Project	Wind	Infrastructure (Building)		Unknown/None		90,909.00	Unknown	0	This project is a mitigating measure that involves the design and construction of concrete enclosures around certain vital systems (as described below) to prevent any damage that may affect the system(s) proper performance during and after a hurricane or any other destructive event. One (1) polymer concrete enclosure to provide continues service of sludge system (wastewater treatment plant).
Homestead	Mitigation project to protect Critical Facility System	Future Unfunded Project	Wind	Infrastructure (Building)		Unknown/None		90,909.00	Unknown	0	This project is a mitigating measure that involves the design and construction of concrete enclosures around certain vital systems (as described below) to prevent any damage that may affect the system(s) proper performance during and after a hurricane or any other destructive event. One (1) concrete enclosure for water well #4 (water treatment plant).
Homestead	Build concrete enclosures around City critical facility systems	Future Unfunded Project	Wind	Infrastructure (Building)		Unknown/None		181,818.00	Unknown	0	This project is a mitigating measure that involves the design and construction of concrete enclosures around certain vital systems (as described below) to prevent any damage that may affect the system(s) proper performance during and after a hurricane or any other destructive event. Enclosures for two (2) fluoride tanks (water treatment plant).
Homestead	Protective Measure for Critical Facility Systems	Future Unfunded Project	Wind	Infrastructure (Water/Sewer/Drainage)		Unknown/None		272,727.00	Unknown	0	This project is a mitigating measure that involves the design and construction of concrete enclosures around certain vital systems (as described below) to prevent any damage that may affect the system(s) proper performance during and after a hurricane or any other destructive event. Three (3) concrete enclosures with proper ventilation for existing chlorine feed systems (water treatment plant).
Homestead	Protective Measure for Critical Facility Systems	Future Unfunded Project	Wind	Infrastructure (Building)		Unknown/None		181,818.00	Unknown	0	This project is a mitigating measure that involves the design and construction of concrete enclosures around certain vital systems (as described below) to prevent any damage that may affect the system(s) proper performance during and after a hurricane or any other destructive event. Electric Build enclosures around 2 substation properties.
Homestead	Protective Measure for Critical Facility Systems	Future Unfunded Project	Wind	Infrastructure (Building)		Unknown/None		90,909.00	Unknown	0	This project is a mitigating measure that involves the design and construction of concrete enclosures around certain vital systems (as described below) to prevent any damage that may affect the system(s) proper performance during and after a hurricane or any other destructive event. One (1) concrete enclosure for fuel tank (fleet).
Homestead	Protective Measure for Critical Facility Systems	Future Unfunded Project	Wind	Infrastructure (Building)		Unknown/None		90,909.00	Unknown	0	This project is a mitigating measure that involves the design and construction of concrete enclosures around certain vital systems (as described below) to prevent any damage that may affect the system(s) proper performance during and after a hurricane or any other destructive event. Storage sheds concrete enclosures (field operations).
Homestead	Secure three (3) existing water tanks from structural damage	Future Unfunded Project	Wind	Other		Capital Improvement		600,000.00	N/A	0	This mitigation project would involve a structural analysis to determine the best method to reinforce the structural members of the three (3) existing water tanks, preventing structural collapse during a hurricane event, therefore ensuring proper function of the City's water distribution system.
Homestead	Comprehensive review, modification, and enforcement of local laws and regulations software	Future Unfunded Project	All Hazards	Other		Unknown/None		1,150,000.00	Unknown	0	Update the City's Geographic Information System (GIS) and infrastructure to facilitate the analyses and identification of sensitive areas; and Drafting proposals for improvements, including the enactment of legislation as necessary.
Homestead	Acquisition of emergency generators: Procurement	Future Unfunded Project	All Hazards	Equipment		Capital Improvement		0.00	N/A	0	1 Generator - Supplies power to the Procurement warehouse.
Homestead	Acquisition of emergency generators: Electric Utilities	Future Unfunded Project	All Hazards	Equipment		Capital Improvement		0.00	N/A	0	3 Generators - Supplies power to 3 substations.
Homestead	Acquisition of emergency generators: City Hall (Emergency Operations Center)	Future Unfunded Project	All Hazards	Equipment		Capital Improvement		0.00	N/A	0	1 Generator - Includes a power back-up generator for computer system to prevent loss of records.
Homestead	Acquisition of emergency generators: Public Works and Services	Future Unfunded Project	All Hazards	Equipment		Capital Improvement		0.00	N/A	0	16 Generators - Includes generators to supply power to the (1) solid waste building; (2) sewer pump station mobile generators; and (3) a generator for the entire facility at the WWTP.
Homestead	Acquisition of additional equipment for Emergency Operations Center	Future Unfunded Project	All Hazards	Equipment		Unknown/None		450,000.00	Unknown	0	The proposed project will facilitate the purchase of equipment that will be designated specifically to the EOC. The equipment will also provide the much-needed infrastructure that will greatly reduce the setup and breakdown time required when the center is activated. The equipment purchased will consist of: Laptop computers with docking stations, Servers, Laser printers, Software tailored to EOC operations, Geographic Information System (GIS), Handheld VHF radios, Base station VHF radios, VHF repeater units, Telephones, Satellite communications, Multi-media equipment / projectors. FAX equipment and software. Enhanced Internet connectivity. Rewiring / hardening of facilities for redundant electrical power, infrastructure to support these systems, Servers
Homestead	Sewer Pump Stations Upgrades	Future Unfunded Project	All Hazards	Infrastructure (Water/Sewer/Drainage)		Capital Improvement		1,500,000.00	N/A	0	The pump stations will require funding to purchase mechanical, electrical, plumbing, and equipment for pump stations.
Homestead	Water Main Improvements	Future Unfunded Project	All Hazards	Infrastructure (Water/Sewer/Drainage)		Capital Improvement		2,000,000.00	N/A	0	To upgrade water mains/lines to eliminate any unacceptable materials and maintain the integrity of the system.
Homestead	Risk Management Plan	Future Unfunded Project	All Hazards	Other		Capital Improvement		60,000.00	N/A	0	As required by the EPA, the report will inform personnel of procedures and recommend actions to ensure there is no release of dangerous chemicals into the environment
Homestead	Krome Avenue Historic District	Future Unfunded Project	Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)		Capital Improvement		5,740,000.00	N/A	0	Krome Avenue Historic District: This area is prone to flooding during high rain events and it became evident during Hurricane Katrina. This project will minimize destruction of valuable storefronts and businesses along Krome Avenue and its vicinity.
Homestead	Landscaping and right-of-way enhancement	Future Unfunded Project	Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)		Unknown/None		500,000.00	Unknown	0	Landscaping and right-of-way enhancement to prevent flooding: To create swales and landscape to reduce runoff and increase percolation by grading the ROW.
Homestead	Acquisition of emergency vehicles and equipment	Future Unfunded Project	All Hazards	Equipment		Other Internal Funding		0.00	N/A	0	This project would involve the acquisition of vehicles and support equipment to access and mitigate affected areas throughout the City. Stormwater TV Truck: Public Works 1 Televiser Damaged Lines
Homestead	Acquisition of emergency vehicles and equipment	Future Unfunded Project	All Hazards	Equipment		Other Internal Funding		0.00	N/A	0	This project would involve the acquisition of vehicles and support equipment to access and mitigate affected areas throughout the City. 50 Yard Roll-Off Containers: Public Works 3 Debris Clean-up/Pickup
Homestead	Acquisition of emergency vehicles and equipment	Future Unfunded Project	All Hazards	Equipment		Other Internal Funding		0.00	N/A	0	This project would involve the acquisition of vehicles and support equipment to access and mitigate affected areas throughout the City. Stormwater Vac Truck: Public Works 1 Clear Storm Drains
Homestead	Acquisition of emergency vehicles and equipment	Future Unfunded Project	All Hazards	Equipment		Other Internal Funding		0.00	N/A	0	This project would involve the acquisition of vehicles and support equipment to access and mitigate affected areas throughout the City. Front Loader with Clamp Bucket: Public Works 2 Clear Debris
Homestead	Acquisition of emergency vehicles and equipment	Future Unfunded Project	All Hazards	Equipment		Other Internal Funding		0.00	N/A	0	This project would involve the acquisition of vehicles and support equipment to access and mitigate affected areas throughout the City. 4 WD Back Hoe with Clamp Bucket: Public Works 1 Clear Debris
Homestead	Acquisition of emergency vehicles and equipment	Future Unfunded Project	All Hazards	Equipment		Other Internal Funding		0.00	N/A	0	This project would involve the acquisition of vehicles and support equipment to access and mitigate affected areas throughout the City. Wastewater Vac Truck: Public Works 1 Clean Sewer Debris
Homestead	Acquisition of emergency vehicles and equipment	Future Unfunded Project	All Hazards	Equipment		Other Internal Funding		0.00	N/A	0	This project would involve the acquisition of vehicles and support equipment to access and mitigate affected areas throughout the City. Vehicle: Parks and Recreation 1 Emergency Operations
Homestead	Acquisition of emergency vehicles and equipment	Future Unfunded Project	All Hazards	Equipment		Other Internal Funding		0.00	N/A	0	This project would involve the acquisition of vehicles and support equipment to access and mitigate affected areas throughout the City. Unifold Decontamination Shelter System 1 Emergency Operations
Homestead	Acquisition of emergency vehicles and equipment	Future Unfunded Project	All Hazards	Equipment		Other Internal Funding		0.00	N/A	0	This project would involve the acquisition of vehicles and support equipment to access and mitigate affected areas throughout the City. Vehicle: Police Department 12 Emergency Operations

Agency	Project Title	Status	Hazards	ProjectType	Potential Grant Sources	Funding Source	Flood Basin	Estimated Costs	GlobalMat	BCR	Project Description
Homestead	Acquisition of emergency vehicles and equipment	Future Unfunded Project	All Hazards	Equipment		Other Internal Funding		0.00	N/A		0 This project would involve the acquisition of vehicles and support equipment to access and mitigate affected areas throughout the City. Vehicle: City Hall (Emergency Operations Center) 5 Emergency Operations
Homestead	Acquisition of emergency vehicles and equipment	Future Unfunded Project	All Hazards	Equipment		Other Internal Funding		0.00	N/A		0 This project would involve the acquisition of vehicles and support equipment to access and mitigate affected areas throughout the City. Vehicle: General Services (fleet) 1 Emergency Operations
Homestead	Construction of a Structure to store Emergency Vehicles and Equipment	Future Unfunded Project	Flood			Capital Improvement		1,200,000.00	N/A		0 This mitigation project would be a joint effort between Florida City and Homestead to provide shelter for emergency vehicles for both cities. This structure is necessary to ensure readily available emergency vehicles before, during, and after a disaster event.
Homestead	Flood Insurance Research Project	Future Unfunded Project	Flood	Outreach		Unknown/None		25,000.00	Unknown		0 This project is an on-going part of the work required for the Community Rating System (CRS) and will involve the research of City properties, which do not have flood insurance and the reasons therefore. This effort would result in an action program designed to increase the number of properties covered by the flood insurance. The project will also review the validity of the Base Flood Elevation (BFE) as reflected on the Flood Insurance Rate Map (FIRM) and explore the possibilities of variable flood insurance rates that distinguish within the same flood zone between properties that are flood prone and vulnerable to flooding hazards and those which are not and/or have taken steps to correct the potential problem.
Homestead	Storm water telemetry system	Future Unfunded Project	Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)		Capital Improvement		900,000.00	N/A		0 Storm water telemetry system: To monitor storm pump stations and main drainage structures before, during, and after a storm event.
Homestead	Installation of storm shutters and/or Impact Resistant Windows at different locations	Other	Wind	Infrastructure (Building)		Unknown/None		1,000,000.00	Unknown		0 This project involves the installation of storm shutters on different City facilities such as the Police Department, Parks and Recreation Buildings and Sports Complex, Public Works and Electric Utility building facilities. The protection of these facilities is critical to ensure continuance of City services such as electric, water, sewer, police, etc.
Homestead	Water and Wastewater Telemetry/RTUs	Future Unfunded Project	Multiple (specify in comments Column T)	Equipment		Capital Improvement		1,000,000.00	N/A		0 This project consists of the purchase and installation of telemetry equipment. Radio transmittal units (RTUs)/Telemetry in all pump stations send flow/performance data and alarm situations to a central location which will increase reliability and control before, during, and after a storm disaster. These systems will also control elevation of water tanks, well pumps, and identify pressure points throughout the system. Pump station RTUs/telemetry will significantly increase reliability and diminish sewage back up and overflow occurrences which could result in contamination from raw sewage leaking into the water table.
Homestead	Installation of Automatic Circuit Reclosers in the Electric Distribution System	Future Unfunded Project	Power Failure	Infrastructure (Water/Sewer/Drainage)		Unknown/None		100,000.00	Unknown		0 This project will enhance the Distribution Feeders over current protection with the objective of: to prevent damage to the equipment and circuits, to prevent hazard to the public and utility personnel, and to maintain a high level of service by preventing power interruptions when possible and minimizing their effects when they do occur.The installation of Circuit Reclosers will mitigate the loss of services for the residential, commercial and industrial customers that are heavily dependent on the availability of electric power. This equipment will reduce significantly the frequency and duration of electric outages in the system.
Homestead	Upgrade Substation Feeder Protection	Other	Power Failure	Equipment		Unknown/None		80,000.00	Unknown		0 This project involves upgrading all electro-mechanical Protective Relays within the Substations to state of the art Intelligent Electronic Devices (IED). A Protective Relay is a device that will monitor the power system for abnormal conditions and take appropriate action to reduce system stress, equipment damage and personal injury.The process of upgrading the Protective Relays has already begun at the McMinn and Lucy Substations. These new microprocessor relays have proven themselves in the field under trying conditions. Whenever there is a system disturbance, these relays have given an abundance of data, which is used to analyze the situation. These IEDs are multi protection devices in which one unit can replace at least five relays that are in service. They also perform monitoring functions for power quality. This project would involve: Installation of microprocessor relays, compatible to the ones already in services.
Homestead	Hazard Material Containers	Future Unfunded Project	All Hazards	Infrastructure (Building)		Capital Improvement		900,000.00	N/A		0 This project is a mitigating measure against any type of disaster event, and involves the design and construction of a concrete enclosure w/ cover roof to confine hazard material used in the Electric Utility and Solid Waste. The container will prevent any liquid spill on the ground and reduce the chemical hazard material exposure to the workers.The concrete enclosure must meet or comply with the DERM building criteria or other State/County hazard requirement.
Homestead	Additional Digester and Blowers	Future Unfunded Project	All Hazards	Equipment		Capital Improvement		750,000.00	N/A		0 The additional digester system is needed in order to obtain Class A standard for the waste sludge. By meeting a Class A standard, the sludge can be utilized in agricultural applications; therefore reducing the amount of waste sludge sent to the South Dade Landfill.
Homestead	Wastewater Infiltration/Inflow	Future Unfunded Project	Flood	Equipment		Unknown/None		3,200,000.00	N/A		0 This project is needed to conduct a study and the purchase of materials and equipment in order to continue implementing corrective measures to prevent storm and ground water intrusion into the sewer system by performing maintenance and inspections and to protect the groundwater from possible contamination as a result of wastewater exfiltration.
Homestead	NE Quadrant Water Storage Tank	Future Unfunded Project	All Hazards	Equipment		Capital Improvement		4,000,000.00	N/A		0 In light of newly developed areas and the rapid increase of population, it is essential to provide adequate water pressure, fire flow, water quality, and capacity to the area.
Homestead	Increase Wastewater Treatment Plant Capacity WWTP Expansion	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)		Capital Improvement		40,000,000.00	N/A		0 WWTP Expansion: Design and construction of an additional Wastewater treatment plant to increase and meet expected capacity of the City in the next 7- 10 years. \$ 40,000,000
Homestead	New Sewer Mains: To upgrade sewer main/lines to eliminate raw sewage from leaking into the water table.	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)		Capital Improvement		2,000,000.00	N/A		0 New Sewer Mains: To upgrade sewer main/lines to eliminate raw sewage from leaking into the water table.: To enable the WWTP to efficiently dispose of its effluent in the foreseeable future.
Homestead	WWTP Inspection and Preventive Maintenance	Project in Planning Stage	Flood	Infrastructure (Water/Sewer/Drainage)		Capital Improvement		500,000.00	No		0 WWTP Inspection and Preventive Maintenance: Required structural inspections for defects of the SBR & digester tanks and repairs based on recommendations
Homestead	New Sewer Mains	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)		Unknown/None		2,000,000.00	Unknown		0 New Sewer Mains: To upgrade sewer main/lines to eliminate raw sewage from leaking into the water table.
Homestead	Improve Transportation Infrastructure	Future Unfunded Project	All Hazards	Infrastructure (Roadway)		Capital Improvement		2,000,000.00	No		0 This project consists of a citywide roadway/sidewalk/bridge evaluation to identify and improve weak points in the infrastructure. These projects are crucial due to main roadways being used by many as evacuation routes before, during, and after emergency events.Bridge Repairs: This project would involve the repairs of existing, City-owned bridges that are in structurally unsafe and/or poor conditions.
Homestead	Acquisition of property for the expansion of Losner Park	Future Unfunded Project	Flood	Infrastructure (Building)		Unknown/None		3,000,000.00	Unknown		0 This project involves the acquisition and demolition of several structures to the west of Losner Park in the Downtown Area. By acquiring the properties and clearing the building and slabs, additional land is available for percolation of storm water to help prevent flooding in the Historic Downtown. After dedication as park land, it would be forever removed from development.
Homestead	Sewer lines in the Northwest Neighborhood and the West Industrial Area	Future Unfunded Project	Flood	Infrastructure (Building)		Unknown/None		3,300,000.00	Unknown		0 This project would lessen the possibility of flood during times of heavy rain and prevent the saturation of the ground causing the overflow of septic tanks in these areas. By installing additional sewer lines where they do not now exist, the potential contamination from sewage overflow would be eliminated.
Homestead	Under-grounding 13kv Distribution	Future Unfunded Project	All Hazards	Equipment		Unknown/None		12,500,000.00	Unknown		0 This project will enhance system reliability by installing/replacing/under grounding of the existing overhead distribution system across the entire service area. The under grounding of the distribution system will dramatically enhance and increase the Utility Department's ability to provide uninterrupted services to our customers before, during, and after a hurricane, terrorist, or any other destructive event.
Homestead	Strategy for increasing the flood insurance discount for City of Homestead property owners by improving the CRS rating	Future Unfunded Project	Flood	Outreach		Unknown/None		50,000.00			0 Step 1 . Organiza Identify other offices/staff to involve in mitigation planning. Draft and adopt the resolution creating the planning committee. Step 2. Involve the public Identify members of the public to serve on the planning committee, stakeholders and committee chair. Draft a questionnaire to residents. Draft newsletter article(s) and news release(s). Step 3. Coordinate. Identify, collect, and review existing studies, plans, and reports that address natural hazards and your community's needs and goals. Distribute the notice that you are preparing the plan. Step 4. Assess the hazard Write a master list of all hazards faced by your community. Check that your FIRM still accurately depicts the base and 500-year floodplains. Map additional areas subject to flooding and drainage problems. Record other available flood data, such as velocities and warning time. Collect available data on the other hazards. Summarize the hazard data with maps, descriptions, and historical experiences for Committee review and to form the basis of the plan's section on the hazards.] Step 5. Assess the problem. Review and summarize the impact of EACH hazard. Prepare an overall summary of the impacts. Step 6. Set goals. Step 7. Review possible activities. Draft appropriate sections of the plan for committee review Step 8. Draft an action plan. Send the draft to the state hazard mitigation office for a courtesy review. Schedule the public meeting Step 9. Adopt the plan Step 10. Implement, evaluate, and revise Step 11. Make Infrastructure Improvements. Purchase software to improve building and all trades plans review. Purchase hardware to improve building and all trades plans review.
Homestead	Storm Water System Upgrade	Future Unfunded Project	Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)		Capital Improvement		21,252,000.00	N/A		0 Construct new and upgrade drainage elements: To increase drainage capability in the City such as the construction and upgrade of culverts, ditches, French drains, catch basins, etc.
Homestead	Portable mobile pumps	Future Unfunded Project	Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)		Capital Improvement		500,000.00			0 Portable mobile pumps: Portable pumps are needed to relieve flooding in various areas around the City of Homestead before, during, and after a storm event

Agency	Project Title	Status	Hazards	ProjectType	Potential Grant Sources	Funding Source	Flood Basin	Estimated Costs	GlobalMat	BCR	Project Description
Housing Authority of the City of Miami	Shutters	Future Unfunded Project	Wind	Infrastructure (Building)		Identified Grant Source		44,341.00	N/A	63	Miami-Dade Parks, Recreation and Open Spaces (PROS) Department operates and maintains a total of 86 buildings in need of hurricane shutters to protect the building and their contents from future storm damage. Many of these buildings are recreation centers that are open to the public as soon as possible after hurricanes to provide facilities for ice, water and food distribution, and places for safe child care until schools reopen. Without these window and door shutter projects, it is possible that wind forces and flying debris could cause damage to these facilities.
Internal Services	Replace the Integrated Command Center's Roof		All Hazards	Infrastructure (Building)				1,000,000.00		0	Replace roof at the Integrated Command Center that presently houses Miami-Dade County's 911 Fire/Dispatch Center. This category 5 building will host the county's EOC or DEM, 311 Information Center, Public Works Traffic & Signals and possibly be the home for a fusion center.
Internal Services	Flood prevention for the Central Support Facility Building		Flood	Infrastructure (Water/Sewer/Drainage)				200,000.00		0	This facility produces and/or distributes chilled water (air conditioning) and electricity to county buildings in the Downtown Government Center complex totaling in excess of 3,000,000 square feet, including County Hall, a State Civil Courthouse, a State Family Courthouse, two museums, the main library, and other high-rise office towers and garages. Planned additional high-rises, one a State Juvenile Courthouse and the others office towers will add an additional 650,000 to 1 million square feet over the next five years. The ground floor of the facility houses all electrical connections and inter-ties with the local utility, the main electrical panels being fed from underground at 13,800 V AC, 60 Hz. And 480 V AC 60 Hz. In case of flooding, water can enter the main transformer vault, elevator pits, ground floor of the co-generation plant, and electrical switchgear rooms, where critical equipment lies to provide water to the cooling tower (52 feet height), and to the make-up water lines for chilled and condensing water loops, and for main power distribution to the Downtown Government Center complex. Storm drainage in the surrounding streets is extremely poor. Needed improvements include the installation of ground-level flood barriers, improved water extraction and/or the elevation of critical equipment within the facility.
Internal Services	Hardening of the perimeter at the Integrated Command Center		All Hazards	Infrastructure (Building)				500,000.00		0	This facility serves as the County's primary computer operations center, and houses police and fire emergency dispatch (9-1-1). The facility little set back from the surrounding streets, requiring a hardened property perimeter to properly protect the site. Installing a hardened fence (with a raised concrete base) or a bollards/planter combination will provide additional protection to this critical site. Reinforce entry gates by installing popup bollards or hydraulic lift systems similar to the ones being used at the downtown Federal building.
Internal Services	Create Central GSA Control Center		Wind	Infrastructure (Building)				850,000.00		0	Merge operations of the security central station with the building management system group and provide equipment for expanded security and BMS capabilities. Build the new control center at the Integrated Command Facility, a category 5 rated building, present location of Fire/Police 911 Dispatch and future location of EOC/DEM and 311 operations. The expanded role of the GSA control center will permit the monitoring of intrusion, fire, and other building related alarms through the use of updated technologies. Stations for other county departments to be provided as backups to their individual control centers (Water & Sewer, Seaport, Miami-Dade Transit, other).
Internal Services	Install flood barriers for the basement of the Richard E. Gerstein Justice Building		Flood	Infrastructure (Water/Sewer/Drainage)				150,000.00		0	The Richard E. Gerstein Justice Building, the sole location of State Criminal Court in Miami-Dade County, and the primary site for Traffic Court, has two driveway entries into the basement, both of which have previously permitted flooding of the basement from the elevated storm water from the surrounding streets. This flooding has previously damaged, or has the potential to damage, electrical panels and equipment that are located flush or close to the basement floor, as well as equipment and systems located in the basement. Flood barriers should be installed at both entries, and critical equipment should be considered for elevation off the floor.
Internal Services	Hardening of the Elections Headquarters Building		Wind	Infrastructure (Building)				1,000,000.00		0	Elections must have continuity even after natural disasters. Providing impact glass or accordion/roll down shutters will mitigate potential windstorm damage. Increasing the generator capacity will provide power to the complete elections process, giving the department the ability to continue the elections process after natural disasters. Enhancing the roof rating will help mitigate windstorm damage to the roof and all election equipment located in the warehouse area.
Internal Services	Hardening of the windows at Richard E. Gerstein Justice building		Wind	Infrastructure (Building)				4,700,000.00		0	The Richard E. Gerstein Justice Building, the sole location of State Criminal Court in Miami-Dade County, and the primary site for Traffic Court, has two rows of large windows, with the bottom windows 4' in height, and the top windows 5' in height. There are approximately 500 windows on the upper eight floors. The first floor would require automatic roll down shutters (\$300,000.00) and, since the upper floors need to have the windows replaced (due to water intrusion and structural failure), they should be replaced with impact resistant windows.
Internal Services	Hardening of the windows at Court House Center		Wind	Infrastructure (Building)				450,000.00		0	The Lawson E. Thomas Family Court Building, the sole location housing State Family Court in Miami-Dade County, is a thirty-story high-rise building. The upper floors all have impact resistant glass; however, the first floor and mezzanine windows are extremely large, and manual shuttering from the outside is next to impossible. These windows should either have automatic shutters or impact resistant windows installed. This building also has a large patio on the eleventh floor. The windows around the patio and the doors leading out on the patio should be shuttered
Internal Services	Hardening of the windows at North Dade Justice Building		Wind	Infrastructure (Building)				300,000.00		0	This is a two-story building which consists of mostly glass exterior walls. The building is a heavily utilized branch court facility, serving the entire northern end of the county. The facility, although in the extreme northern end of the County, lies within 2 miles of the ocean, with no intervening barrier islands. It would be extremely valuable to protect this facility, either through the installation of impact resistant windows or film, or with automatic shutters
Internal Services	Flood barriers for the Miami-Dade Cultural Center basement		Flood	Infrastructure (Water/Sewer/Drainage)				60,000.00		0	The Cultural Center houses the County's Main Library and two museums (Historical Museum of South Florida and the Miami Art Museum). These institutions house both public and private collections. The basement and basement-level floors of the institutions provide delivery access to the facilities, storage for museum exhibit and library book collections, as well as key electrical, mechanical and elevator equipment rooms for the facility. The basement has one main service driveway that ramps down into the basement that should have a flood barrier installed to prevent substantial water intrusion from heavy rainfall and rising waters. The poor drainage in the surrounding streets makes flooding a very real potentiality. There is also a pedestrian entrance (with a door) on the north side of the building that leads into the basement, which should also be protected, since flooding occurs at that point as well.
Internal Services	Flood prevention of the Elevator shaft in the Miami-Dade Cultural Center Historical Museum		Flood	Infrastructure (Water/Sewer/Drainage)				80,000.00		0	The Historical Museum of South Florida is located in the Miami-Dade Cultural Center. Wind-driven rain, together with rainwater running down the roof, in heavy rainstorms can leak into the elevator shaft, and from there into the building through louvers, and into the ceiling plenum. A number of interior areas can be affected, which threatens public and private art collections housed in the building. This project would address these conditions.
Internal Services	Hardening of the perimeter at the DPCC building		All Hazards	Infrastructure (Building)				350,000.00		0	This facility serves as the County's primary computer operations center, and houses police and fire emergency dispatch (9-1-1). The facility is set well back from the surrounding streets, making the site ideal for providing optimum blast protection by means of a hardened property perimeter. The existing fenced perimeter should be reinforced by installing a hardened fence (with a raised concrete base) or a bollards/planter combination. Reinforce the two entry gates by installing popup bollards or hydraulic lift systems similar to the ones being used at the downtown Federal building
Internal Services	Purchase of Portable Emergency Power Generators		Power Failure	Equipment				1,500,000.00		0	Purchase of three trailer-mounted, portable DIESEL emergency power generators, and made cable ready to provide emergency power to disabled facilities after a major disaster. Units are to be 300 KW, 60 Hz, 480/277/120 V, with fuel reserve of 470 gallons minimum of No. 2 diesel fuel. This set-up will provide an approximate continuous runtime of 24 hours (per generator, at full load). Work includes prepping buildings to accept quick connections from generators and necessary load transfers. Purchase of Portable Emergency Power Generators:
Internal Services	Purchase of trailer mounted portable chiller and associated cooling tower		All Hazards	Equipment				2,400,000.00		0	Purchase of trailer-mounted portable chiller of 1200 Tons capacity, to provide emergency chilled water for air conditioning to disabled building(s) after a disaster, or major disruption in the building A/C system. Many of the current buildings in the inventory have been constructed for energy efficient operation, which has translated in recent years to a lack of direct access to the outside (i.e. reduced number and distribution of windows). The impact of this is that the buildings are rendered virtually unusable in the event that climate control is not available.
Internal Services	Extending runtime of emergency power generators, by converting them to burn both gas and diesel fuel		Power Failure	Equipment				1,200,000.00		0	The purpose of this conversion is to facilitate - at a lesser cost - the extended operation of emergency generators in those facilities that already have natural gas lines. If installed, the conversion will allow diesel engines to burn both fuels at a ratio of 20 % diesel fuel, 80% natural gas. Diesel fuel will be depleted 5 times slower, allowing for an extended run time on the same fuel storage. If Natural Gas is not available, engines can still run on Diesel fuel at 100% ratio. This conversion is recommended for generators of 400 KW or larger capacity only, of which the agency currently has 23 units.
Internal Services	Purchase of portable lighting towers of various wattages		Power Failure	Equipment				25,000.00		0	After an emergency, it may be necessary to work with the assistance of portable high intensity discharge lights. Depending on location, needs and use, requirements may vary from 1.5 to 7KW, which may be satisfied by the use of several units of the same size.

Agency	Project Title	Status	Hazards	ProjectType	Potential Grant Sources	Funding Source	Flood Basin	Estimated Costs	GlobalMat	BCR	Project Description
Internal Services	Provide 32 satellite cellular phones for emergency service to facilities management and maintenance staff		All Hazards	Equipment				85,000.00			0 During an emergency, local telephone and radio services are very likely to be fully or partially disrupted, leaving key departmental staff unable to communicate with each other or a central command station. This will significantly hinder staff's ability to respond in a timely, effective manner to emergency service calls, to call for parts needed for emergency repairs, or to secure needed assistance at sites impacted by the emergency. All field work will be so impacted, thus delaying the process of post-event damage assessment, site security in the short-term event aftermath, temporary and permanent site mobilizations, and service delivery coordination. Beyond the obvious functions of assessing and remediating facility damage, the department also employs emergency generator field technicians that support emergency generator equipment located in all areas of the county, including numerous emergency response facilities, e.g. fire and police stations, fueling sites, and antennas/repeater stations required for County radio systems, many of which are located in extremely remote difficult-to-access areas. The cost estimate includes the procurement of 32 Iridium-based Motorola satellite phones, 5-year emergency service contracts for each phone, and miscellaneous necessary accessories of the phones. Equipment are initially anticipated to be utilized only in emergency situations, and through distribution to key GSA facility managers, key management personnel, and various field teams of emergency generator, security, elevator inspector, and building maintenance personnel.
Internal Services	Adding Redundancy to GSA Building Management System Central Control Office		All Hazards	Equipment				50,000.00			0 Create redundancy for the GSA's BMS Central Control, which monitors remotely on a continuous 24-hour basis all electronic building management systems (BMS) located in the department's main facilities. BMS systems are critical to all types of emergency response and post-event situations within these buildings, since they monitor and control fire alarms, smoke evacuation, air conditioning, and other critical systems throughout the buildings. The ability to maintain operational continuity through an event would enable critical systems to continue to be monitored and/or operated from a remote location out of harms way. To establish the redundancy necessary to mitigate potential loss from a disaster scenario, the optimum solution would be to procure 12 laptop computers, an Apogee server and related communications software, which would enable restarting operations from one of two geographically disparate back-up locations, currently designated as the Regional Data Processing & Communications Center and the Elections Processing / 3-1-1 Answer Center.
Internal Services	Retrofit emergency generator technicians' vehicles to drive in flooded areas		Flood	Equipment				25,000.00			0 The department's emergency generator team services and maintains equipment at some 250 locations, including a large number of emergency response sites, such as fire and police stations, vehicle fueling sites, and antennas/repeater stations required for County radio systems. Many of these are located in either extremely remote or otherwise flood-prone areas. If any of these areas see water levels high enough to reach the engine air intake, the vehicles will not operate, stranding technicians and hindering emergency response activities. Engine modifications to provide a higher air intake will provide significantly increased range in a flooded area.
Internal Services	Enhanced security for the Medical Examiner's Facility		Security/Terrorism	Equipment				150,000.00			0 The medical examiner complex is a three building complex that consists of a three-story Administration Building, a large two-story Morgue building and a one-story Decomposition building. This is the only such facility in Miami-Dade County, and as such, it supports all local police agencies in the County, as well as the State Attorney's Office in criminal investigations. Loss of the facility or the exposure of evidence and bodies to theft or vandalism can have extremely serious or even catastrophic results. Security could be substantially enhanced through the replacement of the existing obsolete tape CCTV system with state-of-the-art digital recorder and an expanded number (total, 41) of high resolution IP cameras this will provide the ability to review and control the system from remote locations via the internet, including pan, tilt and zoom (PTZ) capability on selected cameras.
Internal Services	Enhanced security for the Courthouse Center		Security/Terrorism	Equipment				205,000.00			0 The Lawson E. Thomas Family Court Building is a thirty-story high-rise office building that serves as the sole location in Miami-Dade County housing State Family Court. As such, the existing CCTV system should be expanded to cover additional areas around the building and interior security electronic screening stations. Procure and install a screening machine for the screening of deliveries to the delivery area
Internal Services	Provide safety equipment for emergency inspection of confined spaces		Security/Terrorism	Equipment				150,000.00			0 Provide A Frames, harnesses, life lines, lanyards, gas analyzers, SCBA apparatus, protective clothing, gas masks, ladders, human access/retrieval equipment, and hard hats for accessing flooded manholes, above-ground areas where diesel fuel tanks are installed, and other confined spaces in and around managed facilities. During and following natural or other disasters, it is common for natural gas or fuel lines to rupture, which will expose technicians having to access these areas to a harmful and potentially deadly environment.
Internal Services	Enhance security for the Richard E. Gerstein building		Security/Terrorism	Equipment				110,000.00			0 The Richard E. Gerstein Justice Building, the sole location of State Criminal Court in Miami-Dade County, and the primary site for Traffic Court, is not as secure as it should be, given the criticality of its uses. Procure and install an electronic screening machine and walk-through magnetometer for the loading dock, to initiate the screening of personnel and oversized delivery packages that are not currently screened.
Internal Services	Removal of the abandoned Cooling Towers from the Court House Center		Wind	Infrastructure (Building)				75,000.00			0 The Lawson E. Thomas Family Court Building is a thirty-story high-rise office building in the center of the downtown government center complex. The building has large rooftop cooling towers that are no longer in use. These need to be removed from the roof, along with the wind breaker panels surrounding them. Failing to do so exposes the building and adjacent street to significant damage in the event of high wind conditions.
Internal Services	Hardening of the perimeter at the SPCC building		Security/Terrorism	Infrastructure (Building)				1,900,000.00			0 This facility is home to the County's Commissioners, Mayor, County Manager and most directors from the various departments. Reinforce the perimeter by installing a hardened fence or bollards/planter combination. Reinforce gates by installing popup bollards or hydraulic lift system similar to the ones being used at the Federal building downtown. Install surveillance system that includes cameras, recorders and additional lighting.
Internal Services	Hardening of the perimeter at the Medical Examiner's Facility		Security/Terrorism	Infrastructure (Building)				110,000.00			0 The medical examiner complex is a three building complex that consists of a three-story Administration Building, a large two-story Morgue building and a one-story Decomposition building. This is the only such facility in Miami-Dade County, and as such, it supports all local police agencies in the County, as well as the State Attorney's Office in criminal investigations. Loss of the facility or the exposure of evidence and bodies to theft or vandalism can have extremely serious or even catastrophic results. Currently, the facility does not have complete access control. There are four wood gate arms controlling vehicle traffic in and out of facility. These should be replaced with a metal frame sliding gate that, when closed, would prevent not only vehicular, but pedestrian access to the property. The existing perimeter chain link fence should be replaced with an 8-foot high picket fence
Jackson	Jackson Health System Infrastructure Protection Measure-Switchgear Elevation and Upgrade	Future Unfunded Project	,Power Failure,Flood/Storm Surge,Technological Disruption	Equipment	,HMGP Hazard Mitigation Grant Program,Pre-Disaster Funding Programs,PDM - FEMA Pre-Disaster Mitigation Grant Program	Unknown/None		1,300,000.00			91 To relocate electrical infrastructure above the Base Flood Elevation and upgrade the switchgears to protect critical infrastructure in Jackson Health System's Central and South Wings.
Jackson	Wind Retrofit Project at RTC	25% complete	Wind	Infrastructure (Building)	HMGP Hazard Mitigation Grant Program	Grant Awarded		8,589,588.00	No		0 To wind retrofit the Ryder Trauma Center by installing a wind abatement system of lightweight glass fiber reinforced concrete panels (GFRC) or other equal products.
Jackson	Tank Farm Enclosure at JNMC	Project in Planning Stage	Wind	Infrastructure (Building)	HMGP Hazard Mitigation Grant Program	Grant Awarded		498,420.99	No		0 To protect the tank farm through the installation of masonry block walls to comply with the NOA requirements for protection of the tank farms for hurricane preparedness.
Jackson	Sewage piping at JMH	Future Unfunded Project	,Other,Flood,Health	Infrastructure (Water/Sewer/Drainage)	,HMGP Hazard Mitigation Grant Program,Pre-Disaster Funding Programs,PDM - FEMA Pre-Disaster Mitigation Grant Program	Identified Grant Source		102,000.00	No		95 To replace sewage piping
Jackson	Electrical upgrade at Central and South Wing	Future Unfunded Project	,Flood,Flood/Storm Surge,Storm Surge,Power Failure	Equipment	,FMA - Flood Mitigation Assistance,PDM - FEMA Pre-Disaster Mitigation Grant Program,Pre-Disaster Funding Programs,HMGP Hazard Mitigation Grant Program	Unknown/None		0.00	Unknown		78 To move main switchgears from basement to ground floor; building new electrical rooms
Jackson	PBX Room	Future Unfunded Project	,Technological Disruption,Power Failure	Equipment	,HMGP Hazard Mitigation Grant Program,Pre-Disaster Funding Programs,PDM - FEMA Pre-Disaster Mitigation Grant Program	Unknown/None		350,000.00			92 To support the telecommunication and computer equipment; convert from normal to emergency
Jackson	Energy Power - RTC	Future Unfunded Project	,Power Failure,Health,Wind	Equipment	,PDM - FEMA Pre-Disaster Mitigation Grant Program	Unknown/None		0.00	Unknown		97 To convert RTC to 100% emergency power

Agency	Project Title	Status	Hazards	ProjectType	Potential Grant Sources	Funding Source	Flood Basin	Estimated Costs	GlobalMat	BCR	Project Description
Jackson	ACCE-B	Future Unfunded Project	,Power Failure	Equipment	,HMGP Hazard Mitigation Grant Program,Pre-Disaster Funding Programs,Emergency Management Performance Grant,PDM - FEMA Pre-Disaster Mitigation Grant Program,FMA - Flood Mitigation Assistance	Unknown/None		200,000.00			92 To upgrade main switchgear with remanufactured breakers
Jackson	Convert normal power for West Wing	Future Unfunded Project	,Power Failure	Infrastructure (Building)	,HMGP Hazard Mitigation Grant Program,Pre-Disaster Funding Programs,PDM - FEMA Pre-Disaster Mitigation Grant Program,FMA - Flood Mitigation Assistance	Unknown/None		800,000.00			91 To convert normal power to emergency for entire West Wing-building
Jackson	DTC-Baseament Kitchen	Future Unfunded Project	,Power Failure	Infrastructure (Building)	,HMGP Hazard Mitigation Grant Program,Pre-Disaster Funding Programs,PDM - FEMA Pre-Disaster Mitigation Grant Program	Unknown/None		500,000.00			91 To convert the normal power kitchen equipment to emergency; our patients suffer during the hurricane season and/or long power shutdown periods
Jackson	UC-Chiller Plant	Project Deleted	,Power Failure	Infrastructure (Building)	,HMGP Hazard Mitigation Grant Program,Pre-Disaster Funding Programs,PDM - FEMA Pre-Disaster Mitigation Grant Program,FMA - Flood Mitigation Assistance	Unknown/None		750,000.00			91 To add chiller-D on emergency power, the chilled water loop being reduced affects our patients
Jackson	Roof Hardening/Wind Retrofit at JNMC	Project Deleted	,Wind	Infrastructure (Building)	,HMGP Hazard Mitigation Grant Program,Pre-Disaster Funding Programs,PDM - FEMA Pre-Disaster Mitigation Grant Program	Identified Grant Source		101,200.00	No		94 This roof hardening/wind retrofit project will provide protection for Jackson North. The components that will be used for this hardening/wind retrofit project will meet Miami-Dade County Code and Specifications or Florida Building Codes Specifications.
Jackson	Uninterrupted Power Supply at JNMC	Project Deleted	,Power Failure,Technological Disruption	Equipment	,HMGP Hazard Mitigation Grant Program,Pre-Disaster Funding Programs,PDM - FEMA Pre-Disaster Mitigation Grant Program	Identified Grant Source		112,100.00	No		89 To add uninterrupted power supply to Jackson North's CT Scan will ensure continuity of operations and provide dramatic improvement to the safety and well-being of patients who may experience accidents and injuries requiring detailed imaging of structures within the body.
Jackson	UC-Generator Plant	Project Deleted	,Power Failure,Technological Disruption	Equipment	,HMGP Hazard Mitigation Grant Program,Pre-Disaster Funding Programs,EMPA - Emergency Management Program Assistance,PDM - FEMA Pre-Disaster Mitigation Grant Program	Unknown/None		0.00			81 To upgrade two 1,100 KW Essential Emergency generator, the current generators are 20 years old
Jackson	Central Energy Plant-switchgear	Project Deleted	,Power Failure	Infrastructure (Building)	,PDM - FEMA Pre-Disaster Mitigation Grant Program,FMA - Flood Mitigation Assistance	Unknown/None		0.00	Unknown		81 To upgrade switchgear in main electric room at Central Energy plant
Jackson	Site Lighting	Project Deleted	,Other	Infrastructure (Building)	,HMGP Hazard Mitigation Grant Program,Pre-Disaster Funding Programs,PDM - FEMA Pre-Disaster Mitigation Grant Program	Unknown/None		0.00			81 To upgrade site lighting, life safety problems as standardization to comply with minimum foot-candle requirements
Jackson	Central Energy Plant-infrastructure	Project Deleted	,Technological Disruption	Equipment	,HMGP Hazard Mitigation Grant Program,Pre-Disaster Funding Programs,PDM - FEMA Pre-Disaster Mitigation Grant Program	Unknown/None		0.00			81 To upgrade infrastructure communication at Central Energy plant
Jackson	Essential Power	Project Deleted	,Power Failure	Equipment	,HMGP Hazard Mitigation Grant Program,Pre-Disaster Funding Programs	Unknown/None		0.00			81 To arrange essential power (Life Safety, Critical Equipment) load
Jackson	Energy Center East Tower	Project Deleted	,Power Failure	Equipment	,HMGP Hazard Mitigation Grant Program,Pre-Disaster Funding Programs,EMPA - Emergency Management Program Assistance,PDM - FEMA Pre-Disaster Mitigation Grant Program	Unknown/None		0.00			81 To upgrade 4+900 KW generators including paralleling gear
Key Biscayne	Coastal Dune Vegetation	Funding Secured	,Flood,Flood/Storm Surge,Storm Surge,Wind,Other	Beach/Seawall		Other Internal Funding	North Biscayne Bay	10,000.00	Unknown		78 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.
Key Biscayne	Village K-8 Center Stormwater Pump Station	Project in Planning Stage	,Flood,Flood/Storm Surge,Sea Level Rise,Storm Surge	Infrastructure (Water/Sewer/Drainage)	,HMGP Hazard Mitigation Grant Program	Other Internal Funding	North Biscayne Bay	350,000.00			70 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.
Key Biscayne	Elevate Repetitive Loss Properties	Future Unfunded Project	,Flood,Flood/Storm Surge,Storm Surge	Other		Unknown/None	North Biscayne Bay	1,100,000.00			59 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

Agency	Project Title	Status	Hazards	ProjectType	Potential Grant Sources	Funding Source	Flood Basin	Estimated Costs	GlobalMat	BCR	Project Description
Key Biscayne	Village Hall Courtyard Improvement Demonstration Project	Project Complete	Flood	Infrastructure (Water/Sewer/Drainage)		Other Internal Funding	North Biscayne Bay	16,500.00	Unknown	44	This project seeks to resolve the flooding that occurs from the rain gutter overflow along the perimeter of the roof opening over the Village Hall courtyard. It will include two parts. First, to raise the elevation of the wall of the center water fountain to increase holding capacity as a receiving basin for the second part. Decorative rain cisterns can be located as such where the catchments can then overflow into the fountain.
Key Biscayne	CERT Readiness	Future Unfunded Project	,Flood,Power Failure,Sea Level Rise,Health,Flood/Storm Surge,Technological Disruption,Wild Fire,Wind	Outreach		Unknown/None	North Biscayne Bay	150,000.00	Unknown	76	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.
Key Biscayne	Additional Training	Future Unfunded Project	,Other	Other		Unknown/None	North Biscayne Bay	2,500.00		73	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.
Key Biscayne	Reverse 911 Community Notification System	Future Unfunded Project	,Technological Disruption	Equipment		Unknown/None	North Biscayne Bay	105,000.00	Unknown	73	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.
Key Biscayne	Purchase of Emergency Vehicles	Future Unfunded Project	,Health,Security Breach,Storm Surge,Flood/Storm Surge	Equipment		Unknown/None	North Biscayne Bay	75,000.00		70	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.
Key Biscayne	Emergency Operation Center	Future Unfunded Project	,Power Failure,Technological Disruption,Security Breach,Wind,Flood/Storm Surge	Infrastructure (Building)		Unknown/None	North Biscayne Bay	35,000.00	Unknown	77	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 operating status
Key Biscayne	Hardening of Village Hall Generator	Future Unfunded Project	Other	Infrastructure (Building)		Unknown/None	North Biscayne Bay	200,000.00	Unknown	47	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.
Key Biscayne	Stormwater outfall Rehabilitation	75% complete	Multiple	Infrastructure (Water/Sewer/Drainage)		Other Internal Funding	North Biscayne Bay	50,000.00	No	0	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.
Key Biscayne	Flap Gates at Outfalls	Funding Secured	Flood	Infrastructure (Water/Sewer/Drainage)		Other Internal Funding	North Biscayne Bay	626,700.00	Unknown	0	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.
Key Biscayne	Drainage Improvements on Fernwood Road & Hampton Road	Funding Secured	Flood	Infrastructure (Water/Sewer/Drainage)		Other Internal Funding	North Biscayne Bay	465,275.00	Unknown	0	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.
Key Biscayne	Feasibility Study for Additional open Space Preservation	Other	Other	Notification		Other Internal Funding	North Biscayne Bay	35,000.00	Unknown	0	Revised since no longer study. Land has been identified for potential open space
Key Biscayne	Drainage Improvements on East Heather Drive	Project in Planning Stage	Flood	Infrastructure (Water/Sewer/Drainage)		Other Internal Funding	North Biscayne Bay	839,225.00	Unknown	0	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.
Key Biscayne	Erosion Control Web Q&A and Response System	Project in Planning Stage	Multiple	Outreach		Other Internal Funding	North Biscayne Bay	10,000.00	Unknown	0	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.
Key Biscayne	CRS Outreach Program	Project in Planning Stage	Other	Outreach		Other Internal Funding	North Biscayne Bay	10,000.00	Unknown	0	This project involves establishing a community outreach program to comply with Community Rating System (CRS) requirements under Activity 330.
Key Biscayne	Envrionmental Forum	Other	Other	Outreach		Other Internal Funding	North Biscayne Bay	10,000.00	Unknown	0	The programs includes continued participation at Miami-Dade County LMS meetings, Floodplain Roundtable Discussions, Hurricane Conferences, FDEP and FEMA training seminars and others.
Key Biscayne	Comprehensive Review of Local Laws and Regulations	75% complete	Flood	Other		Other Internal Funding	North Biscayne Bay	5,000.00	No	0	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
Key Biscayne	Traffic Signage & Pavement Marking Improvements Master plan	25% complete	Other	Traffic Control		Capital Improvement	North Biscayne Bay	40,000.00	Unknown	0	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.
Key Biscayne	New Stormwater Outfall Construction	Funding Secured	Multiple	Infrastructure (Water/Sewer/Drainage)		Unknown/None	North Biscayne Bay	210,000.00	Unknown	0	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.
Libraries	N. Dade Region Repl. & strengthen roof	Funding Applied for	Multiple (specify in comments Column T)	Infrastructure (Building)	HMGP Hazard Mitigation Grant Program	Grant Applied For		650,000.00	No	65	Replace and strengthen roof system. This facility was built in 1979 and the roof was re-paired in 1999. An inspection of the roof found it beyond its useful life and in need of replacement. The North Dade Regional branch serves the municipalities of Miami Gardens, Opa Locka, and North Miami, as well as several communities within north Miami-Dade County. This 50,000 square foot facility serves as an important community resource offering library materials and services meeting the information and educational needs of these deserving communities. Department assets in this building are worth in excess of \$40,000,000.00. This facility has motorized roll up shutters protecting its entrances and windows. However, replacing and reinforcing the roofing system is essential to maintaining the integrity of the building envelop and be able to withstand hurricane force winds. Estimated cost: \$650,000.00
Libraries	W. Dade Reg. install impact windows	Future Unfunded Project	Wind	Infrastructure (Building)		Unknown/None		850,000.00	Unknown	61	The West Dade Regional branch of the Miami-Dade Public Library contains furniture, equipment and materials worth over \$40,000,000.00. This building is of critical importance to the multi-ethnic and minority communities that it serves. This project will enable us to install impact resistant windows to withstand hurricane-level winds, as required by the new code, to secure the content of this building and on-going services provided to the communities served by this facility. Estimated cost: \$850,000.00
Libraries	Miami Lakes impact resistant windows	Future Unfunded Project	Wind	Infrastructure (Building)		Unknown/None		225,000.00	Unknown	60	The Miami Lakes branch of the Miami-Dade Public Library contains furniture, equipment and materials worth over \$2,850,000.00. This building is of critical importance to the multi-ethnic and minority communities that it serves. This project will enable us to install impact resistant windows to withstand hurricane-level winds, as required by the new code, to secure the content of this building and on-going services provided to the communities served by this facility. Estimated cost: \$225,000.00
Libraries	Coral Gables reinforce the windows	Future Unfunded Project	Wind	Infrastructure (Building)		Unknown/None		650,000.00	Unknown	63	The Coral Gables branch of the Miami-Dade Public Library contains furniture, equipment and materials worth over \$25,000,000.00. This building is also critical to emergency operations by serving, as the backup facility for the administration should the Main library be rendered inaccessible or inoperable due to an emergency. This project will enable us to reinforce the windows to withstand hurricane-level winds, as required by the new code, to secure the content of this building and on-going services provided to the communities served by this facility. Estimated cost: \$650,000.00

Agency	Project Title	Status	Hazards	ProjectType	Potential Grant Sources	Funding Source	Flood Basin	Estimated Costs	GlobalMat	BCR	Project Description
Libraries	North Central repair roofing system	Future Unfunded Project	Wind	Infrastructure (Building)		Unknown/None		300,000.00	Unknown	66	The North Central branch of the Miami-Dade Public Library System serves several minority communities within north central Miami-Dade County. This 5,000 square foot facility is the primary source for library services within a 30-mile radius. Therefore, disruptions in service due to major damage would significantly impact a large portion of the most needed residents within the County. The project would include an analysis of the existing roofing system, modifications to bring the system to the current building code to include selection of new materials to increase wind resistance and strength; and construction of the new system under existing building code. \$300,000
Libraries	Lemon City install impact resistant windows	Future Unfunded Project	Wind	Infrastructure (Building)		Unknown/None		135,000.00	Unknown	60	The Lemon City branch of the Miami-Dade Public Library contains furniture, equipment and materials worth over \$2,000,000.00. This building is of critical importance as a valued to the multi-ethnic and minority communities that it serves. This project will enable us to install impact resistant windows to withstand hurricane-level winds, as required by the new code, to secure the content of this building and on-going services provided to the communities served by this facility. Estimated cost: \$135,000.00 Project 13: North Central, Roof redesign and replacement
Libraries	Allapattah to install impact resistant windows	Future Unfunded Project	Wind	Infrastructure (Building)		Unknown/None		110,000.00	Unknown	60	The Allapattah branch of the Miami-Dade Public Library contains furniture, equipment and materials worth over \$2,750,000.00. This building is of critical importance to the multi-ethnic and minority communities that it serves. This project will enable us to install impact resistant windows to withstand hurricane-level winds, as required by the new code, to secure the content of this building and on-going services provided to the communities served by this facility. Estimated cost: \$110,000.00
Libraries	Coral Reef to install impact resistant windows	Future Unfunded Project	Wind	Infrastructure (Building)		Unknown/None		150,000.00	Unknown	60	The Coral Reef branch of the Miami-Dade Public Library contains furniture, equipment and materials worth over \$2,750,000.00. This building is of critical importance to the multi-ethnic and minority communities that it serves. This project will enable us to install impact resistant windows to withstand hurricane-level winds, as required by the new code, to secure the content of this building and on-going services provided to the communities served by this facility. Estimated cost: \$150,000.00
Libraries	Culmer/Overtown to install impact resistant windows	Future Unfunded Project	Wind	Infrastructure (Building)		Unknown/None		125,000.00	Unknown	60	The Culmer/Overtown branch of the Miami-Dade Public Library contains furniture, equipment and materials worth over \$1,750,000.00. This building is of critical importance as a valued resource to the multi-ethnic and minority communities that it serves. This building is also of historical significance since it houses an early mural from the world renowned and award-winning African-American artist, Purvis Young, who was born and raised within the area of Culmer/Overtown. This project will enable us to install impact resistant windows to withstand hurricane-level winds, as required by the new code, to secure the content of this building and on-going services provided to the communities served by this facility. Estimated cost: \$125,000.00
Libraries	Edison Center install impact resistant windows	Future Unfunded Project	Wind	Infrastructure (Building)		Unknown/None		175,000.00	Unknown	60	The Edison Center branch of the Miami-Dade Public Library contains furniture, equipment and materials worth over \$2,000,000.00. This building is of critical importance as a valued to the multi-ethnic and minority communities that it serves. This project will enable us to install impact resistant windows to withstand hurricane-level winds, as required by the new code, to secure the content of this building and on-going services provided to the communities served by this facility. Estimated cost: \$175,000.00
Libraries	Kendall to install impact resistant windows	Future Unfunded Project	Wind	Infrastructure (Building)		Unknown/None		225,000.00	Unknown	60	The Kendall branch of the Miami-Dade Public Library contains furniture, equipment and materials worth over \$2,850,000.00. This building is of critical importance to the multi-ethnic and minority communities that it serves. This project will enable us to install impact resistant windows to withstand hurricane-level winds, as required by the new code, to secure the content of this building and on-going services provided to the communities served by this facility. Estimated cost: \$225,000.00
Libraries	North Central install impact windows	Future Unfunded Project	Wind	Infrastructure (Building)		Unknown/None		135,000.00	Unknown	60	The North Central branch of the Miami-Dade Public Library contains furniture, equipment and materials worth over \$1,850,000.00. This building is of critical importance to the multi-ethnic and minority communities that it serves. This project will enable us to install impact resistant windows to withstand hurricane-level winds, as required by the new code, to secure the content of this building and on-going services provided to the communities served by this facility. Estimated cost: \$135,000.00
Libraries	Key Biscayne install impact windows	Future Unfunded Project	Wind	Infrastructure (Building)		Unknown/None		225,000.00	Unknown	71	The Key Biscayne branch of the Miami-Dade Public Library contains furniture, equipment and materials worth over \$2,750,000.00. This building is of critical importance to the multi-ethnic and minority communities that it serves. This project will enable us to install impact resistant windows to withstand hurricane-level winds, as required by the new code, to secure the content of this building and on-going services provided to the communities served by this facility. Estimated cost: \$225,000.00
Medley	NW South River Drive Drainage Improvements	Project in Planning Stage	,Flood,Wind	Infrastructure (Water/Sewer/Drainage)				2,000,000.00		98	Drainage improvements for this flood prone area.
Medley	Drainage Improvements Phase IV	Project in Planning Stage	,Flood,Health,Power Failure	Infrastructure (Water/Sewer/Drainage)		Unknown/None		900,000.00		100	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.
Medley	Flood Mitigation Area South	Project in Planning Stage	,Flood	Infrastructure (Water/Sewer/Drainage)		Grant Applied For		2,300,000.00	N/A	88	Design and Construction of interconnected drainage system, cross drains to provide much needed protection from flooding events during periods of light to normal rain.
Medley	Medley Public Services Facilities Strengthening	Future Unfunded Project	,Wind,Flood	Infrastructure (Building)		Unknown/None		800,000.00	Unknown	84	Strengthening of Public Services Building
Medley	Tobie Wilson Park Flood Proofing & Strengthening	Future Unfunded Project	,Flood	Infrastructure (Building)				800,000.00	Unknown	90	Flood Proofing and strengthening of facility
Medley	Russian Colony Canal Bank Stabilization	Future Unfunded Project	,Flood	Beach/Seawall		Unknown/None		0.00		0	Canal Bank Stabilization along North side of NW 106 Street
Medley	Town Hall Building Strengthening	Future Unfunded Project	,Flood	Infrastructure (Building)		Unknown/None		800,000.00		96	Town Hall Building Strengthening through Impact Windows, Second Floor Backyard and Community Safe Room
Medley	Drainage Improvements Phase III	Project in Planning Stage	,Flood,Health	Infrastructure (Water/Sewer/Drainage)		Unknown/None		270,000.00		100	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.
Medley	Drainage Improvements Phase I	Project in Planning Stage	,Flood,Health	Infrastructure (Water/Sewer/Drainage)		Unknown/None		190,000.00		97	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.
Medley	Drainage Improvements Phase II	Project in Planning Stage	,Flood,Health,Power Failure	Infrastructure (Water/Sewer/Drainage)		Unknown/None		450,000.00		96	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.
Medley	Paving & Drainage Improvements	Project in Planning Stage	,Flood,Health,Power Failure	Infrastructure (Water/Sewer/Drainage)		Unknown/None		1,810,000.00		96	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 cost of \$900,000.00.
Mercy	Protection of Crawl Spaces		Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)				60,000.00		0	Build flood walls outfitted with permanently installed flood gates to isolate four locations where crawl spaces exist, which are highly vulnerable to flooding during rain events and from storm surge. Replace all pipe and utility anchors and hangers in such crawl spaces with corrosion-resistant devices such as stainless steel or fiberglass hangers and anchors. This will eliminate an existing problem and reduce the potential for damage to critical utilities and piping in such crawl spaces.
Mercy	Storm Surge Mitigation		Flood/Storm Surge	Beach/Seawall				1,200,000.00		0	Reinforce seawall. Install surge-deflector atop seawall bulkhead, and backflow gates on all storm drains through the seawall. This will dampen energy of storm surge, deflect or stop impact of floating debris and prevent surge penetration through storm drain system into the campus. This will reduce potential for damage from hydrodynamic pressure, wave impact and the impact of floating debris during hurricanes. With SLOSH model projections of a worst-case storm surge of 14.5 ft. NGVD net of wave action, which will only be exacerbated in years to come as a result of sea level rise, the potential for damage from storm surge is high.
Mercy	Wind retrofit: Harden Carroll Building Envelope		Wind	Infrastructure (Building)				980,000.00		0	Reinforce exterior walls to enhance performance under wind loads and improve connections between building envelope and building structure, to meet or exceed wind-velocity design criteria under the Florida Building Code High Velocity Hurricane Zone for Miami-Dade County [146 mph 3-second gusts]. This will reduce potential for damage from the impact of major hurricanes.

Agency	Project Title	Status	Hazards	ProjectType	Potential Grant Sources	Funding Source	Flood Basin	Estimated Costs	GlobalMat	BCR	Project Description
Mercy	Wind retrofit: Replace Windows with Pressure-rated Units		Wind	Infrastructure (Building)				1,500,000.00			0 Replace all windows on the Carroll, Huntley and Surgical Pavilion buildings, which do not meet current minimum requirements of the Florida Building Code HVHZ for wind-velocity pressure, with non-operable fixed-glass units that will equal or exceed the wind-velocity pressure ratings of the Florida Building Code HVHZ for the location and above-ground elevation in each case. Although all windows are protected by deployable impact-resistant hurricane shutters, which are neither wind-pressure nor water tight, some breakage occurred during hurricanes Katrina and Wilma in 2005. This will reduce the potential for damage through breaching of the building envelope resulting from window breakage during hurricanes.
Mercy	Reconfigure Windows ♦ East Wing Building		Wind	Infrastructure (Building)				90,000.00			0 Replace and resize thirty windows on the west elevation of the third floor of the East Wing Building looking over the roof of the Surgical Pavilion, which are highly vul-nerable to water penetration as a result of having their sills below the level of the adja-cent roof. This will eliminate the potential for water penetration during hurricanes or ex-treme rain events and thus reducing the potential for damage to the building interior.
Mercy	Wind retrofit: Replace/harden all roofs built prior to 1994 Building Code		Wind	Infrastructure (Building)				1,600,000.00			0 Replace/harden approximately 50,000 s.f. of roofs throughout the hospital facility including the following four buildings: Carroll, Huntley, Hurley, North, which date back to before the enhanced requirements of the 1994 South Florida Building Code. Use two-ply SBS system over new coverboard, over new tapered Polyiso insulation (R-20) over new temporary roof over new primer over existing concrete deck, designed to a basic wind speed of 160 mph 3-sec. gusts exceeding requirements of FBC HVHZ. Finish roof with high-reflectivity elastomeric coating. Install 18 guage galvanized steel metal coping over building parapet. Increase roof-drainage capacity, as needed, to enhance performance under extreme rain events. Provide enhanced means of an-choring for all roof-mounted mechanical equipment. Prior to work conduct engineering study and core tests to determine as-built-conditions. After completion of work conduct roof-uplift tests at corners, perimeter and field using FBC HVHZ testing protocols.
Mercy	Mercy Hospital Hazard Mitigation Plan		All Hazards	Other				135,000.00			0 Draft, adopt and implement hazard mitigation plan for the Mercy Hospital campus. Plan will identify the natural hazards to which the campus is vulnerable, and it will also identify the actions and activities to reduce the potential for damage and losses from those hazards, while also establishing a coordinated process for implementing the plan, and for timely and periodic reviews.
Mercy	Design and built Code Plus new Patient Tower		Wind	Infrastructure (Building)				2,500,000.00			0 Enhance design and construction of new 250-bed patient tower to be built by using Code Plus method. Elevate structure and ground floor above Cat 5 still-water surge elevation, by grading, compacting and effectively armoring the building site terrain. Use design criteria on the basis of 165 mph basic wind speed for structural and architectural design to achieve hardened building envelope.
Mercy	Wind retrofit: Harden exterior Walls ♦ Kohly Building		Wind	Infrastructure (Building)				675,800.00			0 Complete mitigation of building envelope by hardening and remediating all exterior walls to prevent water penetration during hurricanes from wind driven rain or during extreme rain events reducing potential for damage to building interior and contents. The building built in 1996 has sustained wall damage during hurricanes Katrina and Wilma that has led to water penetration issues. Conduct engineering study and soundings to determine extent of wall deterioration and identify suitable and effective wall remediation and weatherproofing methods and specifications.
Mercy	Wind retrofit: Replace roof ♦ South Wing Building		Wind	Infrastructure (Building)				775,000.00			0 Eliminate source of flying debris and reduce potential for damage from breaching of the building envelope during hurricanes by replacing 19,778 s.f. of gravel roof, built in 1964, with two-ply SBS system over new coverboard, over new tapered Polyiso insulation (R-20) over new temporary roof over new primer over existing concrete deck, designed to a basic wind speed of 160 mph 3-sec. gusts exceeding requirements of the FBC HVHZ. Finish roof with high-reflectivity elastomeric coating. Install 18 gauge galvanized steel metal coping over building parapet. Increase roof-drainage capacity, as needed, to enhance performance under extreme rain events. Provide enhanced means of anchoring for all roof-mounted mechanical equipment. Prior to work conduct engineering study and core tests to determine as-built-conditions. After completion of work conduct roof-uplift tests at corners, perimeter and field using FBC HVHZ testing protocols.
Mercy	Wind Retrofit: Replace roof - Surgical Mechanical Penthouse		Wind	Infrastructure (Building)				298,000.00			0 Eliminate source of flying debris and reduce potential for damage from breaching of the building envelope during hurricanes by replacing 6,303 sf. of gravel roof built in 1977, with new two-ply SBS system over new coverboard, over new tapered Polyiso insulation (R-20) over new temporary roof over new primer over existing concrete deck, designed to a basic wind speed of 160 mph 3-sec. gusts exceeding requirements of FBC HVHZ. Finish roof with high-reflectivity elastomeric coating. Install 18 guage galvanized steel metal coping over building parapet. Increase roof-drainage capacity, as needed, to enhance performance under extreme rain events. Prior to work conduct engineering study and core tests to determine as-built-conditions. After completion of work conduct roof-uplift tests at corners, perimeter and field using FBC HVHZ testing protocols
Miami	Master Plan for Virginia Key	Future Unfunded Project	All Hazards	Beach/Seawall	,HMGP Hazard Mitigation Grant Program,PDM - FEMA Pre-Disaster Mitigation Grant Program,Public Assistance Program	Identified Grant Source	South Biscayne Bay	550,000.00	Unknown	73	Planning will submit a proposal under the Coastal Partnership Initiative for a Virginia Key master plan. That plan will include provisions for restoring natural tidal action near the historic African American beach. Such restoration would contribute towards a mitigation of beach erosion. The plan recognizes the importance of natural plant communities and habitats and the role each play in stabilizing the soil for this natural barrier island. As stated in the proposal: ♦The process of a new master plan, taking into account the entire island, while including all stake holders and the public, will allow for a comprehensive process to address a very complex barrier island. The plan which includes economic, environmental, architectural, design, traffic, and landscaping criteria will give the new master plan concrete proposals to insure sound land use decisions for this unique uninhabited barrier island♦
Miami	Hurricane Window Barriers for Park Recreation Buildings	Future Unfunded Project	All Hazards	Infrastructure (Building)	,HMGP Hazard Mitigation Grant Program,PDM - FEMA Pre-Disaster Mitigation Grant Program,Public Assistance Program	Identified Grant Source		250,000.00	Unknown	81	As a significant component of the 2001 Homeland Defense Neighborhood Improvement Bond Program, the Department of Capital Improvements will undertake the renovation and/or expansion of over 27 recreation buildings in city of Miami parks, and will construct 3 new additional recreation buildings. As part of this construction, we will include new Storm Shield hurricane barriers that comply with the Florida Building Code and Miami-Dade County Hurricane Product Approval Program. This will not only provide sufficient storm protection for the buildings and their contents, but will also eliminate or dramatically reduce costly pre-storm event labor charges associated with the installation of traditional storm shutters.
Miami	Anchor Park Fixtures	Future Unfunded Project	All Hazards	Infrastructure (Water/Sewer/Drainage)	,PDM - FEMA Pre-Disaster Mitigation Grant Program	Identified Grant Source		150,000.00	Unknown	87	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.
Miami	Public Works Maintenance Yard Building	Future Unfunded Project	All Hazards	Infrastructure (Building)	,Public Assistance Program,PDM - FEMA Pre-Disaster Mitigation Grant Program	Identified Grant Source	C7	1,000,000.00	Unknown	71	Currently, vital tools (i.e. chain saws, cutters, etc.) and personnel are housed in portable trailers. During an emergency situation, these trailers are not being used for obvious safety reason. As a result, the department's first-response crews wait at home until the emergency situation is lifted. A hurricane-proof facility would allow Public Works to have the crews available on board right after an emergency condition.
Miami	Harden Neighborhood Enhancement Team Centers	Future Unfunded Project	All Hazards	Infrastructure (Building)	,PDM - FEMA Pre-Disaster Mitigation Grant Program,Public Assistance Program	Identified Grant Source		1,300,000.00	Unknown	75	The city of Miami operates 13 Neighborhood Enhancement Team (NET) centers located throughout the city. These centers are designed to provide essential services and disaster information to the local communities, improve communication between the city and its citizens, and provide a central source for services, supplies, and information. Originally developed in 1992, these centers have been well received by the citizens and have shown their value repeatedly in non-disaster applications. The NET Centers are well equipped to serve as disaster field offices for the city and a distribution site for relief goods such as ice, food, and water. Because these centers can provide such a vital service to the city's residents, the city is proposing to make the buildings more resistant to damage from a hurricane or other disasters. Improvements that could be made to these structures include providing emergency generators, storm shutters, flood proofing, and structural strengthening. All of these improvements would allow the centers to become fully operational immediately after the disasters.
Miami	Low Power Portable Radio Stations	Future Unfunded Project	Communications Failure	Equipment	,Public Assistance Program,PDM - FEMA Pre-Disaster Mitigation Grant Program	Identified Grant Source		0.00	Unknown	91	Low power portable radio stations would allow for the transmission of vital and time critical information to the public. These units are small trailer units similar to those used to provide information to motorists about a variety of topics, such as airport information, roadway construction warnings, parks and recreation information, etc. They have a short range (approximately three miles in most cases) and can be set up quickly. The units would be used throughout a disaster. Initially, they would be used during evacuations to provide information about traffic routes, blocked roadways and other key information. Following a disaster, these units could be used in conjunction with Miami's NET Centers and broadcast information about the locations of food and medical centers, ice distribution centers, and other critical information without the delays associated with other media. Another benefit is that this information can be specifically targeted to the local people (e.g., those within a single NET service area) and not the entire region. The mobile radio stations also could be used to provide information about hazardous material spills, other police or fire emergencies, and special events. The city of Miami proposes to acquire seven of these units to properly cover the city.

Agency	Project Title	Status	Hazards	ProjectType	Potential Grant Sources	Funding Source	Flood Basin	Estimated Costs	GlobalMa	BCR	Project Description
Miami	Portable Traffic Control Signs	Future Unfunded Project	All Hazards		,Public Assistance Program,Pre-Disaster Funding Programs	Identified Grant Source		500,000.00	Unknown	81	Effective and efficient communication is vital to allow for the rapid evacuation of citizens prior to the impact of a hurricane in the city of Miami. With a residential population of about 400,000 people and a commuter population that at least doubles the affected population during the work week, traffic jams are a certainty. Portable traffic control signs that provide scrolling text messages would allow traffic to be directed to alternative routes and to provide other vital information to motorists. The portable signs have other uses besides assisting in evacuations: they can be used to display information during events such as fire/rescue emergencies, hazardous material spills, special events, terrorist incidents, and special police events such as SWAT operations. These signs display a text message that is easily programmed into the unit and can be moved using most any city vehicle with a trailer hitch. The city of Miami would purchase ten of these units at a cost of about \$50,000 each, plus additional trailer hitches for police vehicles.
Miami	Community Emergency Response Teams	Future Unfunded Project	All Hazards	Outreach	,Public Assistance Program	Identified Grant Source		150,000.00	Unknown	93	The Community Emergency Response Team (CERT) is a program in which local citizens are trained to provide basic emergency services after a disaster until professional assistance arrives from the city's emergency response personnel. The training is such that CERT members can handle basic items for the first 36 hours of a disaster. The training would consist of learning basic medical treatment procedures, scene safety, securing utilities and other hazards, and some rescue operations. To initiate the program, the city would need a training staff to develop and present the material, market the program using a variety of methods, coordinate the registration process and other logistical matters, deliver the classes to the citizens, and schedule some type of annual refresher training program. The city would capitalize on the experience already gained by the 25 CERT teams currently in place in Miami-Dade County.
Miami	Vehicle Tracking Devices	Future Unfunded Project	All Hazards	Equipment	,Public Assistance Program,PDM - FEMA Pre-Disaster Mitigation Grant Program	Identified Grant Source		250,000.00	Unknown	90	During emergency situations, it is very difficult to efficiently track Public Works equipment and direct their operators to the disaster area most in need. As a result, some disaster areas are not being addressed in a timely manner. A solution to these deficiencies will be to install vehicle tracking devices which will relay their position to the emergency operations center. This would allow the more timely and efficient dispatch of equipment.
Miami	Storm Shelter for Families of City Employees	Future Unfunded Project	All Hazards	Infrastructure (Building)	,PDM - FEMA Pre-Disaster Mitigation Grant Program,Public Assistance Program	Identified Grant Source		750,000.00	Unknown	91	During a disaster, the separation stress of employees being away from their families and loved ones is a critical issue that adversely affects the city's ability to respond during a disaster. Employees' job performance may suffer because of this concern and some employees may elect to remain with their families instead of responding to city needs. One way to solve this problem is to create a shelter specifically dedicated to city personnel and their families. This would help assure the city's emergency workers that their families will be safe during a disaster and allow them to concentrate on providing essential services. As part of this project, the city would conduct a study to determine the best location for such a shelter, whether one large shelter or multiple smaller shelters should be constructed, if there is an existing facility (or multiple facilities) that could meet these requirements, and estimated costs. Resources and services needed include safety and security, medical care, food and lodging, and communications. The study also would examine the effect of these new, dedicated shelters on the larger shelter deficit that exists throughout Miami-Dade County.
Miami	Storm Shutters for City Buildings	Future Unfunded Project	Wind	Infrastructure (Building)	,PDM - FEMA Pre-Disaster Mitigation Grant Program	Identified Grant Source	DA-1	0.00	Unknown	60	This project would install hurricane shutters and reinforced doors on the manifold municipal buildings without this protection. These shutters and doors are designed to prevent hurricane force winds and debris from breaking the windows and allowing wind, water, and debris to enter the structures. These proposed modifications would allow these buildings to not only survive the hurricane with less damage to the structure and the property stored inside, but also reduce the financial impact to the city. From a purely practical standpoint, the hurricane shutters and doors also would allow the buildings to remain functional during a storm and help ensure that they could be used immediately afterwards in the response and recovery phase. The city of Miami has a critical need to protect the following facilities: Athletic Club building used as a city employee deployment center. Convention Center. 26 park buildings & structures located throughout the city.
Miami	Study Potential Fire Hazards on City-owned Islands	Future Unfunded Project	Wild Fire	Other	,HMGP Hazard Mitigation Grant Program	Identified Grant Source	South Biscayne Bay	40,000.00	Unknown	86	The city of Miami owns approximately ten islands in Biscayne Bay and other locations near the coast in the northern part of Miami that may pose a threat to nearby residents and commercial buildings in the event of a brush fire. While the city recognizes that these islands provide a barrier to winds and other potential threats, it is seeking a study to determine the magnitude of any potential threat of fire on these islands. Potential actions could include controlled burns to remove non-native species and replace them with native species in a manner that provides for greater fire safety.
Miami	Debris Removal	Future Unfunded Project	All Hazards	Infrastructure (Roadway)	,Public Assistance Program,Hurricane Program	Identified Grant Source		0.00	Unknown	84	The city presently maintains a list of contractors that have agreed to provide debris removal services following a disaster. The city would develop a Comprehensive Debris Clearance (CDC) plan that would list the names and phone numbers of debris removal contractors, identify potential debris storage sites, removal methods, and provide for special programs, such as hazardous materials pickup and amnesty days for residents. Contracts would be negotiated in advance and monetary damages would be due to the city if the contractor fails to perform. The study also would analyze how the city could best coordinate debris removal activities with related post-disaster services performed by Miami-Dade County. The city welcomes debris removal assistance along federal, state, and county roadways, but recognizes that it will need to provide its own service along most of the smaller, local roadways in Miami.
Miami	Station/Facility Apparatus Room Doors	Future Unfunded Project	All Hazards	Infrastructure (Building)	,HMGP Hazard Mitigation Grant Program,Public Assistance Program	Identified Grant Source		252,000.00	Unknown	81	The city of Miami has an approximately 72 apparatus room overhead rolling doors that are prone to failure and should be replaced with a more secure door. These doors are the main egress for Fire-Rescue vehicles and they protect emergency equipment worth at least \$2,000,000 per facility.
Miami	Storage Facilities for Critical Equipment	Future Unfunded Project	All Hazards	Infrastructure (Building)	,PDM - FEMA Pre-Disaster Mitigation Grant Program	Identified Grant Source		0.00	Unknown	82	Currently, the city of Miami has a severe shortage of hardened storage locations for city equipment during a major disaster. Equipment such as the fire department's urban search and rescue trailers, Public Works' heavy equipment, parks department buses, and other similar items are stored outside on a normal day-to-day basis and could be damaged and destroyed during a storm. Much of this equipment is vital during a disaster to serve functions such as rescuing trapped citizens, clearing roadways, and providing support to other disaster recovery operations. The city of Miami has identified a need for three hardened facilities, located in three different areas of the city that would allow for the proper protection of this equipment and allow for the rapid deployment following a disaster. The facility would need to meet, and in most cases exceed current construction and protective equipment requirements and have emergency power and communications equipment for workers at these facilities.
Miami	Public Education and Information Distribution	Future Unfunded Project	All Hazards	Outreach	,PDM - FEMA Pre-Disaster Mitigation Grant Program	Identified Grant Source		650,000.00	Unknown	82	The city recognizes the need to educate the public about the threat of natural and man-made disasters and proposes a multifaceted program to educate its residents about disaster preparedness and response. These actions would have a direct impact of the health and safety of Miami's residents: Literature consisting of handouts, mailers, advisory notices, booklets, etc. that would be distributed widely to city residents. Public Meetings these meetings would provide residents with an opportunity to learn more about resources available at the city and to learn about other 97 neighborhood-based city programs (e.g., Community Emergency Response Teams, NET Centers). Web Site the city would develop a web site to provide disaster-related information to residents. The site would help people prepare for disasters, and could provide a vital source of information to people about storm alerts, evacuation routes, shelters, etc. The site would be integrated with the web site already being developed by the police department for community policing and other internal record management purposes. Cable Television The city would provide information through its cable access channel (Channel 9) during disasters.
Miami	Protect Vital City Records	Future Unfunded Project	All Hazards	Other	,Public Assistance Program	Identified Grant Source	DA-1	60,000.00	Unknown	85	This project is a study to investigate ways to best preserve the city's vital records and other documents having archival or historical value. The city has been storing approximately 1,300 boxes of records in the basement of the Miami city hall, an area that is subject to flooding during a major storm. More than 700 boxes already have been moved to temporary storage in the Coconut Grove Convention Center, but approximately 600 boxes still need to be moved. All of the boxes need to be inventoried for vital records (i.e., those related to business continuity), records of historical or archival value, and inactive records. The city already has identified an outside contractor to provide storage for inactive records that can be disposed of once a required holding time has been met. The city estimates that approximately two to three percent of the existing records will need to be retained in a controlled environment where temperature and humidity are monitored and where security of the documents can be assured. The proposed study would identify the number of current and future records that need to be protected in an environmentally controlled area, alternatives for providing the needed storage, and the estimated cost.
Miami	Radios for Solid Waste	Future Unfunded Project	,Flood,Flood/Storm Surge,Health,Power Failure,Sea Level Rise,Security Breach,Storm Surge,Technological Disruption,Wild Fire,Wind	Equipment	,PDM - FEMA Pre-Disaster Mitigation Grant Program,Public Assistance Program,HMGP Hazard Mitigation Grant Program	Identified Grant Source	C6	0.00		75	150 Radios for use by Solid Waste. These radios would be able to utilize police/fire towers. The radios would be used by Solid Waste to communicate post disaster during emergency protective measures.

Agency	Project Title	Status	Hazards	ProjectType	Potential Grant Sources	Funding Source	Flood Basin	Estimated Costs	GlobalMat	BCR	Project Description
Miami	City Hall/Protection of Vital Records	Future Unfunded Project	All Hazards	Infrastructure (Building)	,PDM - FEMA Pre-Disaster Mitigation Grant Program	Identified Grant Source	DA-1	650,000.00	Unknown	81	The project requires flood and wind-damage proofing of City Hall, a government hub, and historic structure that is significant to Florida and Aviation history as the Pan American Seaplane Terminal; City Hall's basement has flooded many times over the years with the most significant damage arising from Hurricane Andrew in 1992. The hurricane allowed seawater and wind to destroy historical records stored in the basement. The project has two inter-related elements to safeguard the structure from storm surge and wind damage. The first includes adding stormproof doors and seals on doors facing the bay; the second is replacing the entrance store front with front impact resistant glass doors and windows that meet 100-year storm code specifications and given the historic properties of the building, Secretary of the Interior Preservation standards.
Miami	Citywide Outfalls Cleaning	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	,Public Assistance Program,PDM - FEMA Pre-Disaster Mitigation Grant Program	Identified Grant Source	North Biscayne Bay	600,000.00	Unknown	76	The city of Miami has 300 outfalls that stage control the amount of runoff and pollutant discharging into adjacent water bodies. After Hurricane Katrina, the amount of debris flushed into the drainage systems have been accumulated inside these control structure boxes and causing the headwater to rise, therefore increasing the likelihood of street flooding. These structures are being cleaned on a yearly basis.
Miami	Street Sweeping Program Improvement	Future Unfunded Project	All Hazards	Equipment	,Public Assistance Program,PDM - FEMA Pre-Disaster Mitigation Grant Program,HMGP Hazard Mitigation Grant Program	Identified Grant Source		900,000.00	Unknown	82	The city currently has minimal staff and equipment assigned to sweep streets so as to minimize blockage of storm drains. This project includes the acquisition of five additional pieces of equipment, one year of equipment maintenance, tipping fees and the hiring of equipment operators. Street sweeping program would be conducted citywide on a systematic, programmed basis.
Miami	Restoration of Native Species	Future Unfunded Project	Flood/Storm Surge	Other	,Public Assistance Program,PDM - FEMA Pre-Disaster Mitigation Grant Program,HMGP Hazard Mitigation Grant Program	Capital Improvement	South Biscayne Bay	75,000.00	Unknown	78	At Virginia Key, a portion of the scope of work in a Coastal Partnership Initiative proposal will include natural erosion prevention/mitigation by replacing exotic with native species along the mangrove hammock area. These native species have root systems that stabilized the soil in the uplands and contribute reducing beach erosion. The project includes other elements not related to LMS but at least \$75,000 in hard-costs as well as volunteer time will be allocated to exotic removal.
Miami	Study to Reduce Erosion on Virginia Key Beach	Future Unfunded Project	All Hazards	Beach/Seawall	,PDM - FEMA Pre-Disaster Mitigation Grant Program,HMGP Hazard Mitigation Grant Program	Identified Grant Source	South Biscayne Bay	75,000.00	Unknown	84	This project is a study of measures that could be used to protect the beach and reduce the loss of sand from Virginia Key Beach. The city of Miami owns approximately 42 acres of ocean front beach on Virginia Key, approximately one mile long. The beach area is currently part of a beach improvement plan that will include importing sand to the area. The city recognizes that offshore groins (corrugated steel piles driven into the ocean floor) have been used in other areas with only limited success. The city is seeking a solution that will help reduce sand loss while allowing for maximum public enjoyment of the beach.
Miami	Flood-Proof First Floor of Main Police Building	Future Unfunded Project	Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)	,HMGP Hazard Mitigation Grant Program,PDM - FEMA Pre-Disaster Mitigation Grant Program,Public Assistance Program	Identified Grant Source	C6	750,000.00	Unknown	76	The first floor of the main Police Building (located at 400 NW 2nd Street) is below grade and is currently being used to store the records, property, and evidence for the city of Miami. These items must be maintained in a secure area to prevent improper access while allowing use by police for on-going investigations. The proposed mitigation project would prevent water from entering the first floor and provide a water removal system to protect the building from flooding. The project would include installation of floodgates that would be put into place during high-risk periods for flooding. This would not only protect vital police records, but would ensure the continuous operation of this critical facility both during the disaster and during the response and recovery phase of the disaster.
Miami	Rockerman Canal Dredging and Stabilization	Future Unfunded Project	All Hazards	Other	,HMGP Hazard Mitigation Grant Program,PDM - FEMA Pre-Disaster Mitigation Grant Program,Public Assistance Program	Identified Grant Source	DA-1	900,000.00	Unknown	54	Located in the City of Miami's Coconut Grove area, the canal serves as a channel to allow the public boat access into Biscayne Bay. The goal is to improve navigable waters for boats traveling within the canal. The scope of work includes and is not limited to canal dredging, trimming of mangrove and other exotic trees, shoreline stabilization and possible planting and/or relocating mangrove trees.
Miami	Kennedy Park Shoreline Stabilization, Phase I	Future Unfunded Project	Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)	,PDM - FEMA Pre-Disaster Mitigation Grant Program,Public Assistance Program,HMGP Hazard Mitigation Grant Program	Identified Grant Source	DA-1	2,000,000.00	Unknown	83	This shoreline restoration project is necessary to return the tidal flow to the mangroves along the shoreline of Kennedy Park in Coconut Grove. Shoreline stabilization will allow greater public access to the water from the upland and bring a tremendous public benefit to a highly used park located on Biscayne Bay and the Atlantic Intracoastal Waterway.
Miami	Fire Station Hardening	Future Unfunded Project	Security/Terrorism	Infrastructure (Building)	,Public Assistance Program,PDM - FEMA Pre-Disaster Mitigation Grant Program	Identified Grant Source		144,000.00	Unknown	78	The Miami Fire Department provides on-going E.M.S., fire suppression and fire prevention services to our 362,470 residents and the 480,000 individuals who traverse our city daily. Most of these services begin with a call to and response from one of 14 fire stations. The impact of a hurricane could severely damage fire stations as well as the expensive apparatus that is housed within these stations. Some fire stations are more vulnerable than others; therefore, they are more susceptible to impending hurricane damages. To mitigate these impending hurricane damages, the city of Miami Fire Rescue Department proposes a hurricane hardening project to protect key stations and facilities. This project includes the installation of Miami-Dade County hurricane-code approved, perforated, stainless steel hurricane barriers, e.g., Exeter Storm Shield or better.
Miami	Securing the City of Miami GSA Property Maintenance Facility	Future Unfunded Project	Security/Terrorism	Traffic Control	,Public Assistance Program	Identified Grant Source	C6	16,000.00	Unknown	73	The City of Miami General Services Administration (GSA) property maintenance building has a warehouse and storage facility that houses building materials, supplies, trucks, and equipment to maintain, repair, and remodel city facilities. Building trade shops, administrative offices, and emergency response supplies and equipment are also located within this facility. This facility needs to be secured from unauthorized vehicle entries. The existing entrance gate does not allow restricting of unauthorized vehicle entry. Either a motorized sliding gate or a traffic arm gate along with remote operation for authorized vehicles and an automated system to allow authorized business visitor vehicle entry (deliveries, shipments, etc.) needs to be installed to secure this facility and restrict unauthorized entries.
Miami	Replace and Improve City-owned Seawalls	Future Unfunded Project	Flood/Storm Surge	Beach/Seawall	,PDM - FEMA Pre-Disaster Mitigation Grant Program,Public Assistance Program	Identified Grant Source	DA-1	4,000,000.00	Unknown	77	This project would improve or replace, as necessary, seawalls located at fifteen city owned parks along Biscayne Bay and the Miami River. These seawalls are currently in fair to poor condition. Failure of the seawalls would result in the loss of city property, increased risk to nearby structures, and an increase in safety hazards. All of the affected seawalls are made of concrete. The specific design of seawalls to be replaced has not yet been determined, although it is likely that boulders and riprap would be included to serve as wave baffles. The areas in greatest need of repair and improvement are the seawalls at Antonio Maceo Park, Legion Park, Lummus Park, Baywood Park, and Pallot Park. In addition to the city parks, two other areas owned by the city of Miami contain concrete seawalls that either are failing or are in poor condition. These locations are on the north side of the Florida East Coast (FEC) Railroad boat slip and the Bicentennial Center. In conjunction with the proposed seawall replacement and improvements, two city-owned boat ramps (at the Watson Island Marina and the Seminole boat ramp in Coconut Grove) need to be improved to allow faster removal of boats in the event of a major storm. In addition, the Stadium Marina needs docks that would serve as a staging area while boats wait their turn to be removed from the water. Both of these actions would reduce the amount of damage not only to the boats left in the water, but also to city-owned structures and private property that could result from boats being blown inland.
Miami	Little Haiti Park	Future Unfunded Project	All Hazards	Infrastructure (Building)	,HMGP Hazard Mitigation Grant Program,Public Assistance Program	Identified Grant Source	North Biscayne Bay	180,000.00	Unknown	65	Upon the successful completion of land acquisition for the subject property, that is, the one-block area bounded on west by NE 2nd Avenue, on the north by NE 61st Street, on the east by the FEC Railway corridor and on the south by NE 60th Street, the city of Miami proposes to create the following, as is also depicted on the site plan. The historic buildings at the northwest corner of the block, the former DuPuis Medical Office and Pharmacy will remain in place and be incorporated into a cultural and recreation center as an adaptive re-use, with restoration to follow historic preservation guidelines. Similarly the small cottages located now in the southwest area of the block will be relocated closer to the DuPuis building and restored for adaptive re-use as classrooms, interpretive exhibit spaces and/or studios as part of the cultural and recreation center. All other structures that presently exist on the property are proposed for demolition. Parking for this facility will likely be located in an area to the south, outside of the grant-funded boundary. The central area of the site would be utilized as an open meadow or multi-purpose field, which would be graded and landscaped with sod and native trees at its perimeter. In the eastern third of the block, the existing hardwood, rockland hammock would be enhanced by the removal of exotic plant species and the planting of additional native trees. Nature trails and interpretive signage would be introduced throughout the hammock, and will connect to trails along the perimeter of the site. Within the hammock, we propose to place picnic tables, and just outside the hammock to the west, will be a small children's playground. Park bench seating will occur at appropriate areas along the trails and at the playground. Defined park entries will be placed at the four corners of this site. To address potential hazard mitigation, shutters or impact resistant windows will be used in the historic structures, as required under the Florida Building Code. Likewise, the trailers, non-historic buildings and other site features will be removed, reducing potential flooding damage. The entire site will be graded and swales will be created to retain water on site.

Agency	Project Title	Status	Hazards	ProjectType	Potential Grant Sources	Funding Source	Flood Basin	Estimated Costs	GlobalMat	BCR	Project Description
Miami	Property Maintenance Division Upgrades	Future Unfunded Project	Power Failure	Equipment	,PDM - FEMA Pre-Disaster Mitigation Grant Program,Public Assistance Program	Identified Grant Source	C6	160,000.00	Unknown	70	Property Maintenance Division 105-kilowatt emergency generator project that encompasses the following: Purchase and installation of a new 105 KW stand-by generator, transfer switch, and electrical upgrades to bring the building up to code (the Florida Building Code), to provide electricity for the city's Property Maintenance Division building in case of catastrophic electrical failure. The building is the operations base fir trade personnel that provide services throughout the city for other departments. The installation includes all required improvements necessary to meet current codes. There is no existing generator at this location.
Miami	Backup for Essential City Mainframe Functions	Future Unfunded Project	Technological Disruption	Equipment	,PDM - FEMA Pre-Disaster Mitigation Grant Program	Identified Grant Source	C6	1,000,000.00	Unknown	69	The city of Miami currently does not have a backup computer for the mainframe that provides core city services the city on day-to-day basis. Loss of the computer center at the Miami Riverside Center building would affect the city's ability to respond to and recover from a disaster by preventing access to critical functions such as payroll, purchasing, fire and police records, and other essential city services. A new backup computer system is needed to allow critical functions to be quickly restored and allow the city to continue operations while the main system is relocated or repaired. The new computer, to be installed in the city's emergency operations center, would replicate essential functions currently performed on the city's primary mainframe computer, but would not provide all of the functions needed by the city.
Miami	Replacement of Channel Markers	Future Unfunded Project	All Hazards	Other	,HMGP Hazard Mitigation Grant Program,PDM - FEMA Pre-Disaster Mitigation Grant Program	Identified Grant Source	South Biscayne Bay	65,000.00	Unknown	84	Dinner Key marina will submit a grant request to the Florida Boating Infrastructure program for channel markers on the Brennan Channel. These new markers replace deteriorated structures. The markers are vital for navigation and are especially significant for transient boaters seeking shelter from hurricanes, storms, and other inclement weather.
Miami	Clean and Dredge Canals and Waterways	Future Unfunded Project	Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)	,PDM - FEMA Pre-Disaster Mitigation Grant Program,Public Assistance Program,HMGP Hazard Mitigation Grant Program	Capital Improvement	C6	45,000,000.00	Unknown	84	Within the city of Miami, there are numerous canals and waterways that provide storm water drainage to Biscayne Bay. Debris, sand, and other materials that block the canals threaten their ability to provide essential drainage of stormwater to outfalls. The city proposes to mitigate this threat by performing maintenance dredging on these canals, removing exotic (non-native) trees from the banks, and cleaning up accumulated debris. The most important affected waterways, listed in order of priority, are: <ul style="list-style-type: none"> <li>◆ Wagner Creek, which drains approximately 600 acres of residential and commercial property. Activities already completed include removal of household refuse and sediments, installation of new fencing, and bank stabilization activities. Pollution control measures will be added to the outfalls and any illegal connections identified during the cleanup will be disconnected and plugged. The canal sediments are also contaminated with dioxins/furans, and dredging the canal sediments will significantly reduce the dioxins amounts. This open channel creek extends from NW 20 Street to NW 11 Street.</li> <li>◆ Seybold Canal, a navigable waterway that drains approximately 500 acres of residential and commercial property. This canal extends from NW 11 Street to the Miami River. The canal sediments are also contaminated with dioxins/furans, and dredging the canal sediments will significantly reduce the dioxins amount.</li> <li>Lawrence Waterway, which drains approximately 64 acres of residential and commercial property. Some of the work already has been completed as part of the city's regular maintenance program. This waterway extends from NW 7 Street to the Miami River. The canal sediments are also contaminated with dioxins/furans, and dredging the canal sediments will significantly reduce the dioxins amounts.</li> <li>Miami River - South Fork, requires the dredging of sediment material along approximately 4,900 linear feet of the canal's bottom including removal of debris, and exotic tree removal from the banks between N.W. 27th Avenue to the Miami River. Further sampling will be conducted to determine if contamination exist in this area.</li> </ul>
Miami	Flood-Proofing Government Buildings ◆ GSA/Miami Riverside Center	Future Unfunded Project	Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)	,PDM - FEMA Pre-Disaster Mitigation Grant Program,HMGP Hazard Mitigation Grant Program,Public Assistance Program	Capital Improvement	C6	7,000,000.00	Unknown	69	The main Police Building and the Riverside Government Building (444 SW 2nd Avenue) need the installation of waterproofing elements. The areas critical to address in the Riverside building are the first, ninth, and tenth floor glass window areas. This will protect against flying debris, explosions, firebombs, glass shattering, and ultra-violet protection. Building is used during emergency activation for EOC functions.
Miami	Training Center Elevator Refurbishment	Future Unfunded Project	All Hazards	Equipment	,PDM - FEMA Pre-Disaster Mitigation Grant Program,Public Assistance Program	Identified Grant Source	DA-1	150,000.00	Unknown	64	The Miami Fire Department Training Center is a six story facility, primarily for recruit and in-service training. This facility is comprised of one elevator that is 25 years old and in serious need of repair or replacement. This aged and undependable elevator is the primary means for employees and visitors to access the upper floors of this building. More importantly, on a daily basis, this elevator is the indispensable means for EMS and handicapped individuals to access floors above ground level. During hurricane season, the Miami Fire Department Training Center (FTC) is designated as a replacement city of Miami Emergency Operations Center; therefore, a functional elevator is crucial to facilitating the city's preparation and response during hurricane emergencies. Of equal significance, the FTC is crucial to strengthening our department's capability to train area members to prepare for, respond to, and recover from regional, state, and/or federal emergencies that may arise. These emergencies include, but are not limited to, terrorist, weather, and other man-made or environmental emergencies. To address the need for a reliable elevator in the fire training facility, the city of Miami Fire Rescue Department proposes a total refurbishment of its 25 year old elevator.
Miami	Backup System for City Communications	Future Unfunded Project	Technological Disruption	Equipment	,Public Assistance Program,PDM - FEMA Pre-Disaster Mitigation Grant Program	Identified Grant Source		0.00	Unknown	97	Communication is vital for the success of city in responding to and coordinating the efforts of various departments and agencies following a disaster. The city currently does not have sufficient redundancy designed or built into its radio and telecommunication systems. The city is proposing a three-level approach to ensure that it is able to maintain an effective communication system following a disaster. The first level is the use of satellite telephones (such as Iridium), which do not require any ground-based facilities. Each of these phones can communicate with other Iridium phones by using only the satellite system. Approximately 20 of these phones would provide a basic level of critical communications among the EOC, fire, police and the 13 NET centers located throughout the city. The second level of backup communication is to acquire a temporary radio tower, such as the portable trailers used following Hurricane Andrew to provide cellular phone service, that can be deployed and setup within a few hours of a disaster and restore some, if not most, of the capability of the radio system. The final phase would be a more comprehensive project that would backup all of the communication capabilities normally available to the city of Miami.
Miami	Communications Systems Generator	Future Unfunded Project	Power Failure	Equipment	,PDM - FEMA Pre-Disaster Mitigation Grant Program,HMGP Hazard Mitigation Grant Program	Identified Grant Source	C6	60,000.00	Unknown	67	Communications Services Division 50 kilowatt emergency generator and transfer switch project that encompasses the following: Purchase and installation of a new 5 KW and transfer switch to provide electricity for the city's communications system in case of catastrophic electronic failure. This replaces the 31 KW generator and transfer switches that are inadequate for the city's existing needs. The generator is located at the city's fire garage. The existing area housing the 31 KW generator can accommodate the new generator that is compliant with current codes.
Miami	Loans to Private Owners to Improve Seawalls & Stabilize Shorelines	Future Unfunded Project	Sea Level Rise	Beach/Seawall	,PDM - FEMA Pre-Disaster Mitigation Grant Program,Public Assistance Program	Identified Grant Source	DA-1	250,000.00	Unknown	61	The majority of the city's canal and bay shoreline (70 percent) is privately owned and maintained, much of which is in poor or overgrown condition. In the event of a major storm, there could be tremendous loss of property into the city's drainage canals, causing upstream flooding. This project recognizes the need to harden seawalls on private property within the city and would complement the replacement and improvement of city-owned seawalls. The city would establish a loan program that would provide an incentive for private property owners to replace or improve areas of deteriorating seawall on their property, allowing for a greater overall level of mitigation citywide. The project includes establishing and administering the loan program but not actually providing city funding to borrowers.
Miami	Generator for Riverside Center Building	Future Unfunded Project	Power Failure	Infrastructure (Building)	,PDM - FEMA Pre-Disaster Mitigation Grant Program,HMGP Hazard Mitigation Grant Program	Identified Grant Source	C6	1,000,000.00	Unknown	63	Request is for a 1600 KVA emergency power generator; this will provide constant electrical power to the Miami Riverside Center Building. This will minimize downtime and allow operations to continue at the MRC without interruption. This estimate was based on a cost of \$500 per KVA plus \$200,000 for labor and materials for the installation.
Miami	Hadley Park Neighborhood Drainage Improvements	Future Unfunded Project	,Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)	,PDM - FEMA Pre-Disaster Mitigation Grant Program,HMGP Hazard Mitigation Grant Program,Public Assistance Program	Capital Improvement	North Biscayne Bay	9,500,000.00		62	The scope of work consists of furnishing all materials, labor, and equipment necessary to design and construct drainage and road improvements at needed locations within the highest rank basin according to the City of Miami Stormwater Management Master Plan. The basin is approximately bounded by NW 54 St (to the north), SR 112 (to the south), NW 19 Ave (west), and I-95 (to the east). The drainage system mainly comprises exfiltration trench (french drains), storm sewers for gravity conveyance, inlets with pollution retardant baffles, injection wells, and surface restoration within the project limits. Road work comprises roadway milling & resurfacing, limited road reconstruction, damaged sidewalk replacement, new sidewalks, new curb and gutter or repair of curb & gutter, some new tree plantings, retrofit of ADA complaint curb ramps, and pavement markings within the project limits.

Agency	Project Title	Status	Hazards	ProjectType	Potential Grant Sources	Funding Source	Flood Basin	Estimated Costs	GlobalMat	BCR	Project Description
Miami	Little River Storm Sewers Retrofitting Project, Phase II	Future Unfunded Project	Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)	,Public Assistance Program,HMGP Hazard Mitigation Grant Program,PDM - FEMA Pre-Disaster Mitigation Grant Program	Capital Improvement	North Biscayne Bay	3,000,000.00	Unknown	64	This project will provide a modern drainage system for the area bordered by NW 79th Street, Little River Canal, and N. Miami Avenue. The existing system will be expanded and upgraded. The new drainage facilities will consist of a combination of ex-filtration drain, deep drainage wells, grease & oil interceptors and other pollution control structures. Any storm sewers identified as illegally connected to a sanitary sewer will be disconnected.
Miami	NE/NW 14th Street from NE 2nd Avenue to FEC Track; North Miami Avenue from NE/NW 15th Street to I-395 Right-of-way Line.	Future Unfunded Project	Flood	Infrastructure (Roadway)	,Public Assistance Program,HMGP Hazard Mitigation Grant Program,PDM - FEMA Pre-Disaster Mitigation Grant Program	Capital Improvement	C7	4,000,000.00	Unknown	65	This project is being developed and implemented for the Overtown/Park Community Redevelopment Agency (CRA). Located within the CRA limits, the scope includes reconstruction of streets, new sidewalks, new drainage, landscaping and street lighting to match the treatment of the adjacent Performing Arts Center superblock project and to conform to the Multi-media and Entertainment District Plan that is produced by Zyscovich for the CRA.
Miami	Citywide Auger Hole Replacement	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	,Public Assistance Program,HMGP Hazard Mitigation Grant Program,PDM - FEMA Pre-Disaster Mitigation Grant Program	Capital Improvement		2,500,000.00	Unknown	74	There are existing auger hole drainage systems that do not comply with current City Standards and State Regulations. The City of Miami is seeking funding to replace the non-complaint systems with appropriate drainage infrastructure to address flooding concerns and reduce maintenance costs.
Miami	Over town Greenway Phase I	Future Unfunded Project	Flood	Infrastructure (Roadway)	,Public Assistance Program,HMGP Hazard Mitigation Grant Program,PDM - FEMA Pre-Disaster Mitigation Grant Program	Capital Improvement	C6	3,000,000.00	Unknown	65	The project's concept is to create a greenway within the city's right-of-way. The work will be performed along NW 11th Terrace, from NW 3rd Avenue and NW 7th Avenue. The scope of work shall include and is not limited to landscaping, widening sidewalks, pedestrian and street lighting and way-finding signage. Drainage improvements shall involve an evaluation of existing drainage conditions, developing and recommending cost-effective alternative design alternatives to alleviate flooding in the area.
Miami	Citywide North-South Storm Sewer Cleaning	Future Unfunded Project	Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)	,Public Assistance Program,HMGP Hazard Mitigation Grant Program,PDM - FEMA Pre-Disaster Mitigation Grant Program	Capital Improvement		5,000,000.00	Unknown	74	The city of Miami has 25,000 inlets and 1,800,000 linear feet of various pipe size that require cleaning twice a year. Currently, in a normal year the Public Works Department is able to perform this cleaning using their own fleet of four Vac-trucks and also by subcontracting this service. However, this task has been made even more difficult by the huge amount of debris and leaves that got blown, or drained inside the inlets following Hurricane Katrina. Cleaning of these inlets and pipes is necessary to maintain the conveyance of the system and the level of protection against flooding.
Miami	Mary Brickell Village Drainage Improvements	Future Unfunded Project	Flood	Infrastructure (Roadway)	,Public Assistance Program,HMGP Hazard Mitigation Grant Program,PDM - FEMA Pre-Disaster Mitigation Grant Program	Capital Improvement	C7	1,400,000.00	Unknown	65	Road and drainage infrastructure improvements will be performed in the area bounded by the Miami River, SW 9th Street, SE 1st Avenue, SW 12th Street and SW 1st Court. At a minimum, the new drainage facilities include a combination of exfiltration trenches (French drains), storm sewer pipes for gravity conveyance, baffles, manholes, catch basins, cross drains, swale trenches, re-grading and re-sodding swale areas. Miscellaneous road improvements include but not limited to roadway milling and resurfacing, ADA ramps repair damaged sidewalks, curb and/or gutter, replacement of damaged or disfigured traffic signs and tree planting.
Miami	South Bayshore Drive Road Improvements	Future Unfunded Project	Flood/Storm Surge	Infrastructure (Roadway)	,Public Assistance Program,HMGP Hazard Mitigation Grant Program,PDM - FEMA Pre-Disaster Mitigation Grant Program	Capital Improvement	DA-1	4,000,000.00	Unknown	82	Located between the limits of Darwin Street and Mercy Way, improvement works along South Bayshore Drive include the construction of drainage facilities consisting of a combination but not limited to exfiltration trenches (French drains), deep drainage wells, pump stations, storm sewer pipes for gravity conveyance, baffles, manholes, catch basins, cross drains, swale trenches, re-grading and re-sodding swale areas. Road improvements include and not limited to roadway milling and resurfacing, ADA ramps, bike and walkway lanes, repair damaged sidewalks, curb and/or gutter, replacement of damaged or disfigured traffic signs and tree planting.
Miami	N.W. 71st Street Main Trunk Storm Sewer Project	Future Unfunded Project	Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)	,Public Assistance Program,HMGP Hazard Mitigation Grant Program,PDM - FEMA Pre-Disaster Mitigation Grant Program	Capital Improvement	North Biscayne Bay	7,500,000.00	Unknown	69	This project will provide positive drainage for N 71st Street between NW 17 Avenue and Miami Avenue and also provide a relief system and overflow connection for the Liberty, Fairway, and Northwest storm sewer district project. This project is a recommendation of the Storm Drainage Master Plan. The trunk main will be constructed in N. 71st Street to either N. Miami Avenue or NE 2nd Avenue at which point the main will be extended north to the Little River Canal.
Miami	77: S. Miami Ave and Side Street Drainage Improvements	Future Unfunded Project	Flood/Storm Surge	Other	,Public Assistance Program,HMGP Hazard Mitigation Grant Program,PDM - FEMA Pre-Disaster Mitigation Grant Program	Capital Improvement	Conservation Area 3B	3,500,000.00	Unknown	69	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.
Miami	Auburn Storm Sewers Project - Phase III	Future Unfunded Project	Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)	,PDM - FEMA Pre-Disaster Mitigation Grant Program,HMGP Hazard Mitigation Grant Program,Public Assistance Program	Capital Improvement	DA-1	5,300,000.00	Unknown	68	This project will provide a modern drainage system for the area bordered by W. Flagler Street, SW 8th Street, SW 27th Avenue and SW 32nd Avenue. At the present time, this area is served by scattered localized drainage structures that are old and inadequate to properly drain the area. The new drainage facilities will consist of a combination of ex-filtration drains, deep drainage wells, grease & oil interceptors and other pollution control structures. Road improvements include milling and resurfacing, 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 planting
Miami	Auburn Storm Sewers Project - Phase I and Phase II	Future Unfunded Project	Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)	,Public Assistance Program,HMGP Hazard Mitigation Grant Program,PDM - FEMA Pre-Disaster Mitigation Grant Program	Capital Improvement	DA-1	4,000,000.00	Unknown	66	This project involves construction of a local drainage system for the area bounded by N.W. 7th Street, N.W. 27th Avenue, W. Flagler Street, and N.W. 37th Avenue. Road improvements include milling and resurfacing, 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 planting.
Miami	Reid Acres Storm Sewers Project	Future Unfunded Project	Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)	,PDM - FEMA Pre-Disaster Mitigation Grant Program,Public Assistance Program,HMGP Hazard Mitigation Grant Program	Capital Improvement	C7	4,300,000.00	Unknown	66	This project will provide a positive drainage system to the area bounded by NE 71st Street, FEC Railroad, NE 62 Street and NE 2nd Avenue. Bore and jack construction under the FEC Railroad at NE 71 Street will be required. The positive outfall line will be constructed on NE 5th Avenue to the Little River Canal. Road improvements include milling and resurfacing, 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 planting
Miami	Avalon Storm Sewers Project - Phase III	Future Unfunded Project	Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)	,PDM - FEMA Pre-Disaster Mitigation Grant Program,Public Assistance Program,HMGP Hazard Mitigation Grant Program	Capital Improvement	DA-1	5,300,000.00	Unknown	66	This project will provide a modern drainage system for the area bordered by SW 22nd Street, SW 27th Street, SW 27th Avenue and SW 32nd Avenue. Currently, this area is served by scattered localized drainage structures that are old and inadequate to properly drain the area. The new drainage facilities will consist of a combination of ex-filtration drains, deep drainage wells, grease & oil interceptors and other pollution control structures. Road improvements include milling and resurfacing, 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 planting.
Miami	Lawview Storm Sewers Project	Future Unfunded Project	Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)	,PDM - FEMA Pre-Disaster Mitigation Grant Program,Public Assistance Program,HMGP Hazard Mitigation Grant Program	Capital Improvement	DA-1	4,300,000.00	Unknown	69	This project involves construction of a local drainage system for the area bounded by SW 8th Street, and SW 17th Avenue, W. Flagler Street, and SW 22nd Avenue. Road improvements include milling and resurfacing, 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 planting.
Miami	Watson Island Baywalk	Future Unfunded Project	Flood/Storm Surge	Beach/Seawall	,Emergency Streambank and Shoreline Protection	Capital Improvement	North Biscayne Bay	300,000.00	Unknown	71	The Watson Island Shoreline Stabilization Project, located on the southeastern section of Watson Island will stabilize a 500-foot section of the Biscayne Bay shoreline along the southeastern shoreline of Watson Island. The project will entail installation of rip-rap along this shoreline and construction of a seawall to stabilize and contain erosion to this shoreline, along a proposed bay-walk which will run parallel to this seawall. Complementary public access features will be constructed and installed to enhance this waterfront area.

Agency	Project Title	Status	Hazards	ProjectType	Potential Grant Sources	Funding Source	Flood Basin	Estimated Costs	GlobalMat	BCR	Project Description
Miami	NW 14th Street Streetscape Project	Future Unfunded Project	Flood	Infrastructure (Roadway)	,Public Assistance Program,HMGP Hazard Mitigation Grant Program,PDM - FEMA Pre-Disaster Mitigation Grant Program	Capital Improvement	C6	3,000,000.00	Unknown	65	Located in the Media Entertainment District in downtown Miami, the project involves the installation of roadway improvements to NW 14th Street that stretches from NW 7th Court to the F.E.C. Track. Road improvements include and are not limited to roadway milling and resurfacing, ADA ramps, repair damaged sidewalks, curb and/or gutter, replacement of damaged or disfigured traffic signs and tree planting. Other improvements include the construction of additional drainage facilities consisting of a combination but not limited to exfiltration trenches (french drains), storm sewer pipes for gravity conveyance, baffles, manholes, catch basins, cross drains, swale trenches, re-grading and re-sodding swale areas. (Note: This project is located outside the CRA limits and therefore the City is responsible for the complete funding of this project).
Miami	NW 2nd Avenue (11th to I-395)	Future Unfunded Project	Flood	Infrastructure (Roadway)	,PDM - FEMA Pre-Disaster Mitigation Grant Program,HMGP Hazard Mitigation Grant Program,Public Assistance Program	Capital Improvement	C7	2,000,000.00	Unknown	65	Located in downtown Miami, the improvement works are mainly performed along NW 2nd Avenue between NW 11th Street to I-395. The main components of the project include the construction of additional drainage facilities consisting of a combination but not limited to exfiltration trenches (french drains), storm sewer pipes for gravity conveyance, baffles, manholes, catch basins, cross drains, swale trenches, re-grading and re-sodding swale areas. Road improvements include and are not limited to roadway milling and resurfacing, ADA ramps repair damaged sidewalks, curb and/or gutter, replacement of damaged or disfigured traffic signs and tree planting.
Miami	Miami River Greenway NW 5th Street Bridge Approach	Future Unfunded Project	Flood	Infrastructure (Roadway)	,PDM - FEMA Pre-Disaster Mitigation Grant Program,Public Assistance Program,HMGP Hazard Mitigation Grant Program	Capital Improvement	C6	640,000.00	Unknown	68	To comply with Miami River Greenway Standard Guidelines, road and drainage improvements will be performed at the NW 5th Street Bridge. The project area is located along the NW South River Drive within the vicinity of NW 5th Street. At a minimum, the new drainage facilities will have a combination of exfiltration trenches (French drains), storm sewer pipes for gravity conveyance, baffles, manholes, catch basins, cross drains, swale trenches, re-grading and re-sodding swale areas. Miscellaneous road improvements include but not limited to roadway milling and resurfacing, ADA ramps, repair damaged sidewalks, curb and/or gutter, replacement of damaged or disfigured traffic signs and tree planting
Miami	Kennedy Park Floating Dock, Phase I	Future Unfunded Project	Flood/Storm Surge	Other	,CFLP - Community Facilities Loan Program	Capital Improvement	DA-1	2,000,000.00	Unknown	72	The City of Miami's Kennedy Park is approximate to the Atlantic Intracoastal Waterway and offers the public use of a floating dock for small craft use. The dock can no longer be repaired and must be replaced with a new dock. This will require the demolition of the existing dock and design, permitting and construction of a new floating dock.
Miami	SE 3rd Street Road Improvements	Future Unfunded Project	All Hazards	Traffic Control	,Public Assistance Program,HMGP Hazard Mitigation Grant Program,PDM - FEMA Pre-Disaster Mitigation Grant Program	Capital Improvement	C6	1,800,000.00	Unknown	53	This project will improve mobility and accessibility between the Interstate Highway System (I-95) and the core Downtown Central Business District (CBD) particularly during Brickell Bridge openings to marine traffic via a two-way conversion of SE 3rd Street and SE 3rd Avenue. The project involves the coordination and corporation from stakeholders to widen and redirect traffic circulation along SE 3rd Street in downtown Miami. Road widening activities include but not limited to reconstruction, sidewalk installation, pavement striping, traffic study and signalization, coordination between stakeholders, Florida Department of Transportation and Miami-Dade County.
Miami	Belle Meade Storm Sewers Project, Phase I	Future Unfunded Project	Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)	,Public Assistance Program,HMGP Hazard Mitigation Grant Program,PDM - FEMA Pre-Disaster Mitigation Grant Program	Capital Improvement	North Biscayne Bay	4,200,000.00	Unknown	66	This project will provide storm sewers to the area bounded by NE 83rd Street, East Dixie Highway, North City limits and Biscayne Boulevard. Road improvements include milling and resurfacing, 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 planting.
Miami	Grove Park (formerly known as Glenroyal) Storm Sewers Project	Future Unfunded Project	Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)	,PDM - FEMA Pre-Disaster Mitigation Grant Program,HMGP Hazard Mitigation Grant Program,Public Assistance Program	Capital Improvement	DA-1	6,000,000.00	Unknown	65	This project involves three tasks: (1) construction of a positive storm sewer system for the area bounded by W. Flagler Street, and N.W. 22nd Avenue, N.W. 7th Street, and N.W. 17th Avenue including an additional area known as the Edenholmes Subdivision, bounded by NW 7th Street and SR 836, NW 17th Avenue and NW 22nd Avenue. This area also requires the construction of a subterranean pump station within the vicinity of NW 18th Avenue and NW 9th Street. Another area block has been added and borders NW 7th Street to NW 9th Street (SR-836), and from NW 14th Court and NW 17th Avenue; (2) road improvements for these areas include milling and resurfacing, 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 planting; and (3) NW 3rd Street one-way conversion and traffic circle that includes but not limited to a traffic study, public relations and other agency coordination and participation.
Miami	Liberty Storm Sewers Project	Future Unfunded Project	Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)	,Public Assistance Program,HMGP Hazard Mitigation Grant Program,PDM - FEMA Pre-Disaster Mitigation Grant Program	Capital Improvement	C7	4,200,000.00	Unknown	69	This project involves the design and construction of a local drainage system in the area bounded by NW 17th Avenue, NW 71st Street, NW 12th Avenue, and NW 62nd Street.
Miami	Englewood Storm Sewers Project -Phase III	Future Unfunded Project	Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)	,PDM - FEMA Pre-Disaster Mitigation Grant Program,Public Assistance Program,HMGP Hazard Mitigation Grant Program	Capital Improvement	DA-1	5,400,000.00	Unknown	66	This project will provide a modern drainage system for the area bordered by S.W. 16th Street, S.W. 22nd Street, S.W. 27th Avenue and S.W.32nd Avenue. At the present time, this area is served by scattered localized drainage structures that are old and inadequate to properly drain the area. The new drainage facilities may consist of a combination of exfiltration drains, deep drainage wells, grease & oil interceptors and other pollution control structures. Road improvements include milling and resurfacing, 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 planting.
Miami	SW 3rd Avenue Road Improvement Project	Future Unfunded Project	Flood	Infrastructure (Roadway)	,Public Assistance Program,HMGP Hazard Mitigation Grant Program,PDM - FEMA Pre-Disaster Mitigation Grant Program	Capital Improvement	C7	1,450,000.00	Unknown	65	Located in downtown Miami, the improvement works are mainly performed along SW 3rd Avenue from SW 16th Avenue to SW 22nd Avenue Street and SW 13th Avenue from SW 3rd Avenue to SW 22nd Street. The main components of the project include the construction of additional drainage facilities consisting of a combination but not limited to exfiltration trenches (french drains), storm sewer pipes for gravity conveyance, baffles, manholes, catch basins, cross drains, swale trenches, re-grading and re-sodding swale areas. Road improvements include and are not limited to roadway milling and resurfacing, ADA ramps, repair damaged sidewalks, curb and/or gutter, replacement of damaged or disfigured traffic signs and tree planting.
Miami	Citywide Deep Drainage Wells Cleaning	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	,PDM - FEMA Pre-Disaster Mitigation Grant Program,Public Assistance Program	Capital Improvement		500,000.00	Unknown	72	The city of Miami drainage basins are drained by a sizable number of deep drainage wells ranging in depth of 80 feet to 160 feet. A total of 90 deep drainage wells are scattered throughout the city. Periodic annual cleaning is required especially after a hurricane in the magnitude of Katrina where a tremendous amount of windblown leaves and debris clogged these wells. This project consists of the cleaning and jetting of these wells, and the installation of grates to prevent further clogging.
Miami	Citywide Non-Standard Drainage System Improvements	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	,Public Assistance Program,HMGP Hazard Mitigation Grant Program,PDM - FEMA Pre-Disaster Mitigation Grant Program	Capital Improvement		3,000,000.00	Unknown	57	There are existing slab-covered trench, open-joint pipes, and others that are ineffective and do not comply with current City Standards. The City of Miami is seeking funding to replace the outdated systems with appropriate drainage infrastructure to address flooding concerns and reduce maintenance costs.
Miami	Miami Police Department Central Headquarters Roof Hardening Helipad Project	Future Unfunded Project	All Hazards	Infrastructure (Building)	,PDM - FEMA Pre-Disaster Mitigation Grant Program	Capital Improvement	C6	1,600,000.00	Unknown	78	The City of Miami is seeking funding to harden the roof of its police headquarters building. The headquarters building which is 5 stories in height and approximately 400,000 square feet, houses the 911 call center for both police and fire, an Emergency Operations Center, all administrative offices of the police department, including the office of the Chief of Police and the Deputy and Assistant Chiefs, Crime Scene investigations, a computer server room and numerous other critical functions. A direct hit by a hurricane or strong windstorm could cause serious damage to the building and its contents and render this 31 million dollar building un-useable. The roof of the Police headquarters serves a dual function of protecting the building and serving as a Helipad for multiagency first responders in the event of a disaster.
Miami	Silver Bluff Drainage Improvements	Future Unfunded Project	Flood/Storm Surge	Other	,Public Assistance Program,HMGP Hazard Mitigation Grant Program,PDM - FEMA Pre-Disaster Mitigation Grant Program	Capital Improvement	DA-1	2,000,000.00	Unknown	67	This project will provide drainage improvements for the area bordered by US-1, SW 22nd Street, SW 16th Avenue and SW 27th Avenue. 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.

Agency	Project Title	Status	Hazards	ProjectType	Potential Grant Sources	Funding Source	Flood Basin	Estimated Costs	GlobalMat	BCR	Project Description
Miami	Douglas Park Neighborhood Drainage Improvements	Future Unfunded Project	Flood/Storm Surge	Other	,HMGP Hazard Mitigation Grant Program,PDM - FEMA Pre-Disaster Mitigation Grant Program,Public Assistance Program	Capital Improvement	DA-1	2,000,000.00	Unknown	69	This project will provide drainage improvements for the area bordered by US-1, SW 22nd Street, SW 32th Avenue and SW 37th Avenue. 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.
Miami	Bayhomes Drive Neighborhood Drainage Improvements	Future Unfunded Project	Flood/Storm Surge	Other	,Public Assistance Program,HMGP Hazard Mitigation Grant Program,PDM - FEMA Pre-Disaster Mitigation Grant Program	Capital Improvement	DA-1	3,000,000.00	Unknown	69	This project will provide drainage improvements for the area approximately bounded by Biscayne Bay, ~750 ft. northwest from N. Bayhomes Rd., N. Bayhomes Dr. and S. Bayhomes Drive. 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.
Miami	Bird Avenue Road Improvement	Future Unfunded Project	All Hazards	Infrastructure (Roadway)	,Pre-Disaster Funding Programs,HMGP Hazard Mitigation Grant Program,Public Assistance Program	Capital Improvement	DA-1	1,728,000.00	Unknown	72	Located in the outskirts of Coconut Grove, the improvement works are mainly performed along Bird Avenue between Aviation Avenue and US 1. The main components of the project include the construction of drainage facilities consisting of a combination but not limited to exfiltration trenches (french drains), storm sewer pipes for gravity conveyance, baffles, manholes, catch basins, cross drains, swale trenches, re-grading and re-sodding swale areas. Road improvements include and not limited to roadway milling and resurfacing, ADA ramps, repair damaged sidewalks, curb and/or gutter, replacement of damaged or disfigured traffic signs and tree planting.
Miami	Miami River Greenway ♦ SE 5th Street Extension	Future Unfunded Project	Flood	Infrastructure (Roadway)	,HMGP Hazard Mitigation Grant Program,PDM - FEMA Pre-Disaster Mitigation Grant Program	Capital Improvement	C6	2,200,000.00	Unknown	65	In an effort to provide infrastructure upgrades, the project consists of road and drainage improvements along SE 5th Street - from South Miami Avenue up to and including a portion of Brickell Avenue and SE 1 Avenue from SE 6 Street to Miami River. The new drainage facilities will have a combination but not limited to exfiltration trenches (French drains), storm sewer pipes for gravity conveyance, baffles, manholes, catch basins, cross drains, swale trenches, re-grading and re-sodding swale areas. Miscellaneous road improvements include but not limited to roadway milling and resurfacing, ADA ramps, repair damaged sidewalks, curb and/or gutter, replacement of damaged or disfigured traffic signs and tree planting.
Miami	SE 3 Street Straddle Bent Replacement	Future Unfunded Project	All Hazards	Infrastructure (Roadway)	,HMGP Hazard Mitigation Grant Program,PDM - FEMA Pre-Disaster Mitigation Grant Program	Capital Improvement	C6	3,000,000.00	Unknown	63	The City plans to widen SE 3 Street from SE 3 Avenue to Biscayne Boulevard by providing one additional lane on the south side of SE 3 Street. There is a Metromover elevated guideway located above SE 3 Street at this location typically supported by single columns with a hammerhead pier cap supporting both guideway tracks. Along this stretch of roadway, these columns are located between the two eastbound lanes. However, there is an existing straddle bent pier (P192) located on the south side of SE 3 Street which conflicts with the additional lane. The City is proposing to replace the existing straddle bent with a single column hammerhead pier similar to those utilized to support the elevated guideway, The City of Miami is seeking funding to replace the pier with appropriate structural infrastructure to allow for the street widening.
Miami	Miami River Greenway (NW 10th Avenue to NW 12th Avenue)	Future Unfunded Project	Flood	Infrastructure (Roadway)	,HMGP Hazard Mitigation Grant Program,PDM - FEMA Pre-Disaster Mitigation Grant Program	Capital Improvement	C6	3,000,000.00	Unknown	65	Located on the south side of the Miami River, from NW 10th Avenue to NW 12th Avenue, infrastructure improvements involve the construction of drainage facilities that include a combination but not limited to exfiltration trenches (french drains), storm sewer pipes for gravity conveyance, baffles, manholes, catch basins, cross drains, swale trenches, re-grading and re-sodding swale areas. Road improvements include and are not limited to roadway milling and resurfacing, ADA ramps, repair damaged sidewalks, curb and/or gutter, replacement of damaged or disfigured traffic signs and tree planting.
Miami	Acquire Portable Pumps and Generators	Future Unfunded Project	Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)	,HMGP Hazard Mitigation Grant Program,PDM - FEMA Pre-Disaster Mitigation Grant Program	Capital Improvement		70,000.00	Unknown	79	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.
Miami	Garden Storm Sewers Project -Phase II	Future Unfunded Project	Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)	,PDM - FEMA Pre-Disaster Mitigation Grant Program	Capital Improvement	DA-1	4,300,000.00	Unknown	66	This project will provide a modern drainage system for the area bordered by NW 26th Street, NW 38th Street, NW 22nd Avenue and NW 27th Avenue. The new drainage facilities will consist of a combination of ex-filtration drains, grease & oil interceptors and other pollution control structures.
Miami	City of Miami - Solid Waste Building Window/Doors Hardening Project	Future Unfunded Project	Wind	Other	,HMGP Hazard Mitigation Grant Program	Capital Improvement	C6	421,100.00	No	79	This wind retrofit project will include: obtaining a structural adequacy report from a qualified registered Professional Engineer for the Solid Waste Main and Shop Building, located at 1290 N.W. 20th Street, Miami, FL 33142; replacement of the roof, installing approximately 3,200 square feet of Sure Guard Plus 200♦ Window Security Barrier System for all existing glass windows; replacement of two (2) Solid Swing-Out Metal Doors at the Main Building and (2) Solid Swing-Out Metal Doors at the Shop Building; an Accordion shutter at the entrance of the Main Building; and tie downs for roof equipment at both buildings.
Miami	Fairway Storm Sewers Project	Future Unfunded Project	Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)	,PDM - FEMA Pre-Disaster Mitigation Grant Program	Capital Improvement	C7	4,200,000.00	Unknown	66	This project involves the design and construction of a local drainage system in the area bounded by NW 2nd Avenue, FEC Railroad, N 73rd Street, and N 62nd Street. Road improvements include milling and resurfacing, 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 planting
Miami Beach	Venetian Islands Drainage Improvements	Future Unfunded Project	Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)		Unknown/None		9,100,000.00		0	The project will install new drainage improvements on the islands as part of a comprehensive program of drainage improvement projects, which will alleviate chronic neighborhood flooding situations. The project includes construction of new catch basins and outfalls with associated piping. The stormwater will be treated using vortex structures and stormwater pump stations to discharge to the Biscayne Bay.
Miami Beach	Extensive Repairs to Seawalls	Future Unfunded Project	Flood/Storm Surge	Beach/Seawall		Other Internal Funding		3,787,000.00		0	Approximately twenty-five (25) seawalls in Miami Beach are in need extensive repairs. Funding and completion of these seawalls would mitigate the damage to the inland shoreline located throughout the city. The seawalls provide the ♦armor♦ protection from the effects of tidal and wave action along the waterways. Present conditions will lead to erosion of the banks and eventual loss of property into the canals. The loss of property into the canals contributes to flooding due the reduction in canal depth. In order to be in compliance with environmental concerns, seawall & bulkhead repairs will require a Miami-Dade DERM permit, which typically requires a hydrographic survey to determine any possible impacts to the adjacent waterway ecosystems, particularly seagrass. Seawall & Bulkhead construction equipment and/or work may damage adjacent ecosystems. Any damage to riprap or seagrass will require mitigation work to be determined by DERM in advance of the project. Mitigation work may include placement of riprap at a new location. A State FDEP and Army Corps of Engineers permit will also be required. Any damage to riprap or seagrass will require mitigation work. Including, but not limited to the following projects:  Muss Park--Fill cavities at East and West ends. Seal crack--\$674,000 Henedon Avenue--Seal the wall and remove banyan tree--\$30,000 Rue Notre Dame--Seal all cracks, replace top of seawall--\$45,000 Bay Road--Replace the cap. Replace the guardrail--\$275,000 10th St Streetend--Repair the seawall--\$945,000 Lincoln Court--Repair the seawall--\$548,000
Miami Beach	Lake Pancoast Area Drainage Improvements	Project Complete	Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)		Other Internal Funding		1,600,000.00		0	Construction of drainage improvements for West 24th Street and Lake Pancoast Drive and West 25th Street as part of a comprehensive program of drainage improvement projects which will alleviate chronic neighborhood flooding situations. The project includes construction of new catch basins and outfalls with associated piping. The storm water will be treated using a pumped well. This area contains at least one property with repetitive flood claims. Estimated cost: \$1,600,000
Miami Beach	Biscayne Point Drainage Improvements	Project Complete	Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)		Other Internal Funding		6,600,000.00		0	Construction of drainage improvements at Stillwater Drive and 85th and 86th street in Biscayne Beach as part of a comprehensive program of drainage improvement projects which will alleviate chronic neighborhood flooding situations. The project includes construction of new pump stations, catch basins and outfalls with associated piping. The storm water will be treated using pressurized wells. The Biscayne Point area contains several properties with repetitive flood claims and flooding impedes the single means of access to the homes in the area, including access for emergency vehicles. Estimated cost: \$6,600,000.
Miami Beach	Regional Communication/Command Van	Project Complete	All Hazards	Equipment		Other Internal Funding		500,000.00		0	Regional Communications/Command Van for Miami Beach and neighboring barrier island communities♦ This Regional capability is crucial as with a natural disaster or terrorist incident, our ability to receive assistance from the mainland can be non-existent♦ The ability to communicate and continue to operate public safety is crucial to mitigating damage and/or injuries caused by a major incident♦ As the largest of the barrier island communities, Miami Beach would be in position to provide public safety services to our neighboring municipalities as well as provide command and control for a unified operation♦ The Fire Department has targeted \$85,000.00 in UASI funds for this unified approach and is in need of additional funding to complete this purchase.

Agency	Project Title	Status	Hazards	ProjectType	Potential Grant Sources	Funding Source	Flood Basin	Estimated Costs	GlobalMat	BCR	Project Description
Miami Beach	Citywide Water Infrastructure Improvements	Other	All Hazards	Infrastructure (Water/Sewer/Drainage)		Unknown/None		55,000,000.00			0 The project includes the replacement of aging water lines (60+ years old). These iron pipes are significantly tuberculated which has resulted in diminished water quality and hydraulic problems. Under certain conditions, pipes release iron into drinking water supplies, resulting in water quality problems. This project is fully programmed through neighborhood projects and other projects in the City's 5-year Capital Improvement Plan, subject to appropriation of additional programmed funding.
Miami Beach	Citywide Wastewater Infrastructure Improvements	Other	All Hazards	Infrastructure (Water/Sewer/Drainage)		Unknown/None		2,250,000.00			0 The wastewater lines are approximately 50-80 years old. The iron pipes are significantly tuberculated, resulting in hydraulic problems and water quality problems. The useful life of these force mains is approximately 50 years and the pipes are either at the end of or beyond their useful life. This project will implement the city's Water System Master Plan, which will replace aging water lines that are 60 years old or more.
Miami Beach	Portable Traffic Light Signals	Other	All Hazards	Equipment		Unknown/None		160,000.00			0 During power outages, the traffic lights are inoperable, causing a potential hazard. Portable traffic signals will provide the safety that is needed for traffic control. The city anticipates that it will need ten portable traffic signals to adequately handle an emergency situation.
Miami Beach	Streetlight System Upgrade	Other	Flood/Storm Surge	Traffic Control		Unknown/None		1,600,000.00			0 There are approximately 4,000 streetlight poles with base electrical system connections that do not meet Miami-Dade County code. Flooding results in water intrusion inside the bases of these streetlight poles, which creates short circuits that cause lighting system malfunctions. This project improvement will include re-wiring and placing individual fuses at each pole base. It will eliminate streetlight service interruptions, and reduce repetitive interruptions and/or damages to the street lighting infrastructure system.
Miami Beach	Citywide Dune Enhancement Project	Other	Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)		Unknown/None		400,000.00			0 The citywide project seeks to remove non-native vegetation and to plant native species. This project will improve the overall health of the dune system and its ability to retain sand and protect upland structures from storm surges and flooding impacts. A rope and post fence system will be placed along with signage throughout the project to educate visitors, protect project's results, and minimize impacts to the protected area.
Miami Beach	West Avenue Bridge	Other	All Hazards	Infrastructure (Roadway)		Unknown/None		5,400,000.00			0 The project is of regional significance and will help relieve congestion on State road 907 (Alton Road). A connected West Avenue would help reduce the volume of local traffic at the busiest intersections. In addition, it would provide a safer venue for cyclists, pedestrians, and motorists making their way to the causeway to Miami, than other existing venues.
Miami Beach	Acquisition of Emergency Generators	Other	,Wind,Flood,Flood/Storm Surge,Power Failure,Sea Level Rise,Storm Surge,Technological Disruption	Other		Unknown/None		5,600,000.00			0 Acquisition of emergency generators to ensure continued operation of critical city facilities/systems and the appropriate levels of service for city residents during and after a disaster event.
Miami Beach	Storm Shutters and Protective Glass for City Buildings North Shore Park & Youth Center 501 72nd Street	Other	Wind	Infrastructure (Building)		Unknown/None		317,455.00			0 The building requires protection for windows during a significant weather event. The city is a barrier island that is subject to high winds, missile hazards and significant impact damage.
Miami Beach	Storm Shutters and Protective Glass for City Buildings Log Cabin	Other	Wind	Infrastructure (Building)		Unknown/None		30,000.00			0 The city is a barrier island that is subject to high winds, missile hazards and significant impact damage. The buildings listed below require protection for windows during a significant weather event.
Miami Beach	Storm Shutters and Protective Glass for City Buildings , Miami Beach Botanical Garden 2000 Convention Center Drive	Other	Wind	Infrastructure (Building)		Unknown/None		117,000.00			0 The city is a barrier island that is subject to high winds, missile hazards and significant impact damage. The buildings listed below require protection for windows during a significant weather event..
Miami Beach	Mount Sinai Hospital	Other	,Wind	Infrastructure (Building)		Unknown/None		8,000,000.00			0 Protective storm shutters and impact resistant glass and completion of Energy Center project (and other improvements) for Mount Sinai Hospital located at 4300 Alton Road.
Miami Beach	Stormwater Outfall and Seawall Reconstruction	Other	Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)		Unknown/None		1,800,000.00			0 Replacement of seawalls and 150 stormwater outfalls with associated relining of piping leading to outfalls in areas that have three properties with repetitive flood claims. Project will also include a pollution control device and possible demolition of existing seawalls, repair of seawalls, and relocation of riprap.
Miami Beach	48" Outfall at Easement 4180-4200 Chase Avenue	Other	Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)		Unknown/None		200,000.00			0 Improvements include building a new 48" outfall and installing approximately 450 linear feet of 48" HDPE pipe, one manhole, and one catch basin. When completed, this project will produce a stormwater system capable of providing a high level of service in the area.
Miami Beach	Canal Cleaning and Shaping - Citywide	Other	Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)		Unknown/None		4,775,000.00			0 Dredging of the approximately 12 miles of inland canals located within the city would restore depth and bottom contour. This restoration would directly impact the ability of the canal to hold tidal flooding and minimize flooding of surrounding properties during significant weather events. Mitigation may include placement of new riprap, creation of new sea grass beds, or creation of artificial reefs.
Miami Beach	Flood Proofing Sewer and Pump Stations	Other	Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)		Unknown/None		2,340,000.00			0 Relining and sealing 31 pump stations and 500 manholes throughout the city to prevent water intrusion—which would damage pump station equipment/structures—and failure of stations, thereby avoiding flooding. In the past, five pump stations have failed during storms and resulted in flooding.
Miami Beach	South Pointe III - V Drainage Improvements	Other	Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)		Unknown/None		518,000.00			0 Construction of drainage improvements within the limits of this project south of 5th Street. The project includes construction of new catch basins and outfalls with associated piping. The storm water will be treated using new gravity wells and a stormwater pump station.
Miami Beach	Oceanfront Drainage Improvements	Other	Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)		Unknown/None		2,700,000.00			0 Construction of drainage improvements from 27th Street on the south, Indian Creek on the west, 44st Street on the north, and Miami Beach Drive on the east are part of a comprehensive program of drainage improvement projects. The project includes construction of new catch basins and outfalls with associated piping. The stormwater will be treated using vortex structures and stormwater pump stations.
Miami Beach	Lakeview Drainage Improvements	Other	Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)		Unknown/None		21,100,000.00			0 Construction of drainage improvements for the Lakeview area (bounded by 51st Street to the north, N. Bay Road to the west, Cherokee Avenue to the east, and Lake View Drive to the south) as part of a comprehensive program of drainage improvement projects, which will alleviate chronic neighborhood flooding situations. The project includes construction of new catch basins and outfalls with associated piping. The Lakeview area contains at least one property with repetitive flood claims.
Miami Beach	Middle North Bay Road Drainage Improvements	Other	Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)		Unknown/None		5,500,000.00			0 This project addresses numerous resident complaints and staff observations regarding a low stormwater service level in the neighborhood. Drainage improvements would include additional drainage collection, conveyance, treatment, and disposal facilities.
Miami Beach	West Avenue Drainage Improvements	Other	Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)		Unknown/None		15,900,000.00			0 Drainage improvements are proposed for the West Avenue/Bay Road neighborhood, which consist of additional drainage collection, conveyance, treatment, and disposal facilities. The drainage project will mitigate street level flooding to reduce residential/commercial flooding concerns and improves emergency response vehicle access to the South Shore Medical Center
Miami Beach	Flamingo / Lummus Drainage Improvements	Other	Flood/Storm Surge	Infrastructure (Building)		Unknown/None		70,000,000.00			0 The project includes construction of new catch basins and outfalls with associated piping. The stormwater will be treated using vortex structures and stormwater pump stations. This project will alleviate flooding concerns along the only east/west rights-of-ways that connect designated emergency evacuation rights-of-way in the South Beach area. The drainage project will mitigate street level flooding to reduce residential, commercial, and public facility flooding concerns and improve emergency response vehicle access along evacuation routes within the neighborhood boundary.
Miami Beach	La Gorce Drainage Improvements	Other				Unknown/None		22,900,000.00			0 Construction of drainage improvements for the La Gorce Park area (bounded 63rd Street on the north, N. Bay Road on the west, intercostal on the east, and Lake Surprise on the south). The project includes construction of new catch basins and outfalls with associated piping. The stormwater will be treated using vortex structures and stormwater pump stations.
Miami Beach	Citywide Stormwater Infrastructure Improvements	Other	Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)		Unknown/None		211,000,000.00			0 The city has committed to improving the facilities within the 34 priority basins. Stormwater will be collected and treated through either gravity and pressurized wells or exfiltration trenches, where pollutants will be filtered or treated. This project is fully programmed through neighborhood projects and other projects in the city's five-year Capital Improvement Plan (subject to appropriation of additional programmed funding).
Miami Beach	Sunset Harbor Pump Station Upgrades	Other	Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)		Unknown/None		800,000.00			0 This is the third and final contract to repair and upgrade the three injection well pump stations to the Sunset Harbor neighborhood. As a result of changed stormwater regulations, this project will provide a higher level of storm water service to the Sunset Harbor neighborhood.
Miami Beach	Sunset Islands III & IV Drainage Improvements	Other	Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)		Unknown/None		14,200,000.00			0 The project includes construction of new catch basins and outfalls with associated piping on Sunset Islands III & IV. The stormwater will be treated using vortex structures and stormwater pump stations to discharge to Biscayne Bay.
Miami Beach	Central Bayshore Drainage Improvements	Other	Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)		Unknown/None		900,000.00			0 The project includes construction of new catch basins, two new stormwater pump stations with injection wells, and a conversion system to discharge stormwater to Indian Creek. One new pump station will be constructed at North Meridian Ave. and the Dade Canal.
Miami Beach	Bayshore Drainage Improvements	Other	Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)		Unknown/None		13,000,000.00			0 Construction of drainage improvements from Lower North Bay Road between 21st to 23rd Streets and also between 27th and Alton Road as part of a comprehensive program of drainage improvement projects, which will alleviate chronic neighborhood flooding situations. The project includes construction of new catch basins and one or two stormwater pump stations with outfalls and associated piping.

Agency	Project Title	Status	Hazards	ProjectType	Potential Grant Sources	Funding Source	Flood Basin	Estimated Costs	GlobalMat	BCR	Project Description
Miami Beach	Palm and Hibiscus Area Drainage Improvements	Other	Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)		Other Internal Funding		13,400,000.00			0 Construction of drainage improvements for Palm and Hibiscus Islands as part of a comprehensive program of drainage improvement projects, which will alleviate chronic neighborhood flooding situations. The project includes construction of new catch basins and outfalls with associated piping. The stormwater will be treated using vortex structures and stormwater pump stations to discharge to the Biscayne Bay.
Miami Beach	La Gorce Drainage Improvements	Future Unfunded Project	Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)		Unknown/None		5,900,000.00			0 Construction of drainage improvements for the La Gorce Park Area bounded 63rd Street on South, N. Bay Road, West and intercostals on East and North as part of a comprehensive program of drainage improvement projects which will alleviate chronic neighborhood flooding situations. The project includes construction of new catch basins and outfalls with associated piping. The stormwater will be treated using gravity wells. The project is undergoing final design review by permitting agencies. Estimated cost: \$ 5,900,000.
Miami Beach Community H	Install Generator Platform		Power Failure	Equipment				15,000.00			0 The Stanley C. Meyers Center is in need of a base or platform for the generator. The platform is needed in case of storm, disaster or power outage.
Miami Beach Community H	Roofing Project SCM		Wind	Infrastructure (Building)				180,000.00			0 The Stanley C. Meyers Center is in need of a new roof. The existing roof is of more than 20 years in age. We are presently experiencing many leaks throughout the facility. Should there be a tropical storm we would undergo severe damage to our patient common areas, staff work stations, medical records room, warehouse, medical equipment areas. We have been experiencing heavy leaks during rain storms in areas such as pediatrics, prenatal services and in our electrical room.
Miami Childrens	Tie Down Central Energy Plant Rooftop Equipment		Security/Terrorism	Equipment							0 A variety of rooftop equipment on the Central Energy Plant is in need to better securing through tie downs, bolts and other methods. This includes mechanical exhaust and other equipment.
Miami Childrens	Electrical Panel & Emergency Power Hardening & Elevation ♦ Ambulatory Care Building		Power Failure	Equipment				1,000,000.00			0 The Ambulatory Care Building is a predominantly outpatient facility, though critical services such as cardiology and neurology are present in the building. The electrical panel and emergency backup power for the building are in need of elevation & hardening to reduce the risk of water damage during hurricanes and other extreme weather events.
Miami Childrens	Electrical Panel & Emergency Power Hardening & Elevation ♦ Northeast Building		Power Failure	Equipment				1,300,000.00			0 The Variety Central Building contains multiple critical functions of the institution, including Dietary and the in-patient psychiatric ward. The electrical panel and emergency backup power for the building are in need of elevation & hardening to reduce the risk of water damage during hurricanes and other extreme weather events.
Miami Childrens	Main Campus Equipment Tie Downs		Wind	Equipment				100,000.00			0 The main campus has externally situated equipment such as a mobile MRI unit that necessitates tie down fortification to ensure greater protection and security in the event of high category hurricane.
Miami Childrens	Electrical Panel & Emergency Power Hardening & Elevation - South Dade Campus		Power Failure	Equipment				500,000.00			0 The South Dade Campus has an electrical panel and emergency backup power system for the building are in need of elevation & hardening to reduce the risk of water damage during hurricanes and other extreme weather events.
Miami Childrens	Electrical Panel & Emergency Power Hardening & Elevation ♦ Variety Central Building		Power Failure	Equipment				1,700,000.00			0 The Variety Central Building contains multiple critical functions of the institution, including Dietary and the in-patient psychiatric ward. The electrical panel and emergency backup power for the building are in need of elevation & hardening to reduce the risk of water damage during hurricanes and other extreme weather events.
Miami Childrens	Harden Variety West		Wind	Infrastructure (Building)				1,000,000.00			0 The Variety West Wing of Miami Children's Hospital is part of the original hospital building built decades before current hurricane codes were implemented, and as such, does not meet current code. This building, which houses such critical medical functions as Biomedical Photography, the hospital's IT Department, and the hospital morgue, requires external hardening to sustain and mitigate damages in a high wind velocity event.
Miami Childrens	Harden Variety East Wing ♦ Inpatient Center		Wind	Infrastructure (Building)				3,000,000.00			0 The Variety East Wing of Miami Children's Hospital is part of the original hospital building built decades before current hurricane codes were implemented, and as such, does not meet current code. This building, which houses such critical medical functions as the Psychiatry, Orthopedics and Audiology Departments, requires external hardening to sustain and mitigate damages in a high wind velocity event.
Miami Childrens	Harden Research Building Exterior		Wind	Infrastructure (Building)				3,000,000.00			0 The Research Building, as indicated, serves as the center of the hospital's research initiatives and includes administrative offices for the senior management of the institution. It is constructed of EIFS, a lightweight building material which in the event of a high category hurricane would put the building at risk for serious damages. To prevent this occurrence, the intent of this project would be to harden the building's exterior.
Miami Childrens	Harden IT Department Facility		Wind	Infrastructure (Building)				1,000,000.00			0 The IT Department is currently located in a penthouse structure constructed originally in a mechanical room fashion. This area houses the primary data center and technology infrastructure for the hospital, including patient information. The penthouse has non-reinforced exterior walls and facing door openings that suffer ongoing repetitive damage from water seepage. The project will externally harden the IT Department facility including the walls, windows, doors and other exterior elements.
Miami Childrens	Variety Central Hardening		Wind	Infrastructure (Building)				1,000,000.00			0 The Variety Central Building is part of the original hospital structure that serves as an in-patient care psychiatric facility. At present, its external envelop is vulnerable to damage from high winds. The project involves the installation of a new high impact roof, the reinforcement of all rooftop equipment, windows, walls, doors and other external elements.
Miami Childrens	Harden Warehouse / Supply Building		Wind	Infrastructure (Building)				1,100,000.00			0 The Essential Services Annex is the central warehouse for the main campus and contains critical support services and functions for the institution. To improve the structural strength of the building tested reinforcements such as lateral bracing and roof clips need to be installed.
Miami Childrens	Harden Northeast Building		Wind	Infrastructure (Building)				3,330,260.00			0 The Northeast Building houses the Hematology/Oncology Wing, CICU and in-patient rooms with approximately 22,000 square feet per floor on three floors with a total square footage of about 70,000. While constructed of concrete block, the building was built before current code requirements and is not reinforced with adequate steel rebar. Should the hospital sustain a direct or near direct hurricane, the structure and valuable contents would be at risk. The intent of this project is to increase the exterior skin to a higher hurricane protection level.
Miami Childrens	Patient Bed Tower - Code Plus Construction		All Hazards	Equipment				4,300,000.00			0 A new state-of-the-art Patient Bed Tower is currently in the design phase and is anticipated to be built in the coming years. The intent is to construct the facility above current Florida Building Code to ensure maximum protection in the face of extreme weather occurrences. The project will represent the difference between constructing the facility to exceed versus meet current building code.
Miami Dade College	Wolfson Campus, bldg 1000	Future Unfunded Project	Wind	Infrastructure (Building)				2,400,000.00			0 The District and campus administrative offices, support services and instructional rooms are housed in the building. The main electrical systems and generator are also located in the building. The Wolfson maintenance department, work order system and storage are in the basement of this building. District and campus administrative offices are housed in this building. If windstorm damage occurs, vital infrastructure will suffer causing a shutdown of most of Miami Dade College Wolfson Campus. Installing windstorm damage protection will mitigate damage and facilitate recovery. The building is the hub of the instructional and administrative activities for this center and other satellite centers in the area. Windstorm mitigation of this facility will assure quicker recovery of services provided. Install protective hurricane impact resistant glass on all windows, storefronts, and skylight designed to protect against wind and flying debris damage. Design, specify and install impact resistant sliding glass doors or other hurricane protection for Miami Dade College Wolfson Campus Building 1000 windows and fourth floor sliding glass doors.
Miami Dade College	Kendall Campus, bldg 7000	Future Unfunded Project	Wind	Infrastructure (Building)				189,866.00			0 This project involves hurricane resistant wind retrofit measures for wind protection, including the removal of existing non-code compliant hurricane shutters and replacement with code-compliant aluminum accordion shutters and impact glass. The project will install impact glass and hurricane shutters on windows and doors at Miami Dade College Kendall Campus Building 7000. The building houses administrative offices, student services, and classrooms. The activity will protect the college from property damage.
Miami Dade College	Wolfson Campus, bldg 5000	Future Unfunded Project	Flood/Storm Surge	Infrastructure (Building)				135,000.00			0 The basement of building 5000 is below street level. Located in the basement are instructional rooms, mechanical equipment and storage. Install a backup pump to relieve the basement of water and damage to equipment. In the case of a major flooding event, this pump will facilitate recovery of this building and mitigate associated costs. Design, specify and install a water pump at Miami Dade College Wolfson Campus Building 5000 basement. The job will include all necessary equipment, electrical, and mechanical needs.
Miami Dade College	Wolfson Campus, bld 1000	Future Unfunded Project	Flood/Storm Surge	Infrastructure (Building)				150,000.00			0 The basement of building 1000 is below street level and is subject to flooding. Located in the basement is the main (central) chiller equipment for buildings 1000, 2000, 3000, and 4000. The main electrical systems and generator are also located in the basement. The Wolfson maintenance department, work order system and storage are in this basement. District and Campus administrative offices are housed in this building. If flooding occurs in this basement, vital infrastructure will suffer causing a shutdown of most of Miami Dade College Wolfson Campus. Install the backup pump to relieve the basement of flooding and damage to the equipment. In the case of a major flooding event, this pump will facilitate recovery of this campus and mitigate associated costs. Design, specify and install a water pump at Miami Dade College Wolfson Campus Building 1000 basement. The job will include all necessary equipment, electrical, and mechanical needs.
Miami Dade College	West Campus Administrative bldg	Future Unfunded Project	Wind	Infrastructure (Building)				75,000.00			0 Administrative offices, instructional spaces, offices, and food service are housed in the building. The building is the hub of the instructional and administrative activities for this campus in the area. Windstorm mitigation of this facility will assure quicker recovery of services provided. Install protective hurricane (permanent type) screens or other hurricane protection on windows. Design, specify and install impact resistant hurricane screens or other hurricane protection for Miami Dade College West Campus.

Agency	Project Title	Status	Hazards	ProjectType	Potential Grant Sources	Funding Source	Flood Basin	Estimated Costs	GlobalMat	BCR	Project Description
Miami Dade College	Hialeah Campus, bldg 2000	Future Unfunded Project	Wind	Infrastructure (Building)				41,000.00			0 Installation of hurricane shutters/window screen protection on the Hialeah Campus Building 2000. The Miami Dade College Hialeah Campus is located in a Hialeah neighborhood. The Hialeah Campus Support Building has many large glass windows and doors that are currently unprotected. MDC will protect the glass windows and doors in vulnerable areas around the building. The building houses all administrative spaces, the main electrical systems, and air conditioning systems. If windstorm damage occurs, vital infrastructure will suffer, and the damage will cause a shutdown of the campus. Installation of windstorm damage protection will mitigate hurricane and tornado damage and ensure that the campus infrastructure is able to weather a disaster.
Miami Dade College	Entrepreneurial Edu Cntr, bldg 1000	Future Unfunded Project	Wind	Infrastructure (Building)				114,400.00			0 Installation of hurricane shutters/window screen protection on the two floors of the Entrepreneurial Education Center Building 1000. The Miami Dade College Entrepreneurial Education Center Classroom Building has many large glass windows and doors that are currently unprotected. MDC will protect the glass windows and doors in vulnerable areas around the building. The building houses instructional spaces, food services, and student services. The main electrical systems, chiller plant, and generator are also housed in this building. If windstorm damage occurs, vital infrastructure will suffer, and the damage will cause a shutdown of the campus. Installation of windstorm damage protection will mitigate hurricane and tornado damage and ensure that the campus infrastructure is able to weather a disaster.
Miami Dade College	Kendall Campus, bldg 100	Funding Applied for	Wind	Infrastructure (Building)	HMGP Hazard Mitigation Grant Program	Grant Applied For		333,450.00			0 This project involves hurricane resistant wind retrofit measures for wind protection. The proposed activity will mitigate wind damage to Miami Dade College's Kendall Campus Building 100, which has many large windows and doors that are currently unprotected. The building houses instructional spaces, administrative offices, and student services. If windstorm damage occurs, vital infrastructure will suffer, and damage will cause a shutdown of the building. Installation of windstorm damage protection will mitigate hurricane and tornado damage and ensure that the infrastructure is able to weather a disaster.
Miami Dade College	Hialeah Campus, bldg 1000	Construction/Project Begun	Wind	Infrastructure (Building)	HMGP Hazard Mitigation Grant Program	Grant Awarded		250,000.00			0 Installation of hurricane shutters/window screen protection on the Hialeah Campus Building 1000. The Miami Dade College Hialeah Campus is located in a Hialeah neighborhood. The Hialeah Campus Classroom Building has many large glass windows and doors that are currently unprotected. MDC will protect the glass windows and doors in vulnerable areas around the building. The building houses instructional spaces, food services, and student services. The main electrical systems, chiller plant, and generator are also housed in this building. If windstorm damage occurs, vital infrastructure will suffer, and the damage will cause a shutdown of the campus. Installation of windstorm damage protection will mitigate hurricane and tornado damage and ensure that the campus infrastructure is able to weather a disaster.
Miami Dade College	Medical Cntr, bldg 2000	Construction/Project Begun	Wind	Infrastructure (Building)	HMGP Hazard Mitigation Grant Program	Grant Awarded		263,000.00			0 Installation of hurricane shutters/window screen protection on the Medical Center Campus Building 2000. The Miami Dade College Medical Center Campus Building 2000 has many large glass windows and doors that are currently unprotected. MDC will protect the glass windows and doors in vulnerable areas around the building. The building houses instructional spaces, administrative offices, and student services. If windstorm damage occurs, vital infrastructure will suffer, and the damage will cause a shutdown of the campus. Installation of windstorm damage protection will mitigate hurricane and tornado damage and ensure that the campus infrastructure is able to weather a disaster.
Miami Dade College	Medical Cntr, bldg 1000	Construction/Project Begun	Wind	Infrastructure (Building)	HMGP Hazard Mitigation Grant Program	Grant Awarded		200,000.00			0 Installation of hurricane shutters/window screen protection on the Medical Center Campus Building 1000. The Miami Dade College Medical Center Campus Building 1000 has many large glass windows and doors that are currently unprotected. MDC will protect the glass windows and doors in vulnerable areas around the building. The building houses instructional spaces, administrative offices, and student services. If windstorm damage occurs, vital infrastructure will suffer, and the damage will cause a shutdown of the campus. Installation of windstorm damage protection will mitigate hurricane and tornado damage and ensure that the campus infrastructure is able to weather a disaster.
Miami Gardens	drainage improvement NW 25 Ave and 167 Streen North	Project Complete	Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)			C8	400,000.00			0 The following areas have been identified as having severe flooding problems, and the stated improvements will reduce property damage and repetitive losses from future rain events. These projects also improve water quality of stormwater runoff, which is a requirement of the County and federal permits. All projects will consist of French Drain systems, with emergency overflow outfalls where needed. French Drains capture the first inch of stormwater runoff on the property site, and allow treatment for pollution, and then percolation into the ground.
Miami Gardens	Vista Verde Remaining Phae from Snake Creak Canal to NW 41 Ave Rd	Project in Planning Stage	Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)		Grant Applied For	C9-E	3,000,000.00			0 Sediment removal and canal stabilization and headwall and culver repairs
Miami Gardens	Drainage Improvement NW 191 - 195 Street, from NW 2nd Ave (441) to NW 7th Ave	Future Unfunded Project	Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)			C9-E	960,000.00			0 The following areas have been identified as having severe flooding problems, and the stated improvements will reduce property damage and repetitive losses from future rain events. These projects also improve water quality of stormwater runoff, which is a requirement of the County and federal permits. All projects will consist of French Drain systems, with emergency overflow outfalls where needed. French Drains capture the first inch of stormwater runoff on the property site, and allow treatment for pollution, and then percolation into the ground.
Miami Gardens	Bridge Replacement	Project Complete	Flood/Storm Surge	Infrastructure (Roadway)		Grant Awarded	C9-E	930,000.00			0 This project will replace the bridge at NW 42 Ave and 179 Street. Replacement of this bridge will ensure continued and greater capacity for the secondary canal it serves, and quicker evacuation times for residents to the north and south, should an evacuation be ordered.
Miami Gardens	Floodproofing Police Department Building	Future Unfunded Project	Flood/Storm Surge	Infrastructure (Building)			C8	50,000.00			0 This Project consists of applying flood proofing techniques to all the doors and low-lying windows of the City's Police Department. This will reduce damage to the building and its contents during a major rain event
Miami Gardens	Burial of Power Lines	Future Unfunded Project	Wind	Equipment			C9-E	10,000,000.00			0 Due to wind storms, the burial of main electrical lines (FPL, cable, telephone, etc.) is essential to the community. This will minimize damage to property and loss of life, and gain a faster return to normal operations as soon as possible
Miami Gardens	Community Emergency Response Teams	Future Unfunded Project	All Hazards	Outreach			C9-E	50,000.00			0 This project's goal is to continue CERTS for the City. When an emergency or disaster occurs at anytime and anyplace in the City, trained CERT volunteers will be ready and able to respond to save lives and protect property. CERT members will be able to do the greatest good for the greatest number after a disaster, while protecting them from becoming victims. This program will include but not be limited to basic medical treatment procedures, scene safety, securing utilities, and other hazards, and some rescue operations.
Miami Gardens	Removal of Australian Pines and Other Exotics	Future Unfunded Project	Wind	Other			C9-E	1,000,000.00			0 Debris removal after a storm is an expensive and time-consuming process. Fallen trees can delay the re-entry process by blocking access to roads and properties. This project would create a permanent ongoing tree removal program. It would ensure removal of exotic trees on public rights-of-way. The exotics would be replaced by appropriate native trees that will enhance the City's tree canopy. The City will maintain the new native trees.
Miami Gardens	Drainage improvement NW 205-207 Street from NW 28-33 Ave	Future Unfunded Project	Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)			C9-E	300,000.00			0 The following areas have been identified as having severe flooding problems, and the stated improvements will reduce property damage and repetitive losses from future rain events. These projects also improve water quality of stormwater runoff, which is a requirement of the County and federal permits. All projects will consist of French Drain systems, with emergency overflow outfalls where needed. French Drains capture the first inch of stormwater runoff on the property site, and allow treatment for pollution, and then percolation into the ground.
Miami Gardens	20060 NW 29th Court, minor drainage improvement	Future Unfunded Project	Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)			C9-E	100,000.00			0 The following areas have been identified as having severe flooding problems, and the stated improvements will reduce property damage and repetitive losses from future rain events. These projects also improve water quality of stormwater runoff, which is a requirement of the County and federal permits. All projects will consist of French Drain systems, with emergency overflow outfalls where needed. French Drains capture the first inch of stormwater runoff on the property site, and allow treatment for pollution, and then percolation into the ground.
Miami Gardens	3857 NW 213 Street, still under investigation for scope of drainage improvements	Funding Applied for	Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)		Capital Improvement	C9-E	1,136,927.00			0 The following areas have been identified as having severe flooding problems, and the stated improvements will reduce property damage and repetitive losses from future rain events. These projects also improve water quality of stormwater runoff, which is a requirement of the County and federal permits. All projects will consist of French Drain systems, with emergency overflow outfalls where needed. French Drains capture the first inch of stormwater runoff on the property site, and allow treatment for pollution, and then percolation into the ground.
Miami Gardens	Swale Tree Trimming and Debris Clearance	Future Unfunded Project	Wind	Other			C9-E	275,000.00			0 Develop and implement a citywide program to trim trees prior to hurricane season, which will allow for increased survivability of trees and will reduce safety concerns of residents. This initiative will also reduce debris and protect infrastructure such as sidewalks and roads.
Miami Gardens	drainage improvement NW 191Street-196 Terrace, from NW Sunshine State Parkway East to NW 12 Avenue	Future Unfunded Project	Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)			C9-E	84,000.00			0 The following areas have been identified as having severe flooding problems, and the stated improvements will reduce property damage and repetitive losses from future rain events. These projects also improve water quality of stormwater runoff, which is a requirement of the County and federal permits. All projects will consist of French Drain systems, with emergency overflow outfalls where needed. French Drains capture the first inch of stormwater runoff on the property site, and allow treatment for pollution, and then percolation into the ground.
Miami Gardens	Drainage Improvements 1311 NW 195 Street	Future Unfunded Project	Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)		Capital Improvement	C9-E	100,000.00			0 The following areas have been identified as having severe flooding problems, and the stated improvements will reduce property damage and repetitive losses from future rain events. These projects also improve water quality of stormwater runoff, which is a requirement of the County and federal permits. All projects will consist of French Drain systems, with emergency overflow outfalls where needed. French Drains capture the first inch of stormwater runoff on the property site, and allow treatment for pollution, and then percolation into the ground.

Agency	Project Title	Status	Hazards	ProjectType	Potential Grant Sources	Funding Source	Flood Basin	Estimated Costs	GlobalMat	BCR	Project Description
Miami Gardens	NW 13 Avenue/Industrial Area Drainage Outfall Project	Future Unfunded Project	,Flood	Infrastructure (Roadway)		Capital Improvement	C8	300,000.00			72 This project will tie all the drainage structures on NW 13 Avenue from NW 167 Street to NW 155 Drive to an outfall into the Biscayne Canal. Funding will be used for design, permitting and construction for an exfiltration system to include sediment traps, pollution baffles, and permeable piping, filter cloth and ballast rocks that will be designed for the 5-year South Florida Water Management District (SFWMD) storm event and the minimum required by Department of Regulatory and Economic Resources (formerly DERM). It will consist of restoration of any roads, sidewalks, and swales impacted during construction. This project lies within the C8 drainage basin, as defined by the South Florida Water Management District.
Miami Gardens	Sanitary Sewer Line along SR441	Project Deferred	,Other,Health	Infrastructure (Water/Sewer/Drainage)		Capital Improvement	C9-E	2,200,000.00			74 This project is proposed for the future City of Miami Gardens CRA Projects. The purpose is to upgrade from septic tanks to the sanitary sewer system in the commercial and residential areas along SR 441 from the Snake Creek Canal south to NW 183 Street. This is approximately 2.82 Miles of sanitary sewer line, manholes, service connections, sidewalk, driveways, and pavement repairs as needed. this project lies within the C9 drainage basin, as defined by the South Florida Water Management District.
Miami Gardens	NW 27 Avenue Canal Stabilization	Project Deferred	,Flood,Storm Surge	Other		Capital Improvement	C9-E	2,000,000.00			76 This project is being proposed in the City of Miami Gardens' Future CRA for canal stabilization (to control bank erosion) on NW 27 Avenue from Snake Creek Canal to County Line Road. This project will grade banks and install geo-web system. This project lies within the C9 drainage basin, as defined by the South Florida Water Management District.
Miami Gardens	Kings Gardens #3	Other	,Flood,Other	Infrastructure (Roadway)		Capital Improvement	C9-E	1,886,283.00			72 Kings Garden is a private community where the association owns the roads and drainage. Through time, the roads and drainage have declined due to a lack of maintenance. The decline is to the extent that the situation is a driving and flooding hazard for the residents in the area.  This proposal would either buy the roads and drainage and restore them to current standards, or work with the community to do the same. Drainage would be evaluated, and any functional parts of the system would be kept. The rest of the system would be completely removed, and up-to-date drainage constructed. this project lies within the C9 drainage basin, as defined by the South Florida Water Management District.
Miami Gardens	Create GIS Layer for Storm Sewer Infrastructure	25% complete	Flood/Storm Surge	Equipment			C9-E	100,000.00			0 This project aims to update the City's GIS for storm sewer infrastructure, to get the latest information possible. This will mitigate flooding if a major event occurs, through the City having accurate information on which drainage systems to investigate, maintain, and clean before flood events occur. this project lies within the C8 and C9 drainage basins, as defined by the South Florida Water Management District
Miami Gardens	Pre-emptive Tree Trimming at City Parks	Future Unfunded Project	Wind	Other			C9-E	40,000.00			0 This project consists of trimming trees in City parks to ISA standards. Properly trimmed trees better withstand storms. Removing dead or diseased trees also mitigates the wind hazard. This includes: Removing dead and diseased wood from all tree specimens within the park system; removing trees that exhibit a geotropic growth pattern and that pose a public health and safety hazard to citizens in the parks; and remove weak and deformed crotches as well as major branches that have been broken in previous storms. this project lies within the C8 and C9 drainage basins, as defined by the South Florida Water Management District.
Miami Gardens	Storm Shutter Program	Future Unfunded Project	Wind	Outreach			C9-E	100,000.00			0 The City will provide financial assistance to twenty owner-occupied single family homeowners to install hurricane shutters on all windows. The financial assistance will be in the form of a deferred forgive-able loan for five years. The City has an existing process for qualifying residents to participate in the program. The shutters will be installed by a City-approved licensed and insured contractor. this project lies within the C8 and C9 drainage basins, as defined by the South Florida Water Management District.
Miami Gardens	Livable Neighborhoods Initiative	Future Unfunded Project	Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)		Capital Improvement	C9-E	12,500,000.00			0 The livable neighborhoods initiative is an infrastructure improvement project consisting of the provision of new drainage, sewer, roadway paving, sidewalk, lighting, and landscaping of three low-to-moderate income residential neighborhoods in the City. The project will be implemented in phases, depending upon funding availability. This project lies within the C8 and C9 drainage basins, as defined by the South Florida Water Management District.
Miami Gardens	Drainage Improvements NW 170 St west of 22 Ave	Project in Planning Stage	Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)		Capital Improvement	C8	1,200,000.00			0 The following areas have been identified as having severe flooding problems, and the stated improvements will reduce property damage and repetitive losses from future rain events. Two repetitive losses exist in this area. These projects also improve water quality of stormwater runoff, which is a requirement of the County and federal permits. All projects will consist of French Drain systems, with emergency overflow outfalls where needed. French Drains capture the first inch of stormwater runoff on the property site, and allow treatment for pollution, and then percolation into the ground. The project lies within the C8 drainage basin, as defined by the South Florida Water Management District.
Miami Gardens	NW 11 Avenue Stormwater Drainage Project	Future Unfunded Project	,Flood	Infrastructure (Roadway)		Unknown/None	C8	0.00			72 This project mitigates the harmful effects of stormwater runoff causing flooding and erosion. It is an exfiltration system to include sediment traps, pollution baffles, and permeable piping, filter cloth and ballast rocks that will be designed for the 5-year South Florida Water Management District (SFWMD) storm event and requirements by Department of Regulatory and Economic Resources (formerly DERM). It will consist of restoration of any roads, sidewalks, and swales impacted during construction. This project will enhance the quality of runoff groundwater by reducing contaminants that will seep into the ground and will result in reduced volumes and enhanced quality of discharges to surface waters.
Miami Gardens	Vista Verde Phase 1b area along NW 39 Aven from 207-209 St	Project Complete	Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)			C9-E	425,000.00			0 Sediment removal and canal stabilization and headwall and culver repairs
Miami Gardens	Flood Mitigation	Funding Applied for	,Flood	Infrastructure (Water/Sewer/Drainage)	,Grants and Loans for Public Works & Development Facilities	Grant Applied For	C9-E	570,000.00	No		61 Four Ditches along NW 203 St between 7-12 Avenues require constant maintenance, and the seawalls are collapsing. Project would convert ditches to culverts, thereby minimizing flood potential and maintenance requirements.
Miami Lakes	Lakes Water Quality Improvements	Future Unfunded Project	Health	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None		180,000.00	Unknown		65 Lakes Hilda and Cynthia need infrastructure improvements to treat storm water runoff and improve water quality. The project will install a system of catch basins that connect to exfiltration trenches which discharge into the lakes.
Miami Lakes	Localized Drainage Improvements	Future Unfunded Project	,Flood,Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)		Unknown/None		200,000.00			69 Localized drainage improvements as identified throughout the Town boundaries
Miami Lakes	NW 83rd Place	Future Unfunded Project	,Flood,Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)		Unknown/None		150,000.00			69 Drainage improvements along NW 83rd Place to reduce flooding
Miami Lakes	Lake Martha Drainage Improvements	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None		1,260,000.00	Unknown		67 The Lake Martha drainage improvements address the drainage deficiencies in the neighborhood. It includes approximately 12.6 acres of road right-of-way. None of the drainage areas meet the water quality requirements and several either do not meet water quality goals for the 5, 10, 25 and 100-year storm events or were observed to flood over the crown of the road during an average summer storm. These roads experience localized drainage problems. The existing storm drainage systems for these areas often takes several days to discharge runoff that is on the roads, creating a nuisance and potential danger to the motoring public.
Miami Lakes	West Lakes Drainage Improvements	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None		3,200,000.00	Unknown		79 The West Lakes drainage improvements address the drainage deficiencies in the neighborhood. These roads experience localized drainage problems. The existing storm drainage systems for these areas often takes several days to discharge runoff that is on the roads, creating a nuisance and potential danger to the motoring public. Components include NW 89th Avenue, Olivia Gardens, Genesis Gardens, and Florida Tropical Estates. Preliminary design has been completed and project boundaries needed to be increased.
Miami Lakes	Royal Oaks Drainage Improvements	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None		850,000.00	Unknown		69 The Royal Oaks drainage improvements address the drainage deficiencies in the neighborhood. These roads experience localized drainage problems. The existing storm drainage systems for these areas often takes several days to discharge runoff that is on the roads, creating a nuisance and potential danger to the motoring public. Components include Dunhill Cove/Swan's Landing, 2nd Addition and 5th Addition.
Miami Lakes	Lake Sarah Drainage Improvements	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None		710,000.00	Unknown		69 The Lake Sarah drainage improvements address the drainage deficiencies in the neighborhood. None of the drainage areas meet the water quality requirements. Several areas fail to meet performance goals for the 5, 10, 25 and 100-year storm events and observed drainage deficiencies during and average summer storm. These roads experience localized drainage problems. The existing storm drainage systems for these areas often takes several days to discharge runoff that is on the roads, creating a nuisance and potential danger to the motoring public.
Miami Lakes	Optimist Park Improvements	Future Unfunded Project	Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None		1,248,000.00	Unknown		0 Improvements are needed to Optimist Park; the clubhouse has been demolished due to water and sewer improvements and must be rebuilt. Estimated cost: \$1,248,000
Miami Lakes	Traffic Signal Emergency Power	Future Unfunded Project	Power Failure	Traffic Control	Future Unfunded Project	Update		45,000.00	Unknown		0 In the event of power outages, the town wishes to obtain and install transfer switches for additional energy sources on electrical boxes connected to traffic signals. This will allow the town to disconnect the electricity and connect to portable generators to power the traffic signals, thus eliminating the dangers from power surges when the electricity is repaired. This includes a power source for the Town variable-message-sign (VMS) to be used for emergency situations.
Miami Lakes	Traffic Control	Future Unfunded Project	Power Failure	Traffic Control	Future Unfunded Project	Update		10,000.00	Unknown		0 To provide for public safety, the town seeks to purchase mobile stop signs, mounted on square bases, to control traffic in the event that traffic lights are inoperable. These will be placed as four-way stops at an estimated 15 unmanned intersections.

Agency	Project Title	Status	Hazards	ProjectType	Potential Grant Sources	Funding Source	Flood Basin	Estimated Costs	GlobalMat	BCR	Project Description
Miami Lakes	Purchase Barricades	Future Unfunded Project	Multiple	Traffic Control	Grants	Unknown/None		40,000.00	Unknown		0 Purchase type II and type III barricades with flashing lights. In addition, purchase a trailer for transporting the barricades towed behind a pickup truck and a storage container for all supplies. The town has a need for barricades to block hazardous road conditions, damages and other incidents that the use of barricades is necessary. This is a safety issue. After a hurricane, roadways that have fallen power lines, downed trees, or deep standing water are a hazard to the public and the barricades will assist in limiting access.
Miami Lakes	Local Radio Station	Future Unfunded Project	Multiple	Notification	Grants	Unknown/None		75,000.00	Unknown		0 The town of Miami Lakes, in order to provide valuable information to the local business and residents, would provide that information through the use of a small AM radio broadcast system. This consists of a fixed antenna and radio equipment to broadcast on a low frequency AM radio band. The information would be concerning hazard conditions, where to find assistance, traffic conditions and any other relevant information that pertains to the local township.
Miami Lakes	Tree Trimming	Future Unfunded Project	Wind	Other	Grants	Unknown/None		125,000.00	Unknown		0 The goal of this project is to effectively manage the town's tree canopy, reducing debris and protecting the infrastructure from damaged sidewalks, curbs, and clogged storm drains due to excessive tree leaves and branch accumulations. The tree trimming program's objective is to trim all the trees in the swale areas in all residential neighborhoods and park areas every three years, and main access roads annually including several hurricane shelter routes.
Miami Lakes	Purchase and Install Emergency Radio System	Future Unfunded Project	Multiple	Equipment	Grants	Unknown/None		115,000.00	Unknown		0 During an emergency, it is critical that the town manager and key employees communicate with each other, county police, public works, and the county Emergency Operations Center. This project involved the purchase of a back-up emergency interoperable communication system for police, including a mobile command center, and installation of a small-sized system (5 to 8 radios) and base station.
Miami Lakes	Public Information and Education	Future Unfunded Project	All Hazards	Outreach	Grants	Unknown/None		10,000.00	Unknown		0 Develop a How To manual specifically for Miami Lakes citizens. Through the use of grant funds, the town can develop community disaster education programs to promote emergency awareness and educate residents on the appropriate response and necessary preparations to take in the threat of an emergency, in addition to the importance of stormwater mitigation. This effort should reduce demands on the local government and facilitate recovery after the event. During times when both the town and the county are responsible for various city services, this can be a key issue.
Miami Shores	Hurricane Proof Emergency Generator Room (Police Department)		Wind	Equipment				61,000.00			0 Replace the aluminum cover currently housing the generator used for emergency power to support public safety operations during and after hurricanes. Replace with a hardened poured concrete structure.
Miami Shores	Harden and Flood Proof Public Works Facility		Multiple (specify in comments Column T)	Infrastructure (Building)				710,000.00			0 Strengthen the existing Butler Aluminum Building with structural reinforcements including raising the floor elevation; adding injection well / exfiltration drainage system to protect administrative/inventory storage from flooding. Make existing offices hurricane proof by using poured concrete roofing and steel reinforced doors, enabling the facility to augment Village Hall as an employee hurricane shelter during storms. Replace existing overhead garage doors with hurricane proof doors. Strengthen UHF radio tower to withstand hurricane force wind loads.
Miami Shores	Redesign Bayfront Park Seawall		Wind	Beach/Seawall				810,000.00			0 Design and construct new seawall system using poured concrete and tiebacks to replace existing 900 foot seawall, currently in poor condition. Explore more hurricane resistant design, including the angling of the seawall to allow better deflection of wave action. Re-engineer pylons to accept pedestrian safety rails.
Miami Shores	Harden Windows in the Miami Shores Golf & Country Club		Wind	Infrastructure (Building)				50,000.00			0 Hurricane-rated protection is needed for the windows of the Miami Shores Village Golf & Country Club.
Miami Shores	Harden Windows in the Recreation Field House		Wind	Infrastructure (Building)				50,000.00			0 Hurricane-rated protection is needed for the windows of the Miami Shores Village Recreation Field House.
Miami Shores	Harden Windows in the Village Community Center		Wind	Infrastructure (Building)				50,000.00			0 Hurricane-rated protection is needed for the windows of the Miami Shores Village Community Center.
Miami Shores	Harden Windows in 2nd Floor Police Department		Wind	Infrastructure (Building)				50,000.00			0 Hurricane-rated protection is needed for the windows of the Miami Shores Village Police Station's 2nd Floor.
Miami Springs	Purchase and Install a Radio Repeater System	50% complete	Multiple	Equipment				45,000.00			0 Miami Springs is assessing the communications system for Public Works to provide for a greater range of coverage.
Miami Springs	Storm Shutter for Country Club	Future Unfunded Project	Wind			Unknown/None		0.00			0 Miami Springs utilized the Country Club as an emergency feeding site for critical city personnel post storm. The City plans to update the current panel shuttering system to an accordion system that would reduce the amount of time needed for Emergency Protective Measures.
Miami Springs	Engineering Study to determine sites of canal bank restoration	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)				120,000.00			0 Miami Springs has numerous locations along the Melrose Canal that need to be studied and mitigated through canal bank stabilization.
Miami Springs	Removal of Australian Pines	25% complete	Wind	Other		Other Internal Funding		14,000.00			0 The city has a large number of old, deteriorated Australian pines that easily become a hazard during high winds. The removal of these conifers requires specialized equipment and skills that city crews do not possess. This project would enable the city to hire a professional firm to remove approximately 30 Australian pines.
Mount Sinai	Code Plus Construction Enhancements New Medical Office Tower	Funding Secured	Wind,Flood,Flood/Storm Surge,Health,Power Failure,Sea Level Rise,Security Breach,Storm Surge,Technological Disruption	Infrastructure (Building)		Other Internal Funding		3,750,000.00			0 Construct a Primary Care and Medical Home Tower with code plus wind, storm surge and flood enhancements above the current Florida building code standards.
Mount Sinai	Protect the Power Supply	Funding Secured	Power Failure,Health	Equipment	Grants and Loans for Public Works & Development Facilities	Grant Awarded		5,000,000.00		92	Purchase of 12 synchronized generators to protect the patient power supply.
Mount Sinai	Protect Critical Services	Construction/Project Begun	Flood	Other				2,000,000.00			0 Relocate critical services to above flood level locations.
Mount Sinai	Greenspan Roof and Enclosures	Funding Applied for	Wind	Infrastructure (Building)	HMGP Hazard Mitigation Grant Program	Grant Applied For		300,000.00			0 Remove roof and replace all roof top enclosures with Miami-Dade County Hurricane Zone rated systems.
Mount Sinai	Mitigate the Impact of Storm Surge	Future Unfunded Project	Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)				950,000.00			0 Install trunk line for necessary drainage
Mount Sinai	Code Plus Construction Energy Center Facility Protect Redundant Power Supply	Funding Secured	Wind,Flood,Flood/Storm Surge,Health,Power Failure,Sea Level Rise,Storm Surge,Technological Disruption	Infrastructure (Building)		Other Internal Funding		250,000.00		93	Retrofit the Energy facility with code plus wind, storm surge and flood enhancements above the current Florida building code standards.
Mount Sinai	Elevate Seawall	Funding Applied for	Flood	Beach/Seawall		Identified Grant Source		3,000,000.00			0 Raise Mount Sinai's bayfront seawall, protect the infrastructure including perimeter road and drainage from the effects of flooding and sea level rise.
Mount Sinai	Protect the Cooling Towers	Project in Planning Stage	Multiple (specify in comments Column T)	Other		Other Internal Funding		3,000,000.00			0 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.
Mount Sinai	Protect the Energy Center Facility Chillers	Project in Planning Stage	All Hazards	Other		Other Internal Funding		2,000,000.00			0 Retrofit and harden the Energy facility chillers to protect the supply of medically necessary A/C in the event of natural disaster.
Mount Sinai	Energy Center 1	Project in Planning Stage	Power Failure,Flood,Flood/Storm Surge,Health,Wind	Equipment		Grant Awarded		8,994,838.00		95	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.

Agency	Project Title	Status	Hazards	ProjectType	Potential Grant Sources	Funding Source	Flood Basin	Estimated Costs	GlobalMat	BCR	Project Description
Mount Sinai	Utility Bridge and Power Distribution	Project in Planning Stage	Wind,Flood/Storm Surge,Flood,Health,Power Failure,Technological Disruption,Other	Equipment	,HMGP Hazard Mitigation Grant Program	Grant Awarded		7,351,169.00	No		93 Provide hurricane rated structures to protect all redundant power equipment and ensure its connection to the central energy plant.
Mount Sinai	Energy Center 2	Project in Planning Stage	Wind,Flood,Flood/Storm Surge,Health,Power Failure	Infrastructure (Building)		Grant Awarded		3,964,239.00			95 Retrofit the Energy facility with code plus wind, storm surge and flood enhancements above the current Florida building code standards.
Mount Sinai	Harden Knight MRI/Wien Center Building	Future Unfunded Project	Wind	Infrastructure (Building)				3,750,000.00			0 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.
Mount Sinai	Harden Child Care Building	Future Unfunded Project	Wind	Infrastructure (Building)				750,000.00			0 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.
Mount Sinai	Harden Aventura Emergency Room Buildings	Future Unfunded Project	Wind	Infrastructure (Building)				950,000.00			0 Harden Mount Sinai Aventura 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.
Mount Sinai	Code Plus Construction Enhancements Surgical Tower	Project in Planning Stage	All Hazards	Infrastructure (Building)				6,500,000.00			0 Construct a new surgical facility with code plus wind, storm surge and flood enhancements above the current Florida building code standards.
Mount Sinai	Harden Research and Education Building	Future Unfunded Project	Flood/Storm Surge,Flood,Health,Power Failure,Sea Level Rise,Security Breach,Storm Surge,Wind	Infrastructure (Water/Sewer/Drainage)				750,000.00			0 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.
Mount Sinai	Relocate Operating Rooms	Future Unfunded Project	Wind	Equipment				16,500,000.00			0 Relocate operating rooms, contents, equipment and critical functions from ground floor to wind rated protective above ground addition.
Mount Sinai	Protect the Oxygen Supply for the ER	Future Unfunded Project	Wind	Equipment	,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 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.
Mount Sinai	Protect Satellite Locations	Future Unfunded Project	Wind	Infrastructure (Building)				1,450,000.00			0 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.
Mount Sinai	Mitigate Storm Drainage	Project in Planning Stage	Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)		Identified Grant Source		950,000.00			0 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
North Bay Village	Smart Meters		Power Failure	Equipment				5,000.00			0 This project consist of the acquisition of four smart meters that immediately advise of a power outage. Telephoning up to three individuals and entering a trouble-ticket to Florida Power and Light. This will prevent drastic environmental disasters caused by sewage over flow out of the city's four sewage pump stations.
North Bay Village	Digital City Survey		Flood	Other				35,500.00			0 This project encompasses the creation of a complete city electronic topographic survey in MicroStation? or AutoCAD. This will help incorporate the recently created geo-referenced wastewater system. By obtaining the global satellite positions for all wastewater manholes, pump stations, and force mains, the entire wastewater system for the city is now digitized. The city's water distribution system will be digitized once an entire city survey is created by obtaining the global satellite positions for all water valves, water meters, and water mains.
North Bay Village	Hispaniola Sewage Pump Station		Flood	Infrastructure (Water/Sewer/Drainage)				100,000.00			0 The city's wastewater system is made up of only four pump stations. The busiest pump station next to the main pump station is the Hispaniola pump station. This is a wet well/dry well station located on Treasure Island. A recent pump station inspection found the dry well to be in bad condition. The wall lining has peeled away, and in several areas, the wall itself has deteriorated to the point of exposing the rebar. Both pumps are barely operational and the pump controls were disintegrating. The calculated average daily flow to the station is 576 Gallons per minute (gpm). The station pumping capacity must be increased by a factor of 1.2 to meet EPA ten-hour criteria. This translates to a flow rate of 1383 gpm per pump to meet current needs and to account for the potential growth on Treasure Island. The project consists of converting the existing dry/wet pit station to a fully wet station. This will nearly double its holding capacity. Two new chopper pumps, which devourer any debris introduced in the sewer system, will be installed.
North Bay Village	Municipal Park			Other				1,400,000.00			0 The city of North Bay Village serves over seven thousand residents and yet only has one very small tot-lot. The future of a city depends on the well-being of its young residents. A city park is greatly needed. This project will fund the acquisition of a lot and its conversion to a municipal Park.
North Bay Village	Underground Electrical Power Lines		Power Failure	Infrastructure (Roadway)				7,070,000.00			0 This project involves the removal of above ground electrical power lines and the replacement of a complete underground electrical power line system for the entire city. The city of North Bay Village is within the hurricane evacuation Red Zone, which means it is exposed to possible severe damage. Having an underground electrical power system will tremendously lower the power outages caused by hurricane force winds.
North Bay Village	North Bay Island Stormwater Pump Station Rehabilitation		Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)				124,840.00			0 When North Bay Island is affected by a severe storm, the storm surge or heavy rains can cause a great deal of damage to the public right of way and residential homes. Therefore we are proposing that the following project to be included in the Local Mitigation Strategy. Rehabilitation of the stormwater station located on North Bay Island.
North Bay Village	Storm Drainage Outfall Protection		Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)				100,000.00			0 This project involves video recording the existing storm drainage system, rehabilitating all portions needed, and the installation of backflow preventors at all stormwater outfalls in the city. This will prevent buildup of barnacles which decrease the cross-sectional diameter of the pipes in turn decreasing the flow capacity. The valves will maintain the high water table bay waters out of our storm system allowing our pipes to act as additional containment volume. Most importantly they will maintain flow moving in a positive flow and prohibit contaminants to enter Biscayne Bay and the waters of the United States.
North Bay Village	Existing Sewer Force Main		Flood	Infrastructure (Water/Sewer/Drainage)				66,600.00			0 This is a Division of Environmental Resource Management mandated project. In order for the city to continue day-to-day construction development the sole existing sewer force main must be inspected for leaks, structurally analyzed and protected. This project consists of performing a dye-test which will reveal any leaks in the pipe; as well as an ultrasonic scan which will provide the existing cross-sectional thickness of the pipe at several locations. The final step is the installation of 40 buoys marking the sewer force main trajectory. This will alert and prohibit vessels from damaging the brittle 38 year old force main. All previous breaks have been man endues. The first was an anchor, the second was a ship that ran ashore and the third was a vessel that stroke the main leaving a clear deformation, the forth was a 40' wooden pile that caused a perforation after Hurricanes Charlie and Frances.
North Bay Village	Storm Drainage, Sewage, Bay Restoration		Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)				6,500,000.00			0 This will be the biggest environmentally focused project the city has encountered. Biscayne Bay is currently exposed to almost 10,000 linear feet of North Bay Village-Miami Beach bound sewage pipe. This project involves a new Miami bound pipe. The new force main will originate at the city's main sewer pump station (Galleon Street) and travel to N. Treasure Drive turn north at Adventure Avenue and west on J.F. Kennedy Causeway (SR 934). It will turn south in NE 6th St. (Miami) and end at Miami-Dade County's sewer lift station just south of SR 934. This project involves storm water improvements to all roadways affected. The environment will benefit the most by replacing the current eastbound 10,000 linear feet of raw sewage pipe that crosses Biscayne Bay to only 300 linear feet of new westbound pipe. If horizontal directional drilling is used to cross under Biscayne Bay there would be zero pipe exposure to the bay.

Agency	Project Title	Status	Hazards	ProjectType	Potential Grant Sources	Funding Source	Flood Basin	Estimated Costs	GlobalMat	BCR	Project Description
North Miami	Non-critical Facilities Hazard Mitigation	Future Unfunded Project	,Flood/Storm Surge,Flood,Storm Surge,Other	Infrastructure (Building)		Capital Improvement		400,000.00	Unknown	61	The city has identified seven of its buildings as non-critical facilities. These facilities support the restoration of essential city services after major storm events and other emergencies. Non-critical facilities include five community centers (Enchanted Forest Community Center, Griffing Senior Adult Center, Gwen Margolis Community Center, Keystone Center and Sunkist Grove Community Center), the Museum of Contemporary Art and the Parks Operation Center. Non-critical buildings are used as staging facilities by city staff, FEMA, Red Cross, and other emergency response agencies. Over the years, building officials and staff have researched various types of protection, ranging from plywood to roll down fixed metal shutters and shields. Non-critical city facilities, currently secure their windows and doors with plywood. Plywood requires considerable storage space and time-consuming installation. The installation of a combination high impact/shatterproof windows, roll downs and/or hurricane proof screens in these facilities will reduce significantly the time, manpower and storage currently required to secure them. To date only the Building and Zoning Building has hurricane shutters installed.
North Miami	Utility Operation Center Surge Suppression System	Future Unfunded Project	,Storm Surge,Power Failure	Infrastructure (Building)		Capital Improvement		20,000.00	Unknown	66	The city maintains and operates forty-five sanitary sewer lift stations. Most lift stations are monitored from the city's operation center located at 1815 NE 150th Street through a supervisory control and data acquisition (SCADA) system. All SCADA information is routed electronically through a server located at City Hall and relayed to either the operation center or the lift stations by way of radio. The SCADA system is susceptible to power fluctuations and spikes that damage equipment and disrupt communication between the operation center, City Hall and subsequently the lift stations. Surge suppression equipment will protect the system against damaging power fluctuations. eliminate the need for new equipment purchases and reduce personnel costs to manually control lift stations during storm events.
North Miami	Sanitary Sewer Backup	50% complete	,Power Failure	Equipment		Capital Improvement		700,000.00	Unknown	73	The city maintains and operates forty-five sanitary sewer lift stations. These lift stations, located throughout the city, vary in size and configuration and allow sanitary sewage to flow through a pressurized sewer main system. This sewer system infrastructure is monitored regularly to ensure it functions properly. In the event that any lift station ceases to operate due to power failure or malfunction, the entire system fails as required pressures cannot be maintained. Sanitary sewage, then backs up into the system eventually entering homes as inflow/outflow pressures are reversed. More than half of the city's forty-five sanitary sewer lift stations have high priority needs for generators. Ten lift stations are constructed with the capability to house permanent stationary generators. Six of these ten lift stations currently have emergency back up generators that are permanently affixed to the facility. The remaining four (H, B, C, & Breeswep) require emergency generator back up to be installed.
North Miami	Gravity Sewer Systems Improvements for Groundwater Infiltration Reduction	Other	,Other	Infrastructure (Water/Sewer/Drainage)		Capital Improvement		6,000,000.00	Unknown	63	The city is seeking funds to implement remedial protocols, namely sanitary sewer pipe lining and manhole rehabilitation to reduce groundwater infiltration into the sanitary sewer collection system. The project calls for lining the interior of existing sewer lines. Lining the system will significantly reduce the inflow and infiltration of ground water into the sewer collection system. This, in turn, will reduce the total volume of water being treated at the Miami-Dade County Sewage Treatment Facility consequently reducing processing costs. In addition, this project will also reduce leakage of raw sewage from existing compromised lines into the environment, prevent groundwater contamination and ensure the public health, safety and general welfare of are residents.
North Miami	Flood Prevention and Mitigation: Drainage Basin13	50% complete	Flood	Infrastructure (Water/Sewer/Drainage)		Capital Improvement	C8	500,000.00	Unknown	61	Stormwater Master Plan Priority Basin 13 includes two sub-basins in the Biscayne East system. The area is bounded by Biscayne Canal and NE Miami Ct., between NE 119th and NE 123rd Streets. While there currently exists a limited number of drainage structures in this area, they require critical updates including the installation of baffles and replacement of grates. The installation of additional structures with French drainage systems, as outlined in the Master Plan conceptual design, will prevent repetitive flooding, reduce damages to residential properties, and decrease the number of recurring insurance claims.
North Miami	Safeguarding Availability of Potable Water	Other	,Other,Health,Power Failure	Infrastructure (Water/Sewer/Drainage)		Capital Improvement		325,000.00	Unknown	79	Six remote raw water wells provide water to the city's Winsou Water Plant at Sunkist Grove and supply the water necessary to operate the Water Plant at full capacity. This project will provide emergency power to the six remote raw water wells. These emergency generators will ensure that the remote water wells remain operational during power outages caused by storm events, and that the Plant will operate at full capacity. This will provide an uninterrupted source of potable water for North Miami residents as well as residents in surrounding water service areas. In addition, it will also ensure interconnectivity with other municipalities and service areas including the City of Opa-locka, the City of North Miami Beach and Miami-Dade County.
North Miami	Emergency Portable Stormwater Pumps	Funding Applied for	,Flood,Flood/Storm Surge	Equipment		Capital Improvement	C8	225,000.00	Unknown	71	The easternmost boundary of North Miami borders Biscayne Bay for approximately 3 miles. There are, therefore, several low-lying areas that flood during regular rainfall and major storm events. The city is seeking funds to purchase four portable emergency pumps to assist in the discharge of stormwater runoff. These four portable pumps will be housed at the Utility Operation Center located near low-lying coastal areas to ensure a timely response. These portable stormwater pumps will help prevent repetitive flooding, reduce damages to residential properties, and decrease the number of recurring insurance claims.
North Miami	Emergency Power for Water and Sewer Utility Operations Center	Funding Applied for	,Power Failure	Equipment		Capital Improvement		90,000.00	Unknown	68	The city's Water and Sewer Utility Operations Center is not manned during major storm events. The Center, however, must be operational immediately after an all-clear notice is issued. All Water and Sewer equipment, materials and supplies are stored at this location. In addition, repair crews are dispatched and monitored from the Center during storm events and other emergencies. The city is therefore seeking funds to install a stationary emergency generator at the Center.
North Miami	Correct Water Infiltration at City Hall (EOC) Basement	Future Unfunded Project	,Flood,Storm Surge	Infrastructure (Building)		Unknown/None		45,300.00	Unknown	64	Constructed in 1963, City Hall was designed to house a civil defense bomb shelter in the basement. Over the years, the need for a bomb shelter has become obsolete and the basement has been used for offices, classrooms, employee break rooms and storage space for department supplies. City records are also stored in the basement. Currently, the basement also contains office space for five municipalities which participate in the North Miami Divisional Emergency Operations Center. These municipalities house emergency response teams and are the link to the Miami-Dade EOC during natural disasters. Since the basement is below the natural water table, the structural integrity of the walls and flooring has diminished causing water intrusion. The walls and flooring should be sealed and possibly excavated and sealed along exterior walls. Correcting the flooding problem in the basement, will ensure that vital facilities and staff are secure during major storm events
North Miami	Surge Resistance and Flood Mitigation at Keystone Point and Sans Souci	75% complete		Beach/Seawall		Capital Improvement	C8	500,000.00	Unknown	62	The eastern boundary of North Miami borders Biscayne Bay for approximately three miles. Keystone Point and Sans Souci are the two subdivisions located along this eastern shoreline. There are five canal ends in Sans Souci currently in good condition. and are twenty-three canal ends in Keystone Point that have been repaired. When these subdivisions were developed, these canal ends were constructed to prevent soil erosion. The canal ends were not designed as seawalls and their structural integrity was not considered at the time. In 1998, the city received a Federal Emergency Management Agency grant to reconstruct nineteen of the twenty-eight seawalls. While two existing retaining walls do not need repairs, the remaining seven retaining walls need reconstruction to ensure structural integrity in the event of storm-related tidal surges. Approximately 50 homes will be affected if the remaining retaining walls are damaged by a tidal surge. In addition, any surface or subterranean deterioration to the existing retaining walls will adversely impact the structural integrity of the swales directly behind the seawalls and subsequently damage underground utilities in close proximity to the retaining walls. This project will prevent repetitive flooding, reduce damages to residential properties, decrease the number of recurring insurance claims, and provide uninterrupted telephone, water and sanitary sewer services to residents.
North Miami	Replacement Generator for Police Station	Future Unfunded Project	,Power Failure	Equipment		Unknown/None	C8	325,000.00	Unknown	63	The current generator, which is over 15 years old, supplies back up power for the North Miami Police Station. The Police Station is an integral part of Miami-Dade County's Emergency Management's Divisional Response Plan. The city of North Miami is one of seven municipalities identified as host cities (Division 2) housing a Divisional Emergency Operations Center and serving not only city residents but also residents from the Town of Bay Harbor Islands, the Village of Biscayne Park, the town of Surfside, Indian Creek and North Bay Village. The ability to operate and provide communications from a functional facility during manmade or natural disasters is of vital importance to the overall safety of the community and neighboring municipalities. The City is therefore seeking funds to replace the back-up generator at the Police Station.
North Miami	Replacement of U.P.S. for Police Station	Future Unfunded Project	,Power Failure	Infrastructure (Building)		Unknown/None		80,000.00	Unknown	65	The City of North Miami is an integral part of Miami-Dade County's Emergency Divisional Response Plan. The City of North Miami is one of seven municipalities identified as host cities, serving the Town of Bay Harbor Islands, the Village of Biscayne Park, the Town of Surfside, and the Town of Indian Creek. The Divisional Emergency Operations Center (EOC) facility houses staff and provides emergency planning, communication, and information receipt and dissemination services. During manmade or natural disasters, the ability to operate and provide communications from a protected and safe facility is of vital importance to the overall safety of the community and neighboring municipalities. The current Uninterruptible Power Supply (UPS) provides power during power failures and safeguards all communications equipment, computers and other vital electrical equipment. The current UPS is over five (5) years old; all batteries have reached the end of useful service life; and it is at its maximum capacity. The city is therefore seeking funds to replace the Uninterruptible Power Supply.
North Miami Beach	NE 19th Avenue Business District Sewering	Future Unfunded Project	,Flood	Infrastructure (Water/Sewer/Drainage)		Unknown/None		0.00		63	This project consists of the construction of positive sewer systems for the NE 19th Avenue Business District. These systems will replace existing septic systems.

Agency	Project Title	Status	Hazards	ProjectType	Potential Grant Sources	Funding Source	Flood Basin	Estimated Costs	GlobalMat	BCR	Project Description
North Miami Beach	Dead End Eliminations	Funding Secured	,Flood	Infrastructure (Water/Sewer/Drainage)		Capital Improvement		42,000.00	N/A	80	This project consist of eliminations of dead end water mains City-wide. Lopped systems will be constructed to improve the City's water main system.
North Miami Beach	Transmission Main Pipe Evaluation and Testing	Future Unfunded Project	,Other	Infrastructure (Water/Sewer/Drainage)		Unknown/None		25,000.00	N/A	74	This project consist of the evaluation and testing of large diameter water mains City-wide.
North Miami Beach	GIS Application for Storm Water System	Future Unfunded Project	,Other	Other		Unknown/None		0.00		72	This project consists of the implementation of a GIS system for the City's storm water system.
North Miami Beach	Storm Water Master Plan	Future Unfunded Project	,Flood	Infrastructure (Water/Sewer/Drainage)		Unknown/None		0.00		89	This project consists of preparing a current update to the City's Storm Water Master Plan
North Miami Beach	West Dixie Hwy between NE 151 Street and NE 154th Street	Future Unfunded Project	,Other	Infrastructure (Roadway)		Unknown/None		0.00		51	This project consist of roadway improvements that are cohesive to current drainage enhancements.
North Miami Beach	NE 161st Street Roadway and Drainage Improvements	Future Unfunded Project	,Other	Infrastructure (Water/Sewer/Drainage)		Unknown/None		0.00		57	This project consists of roadway improvements that will help enhance anticipated drainage issues.
North Miami Beach	NE 10th Avenue between NE 159th Street and NMB Blvd.	Future Unfunded Project	,Other	Infrastructure (Water/Sewer/Drainage)		Unknown/None		0.00		77	This project consist of roadway improvements that will be making significant drainage enhancements.
North Miami Beach	Highland Village Drainage Improvements and Pump Stations	Future Unfunded Project	,Other	Infrastructure (Water/Sewer/Drainage)		Unknown/None		0.00		76	This project consist of various drainage improvements in the Highland Village subdivision. Also included within this project is the construction of a pump station for well injection.
North Miami Beach	Drainage in Alleyways	Funding Secured		Infrastructure (Water/Sewer/Drainage)		Capital Improvement		50,000.00	Unknown	78	This project consists of the construction of exfiltration trenches/catch basins in alleyways city-wide.
North Miami Beach	Leak Detection Services	Funding Secured		Infrastructure (Water/Sewer/Drainage)		Capital Improvement		50,000.00	Unknown	82	This project consist of locating and repair existing leaks within the City's watermain system City-Wide.
North Miami Beach	Storm Water Pump Replacement Program	Funding Secured	,Flood	Infrastructure (Water/Sewer/Drainage)		Capital Improvement		50,000.00	Unknown	63	This project consists of the replacement of existing storm water pumps on a needed basis.
North Miami Beach	Force Main Installations and Lift Stations Rehabilitations	Funding Secured	,Other	Other		Capital Improvement		125,000.00	Unknown	51	This project consists of the rehabilitations of existing City owned sewage lift stations and the construction of any new force mains required during the rehabs.
North Miami Beach	Pump Replacements	Funding Secured	,Flood	Infrastructure (Water/Sewer/Drainage)		Capital Improvement		165,000.00	Unknown	11	The project consists of the replacement of sewage lift station pumps on as needed basins.
North Miami Beach	Inflow and Infiltration Prevention	Funding Secured	,Other	Infrastructure (Water/Sewer/Drainage)		Capital Improvement		250,000.00	Unknown	66	This project consists of preventing inflow and infiltration into the City's gravity sewer mains.
North Miami Beach	Fire Flow Improvements	Funding Secured	,Other	Infrastructure (Water/Sewer/Drainage)		Capital Improvement		320,000.00	Unknown	81	This project consists of making improvements to the City's water main system to improve fire flow.
North Miami Beach	Trenchless Pipe Replacements	Funding Secured	,Flood	Infrastructure (Water/Sewer/Drainage)		Capital Improvement		325,000.00	Unknown	78	This project consists of the replacement of various water mains and sewer force mains through underground boring methods.
North Miami Beach	Roadway Improvements	Funding Secured	,Other	Infrastructure (Roadway)		Capital Improvement		327,000.00	Unknown	56	This project consist of the paving, resurfacing, and curb construction along the drainage improvements on City-Wide and City roads.
North Miami Beach	Storm Water Improvement City-Wide	Funding Secured	,Flood	Infrastructure (Water/Sewer/Drainage)		Capital Improvement		336,885.00	Unknown	69	This project consists of design and construction of various storm water improvements City-wide. This will consist of exfiltration trenches and well injection system.
North Miami Beach	Aerial Pipe Crossings	Funding Secured	,Other	Infrastructure (Water/Sewer/Drainage)		Capital Improvement		350,000.00	Unknown	72	This project consist of the restoration of aerial pipe crossing for both City water mains and City sewer force mains.
North Miami Beach	Install Additional Storm Water Basins or Increase Existing Basins	Construction/Project Begun	,Flood	Infrastructure (Water/Sewer/Drainage)		Capital Improvement		60,000.00	Unknown	86	Installing additional storm water management basins will help the city reduce the potential for flooding after storms and heavy rains. Installation of additional basins will affect the entire municipality, as well about of Miami-Dade County.
North Miami Beach	Construct Storm Water System that may include Injection Wells in Areas Prone to Flooding	Construction/Project Begun	,Flood	Infrastructure (Water/Sewer/Drainage)		Capital Improvement		120,000.00	Unknown	77	Installing storm water system, including but not limited, to deep-well injection wells to reduce flooding would benefit approximately 30 percent of the City. This type of project is needed where localized flooding are observed and where such drainage design is applicable.
North Miami Beach	NE 161 Street Drainage Improvement	Project Complete	,Flood	Infrastructure (Water/Sewer/Drainage)		Capital Improvement		350,000.00	Unknown	67	This project consist of the installation of a French Drain System, swale improvement, and road resurfacing.
North Miami Beach	Clean and Improve Drainage Systems	Construction/Project Begun	,Flood	Infrastructure (Water/Sewer/Drainage)		Unknown/None		428,400.00	Unknown	83	Cleaning and improving the City's drainage system, including approximately 2,800 catch basins would help dispose of storm water and benefits all residents of the municipality, as well approximately 20 percent of Miami-Dade County. The cost to clean the catch basins once is \$428, 400 (based on a cost of \$153 per catch basin) and installing a new drainage system is approximately \$1,000,000 per 200 residential lots.
North Miami Beach	Miami Industrial District Drainage and Roadway Improvement	Construction/Project Begun	,Flood	Infrastructure (Water/Sewer/Drainage)		Capital Improvement		800,000.00	Unknown	71	This project consists of the installation of a storm water system. road resurfacing, curbing, and landscape.
North Miami Beach	Eastern Shores Drainage Repair/Replacement	Construction/Project Begun	,Flood	Infrastructure (Water/Sewer/Drainage)		Capital Improvement		450,000.00	Unknown	78	This project consist of the repair and replacement of damaged existing drainage in the Eastern Shores neighborhood.
North Miami Beach	Renovation of Eastern Shores Outfall Pipes	Construction/Project Begun	,Flood	Infrastructure (Water/Sewer/Drainage)		Capital Improvement		550,000.00	Unknown	75	The entire storm water system of the Eastern Shores neighborhood is located east of US1 and depends on the proper functioning of the outfall pipes that discharge in the canal and Intercoastal. There is a total of approximately 5,018 linear feet of existing outfall pipes in 44 locations in the neighborhood of Eastern Shores and Western Eastern Shores. Most of these outfall pipes were installed in the early 1960s up to the late 1970s and as a result, these pipes have deteriorated and are collapsing due to age and rust caused by salinity of the ground water in the area.
North Miami Beach	NE 172nd Street Drainage Improvement	Construction/Project Begun	,Flood	Infrastructure (Water/Sewer/Drainage)		Capital Improvement		1,791,692.00	Unknown	77	This project consist of installation of approved pre-treatment devices, storm water pumping station, outfall pipe modification, deep injection wells, and road resurfacing. This project will significantly reduce flooding in the area and make it safe for residents to travel.
North Miami Beach	Develop Evacuation Procedures & Contractual		All Hazard	notification/outreach/other	N/A				do not kno	0	In addition to posting evacuation routes on the Internet, the City would like to develop evacuation procedures to facilitate and expedite activities during an evacuation. This would include setting up contractual agreements with potential partners prior to a disaster so essential services (tree trimming, additional transportation, etc.) would be immediately available after a hurricane. The City's emergency response plan (ERP) procedures are outlined in the City's Unusual Occurrence Manual. Also, the City has signed contracts with five (5) contractors, including Crowder-Gulf, for post-disaster recovery services.
North Miami Beach	Telephone System Replacement For City Hall and Police Department.	Future Unfunded Project	communication failure	equipment	N/A	Other Internal Funding			do not kno	0	This project consists of a new digital telephone system to provide seamless communication between the City's Police Dept., City Hall and the residents of the City.
North Miami Beach	Public Facilities Repair	Future Unfunded Project	wind	infrastructure (building)	N/A	Other Internal Funding			do not kno	0	This project consists of the repair and strengthening of roofs, windows and other structural elements of key City-owned facilities.
North Miami Beach	Highland Village Drainage Improvements	Future Unfunded Project	flood	infrastructure (water/sewer/Drainage)	N/A	Other Internal Funding			do not kno	0	This project consists of the installation of 10 deep injection wells, additional storm drainage structures, and road re-surfacing throughout the Highland community. This project will significantly reduce flooding in the area and make it safe for residents to travel.
North Miami Beach	Miami Drive Roadway Improvements	Future Unfunded Project	flood	infrastructure (water/sewer/Drainage)	N/A	Other Internal Funding			do not kno	0	This project consists of the installation of a French Drain System, swale improvement and road re-surfacing of Miami Dr., between NE 18th Ave. and NE 19th Ave.
North Miami Beach	NE 19 Avenue Roadway Improvements	Future Unfunded Project	flood	infrastructure (water/sewer/Drainage)	N/A	Other Internal Funding			do not kno	0	This project consists of the installation of a drainage system, swale improvement and road re-surfacing of NE 19 Ave., between NE 163rd St. and NE 171st St.
North Miami Beach	NE 165 Street Roadway Improvements	Future Unfunded Project	flood	infrastructure (water/sewer/Drainage)	N/A	Other Internal Funding			do not kno	0	This project consists of the installation of a French Drain System, swale improvement and road re-surfacing of NE 165 St., between NE 16th Ave. and NE 15th Ave.
North Miami Beach	NE 162 Street Roadway Improvements	Future Unfunded Project	flood	infrastructure (water/sewer/Drainage)	N/A	Other Internal Funding			do not kno	0	This project consists of the installation of a French Drain System, swale improvement and road re-surfacing of NE 162 St., between NE 12th Ave. and NE 16th Ave.
North Miami Beach	NE 161 Street Drainage Improvements	Future Unfunded Project	flood	infrastructure (water/sewer/Drainage)	N/A	Other Internal Funding			do not kno	0	This project consists of the installation of a French Drain System, swale improvement and road re-surfacing of NE 161 St., between NE 13th Ave. and NE 15th Ave.
North Miami Beach	West Dixie Highway Industrial District Drainage & Roadway Improvement	Future Unfunded Project		infrastructure (water/sewer/Drainage)	N/A	Other Internal Funding			do not kno	0	This project consists of the installation of a French Drain system, road resurfacing, curbing and landscape on the roadways located between NE 151 St., NE 154 St., West Dixie Hwy. and the FEC railroad tracks.
North Miami Beach	Additional Outfalls for Eastern Shores Outfall pipes	Future Unfunded Project		infrastructure (water/sewer/Drainage)	N/A	Other Internal Funding			do not kno	0	The entire stormwater management system of this neighborhood, located on Maule Lakes and the Intracoastal waterways, just east of US-1, depends on the proper functioning of outfall pipes that discharge directly into the canal and Intracoastal waterways. There is a total of approximately 5,018 linear feet of existing outfall pipes in 44 locations in the neighborhood. The additional outfalls would allow for the rapid discharge of stormwater from the neighborhood.
North Miami Beach	Renovation of Eastern Shores Outfall pipes	Future Unfunded Project	flood	infrastructure (water/sewer/Drainage)	N/A	Other Internal Funding			Unknown	0	The entire stormwater management system of this neighborhood, located on Maule Lakes and the Intracoastal waterways, just east of US-1, depends on the proper functioning of outfall pipes that discharge directly into the canal and Intracoastal waterways. There is a total of approximately 5,018 linear feet of existing outfall pipes in 44 locations in the neighborhood. The majority of these outfall pipes were installed in the early 1960's and up to the late 1970's. The pipes have since deteriorated and in some cases are collapsing due to age and due to exposure to saline soil and groundwater in the area. Damaged outfalls need to be replaced and/or repaired.

Agency	Project Title	Status	Hazards	ProjectType	Potential Grant Sources	Funding Source	Flood Basin	Estimated Costs	GlobalMap	BCR	Project Description
North Miami Beach	Extend Sanitary Sewer System/Remove Septic Tank Systems	Future Unfunded Project	flood	infrastructure (water/sewer/Drainage)	N/A	Other Internal Funding			Unknown		0 Flooding in areas with septic tank systems poses significant environmental and health risks to the immediate residents and to the community at large because flooded septic systems contaminate both groundwater and surface water. Extending the sanitary sewer system to residents currently utilizing septic systems would benefit approximately 25% of the residents of the City and reduce the chances of ground- and surface-water contamination during a severe storm event.
North Miami Beach	Construct Injection Wells in Areas Prone to Flooding	Future Unfunded Project	flood	infrastructure (water/sewer/Drainage)	N/A	Other Internal Funding			Unknown		0 Installing deep-well injection wells to reduce flooding would benefit approximately 30 percent of the City. The wells are allowed in areas where the salinity/TSS of the groundwater is 10,000 ppm or higher.
North Miami Beach	Install Additional Stormwater Catch Basins.	Future Unfunded Project	flood	infrastructure (water/sewer/Drainage)	N/A	Other Internal Funding			Unknown		0 The installing additional catch basins will help the City to reduce the potential for flooding after major storm and rain events. The installation of additional catch basins will also greatly affect the ability of the storm drainage system to quickly convey stormwater from roadways and adjoining properties. The entire City will benefit from this improvement as well as portions of neighboring municipalities.
North Miami Beach	Clean and Improve Drainage Systems	Future Unfunded Project		infrastructure (water/sewer/Drainage)	N/A	Other Internal Funding			Unknown		0 Frequent cleaning and maintenance would improve the capacity and efficiency of the City's stormwater management system that would be required to dispose of large volume of stormwater produced during a severe storm event. These actions would benefit all residents of the City, as well as some areas of neighboring municipalities. The one-time cost to clean all of the City's catch basins is approximately, \$90,000. While installing a new drainage system is approximately \$1 million per 200 properties.
North Miami Beach	Pro-active Hurricane Tree Trimming and Pruning	Future Unfunded Project	wind/wild fire	other	N/A	Other Internal Funding			Unknown		0 This project involves tree trimming services to properly prune and maintain over 6,000 trees throughout the City of North Miami Beach. Trees are considered part of the City's infrastructure; they require regular hurricane pruning maintenance. The City Forester recommends trimming and/or removing those trees that pose a threat or public danger in the event of a storm such as a hurricane. Trees along drainage canals and designated evacuation routes are of particular importance. The proper pruning and thinning of trees canopy would minimize property and utility damages that would be caused by trees downed during severe storm events. Tree trimming services can be performed by a contractor at an estimated cost of \$150,000 annually. Alternatively, the same services may be accomplished with an annual operating cost of \$60,000, if the City were to purchase a bucket truck, at a cost of \$180,000 and staff it with a two-person crew.
North Miami Beach	Remove Australian Pines within City Limits	Future Unfunded Project	wild fire, wind	other	N/A	Other Internal Funding			do not know		0 Australian pines have shallow root structures that make the trees susceptible to uprooting in high winds and heavy storms. Removing these trees would mitigate future damages caused by falling trees and help to reduce the amount of debris present after a storm. This project would benefit the City.
North Miami Beach	NE 172 Street Drainage Improvement	Future Unfunded Project	flood	infrastructure (water/sewer/Drainage)	N/A	Other Internal Funding			do not know		0 This project consists of the installation of five (5) deep injection wells, catch basins and drainage pipes, stormwater pump station, and road resurfacing. This project will significantly reduce flooding in the area of the City located between NE 170 St. West Dixie Highway and NE 22 Ave. and NE 172 St.
North Miami Beach	Establish a Community Outreach Program & Public Information Campaign	Future Unfunded Project		outreach/notification	N/A	Other Internal Funding			do not know		0 Post evacuation routes on the City's website.City-sponsored Flood Awareness Week to partner with other agencies (and community groups) and to provide information about flood risk potential, safety tips, and steps to take in a flood.Create a children's coloring book as an interagency initiative (can also be placed on our website).Publish a floodplain or pre-disaster preparedness brochure and post on website.Send flood related articles in utility bills.Broadcast on our local cable channel FEMA's Best Build video & other local flood plain videos.Publish a Flood safety section in the yellow pages.Offer flood safety and hazard information recording on the city's phone system.Develop an educational program for local schools.Sponsor a Name the Park contest as an organized community project/event. Establish a flood audit program to serve as a pre-disaster vulnerability and planning effort. Maintain elevation certificate data on our website and a link to FEMA's website. Provide material on how to select a qualified contractor and one for the property owner's recourse if dissatisfied with a contractor's performance.
North Miami Beach	Provide Disaster Training for Public Works Employee	Future Unfunded Project	All Hazard	notification/outreach/other (training)	N/A	Other Internal Funding			Unknown		0 By providing disaster training for employees of the Department of Public Services prior to a disaster, the City would have at its disposal, trained, knowledgeable and capable personnel, who could manage scenarios associated with disasters in a more efficient and effective manner. Consequently, costs and delays often associated with post-disasters periods would be significantly reduced.
North Miami Beach	Establish Additional Hurricane Shelters	Future Unfunded Project	All Hazard	infrastructure (building)	N/A	Other Internal Funding			Unknown		0 Due to the geographic location of the City and its surrounding communities, there is a high demand for shelter space especially during hurricanes classified as Category 2 and higher. Residents of both, the City and the surrounding communities, depend on the City to provide shelter space in the event of a disaster. The current shelters are inadequate to accommodate the large numbers of people who would require these services. Establishing additional shelters throughout the City would provide significant benefits and peace of mind to its residents.
North Miami Beach	Perform Free Hurricane Inspections for City Residents	Future Unfunded Project	wind	outreach	N/A	Other Internal Funding			Unknown		0 By performing free hurricane inspections for buildings located within the City limits, the City would help to reduce the potential for damages to property as well as to educate the public on issues related to hurricane and storm safety, evacuation routes, and other essential topics. This project has the potential to benefit 100 percent of the properties located within the City; however, the degree of success will depend on the number of properties that participate in the program. To foster larger participation, the City would offer incentives to property owners.
North Miami Beach	City of North Miami Beach EOC	Future Unfunded Project		equipment/notification/other/traffic control	N/A	Other Internal Funding			Unknown		0 The City of North Miami Beach EOC is the Divisional EOC for North-eastern Miami-Dade County and serves the following cities: North Miami Beach, Golden Beach, Sunny Isles Beach, Aventura, North Bay Village, Bal Harbour Village, and Miami Gardens. In addition, several utility providers such as, FP&L, ATT, TECO Gas, and others are involved as well. The NMB EOC is responsible for a population of approximately, 180,000 residents. Critical structures under the NMB EOC purview include municipal drinking water supply, wastewater treatment, major corridor highways, railroad, natural gas and chemical plants as well as industrial warehouses. The NMB EOC activates to ensure proper response and recovery in the event of hurricanes, major flooding and other disasters, whether natural or man-made. In order to maintain its duties and to enhance its capabilities, the NMB EOC needs to upgrade its equipment such as computers, monitors, satellite communications, fax machines, printer and other required equipment.
Opa Locka	NW 147th Street Drainage	Future Unfunded Project	,Flood,Health,Wind,Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)	,Public Works and Economic Development Program,Pre-Disaster Funding Programs,CDBG Community Development Block Grants/Entitlement Grants,HMGP Hazard Mitigation Grant Program	Capital Improvement		3,698,458.52	No		0
Opa Locka	141St Roadway & Drainage Improvements	Future Unfunded Project	,Flood,Health	Infrastructure (Roadway)	,CDBG Community Development Block Grants/Entitlement Grants,Severe Repetitive Loss Program,HMGP Hazard Mitigation Grant Program,Public Assistance Program,Public Works and Economic Development Program,Pre-Disaster Funding Programs,CDBG - Community Development Block Grant,PDM - FEMA Pre-Disaster Mitigation Grant Program,Flood Control Projects,FMA - Flood Mitigation Assistance,Grants and Loans for Public Works & Development Facilities	Capital Improvement		300,000.00	Unknown		0

Agency	Project Title	Status	Hazards	ProjectType	Potential Grant Sources	Funding Source	Flood Basin	Estimated Costs	GlobalMat	BCR	Project Description
Palmetto Bay	Facility Hardening & Roof Replacement for Recreational Building at Coral Reef Park	Future Unfunded Project	,Flood/Storm Surge,Wind	Infrastructure (Building)	PDM - FEMA Pre-Disaster Mitigation Grant Program	Unknown/None	C100	500,000.00	Unknown	77	In addition to providing recreational services to a large number of people on a daily basis, the Recreation Building at Coral Reef Park also serves as a secondary EOC location for the Village of Palmetto Bay. The 2,000 SF structure was built in 1978 and does not currently meet building code requirements for the South Florida area.  There have been no significant updates made to the building since it was first constructed. Recent inspections of the facility show that its roof's useful lifetime has been exceeded and requires full replacement. The main structural glue-laminated beam is rotting and, over time, has separated from the supporting structural walls. New wood soffits are also needed and truss connections must be re-strapped. The repairs are extremely critical. The building, as it stands now, is at great risk of caving-in in the event of even a small hurricane.  In addition to the roof, the building envelope must be hardened to withstand the impact of heavy storm winds and flying debris. All existing exterior windows and doors must be replaced with hurricane-approved ones, all masonry corners must be reinforced and the electrical and plumbing systems must be upgraded.
Palmetto Bay	Swale and Tree Trimming Program	Future Unfunded Project	Flood/Storm Surge,Other,Wind	Other	PWIP Public Works Impact Projects Program,Hurricane Program	Unknown/None	C100	300,000.00	Unknown	64	Develop and Implement a program to trim trees prior to hurricane season and allow for an increase in survivability of the trees and reduce the safety concerns of residents. In addition, proper trimming and pruning would benefit in minimizing damages to utility, building structures, and vehicles as a result of down trees during a severe storm. This initiative will also reduce debris and protect the infrastructure from damage to sidewalks and roads.
Palmetto Bay	Downtown Redevelopment	Project in Planning Stage	Wind,Flood/Storm Surge	Infrastructure (Roadway)		Capital Improvement	C100	1,800,000.00	Unknown	43	The area known as the Franjo Triangle and Island district, South of SW 168th ST, North of SW 184th ST, East of South Bound US1, and West of SW 94th AVE is in the planning stages of a complete redevelopment including roadway, buildings and infrastructure. The purpose is to create a walkable, livable downtown district that is confined to the current commercial area surrounding US1, to create a sense of community and a sense of place, to expand services to Village residents, to enhance quality of life, and to serve as economic engine for Village and diversify revenue and shift the tax burden from the residential to the commercial sector.
Palmetto Bay	Improvements to Public Works Facility	Future Unfunded Project	,Flood/Storm Surge,Wind	Infrastructure (Building)	Grants and Loans for Public Works & Development Facilities,FMA - Flood Mitigation Assistance	Unknown/None	C100	125,000.00	Unknown	67	The Village of Palmetto Bay's Public Works Department facility is need of retrofitting improvements to protect from high wind and/or flood damage. Proposed improvements include hurricane impact windows and doors, waterproof walls and elevation of electrical and mechanical utilities that service the building. This will secure the facility for the emergency response team, village employees and equipment at the time of natural disaster events.
Palmetto Bay	Clean and Improve Drainage System	Future Unfunded Project	Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)	Snagging and Clearing for Flood Control,Flood Control Projects,PWIP Public Works Impact Projects Program	Unknown/None	C100	413,000.00	Unknown	65	Clean and flush all sediment and debris from catch basins, pipe and exfiltration trench. Existing catch basins should be modified or reconstructed as required to provide sediment traps and pollution retardant baffles to protect the french drains and outfalls.
Palmetto Bay	Repetitive Loss Retrofit	Future Unfunded Project	Flood/Storm Surge,Wind,Sea Level Rise	Infrastructure (Building)	HMGP Hazard Mitigation Grant Program,Pre-Disaster Funding Programs,FMA - Flood Mitigation Assistance,Severe Repetitive Loss Program,RFC Repetitive Flood Claims Program	Unknown/None	C100	1,650,000.00	Unknown	64	Mitigate and Retrofit eleven (11) Repetitive / Severe Repetitive loss properties on FEMA inventory, to reduce flood and wind related losses.
Palmetto Bay	Acquire a High Water Vehicle	Future Unfunded Project	,Flood/Storm Surge	Equipment	Public Works and Economic Development Program,Pre-Disaster Funding Programs,PWIP Public Works Impact Projects Program	Unknown/None	C100	50,000.00	Unknown	68	The village needs a vehicle capable of movement through flooded areas to assist citizens in distress.
Palmetto Bay	Hazardous Material Containment	Future Unfunded Project	Health,Flood/Storm Surge,Wind	Equipment	,Hazardous Materials Training Program for Implementation of the (SARA) of 1986,Flood Control Projects	Unknown/None	C100	4,000.00	N/A	63	Purchase cabinets and other containment equipment to house and contain chemicals, oils. fuels. and batteries that may spill and cause polluted run-off during a hurricane.
Palmetto Bay	Debris Storage Area	Future Unfunded Project	Other	Other	,Emergency Operations Flood Response and Post Flood Response,Expanded Local Management Hazardous Waste Program	Unknown/None	C100	40,000.00	Unknown	52	Develop/Identify an area for emergency management debris removal and storage, including construction of infrastructure to reach site.This effort should reduce demands on the local government and facilitate recovery after the event. This is a key item since both the Village and the County are responsible for various city services.
Palmetto Bay	Purchase Hurricane Preparedness & Debris Clearance Equipment	Future Unfunded Project	Flood,Wind	Equipment	,Snagging and Clearing for Flood Control,PWIP Public Works Impact Projects Program,Grants and Loans for Public Works & Development Facilities	Unknown/None	C100	282,450.00	Unknown	0	Acquire Vacon Drain Truck (\$193,200) and Trash Grabber with 20-Yard dump bed (\$89,250) for hurricane preparedness, debris clearing and regular maintenance.
Palmetto Bay	Remove Australian Pines within Village Limits along Roadways that Connect to Evacuation Routes	Future Unfunded Project	,Flood/Storm Surge,Wind	Other	,Public Works and Economic Development Program,Emergency Operations Flood Response and Post Flood Response	Unknown/None	C100	125,000.00	Unknown	66	The Village has a number of old, deteriorated Australian pines that easily become a hazard during high winds. This project would benefit the Village and mitigate future damages caused by fallen trees and help to reduce the amount of debris present following a high wind or after a major storm event. The removal of these Australian pines requires specialized equipment and skills that the Village Public Works Department does not possess. This project would enable the Village to hire a professional contractor to remove the hazardous Australian pines that are susceptible to uprooting in high winds and heavy storms.
Palmetto Bay	Street Sweeping Program	Future Unfunded Project	,Flood/Storm Surge,Other	Other		Unknown/None	C100	150,000.00	Unknown	59	In order to minimize blockage of storm drains, the Village will be required to clean the debris from its roadways before it washes into the drain. A street sweeping program will comply wit provisions of the federal mandated Clean Water Act. In addition, street sweeping helps to remove pollutants that potentially can drain into the stormwater system.
Palmetto Bay	Drainage Improvements for Sub-Basin # 6	Project in Planning Stage	,Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)	,Public Works and Economic Development Program,Flood Control Projects	Unknown/None	C100	490,000.00	Unknown	65	Drainage sub-basin # 6 located south of SW 144 ST. North of SW 148 ST, East of SW 83rd AVE, West of SW 79 AVE. The sub-basin consists of approximately 56.1 acres of existing detached single family residential development with approximately 12,000 linear feet of roadway. Construct additional catch basins and exfiltration trench at low points in the roadway swales of the sub-basin.
Palmetto Bay	Drainage Improvements for Sub-Basin # 11	Project in Planning Stage	,Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)	,PWIP Public Works Impact Projects Program,Flood Control Projects	Unknown/None	C100	330,000.00	Unknown	64	Drainage sub-basin # 11 located South of SW 152 ST. North of SW 156 ST, East of US 1, West of SW 89 AVE. The sub-basin consists of approximately 48.3 acres of existing detached single family residential and commercial development. Construct additional catch basins and exfiltration trench at low points in the roadway swales of the sub-basin and connect to drainage wells.
Palmetto Bay	Flood Zone Data Maintenance: GIS System	50% complete	,Flood/Storm Surge,Other			Capital Improvement	C100	100,000.00	Unknown	70	This project will fund the creation of a GIS system to support several activities of the Village's National Flood Insurance Community Rating System program including mapping, annual outreach and notification, and the maintenance of all flood zone designations and other data for all real property folio numbers within the Village. In addition, the project will integrate Village's data into Miami-Dade County's GIS system tailoring products generated for Village use. The additional information generated by this system will be essential for the preparation of detailed flood mitigation reports and allow users to track conditions by specific property location. This data will then be utilized to clearly identify and designate low lying areas, which will streamline flood prevention efforts when designing new systems and upgrading drainage systems.

Agency	Project Title	Status	Hazards	ProjectType	Potential Grant Sources	Funding Source	Flood Basin	Estimated Costs	GlobalMat	BCR	Project Description
Palmetto Bay	Emergency Warning Phone Call System (Reverse 911)	Future Unfunded Project	,Flood/Storm Surge,Health,Power Failure,Sea Level Rise,Security Breach,Technological Disruption,Wild Fire,Wind,Other	Equipment	,Pre-Disaster Funding Programs	Unknown/None	C100	100,000.00	Unknown	80	Install a computerized telephone call system to call each phone to indicate emergency operation warnings. The system will notify all Village residents prior to or during an emergency situation..
Palmetto Bay	Public Information and Educational Campaign	Future Unfunded Project	,Flood/Storm Surge,Sea Level Rise,Power Failure,Wind,Technological Disruption,Health	Outreach	,Pre-Disaster Funding Programs	Unknown/None	C100	16,500.00	Unknown	83	Develop a "How to" manual specifically for Palmetto Bay citizens. Through the use of grant funds, the Village can develop community disaster education programs to promote awareness of emergencies and educate residents on the appropriate response and necessary preparation when an emergency threatens. This effort should reduce demands on local government and facilitate recovery after the event. This is a key item since both the Village and the County are responsible for various city services.
Palmetto Bay	Pre-Disaster Employee Response Plan and Training	Future Unfunded Project	,Flood/Storm Surge,Other	Other	,Pre-Disaster Funding Programs,EMPA - Emergency Management Program Assistance,EOC Emergency Operations Center Grant Program,PDM - FEMA Pre-Disaster Mitigation Grant Program	Unknown/None	C100	100,000.00	Unknown	76	Create an Emergency Management pre-disaster/disaster response plan to ensure the best practices are in place prior to and after a disaster.
Palmetto Bay	Purchase of Portable Emergency Traffic Lights	Future Unfunded Project	,Power Failure,Technological Disruption	Traffic Control	,Pre-Disaster Funding Programs,Emergency Management Performance Grant,PWIP Public Works Impact Projects Program	Unknown/None	C100	150,000.00		64	Purchase portable solar-powered emergency traffic lights to be used at main intersections throughout the Village of Palmetto Bay, including US 1.
Palmetto Bay	Back-Up Generators and Transfer Switches	Future Unfunded Project	,Power Failure,Technological Disruption	Equipment	,Emergency Management Performance Grant	Unknown/None	C100	75,000.00	Unknown	79	It is essential that certain Village section lines and half section line traffic signals be upgraded with emergency transfer switches to provide mobility and safety during and after disaster events, with uninterrupted electrical services. Having back-up generators and transfer switches at signalized intersections will allow Village staff and police to immediately respond and provide assistance to Village residents.
Palmetto Bay	Canal and Waterway Maintenance	Future Unfunded Project	,Flood/Storm Surge,Sea Level Rise	Other		Unknown/None	C100	250,000.00	Unknown	60	Clean and maintain including exotic weed control, dredge when and where needed, clear banks of potential debris, and stabilize banks to prevent erosion. Clean canals allow better control of water levels, which greatly improves storm water management and the drainage system.
Palmetto Bay	Canal Bank Erosion Protection	Future Unfunded Project	,Flood/Storm Surge,Other	Beach/Seawall	,Flood Control Projects	Unknown/None	C100	300,000.00	Unknown	62	Design and construct erosion protection structures and bank stabilization projects along village canals which are vulnerable to bank erosion due to storm surge or inland flooding. This project includes the construction of erosion control structures such as riprap or HDPE geotextile systems, clearing of undesirable debris, trees, predominantly Australian pines and ficus, located in close proximity to canal bank. These trees are prone to falling during a severe windstorm or hurricane causing flow obstructions as well as damage to the canal bank resulting in increased erosion. We must also schedule regular maintenance of Village canals to restore flow.
Palmetto Bay	Emergency Portable Stormwater Pumps	Future Unfunded Project	,Flood/Storm Surge,Sea Level Rise	Equipment	,Public Works and Economic Development Program,CPI - Coastal Partnership Initiative Grants,Emergency Advance Measures for Flood Prevention,Flood Control Projects,PWIP Public Works Impact Projects Program	Unknown/None	C100	200,000.00	Unknown	69	The easternmost boundary of the Village borders Biscayne Bay for approximately 3.4 miles. There are several low lying areas adjacent to Biscayne Bay that flood during heavy rain events and major storm events. The Village is seeking funds to purchase portable emergency pumps to assist in the discharge of stormwater runoff. These portable stormwater pumps will help prevent repetitive flooding, reduce damages to residential properties, and decrease the number of recurring insurance claims.
Palmetto Bay	Localized Drainage Improvements	75% complete	,Flood,Flood/Storm Surge,Storm Surge	Infrastructure (Water/Sewer/Drainage)		Capital Improvement	C100	900,000.00	No	65	These roadway drainage basins are closed systems with only minimal existing drainage facilities. Construct additional catch basins and exfiltration trench at low points in the roadway swales of the localized areas and connect to drainage wells.
Palmetto Bay	Drainage Improvements - SW 87 AVE (from SW 168 ST to SW 184 ST)	Future Unfunded Project	,Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)	,PWIP Public Works Impact Projects Program,Grants and Loans for Public Works & Development Facilities,Flood Control Projects,FMA - Flood Mitigation Assistance,Public Works and Economic Development Program	Unknown/None	C100	1,500,000.00	Unknown	65	The drainage system is undersized and its existing drainage system consists of several isolated small exfiltration systems at low points in the roadway. Construct additional catch basins and exfiltration trench at low points in the roadway swales of the sub-basin and connect to drainage wells.
Palmetto Bay	Drainage Improvements for Sub-Basin # 12	Project in Planning Stage	,Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)		Unknown/None	C100	65,000.00	Unknown	70	Drainage sub-basin # 12 located South of SW 168 ST. North of SW 171 ST, East of SW 75 AVE, West of OLD CUTLER RD. The sub-basin consists of approximately 25.3 acres of existing detached single family residential development with approximately 6,600 linear feet of roadway. Construct additional catch basins and exfiltration trench at low points in the roadway swales of the sub-basin and connect to drainage wells.
Palmetto Bay	Drainage Improvements for Sub-Basin # 3	Project in Planning Stage	,Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)	,PWIP Public Works Impact Projects Program	Capital Improvement	C100	250,000.00	Unknown	67	Drainage sub-basin # 3 located South of SW 158 ST. North of SW 164 ST and SW 163rd ST, East of US1, West of SW 87 AVE. Sub-basin # 3 is part of the C100-C-17 Basin. The sub-basin consists of 72.7 acres of existing detached single family residential development and commercial development with approximately 11,500 linear feet of roadway. Construct additional catch basins and exfiltration trench at low points in the roadway swale areas of the sub-basin.
Parks	Sea Wall Replacement and Repair - Haulover Marina	Future Unfunded Project	Sea Level Rise	Beach/Seawall	Florida Coastal Management Program	Identified Grant Source		2,465,100.00	Unknown	69	Haulover Marina ♦ restore or replace 575 linear feet of seawall in Baker's Haulover Cut connecting the Intra Coastal Waterway and the Atlantic Ocean, estimated cost \$2,465,100
Parks	Sea Wall Replacement and Repair - Matheson Hammock Marina	Future Unfunded Project	Sea Level Rise	Beach/Seawall	Florida Coastal Management Program	Identified Grant Source		4,245,750.00	Unknown	71	Matheson Hammock Marina ♦ restore or replace 675 linear feet of seawall in marina wet slip basin, estimated cost \$4,245,750
Parks	Sea Wall Replacement and Repair - Pelican Harbor Marina	Future Unfunded Project	Sea Level Rise	Beach/Seawall	Florida Coastal Management Program	Identified Grant Source		1,491,750.00	Unknown	71	Pelican Harbor Marina ♦ restore or replace 115 linear feet of seawall in the marina wet slip basin. Repair boat ramp as needed. Estimated Cost \$1,492,750
Parks	Sea Wall Replacement and Repair - Crandon Marina	Future Unfunded Project	Sea Level Rise	Beach/Seawall	Florida Coastal Management Program	Identified Grant Source		12,989,700.00	Unknown	61	Crandon Marina- restore or replace 1,680 linear feet of seawall in the marina wet slip basin. Removed , reset and relocate existing flooding docks as needed. Estimated cost \$12,989,700.00
Parks	Shutters	Future Unfunded Project	,Wind	Infrastructure (Building)		Unknown/None		53,920.00	Unknown	63	Miami Dade Parks, Recreation and Open Spaces (PROS) Department operates and maintains a total of 86 buildings in need of hurricane shutters to protect the building and their contents from future storm damage. Many of these buildings are recreation centers that are open to the public as soon as possible after hurricanes to provide facilities for ice, water and food distribution, and places for safe child care until schools reopen. Without these window and door shutter projects, it is possible that wind forces and flying debris could cause damage to these facilities.
Parks	Shutters	Future Unfunded Project	Wind	Infrastructure (Building)	Pre-Disaster Funding Programs	Unknown/None		387,062.00	Unknown	63	The PROS Department operates and maintains a total of 86 buildings in need of hurricane shutters to protect the buildings and their contents from future storm damage. Many of these buildings are recreation centers that are opened to the public as soon as possible after hurricanes to provide facilities for ice, water and food distribution, and places for safe child care until schools reopen. Without these window and door shutter projects, it is possible that wind forces and flying debris could cause damage to these facilities.

Agency	Project Title	Status	Hazards	ProjectType	Potential Grant Sources	Funding Source	Flood Basin	Estimated Costs	GlobalMat	BCR	Project Description
Pinecrest	Improvements to Pinecrest Gardens Main Entrance Building	Future Unfunded Project	Wind	Infrastructure (Building)		Grant Applied For		75,000.00		56	Installation of hurricane impact windows in the main entrance building of Pinecrest Gardens. This building contains Village offices as well as two multi-purpose rooms. Pinecrest Gardens is historically designated and this building was built in 1954.
Pinecrest	Purchase of Portable Emergency Traffic Lights	Future Unfunded Project	Power Failure	Equipment		Unknown/None		100,000.00		83	Purchase portable solar-powered emergency traffic lights to be used at main intersections throughout the Village of Pinecrest, including US1.
Pinecrest	Hardening of Coral Pine Park Building	Future Unfunded Project	Wind	Infrastructure (Building)				50,000.00		56	Add hurricane rated windows, storm shutters, reinforced doors and otherwise harden the renovated building at Coral Pine Park. Construction is scheduled to begin in the fall of 2013.
Pinecrest	Development of Neighborhood Response Teams	Future Unfunded Project	All Hazards	Outreach				30,000.00		75	Develop and train Neighborhood Response Teams to increasing community involvement in the Village's damage assessment teams after a storm event. Having volunteers involved in the Windshield Assessment will allow the Village wide assessment to be done more efficiently and will allow the Certified Inspector to focus their attention in areas sustaining substantial structural and electrical damage where structures may have to be tagged as Unsafe for Occupancy.
Pinecrest	Community Disaster Education Program	Future Unfunded Project	All Hazards	Outreach				30,000.00		62	Develop education materials such as brochures and newsletters, and improve communication with the community through streaming video and radio station improvements to promote emergency preparation awareness and provide information to the residents of the Village of Pinecrest urging them to act proactively in the preparation of properties and structures in the event of a disaster.
Pinecrest	Reverse 911 System	Future Unfunded Project	All Hazards	Equipment				75,000.00		68	To purchase a reverse 911 system that would allow the Village of Pinecrest Police Department to provide emergency information to village residents.
Pinecrest	Canal Bank Erosion Protection	Future Unfunded Project	Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)				100,000.00		49	Design and construct erosion protection structures and bank stabilization projects along village canals which are vulnerable to bank erosion due to storm surge or inland flooding. This project includes the removal of undesirable debris, trees, predominantly Australian pines and ficus, located in close proximity to the canal bank. These trees are prone to falling during a severe windstorm or hurricane causing flow obstructions as well as damage to the canal bank resulting in increased erosion. We must also schedule regular maintenance of village canals to restore flow.
Pinecrest	Burial of Over-head Power Lines along Arterial Roadway	Future Unfunded Project	Wind	Infrastructure (Roadway)				50,000,000.00		65	Design and construct the burial of all over-head power lines along the municipal arterial roadways. This project would mitigate the potential for loss of power during severe weather events and would enhance the response to areas of the Village during emergencies by limiting obstacles and life-safety issues on critical transportation infrastructure. Power loss in the Village is critical since the majority of residents obtain water from wells which use electricity to power their pumps.
Pinecrest	Public Works EOC Facility	Future Unfunded Project	All Hazards	Infrastructure (Building)				150,000.00		60	The construction of a fully functional EOC facility on the second floor of the existing Public Works Department. Currently, the 2-story building is structurally safe and provides a lunch room and shop on the first floor. However, the 2nd floor is currently unused and not sufficiently equipped to provide electricity, air conditioning or any sleeping accommodations. In the event of a disaster, it is imperative that all Village Public Works Department employees report to duty. Public Works must be operable before, during and immediately after any disaster to provide residents access to streets and deal with other safety issues.
Pinecrest	Purchase of Portable Two-Way Radios	Funding Secured	Communications Failure	Equipment		Other Internal Funding		110,000.00		0	Purchase upgraded portable two-way radios for various departments, including Police, that serve on the disaster assessment teams and in the recovery process.
Police	Miami-Dade Police Department - Installation of Offsite Disaster Recovery Equipment for MDPD Network		,Flood,Power Failure,Security Breach,Technological Disruption,Wind	COOP		Unknown/None		134,000.00		0	Installation of equipment necessary to create an offsite disaster recovery/mitigation location for the Miami-Dade Police Department Network. This additional location will allow for operation of the network from two different sites if the regular network is compromised due to communication/power failure, flood, terrorist attack, or hurricane. In cases of weather related damage or man-made attack police services will become even more essential and an immediate response will limit further damage to the Miami-Dade County area. The operation of the MDPD network is the foundation for day-to-day operations since all operations are now technology based. This alternate network site will also serve as the Sharepoint, Homeland Security, and Criminal Justice Information backup sites ensuring that police investigative data is protected in the event of a weather event or attack. A back-up system for our network will also allow for continued sharing of information with our law enforcement partners - local, state, and federal.
Police	Miami-Dade Public Safety Institute - Replacement of existing office, classroom, and restroom trailers	Future Unfunded Project	,Wind,Flood,Health	Infrastructure (Building)		Unknown/None		2,000,000.00		0	Replacement of existing office, classroom, and restroom trailers at the police training facility to repair structures and bring them up to current code. These trailers house MDPD academy staff and provide additional training facilities for Basic Law Enforcement Academies. (Although an Academy Building is currently under the bidding process it is several years from completion.)  Current trailers were purchased in 1990s, before stringent code requirements were in place and have sustained significant structural damage including rotted floors, disintegrated insulation, and accumulation of mold from water damage. Facilities maintenance has performed as-needed repairs, however, the age and condition of the trailers precludes any further attempts to extend their use.
Police	MDPD Headquarters Complex Security Hardening		Wind	Infrastructure (Building)				650,000.00		0	Security of the entire Headquarters Complex would be compromised in the event of a wind or hurricane event, terrorist attack or criminal breach the perimeter of the Complex. Barrier gates which are code compliant would harden the facility and increase the safety and security envelope which safeguards over one thousand civilian and police personnel on duty at the complex. This is an essential facility hardening project which would enhance the security and protection against natural disasters, and also criminal or terrorist attacks.
Police	MDPD Headquarters' Computer Lab Transfer switches and connections		Communications Failure,Technological Disruption	Equipment				300,000.00		0	Electrical installation of two (2) 400A non-automatic transfer switches to connect a portable generator to provide back-up emergency power to the facility's Computer lab UPS and the associated air conditioning in the room. Both transfer switches will be tied into one (1) 800A panel. The installation shall also include the generator connection box and plugs located in the northeast rear parking area with an approximate of 100' of extra cabling for the generator connection. The intent of this installation is to allow for the connection of a portable generator in the event that the facility's standby generator is nonoperational. While this would not power the HQ building (lights, air conditioning, etc.), it would power the information systems, a primary tool for daily policing.
Police	MDPD Facilities Maintenance South Office Roof Replacement and Reinforcement		Wind	Infrastructure (Building)				400,000.00		0	The Replacement/Reinforcement of the roof at MDPD's Facility Section South Office: this facility was constructed years before stringent code requirements. The existing materials are inferior and are currently damaged which will not withstand in the event of a disaster. The facility will have the existing roof removed and replaced with upgraded materials to meet regulatory requirements and withstand manmade and natural disasters. In addition, windows and doors will be replaced or reinforced, hardening the entire structure. This facility houses three vital police units: Community Service, Nuisance Abatement, and most important, Facilities Maintenance. If the roof is compromised due to storm or other event, these three units would have to be relocated. This relocation would be costly. Also, with regard to facilities maintenance, the ability to respond to maintenance needs at police district stations would be impacted, which could affect police services.
Police	Police District Mitigation Project - Kendall and Intracoastal District Stations		Wind	Infrastructure (Roadway)				1,000,000.00		0	There is a need for the Miami-Dade County/Miami-Dade Police Department to replace 22 light structures currently presenting a threat to our critical emergency response facilities, operations, employees and the public we serve in the event of a storm. Replacement would address an increased level of protection as the new light poles would be constructed using different and sturdier materials made to withstand hurricane conditions, meeting the County's stringent building code. The same situation and conditions exist at the Intracoastal district station, also with 22 light structures. All other district stations light poles are either concrete or aluminum. Estimated cost is \$500,000 per district, and \$1,000,000 for two proposed districts, Kendall and Intracoastal.
Public Housing and Commu	Dante Fascell	Funding Secured	Wind	Infrastructure (Building)	Mitigation Grant,CDBG Community Development Block Grants/ Entitlement Grants	Grant Awarded		422,800.00	N/A	56	Windstorm Protection from hurricanes
Public Housing and Commu	Haley Sofge Towers	Funding Secured	Wind	Infrastructure (Building)	Mitigation Grant,Capital Fund Emergency/ Natural Disaster Funding	Grant Awarded		2,056,321.00	No	0	Windstorm Protection from hurricanes
Public Housing and Commu	Ward Tower	Funding Secured	Wind	Infrastructure (Building)	Mitigation Grant,Capital Fund Emergency/ Natural Disaster Funding	Grant Awarded		1,920,400.00	Yes	0	Windstorm Protection from hurricanes CFB Grant - from an Emergency Source
Public Housing and Commu	Joe Moretti	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant			2,592,000.00	Yes	69	Windstorm Protection from hurricanes
Public Housing and Commu	Opa-Locka Fam.	Other	Wind	Infrastructure (Building)	Mitigation Grant	Unknown/None		0.00	Unknown	0	This project has been demolished
Public Housing and Commu	Buena Vista	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant	Unknown/None		60,000.00	Unknown	53	Windstorm Protection from hurricanes
Public Housing and Commu	R.K.H. Towers	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant			1,323,000.00	Yes	56	Windstorm Protection from hurricanes

Agency	Project Title	Status	Hazards	ProjectType	Potential Grant Sources	Funding Source	Flood Basin	Estimated Costs	GlobalMat	BCR	Project Description
Public Housing and Commu	Haley Sofge Towers	Funding Secured	Wind	Infrastructure (Building)	Mitigation Grant,Capital Fund Emergency/ Natural Disaster Funding	Grant Awarded		0.00	No	0	Windstorm Protection from hurricanes -
Public Housing and Commu	Naranja	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant	Capital Improvement		568,400.00	Unknown	47	Windstorm Protection from hurricanes
Public Housing and Commu	Wynwood Eld.	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant	Unknown/None		324,000.00	Unknown	55	Windstorm Protection from hurricanes
Public Housing and Commu	Opa-Locka Eld.	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant	Unknown/None		225,000.00	Unknown	55	Windstorm Protection from hurricanes
Public Housing and Commu	Little Havana Homes	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant	Unknown/None		252,000.00	Unknown	55	Windstorm Protection from hurricanes
Public Housing and Commu	Edison Courts	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant			3,105,000.00	Yes	0	Windstorm Protection from hurricanes
Public Housing and Commu	Liberty Square	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant			2,916,000.00	Yes	0	Windstorm Protection from hurricanes
Public Housing and Commu	Liberty Square	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant			3,240,000.00	Yes	0	Windstorm Protection from hurricanes
Public Housing and Commu	Liberty Square	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant			3,000,000.00	Yes	0	Windstorm Protection from hurricanes
Public Housing and Commu	Little River Terr.	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant			972,000.00	Yes	61	Windstorm Protection from hurricanes
Public Housing and Commu	Victory Homes	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant			1,494,000.00	Yes	55	Windstorm Protection from hurricanes
Public Housing and Commu	Abe Arronovitz	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant			247,500.00	Yes	55	Windstorm Protection from hurricanes
Public Housing and Commu	A. Coleman Gardens	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant			2,205,000.00	Yes	55	Windstorm Protection from hurricanes
Public Housing and Commu	A. Coleman Gardens	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant			1,296,000.00	Yes	55	Windstorm Protection from hurricanes
Public Housing and Commu	A. Coleman Gardens	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant			1,890,000.00	Yes	51	Windstorm Protection from hurricanes
Public Housing and Commu	Scattered Sites	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant			216,000.00	Yes	48	Windstorm Protection from hurricanes
Public Housing and Commu	Scattered Sites	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant			72,000.00	Yes	43	Windstorm Protection from hurricanes
Public Housing and Commu	Model Cities	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant			342,000.00	Yes	45	Windstorm Protection from hurricanes
Public Housing and Commu	Gwenn Cherry 13	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant			279,000.00	Yes	57	Windstorm Protection from hurricanes
Public Housing and Commu	Gwenn Cherry 12	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant			54,000.00	Yes	46	Windstorm Protection from hurricanes
Public Housing and Commu	Gwenn Cherry 08	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant			189,000.00	Yes	53	Windstorm Protection from hurricanes
Public Housing and Commu	Gwen Cherry 22	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant			90,000.00	Yes	55	Windstorm Protection from hurricanes
Public Housing and Commu	Gwen Cherry 07	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant			288,000.00	Yes	58	Windstorm Protection from hurricanes
Public Housing and Commu	Gwen Cherry 06	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant			72,000.00	Yes	56	Windstorm Protection from hurricanes
Public Housing and Commu	Gwen Cherry 20	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant			103,500.00	Yes	62	Windstorm Protection from hurricanes
Public Housing and Commu	Gwen Cherry 23	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant			324,000.00	Yes	64	Windstorm Protection from hurricanes
Public Housing and Commu	Gwen Cherry 05	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant			738,000.00	Yes	43	Windstorm Protection from hurricanes
Public Housing and Commu	Gwen Cherry 09	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant			72,000.00	Yes	58	Windstorm Protection from hurricanes
Public Housing and Commu	Gwen Cherry 11	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant	Unknown/None		180,000.00	Yes	52	Windstorm Protection from hurricanes
Public Housing and Commu	Scattered Sites	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant	Unknown/None		450,000.00	Unknown	44	Windstorm Protection from hurricanes
Public Housing and Commu	Gwenn Cherry 15	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant	Unknown/None		252,000.00	Yes	49	Windstorm Protection from hurricanes
Public Housing and Commu	Goulds Plaza	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant	Unknown/None		225,000.00	Unknown	59	Windstorm Protection from hurricanes
Public Housing and Commu	Perrine Elderly	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant	Unknown/None		90,000.00	Unknown	53	Windstorm Protection from hurricanes
Public Housing and Commu	Grove Homes	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant	Unknown/None		216,000.00	Unknown	43	Windstorm Protection from hurricanes
Public Housing and Commu	Homestead West	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant	Unknown/None		135,000.00	Unknown	60	Windstorm Protection from hurricanes
Public Housing and Commu	Orchard Villa	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant	Unknown/None		108,000.00	Unknown	57	Windstorm Protection from hurricanes
Public Housing and Commu	Liberty Homes	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant	Unknown/None		396,000.00	Unknown	6	Windstorm Protection from hurricanes
Public Housing and Commu	Jose Marti Plaza	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant	Unknown/None		247,500.00	Unknown	0	Windstorm Protection from hurricanes
Public Housing and Commu	Manor Park	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant	Unknown/None		288,000.00	Unknown	48	Windstorm Protection from hurricanes
Public Housing and Commu	Palmetto Gdns	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant	Unknown/None		180,000.00	Unknown	48	Windstorm Protection from hurricanes
Public Housing and Commu	Santa Clara Homes	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant	Unknown/None		117,000.00	Unknown	54	Windstorm Protection from hurricanes
Public Housing and Commu	Heritage Village II	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant	Unknown/None		234,000.00	Unknown	48	Windstorm Protection from hurricanes

Agency	Project Title	Status	Hazards	ProjectType	Potential Grant Sources	Funding Source	Flood Basin	Estimated Costs	GlobalMat	BCR	Project Description
Public Housing and Commu	Southridge II	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant	Unknown/None		270,000.00	Unknown	45	Windstorm Protection from hurricanes
Public Housing and Commu	Homestead Village	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant	Unknown/None		99,000.00	Unknown	60	Windstorm Protection from hurricanes
Public Housing and Commu	Wynwood Homes	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant	Unknown/None		175,500.00	Unknown	44	Windstorm Protection from hurricanes
Public Housing and Commu	Rainbow Village	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant			900,000.00	Unknown	48	Windstorm Protection from hurricanes
Public Housing and Commu	Falk Turnkey	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant	Unknown/None		216,000.00	Unknown	65	Windstorm Protection from hurricanes
Public Housing and Commu	Emmer Turnkey	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant	Unknown/None		189,000.00	Unknown	58	Windstorm Protection from hurricanes
Public Housing and Commu	Jack Orr Plaza	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant	Unknown/None		900,000.00	Unknown	58	Windstorm Protection from hurricanes
Public Housing and Commu	Venetian Gdns.	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant	Unknown/None		468,000.00	Unknown	52	Windstorm Protection from hurricanes
Public Housing and Commu	So Miami Plaza	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant	Unknown/None		436,500.00	Unknown	55	Windstorm Protection from hurricanes
Public Housing and Commu	Homestead Gardens	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant	Unknown/None		1,350,000.00	Unknown	52	Windstorm Protection from hurricanes
Public Housing and Commu	Lemon City	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant	Unknown/None		450,000.00	Unknown	68	Windstorm Protection from hurricanes
Public Housing and Commu	Gwenn Cherry 14	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant			702,000.00	Unknown	58	Windstorm Protection from hurricanes
Public Housing and Commu	Edison Plaza	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant	Unknown/None		648,000.00	Unknown	57	Windstorm Protection from hurricanes
Public Housing and Commu	Palm Towers	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant	Unknown/None		463,500.00	Unknown	51	Windstorm Protection from hurricanes
Public Housing and Commu	Parkside	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant	Unknown/None		252,000.00	Unknown	56	Windstorm Protection from hurricanes
Public Housing and Commu	Biscayne Plaza	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant	Unknown/None		234,000.00	Unknown	58	Windstorm Protection from hurricanes
Public Housing and Commu	Martin Fine Villas	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant	Unknown/None		225,000.00	Unknown	58	Windstorm Protection from hurricanes
Public Housing and Commu	Stirrup Plaza	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant	Unknown/None		450,000.00	Unknown	58	Windstorm Protection from hurricanes
Public Housing and Commu	Three Round Towers	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant			409,500.00	Unknown	67	Windstorm Protection from hurricanes
Public Housing and Commu	South Miami Gardens	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant	Unknown/None		522,000.00	Unknown	51	Windstorm Protection from hurricanes
Public Housing and Commu	Palm Court	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant	Unknown/None		396,000.00	Unknown	59	Windstorm Protection from hurricanes
Public Housing and Commu	Richmond Homes	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant	Unknown/None		288,000.00	Unknown	0	Windstorm Protection from hurricanes
Public Housing and Commu	Culmer Place	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant	Unknown/None		1,359,000.00	Unknown	60	Windstorm Protection from hurricanes
Public Housing and Commu	Little River Pl.	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant	Unknown/None		387,000.00	Unknown	58	Windstorm Protection from hurricanes
Public Housing and Commu	FHA Scattered Homes	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant	Unknown/None		189,000.00	Unknown	30	Windstorm Protection from hurricanes
Public Housing and Commu	Green Turnkey	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant	Unknown/None		189,000.00	Unknown	50	Windstorm Protection from hurricanes
Public Housing and Commu	Pine Island I	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant	Unknown/None		720,000.00	Unknown	25	Windstorm Protection from hurricanes
Public Housing and Commu	Southridge I	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant	Unknown/None		684,000.00	Unknown	58	Windstorm Protection from hurricanes
Public Housing and Commu	Wayside	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant	Unknown/None		270,000.00	Unknown	58	Windstorm Protection from hurricanes
Public Housing and Commu	Moody Village	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant	Unknown/None		576,000.00	Unknown	44	Windstorm Protection from hurricanes
Public Housing and Commu	Pine Island II	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant	Unknown/None		450,000.00	Unknown	57	Windstorm Protection from hurricanes
Public Housing and Commu	Arthur Mays Village	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant	Capital Improvement		16,560,000.00	Unknown	50	Windstorm Protection from hurricanes
Public Housing and Commu	Moody Gardens	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant	Unknown/None		153,000.00	Unknown	56	Windstorm Protection from hurricanes
Public Housing and Commu	Gwenn Cherry 16	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant	Unknown/None		630,000.00	Unknown	52	Windstorm Protection from hurricanes
Public Housing and Commu	Florida City Family	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant	Unknown/None		234,000.00	Unknown	42	Windstorm Protection from hurricanes
Public Housing and Commu	Phyllis Wheatley	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant	Unknown/None		180,000.00	Unknown	52	Windstorm Protection from hurricanes
Public Housing and Commu	W. Homestead Gardens	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant	Unknown/None		54,000.00	Unknown	52	Windstorm Protection from hurricanes
Public Housing and Commu	Highland Park	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant	Unknown/None		468,000.00	Unknown	33	Windstorm Protection from hurricanes
Public Housing and Commu	Florida City Gardens	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant	Unknown/None		225,000.00	Unknown	58	Windstorm Protection from hurricanes
Public Housing and Commu	Culmer Gardens	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant	Unknown/None		675,000.00	Unknown	55	Windstorm Protection from hurricanes
Public Housing and Commu	Opa-Locka Fam.	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant	Unknown/None		81,000.00	Unknown	0	Windstorm Protection from hurricanes
Public Housing and Commu	Three Round Towers	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant	Unknown/None		450,000.00	Unknown	51	Windstorm Protection from hurricanes
Public Housing and Commu	Twin Lakes	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant	Unknown/None		342,000.00	Unknown	54	Windstorm Protection from hurricanes

Agency	Project Title	Status	Hazards	ProjectType	Potential Grant Sources	Funding Source	Flood Basin	Estimated Costs	GlobalMat	BCR	Project Description
Public Works and Waste M	Repetitive Loss Area - Arch Creek	Other	,Flood/Storm Surge,Flood,Sea Level Rise	Infrastructure (Building)	,HMGP Hazard Mitigation Grant Program	Identified Grant Source		4,528,519.02	Yes	72	This project proposes to retrofit 23 properties located in the Arch Creek basin, by elevation or reconstruction, above the base flood elevation of 7 feet NGVD plus 1 foot of free board, according to the current Florida Building Code. These repetitive loss properties suffer inundation during minor storm events, king tides and are vulnerable to storm surge.
Public Works and Waste M	SW 157 AVE Canal Interconnect	Funding Secured	Flood	Infrastructure (Water/Sewer/Drainage)		Capital Improvement	C2	0.00		63	Project No. 20130213
Public Works and Waste M	SW 157 AVE CANAL, from SW 8 ST to Bird RD	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None	C2	3,960,000.00	Unknown	0	New Canal
Public Works and Waste M	Golden Glades Ditch Canal X-Section Improvements (NW 170 ST, from NW 117 TO 137 AVE)	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None	C8	2,608,000.00	Unknown	0	Canal cross section improvements
Public Works and Waste M	Golden Glades Ditch Canal X-Section Improvements (From NW 77 CT to NW 82 AVE)	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None	C8	676,000.00	Unknown	0	Canal cross section improvements
Public Works and Waste M	Golden Glades Ditch Canal X-Section Improvements (From NW 82 AVE to NW 87 AVE)	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None	C8	702,000.00	Unknown	0	Canal cross section improvements
Public Works and Waste M	Golden Glades Ditch Canal X-Section Improvements (From NW 67 AVE to NW 77 CT)	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None	C8	1,378,000.00	Unknown	0	Canal cross section improvements
Public Works and Waste M	C-103N Extension Canal, (From SW 240 ST to SW 268 ST)	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None	C103	10,200,000.00	Unknown	0	New canal/ floodway improvements
Public Works and Waste M	SW 204 ST, from SW 152 AVE to SW 162 AVE	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None	C102	2,100,000.00	Unknown	0	New canal/ floodway improvements
Public Works and Waste M	C111 Extension North, from SW 387 ST to SW 388 ST, following slough path	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None	C111	7,971,000.00	Unknown	0	New canal/ floodway improvements
Public Works and Waste M	SW 169 AVE, from SW 240 ST to SW 258 ST	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None	C103	2,700,000.00	Unknown	0	New Canal to service the area located in a former slough.
Public Works and Waste M	SW 167 AVE CANAL ( 167 AVE, from SW 10 ST to SW 42 ST)	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None	C2	12,900,000.00	Unknown	0	New Canal
Public Works and Waste M	Culvert and Canal Improvements along SW 122 Avenue from SW 202 ST to the C-1W	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None	C1	2,500,000.00	Unknown	0	Replace the existing undersized culverts with a 84" pipe at the canal intersection with SW 202 Street & SW 206 Street and replace the existing slab covered canal from SW 208 Street to the C-1W with a pipe culvert.
Public Works and Waste M	SW 63 ST CANAL, from SW 167 AVE, West for 0.2 miles)	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None	C2	510,000.00	Unknown	0	New Canal
Public Works and Waste M	C-1N Canal Capacity Enhancement	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None	C1	500,000.00	Unknown	0	Increase the C-1N canal's cross section up and down stream of the Caribbean Blvd Bridge to remove the existing constriction. The C-1N is under the jurisdiction of the SFWMD
Public Works and Waste M	C-1 Extension, at SW 152 ST, from SW 177 AVE to SW 157 AVE	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None	C1	6,000,000.00	Unknown	0	New Canal
Public Works and Waste M	C-113 Extension	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None	C111	3,780,000.00	Unknown	0	New Canal, running through this approximate location: from SW 14 AVE & SW 6 ST to SW 197 AVE & SW 314 ST
Public Works and Waste M	Highland Oaks Ditch Improvements	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None	N Biscayne Bay - Oleta	360,000.00	Unknown	0	New canal/ floodway improvements
Public Works and Waste M	NE 149 Street, from NE 10 Ave to NE 14 Ave	Funding Secured	,Flood	Infrastructure (Water/Sewer/Drainage)	,HMGP Hazard Mitigation Grant Program	Other Internal Funding	N Biscayne Bay - Arch C	340,000.00	No	63	The design of the above site shall include, but is not limited to all operation necessary to raise the drainage level of service to meet County standards. The work shall consist of installing drainage structures, exfiltration drains, grading, sodding, roadway restoration including construction of concrete curb and gutters, and sidewalks, as applicable, where drainage would be installed.
Public Works and Waste M	NE 163 St to NE 79 St east NE 6 Ave	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None	C9-E	900,000.00	Unknown	0	Mitigation of repetitive losses
Public Works and Waste M	SW 122nd Ave Secondary Canal Enhancement Project SOW - Guaval Canal	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)			C1	4,500,000.00		0	This project addresses the flood problems in the area limited on the North by SW 184th St (Eureka Dr.); on the East by Quail Roost Dr. and SW 117th Ave; on the South by the C-1 Canal; and on the West by SW 127th Ave (Burr Rd). The project consists of the construction of the following structural improvements:- Connection of the existing French drain system located NW from the Quail Roost Dr. The connection will consist of a 50-foot long, 6' 6" x 4' 11" corrugated arch-pipe culvert.- One control structure at the above-mentioned French drain system discharge point, similar to a pollution control structure (three chambers with weir and baffle), with the weir at elevation 6.0 ft.-NGVD. This control structure will provide water quality treatment of stormwater discharges and will control peak discharges to meet the South Florida Water Management District (SFWMD) maximum allowable discharge to the C-1 Canal.-Replace two existing four-pipe culverts with a 6' 9" x 4' 11" corrugated arch-pipe at the canal intersection with SW 122nd Avenue, and SW 200th Street.-Replace the existing slab cover trench from the downstream end of the SW 122nd Ave Canal to the C-1 Canal to provide for emergency overflow during severe storm events. The proposed conveyance system consists of approximately 1,200 linear feet of corrugated arch-pipe 6' 6" by 4' 11", and 370 linear feet of corrugated arch-pipe 7' by 5' 9" that will discharge the water into the C-1 Canal upstream of the SFWMD's S-149 structure.- In the SW 122nd Ave Canal, the construction of culvert canal transitions at four canal crossing locations: SW 122nd Avenue, SW 200th Street, SW 202nd Street, and SW 206th Street. Transitions will include concrete wall approaches.
Public Works and Waste M	Three Round Towers	Future Unfunded Project	Wind	Infrastructure (Building)	Mitigation Grant	Unknown/None		1,200,000.00	Unknown	61	Windstorm Protection from hurricanes
Public Works and Waste M	Larchmont Gardens Pump Station	Funding Secured	,Flood	Infrastructure (Water/Sewer/Drainage)	,Flood Control Projects,HMGP Hazard Mitigation Grant Program	Other Internal Funding	C7	1,671,841.00	Yes	53	The design of the above site shall include, but is not limited to, the design of a new Stormwater Pump Station at NW 85 street and NW 2 Avenue and retrofit of the existing pump station at NW 85 Street and NW 5 Avenue. The work shall consist of installing new pumps with all components necessary, drainage structures, slabs, telemetry, exfiltration drains, grading, sodding, roadway restoration, including construction of concrete curb and gutter, and sidewalks where needed.
Public Works and Waste M	NE 6 AVE& NE 185 Street; NE Miami CT, from NE 196-198 ST; NW 22 AVE & NW 175 ST; North DR & NE 14 AVE	Funding Secured	,Flood	Infrastructure (Water/Sewer/Drainage)	,HMGP Hazard Mitigation Grant Program,Pre-Disaster Funding Programs	Other Internal Funding	C9-E	835,000.00	Yes	60	The design of the above site shall include, but is not limited to all operation necessary to raise the areas drainage to meet County standards. The work shall consist of installing drainage structures, exfiltration drains, grading, sodding, roadway restoration including construction of concrete curb and gutters, and sidewalks, as applicable, where drainage was installed
Public Works and Waste M	Drainage Improvements to the Seaboard Acres Ditch	Project in Planning Stage	Flood	Infrastructure (Water/Sewer/Drainage)	,HMGP Hazard Mitigation Grant Program,Pre-Disaster Funding Programs,Flood Control Projects,Severe Repetitive Loss Program	Unknown/None	C8	2,000,000.00	Yes	68	The Seaboard Acres Ditch is a drainage ditch located within the city of North Miami and unincorporated Miami-Dade County. The area it serves chronically floods, severely impacting residents in the area. The proposed project would enlarge the piping system currently in place and dredge the remaining open ditch.
Public Works and Waste M	Seaboard Acres Pump Station	Funding Secured	,Flood,Sea Level Rise	Infrastructure (Water/Sewer/Drainage)	,HMGP Hazard Mitigation Grant Program,Severe Repetitive Loss Program	Other Internal Funding	C8	1,500,000.00	Yes	63	The design of the above site shall include, but is not limited to retrofit the existing pump station at Memorial Highway and NE 131 Street. The work shall consist of installing new pumps with all components necessary, drainage structures, slabs, telemetry, exfiltration drains, grading, sodding, roadway restoration including construction of concrete curb and gutters, and sidewalks where needed.
Public Works and Waste M	NW 19 Avenue and NW 84 Street	Funding Secured	,Flood	Infrastructure (Roadway)	,HMGP Hazard Mitigation Grant Program	Other Internal Funding	C7	120,000.00	Yes	57	The design of the above site shall include, but is not limited to all operation necessary to raise the areas drainage to meet County standards. The work shall consist of installing drainage structures, exfiltration drains, grading, sodding, roadway restoration including construction of concrete curb and gutters, and sidewalks, as applicable, where drainage was installed.
Public Works and Waste M	NW 39 Street and NW 25 Avenue	Funding Secured	,Flood	Infrastructure (Water/Sewer/Drainage)	,HMGP Hazard Mitigation Grant Program	Other Internal Funding	C6	130,000.00	Yes	59	The design of the above site shall include, but is not limited to all operation necessary to raise the areas drainage to meet County standards. The work shall consist of installing drainage structures, exfiltration drains, grading, sodding, roadway restoration including construction of concrete curb and gutters, and sidewalks, as applicable, where drainage was installed.
Public Works and Waste M	From SW 264 ST to SW 284 ST; from SW 167 AVE to SW 177 AVE	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None		2,032,000.00	Unknown	0	Construct 4 new outfalls (4-5'wx4.5'h box culverts) from C103-N-5 to C-103 Canal. Construct 7,170 LF of french drains.

Agency	Project Title	Status	Hazards	ProjectType	Potential Grant Sources	Funding Source	Flood Basin	Estimated Costs	GlobalMat	BCR	Project Description
Public Works and Waste M	From SW 280 ST to SW 288 ST; from SW 142 AVE to South Dixie HWY	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None		1,641,000.00	Unknown	0	Construct 6 new outfalls (5' x 3' h box culverts) from C103N-N-5 to C-103 Canal. Construct 8,000 LF of french drains.
Public Works and Waste M	From SW 266 ST to SW 288 ST; from SW 127 AVE to SW 142 AVE	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None		1,203,000.00	Unknown	0	Construct 7,000 LF of french drains
Public Works and Waste M	SW 152 Terr and SW 160 St between SW 126 Ave and S Dixie Hwy	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None		900,000.00	Unknown	0	Mitigation of repetitive losses and flood complaints.
Public Works and Waste M	From SW 92 AVE to SW 99 AVE (C100-E-5), and From SW 112 ST to SW 129 ST (C100-C-13, HOWARD-DR-1)	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None		19,572,000.00	Unknown	0	Construction of a 11,200 gpm pump station and 3,970 LF of french drains, with pollution control structure and emergency overflow for the HOWARD-DR-1 Basin. Construction of a 94,000 gpm pump station, 10.5 acre storage area, and 17,500 LF of french drains, with pollution control structure and emergency overflow, for the C100C-E-5. Mitigation of repetitive losses and flood complaints.
Public Works and Waste M	From SW 104 ST to SW 120 ST	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None		8,000,000.00	Unknown	0	Construction of a 32,800 gpm pump station, 7.0 acre storage, 4,300 LF canal berm and 9,200 of french drains with pollution control structure and emergency overflow, for C100-N-4 Basin
Public Works and Waste M	From SW 95 CT to SW 117 AVE	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None		20,444,000.00	Unknown	0	Construction of a 38,600 gpm pump station and 8,200 LF of french drains with pollution control structure and emergency overflow for C100-S-5. Mnitigation of repetitive losses and flood complaints.
Public Works and Waste M	SW 152 At and SW 157 Ave between 144 Ct and 142 Ave (C1-C-12), SW 210 St and SW 192 St between SW 122 Ave and SW 130 Ct (C1-N-9), SW 184 St and SW 208 Terr between SW 127 Ave and Sw 113 St (C1N- W-3)	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None		2,250,000.00	Unknown	0	Mitigation of Repetitive Losses
Public Works and Waste M	From Bahama Drive to Grouper Drive From Holiday Road to Anchor Road	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None		1,500,000.00	Unknown	0	Construction 7,400 LF of french drains
Public Works and Waste M	From SW 102 AVE to SW 114 AVE between S Dixie Hwy and the FL Turnpike	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None		3,264,000.00	Unknown	0	Construction 6,200 LF of french drains, pollution control structure and emergency overflow to the C1-N canal. Construction 12,200 LF of solid pipes to interconnect the existing system to the new french drains and emergency overflow to the C1-N canal.
Public Works and Waste M	SW 72 St to SW 88 St between 107 Ave and 117 Ave	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None		450,000.00	Unknown	0	Mitigation of Repetitive Losses and flood complaints
Public Works and Waste M	From Davis DR to SW 88 ST, from SW 103 AVE to SW 107 AVE; From SW 88 TER to SW 90 ST, from SW 99 CT to SW 102 AVE; From SW 88 TER to SW 104 ST, from SW 77 AVE to SW 87 AVE; From SW 55 ST to SW 72 ST, from SW 114 AVE to SW 117 AVE.	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None		720,000.00	Unknown	0	Construct baffles and pollution control structures to improve water quality in ten (10) outfalls.
Public Works and Waste M	From SW 56 ST (Miller Drive) to SW 72 ST (Sunset Drive) between From SW 87 AVE to SW 97 AVE	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None		2,796,000.00	Unknown	0	Construct 14,800 LF of french drains. Construct baffles/ pollution control structure to improve outfall water quality. Install 55 new catch basins. Interconnect 37 existing catch basins to the new exfiltration system.
Public Works and Waste M	From SW 42 TER to SW 53 ST between From SW 127 AVE to SW 132 AVE	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None		2,124,000.00	Unknown	0	Convert existing pipes into exfiltration system (8,300 LF) and install pollution control structures and baffles to improve fifty (50) outfalls for water quality; interconnect 111 existing catch basins to the new exfiltration system
Public Works and Waste M	From SW 81 ST to SW 83 ST between From SW 79 AVE to SW 87 AVE (Galloway Road)	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None		441,000.00	Unknown	0	Construct 2,240 LF of french drains. Mitigation of repetitive losses
Public Works and Waste M	From SW 56 ST (Miller Drive) to SW 72 ST (Sunset Drive) between SW 97 AVE to SW 107 AVE	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None		2,067,000.00	Unknown	0	Construct 11,000 LF of french drains, with the installation of 56 new catch basins and interconnection of the existing catch basins to the new exfiltration system Construct new emergency overflow to C-2 Canal
Public Works and Waste M	From SW 73 TER to SW 88 ST between From Davis Drive to SW 107 AVE	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None		602,000.00	Unknown	0	Installation of 4,200 LF of french drains, baffles and pollution control structures to improve for water quality of four outfalls. Construct 2,850 LF of french drains.
Public Works and Waste M	From SW 24 ST to Bird Road between From SW 107 AVE to SW 117 AVE	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None		718,000.00	Unknown	0	Construction of 3,375 LF of french drains. Installation of 8 new catch basins and interconnect the 13 existing catch basins to the new exfiltration system. Mitigation of repetitive losses.
Public Works and Waste M	SW 24 ST to ST 12 ST from SW 82 AVE to Palmetto Expressway	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None		1,089,000.00	Unknown	0	Construct additional 7,270 LF of French Drain Hybrid systems connecting to the SW 16th Street system and the recently reconstructed Coral Way system.
Public Works and Waste M	SW 24 ST to SW 40 ST from SW 82 AVE to Palmetto Expressway	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None		8,228,000.00	Unknown	0	Install additional 26,179 LF of French Drain and hybrid systems connecting to the existing systems and Coral Way.
Public Works and Waste M	SW 72 ST to SW 80 ST from SW 57 AVE to SW 49 AVE	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None		10,307,000.00	Unknown	0	Install 23,965 LF of French Drain and hybrid systems and then a 48-60 inch gravity outfall at the C-3.
Public Works and Waste M	SW 8 ST to SW 15 ST from SW 42 AVE to Santiago ST	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None		1,772,000.00	Unknown	0	Install 16,604 LF of French Drain and hybrid systems.
Public Works and Waste M	SW 67th AVE just north of SW 36th ST	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None		1,238,000.00	Unknown	0	Replacement of culvert canal crossings at 67th Avenue just north of 36th Street.
Public Works and Waste M	Flager St to NW 7 St between Palmetto Exp and NW 72 Ave (CNW-W-1), NW 6 St to SW 8 St between SW 127 Ave and FI Turnpike (CC4-N-10)	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None		1,800,000.00	Unknown	0	Mitigation of repetitive losses
Public Works and Waste M	Flagler St to SW 8 St between SW 87 Ave and SW 92 Ave	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None		2,420,000.00	Unknown	0	General drainage improvements, mitigation of repetitive losses
Public Works and Waste M	SW 24 ST from SW 99 AVE to SW 107 AVE	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None		106,000.00	Unknown	0	Convert 8 acres of positive drainage system into a french drain system. Install approximately 500 LF of french drains
Public Works and Waste M	From W Flagler ST to SW 5 ST; from SW 77 AVE to C-4 Canal	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None		2,817,000.00	Unknown	0	General drainage improvements
Public Works and Waste M	NW 74 St to NW 58 St between NW 87 Ave and NW 77 Ct	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None		900,000.00	Unknown	0	Mitigation of Repetitive Losses and flood complaints
Public Works and Waste M	NW 79 ST to NW 72 ST between E 11 AVE to NW 21 AVE	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None		11,770,000.00	Unknown	0	Construct 25 acre storage in basin CC7-S-13, 15 acre storage in basin CC7-S-16, 3,700 LF of positive system, and 2,800 LF of French Drain connecting the two storage areas. Mitigation of Repetitive losses.
Public Works and Waste M	NW 85 St to NW 80 St between Miami Ave and NW 6 Ave	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None		968,000.00	Unknown	0	General drainage improvements and mitigation of repetitive losses and flood complaints
Public Works and Waste M	NE 164 St to Spur #4 Canal between N Biscayne Dr and NE 5 Ave (C8-N-17), Biscayne Canal to NW 135 St between Expwy and Biscayne Canal (C8-W-1), NE 4 Ave to Griffing Blvd between Ne 2 Ave and Biscayne Canal (C8-W-6), Biscayne Canal Rd to NE 92 St between NE 6 Ave and NE 1 Ave (C8-W-8)	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None		900,000.00	Unknown	0	Mitigation of Repetitive Losses
Public Works and Waste M	NW 22 Ave between NW 135 St and NW 151 St	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None		288,000.00	Unknown	0	General drainage improvements

Agency	Project Title	Status	Hazards	ProjectType	Potential Grant Sources	Funding Source	Flood Basin	Estimated Costs	GlobalMat	BCR	Project Description
Public Works and Waste M	NE 4th Ave and NE 139 St	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None		811,000.00	Unknown	0	General drainage improvements
Public Works and Waste M	NE 2nd Ave from NEW 191 St to C-9	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None		716,000.00	Unknown	0	General drainage improvements and mitigation of repetitive losses and flood complaints
Public Works and Waste M	NE 171 St and NE 213 St between NE 15 Ave and NE 34 Ave	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None		1,800,000.00	Unknown	0	Mitigation of Repetitive Losses and flood complaints
Public Works and Waste M	NW 175 St between NW 37 Ave and NW 42 Ave	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None		1,027,000.00	Unknown	0	General drainage improvements
Public Works and Waste M	NW 37 Ave between NW 183 St and NW 180 ST	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None		551,000.00	Unknown	0	General drainage improvements
Public Works and Waste M	NW 191 St between NW 32 Ave and NW 47 Avenue	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None		1,870,000.00	Unknown	0	General drainage improvements
Public Works and Waste M	NW 169 Terr to NW 170 St between NW 87 Ave and I-75 Ext	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None		217,000.00	Unknown	0	General drainage improvements and mitigation of repetitive losses and flood complaints
Public Works and Waste M	From C-9 CANAL to NW 203 TERR. From NW 47 AVE to NW 52 AV	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None		713,000.00	Unknown	0	Construct a wet detention pond in Sub-basin C9E2-402. Construct, widen, or clean existing ditches that drain to the pond. Plug culvert in N.W. 47th Avenue Canal.
Public Works and Waste M	NW 186 St, from NW 177 Ave to (approx.) NW 67 Ave	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None		251,000.00	Unknown	0	Convert an existing positive drainage system into a hybrid system in Sub-basin 183-S. This control measure corresponds with the NPDES OUTFALL (52-40-11-NW-001C)
Public Works and Waste M	Replacement of Culverts in C1-N Canal	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)				2,000,000.00		0	This project would increase the capacity of the C1-N by enlarging the culverts in the sub-basin. Culverts to be enlarged are on the following canal crossings: SW 122 Avenue, SW 200 Street, SW 202 Street, and SW 206 Street.
Public Works and Waste M	Addition of Conveyance Pipe to French Drains in C1-S-5 Sub-Basin	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)				2,050,000.00		0	This project proposes to construct 12,800 L.F. of french drains from SW 157 to SW 147 Avenue between SW 152 to SW 160 Street in the sub-basin C1-N-5 where FEMA drains are not continuous. Said conveyance pipe would provide additional capacity for the French Drains, thereby increasing flood protection for the local area.
Public Works and Waste M	Flap Gates on Existing Overflow Structures in C-1 Canal	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)				20,000.00		0	This project proposes to construct flap gates on the existing overflow structures to the C1 Canal. These flap gates would protect the existing drainage systems from being surcharged by high tides and resulting backflow into the structures from high canal stages. This would allow the system to continue to function as designed, thereby keeping the level of flood protection at the increased standard.
Public Works and Waste M	Conveyance Pipe to Connect Two French Drain Systems	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)				1,720,000.00		0	This project proposes to construct 4470 L.F. of conveyance pipe from SW 104 Avenue to SW 112 Court along SW 168 Street and two control structures with weirs connecting to proposed french drain in the sub-basin 1 and 11. Said conveyance pipe would provide additional capacity for the french drains, thereby increasing flood protection for the local area. This allows for equalization of the systems, and can help if rainfall occurs more heavily in a localized area, the system not receiving the rainfall can help absorb some of the volume of runoff. This again improves flood protection in the general areas of both sub-basins. This conveyance pipe will require jacking and boring under the existing railroad tracks.
Public Works and Waste M	Box Culvert, along SW 152 ST, from SW 147-157 AVE	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)				5,210,000.00		0	This project proposes to construct 5,500 L.F. of 8 foot by 8 foot RCP Box Culvert from SW 147 Avenue to SW 157 Avenue along SW 152 Street, in order to increase the capacity of the existing drainage system.
Public Works and Waste M	Flood Control Measure for Sub-Basin C1N E-3	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)				1,699,432.00		0	This project will add to flood control efforts in low-lying areas of the C1N Canal sub-basin. The project consists of construction of approximately 5,500 linear feet of French Drains and a conveyance system of 15,350 linear feet of piping, with emergency overflows and control structures with weirs. This will enhance flood protection by controlling peak discharges, will meet the SFWMD maximum allowable discharges for this area, and will provide water quality treatment as well.
Public Works and Waste M	French Drains to connect to existing FEMA Drains	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)				2,050,000.00		0	This project proposes to construct 12,800 L.F. of french drains from SW 157 to SW 147 Avenue between SW 152 to SW 160 Street in the sub-basin 5 where FEMA drains are not continuous.
Public Works and Waste M	Remleys Drainage Improvement Project	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)				357,000.00		0	This project addresses the flooding problems in the area limited on the north by NE 111th St; on the east by NE 6th Ave; on the south by NE 109 St; and on the west by NE 4th Ave. The project consists of the construction of a full-on-site retention system consisting of approximately 3,000 linear feet of exfiltration pipe.
Public Works and Waste M	Drainage Improvements of the Ojus and J H GLISSONS Subdivisions	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)				2,700,000.00		0	The area bounded by West Dixie Highway to the west, the railroad track to the east, N.W. 188th Street to the north, and N.E. 185th Street to the south is prone to flooding from moderate to heavy rain events due to the existing low land elevations. Based on an evaluation of the area in order to provide the intended 10-year/1-day storm event level of service to mitigate the flooding the existing drainage system would need to be upgraded with the construction of a 25 cfs capacity pump station on N.E. 186th Terrace. The pump station is to discharge into a series of eight (8) 24-inch diameter wells; two (2) of which are already in existence. As part of the upgrades, the system would require interconnecting pipes between N.E. 186th Terrace and NE 188th Street.
Public Works and Waste M	Mitigation of Street Tree Related Damage		All Hazards	Outreach				0.00		0	Some \$300 Million in underground infrastructure damage was attributed to street trees during hurricane Andrew. As a result of poor pruning practices, removal of structure integrity of the street root system due to inadequate or restrictive space for trees in rights-of-way, inappropriate tree species selection, or a combination of factors, many trees were uprooted and damaged underground utilities, sidewalks and curbing, sidewalks, and driveways, as well as private property damage to vehicles and structures. In order to mitigate the hazards improper trees pose, the Cooperative Extension Division, will formalize a public right-of-way and public spaces tree training program for public agencies, arborists, landscape installation and maintenance industries, and landscape architects, including proper pruning, in accordance with ANSI A-300 standard practices for maintenance pruning, to encourage strength and sound structure, hurricane pruning, attributes and vulnerabilities of tree species for street plantings, grades and standards in purchasing and selection of new street trees, and current tree regulations. Standardized bi-lingual educational materials would be developed and multiple training sessions would be conducted for public employees, private tree maintenance industry, as well as other interested groups. This information would be shared with municipal governments responsible for street trees within their jurisdiction via Local Mitigation Strategy group and other means.
Public Works and Waste M	Develop Structural Improvements		Wind	Infrastructure (Building)				42,000.00		0	In August 1992 hurricane Andrew caused \$1Billion losses to the agricultural industry of Miami-Dade County. Over half of the losses in this Category 5 storm were attributed to structural failure or damage such as packinghouses, irrigation equipment, farm equipment, and structures such as shade houses and greenhouses for the economically important which the ornamental plant industry produces the largest segment of agricultural sales from. Designing and constructing hurricane proof greenhouse structures would be beyond the financial capability of the industry as the industry does use metal frame work with a plastic film or fine mesh shade cloth material, depending on the type of structure. Hardening these structures may prove impossible to prevent zero loss. However, development of some newer technology to allow for the collapsing of the structure prior to an approaching hurricane has been development internationally but has not been transferred to this country as of yet. The University of Florida/Miami-Dade Cooperative Extension Service proposes to construct a fully functional demonstration model greenhouse for the commercial ornamental industry of the county and south Florida and provide training for the 1148 plant nurseries within the county.
Public Works and Waste M	Forest Management		Wildfire	Outreach				0.00		0	Management of natural forest communities would include prescription burning, elimination of exotics to decrease fuel loading, preemptive trimming of trees at municipally owned facilities, and workshops for the public and municipalities to detail proper tree trimming. (See countywide initiatives).
Public Works and Waste M	Hazardous Waste		Health	Other				0.00		0	Create a task force in coordination with DERM, Public Works and Solid Waste Management to conduct pre-hurricane sweeps of chronic dumping areas, and facilitate collection of hazardous waste at Small Quantity Generators (SQG) and Conditionally Exempt Small Quantity Generators (CESQG) facilities. It is understood that SQGs and CESQGs are guaranteed the county price when using the county's contracted collector. (Also part of the debris clearance plan)

Agency	Project Title	Status	Hazards	ProjectType	Potential Grant Sources	Funding Source	Flood Basin	Estimated Costs	GlobalMat	BCR	Project Description
Public Works and Waste M	Pre-Disaster Removal of Hazardous Materials		Health	Other				100,000.00			0 This application is for funding to support an intensive two-month preemptive sweep of known or suspected potential chronic dumping areas by two full-time DERM emergency response personnel. This sweep would be conducted across the county at the start of hurricane season, so that abandoned hazardous materials might be recovered in the most economical and cost-effective manner possible, and before a disaster can impact the location and materials in question, and in turn result in a more lengthy and expensive cleanup. This pre-emptive sweep would also help to avoid exposure of these wastes to the public during or after storm events, and thus reduce health costs to residents and insurance companies. The sweep would also reduce introduction of wastes into the environment in an uncontrolled fashion, and the subsequent damage to natural resources. Overall, this proposal would help to reduce and mitigate post-disaster cleanup costs, environmental remediation costs, and public health protection costs.
Public Works and Waste M	Mitigation of Tree Related Damage to Infrastructure		Flood	Infrastructure (Water/Sewer/Drainage)				0.00			0 The Miami-Dade Division of Environmental Resources Management, Public Works and Solid Waste Management RAAM Division in cooperation with the Cooperative Extension Service, will conduct an assessment of conditions of street trees throughout Miami-Dade County to determine the type, size, and structural integrity of right-of-way trees. This assessment will use a GIS database which can then be used as a tool to determine hazard trees which are more susceptible to storm related uprooting or failure. This assessment can be overlaid with other GIS layers such as soils, flood zones and other special areas to prioritize areas where the roads need to be cleared of woody debris for emergency vehicle access during an event and for planning tree removal and replacement to mitigate the possibility of tree failure and the ensuing road blockage and debris disposal during a natural disaster. This can also be used to estimate woody debris amounts to assist in the debris removal planning post disaster. Additionally, this information's could also be used to track areas prone to flooding so that flood resistant trees are planted in these areas to increase transpiration. This map would also be used as a planning tool to replace those trees removed because of their hazardous condition and to target areas of low tree canopy. This database would be shared with other agencies, organizations and governments responsible for street trees and post disaster debris removal within their jurisdiction via the Local Mitigation Strategy group and other means. The Cooperative Extension Service will formalize a training program for public agency, arborists, landscape installation and maintenance industries, and landscape architects, including proper pruning, in accordance with ANSI A-300 standard practices for pruning, to encourage strength and sound structure, hurricane pruning, attributes of street trees, grades and standards in selection of new street trees, and current tree regulations. Standardized tri-lingual educational materials would be developed and multiple training sessions would be conducted. This training would be required for all persons who trim trees in Miami-Dade County. This training would emphasize the correct way to prune and how to correct hazardous tree problems so that these trees do not fail and become projectiles and woody debris. Due to the large number of workers in this field, the training would have to be conducted on a routine basis for as well as the constant updating of the GIS maps.
Public Works and Waste M	55th Street Erosion Control Breakwater	Construction/Project Begun	Flood	Beach/Seawall				1,700,000.00			0 The 55th Street segment of Miami Beach has been one of the more erosion susceptible areas in the County, limiting the protective function of the beach in that area. A recently completed engineering assessment of that area recommended the construction of several small breakwater structures as the most effective way of stabilizing the shoreline and maintaining the protective beach.
Public Works and Waste M	Removal of Obstructions to Evacuation Route		Security/Terrorism	Infrastructure (Roadway)				0.00			0 This project proposes to remove obstructions to an evacuation route right-of-way and attendant lands. The area of concern is along Card Sound Road in far south Miami-Dade, from the Dade-Monroe County Line to the mainland. Illegal structures have been built in these areas. If a hurricane or other disaster were to occur in this area, the evacuation route could be damaged or obstructed, leading to stranding of residents during an event, or residents could not escape the event, and would remain in harm's way, leading to damage of property and compromising our resident's health and safety. The project has an added advantage in that it is supported by four political entities, Miami-Dade and Monroe Counties, the Florida Dept. of Environmental Protection, and the state Bureau of State Lands. The subject project also would mitigate health costs for residents, in that sewage from the illegal structures discharges to wetland areas. The removal of the structures would reduce incidences of exposures of residents to pathogens in the public rights-of-way and other areas, thereby mitigating costs to state and county-supported hospitals.
Public Works and Waste M	Severe Repetitive Loss Projects		Flood	Infrastructure (Water/Sewer/Drainage)				50,000.00			0 This project proposes to address all the remaining severe repetitive losses in Miami-Dade County through the Severe Repetitive Loss (SRL) grant program, authorized by the Bunning-Bereuter-Blumenauer Flood Insurance Reform Act of 2004, which amended the National Flood Insurance Act of 1968 to provide funding to reduce or eliminate the long-term risk of flood damage to severe repetitive loss (SRL) structures insured under the National Flood Insurance Program (NFIP). The estimated average cost for the mitigation of each severe repetitive loss varies. FEMA may contribute up to 100 percent of the total amount approved under the Repetitive Flood Claims grant award to implement approved activities, if the Applicant has demonstrated that the proposed activities cannot be funded under the Flood Mitigation Assistance (FMA) program.
Public Works and Waste M	Construction of New Breakwater Structure in the Vicinity of FDEP R-Monument 60		Flood	Beach/Seawall				3,000,000.00			0 This project proposes to design and construct a submerged breakwater structure consistent with the alternatives presented in the study, Alternatives for 32nd Street Breakwater, Post Buckley Schuh & Jernigan (PBS&J), November 2008 Study, and will include the removal of the existing southernmost breakwater located at State R-Monument R-60, and the construction of sand impoundment berm (minimum 30,000 cubic yards). The design of the proposed breakwater will take into account the following objectives: A. Rubble-mound breakwater with protective stone material B. A life span of 50 years C. Design procedures according to Coastal Engineering Manual or Shore Protection Manual, Coastal Engineering Research Center, USACE, 1985, 2005; that will include: A. Verification of the recommended length and offshore distance of the proposed breakwater (246.1 FT and 467.1 FT, respectively) by utilizing approximate calculation methods for tombolos and down drift performance (Bodge 1998, Silvester and Hsu 1993, Moreno and Klaus 1999, etc.) B. Stillwater Elevation will be MHW, MSL, and MLW calculated from near-most NOAA stations C. Design height of proposed breakwater structure and wave period determination shall be based on historical data from USACE and NOAA stations (hindcasting) D. Dimensions and weight of boulders shall be dependent on the depth of the surrounding waters and their ability to reduce wave energy E. Post Construction Monitoring Plan
Public Works and Waste M	32nd Street Breakwater Rehabilitation and Stabilization	Construction/Project Begun	Flood	Beach/Seawall				800,000.00			0 In 2002, Miami-Dade County constructed a series of three breakwater structures in the vicinity of 32nd Street in Miami Beach to stabilize a highly erosion susceptible area and maintain a protective beach. While the project has performed well, recent hurricanes have resulted in the movement and settlement of the boulders used to construct the breakwaters. This movement has altered the original design, and may compromise the protective functions of the breakwaters during future storm events. Rehabilitation and stabilization of the structures will enhance their ability to protect the adjacent shorelines.
Public Works and Waste M	Beach and Dune Restoration and Maintenance	Construction/Project Begun	Wind	Beach/Seawall				3,200,000.00			0 The majority of Miami-Dade County's beach areas have been restored to provide storm protection to coastal development and recreational areas for residents and tourists. Several localized segments of the beach located at approximately 29th, 44th, and 55th Streets in Miami Beach have been susceptible to erosion, leading to an almost complete loss of the beach in these areas. Due to the narrow beach width and lowered elevation in these areas, even minimal storm events can result in impacts to the dune system and beachfront infrastructure. Re-nourishment of these areas would provide a protective buffer during storms, and reduce impacts to adjacent beach areas.
Seaport	Systems Backup	Future Unfunded Project	Technological Disruption	Equipment		Other Internal Funding		150,000.00			0 The Port seeks to establish a presence at the Network Access Point (NAP) of the Americas from which to run systems to support Port operations in the event the Port's technology systems are unavailable due to a natural or man-made disaster. This would be similar to the agreement that ITD has signed with New York to support mainframe systems in an emergency. The Port seeks funding to cover costs associated with establishing and maintaining a hot backup site to assure business continuity.
Seaport	Storm Bollards	Project in Planning Stage	Other, Storm Surge	Other		Capital Improvement		2,500,000.00	Unknown		0 PortMiami is required to install a new storm bollard at Cruise Terminal B for a new NCL ship. This bollard is intended to ensure that the ship is securely moored alongside the bulkhead under normal and under storm (strong wind) conditions. Design consideration is given to line loads, angles, and bollard and pile capacities. Piles are already installed. Only the bollard itself and appropriate connections and anchoring are required as part of this project.
Seaport	Concrete Panels	Project in Planning Stage	Storm Surge	Other		Capital Improvement		619,858.00			0 Due to a sink hole at the east end of Wharf 1 and observed depressions at the west end of Wharf 1 (Bay 107.5) it has been determined that approximately 67 deck precast panels in the vicinity must be removed and replaced. Edges of damaged slabs will be sawcut, enabling their removal and the installation of replacements.
Seaport	North Bulkheads	Project in Planning Stage	Flood/Storm Surge	Beach/Seawall		Capital Improvement		1,000,000.00			0 Portions of the north bulkhead of the port, constructed in 1961, are overstressed and are in need of varying levels of repair. The project scope includes 19 of the most critical areas. The design includes the welding of repair plates in locations where the existing sheet piles are deteriorated. A system of grout ports will be used to pump voids behind the sheet pile with grout until completely filled.
Seaport	Drainage Mitigation Plan	Project in Planning Stage	Flood	Infrastructure (Water/Sewer/Drainage)		Capital Improvement		3,500,000.00			0 Install and/or upgrade drainage systems throughout PortMiami in excess of current federal, state and local requirements in order to eliminate flooding and to treat storm water runoff to reduce the release of contaminants into Biscayne Bay and reduce the risk of loss of goods and property long-term at the Port. This project will be done as a phased project with an estimated cost of \$1 million each fiscal year.

Agency	Project Title	Status	Hazards	ProjectType	Potential Grant Sources	Funding Source	Flood Basin	Estimated Costs	GlobalMat	BCR	Project Description
Seaport	Strengthening of Bulkheads & New Berths	Project in Planning Stage	,Other,Storm Surge	Other		Capital Improvement		8,000,000.00	Unknown		0 In order to prevent any hazard and endure severe wind, rain and storm surge events and any damage during inclement weather conditions the strengthening of the low-lying bulkhead wall system, pavement of the South Cargo Wharf from approximately 148-197, and new berths are needed. The work includes design and construction for the removal and replacement of fenders, mooring bollards as well as bulkheads cap. The project also includes drainage, apron and pavement improvements in this area as a mitigation measure to reduce hazard impacts and manage floods. Apron work includes site preparation including excavation, placement of sub grade and lime rock base, and resurfacing to accommodate heavy crane loads and prevent any catastrophe during a storm. This project will be done as a phased project with an estimated total cost of \$33 million and a life expectancy of greater than 20 years.
Seaport	Construction of New Seawall - Area 2	Construction/Project Begun	,Storm Surge,Flood/Storm Surge	Beach/Seawall		Capital Improvement		8,276,607.00	Unknown		0 The project consists of the retrofitting an existing rip rap shoreline protection area with an elevated 600 linear feet new seawall to connect the two existing seawalls on either side of the area (Bays 177 to 183). Work includes installation of steel sheet pile with concrete cap; site civil; excavation and back fill; drainage; asphalt paving; water ser-vices; fenders; mooring bollards, and environmental turbidity barriers. Environmental permits are in place from the Department of the Army (DOA) and the Florida Department of Environmental Protection (FDEP). Design will be completed the first calendar quarter of 2013 for this long-term hazard mitigation project designed to reduce the loss of property and protect the port's critical facilities from natural disasters for a life expectancy of 50 years.
Seaport	Upgrade of Master Pump Station	Project in Planning Stage	,Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)		Capital Improvement		5,000,000.00	Unknown		0 This project consists of upgrading PortMiami's main pump station with submersible pumps to prevent damage from storm flooding along with the installation of a permanent emergency back-up generator resulting from power failure. Project is currently under design for this long-term hazard mitigation project designed to protect the Port's critical infrastructure from natural disasters for a life expectancy of 50 years.
South Miami	Sylva Martin Historical Building Hurricane Protection	Funding Applied for	,Wind	Infrastructure (Building)	,HMGP Hazard Mitigation Grant Program	Grant Applied For		5,000.00	Unknown	86	The City of South Miami designated the Sylva Martin building as a historical site and therefore is required to comply with preservation principles. The City is currently restoring the 6 existing nonimpact windows in a HVHZ (High Volacity Hurricane Zone) based on preservation principles.  This project includes the purchase and installation of wind protective screens over the six openings in the building. This project will provide impact resistant protection to the restored non-impact windows and will protect against winds up to 175 MPH.
South Miami	Citywide Drainage Phases 7- 10	Project in Planning Stage	,Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)		Capital Improvement		700,000.00			0 The Stormwater Master Plan (SMP) is a citywide study which provides an evaluation of the current flood protection level of service (LOS) of the existing stormwater infrastructure.  Potential flooding areas that require drainage improvements were identified and prioritized in the SMP. Furthermore, the study identifies existing and future operation and maintenance needs. These areas will be addressed in phases, by level of priority, as reported in the SMP.
South Miami	Weatherband Radio & 30 Hand-held Radios	Future Unfunded Project	,Flood/Storm Surge,Storm Surge,Wind,Other	Equipment		Unknown/None		20,000.00			0 Weather-band Radio mid-land all hazard NOAA weather radio.  30 Motorola hand-held radios with a radius of 3 to 4 miles, charged through batteries.
South Miami	Flood Mitigation Study	Future Unfunded Project	,Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)		Unknown/None		100,000.00			0
South Miami	City-Wide Storn Drainage Clean-out	Project in Planning Stage	,Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)		Capital Improvement		30,000.00			0 The citywide storm drain cleaning is a routine maintenance completed annually. Drains throughout the City and cleaned out to prevent flooding.
South Miami	Dorn Avenue Drainage Improvements	Project in Planning Stage	,Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)		Capital Improvement		200,000.00	Unknown		0 The purpose of this project is to address current drainage issues along 59th Avenue (Dorn Avenue) between 72nd Street (Sunset Dr.) and 73rd Street. The current drainage grates that run along either side of the road do not provide adequate drainage to prevent flooding after a rain event. A new drainage system will adequately drain stormwater runoff to prevent flooding. The construction consists of drainage structures removal and reinstallation of pavers in the right of way.
South Miami	Citywide Drainage Improvements, Phase 6	Project in Planning Stage	,Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)		Capital Improvement		275,000.00	Unknown		0 The scope of work for the proposed storm drainage improvements include providing new drainage inlets and manholes structures, exfiltration trench, grass swales. milling and resurfacing or overlay of existing asphalt roadways, new traffic pavement markings and sidewalk repair. The project limits are SW 59th Avenue from SW 74th Street to SW 80th Street, and SW 74th Terrace from SW 59th Avenue to SW 58th Avenue.
South Miami	Sanitary Sewer Extension & Removal of Septic Tank System		Health	Infrastructure (Water/Sewer/Drainage)				6,005,000.00			0 This is a very important safety issue that is often overlooked because it is out of site (underground). A flood disaster within an area with septic tank system could pose a major environmental and health risk to the residents and the entire potable drinking water community as a whole. Flooded septic tanks have a potential to contaminate both drinking water and surface water. As a result, eliminating septic tanks and extending sanitary sewer system is very essential for the safety of our residents
South Miami	Water main Upgrades / Relocation & Extensions		All Hazards	Infrastructure (Water/Sewer/Drainage)				1,005,000.00			0 Upgrading of undersized water main and relocation of the lines presently located in backyard easements to the paved right-of-way, will reduce loss of services from the uprooting of trees and provide needed water pressure for potable water and fire protection
South Miami	Placing Utility Lines Underground		Power Failure	Infrastructure (Roadway)				3,009,000.00			0 Placing overhead utility lines underground would reduce power outages during disaster. Electrical, telephone and cable television are considered necessity today. Protecting these utilities will ensure a standard level of services our residents deserve
South Miami	Back-up Generator		Power Failure	Equipment				190,000.00			0 It is essential that certain City facilities stay operational during and after disaster event, with uninterrupted electrical services. Having a back-up generator will allow City staff to immediately respond and provide assistance needed to the residents
South Miami	Installation of Hurricane Shutters in City Buildings		Wind	Infrastructure (Building)				100,000.00			0 Currently, some of the City's buildings do not have shutters. Installing shutters in these buildings would provide secured facilities for emergency response team, city employees and equipment
South Miami	Acquisition of Vacuum Truck for Drainage System Cleaning		Flood	Equipment				350,000.00			0 To complement the continued improvement to the drainage system, acquiring a vacuum truck for the cleaning of the catch basins and drain system will help to provide well maintained system clean of debris
South Miami	Improvement of the Stormwater Drainage System		Flood/Storm Surge	Infrastructure (Water/Sewer/Drainage)				1,075,000.00			0 To upgrade the City's drainage system by implementing engineering design and construction plans preparation needed to retrofit existing positive drain system and construction of new drainage system, in an effort to meet the flood protection responsibilities. The program will also include removal of silt from the canal system and creating needed depth for proper flow
St. Thomas University	Shuttering and Windstorm Protection of the Main Library		Wind	Infrastructure (Building)				364,000.00			0 St. Thomas University's main library is a two-story masonry/metal building, with windows on all sides on both stories which are not hurricane-proof. The library houses the collection of more than 400,000 volumes, the Archbishop John C. Favalora Archive and Museum containing the history of the Archdiocese of Miami and the archives of the university. It also contains the offices of the President of the University and the Vice President for Advancement, Marketing and Communications, which is responsible for fundraising for the university and contains all donor records. Also in the library are five computer laboratories containing a total of more than 200 computers and the Jorge Sardinias Art Gallery which contains the University's permanent collection and the current collection on loan, from a prominent artist, at any given time. We propose to install a total of 128 fixed or egress hurricane screens to protect all openings. The screens are Energy Star Rated, comply with Florida fire codes and meet or exceed Miami-Dade building and hurricane specifications. These fixed screens also serve as solar screens and will save money on utility bills. They will also save money on man power, as maintenance personnel will have more time to prepare the University for the storm.
St. Thomas University	Replacement of wood electric power pole		Power Failure	Other				5,000.00			0 Electric Power pole identified as a critical node in Vulnerability Assessment (VA)* conducted in April, 2010 (* VA funded by a U.S. Department of Education Emergency Management in Higher Education grant and prepared by The O'Gara Group in April, 2010): The electric power pole located just outside of the Side-C perimeter fence along 32nd Avenue offers a particular vulnerability. Damage to or destruction of this main power distribution wood-pole can cause a prolonged cessation (from several days to a couple of weeks) of 90-percent of the university's electrical power. Enhancing the reliability of the power system can be achieved by installing a concrete-pole, thereby hardening the power system as recommended by option for consideration #8 in the Vulnerability Assessment.
St. Thomas University	Upgrade of Lift Station Pump		Flood	Infrastructure (Water/Sewer/Drainage)				30,000.00			0 St. Thomas University's Vulnerability Assessment determined that the university must avoid continued loss of campus wastewater operation by upgrading the lift station pump. Wastewater utility is identified as critical node in Vulnerability Assessment (VA)* conducted in April, 2010 (* VA funded by a U.S. Department of Education Emergency Management in Higher Education grant and prepared by The O'Gara Group in April, 2010):Consistent with Miami-Dade County's Initiative 8: Mechanical Maintenance of Critical Facilities, St. Thomas University must ensure that its critical facility (i.e., lift station), which services 300+ resident students and the campus community, does not fail during a significant rain event. The university is designated and approved as a location intended for sheltering in place during tropical events. Multiple times each year the lift station pump is incapable of overcoming the pressure in the Miami-Dade Water and Sewer Department (MDWS) line. The university owns the lift station and all associated lines on campus, which were inspected and repaired and are being monitored as mandated by the county. A generator was installed at the university's expense to power the lift station, but the pump on this critical facility must be replaced to avoid a disaster event.

Agency	Project Title	Status	Hazards	ProjectType	Potential Grant Sources	Funding Source	Flood Basin	Estimated Costs	GlobalMat	BCR	Project Description
St. Thomas University	Electric Power redundancy		Power Failure	Other				300,000.00			0 Electric power redundancy is identified as a critical node in the Vulnerability Assessment (VA)* conducted in April, 2010 (* VA funded by a U.S. Department of Education Emergency Management in Higher Education grant and prepared by The O'Gara Group in April, 2010):Presently, the university has a single power feed, which serves as the rationale for creating a redundant power feed for the campus. The Vulnerability Assessment specifically suggests configuring in redundant routing paths to enhance the reliability of service. FPL has advised that the installation of an automatic transfer switch will require \$300,000. Like The City of Miami Gardens' Project 8: Burial of Power Lines, this mitigation action will assure a faster return to normal operations.
St. Thomas University	Shuttering and Windstorm Protection of the Law School		Wind	Infrastructure (Building)				389,635.00			0 The CARVER model was used to establish weighted scores for critical buildings and infrastructure, as part of St. Thomas University's Vulnerability Assessment*. The Law School building and its adjoining Library tied for #1 with another building as being the most critical to the university's operations. The building has neither shutters nor impact resistant glass windows/doors. Its criticality to university operations (e.g., conduct of law school classes in accordance with American Bar Association guidelines) places it squarely into Miami-Dade County's Institutional Shuttering and Windstorm Protection initiative, which aims to protect every facility in the county. The protection of this critical building and its contents helps assure a faster return to normal operations.
Sunny Isles Beach	Heritage Park Rainwater Catchment Systems		Flood					150,000.00			0 The city continues to seek alternative ways of managing rainwater which causes a substantial amount of flooding in the Heritage Park area of the City. The park is located at 19200 Collins Avenue. This project would construct a rainwater catchment system near the Heritage Park parking garage adjacent to the William Lehman Causeway on the southwest corner of the park. Heritage Park has a parking garage which holds approximately 460 vehicles and the runoff creates flooding to the adjacent development. In order to mitigate this issue the city is proposing containing the excess rainwater that would be expelled by the parking garage and contain it to be filtered and used for landscape irrigation and pressure cleaning of the parking garage and sidewalks throughout the park.
Sunny Isles Beach	Emergency Pedestrian Bridge		All Hazards	Infrastructure (Roadway)				3,007,000.00			0 This project will build a bridge to connect North Bay Road. Once a bridge is built to connect North Bay Road, emergency vehicles will have an alternative and quicker means to access the area. Constructing an emergency pedestrian bridge would also assist with evacuation of the area and provide access to emergency vehicles. Hurricanes pose imminent danger to the residents of this area and providing them with alternative roads would reduce evacuation time and better protect the lives of residents, business owners and visitors.
Sunny Isles Beach	Hardening the Government Center Emergency Exit		Wind	Infrastructure (Building)				50,000.00			0 The emergency exit located on the east side of the building is also an area of potential problems during a severe weather event. A stairwell on the exterior of the building leads from the ground floor directly into the interior with no barrier or emergency door in between. This increases the risk of wind and water damage to the building, as wind and water can be blown from the outside, through the stairwell, and into the interior of the building with no barrier to stop them.
Sunny Isles Beach	Relocation and Purchase of Generator at the Government Center		Flood	Equipment				150,000.00			0 This project would consist of relocating the telecommunication equipment and purchasing a new generator to be installed on the 2nd floor. The area would be properly ventilated and reinforced to support the weight of the unit. A Maintenance and Implementation Plan would be generated to ensure the equipment is functioning properly and ready for use when the threat of a hurricane arises.
Sunny Isles Beach	Central Island Drainage Project Pump Station/Rainwater Catchment System used as an Alternative to Assist with Flooding and Irrigating		Flood	Infrastructure (Water/Sewer/Drainage)				1,015,000.00			0 This project consists of a rainwater catchment system and a permanent pump in a chronically flooded area of the City. This system combines a pump station along with the creation of a rainwater catchment system to irrigate and pressure clean roads and sidewalks. The area to be served by this project is from North Bay Road to Collins Avenue and from NE 174 Street to NE183 Street. The area is mainly residential, with commercial strip shops on Collins Avenue. This project will mitigate flooding and damage to residential and commercial structures, and will conserve and re-use water through the recycling process.
Surfside	Generator Relocation		Flood	Infrastructure (Building)				48,000.00			0 In order to maintain vital and essential functions at the town of Surfside's Town Hall and Public Safety Building after a hurricane or flooding event we are proposing moving the existing 225KVA back-up diesel generator from its present location, where it is vulnerable to the possibility of flooding, to a location several feet above the first floor level of the existing building. The work would entail the construction of a superstructure to support the generator, the construction of a weather proof enclosure built to withstand hurricane force winds with enough room to properly service the equipment. It would also include the demolition of the existing enclosure, the rerouting of the existing diesel fuel lines and electrical conductors. In order to complete the project some of the existing electrical switch gear and associated equipment need be raised several feet in the existing electrical room.
Surfside	Install Storm Shutters on the Town Hall		Wind	Infrastructure (Building)				147,000.00			0 The town of Surfside would like to install storm shutters at our Town Hall building which also serves as the Police Department headquarters. The storm shutters would allow the Police Department to remain in the building during Category 1 and 2 storms and possibly even a category 3 storm. This would be a tremendous benefit to the community as the police department would not have to relocate to an off-site facility and would be readily available to respond to emergency calls and provide order maintenance once the storm passes. It should be noted that Town Hall is located one block from the ocean.
Surfside	Conduct a Study of Storm Surge Mitigation Measures		Flood/Storm Surge	Beach/Seawall				50,000.00			0 The town is subject to the loss of sand from its beaches and has proposed a study to determine if any measures are available to mitigate the effects of storm surges.
Surfside	Stormwater Management System Improvements		Flood	Infrastructure (Water/Sewer/Drainage)							0 There are areas of Surfside that flood repeatedly. This project would improve the stormwater management system in those areas to reduce flooding in future disasters.
Surfside	Obtain Backup Generators		Power Failure	Equipment							0 The biggest need for these generators is to provide backup power to two sewer-pumping stations.
Surfside	Remove Overhead Utility Lines		Power Failure	Infrastructure (Roadway)							0 Burying overhead utility lines would reduce future power outages during disaster and improve the aesthetics of the town.
University of Miami	U of Miami Sewell Building	Future Unfunded Project	Wind	Infrastructure (Building)	PDM - FEMA Pre-Disaster Mitigation Grant Program	Unknown/None		1,000,000.00	Unknown	75	Wind Mitigation and roof tie downs
University of Miami	U of Miami McArthur Annex	Future Unfunded Project	Multiple	Infrastructure (Building)	PDM - FEMA Pre-Disaster Mitigation Grant Program	Unknown/None		500,000.00	Unknown	75	Wind Mitigation and storm surge
University of Miami	U of Miami Ferre Building	Future Unfunded Project	Multiple	Infrastructure (Building)	PDM - FEMA Pre-Disaster Mitigation Grant Program	Unknown/None		500,000.00	Unknown	74	Wind Mitigation and storm surge
University of Miami	U of Miami Panhellenic Building	Future Unfunded Project	Multiple	Infrastructure (Building)	PDM - FEMA Pre-Disaster Mitigation Grant Program	Unknown/None		500,000.00	Unknown	75	Wind Mitigation and storm surge
University of Miami	U of Miami Law C and E Buildings	Future Unfunded Project	Multiple	Infrastructure (Building)	PDM - FEMA Pre-Disaster Mitigation Grant Program	Unknown/None		500,000.00	Unknown	75	Wind Mitigation and storm surge
University of Miami	U of Miami Fillmore Building	Future Unfunded Project	Multiple	Infrastructure (Building)	PDM - FEMA Pre-Disaster Mitigation Grant Program	Unknown/None		500,000.00	Unknown	75	Wind Mitigation and storm surge
University of Miami	U of Miami Volpe Building	Future Unfunded Project	Multiple	Infrastructure (Building)	PDM - FEMA Pre-Disaster Mitigation Grant Program	Unknown/None		500,000.00	Unknown	75	Wind Mitigation and storm surge
University of Miami	U of Miami Weeks Building	Future Unfunded Project	Multiple	Infrastructure (Building)	PDM - FEMA Pre-Disaster Mitigation Grant Program	Unknown/None		500,000.00	Unknown	75	Wind Mitigation and storm surge
University of Miami	U of Miami Architecture 48 and 49	Future Unfunded Project	Multiple	Infrastructure (Building)	PDM - FEMA Pre-Disaster Mitigation Grant Program	Unknown/None		500,000.00	Unknown	76	Wind Mitigation and storm surge
University of Miami	U of Miami Stanford Towers	Future Unfunded Project	Multiple	Infrastructure (Building)	PDM - FEMA Pre-Disaster Mitigation Grant Program	Unknown/None		10,000,000.00	Unknown	72	Wind Mitigation and storm surge
University of Miami	U of Miami Mahoney-Pearson	Future Unfunded Project	Multiple	Infrastructure (Building)	PDM - FEMA Pre-Disaster Mitigation Grant Program	Unknown/None		10,000,000.00	Unknown	72	Wind Mitigation and storm surge
University of Miami	U of Miami Marine Campus Auditorium	Future Unfunded Project	Other	Infrastructure (Building)	PDM - FEMA Pre-Disaster Mitigation Grant Program	Unknown/None		750,000.00	Unknown	78	Wind Mitigation and roof tie downs
University of Miami	U of Miami Smathers Wellness Center	Future Unfunded Project	Power Failure	Infrastructure (Building)	PDM - FEMA Pre-Disaster Mitigation Grant Program	Unknown/None		1,000,000.00	Unknown	76	Elevate critical equipment
University of Miami	U of Miami Eaton Hall	Future Unfunded Project	Multiple	Infrastructure (Building)	PDM - FEMA Pre-Disaster Mitigation Grant Program	Unknown/None		8,000,000.00	Unknown	70	Wind Mitigation, storm surge and power
University of Miami	U of Miami Medical Campus CEP	Future Unfunded Project	Storm Surge	Infrastructure (Building)	PDM - FEMA Pre-Disaster Mitigation Grant Program	Unknown/None		1,700,000.00	Unknown	92	Storm surge
University of Miami	U of Miami SCCC	Future Unfunded Project	Wind	Infrastructure (Building)	Pre-Disaster Funding Programs	Capital Improvement		3,000,000.00	Unknown	93	Wind Mitigation and roof tie downs
University of Miami	U of Miami Medical Campus CEP	Future Unfunded Project	Wind	Infrastructure (Building)	PDM - FEMA Pre-Disaster Mitigation Grant Program	Unknown/None		2,000,000.00	Unknown	93	Wind Mitigation

Agency	Project Title	Status	Hazards	ProjectType	Potential Grant Sources	Funding Source	Flood Basin	Estimated Costs	GlobalMat	BCR	Project Description
University of Miami	U of Miami Hospital Hardening	Future Unfunded Project	Power Failure	Other	Pre-Disaster Funding Programs	Capital Improvement		4,000,000.00	Unknown	95	Emergency power connection to CEP
University of Miami	U of Miami Hospital Hardening	Future Unfunded Project	Power Failure	Infrastructure (Building)	Pre-Disaster Funding Programs	Unknown/None		4,000,000.00	Unknown	85	Connect to chill water loop from CEP
University of Miami	U of Miami Hospital Hardening	Future Unfunded Project	Storm Surge	Infrastructure (Building)	Pre-Disaster Funding Programs	Unknown/None		4,000,000.00	Unknown	94	Elevate critical equipment
University of Miami	U of Miami Hospital	Construction/Project Begun	Wind	Infrastructure (Building)	PDM - FEMA Pre-Disaster Mitigation Grant Program	Grant Awarded		4,100,000.00	Unknown	0	Wind Mitigation and roof tie downs
Virginia Gardens	VG - Village Hall ADA and Voting Upgrades	Future Unfunded Project	Health	Infrastructure (Building)	Grants	Unknown/None		450,000.00	Yes	0	Upgrade current voting area and council chambers to enhance access for handicap individuals and the general public.
Virginia Gardens	VG - NW 40 street Stormwater Improvement Project	Future Unfunded Project	Flood	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None		500,000.00	Yes	0	Purposed request would permit the ability to retain stormwater runoff in the right of way. There would be improvements to the stormwater curb drainage including ADA sidewalks, crosswalks along with repaving of the area.
Virginia Gardens	VG - Water Net Improvement Project	Future Unfunded Project	Health	Infrastructure (Water/Sewer/Drainage)	Grants	Unknown/None		300,000.00	Yes	0	Add new 1450 feet of 8 inch water main with 2 fire hydrants to eliminate a 2 inch galvanized water main and replace meter service lines.
Vizcaya Museum and Gardens	Vizcaya Village Exterior Window and Door Restoration & Wind Storm Protection Reinforcement	Future Unfunded Project	Wind	Infrastructure (Building)		Unknown/None		1,500,000.00	Unknown	0	The scope of this project entails the refurbishment of the historical windows and the installation of wind storm protection for the windows and doors on historic structures located within Vizcaya's Village. These structures consist of the Garage, Superintendent's House, Staff Residence, Stables and Wagon Shed, Storage Shed, Dairy, and Chicken House. The project will provide a higher level of wind storm protection for the Vizcaya Village buildings, while at the same time preserving the historic integrity and aesthetics of these structures. The windstorm reinforcements will also provide additional thermal protection that will help lower electrical costs.
Vizcaya Museum and Gardens	Vizcaya Village Roof Replacement & Roof Structure Reinforcement	Future Unfunded Project	Wind	Infrastructure (Building)		Unknown/None		2,500,000.00	Unknown	0	This project will involve the replacement of the tile roofs and membranes on Vizcaya's Village structures that have been seriously compromised from recent hurricanes. These structures consist of the Superintendent's House, Staff Residence, Stables and Wagon Shed, Dairy, and Chicken House. The roof wood structures and wood decks will be reinforced to comply with present day wind storm building codes. The project will also include new insulation throughout the attic areas of these historic buildings to help lower electrical costs.
Vizcaya Museum and Gardens	Main House Exterior Window and Door Restoration & Wind Storm Protection Reinforcement	Future Unfunded Project	Wind	Infrastructure (Building)		Unknown/None		2,000,000.00	Unknown	0	The scope of this project entails the refurbishment of the historical windows in Vizcaya's Main House with impact glass and the addition of wind storm protection for doors and windows throughout the Main House. This project will provide a higher level of wind storm protection for Vizcaya's Main House, while preserving the historic integrity and aesthetics of this National Historic Landmark. Windstorm reinforcements will provide additional thermal protection that will help lower electrical costs.
Vizcaya Museum and Gardens	Main House Roof Replacement & Roof Structure Enhancement	Future Unfunded Project	Wind	Infrastructure (Building)		Unknown/None		1,800,000.00	Unknown	0	This project will involve the replacement of the tile roof and membrane on Vizcaya's Main House that has been seriously compromised from recent hurricanes. The roof wood structure and wood deck will be reinforced to comply with present day wind storm building codes. The project will also include new insulation throughout the attic area that will help lower electrical costs.
Vizcaya Museum and Gardens	Emergency Structural Repairs	Future Unfunded Project	Multiple	Infrastructure (Building)		Unknown/None		4,500,000.00	Unknown	0	This project will involve emergency structural repairs to the Main House's East Loggia, Entrance Loggia and Enclosed Loggia windows/door openings; the structure around the historic pool as well as other various locations around the Main House caused by deterioration of columns, beams, walls, etc. over time. These repairs will assist in stabilizing the Main House structure and further safeguarding the building from wind storms.
Water and Sewer	Replace Roof Mounted Exhaust Ventilation Fans		Wind	Equipment				50,000.00		0	Medley Warehouse.
Water and Sewer	Replace Roof Mounted Exhaust Ventilation Fans		Wind	Equipment				50,000.00		0	LeJeune Road Office.
Water and Sewer	Replace Roof Mounted Exhaust Ventilation Fans		Wind	Equipment				145,000.00		0	Westwood Lake Maintenance Facility.
Water and Sewer	Construct a Wind Barrier at the South District Wastewater Treatment Plant		All Hazards	Infrastructure (Building)				85,000.00		0	Construct a wind barrier wall to the east of the on-site portable offices being used for the HLD and laboratory offices. These structures are protected on one side by existing structures. Constructing this wall would mitigate damage to the structures.
Water and Sewer	LeJeune Road Emergency Operations Center		Power Failure	Equipment				400,000.00		0	Convert an existing room at the LeJeune road building into an emergency operations center for the department. Includes is an emergency generator to power the center in the event of a power failure.
Water and Sewer	Replace LeJeune Road Office Building HVAC		Flood	Infrastructure (Building)				350,000.00		0	Convert the HVAC rooftop heating, ventilation and air conditioning system on the building's roof to an interior floor mounted system.
Water and Sewer	Construct New South Miami Heights Maintenance Facility		All Hazards	Infrastructure (Building)				35,000,000.00		0	The Water Distribution Division located at South Miami Heights is currently housed in trailers. After a hurricane the Water Distribution Division cannot work out of the South Miami Maintenance Facility. The new building will provide a hurricane resistant structure with emergency backup generators to provide a staging and operations center for the emergency period in southern Miami-Dade County.
Water and Sewer	Replacement of Canal and Bridge Crossing Pipes		Flood	Equipment				2,500,000.00		0	Replace canal and bridge crossing pipes with sub-aqueous crossings.
Water and Sewer	Harden Water and Sewer Department Buildings		Wind	Infrastructure (Building)				20,000,000.00		0	A safe room is needed for MD-WASD employees who operate the wastewater treatment plants at the Central and South District wastewater treatment plants during storm or disaster events.
Water and Sewer	Shelters for Critical Equipment		All Hazards	Equipment				5,000,000.00		0	Much of MD-WASD's emergency equipment is currently stored outdoors: This item proposed the construction of shelters to store portable pumps and generators at sites already owned by MD-WASD.
Water and Sewer	Hand-Held GPS Units		Communications Failure	Equipment				50,000.00		0	These will assist our field crews in the location of pump stations after a disaster, especially in the event of major devastation. In addition, these units would be helpful to personnel from other units that may provide assistance to MD-WASD.
Water and Sewer	Transfer Water Service from Rear to Front in Locations with Dual Systems		All Hazards	Infrastructure (Water/Sewer/Drainage)				16,048,500.00		0	MD-WASD has estimated that approximately 20% of rear easement mains are dual feeds, i.e., there are existing mains, one in the front and the other in the rear of a customer's premises. Some customers have not changed their connection from the rear main to the main in front of the property. MD-WASD would propose an ordinance obligating the customers to transfer their service to the main located in front of their property. By using the main located in front of the property, WASD will reduce the number of main breaks after natural disasters, as well as, increase fire protection, provide improved service and eliminate the need for meter readers to enter private property.
Water and Sewer	Relocate Water Mains in Rear Easements		Wind	Infrastructure (Water/Sewer/Drainage)				530,908,000.00		0	Currently, there are 500 miles of mains located in rear easements. These mains are in the rear of properties and in alleys. Because of their location, access is oftentimes limited by, trees, sheds and other obstructions that have been placed over the main. After hurricane Wilma, there were 70 main breaks, 90% of them were located in the rear easements. By eliminating the rear easement mains and installing a new water main in front of the property, MD-WASD will reduce the number of main breaks after natural disasters, as well as, increase fire protection, provide improved service and eliminate the need for meter readers to enter private property.
Water and Sewer	Increased Wastewater Transmission and Treatment Capacity		Flood	Infrastructure (Water/Sewer/Drainage)				200,000,000.00		0	During periods of heavy rainfall, MD-WASD wastewater system is subjected to peak flows from overloaded storm drainage systems throughout the county and its municipalities. Additional capacity is needed in the county's transmission and treatment system to handle the increased wet weather flows. This construction would significantly reduce sewage overflows throughout the county and alleviate public health concerns after storm events.
Water and Sewer	Satellite Phones		Communications Failure	Equipment				15,000.00		0	After Hurricane Andrew, communications were virtually non-existent. With satellite phones distributed to our field crews as well as regional command centers, better and faster recovery after a disaster can occur. Phones would be made available to our plant maintenance, pump station and pipeline divisions.
Water and Sewer	Risk Reduction Measures at Treatment Plants and Facilities		Health	Equipment				578,000.00		0	These projects are capital improvements to modify treatment processes to reduce possible widespread damage and evacuation due to chlorine accidents. These consist of the following types of projects: a) Change treatment process to sodium hypochlorite method to stop the transportation of chlorine through populated areas. Estimated cost: \$58,000,000 b) Purchase spare high service pumps, motors and components: Estimated cost: \$20,000,000 c) Construct booster pump station bypass in distribution network. Estimated cost: \$500,000
Water and Sewer	Physical Security Risk Reduction Measures at Water Treatment Plants		Security/Terrorism	Equipment				12,200,000.00		0	These projects include physical security improvements to detect, delay and respond to adversarial actions at the treatment plants, such as hardening of perimeters, high security fencing, intrusion sensors, high security doors and vehicle restraints.
Water and Sewer	HEPA Filters at Water Storage Tanks		Health	Infrastructure (Water/Sewer/Drainage)				250,000.00		0	This project covers the retrofitting of eight storage tanks to incorporate HEPA filters at water storage tanks air vents to protect against chemical or bacteriological contamination.
Water and Sewer	Replace Roof Mounted Exhaust Ventilation Fans		Wind	Equipment				30,000.00		0	36th Street Maintenance Facility.

