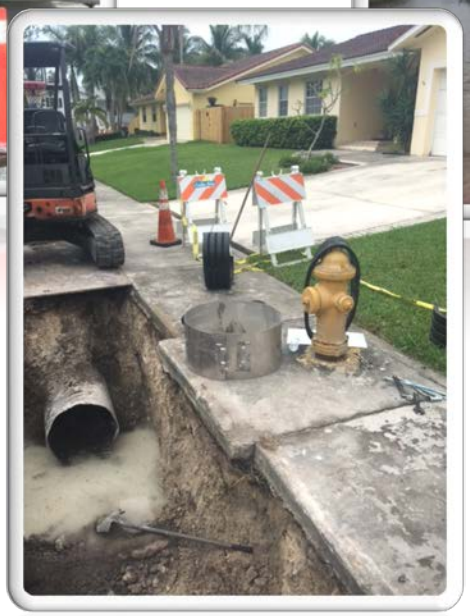
Local Mitigation Strategy

2017 Annual Report

Town of Cutler Bay



Prepared By:

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Public Works Department

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Background:

On August 20, 2008 via Resolution 08-52, the Town of Cutler Bay initially adopted the 2007 Miami-Dade County Local mitigation Strategy. On June 17, 2015 via Resolution 15-40 the Town of Cutler Bay re-adopted the 2015 Miami-Dade County Local Mitigation Strategy. This document is a progress report on the status of the Miami-Dade County Local Mitigation Strategy, as required to maintain Floodplain Management Plan credit under the Community Rating System. In accordance with the requirements for Community Rating System credit, this memo is also being distributed to the local media and posted on the Town's website. Copies of the Miami-Dade County Local Mitigation Strategy are available on the Miami-Dade County website at the following address: http://www.miamidade.gov/oem/LMS.asp.

The original Local Mitigation Strategy (LMS) was created in 1998 with funding from the State of Florida. During the development of the LMS, each municipality within the County designated a representative to the LMS Working Group. Other active participants in the working group include Miami-Dade County, State and Federal agencies, colleges, universities and schools (including Miami-Dade County Public Schools), hospitals, not-for-profit organizations, and private sector companies. In 1999, the LMS Working Group voted to continue the LMS program with or without state funding. The LMS Working Group currently meets quarterly, and a representative of the Town of Cutler Bay staff attends these meetings.

In December 2000, the LMS Working Group agreed that the LMS master document would be updated and published each year on June 30 and December 31. The LMS Coordinator, who is a Miami-Dade County employee, works with the Miami-Dade Office of Emergency Management and Homeland Security and the LMS Steering Committee, to organize the updates by incorporating additions, deletions, and updates submitted by members of the LMS Working Group at least thirty (30) days prior to each publication date. The latest version of the LMS was published in January 2016. It is organized into seven (7) Parts.

Part 1 of the Local Mitigation Strategy is entitled "The Strategy" and includes sections on the following:

- Guiding principles
- Mitigation goals and objectives
- Policies, ordinances, and programs affecting mitigation
- Effectiveness evaluation
- Analysis of existing policies, ordinances, and programs
- Conflict resolution procedures
- Hazard identification and vulnerability assessment
- Windstorm
- Flooding
- Other hazards
- Data sources
- Private sector interests
- Prioritizing mitigation initiatives
- Evaluation criteria and procedures to review and revise the LMS
- Miami-Dade County critical facilities inventory

Part 2 of the Local Mitigation Strategy entitled " The Projects" is a compilation of countywide disaster mitigation initiatives and projects.

Each participating member of the LMS Working Group provided a one or two paragraph description of each of their projects and initiatives along with a reasonable cost estimate. The Countywide Initiatives and Town of Cutler Bay sections are the two sections in Part 2 of the LMS that are most relevant to the Town. Part 3 of the LMS describes potential funding sources for LMS projects and initiatives, Part 4 consists of Appendices referenced by a number of supporting documents, Part 5 consists of Meeting Minutes, Part 6 consists of Completed Projects, and Part 7 consists of the LMS Progress Report. Council members, staff and residents of the Town are encouraged to review the entire document located at the web address disclosed in the opening paragraph of this document.

The following is a summary of the projects listed in the Town of Cutler Bay section of Part 2 of the LMS and an assessment of the status of each initiative or project.

The Town of Cutler Bay

Project 1: Drainage Improvements

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 twenty (20) priority drainage sub-basins were identified and studied as part of the Stormwater Master Plan along with two (2) Joint Participation Agreement (JPA) Projects and three (3) County owned road projects.

Town Owned Roads:

LMS Project	Project Name	Cost/ Estimate	Status
	Cutler Ridge Elementary area	$770,000.00	Completed
	Saga Bay Section 1.3 Sub-Basin	$330,000.00	Completed
	Saga Bay Section 1.4 Sub-Basin	$90,000.00	Completed
	Saga Bay Section 1.5 Sub-Basin	$1,030,000.00	Completed
	Bel-Aire Section 5.2 Sub-Basin	$450,000.00	Completed
	SW 212 Street Drainage Improvement	$727,591.00	Completed
335	SW 87 Avenue Sub-Basin	$1,000,000.00	Future Unfunded Project
336	SW 97 Avenue Sub-Basin	$1,200,000.00	Future Unfunded Project
337	Bel-Aire Section 1.2 Sub-Basin	$660,000.00	Future Unfunded Project
338	Saga Bay Section 1.1 Sub-Basin	$800,000.00	Future Unfunded Project
339	Saga Bay Section 1.7 Sub-Basin Legislative Priority 2018-07	$670,000.00	Future Unfunded Project
340	Pine Tree Manor Sub-Basin	$390,000.00	Future Unfunded Project
341	Cutler Ridge Section 5 Sub-Basin	$1,580,000.00	Future Unfunded Project

LMS Project	Project Name	Cost/ Estimate	Status
342	Point Royale Section 5 Sub-Basin	$360,000.00	Procurement Stage
343	Bel-Aire Section 1.1 Sub-Basin	$820,000.00	Future Unfunded Project
344	Saga Bay Section 1.8 Sub-Basin	$240,000.00	Future Unfunded Project
345	Saga Bay Section 1.6 Sub-Basin	$170,000.00	Future Unfunded Project
346	Saga Bay Section 1.2 Sub-Basin	$300,000.00	Procurement Stage
347	Bel-Aire Section 6 Sub-Basin	$310,000.00	Future Unfunded Project
9442	Manta Drive Sub-Basin	$488,600.00	Procurement Stage
10050	Cutler Ridge Section 3 Drainage Improvement Legislative Priority 2018-06	$1,015,160.00	Funding Applied for

Joint Participation Agreement and County Owned Roads Projects:

LMS Project	Project Name	Cost/ Estimate	Status
	SW 97 Ave Drainage Improvement Project.	$291,494.00	Completed
	SW 216 St & SW 97 Ave Traffic Circle.	$204,486.00	Completed
	Old Cutler Road JPA Project (SW 87 Ave to SW 97 AVE)	$7,524,319.00	Completed
	Caribbean Boulevard JPA Project & GAP 1 (C-100 Canal Bridge to SW 87 AVE)	$11,173,054.00	Completed
	Caribbean Boulevard JPA Project & GAP 2 (Homestead Extension of Florida's Turnpike to C-100 Canal Bridge)	$1,102,188.00	Completed
	Caribbean Boulevard Bridge Project	$1,456,086.00	Construction/Procurement Stage (C100B Canal)

Status: The Town continues to implement Stormwater Master Plan's recommended Capital Improvement Projects. To date, projects have been completed in the Cutler Ridge Elementary area, Saga Bay Section 1.3, Saga Bay Section 1.4, Saga Bay Section 1.5, Bel-Aire Section 5.2, Old Cutler Road Drainage and Roadway Improvement JPA Project, SW 97 Avenue Drainage Improvement Project, SW 216 St & SW 97 Avenue Traffic Circle (included Curb & Gutter & Swale restoration), Caribbean Boulevard JPA Project including GAP 1 and Gap 2 from the Homestead Extension of the Florida Turnpike to SW 87 Ave, and SW 212 Street Drainage Improvement Project. Additionally, Town Staff is working with its lobbyists and grant writers to pursue possible State and/or Federal funding for the projects listed above.

Project 2: Canal Bank Erosion Protection

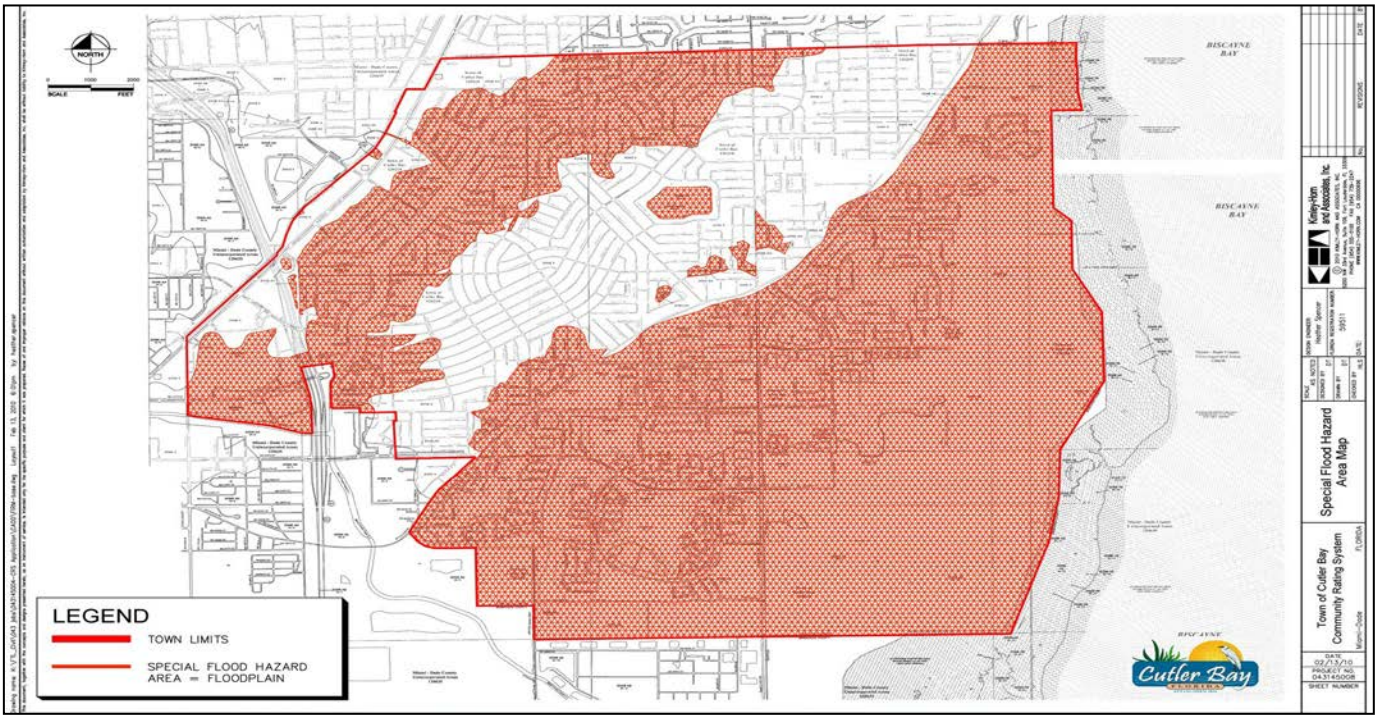
Design and construct erosion protection structures and bank stabilization projects along Town maintained canals which are vulnerable to bank erosion due to storm surge or inland flooding. This project includes the removal of undesirable debris, trees, predominantly Australian pines and fichus, located 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. Estimated cost: $350,000.

Status: Town Staff has coordinated with the South Florida Water Management District (SFWMD), to construct a canal stabilization project, south of the Caribbean Boulevard Bridge. The Project is located along the C100B Canal and the work will be performed by SFWMD crews.

Project 3: Flood Zone Data GIS System

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. Estimated cost: $63,000 for the Watershed Master Plan.



Status: Town Staff has coordinated with Miami-Dade County's Stormwater Utility Department, the "transfer" of all the Flood Elevation Certificates that were previously issued by Miami-Dade. Additionally, the Town has entered into the National Flood Insurance Community Rating System, in which a Class "6" was awarded by FEMA. The Town recently was audited and achieved enough points for a "Class 5 rating" effective in May 2018. The Town achieved enough points for up to a "Class 4 rating", but a Watershed Master Plan Study is a pre-requisite to get the Class 4 rating. The Town is currently working with engineering consultants to develop the Watershed Master Plan for the "Class 4 rating." Additionally, the Town recently completed a Town-wide GIS Stormwater Mapping Project which inventoried all of the Town drainage infrastructures, as well as drainage structures in private communities and commercial properties.

Project 4: Flood Insurance Research Project

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 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. Estimated cost: $90,000.

Status: Town Staff continues to provide Public Outreach Materials through its kiosks, web-site, Homeowners Association Meetings , and during other Town sponsored events, (Ex. Chili Cook-off, Rib Ticklers Ball, Taste of the Bay, Town Council meetings). Additionally, Town Staff continues to inform homeowners on a daily basis who visit Town Hall for flood mitigation, elevation certificates, and flood determination letter inquiries. Furthermore, the Town implemented new activities to its public outreach campaign, including public outreach educational videos presented during Town Movie Night events, and an annual Earth Day awareness campaign, held at a local school, outreach program in which Town Staff are educators for a day. The Town is also including outreach material flyers in door hangers for all roadwork projects at affected neighborhoods, Repetitive Loss Properties, and an annual mailed flood brochure flyer to all Town residents.

Project 5: Development of Floodplain Management Plan

The Town is interested in obtaining grant funds to hire a consultant to develop a floodplain management plan. Ordinance No. 10-04 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 the National Flood Insurance Program (NFIP) if repetitive loss properties are greater than ten (10). The Town currently has 33 repetitive loss properties. Estimated cost: $120,000.

Status: The Town was recently awarded a State of Florida Pre-Disaster Mitigation Grant in the amount of $50,000 to fund the development of a Floodplain Management Plan. The Town signed a contract on June 20, 2013, with AMEC Environmental & Infrastructure, Inc., to develop the Town's Flood Mitigation Plan under RFQ #12-03 and Town Resolution #13-14. The Town has recently completed and adopted the Flood Mitigation Plan on May 20, 2015 via Town Resolution #15-27. The Town updates projects on the Flood Mitigation Plan quarterly to present to the Flood Mitigation Committee. Copies of the Flood Mitigation Plan quarterly reports may be found in the Town's website www.cutlerbay-fl.gov.

Project 6: Purchase Communications Emergency Equipment

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 (4) 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 and event. Estimated cost: $65,000.

Status: The Town has purchased an additional two (2) Emergency Satellite phones thereby, increasing the total available satellite phones to four (4). These phones will be operated by "key" staff during any type of event. Town Staff continually tests the phones on a biannual basis to make sure they are operational. In addition, the Town has executed an Emergency Debris Removal Contract under RFP#15-02 with Phillips and Jordan, Inc. and DRC Emergency Services, LLC., for clearance of debris to the side of the road and other Debris Removal Services. The contract includes additional satellite phones as needed for use by Town Staff, to coordinate operations during failure of other communication systems.

Project 7: Reduction of Floating Debris

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 twenty percent (20%) and also prevent the clogging of the Town stormwater system. Estimated cost: $60,000.

Status: Town Staff continues to monitor the area finger channels, canals, and ditches which are maintained by Miami-Dade County Public Works Department, through an Inter-Local Agreement with the Town. The Inter-Local Agreement was renewed with the County for another five years starting in 2017. The Town also uses its own Contractor to perform additional maintenance cycles if necessary between County scheduled cycles. The Town also coordinates with SFWMD for the maintenance of portions of the C1-N and C100B Canals that are within Town limits. Additionally, Town Staff performs inspections of "key" points throughout the canal system to insure no floating debris is impeding water flow. When debris is easily accessible, Town's Public Works Staff removes the floating debris. Additionally, Town Public Works Staff and the Town's landscape contractor performs daily roadway inspections and remove any roadway debris that can end up in the area canals.

Project 8: Canal Cleaning and Shaping – Town-wide

Dredging of the approximately eleven (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 a State, ACE, and Department of Environmental Resources Management (DERM) permit. 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. Estimated cost: $750,000.

Status: The Town is coordinating with the South Florida Water Management District, to complete a "dredging"

project along the C100B Canal. The project will consist of SFWMD crews "dredging" the canal from the Caribbean Blvd Bridge to the control structure, located near Black Point Marina. Additionally, the Town in coordination with the Miami-Dade County Public Works Department has completed the design and planning phase of the new Caribbean Boulevard Bridge Widening Project. The project has been rescheduled for construction in the Summer of 2017 and is scheduled to be completed in early 2018.

Project 9: Portable Traffic Light Signals

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 (10) portable traffic signals to adequately handle an emergency situation. Estimated cost: $140,000.

Status: The Town has completed the installation of twelve (12) emergency generator transfer switches, at "key" intersections throughout the Town.

Project 10: Town Hall/EOC Installation of Transfer Switch for Emergency Power

This project will provide for the installation of transfer switch to Town Hall. The facility was constructed to withstand category four (4) hurricane winds, as a result this facility will be utilized as a location for the Town 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 Town facilities and the appropriate levels of service for Town residents during and after a disaster event. Estimated cost: $394,000.

Status: The project was completed on time and on budget in the Fall of 2013.

Project 11: Acquisition of Emergency Generators

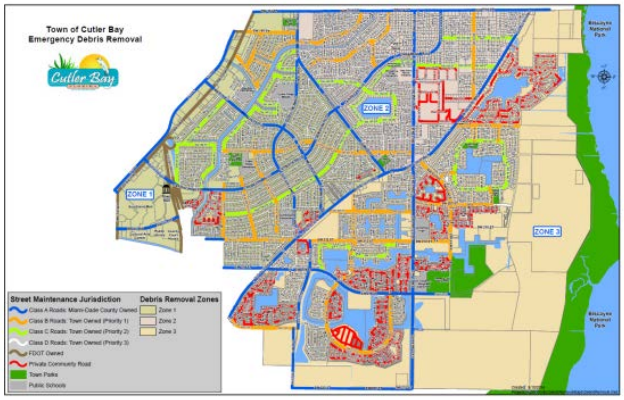
This project would involve the acquisition of power generators to support critical facilities throughout the Town. This is a mitigation project that ensures the continued operation of critical Town facilities and the appropriate levels of service for Town residents during and after a disaster event. These generators would supply the following facilities:

- Town Hall (Operations Center) – One (1) Emergency generator. Includes a power back-up Emergency generator to supply power for the Town Center Building which includes the Police Department offices on second floor. (Completed Fall of 2013)
- Parks and Recreation – One (1) generator. Supplies power to three (3) parks that will serve as distribution centers.
- Public Works – twelve (12) generators. Supplies power for the operation of traffic control signals during power outage.

Estimated cost: $394,000.

Status: Town Hall's new Emergency Generator upgrades were completed in the Fall of 2013, which serves the entire building including, the Police Department on second floor. The twelve (12) generators for Public Works to provide operation of traffic control signals during power outages have been purchased and are in storage. The Parks & Recreation Transfer Switch installation project was completed in 2009. In addition, the Town has executed an Emergency Debris Removal Contract under RFP#15-02 with Phillips and Jordan, Inc. and DRC Emergency Services, LLC. for clearance of debris to the side of the road and other Debris Removal Services. The contract includes the rental of generators as needed ranging from 5 to 120 KW, as well as portable trailer mounted air conditioners (5 and 12 tons) and portable server coolers (2 and 3 tons).

Project 12: Debris Removal



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. Estimated cost: $10,000.

Status: The Town's solid waste removal services are provided by Miami-Dade Solid Waste Department. Town Staff on a quarterly basis participates in a Municipal Quarterly Meeting with Miami-Dade Solid Waste Staff, to review emergency debris removal services, in the event of a major storm. In addition, the Town has executed an Emergency Debris Removal Contract under RFP#15-02 with Phillips and Jordan, Inc. and DRC Emergency Services, LLC. for clearance of debris to the side of the road and other Debris Removal Services. Miami-Dade County Solid Waste Department will continue to remove the debris that has been collected and pushed to the side of the road.

Project 13: Develop a Debris Plan

Develop and implement Town-wide debris removal plan using G.P.S. for data acquisition and G.I.S. for mapping. The Town's proposed Debris Management Plan will help coordinate the efforts of the Miami-Dade County's Coordinated Debris Clearance (CDC) Program. Estimated cost: $80,000

Status: The Town's solid waste removal services are provided by Miami-Dade Solid Waste Department. Town Staff on a quarterly basis participates in a Municipal Quarterly Meeting with Miami-Dade Solid Waste Staff, to review emergency debris removal services, in an event of a major storm. In addition, the Town has executed an Emergency Debris Removal Contract under RFP#15-02 with Phillips and Jordan, Inc. and DRC Emergency Services, LLC. for clearance of debris to the side of the road and other Debris Removal Services. Miami-Dade County Solid Waste Department will continue to remove the debris that has been collected and pushed to the side of the road.

Project 14: Storm Water Outfalls

Clean and line positive outfalls to prevent future blockage caused by build-up of bivalve organisms throughout the Town's eleven (11) miles of canals. Estimated cost: $500,000

Status: Town's stormdrain contractor, as part of an annual contract, continues to clean all positive outfall structure and service lines. This service is funded through the fees collected from the Town's Stormwater Utility Fund and as part of the Town's NPDES permit activities.

Project 15: Municipal AM Emergency Radio Broadcast Station

Allow issuing of timely information 24/7. Has capacity broadcast, operate without grid power for two (2) days, store repeat messages and ability to allow instant timely broadcast messages. Estimated cost: $85,000.

Status: Town Staff continues pursuing alternate Grant funding for this project. Additionally, the Town has partnered with local amateur H.A.M. radio operator professionals to provide emergency communications in the event of a major storm. The Town has one staff member that is a H.A.M. radio certified operator.

Project 16 : Cutler Bay Waterway Conveyance Improvements

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. Estimated cost: $270,000.

Status: The Town is coordinating with the South Florida Water Management District, to complete a "dredging" project along the C100B Canal. The project will consist of SFWMD crews "dredging" the canal from the Caribbean Boulevard Bridge to the control structure, located near Black Point Marina. Additionally, the Town in coordination with the Miami-Dade County Public Works Department has completed the design and planning phase of the new Caribbean Boulevard Bridge Widening Project. The project has been rescheduled for construction in the Summer of 2018 and is scheduled to be completed in early 2019.

Project 17: Removal of Australian Pines and Other Exotics

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. Estimated cost: $85,000.

Status: Town's Landscape Maintenance contractor, as part of the annual contract, continues to remove any "Exotic" plant located along the Town owned right-of-way and/or swales. This process is accomplished through a "Work Order" basis, issued by the Public Works Department. Additionally the Town has planted to date (3,515) native trees throughout the Town since incorporation.

Project 18: Preventive Pruning of Existing Town Tree Inventory

This project's purpose is twofold: to minimize storm generated debris and protect infra-structure 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. Estimated cost: $285,000.

Status: Town's Landscape Maintenance contractor, as part of the annual contract, continues to perform corrective pruning of trees located along the Town owned right-of-way and/or swales. This process is accomplished through a "Work Order" basis, issued by the Public Works Department. For the past two (2) years the Town has completed a beautification and corrective pruning project utilizing two (2) $10,000 grants awarded by the National Urban and Community Forestry. Additionally, the Town was awarded a $7,500 grant from the same agency for FY 2015-2016. The Town will match the Forestry Grant with an additional $7,500. This grant will further help continue our beautification, corrective pruning, and education of proper tree care and trimming to Town residents. Under Resolution 16-52, the Town issued a Request for Proposal for Town-wide Tree Trimming Maintenance Services in FY 2016-2017. The Town has executed an agreement under RFP#17-02 with VisualScape, Inc. to perform Town-wide Tree Trimming Maintenance Services. The Town Manager also promotes continuous education, training and certification of the Town Staff. The Town's Public Works Director is a certified Arborist with the International Society of Arboriculture. Currently there are two (2) Town Staff preparing to take the Certified Arborist Exam.

Project 19: Emergency Portable Air Conditioner Units

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 (4) units are necessary. Estimated cost: $120,000.

Town continues to seek grant funds for this project. Additionally, the Town applied for a 2011 Pre-Disaster Mitigation Grant seeking funding to provide an emergency HVAC system for the first two (2) floors (EOC) in the Town Hall building. Furthermore, the Town has executed an Emergency Debris Removal Contract under RFP#15-02 with Phillips and Jordan, Inc. and DRC Emergency Services, LLC., for clearance of debris to the side of the road and other Debris Removal Services. The contract includes the rental of generators as needed ranging from 5 to 120 KW, as well as portable trailer mounted air conditioners (5 and 12 tons) and portable server coolers (2 and 3 tons).

Project 20: Satellite Phones

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 first responders' emergency personnel. Estimated cost: $55,000.

Status: The Town has purchased an additional two (2) Emergency Satellite phones thereby, increasing the total available satellite phones to four (4). These phones will be operated by "key" staff during any type of event. Town Staff continually tests the phones on a biannual basis to make sure they are operational. In addition, the Town has executed an Emergency Debris Removal Contract under RFP#15-02 with Phillips and Jordan, Inc. and DRC Emergency Services, LLC., for clearance of debris to the side of the road and other Debris Removal Services. The contract includes additional satellite phones as needed for use by Town Staff, to coordinate operations during failure of other communication systems.

Project 21: Community Emergency Response Teams (CERT)

This project's goal is to establish a CERT for the Town. When an emergency or disaster occurs at any time and any place 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. Estimated cost: $40,000.

Status: As of September 2017, twenty-one (21) Town Staff successfully completed the CERT training course and field exercise. The Town will be hosting CERT training in 2018 where additional staff will be certified.

Project 22: Purchase Computerized Equipment Storage for Vital Public Records

The Town of Cutler Bay was incorporated in 2005. Adequate daily back-up and off-site storage of vital public records is a main priority in the Town. Planning for storage and back-up of vital records is well timed and the Town's computer systems are periodically being upgraded. Estimated cost: $75,000.

Status: Town Staff continues to perform weekly back-up of all data programs and stores tapes at an off-site facility. Additionally, the Town purchased computer hardware equipment in order to "virtualize" the Town's electronic filing system. The Town's IT Contractor continues providing maintenance to the system on a weekly basis.

Project 23: Portable Traffic Control Signs

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 44,865 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 four (4) of these units at a cost of about $50,000 each, plus additional trailer hitches for Town vehicles. Estimated cost: $200,000.

Status: Town Staff continues to pursue grant funds to fund this Project.

Project 24: Storm Shutters for Town Buildings

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. Estimated cost: $120,000.

Status: Town Staff has applied for funding of this project in the 2011 Pre-Disaster Mitigation Grant application cycle, through the State of Florida Office of Emergency Management. Town Staff is committed to continue applying for grants as the opportunity arises.

Project 25: Town Hall/EOC Hardening Project (Impact Resistant Windows)

Town Hall/Emergency Operation Center Building Windowpanes – proposed scope would be to install transparent interior polyester laminate which would be secured to the existing windowpanes. The clear safety hurricane film would be installed on 536 windowpanes on Town Hall. Estimated cost: $120,000.

Status: Town Staff has applied for funding of this project in the 2011 Pre-Disaster Mitigation Grant application cycle, through the State of Florida Office of Emergency Management. Town Staff is committed to continue applying for grants as the opportunity arises. For the FY 2017-2018, the Town is to issue a purchase order for the commencement of the Impact Resistant Windows. The Town has proposed "Hardening" improvements to Town Hall via State Legislative Item #2016-08, Cutler Bay Town Hall/EOC Hardening Project.

Project 26: Town Hall/EOC Hardening Project (Exterior Walls)

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 if the building envelope is to meet current hardening/category five (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. The approximate 26,000 SF would cost $728,000 for the entire building.

Status: Town Staff has applied for funding of this project in the 2011 Pre-Disaster Mitigation Grant application cycle, through the State of Florida Office of Emergency Management. Town Staff is committed to continue applying for grants as the opportunity arises. The Town has proposed "Hardening" improvements to Town Hall via State Legislative Item #2016-08, Cutler Bay Town Hall/EOC Hardening Project.

Project 27: Town Hall/EOC Hardening Project (Mechanical HVAC System)

Town Hall / Emergency Operation Center's the building envelope is composed of the roof and the roof equipment. Reroofing the 13,000 SF area 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 total combined cost of $228,000.

Status: Town Staff has applied for funding of this project in the 2011 Pre-Disaster Mitigation Grant application cycle, through the State of Florida Office of Emergency Management. Town staff is committed to continue applying for grants as the opportunity arises. For the FY 2015-2016 the Town released a Request for Qualifications (RFQ) for the design of a new Mechanical HVAC System. The Town held the Kick-Off Meeting on May 23, 2016 with TLC Engineering, issued P.O. 01147, and a Notice to Proceed for concept and design. On May 22, 2017 the Town advertised RFP#17-05 for HVAC Equipment and Controls Replacement and Maintenance Services.

Project 28: Town Hall/EOC HVAC System

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 (2) 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. Total Project cost: $1,000,000.

Status: Town Staff has applied for funding of this project in the 2011 Pre-Disaster Mitigation Grant application cycle, through the State of Florida Office of Emergency Management. Town Staff is committed to continue applying for grants as the opportunity arises. For the FY 2015-2016 the Town released a Request for Qualifications (RFQ) for the design of a new Mechanical HVAC System. The Town held the Kick-Off Meeting on May 23, 2016 with TLC Engineering, issued P.O. 01147, and a Notice to Proceed for concept and design. On May 22, 2017 the Town advertised RFP#17-05 for HVAC Equipment and Controls Replacement and Maintenance Services.

Sources

The Local Mitigation Strategy for Miami-Dade County and its Municipalities, Departments, and Private Sector Partners published by the Local Mitigation Strategy Working Group dated July 30, 2011.

Town of Cutler Bay Staff interviews.