NORTH MIAMI
FLORIDA

2014 Floodplain Management Plan

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INTRODUCTION

The City of North Miami participates in the National Flood Insurance Program (NFIP) which enables property owners to purchase federally backed flood insurance to protect their homes and real estate assets against flood losses. The NFIP Community Rating System (CRS) is a program where the residents receive a discount on flood insurance commensurate with the community's willingness to undertake additional measures to reduce the likelihood of flooding. The CRS awards predetermined points for participation and implementation of 18 possible floodplain management and public information activities. Depending on a community's level of participation, the CRS will assign a rate class ranging from 1 to 10.

When North Miami's original Floodplain Management Plan was prepared in February 2000, the City had a class 7 rating, which corresponded to a 15% discount on flood insurance premiums for properties within the floodplain and a 5% discount on premiums for properties outside the floodplain. As of October 2014, North Miami ranks in the top 3% of all communities participating in the NFIP with a class rating of 5; this corresponds to a 25% discount on flood insurance premiums for properties within the floodplain and a 10% discount on premiums for properties outside the floodplain.

The floodplain management process associated with the development of a Floodplain Management Plan allows the City to improve the quality of life for all the residents and businesses located within our boundaries. The City Council has requested the Floodplain Management Planning Committee (FMPC) continue studying and evaluating a varied number of possible activities and ultimately evaluate their effectiveness and feasibility toward managing the floodplain and reducing future flood losses. Through the development of this plan, the City has been able to organize and better understand the singular activities implemented in recent years, as well as various studies and agreements with neighboring communities under one umbrella – The Floodplain Management Plan.

North Miami's History

North Miami can be traced back one hundred years to a settlement called Arch Creek. Arch Creek was a flourishing rural town where crops such as tomatoes, beans and pineapples grew abundantly. The City of North Miami was established in the early 1900's as a small farming area named Arch Creek after the river which runs through the basin. Historical sites such as the Arch Creek Natural Bridge link North Miami to its interesting past. Visitors arriving at the Arch Creek train station discovered a one-room school, a church, a narrow Main Street and 18 homes. The roaring '20s brought new challenges to the community as developers began pouring money into the area. Construction in South Florida was so brisk that the lack of construction workers and building materials were the only obstacles for developers.

On February 5, 1926, in the middle of the boom, Arch Creek was incorporated as the "Town of Miami Shores" which included the surrounding coastal area. Just as things seemed to be coming together for the newly established community, "The Great Miami Hurricane" of 1926 hit the area. Flooding and destruction was everywhere. Many of the surrounding beach areas had to secede from the Town in order to rebuild following the devastation. This hurricane was a big turning point for Dade County as development came to a screeching halt, and the economic decline associated with the great depression started three years early.

In 1930, the Town officially changed its name to North Miami. By 1947, the Town was once again growing rapidly with a population of about 5,000. Mother Nature had other plans, demonstrating her fury with two hurricanes within a month of each other and causing the worst flooding South Florida has ever seen. This even prompted a new drainage initiative known as the Central and Southern Florida Flood Control Project to improve

the canal drainage system and prevent widespread flooding; this is now managed by the South Florida Water Management District.

Over the next fifty years, North Miami's population has exploded to more than 60,000 residents that reside in over 22,000 housing units. This once small agricultural community has grown into a well-rounded city with a large residential community, four bustling business districts, an extensive park system and many public services. Newcomers today find nearly 20 houses of worship, public schools from elementary to university level, plentiful shopping and easy access to other parts of the region and the world.

CHAPTER 1 – PLAN ORGANIZATION

Flood Management Planning Committee

On April 27, 1999, the North Miami City Council adopted Resolution 99-28 (see Appendix A), which established the Floodplain Management Planning Committee. The Committee's duties included the development and recommendation of the City's original Floodplain Management Plan. Upon completion of the original plan, the Committee remained together to make recommendations on ways to enhance life within the floodplain. The Committee played a major role in the creation of the updated plan that will be presented to the public and City Council for final approval.

Tanya Wilson-Sejour, Manager of the City's Community Planning and Development Department, leads the Floodplain Management Planning Committee. Her knowledge of the City's plans and goals were utilized to prepare an updated plan that is consistent with the future of North Miami.

The Committee consists of:

- Tanya Wilson-Sejour – Manager of Community Planning and Development for the City of North Miami
- Jeff Geimer, CFM – Capital Project Manager for the City of North Miami
- Aleem Ghany, PE & CFM – City Manager for the City of North Miami
- Wisler Pierre-Louis, PE – Director of Public Works for the City of North Miami
- Carol Frances Keys, Esq. – North Miami Chamber of Commerce representative and floodplain resident
- Dr. James Tracton – Keystone Point Homeowners representative and floodplain resident

Staff and Other Resources

Corzo, Castella, Carballo, Thompson & Salman, P.A. (C3TS) was contracted as the City's engineering consultant to prepare the City's original Floodplain Management Plan and document the Committee's planning process. C3TS was also responsible for offering recommendations to assist the Committee in preparing a Floodplain Management Plan that encompasses a total solution to the City's flood prevention programs.

Jeff Geimer has served as the City's staff liaison to the Committee and has been the Floodplain Coordinator for the last twelve years; he has played an instrumental role in the organizational and planning efforts behind this document. Other City staff resources that are made available to the Committee on a regular basis include:

- George Balaban, PE, City Engineer for the City of North Miami;
- John Jackson, PE & CFM, Building Official for the City of North Miami; and
- Nixon Lebrun, CFM, Zoning Administrator for the City of North Miami.

The City also contracted Post, Buckley, Schuh & Jernigan, Inc. to develop Phase 2 of North Miami's Stormwater Master Plan. Phase 2 of the Plan analyzed the existing stormwater system and offered possible solutions to historic flooding within the City. Since the Plan was completed in 2000, millions of dollars worth of stormwater infrastructure improvements have been made.

City staff also works closely with staff from Miami-Dade County on floodplain management issues. This relationship has created a win-win situation for both parties as the sharing of resources has allowed both communities to accumulate enough CRS points to become NFIP class 5 communities.

Finally, the City along with five neighboring municipalities participated in the development of our original Local Mitigation Strategy. ICF Kaiser prepared the Strategy for our consortium and presented the completed document in 1999. The study identified specific goals for each municipality to reduce the escalating cost associated with recovery and rebuilding after a disaster. The City continues to update its Local Mitigation Strategy annually; a copy of the 2009 Strategy is included in the document (Appendix N). Additionally, Miami-Dade County hosts quarterly Local Mitigation Strategy meetings and updates the countywide Local Mitigation Strategy annually. This Local Mitigation Strategy contains information for the County as well as all of its municipalities.

Meetings

For preparation of the original Floodplain Management Plan, the Committee held a number of meetings between May 1998 and February 2000 when the City Council reviewed and approved the plan. During the planning process, a total of six committee meetings/work sessions (see appendix B) were held to review possible activities and prepare an action plan. Representatives from various agencies, including Miami-Dade County Department of Environmental Resources Management (DERM) and South Florida Water Management District (SFWMD) attended the meetings to offer expertise and insight on drainage systems and flooding.

All of the committee meetings were posted and open to the public. Two advertised Public Hearings were held allowing the residents of North Miami a chance to discuss and critique the plan. The first Public Hearing was held October 21, 1999 following the development of the draft Floodplain Management Plan. Additionally, this draft was disseminated to approximately 25 outside agencies for review and comments, with written comments received from National Marine Fisheries (see Appendix C). Oral comments were offered from several agencies including Linda Bell, Florida Department of Community Affairs; David Stroud, ISO/CRS Specialist; and David Clukie, ISO/CRS Specialist. The final public hearing was held on February 22, 2000, in conjunction with the City Council meeting where the Plan was officially adopted.

Since adoption of the original plan, the Floodplain Management Planning Committee has continued to meet on a regular basis to assess the progress of the Plan's implementation as well as recommend changes and improvements as necessary for the Floodplain Management Plans success. This review process is outlined in the annual OPS outreach strategy developed for the National Flood Insurance Program Community Rating System – Activity 330 (see Appendix Q). The Committee also regularly reviews the City Flood Ordinance and makes recommendations for modification to the City Council as needed.

The updated version of the Floodplain Management Plan was once again developed in a public setting. The 2009 plan was presented to the Floodplain Management Planning Committee during their September 24, 2014 meeting. This meeting was publically advertised and provided an opportunity for committee members, staff, and the public to provide input on what should be part of the updated plan. Drafts of the 2014 Floodplain Management Plan were mailed to Miami-Dade County Department of Regulatory and Economic Resources (RER) and Office of Emergency Management (OEM) as well as the Floodplain Coordinators for 20 South Florida municipalities for review and comments. The Committee held a public meeting on November 5, 2014 to discuss the draft Floodplain Management Plan. The Plan was presented and adopted at the November 25, 2014 Council meeting.

It is important to remember that proper floodplain management is an ongoing activity and the Floodplain Management Plan needs to be updated and improved as projects are completed and the City's circumstances change. The members of the Floodplain Management Planning Committee are best suited to ensure the implementation of the recommended activities. Through the planning process, they have become acutely aware of the hazards that threaten the city and the projects that can reduce the impact of future flood damage. They know the importance of the measures in protecting lives and properties of the residents of North Miami and will therefore make sure that these activities are implemented.

CHAPTER 2 – PUBLIC INVOLVEMENT

A major component of the Floodplain Management Plan planning process is public involvement. The long-term effectiveness of the Plan hinges upon accurate assessment of preventing problems and full participation from the constituent public. Most stormwater improvements or mitigation projects will directly affect the quality of life for the residents of North Miami. Their concerns and past experiences are crucial in developing a relevant and viable Plan. Public support for the projects in the Plan is essential for final approval and eventual accomplishment.

When the original Floodplain Management Plan was created, a number of public meetings were held to receive input on what should be included in the Plan and for comments on the Plan prior to its adoption. When the Plan was updated in 2004, the same procedures were followed. On November 16, 2004, December 16, 2004 and January 13, 2005 the Floodplain Management Planning Committee held meetings and provided an opportunity for the public to provide input on the Plan. When the Plan went before the City Council on January 25, 2005, the public was provided one last opportunity for comments before the updated Plan was adopted.

Since the forum for public input worked so well in 2004, we decided to follow the same process for the 2009 update. The Floodplain Management Planning Committee held meetings on October 22, 2009 and November 19, 2009 and solicited input on the Plan from the public. The Plan was taken to the City council on December 8, 2009 and the public was provided another opportunity for comments before the updated Plan was adopted.

Prior to creation of the original Floodplain Management Plan, the City established the Floodplain Management Planning Committee. This group provided a vital link to the community because representatives were chosen from organizations that reside in the floodplain. The following organizations assigned representatives to participate in the planning process:

- Central Homeowners Association
- Greater North Miami Chamber of Commerce
- Keystone Point Homeowners Association

Two of the three representatives that volunteered for this Committee when it was created (Councilwoman Carol Frances Keys, Esq. and Dr. James Tracton) have remained on the Committee through the creation of this updated Plan. In order to assure that the affected public was well represented during the planning process, three members of the Committee reside within the floodplain. Public participation during the planning process has helped underline the importance of this plan and ensure that the concerns of affected property owners are identified.

The City of North Miami has created a public outreach strategy, through the Floodplain Management Planning Committee, that establishes a plan to implement activities focused on educating the public (see Appendix Q). The City utilizes numerous resources to inform as many residents as possible about the hazards of local flooding. One of the methods used to educate the public is the City's Flood Hazard Information brochure (see Appendix D), which covers many topics related to floodplain management including an explanation of flood insurance. This brochure is sent to all City residents on an annual basis through direct mail.

In addition to this brochure, the City has sent a questionnaire to all residents and businesses within the floodplain requesting information on their experiences in the area. Utilizing our "local historians" to gather information on past flood experiences and recommendations for possible solutions, provided us with some pertinent historical information on the area (see Appendix E).

The City utilizes a varied public information system in order to disseminate flood hazard information to as many residents as possible. In addition to the Flood Protection brochure and the questionnaire, the City uses:

- The North Miami INFO – Automated Computer Information System (ACIS) is the City's telephone information hotline, which offers information on flood insurance, flooding and emergency procedures.

- The City has a specified section in the public library for information on flooding, hurricanes and other related topics so that the public can have easy access to this information.

- Public Works staff currently visits our local elementary schools annually to teach children at an early age about the importance of preserving and managing their environment.

- The City utilizes its website to post relevant information on flooding and other natural disasters.

CHAPTER 3 – COORDINATION WITH OTHER AGENCIES

Coordination with other agencies was crucial for preparation of the original plan for several reasons. Local municipalities surrounding North Miami face similar problems and concerns including emergency preparation and mitigation for hurricanes, tornadoes and floods. Other State, regional and local organizations have agreements or regulations which impact North Miami's stormwater system. These contacts have been maintained over the last several years and information on possible activities that may impact the surrounding stormwater system is exchanged on a regular basis.

Several agencies were included in the planning process of the original Floodplain Management Plan. All of the agencies were contacted for input on the initial plan and received a copy of the draft Plan prior to its approval for review and comment. The included agencies were:

- City of North Miami
    - Community Planning and Development Department,
    - Police Department
    - Public Works Department
- Miami-Dade County Department of Regulatory and Economic Resources (formerly DERM)
- South Florida Water Management District (SFWMD)
- Miami-Dade County Office of Emergency Management
- South Florida Regional Planning Council
- U.S. Army Corps of Engineers (USACE)
- US Fish and Wildlife Service
- National Marine Fisheries Service
- National Weather Service
- Federal Emergency Management Agency (FEMA)
- Miami-Dade Fire Rescue Department
- Miami-Dade Public Works Department
- Surrounding Municipalities
    - City of Bay Harbor Islands
    - City of North Miami Beach
    - Village of Biscayne Park
- Insurance Service Organization (ISO)

City staff worked directly with representatives of Miami-Dade County and several other South Florida municipalities while creating the updated Floodplain Management Plan. Being located within Miami-Dade County, who is also a class 5 community, allows us the luxury of exchanging information with peers that have experienced similar conditions/challenges in the enhancement of the local stormwater system. A draft version of the updated Floodplain Management Plan was sent to Miami-Dade County (RER and OEM) for review and comments (see Appendix C). This resource was very beneficial when it came time to finalize the action plan.

Several canals within the City serve as outfall points for drainage basins within the floodplain. Some are owned and maintained by Miami-Dade County, but most of these canals and salinity control structures are owned and maintained by the South Florida Water Management District. The water levels within these canals are controlled by the District and are influenced by many variables, including the dry/wet season, antecedent rain (ground/soil conditions), and expected weather conditions. The City works directly with the District when necessary.

CHAPTER 4 – HAZARD ASSESSMENT

Climate

South Florida has a subtropical climate with heavy precipitation, mild to hot temperatures and high humidity. The average annual precipitation of North Miami is over sixty inches.

Temperatures in Miami-Dade County typically range from the 60s and 70s in the winter to 80s and 90s in the summer. The average high temperature for Miami-Dade County is 82 degrees and the average low temperature is 71 degrees. The abundance of water and high heat causes extremely high humidity throughout most of the year making the hot days feel muggy. The high humidity during the summer months contributes to the development of afternoon thunderstorms, which are a common occurrence.

After Hydrology

The City of North Miami is located in eastern Miami-Dade County, Florida, bordering Biscayne Bay (see Appendix G – City Map). North Miami is somewhat buffered from the Atlantic Ocean by offshore barrier islands. The terrain is very flat and low-lying with elevations ranging from eight to thirteen feet above sea level. There are four waterways within North Miami: Arch Creek North, Biscayne Canal, Little Arch Creek and Oleta River. The City's stormwater collection system discharges through outfalls to these canals that convey flood waters into Biscayne Bay.

The South Florida Water Management District operates a system of levees, canals and water control structures (including salinity structures) in order to reduce flooding during heavy storms and hurricanes, and provide a barrier against salt-water intrusion. The District must keep a delicate balance since the water level within these canals influences the Biscayne Aquifer, which is Miami-Dade County's source of drinking water. This task becomes even more difficult due to the extreme climate conditions experienced throughout South Florida: hurricanes, floods and droughts.

North Miami is divided into three sections with distinct drainage characteristics (see Appendix G – City Map).

The area west of the Biscayne Canal has elevations that range from ten to thirteen feet above sea level and is composed primarily of sand and limestone. The relatively high elevation and good percolation in this area produces good drainage conditions.

The area east of the Biscayne Canal to U.S. Highway 1 (US-1), which is comprised of the Biscayne Canal East, Arch Creek North and Arch Creek South drainage basins, is a low-lying area consisting of sand, marl, mucky soils and limestone rock. The drainage in this area can be difficult due to prior percolation, low elevations and a seasonally high water table. This area includes the majority of flood prone areas within the City.

The area east of US-1, which borders Biscayne Bay on the east, consists of the San Souci and Keystone residential areas, Florida International University, Oleta State Park, and a mangrove preserve. The residential community in this area is a canal development with few drainage problems due to numerous outfalls and proximity to the water. The other areas mentioned are approximately 90% open space, thereby reducing the possibility of flooding. The main hazard in this area is storm surge and tidal flooding.

Hazards

The South Florida area in general is prone to extreme and diverse weather conditions. The area has a long history of devastating hurricanes, heavy rainstorms (floods) and tornadoes, as well as drought conditions. The hazards in this area can, and have, caused great property damage and loss of life.

Hurricane and Flood History

South Florida has experienced its share of devastating weather events. Since 1900, 339 tropical or subtropical cyclones (this includes tropical storms and hurricanes) have reached Florida. This amazing number really stresses the extreme hazards that confront Florida.

To accurately assess the hazards, South Florida's past experiences with hurricanes and floods must be reviewed. The following is a summary of the storms that greatly affected Miami-Dade County:

- 1888 – Hurricane hits Miami and is categorized as the "Great" hurricane. Storm surge was reported at more than fourteen feet. Widespread damage was reported, however, Miami was a small community at the time and losses were limited.

- October 11, 1909 – One of the strongest hurricanes ever recorded hit the upper Florida Keys. Eight to ten inches of precipitation was reported in South Florida.

- Sept 18-21, 1926 – When the "Great Miami Hurricane" struck, Dade County was almost completely destroyed. The Town of Miami Shores (later North Miami) and its surrounding areas were devastated; buildings were demolished and the City experienced widespread flooding. The extreme hardships caused by this hurricane preceded the "Great Depression" by three years in Dade County, thereby halting the economic boom of the 1920s. Winds were recorded up to 132 mph and storm surge was estimated at twelve to fifteen feet. There was virtually no warning before the storm came ashore.

- November 4, 1935 – The "Yankee Hurricane" caused damages that were assessed at $5.5 million dollars. The storm did not have extremely high winds (about 75 mph), but the relentless pounding of the waves (storm surge over six feet) punished coastal areas with severe damage to beaches, docks, marinas and low lying structures.

- September 15-16, 1945 – This was the strongest hurricane to hit Miami since 1926. Flooding of up to ten and a half feet was reported. Two weeks earlier, a tropical storm passed through the area saturating the ground. Wind gusts reached 196 mph. Economic losses in Florida approached $60 million dollars.

- September 17, 1947 – Hurricane "George" was a Category 4 hurricane with winds of 121 mph. This large, slow-moving storm caused extreme flooding in Dade County. The hurricane made landfall in Fort Lauderdale, but flooding stretched as far south as Homestead, which was said "to resemble Venice, Italy". At the time, City of Miami Mayor Richard Danner reported that "two hundred miles of streets were a total loss".

- October 11-12, 1947 – Though not particularly powerful, Hurricane "King" was a wet hurricane that caused widespread floods and damages. In Hialeah, just west of North Miami, an average of 6-inches of rain fell every seventy-five minutes, with water reaching waist deep levels. More than 2,000 people throughout Dade County were left homeless. Travel in Dade was limited to small boats. This was the biggest flooding event ever seen in South Florida proving that the existing drainage system was not adequate. "Ultimately the

flooding prompted the construction of long levees to protect the region and the later development of the South Florida Water Management District."

- October 5, 1948 – This hurricane caused widespread flooding through the area. Hialeah and Miami Springs were reportedly under three and a half feet of water. Rainfall near the airport exceeded nine and a half inches.

- October 17-18, 1950 – Another hurricane named "King" was small, but ferocious. Wind gusts up to 150 mph were reported. The hurricane was described as tornado-like, with marked path of destruction of seven to ten miles. Extensive damages in Miami alone totaled $15 million.

- September 7-8, 1965 – Although its effects were concentrated in southern Dade and Monroe Counties, Hurricane Betsy was a monumental storm event. High winds accompanying the storm forced three barges to crash into the Rickenbacker Causeway; the only bridge that connects Key Biscayne to the mainland. The Miami River overflowed its banks, causing serious flooding of up to three feet. Storm surge was reported at over six feet.

- August 23-26, 1992 – Hurricane Andrew struck the coast just south of Miami with sustained winds of 145 mph and gusts of 175 mph. For Miami-Dade County this was the "BIG ONE," causing approximately $25 billion in damage, which at the time was the most destructive natural disaster in U.S. history. Record storm surges of approximately seventeen feet rolled through Biscayne Bay causing coastal flooding and beach erosion. Andrew left approximately 175,000 people homeless and 35 million tons of debris. Devastation was concentrated in southern Dade County but damages and destruction were everywhere. Over 90% of all homes in Dade County had some roof damage. "The zone of destruction left by Andrew's winds was larger than the city of Chicago and virtually every structure in the zone was damaged." For as bad as the storm was, it may have been worse if it brought the heavy rains associated with other hurricanes that have hit the area.

- October 15, 1999 – Hurricane Irene forms in the Caribbean/Gulf of Tampico area, makes an unexpected turn and delivers heavy rains over much of south and central Florida. Irene was a minimal hurricane (category 1), but produced an average of over nine inches of rain and a maximum of seventeen and a half inches in some areas. The municipalities of Sweetwater and West Miami were declared disaster areas, as drainage canals topped their banks and flooded hundreds of homes and businesses. The City of North Miami had some areas of localized street flooding and various reports of flooding in homes and businesses (see Appendix R). Affected areas were surveyed and mapped and found to coincide with the boundaries of the floodplain.

- October 2-3, 2000 – The effects of the "No Name Storm" of 2000 were mainly felt in Broward, Collier, Miami-Dade and Monroe counties. The storm came at the end of the rainy season when the aquifers were full and Lake Okeechobee was still low; unfortunately, the rain fell in the wrong place at the wrong time and resulted in massive flooding in numerous, rather small areas of South Florida. One of these areas was North Miami; unofficial rain gauge measurements at the City's water plant tallied nineteen inches of rainfall over a twenty-four hour period. This storm along with Hurricane Irene the year before caused the City's repetitive loss cases to swell from three to thirty-six.

- October 24, 2005 – Hurricane Wilma was the most intense tropical cyclone ever recorded in the Atlantic Basin. Wilma formed in the Caribbean Sea on October 15, and intensified into a tropical storm two days later. After heading westward as a tropical depression, Wilma turned abruptly southward after becoming a tropical storm. Wilma continued intensifying, and eventually became a hurricane on October 18. Shortly thereafter, extreme intensification occurred and became a Category 5 hurricane with winds of 185 mph.

- June 7-8, 2013 – As Tropical Storm Andrea passed across north Florida, A localized area of very heavy rain occurred over southeastern Broward and northeastern Miami-Dade Counties. Storm-total rainfalls in this area ranged from 8-15 inches, with a maximum of 15.28 inches measured just a few miles north of North Miami. The event caused severe street flooding, but did not flood any structures in North Miami.

As the long list implies, South Florida is thoroughly experienced when it comes to hurricanes and storms. Our history has taught us to fear Mother Nature, and above all – to be well prepared. Local flood events have been documented by the National Weather Service's Miami Office and additional information can be found at http://www.srh.noaa.gov/mfl/?n=events_index. Pertinent sections of the City's emergency preparation procedures are provided in Appendix H.

Hurricanes

The most common hazards associated with a hurricane are high winds, storm surge and heavy rains. The winds can cause structural damages to building and homes. Any debris like rocks, roof tile, garbage, and even coconuts can become deadly projectiles traveling at over 100 mph. The heavy and prolonged precipitation can overpower drainage facilities and cause severe flooding. Most 100 year storms in Florida are the result of wet, slow moving hurricanes causing ten to twenty inches of rain in a couple of days.

As a hurricane churns across open sea, the combined effects of the storms lowered barometric pressure and strong, inward-spiraling winds create a deep swirling column of water beneath the ocean's surface. This effect causes the sea level to rise in the vicinity of the storm, creating a dome of water that may be a few feet high in the center and a hundred miles wide. This dome of water and underlying circulation advance with the hurricane, and when the storm thrusts toward land, the gradually shallowing seafloor forces the water dome to rise dramatically. Powerful hurricanes produce storm surges that can exceed twenty feet above sea level, bringing total devastation to all beachfront structures; these structures normally include homes and seawalls. The storm surge can also cause heavy flooding and can push water up streams and canals reeking havoc on drainage systems.

Tornadoes

The mixing of air masses of different speeds and velocities causes tornadoes. The nature and occurrence of tornadoes is not completely understood by meteorologists. When conditions in the atmosphere are right for the development of tornadoes, the National Weather Service will issue tornado watches and warnings. North Miami has not experienced a tornado in recent years; however the South Florida area is prone to conditions that spawn tornadoes.

Other Hazards

The following hazards were also considered but do not occur in the North Miami area:

- Uncertain flow paths
- Tsunamis
- Coastal erosion
- Ice subsidence
- Mudflows
- Closed basin lakes
- Dunes & beaches
- Ice jams

Flooding

The saying "when it rains, it pours" was probably thought up in South Florida, as heavy downpours are the norm in this area. Approximately 75% of the sixty-plus inches of yearly precipitation fall during the rainy season from May to September. During the summer season, daily afternoon thunderstorms can occur for weeks at a time pushing the drainage systems to their limits. Localized flooding occurs during this period because the drainage systems are unable to handle this persistent rain.

Urban Development

The changes in land use associated with urban development affect flooding in many ways. Removing vegetation and soil, grading the land surface, and constructing drainage networks increase runoff to streams from rainfall. The permeable soil is replaced by impermeable surfaces such as roads, roofs, parking lots, and sidewalks that store little water, reduce infiltration of water into the ground, and accelerate runoff to ditches and streams. Roads and buildings constructed in flood-prone areas are exposed to increased flood hazards.

CHAPTER 5 – PROBLEM ASSESSMENT

Repetitive Loss Cases

When the original Floodplain Management Plan was created, North Miami only had three repetitive loss properties within its boundaries. Two of the properties were located within the floodplain. These residential homes were built around 1946 with lowest floor elevations (LFE) approximately three feet below FEMA's current requirements for the area (Zone AE 7'). As a result, these homes would constantly flood, even during relatively minor storms. The City has since had these properties removed from the repetitive loss list by acquiring the two properties, razing the structures that occupied the space, and converting the land to open space.

The third repetitive loss site from the original Plan is located outside the floodplain. It is a commercial building constructed in 1953 with the lowest floor well below FEMA's requirements. The crown of the road in this area is approximately three feet higher than the LFE, which causes frequent flooding events. The City has improved the drainage system in front of the property and installed five curb and gutter inlets. Although the improvements have drastically improved drainage at this site, flooding can still be anticipated.

Due to the occurrences of two major storms, Hurricane Irene (1999) and the No Name Storm (2000), the number of repetitive loss cases in the City ballooned from three in 1998 to thirty-nine in 2000. These two storms caused an excessive amount of rainfall in a short period of time. A number of these properties have LFE's well below FEMA's current requirements. The additional properties are located within the City's repetitive loss area (Appendix I).

Stormwater System

North Miami's stormwater system is mainly a positive drainage system where water is conveyed through a series of pipes and pumping stations to various outfalls in the SFWMD canal system. There are also exfiltration systems and gravity drainage wells installed throughout the City.

The Arch Creek North Basin is the source for many flood problems in the area. This drainage basin is extremely low lying and has poor percolation characteristics. Modifications to the canal system in the area in the 1950s increased the elevation of the water table within the basin, forcing Miami-Dade County and North Miami to pump the water out of the basin into the nearby canals. Through the years, the basin was developed extensively, increasing the impervious area and stormwater flows. As a result, the stormwater piping system and pump stations became undersized, creating localized flooding for moderate to big storm events. The flooding in certain areas can be up to two feet in depth and remains for a couple of days.

The Arch Creek North Basin has several stormwater pump stations, creating two separate sub-basins. Miami-Dade County currently owns and operates the east part of the basin system. In recent years, the County has made a number of improvements to the existing pump stations and installed a new pump station in the basin.

In fulfilling the requirements of the Clean Water Act and other associated federal and state mandates, Miami-Dade County has required all municipalities to develop Stormwater Master Plans. In 1995, the City contracted with CH2M Hill to prepare Phase 1 of the Stormwater Master Plan (SMP), which is an assessment of existing hydraulic and hydrological water quality systems within the City. The North Miami Arch Creek Basin has been modeled, and was demonstrated incapable of handling a 5-year, 24-hour storm.

The Stormwater Master Plan – Phase 1 recommended increasing pipe sizes in the collection system and details required pipe sizes simulated as part of the model. This option was not viable for the City due to the associated capital expense and the fact that low elevations in the area will not permit the installation of large pipes towards the end of the system. The City has selected to run a parallel piping system to the stormwater pump station.

In its effort to continue Stormwater Master Plan development, the City contracted with Post, Buckley, Schuh and Jernigan (PBSJ) in 2012 to prepare Phase 2 of the Stormwater Master Plan. Phase 2 addresses the stormwater management issues, which included identifying and ranking stormwater problem areas to alleviate any prevailing adverse water quality and floodwater conditions. This activity will ultimately lead to the construction of new stormwater controls. The SMP addresses issues that promote public health, safety and general welfare and minimize public and private losses due to flood conditions in specific areas.

The City is considering a combination of approaches, including collection system improvements, a new stormwater pump station, inspection and repair of pipes to reduce possible infiltration into the system, stormwater detention areas, exfultration trenches, and deep injection wells. The City is in process of acquiring properties within the basin and will take into consideration the best use of these properties to reduce the drainage problem in the area (i.e. detention pond, stormwater pump station or deep drainage wells). The City can install test wells to determine the viability and cost effectiveness of deep drainage wells in each of these sites.

Phase 2 of the Stormwater Master Plan also took into consideration other flood prone areas as identified via the complaint log maintained by the North Miami Public Works Department. A map of general flood prone areas has been prepared using the complaint logs (see Appendix J). This map shows three areas with frequent flooding complaints, which include the Arch Creek North Basin, an area south of the Little Arch Creek Basin near Biscayne Bay, and a small area in the Rucks Park Basin west of the Biscayne Canal near Miami Avenue between NE 119th Street and 135th Street.

Critical Facilities

Critical facilities are those facilities that must remain open during an emergency in order to ensure the health and safety of the residents. Principal roadways and evacuation route must remain passable during flooding and other emergencies. Critical facilities include but are not limited to the following:

- Police stations, fire stations, emergency vehicle and equipment storage facilities, emergency operation centers that are needed before, during and after an emergency, and public and private utility facilities necessary to maintaining or restoring services to resident.

- Hazardous facilities which produce, use or store highly volatile, flammable, explosive, toxic or water reactive materials.

- Hospitals, nursing homes, homes or other facilities where occupants are not able to avoid death or injury during a flood.

North Miami's critical facilities list was reviewed by the Floodplain Management Planning Committee and submitted to the Miami-Dade County Office of Emergency Management (Appendix K). The Committee discussed several projects aimed at protection of critical facilities.

Open Space

An important component to the City's overall plan to reduce flooding is the preservation of open space. Currently the City has over 1,500 acres designated as open space. A brief description of those properties, which include the Oleta River State Park, City-owned property, five spoil islands, jurisdictional wetlands and other parks, is provided in Appendix M. Also included are an open space map and a brief explanation of why these areas will not be developed and will continue as open space.

Open space has a dual purpose for residents of North Miami. It serves as protection from flooding by providing storage for floodwater during storm events. Also it preserves the environment in its natural state providing areas of recreation and leisure. The City of North Miami has many beautiful, green areas with many trees and natural vegetation. The preservation of these areas not only provides a service to the residents but also adds to their quality of life.

Flood Impact

The impacts of flooding can range from mere nuisance to severe property damage. In isolated cases, flooding can lead to serious injury and even death. The hazards in North Miami include hurricanes, heavy rainstorms and tornadoes that affect all residents. Flood insurance is a necessity as past experience has shown that flood damage can be extremely costly. Besides the monetary implications, a disaster such as a flood or hurricane can cause great anxiety and loss, as people struggle to obtain basic necessities such as food and water. It is the City's goal and duty to protect the residents of North Miami and their property from the adverse effects of flooding.

The following excerpt from North Miami's Comprehensive Plan gives a description of its land use within the coastal planning area and the economic base activities.

> *Land Uses within the Coastal Planning Area*
>
> *The City's Comprehensive Plan - Future Land Use Element provides a detailed inventory of all the existing land uses within the City. The coastal planning area, lying generally east of Biscayne Boulevard, comprises approximately 3,117 acres, which is approximately 49 percent of the total land area (including water) within City limits.*
>
> *The northern area of the coastal planning area is dominated by recreational, preserve, conservation, and educational land uses. The following features are included within this area is the Intracoastal Waterway, the Oleta River, the Oleta River State Park, Florida International University's North Campus, Biscayne Landing (formerly known as the Munisport site), the Arch Creek East Environmental Preserve, the North Miami Stadium, and Miami-Dade County Wastewater Treatment Plant.*
>
> *The southern half of the coastal planning area is, by contrast, fully developed, consisting of high income residences/apartments, retail establishments and offices. Even though this is a much more intensively utilized area, few land use conflicts exist because the residential areas dominate the waterfront, leaving little room for other land uses. Three City parks, including the North Bayshore William Lehman Park, lie in this area along with the five spoil islands, two of which are State-owned.*

Economic Base Activities

For this analysis, any activities that generate income and/or employment within the City of North Miami are referred to as the economic base for the coastal planning area. Economic activities within the coastal planning area are largely influenced by tourism-related business within Oleta River State Park and patronage to the various water-dependant uses. Future commercial uses in the coastal planning area bound to contribute to the future economic base include approximately 72 acres of commercial use.

Construction and real estate represent substantial economic activities as the Biscayne Landing site continues through phases of development. As the Biscayne Landing development occurs within the CRA boundary, significant property taxes shall be generated from the estimated three billion dollars of construction over the next coming decades.

The following excerpt from the Comprehensive Plan summarizes the land use profile for the entire City.

Residential, Single-Family – 1,697 acres

Residential, Low-Density Multi-Family – 152 acres

Residential, Townhouses – 23 acres

Residential, Two-Family (Duplexes) – 92 acres

Residential, Transient (Hotel/Motel) – 9 acres

Residential, Multi-Family – 99 acres

Residential, Mobile Home Parks – 2 acres

Shopping Centers, Commercial, Stadiums, Tracks – 205 acres

Office – 46 acres

Communications, Utilities, Terminals, Plants – 124 acres

Industrial – 94 acres

Institutional – 264 acres

Vacant, Government Owned – 68 acres

Parks (Including Preserves and Conservation Areas) – 1,331 acres

Water – 995 acres

Vacant Unprotected – 11 acres

Expressway Right of Way Open Areas – 11 acres

Streets/Roads, Expressways, Ramps – 1,177 acres

CHAPTER 6 – GOALS

In an effort to improve the quality of life for the residents of North Miami and reduce the potential for flood damage to local business and residential structures, the City of North Miami Floodplain Management Planning Committee has adopted the following goals:

- Reduce the number of repetitive loss properties within the City. Assist the property owners with acquiring funding to raise the LFE to current FEMA standards. If raising the structure or acquisition is not feasible or is cost prohibitive, the non-residential structures should be flood proofed and residential structures should be retrofitted.

- Preserve Spoil Islands in natural state. Impose a prohibition on any non-recreational development.

- Preserve existing mangroves and wetlands in natural state.

- Identify mitigation projects within the City and implement as funding becomes available.

- Implement a comprehensive public outreach program to inform residents of perils and mitigation measures applicable to flood prone areas.

- Identify and prioritize stormwater system improvement projects for flood prone areas to provide minimum 5-year flood level of service. Design and implement as funding becomes available.

- Enhance the flood warning system to give residents adequate time to prepare.

- Continue to research and apply for outside funding for capital improvement projects.

- Complete the construction and implementation phase of the Stormwater Master Plan.

- As part of the 2015 Comprehensive Plan update, include a section on climate change and its potential impact on the City.

- Work with local developers to make sure the understand the potential impact of developing in the Special Flood Hazard Area and find ways to mitigate prior to construction taking place.

These goals also take into consideration the requirements of the National Flood Insurance Programs Community Rating System.

CHAPTER 7 – REVIEW POSSIBLE ACTIVITIES

The Floodplain Management Planning Committee discussed many possible activities with regard to floods and flood damage. Information was gathered from staff, the public, and various studies including the Local Mitigation Strategy (LMS) Report, National Pollution Discharge Elimination System Report and the City's Stormwater Master Plan. The Committee also reviewed ongoing activities and programs to assess if changes were needed.

Preventive

Drainage System Maintenance – In compliance with the National Pollution Discharge Elimination System (NPDES) permit, the City performs a comprehensive maintenance program. Activities include the inspection of drainage structures and street sweeping (see Appendix L). This program was discussed and applauded for its preservation of our water resources. Furthermore, the City has Interlocal agreements with both Miami-Dade County and SFWMD for maintenance of all canals in North Miami (see Appendix P).

Planning and Zoning – Miami-Dade County development regulations require that residential finish floor elevations be above flood zone elevation, or eight inches above the existing adjacent crown of the road, whichever is higher (four inches for commercial property). The City of North Miami takes this one step further in its Flood Damage Prevention Ordinance (Appendix S) by requiring that the lowest floor be elevated no lower than one foot above the base flood elevation or the crown of the road abutting the property, whichever is greater; this requirement applies to all new construction and substantial improvement projects. For further information regarding relevant rules and regulations on development, you can also refer to North Miami's Comprehensive Plan (Appendix O).

Open Space Preservation – The Committee reviewed total open space (1,537 acres). They discussed the advantages of storage of stormwater in open space areas as well as the natural aesthetics of these areas (see Appendix M for open space map). The committee concluded that the City should continue its current policy ensuring the preservation of as much open space as possible.

Stormwater Management – The City hired a consultant to complete Phases 1 and 2 of its Stormwater Master Plan; this Plan analyzes the existing stormwater system and recommends solutions to current problem areas. The implementation portion of Phase 2 is in progress. The Committee discussed improving the City's standard of service for drainage to make sure all areas are protected from at least a 5-year storm.

The committee also discussed the City's GIS mapping initiative that will provide the City engineers with information to be used for analysis and maintenance of the stormwater system. The committee agreed that this program should be continued.

Dunes and Beaches – The City has no dunes or beaches except for Oleta River State Park's small man-made beach area that is maintained by the State of Florida Parks and Recreation Department.

Property Protection Measures

Relocation and Acquisition – The City has acquired two repetitive loss properties with multiple flood insurance claims and plans to continue the process as funds become available (see Chapter 5 for details).

Drainage improvements – The City has improved the drainage system and performed other measures in front of a commercial repetitive loss site in an attempt to resolve the flooding problem. Other sites will be evaluated for similar projects.

Insurance – One of the first goals of the Floodplain Management Planning Committee was to create a public awareness campaign to inform residents of the need for flood insurance, especially within the floodplain. At the recommendation of the Committee, the City established a Public Outreach Program that discusses flood insurance and numerous other items. This information is disseminated through direct mailings, speaking engagements, the City's library, the City's website and working with local insurance agents and realtors.

Building Elevation – The Committee discussed raising the floor elevation on floodprone houses and buildings but deemed it too expensive, since most of the City is already developed. In the case of substantial loss due to a disaster, current regulations regarding lowest floor elevations (LFE) for rebuilt buildings would be enforced requiring residents to build a minimum of one foot above the base flood elevation or the crown of the road abutting the property, whichever is greater.

Sewer Back-up Protection – The Local Mitigation Strategy of 1999 recommended several projects to protect area residents from sewer back up. These projects included providing emergency power to sanitary sewer lift stations, and re-lining manholes and sewer lines to eliminate infiltration. Over the last fifteen years, several improvements have been made to the sewer system and more are planned when funding becomes available. The current LMS list identifies a number of projects the City desires to complete for further protection.

Natural Resource Protection

Wetlands protection – The protection of the mangrove preserve and other wetlands within the City was unanimously encouraged by the Committee. The City has every intention of maintaining its existing wetlands.

Best Management Practices – Best Management Practices (BMPs) consists of schedules of activities, prohibition of practices, maintenance procedures and other management practices to prevent or reduce the pollution of waters of the United States. BMPs are currently practiced by the City as discussed in North Miami's Annual NPDES Report (see Appendix L). The Committee encouraged the continuation of this program and any activities aimed at preservation of our drinking water.

Coastal Barrier Protection – The beneficial aspects of the preservation of wetlands, natural vegetation, and mangroves was examined by the Floodplain Management Planning Committee. The City and Miami-Dade County RER view any development proposed for this area with the highest level of scrutiny.

Erosion and Sediment Control – As part of the NPDES program, the City enforces sediment control measures on all construction sites (see Appendix L for details). The City has provided staff with the training necessary to enforce these measures. Erosion is not a major problem in South Florida due to the flat terrain.

Emergency Services

Flood Warning – City staff reviews the current flood warning system, which utilizes the National Weather Service for information, on a regular basis. The existing system is not geared for the specific needs of the City but is aimed at providing information for the region. The possibility of studying past rain events and using rain gauges to give residents in flood prone areas an early warning was considered, but the Floodplain Management Planning Committee felt the existing system provided the most accurate information.

Flood Response – The City's Public Works Department currently handles all flood complaints and is equipped to handle flooding situations that may cause a nuisance for residents. Should flooding incidents compromise public safety, The North Miami Police Department and Miami-Dade County Fire Department would be dispatched to handle the emergency.

Critical Facilities Protection – City staff developed a list of facilities that must remain operational during emergencies. This critical facilities list was reviewed and revised to include other facilities that the Committee members thought should be added. Critical facilities protection projects, including backup power to sewage pumping stations, installation of storm shutters on City buildings and the reconstruction of Keystone Point bridges were also considered (see Appendix N).

Structural Projects

Storm Sewer – Phase 2 of the North Miami Master Plan recommends improvements to the stormwater system and discusses how these improvements should be implemented. The Committee agrees that implementation is a very important activity since it had the potential to improve the system for larger problem areas. The implementation portion of phase 2 started in 2005 and is ongoing.

Seawalls – A program to repair 23 of the 28 seawalls in the Keystone and Sans Souci areas was completed with funding from FEMA. The Floodplain Management Planning Committee discussed the advantages of completing this project by repairing the remaining seawalls in the Sans Souci area; the Committee believes repairs would reduce flooding from potential storm surges and would be a viable property protection measure from tidal flooding. The Committee would like to see the seawall work performed in the Sans Souci area when funding becomes available.

Public Information

Outreach Projects – The Committee expressed that public education regarding floods and flood damage was one of the most important aspects of the proposed activities. The Committee members agreed that a public outreach strategy, which includes pamphlets, educational programming, an Automated Citizen's Information System (ACIS), and the City's website would be beneficial to the community (for details, see Chapter 2).

Map Information – The City's current practice is to provide any interested or affected parties with flood zone determinations. These individuals can call or visit the City's Building & Zoning Department to receive information on a specific property within two business days.

Real Estate Disclosure – Per the City's Flood Damage Prevention Ordinance, real estate agents must disclose all flooding history to potential homeowners. The City provides flood zone determination and flood history information to all realtors as it is requested.

Library – Providing public flood information at the library was also encouraged. Currently, there is a section in the City's library dedicated to floods, flood insurance, hurricanes, and other pertinent information.

Environmental Education – The City is engaged in a school education initiative to explain flood hazards and possible solutions to students. This program was started at the recommendation of the Floodplain Management Planning Committee as Committee members thought it was a great idea to develop environmental awareness at an early age.

CHAPTER 8 – ACTION PLAN

Scope

This action plan will recommend projects that will address the City of North Miami's flood problems in the most effective, yet cost beneficial manner, to avoid costly flood damage in the future. Additionally, the City updates its local mitigation strategy (Appendix N) on an annual basis. This update is then submitted to Miami-Dade County for inclusion in the countywide Local Mitigation Strategy. All activities have been thoroughly researched and discussed by the FMPC throughout the planning process.

Recommended Actions

Project 1: Flood Prevention and Mitigation: Drainage Basin13
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.
Budget: $500,000
Project type: Infrastructure
Timetable: 50% complete; As funding becomes available

Project 2: Non-Ccritical Facilities Hazard Mitigation
The city has identified seven of its buildings as essential, but not critical facilities. These facilities support the restoration of essential city services after major storm events and other emergencies. Essential, but not 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. These 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. These facilities are currently secured with plywood. Plywood requires considerable storage space and time-consuming installation. The installation of a combination of 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.
Budget: $400,000
Project type: Infrastructure
Timetable: As funding becomes available

Project 3: Surge Resistance and Flood Mitigation at Keystone Point and Sans Souci
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 there 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.

Budget: $500,000
Project type: Beach / Seawall
Timetable: 75% complete; As funding becomes available

Project 4: Sanitary Sewer Backup

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 backup generators that are permanently affixed to the facility. The remaining four (H, B, C & Breezeswept) require emergency generator back up to be installed.

Budget: $700,000
Project type: Equipment
Timetable: 50% complete; As funding becomes available

Project 5: Safeguarding Availability of Potable Water

Six remote raw water wells provide water to the city's Winson 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.

Budget: $325,000
Project type: Infrastructure
Timetable: As funding becomes available

Project 6: Emergency Portable Stormwater Pumps

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.

Budget: $225,000
Project type: Equipment
Timetable: As funding becomes available

Project 7: Gravity Sewer Systems Improvements for Groundwater Infiltration Reduction

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 area residents.

Budget: $6,000,000
Project type: Infrastructure
Timetable: As funding becomes available

Project 8: Emergency Power for Water and Sewer Utility Operations Center

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.

Budget: $90,000
Project type: Equipment
Timetable: As funding becomes available

Project 9: Replacement Generator for Police Station

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.

Budget: $325,000
Project type: Equipment
Timetable: As funding becomes available

Project 10: Correct Water Infiltration at City Hall (EOC) Basement

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.

Budget: $45,300
Project type: Infrastructure
Timetable: As funding becomes available

Project 11: Replacement of U.P.S. for Police Station

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.

Budget: $80,000
Project type: Infrastructure
Timetable: As funding becomes available

Project 12: Utility Operation Center Surge Suppression System

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. It will eliminate the need for new equipment purchases and reduce personnel costs to manually control lift stations during storm events.

Budget: $20,000
Project type: Infrastructure
Timetable: As funding becomes available

CHAPTER 9 – ADOPTION OF THE PLAN

Floodplain Management Planning Committee

After a thorough review, the Committee unanimously accepted the updated Plan as part of its normal course of business at their November 5, 2014 meeting. The Committee also recommended that the City Council officially adopt the Plan at their November 25, 2014 meeting.

City Council

The City Council meeting, scheduled for November 25, 2014, will provide the public one last opportunity to comment on the updated Floodplain Management Plan. This public hearing will be included as part of the regular City Council meeting. Once the public hearing portion of the plan has concluded, the City Council will consider the plan for final adoption. A copy of the proposed resolution to adopt the plan is included (Appendix T).

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LIST OF APPENDICES

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RESOLUTION NO. 99-28

A RESOLUTION OF THE MAYOR AND CITY COUNCIL OF THE CITY OF NORTH MIAMI, FLORIDA, ESTABLISHING A FLOODPLAIN MANAGEMENT PLANNING COMMITTEE IN THE CITY OF NORTH MIAMI.

WHEREAS, the City of North Miami desires to improve its classification in the National Flood Insurance Program's Community Rating System (CRS) that will afford property owners additional flood insurance discounts; and

WHEREAS, a Floodplain Management Planning Committee is required to oversee development of a Floodplain Management Plan acceptable to the National Flood Insurance Program, and the City desires to establish a Floodplain Management Planning Committee.

NOW THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF NORTH MIAMI:

Section 1. Creation of Committee: That there is created and established in the City of North Miami an advisory committee to be known as the City of North Miami Floodplain Management Planning Committee. The Committee shall function pursuant to the timetable attached as Exhibit A.

Section 2. Membership: qualifications; terms. The Committee shall consist of seven (7) members. Four (4) of the members shall be City personnel appointed by the City Manager. Three of the members shall reside within the City's floodplain and be appointed as follows: a representative of the Greater North Miami Chamber of Commerce, a representative of the Keystone Point Homeowners Association and a representative of the Central Homeowners Association. One of the City personnel members shall have an urban planning degree or have land use planning, zoning, community planning or urban renewal experience. Members shall be appointed for terms expiring upon adoption of the Floodplain Management Plan by the City Council.

Section 3. Organization: quorum; voting; rules of procedures. The members of the Committee shall designate from its members a Chairman, a Vice-Chairman, and a

Secretary. Four (4) members of the Committee shall constitute a quorum. No action shall be taken except by a majority vote of those present at a duly constituted meeting of the Committee.

Section 4. Staff. The administrative and legal staff of the City shall act as staff to the Committee.

Section 5. Duties and Functions. The duties and functions of the Committee shall be to recommend a Floodplain Management Plan. The recommended Plan shall be subsequently presented to the City Council for final approval.

Section 6. Repeal. This Resolution establishing the Committee shall expire upon adoption of the Floodplain Management Plan by the City Council, unless further extended by the City Council.

Section 7. Effective Date. This Resolution shall be effective upon passage by the City Council.

PASSED AND ADOPTED by 5-0 vote of the Mayor and City Council on this 27 day of April, 1999.

MAYOR

ATTEST:

CITY CLERK

APPROVED AS TO FORM:

4.21.99

CITY ATTORNEY

RESOLUTION NO. 2000-18

A RESOLUTION OF THE MAYOR AND CITY COUNCIL OF THE CITY OF NORTH MIAMI, FLORIDA, ADOPTING THE CITY OF NORTH MIAMI FLOODPLAIN MANAGEMENT PLAN AND EXTENDING THE EXISTENCE OF THE FLOODPLAIN MANAGEMENT PLANNING COMMITTEE FOR THE PURPOSE OF CONDUCTING AN ANNUAL REVIEW OF THE FLOODPLAIN MANAGEMENT PLAN.

WHEREAS, on April 27, 1999, the Mayor and City Council of the City of North Miami adopted Resolution No. 99-28, establishing a Floodplain Management Planning Committee in the City of North Miami whose duty and function is to recommend a Floodplain Management Plan for the City; and

WHEREAS, the Floodplain Management Planning Committee has prepared a Floodplain Management Plan under the supervision of a professional planner; and

WHEREAS, a public hearing on the Floodplain Management Plan was conducted by the Floodplain Management Planning Committee on October 21, 1999; and

WHEREAS, written comments and recommendations were solicited from homeowner associations, business associations and other organizations that represent the public in the flood plain area; and

WHEREAS, other regulatory agencies were contacted at the beginning of the planning process and meetings were held by the City Administration and those agencies to review common problems, development policies and mitigation strategies; and

WHEREAS, the Floodplain Management Planning Committee has developed a Public Outreach Strategy; and

WHEREAS, the Floodplain Management Plan includes an Action Plan which will be reviewed annually by the Floodplain Management Planning Committee.

NOW, THEREFORE, BE IT RESOLVED BY THE MAYOR AND CITY COUNCIL OF THE CITY OF NORTH MIAMI, FLORIDA:

Section 1. That the Floodplain Management Plan and Public Outreach Strategy prepared and presented by the Floodplain Management Committee is adopted and the City Administration is directed to implement the recommendations and programs of the Plan.

Section 2. That the existence of the Floodplain Management Planning Committee is extended for the purpose of the Committee annually reviewing the Floodplain Management Plan. The purpose of this annual review is to monitor implementation of the Plan and Public Outreach Strategy, review progress of the Action Plan and to recommend revisions to the Floodplain Management Plan. The Committee shall meet at least annually for this purpose.

Section 3. That this Resolution shall be effective upon adoption.

PASSED and ADOPTED by a 5-0 vote of the Mayor and City Council this 22 day of February, 2000.

MAYOR

ATTEST:

CITY CLERK

APPROVED AS TO FORM:

2.15.00

CITY ATTORNEY

RESOLUTION NO. R-2005-3

A RESOLUTION OF THE MAYOR AND CITY COUNCIL OF THE CITY OF NORTH MIAMI, FLORIDA ADOPTING THE UPDATED CITY OF NORTH MIAMI FLOODPLAIN MANAGEMENT PLAN AND EXTENDING THE EXISTENCE OF THE FLOODPLAIN MANAGEMENT PLANNING COMMITTEE FOR THE PURPOSE OF CONDUCTING AN ANNUAL REVIEW OF THE FLOODPLAIN MANAGEMENT PLAN.

WHEREAS, on February 22, 2000, the Mayor and City Council of the City of North Miami adopted Resolution No. 2000-18, adopting a Floodplain Management Plan; and

WHEREAS, the Floodplain Management Plan is one of the requirements for participation in the National Flood Insurance Program (NFIP) and Community Rating System (CRS) program and by participating in this program, City of North Miami property owners are eligible for discounts on their flood insurance premiums; and

WHEREAS, on January 13, 2005 the City of North Miami's Floodplain Management Planning Committee unanimously accepted an updated Floodplain Management Plan in response to the requirement for communities to maintain their CRS class rating by updating their Floodplain Management Plan on a regular basis; and

WHEREAS, on January 13, 2005 the City of North Miami's Floodplain Management Planning Committee recommended adoption of the updated Floodplain Management Plan to the City Council.

NOW, THEREFORE, BE IT RESOLVED BY THE MAYOR AND CITY COUNCIL OF THE CITY OF NORTH MIAMI, FLORIDA:

Section 1. That the updated Floodplain Management Plan prepared and presented by the Floodplain Management Committee is adopted and the City Administration is directed to implement the recommendations and programs of the Plan.

Section 2. That the existence of the Floodplain Management Planning Committee is extended for the purpose of the Committee annually reviewing the Floodplain Management Plan. The purpose of this annual review is to review progress of the Action Plan and to recommend revisions to the Floodplain Management Plan. The Committee shall meet at least annually for this purpose.

Section 3. That this Resolution shall be effective upon adoption.

PASSED AND ADOPTED by a 5-0 vote of the Mayor and City Council of the City of North Miami, Florida, this 8 day of February, 2005.

ATTEST:

Jacqui Vieira

Deputy CITY CLERK

CITY OF NORTH MIAMI

MAYOR

APPROVED AS TO FORM:

P. Joseph 1/19/05

INTERIM CITY ATTORNEY

RESOLUTION NO. R-2009-164

A RESOLUTION OF THE MAYOR AND CITY COUNCIL OF THE CITY OF NORTH MIAMI, FLORIDA, ADOPTING THE UPDATED CITY OF NORTH MIAMI FLOODPLAIN MANAGEMENT PLAN AND EXTENDING THE EXISTENCE OF THE FLOODPLAIN MANAGEMENT PLANNING COMMITTEE FOR THE PURPOSE OF CONDUCTING ANNUAL REVIEWS OF THE FLOODPLAIN MANAGEMENT PLAN; PROVIDING FOR AN EFFECTIVE DATE AND ALL OTHER PURPOSES.

WHEREAS, on February 22, 2000, the Mayor and City Council of the City of North Miami ("City") passed Resolution Number R-2000-18, adopting the City's Floodplain Management Plan ("Management Plan"); and

WHEREAS, the Management Plan is one of the requirements for the City's participation in the National Flood Insurance Program and the Community Rating System Program ("Programs"); and

WHEREAS, by participating in these Programs, City of North Miami property owners become eligible for discounts on their annual flood insurance premiums; and

WHEREAS, on February 8, 2005, the Mayor and City Council passed Resolution Number R-2005-3 adopting the Management Plan and continued the existence of the Floodplain Management Planning Committee ("Floodplain Committee") for the purpose of conducting annual reviews of the Management Plan; and

WHEREAS, on November 19, 2009, the Floodplain Committee unanimously accepted an updated Management Plan in response to the requirement for communities to maintain their Community Rating System class rating, by updating their Management Plan on a regular basis; and

WHEREAS, the Floodplain Committee respectfully recommends to the Mayor and City Council, the adoption of the current Management Plan.

NOW THEREFORE, BE IT RESOLVED BY THE MAYOR AND CITY COUNCIL OF THE CITY OF NORTH MIAMI, FLORIDA:

Section 1. **Adoption of Floodplain Management Plan.** The updated Floodplain Management Plan prepared and presented by the Floodplain Management Committee is hereby adopted and the City Administration is directed to implement the recommendations and programs of the Management Plan, attached hereto as Exhibit "1".

Section 2. **Continuation of Committee.** The existence of the Floodplain Management Planning Committee is continued for the purpose of the annual review of the Floodplain Management Plan. The purpose of this annual review is to review progress of the Action Plan and to recommend revisions to the Floodplain Management Plan. The Committee shall meet at least annually for this purpose.

Section 3. **Effective Date.** This Resolution shall be effective immediately upon adoption.

PASSED AND ADOPTED by a 5-0 vote of the Mayor and City Council of the City of North Miami, Florida, this 8 day of December, 2009.

ANDRE D. PIERRE
MAYOR

ATTEST:

ALIX DESULME
CITY CLERK

APPROVED AS TO FORM AND
LEGAL SUFFICIENCY:

V. LYNN WHITFIELD
CITY ATTORNEY

SPONSORED BY: CITY ADMINISTRATION

Moved by: Councilman Blynn

Seconded by: Councilman Galvin

Vote:

Mayor Andre D. Pierre	X (Yes)	____ (No)
Vice Mayor Marie Erlande Steril	X (Yes)	____ (No)
Councilperson Michael R. Blynn	X (Yes)	____ (No)
Councilperson Scott Galvin	X (Yes)	____ (No)
Councilperson Jean Rodrigue Marcellus	X (Yes)	____ (No)

NORTH MIAMI
FLORIDA

FLOODPLAIN MANAGEMENT PLANNING COMMITTEE

Gwen Margolis Community Center
1590 NE 123 Street
Wednesday, September 24, 2014 @ 9:00 a.m.

Agenda

APPROVAL OF MINUTES – September 27, 2013

OLD BUSINESS

None

NEW BUSINESS

A. Community Rating System – Update

B. Status of Action Plan Implementation

C. Flood Hazard Information Brochure

D. Public Information Program Strategy Evaluation

E. Discussion on Renovated Structures

ADJOURNMENT

* * *

In accordance with the provisions of Section 286.0105, Florida Statutes, if a person decides to appeal any decision made by the Floodplain Management Planning Committee with regard to any matter considered at this meeting, he will need to ensure that a verbatim record of the proceedings is made. This record includes the testimony and evidence which the appeal is to be based.

In accordance with the Americans with Disabilities Act of 1990, persons needing special accommodation to participate in the proceeding should contact the City Clerk's Office no later than four (4) days prior to the proceeding. Telephone (305) 893-6511, Ext. 12142, for assistance; if hearing impaired, telephone the TDD line at (305) 893-7936 for assistance.

NORTH MIAMI
FLORIDA

FLOODPLAIN MANAGEMENT PLANNING COMMITTEE

Gwen Margolis Community Center
1590 NE 123 Street
Wednesday, November 5, 2014 @ 9:00 a.m.

Agenda

APPROVAL OF MINUTES – September 24, 2014

OLD BUSINESS

None

NEW BUSINESS

Floodplain Management Plan - 2014

ADJOURNMENT

* * *

In accordance with the provisions of Section 286.0105, Florida Statutes, if a person decides to appeal any decision made by the Floodplain Management Planning Committee with regard to any matter considered at this meeting, he will need to ensure that a verbatim record of the proceedings is made. This record includes the testimony and evidence which the appeal is to be based.

In accordance with the Americans with Disabilities Act of 1990, persons needing special accommodation to participate in the proceeding should contact the City Clerk's Office no later than four (4) days prior to the proceeding. Telephone (305) 893-6511, Ext. 12142, for assistance; if hearing impaired, telephone the TDD line at (305) 893-7936 for assistance.

Geimer, Jeff

From: Perkins, Cathie (MDFR) [perkins@miamidade.gov]
Sent: Thursday, October 23, 2014 4:34 PM
To: Geimer, Jeff
Subject: RE: City of North Miami - Floodplain Management Plan Review
Attachments: NM Floodplain management plan - 2014 Draft cp comments.pdf; Part 7 Flooding NFIP and CRS new.pdf

Jeff –

Thanks for sharing your plan – I made some comments in the plan.

Jeff

It was neat to read the history of your community.
I have been building a lot of new things into the LMS plan for the 5 year update if you want to pull them into your plan now I wanted to make available. I know you need to reference the adopted LMS plan and the new adoption won't take place until early next year.

Rather than send you the elements I will refer you to where you can find them on line – you can look them over and see if these are things you want to add.

I am sending you a draft of Part 7 as I have added more information since the draft that was put on line .....it is not done...but there may be some things in there you want to pull from. I can also help you pull some maps from FLIPPER if you want to show canals, basins, storm surge and FEMA flood zones..... I am still working on some additional maps as well. I believe I sent you a copy of the residential strucutures in North Miami by the major flood regulation milestones as well – if not let me know and I can send it.

We added a lot of information for public information in part 7 – libraries and info they have on site, on line references and I just added information on some of the outreach things we do throughout the year... if you are have your solid waste trash pick up done by the County they mail out the hurricane brochure to all of the households in their service area....

I noticed you didn't reference the NFIP class you took and I believe you should be able to get credit for that under CRS – 362.d(2) look at page P7-32 (well it was that page in the printed version I have but it may have gotten moved).....

http://www.miamidade.gov/fire/mitigation.asp LMS Plan is online here

Part 4 Appendices we added an Economic Analysis in Appendix K that has a some breakdowns by building type for munis look at pages P4-45 and 46

Let me know if I can help with anything else –

Hope this helped.

Cathie

From: Geimer, Jeff [mailto:jgeimer@northmiamifl.gov]
Sent: Thursday, October 23, 2014 3:50 PM
To: Perkins, Cathie (MDFR)
Subject: City of North Miami - Floodplain Management Plan Review

Good afternoon Cathie,

I have attached a draft of the City of North Miami's updated Floodplain Management Plan. I am requesting a review of this document by you or a member of your team. The appendix was intentionally left off in order to reduce the time needed reviewing the document. Please e-mail your comments, recommendations and/or suggestions directly to me at jgeimer@northmiamifl.gov. If you do not have any recommendations, I would appreciate an e-mail back stating that you have reviewed the draft document and have no recommended changes.

Along with your e-mail, please include your name, work title, and name of your employer. It would be great if you could provide your response by October 31, 2014. Thank you in advance for your time and assistance.

Jeff Geimer, MPA, CPRP, CFM
Capital Project Manager

Public Works Department
1855 NE 142 Street
North Miami, FL 33181
305-895-9874 - direct

green North Miami Please print only if necessary

The City of North Miami is a public entity subject to Chapter 119 of the Florida Statutes concerning public records. E-mail messages are covered under such laws and thus subject to disclosure. All E-mail sent and received is captured by our servers and kept as a public record.

Geimer, Jeff

From: Tormes, Jose (RER) [TormeJ@miamidade.gov]
Sent: Tuesday, November 04, 2014 4:18 PM
To: Geimer, Jeff
Subject: FW: City of North Miami - Floodplain Management Plan Peer Review
Attachments: Floodplain management plan - 2014 Draft.pdf

Looks very good.

José Tormes CFM
Flood-plain Supervisor
Environmental Plan Review and Development Approvals Division
Regulatory and Economic Resources
11805 Coral Way, suite 124 Miami Fl, 33175
P-786-315-2800
F-786-315-2919
e-mail: tormej@miamidade.gov
"Delivering Excellence Every Day"
Please consider the environment before printing this email.

From: Rodriguez, Lourdes [mailto:rodriguezl@miamilakes-fl.gov]
Sent: Friday, October 31, 2014 4:24 PM
To: 'agonzalez@cohb.org'; 'airaf@miamidade.gov'; 'ajrarch@bellsouth.net'; Alex Hernandez; Alfredo Quintero PW Cutler Bay ; 'Alicia.verea-feria@tetratech.com'; antonio.brina@cityofdoral.com; Augustin,Christopher; 'aviqar@opalockafl.gov'; 'barrios@miamidade.gov'; Blanco, Linda; Schaad, Brandon R.; Brian Cocoran ; Bruce Martin VA Gdns; 'Bwayne@miamigov.com'; 'carlos.arroyo@cityofdoral.com'; 'carlosfernandez@miamibeachfl.gov'; 'carrj@cityofaventura.com'; 'catshine252@yahoo.com'; 'ccarrera@naplesgov.com'; 'charltons@ci.marathon.fl.us'; 'cip@hollywoodfl.org'; 'claudiog@tamarac.org'; Cleveland Bain - Coral Springs; colazabal@coralgables.com; 'cpatterson@palmettobay-fl.gov'; 'craig.southern@citynmb.com'; 'cvanvliet9337@yahoo.com'; 'dacquistod@miamishoresvillage.com'; 'Daniel@wingerterlab.com'; Darlene Martinat - Surfside (dmartinat@townofsurfsidefl.gov); Dave Clark - Stantec; 'davidr@jupiter.fl.us'; Debbie Cahoon (debbie.cahoon@yahoo.com); 'dgrandal@c3ts.com'; 'dhawkins@city-ftpierce.com'; 'dhays@ircgov.com'; 'dlee@bayharborislands.net'; 'dolinn@broward.org'; 'dpustizzi@broward.org'; 'eabia@opalockafl.gov'; 'edward.rojas@cityofdoral.com'; 'eking@hallandalebeachfl.gov'; 'esantiago@keybiscayne.fl.gov'; Escobar, Natalia; 'ffmadrk@gmail.com'; 'frhernandez@miamigov.com'; 'g.mccauley@deerfield-beach.com'; Guari Mascaro City of Miami ; 'hdavalos@hollywoodfl.org'; 'herena.szczepanski@citynmb.com'; 'herminiaperez@miamibeachfl.gov'; 'HernaC@miamidade.gov'; Hernandez, Carlos P.E. (RER); 'herrel@miamidade.gov'; 'hildod@miamidade.gov'; 'HLiles@iso.com'; 'inspectorkev@bellsouth.net'; Ismael Naranjo - Miami Shores; 'jbriceno@broward.org'; 'jchockley@coopercityfl.org'; 'jfletcher@lauderhill-fl.gov'; 'jfritchey@naplesgov.com'; 'jgeimer@northmiamifl.gov'; 'jgmoas@townofmedley.com'; 'jguanch@ircgov.com'; 'jjackson@northmiamifl.gov'; 'jlago@miamigov.com'; 'jmadden@fortlauderdale.gov'; 'jmcala@lauderhill-fl.gov'; jmufale (jmufale@sunrisefl.gov); 'joe.bowles@citynmb.com'; Jorge Corzo Town of Medley ; 'jose.casio@citynmb.com'; 'jray@coralgables.com'; Juvenal Santana ; 'kbada@palmettobay-fl.gov'; Keith NG; 'ken.caban@tetratech.com'; 'kfiddler@miamigardens-fl.gov'; 'kng@southmiamifl.gov'; 'kruderman@townofpalmbeach.com'; 'lcunningham@ci.dania-beach.fl.us'; 'llalwani@alachuacounty.us'; 'lteich@fortlauderdale.gov'; Lynn Rosetti - Madeira Beach; M Obrien; M Wood; MARIANA PITIRICIU; Mark Winslow - City of Sunrise; 'mcphersonc@ci.marathon.fl.us'; 'mdiaz@balharbour.org'; 'mdominguez@keybiscayne.fl.gov'; Medina, Marlon - Stantec; 'mgambino@miamigardens-fl.gov'; 'mharris@opalockafl.gov'; 'Michael.rada@copbfl.com'; Mesa, Michel; Mimi Young; 'mjeannot@cohb.org'; 'mjeannot@hallandalebeachfl.gov'; 'mjean-pharuns@northmiamifl.gov'; Mohssen Jarahpour; 'moubab@miamidade.gov'; 'mpryde@lighthousepoint.com'; 'msgeverett@yahoo.com'; 'ogarc006@gmail.com'; Palacio, Eliezer (miamilakes-fl.gov); 'patrickr@tamarac.org'; Paul Vitro ; 'pbollenback@naplesgov.com'; Perkins, Cathie (MDFR); 'pgrissom@lakeworth.org'; 'pholste@davie-fl.gov'; pvilla@sibfl.net; 'r.juliano@deerfield-beach.com'; 'ralvarez@hallandalebeachfl.gov; 'raymond.misomali@miamidade.gov'; 'rbolton@hollywoodfl.org'; 'Rcasals@cutlerbay-fl.gov'; Rene Velasco - City of Doral; 'rlodell@ci.miramar.fl.us'; 'rodneyc@jupiter.fl.us'; Roland Ruiz Palmetto Bay ; Ross Prieto Tow of Surfside; 'rwall@wpb.org'; 'rwoodward@coopercityfl.org'; 'salannese@yahoo.com'; 'sannese@townofmedley.com'; 'scuervo@cutlerbay-fl.gov'; 'sdinneen@sunrisefl.gov'; Sergio Ascunce City of Hallandale; 'sflanagan@coconutcreek.net'; Shannon Ley - Sunrise ; 'spizzillo@cityofparkland.org'; 'steelm@miamidade.gov';

Geimer, Jeff

From: Hinson, Danny [Danny.Hinson@em.myflorida.com]
Sent: Friday, October 24, 2014 9:56 AM
To: Geimer, Jeff
Subject: RE: City of North Miami - Floodplain Management Plan Review
Attachments: Floodplain management plan - NMB.pdf

Jeff, review of your Floodplain Management Plan should be conducted by either the State (if it is in place of the LMS – which I do not think that is your intent) or to Sherry Harper with ISO for a courtesy review. I am not totally sure they do courtesy reviews with the workload but it is worth requesting. SHarper@verisk.com

The Florida CRS Initiative is to support community's efforts but certifying or signing off on a plan is outside our scope. It is ISO (specifically Sherry) that has the final say determining if the plan is acceptable and appropriate CRS credit. I wish I had her expertise and experience with planning activities but I do not. I know Miami-Dade has a strong LMS committee so I assume you are attempting to score credit with this plan and or to satisfy RL prerequisites. As I said, if you are wanting to satisfy the LMS or multi-hazard plan for the State then I suggest you contact Jamie who can provide support. Jamie.Price@em.myflorida.com

Best wishes.....

Danny Hinson CFM, FPEM
Florida CRS Coordinator
Mitigation / NFIP
Cell: 850-544-8383

From: Geimer, Jeff [mailto:jgeimer@northmiamifl.gov]
Sent: Thursday, October 23, 2014 3:49 PM
To: Hinson, Danny
Subject: City of North Miami - Floodplain Management Plan Review

Good afternoon Danny,

I have attached a draft of the City of North Miami's updated Floodplain Management Plan. I am requesting a review of this document by you or a member of your team. I know you have a webinar scheduled for November 4, but I have to have the document adopted by our Council on November 25 in order to meet an ISO submittal deadline. The appendix was intentionally left off in order to reduce the time needed reviewing the document. Please e-mail your comments, recommendations and/or suggestions directly to me at jgeimer@northmiamifl.gov. If you do not have any recommendations, I would appreciate an e-mail back stating that you have reviewed the draft document and have no recommended changes.

Along with your e-mail, please include your name, work title, and name of your employer. It would be great if you could provide your response by October 31, 2014. Thank you in advance for your time and assistance.

Jeff Geimer, MPA, CPRP, CFM
Capital Project Manager

Public Works Department
1855 NE 142 Street
North Miami, FL 33181
305-895-9874 - direct

Geimer, Jeff

From: Mike Gambino [mgambino@miamigardens-fl.gov]
Sent: Monday, November 03, 2014 9:08 AM
To: Geimer, Jeff
Subject: RE: City of North Miami - Floodplain Management Plan Peer Review

Hey Jeff, Sorry for the late reply, I hope I am not too late with these comments!

- Chapter One, top of page. You mentioned a copy of the 2009 LMS? Don't you mean the latest, perhaps 2013 or 2014?
- Hazards Page 8: ISO likes to see urban development as part of the hazard, not just weather
- Page 10 "other hazards" you included ice jams and ice subsistence? Is subsistence even a word? Do you mean "subsidence"?
- Chapter 5, page 11: RL cases. Earlier you said elevations in the city were between 8-13', but here you say houses are 3 below the 7' BFE. That would mean that area has grades of 4' or lower....
- Same page: You all used the word Positive for the storm sewer systems: Would the word gravity be better? I know you have a bunch of French drains, which are not really positive
- Typo, Flood Impact, page 13: "The following excerpt from North Miami's FPMP gives**" (lose the s")**
- Chapter 6 Goals, page 16: first bullet you mention floodproofing buildings, Perhaps you want to add floodproof non-residential buildings and retro-fit residential
- Same page typo: "All these goals also take into consideration of (lose the "of")
- Page 19: should that read "by repairing the **remaining** seawalls" in the Sans Souci area?
- Page 20: Instead of "non-critical facilities" would it be better to say "essential but not critical" facilities?

Hope this helps!

M. Gambino, CFM
Floodplain Administrator
City of Miami Gardens
Dept of Development Services
18605 NW 27 Avenue, First Floor
Miami Gardens, Fl. 33056
Tel. 305.622.8000, Ext 2628
Email: mgambino@miamigardens-fl.gov

From: Geimer, Jeff [mailto:jgeimer@northmiamifl.gov]
Sent: Friday, October 31, 2014 3:58 PM
To: Mike Gambino; Rodriguez, Lourdes
Subject: FW: City of North Miami - Floodplain Management Plan Peer Review

Were either of you able to send this out for me? I have not received any responses as of yet. If not, I have revised the date below to reflect it going out today. Thanks again.

Jeff Geimer, MPA, CPRP, CFM
Capital Project Manager

City of North Miami
Public Works Department
305-895-9874 - direct

green North Miami Please print only if necessary
The City of North Miami is a public entity subject to Chapter 119 of the Florida Statutes concerning public records. E-mail messages are covered under such laws and thus subject to disclosure. All E-mail sent and received is captured by our servers and kept as a public record.

Geimer, Jeff

From: Chris [cvanvliet9337@yahoo.com]
Sent: Sunday, November 02, 2014 5:46 PM
To: Geimer, Jeff
Subject: Peer Review of Floodplain Management Plan

Hi Jeff,

I am responding to your request, through Lourdes Rodriguez, for a peer review of the City of North Miami's Floodplain Management Plan. I am a CFM, currently self-employed, and I last worked for a government entity, the City of Lauderdale Lakes' Public Works & Engineering Services Department for five years as an Administrative Manager, Operations Manager and Assistant to the Director. Prior to that I worked for Broward County in a variety of positions for approximately ten years.

I reviewed your Plan and have some copy editing suggestions, if you don't mind. I believe my suggestions will clean up some minor grammatical issues for a better look for your final document. I will address the content of the Plan at the end of this email.

Page 7 (Your numbering): The average high temperature for the Miami-Dade County is 82 degrees...
Change: Remove "the"

Page 8: The following is a summary of the storm's that greatly affected...
Change: Change "storm's" to "storms"

Page 9: For Dade County this was the "BIG ONE." Causing approximately $25 billion...
Change: Combine sentences to read: For Dade County this was the "BIG ONE," causing approximately $25 billion...

Page 12: The Stormwater Master Plan - Phase 1 recommend increasing...
Change: Change "recommend" to "recommends"

Page 12: The City is currently in process of acquiring properties...
Change: Change to "in the process of acquiring"...

Page 12: ...public and private utility facilities necessary to maintaining or restoring services to resident.
Change: Change "resident" to "residents"

Page 13: The following features are included within this area is...
Change: The following features included within this area are...

Page 16: All of these goals also take into consideration of the requirements...
Change: All of these goals also take into consideration the requirements...

Page 17: In compliance with National Pollution Discharge Elimination System (NPDES) permit...
Change: In compliance with the National Pollution Discharge Elimination System (NPDES) permit...

Page 17: ...these Plans analyze the existing stormwater system and...
Change: To either ..."these Phases analyze" or "this Plan analyzes"

Page 19: The City is engaged in a school education initiative to explain flood hazards and possible solution to students.
Change: Change "solution" to "solutions"

Page 20: The installation of a combination high impact/shatterproof windows, roll downs...
Change: The installation of a combination of high impact/shatterproof windows, roll downs...

Page 20: There are five canal ends in Sans Souci currently in good condition and are twenty-three canal ends...
Change: There are five canal ends in Sans Souci currently in good condition and there are twenty-three canal ends...

Page 23: Surge suppression equipment will protect the system against damaging power fluctuations. Eliminate the need for new equipment purchases...
Change: Combine sentences to: "and eliminate" or begin new sentence with: "It will eliminate..."

I believe your Plan is well organized with an historical background of the City, solid goals and a clear action plan. What I think you could use, possibly at the end, is a statement (several paragraphs) on sea level rise and what other adaptation and mitigation measures might be necessary, beyond what you're doing and planning. It's something that's not going away and in the news every day, so addressing it a little more and discussing other possible options and solutions, partnerships, etc.
would demonstrate that your City is aware of the problem, ahead of the curve and preparing for the worse. Other than that, everything looks good.

Good luck! Hope to meet you in the future, maybe at a roundtable event. I'm looking to get back into government work.

Sincerely,

Chris Van Vliet, MPA, PMP, CFM
Pompano Beach, FL

Geimer, Jeff

From: Rodriguez, Lourdes [rodriguezl@miamilakes-fl.gov]
Sent: Friday, October 31, 2014 4:24 PM
To: 'agonzalez@cohb.org'; 'airaf@miamidade.gov'; 'ajrarch@bellsouth.net'; Alex Hernandez; Alfredo Quintero PW Cutler Bay ; 'Alicia.verea-feria@tetratech.com'; antonio.brina@cityofdoral.com; Augustin,Christopher; 'aviqar@opalockafl.gov'; 'barrios@miamidade.gov'; Blanco, Linda; Schaad, Brandon R.; Brian Cocoran ; Bruce Martin VA Gdns; 'Bwayne@miamigov.com'; 'carlos.arroyo@cityofdoral.com'; 'carlosfernandez@miamibeachfl.gov'; 'carrj@cityofaventura.com'; 'catshine252@yahoo.com'; 'ccarrera@naplesgov.com'; 'charltons@ci.marathon.fl.us'; 'cip@hollywoodfl.org'; 'claudiog@tamarac.org'; Cleveland Bain - Coral Springs; colazabal@coralgables.com; 'cpatterson@palmettobay-fl.gov'; 'craig.southern@citynmb.com'; 'cvanvliet9337@yahoo.com'; 'dacquistod@miamishoresvillage.com'; 'Daniel@wingerterlab.com'; Darlene Martinat - Surfside (dmartinat@townofsurfsidefl.gov); Dave Clark - Stantec; 'davidr@jupiter.fl.us'; Debbie Cahoon (debbie.cahoon@yahoo.com); 'dgrandal@c3ts.com'; 'dhawkins@city-ftpierce.com'; 'dhays@ircgov.com'; 'dlee@bayharborislands.net'; 'dolinn@broward.org'; 'dpustizzi@broward.org'; 'eabia@opalockafl.gov'; 'edward.rojas@cityofdoral.com'; 'eking@hallandalebeachfl.gov'; 'esantiago@keybiscayne.fl.gov'; Escobar, Natalia; 'ffmadrk@gmail.com'; 'frhernandez@miamigov.com'; 'g.mccauley@deerfield-beach.com'; Guari Mascaro City of Miami ; 'hdavalos@hollywoodfl.org'; 'herena.szczepanski@citynmb.com'; 'herminiaperez@miamibeachfl.gov'; 'HernaC@miamidade.gov'; Hernandez, Carlos (RER); 'herrel@miamidade.gov'; 'hildod@miamidade.gov'; 'HLiles@iso.com'; 'inspectorkev@bellsouth.net'; Ismael Naranjo - Miami Shores; 'jbriceno@broward.org'; 'jchockley@coopercityfl.org'; 'jfletcher@lauderhill-fl.gov'; 'jfritchey@naplesgov.com'; 'jgeimer@northmiamifl.gov'; 'jgmoas@townofmedley.com'; 'jguanch@ircgov.com'; 'jjackson@northmiamifl.gov'; 'jlago@miamigov.com'; 'jmadden@fortlauderdale.gov'; 'jmcala@lauderhill-fl.gov'; jmufale (jmufale@sunrisefl.gov); 'joe.bowles@citynmb.com'; Jorge Corzo Town of Medley ; 'jose.casio@citynmb.com'; 'jray@coralgables.com'; Juvenal Santana ; 'kbada@palmettobay-fl.gov'; Keith NG; 'ken.caban@tetratech.com'; 'kfiddler@miamigardens-fl.gov'; 'kng@southmiamifl.gov'; 'kruderman@townofpalmbeach.com'; 'lcunningham@ci.dania-beach.fl.us'; 'llalwani@alachuacounty.us'; 'lteich@fortlauderdale.gov'; Lynn Rosetti - Madeira Beach; M Obrien; M Wood; MARIANA PITIRICIU; Mark Winslow - City of Sunrise; 'mcphersonc@ci.marathon.fl.us'; 'mdiaz@balharbour.org'; 'mdominguez@keybiscayne.fl.gov'; Medina, Marlon - Stantec; 'mgambino@miamigardens-fl.gov'; 'mharris@opalockafl.gov'; 'Michael.rada@copbfl.com'; Mesa, Michel; Mimi Young; 'mjeannot@cohb.org'; 'mjeannot@hallandalebeachfl.gov'; 'mjean-pharuns@northmiamifl.gov'; Mohssen Jarahpour; 'moubab@miamidade.gov'; 'mpryde@lighthousepoint.com'; 'msgeverett@yahoo.com'; 'ogarc006 @gmail.com'; Palacio, Eliezer; 'patrickr@tamarac.org'; Paul Vitro ; 'pbollenback@naplesgov.com'; Perkins, Cathie (OEM) ; 'pgrissom@lakeworth.org'; 'pholste@davie-fl.gov'; pvilla@sibfl.net; 'r.juliano@deerfield-beach.com'; ralvarez@hallandalebeachfl.gov; 'raymond.misomali@miamidade.gov'; 'rbolton@hollywoodfl.org'; 'Rcasals@cutlerbay-fl.gov'; Rene Velasco - City of Doral; 'rlodell@ci.miramar.fl.us'; 'rodneyc@jupiter.fl.us'; Roland Ruiz Palmetto Bay ; Ross Prieto Tow of Surfside; 'rwall@wpb.org'; 'rwoodward@coopercityfl.org'; 'salannese@yahoo.com'; 'sannese@townofmedley.com'; 'scuervo@cutlerbay-fl.gov'; 'sdinneen@sunrisefl.gov'; Sergio Ascunce City of Hallandale; 'sflanagan@coconutcreek.net'; Shannon Ley - Sunrise ; 'spizzillo@cityofparkland.org'; 'steelm@miamidade.gov'; 'svezina@fortlauderdale.gov'; 'swoods@cityofhomestead.com'; 'syed.ashraf@citynmb.com'; Taylor, Elissa; 'tbrownell@erbrownell.com'; 'tlampert@cityofhomestead.com'; 'toddhi@fortlauderdale.gov'; 'tormej@miamidade.gov'; 'truiz@miamigardens-fl.gov'; 'tsidoti@broward.org'; 'tws@coralsprings.org'; 'wdumbaugh@broward.org'; Yenier Vega - Cutler Bay
Subject: FW: City of North Miami - Floodplain Management Plan Peer Review
Attachments: Floodplain management plan - 2014 Draft.pdf

Good Afternoon,

Below please see an email from Jeff Geimer, City of North Miami, requesting a peer review of the attached document. Thank you for your assistance in this.

Lourdes M. Rodriguez, CFM
Building Department

MIAMI LAKES
Growing Beautifully

Town of Miami Lakes
6601 Main Street, Suite 101
Miami Lakes, FL 33014
Tel: (305) 827-4015
Fax:(305) 558-9884
rodriguezl@miamilakes-fl.gov

www.miamilakes-fl.gov

Dear Roundtable Members,

I have attached a draft of the City of North Miami's updated Floodplain Management Plan. I am requesting the assistance of our NFIP/CRS Roundtable members by providing me with a peer review of this document. The appendix was intentionally left off in order to reduce the time needed reviewing the document. Please e-mail your comments, recommendations and/or suggestions directly to me (instead of the entire group) at jgeimer@northmiamifl.gov. If you do not have any recommendations, I would appreciate an e-mail back stating that you have reviewed the draft document and have no recommended changes.

Along with your e-mail, please include your name, work title, and name of your employer. It would be great if you could provide your response by November 6, 2014. Thank you in advance for your time and assistance.

Jeff Geimer, MPA, CPRP, CFM
Capital Project Manager

Public Works Department
1855 NE 142 Street
North Miami, FL 33181
305-895-9874 - direct

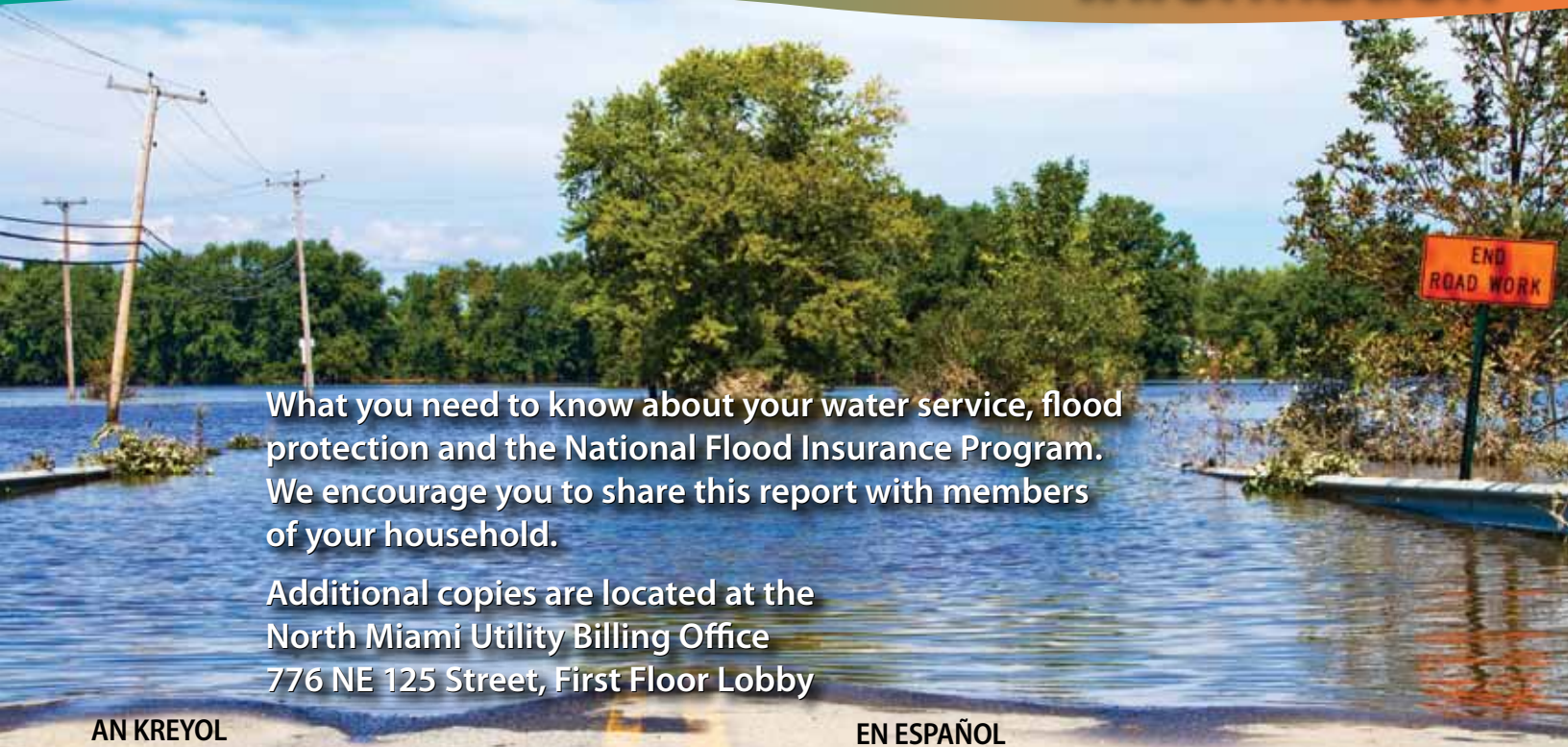
green North Miami Please print only if necessary

The City of North Miami is a public entity subject to Chapter 119 of the Florida Statutes concerning public records. E-mail messages are covered under such laws and thus subject to disclosure. All E-mail sent and received is captured by our servers and kept as a public record.

NORTH MIAMI
FLORIDA

2013 Water Quality Report

2014 Flood Hazard Information



What you need to know about your water service, flood protection and the National Flood Insurance Program. We encourage you to share this report with members of your household.

Additional copies are located at the
North Miami Utility Billing Office
776 NE 125 Street, First Floor Lobby

AN KREYOL
Si ou ta vle reserwa enfomasyom sa an kreyol,
rele nimewo telefon sa 305-893-6511 Ext. 12166

EN ESPAÑOL
Si usted quiere recibir este folleto en Español,
por favor llame al téléfono 305-893-6511 Ext. 12166

facts about the water we drink

The City of North Miami is pleased to provide you with this year's Annual Water Quality Report. This report is designed to inform you about the quality of your drinking water and the services we deliver to you every day.

the source of our drinking water

The goal of North Miami's Water Utility is to provide you with a safe and dependable supply of drinking water every day. Our water source is ground water from eight wells. The wells draw from the Biscayne Aquifer. In order to service our entire city and surrounding community, we also purchase water from Miami-Dade County, (which is also treated ground water from the Biscayne Aquifer).

The Biscayne Aquifer is located just below the land surface in South Florida. It consists of porous rock with tiny cracks and holes, which water flows through like an underground river. This water is often referred to as ground water or the water table, and provides virtually all of the water that is used by residents of South Florida. The water travels at a very slow rate, in an east-southeasterly direction at a rate of approximately two feet per day, which provides for a natural filtration process and results in generally clean water. Where there are very large openings or man-made canals the flow rate can increase substantially.

a message from the interim director

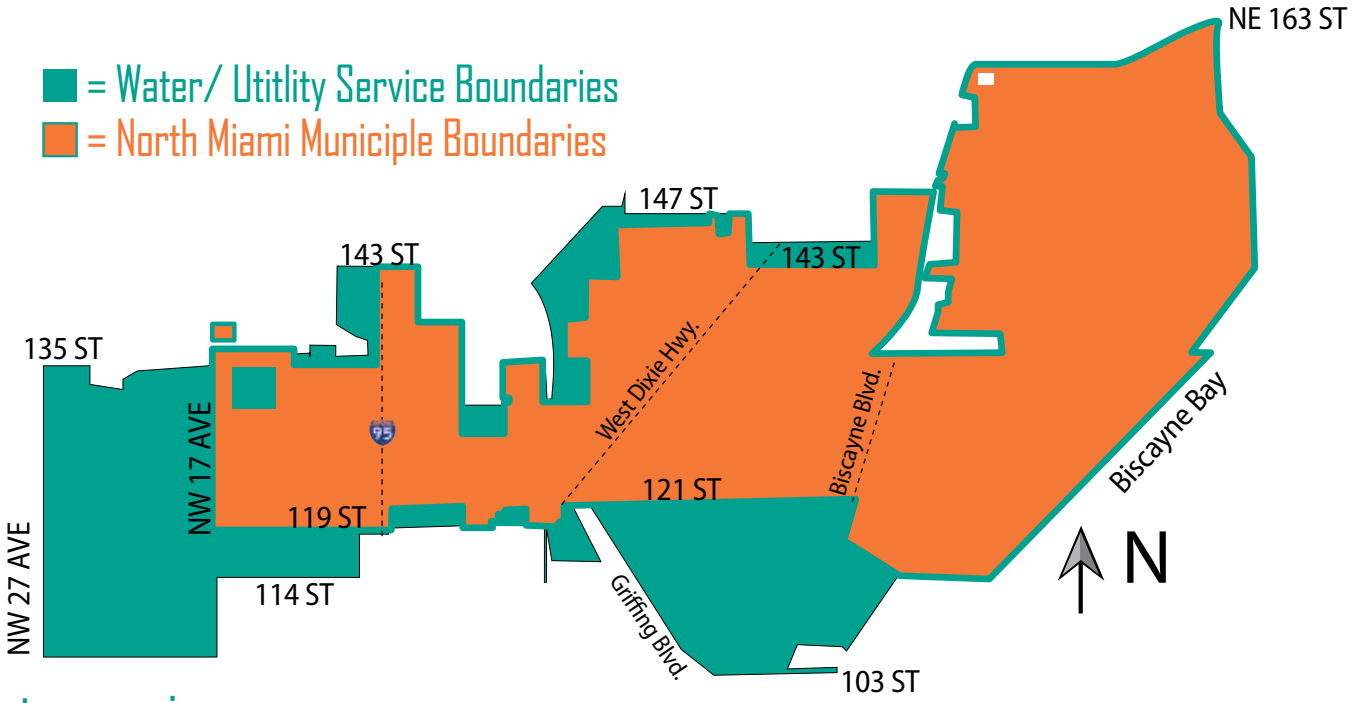
Thank you for taking the time to read the 2013 edition of the City of North Miami's Consumer Confidence Report (CCR) also known as our water quality report. Our CCR provides you with information about the source and quality of our drinking water. We continue to provide drinking water that meets or exceeds all local, state and federal requirements. We put forth maximum effort towards meeting our goals for water supply protection, water conservation, community education, water system maintenance and water quality.

We continue to maintain a system for this great community that delivers high quality and safe drinking water. I would like to thank our staff for their service and devotion provided to our community. We persistently make every effort to deliver the best quality drinking water to you.

Our efforts have paid off as for the second consecutive year the City of North Miami has taken first place in the Florida Section of the American Water Works Association (FSAWWA) Region VII Best Tasting Drinking Water Contest. We represented our region at the State level competition.

Again, thank you for reading the CCR and please feel free to contact us if you would like to discuss the contents of the report.

Wisler Pierre-Louis, P.E., LEED AP BD+C, CFM, PMP
Interim Public Works Director



water service area

The City of North Miami Water and Sewer Utility serves a population of over 70,000 people in a 13 square-mile area. Our customers are located within the city of North Miami, as well as portions of unincorporated Miami-Dade County, Miami Shores and Biscayne Park. We also provide emergency interconnects to the municipalities of North Miami Beach and Opa-Locka. The plant pumps and treats an average of 8.5 million gallons of water per day. We are supplemented by water purchased from Miami-Dade County's main water system through several metered interconnects throughout the distribution system.

treating your water

North Miami's Winson Water Plant at Sunkist Grove uses a lime softening process to treat water drawn from the Biscayne Aquifer (ground water) to ultimately provide quality drinking water to your home or business. The ground water contains many minerals such as calcium and magnesium. Treatment is necessary to reduce mineral levels in order to prevent build up in the pipes and discoloration of household fixtures. The first treatment process is aeration, which removes unwanted carbon dioxide and hydrogen sulfide that can cause a bad taste and odor. Next sodium-hypochlorite (liquid Chlorine) and lime are added to the water to destroy bacteria and remove some of the minerals, such as iron. Without this process, plumbing fixtures and sinks would become stained by iron deposits. The water then flows through anthracite coal filters to remove small particles. Fluoride is added to the water, along with additional sodium-hypochlorite and ammonia, to retain adequate levels of disinfection and ensure that the drinking water remains bacteria-free as it makes it way through the distribution system. North Miami's water distribution system consists of more than 300 miles of water lines that transport treated water into your home or business. Quality Assurance testing is performed every hour by state licensed water treatment operators to ensure that the water leaving our water plant meets or exceeds all federal, state and local regulations, as well as the city's own quality standards. City of North Miami employees are committed to ensure that every drop of water delivered to our utility customers is completely safe to drink.

water conservation incentive programs

Commercial Restaurant Spray Valve Exchange Program

Restaurants in North Miami can also reduce water consumption by exchanging existing sink spray valves with low-flow pre-rinse valves provided by the City that reduce up to 80% of water use. The new Power Rinser valve can save businesses up to $1300 per year. This spray valve is interchangeable with all brands and the fixture has a five year warranty. Bring us your existing valve to receive the Power Rinser Pre-Rinse Spray Valve (1.1 N2180-1.1 GPM).

Residential Showerhead Exchange Program

Replacing your showerhead with a new high efficiency fixture can cut your water use in half. Bring us your old showerhead and we will give you a brand new, easy to install showerhead fixture.

Fixtures can be exchanged at the following location:
North Miami City Hall – Utility Billing Office
776 NE 125 Street – First floor
Monday through Friday, 8 a.m. – 5 p.m.

conservation: use water wisely

Water is fast becoming one of the world's most precious resources. Here in South Florida, as throughout the southeastern United States, water restrictions have become a way of life year-round. We encourage you to conserve water whenever possible.

For more information on water use, restrictions and conservation, visit the South Florida Water Management District's website at sfwmd.gov or miamidade.gov/conservation.

Dropsavers Poster Contest Winners

In 2014, the city of North Miami participated in the Dropsavers Water Conservation Poster Contest, hosted by the American Water Works Association. Students in grades K-12 submitted their creative artwork and slogans to the City. The following students were chosen to represent North Miami at the State competition and were also recognized by the North Miami City Council during Water Conservation Month in April 2014:

Joshua Knight
3rd Grade, Biscayne Gardens Elementary (Division 2)

Fredrick Pierre
5th Grade, Natural Bridge Elementary (Division 3)

Nataly Morales
6th Grade, Thomas Jefferson Middle (Division 4)

Leslie McCoy
12th Grade, North Miami Senior High (Division 5)

Leslie also won 3rd place in the State of Florida for her artwork shown above.

health and safety standards

We are pleased to report that our drinking water meets all federal, state and local regulations and continues to meet our quality standards.

The United States Environmental Protection Agency (EPA) and the State of Florida Department of Environmental Protection (FDEP) set both primary and secondary standards to ensure public water is safe to drink. Primary Standards protect public health against substances that may be harmful to humans if consumed for long periods. Secondary standards control the aesthetic qualities of the water such as taste, odor and clarity, but do not impact public heath.

North Miami routinely monitors your drinking water for contaminants according to all federal, state laws, rules and regulations. This report is based on the results of our monitoring period from January 1 to December 31, 2013. Data obtained before January 1, 2013 and presented in this report are from the most recent testing done in accordance with the laws, rules and regulations governing water quality.

what should you know about certain contaminants

The presence of contaminants in drinking water does not necessarily pose a health risk. Some people may be more vulnerable to effects of contaminants in drinking water than the general population. Immuno-compromised persons such as cancer patients undergoing chemotherapy, those with organ transplants, individuals with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk for infections. Anyone who falls into these categories should seek advice about drinking water from their healthcare providers.

Guidelines established by the EPA and the Centers for Disease Control (CDC) on appropriate means to lessen the risk of infection by Cryptosporidium[1] and other microbial contaminants are available from the **Safe Drinking Water Hotline** at **1-800-426-4791**.

SOURCE WATER ASSESSMENT (SWA)

The Florida Department of Environmental Protection conducts an on going assessment of public drinking water systems. North Miami's system was assessed in 2013. The Florida Department of Environmental Protection identifies and assesses any potential sources of contamination in the vicinity of our water supply. A report for our system is available at the DEP SWAPP web site, **dep.state.fl.us/swapp**, where you are able to search by county and by water utility.

CONTAMINANTS

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material. The flowing water can also obtain substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include:

(A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.

(B) Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

(C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.

(D) Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes, petroleum product ion and possibly from gas stations, urban storm water runoff and septic systems.

(E) Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

[1] Cryptosporidium is a microscopic organism that, when ingested, can result in diarrhea and other gastrointestinal symptoms. It is associated primarily with surface water sources; however, ours is a ground water source.

In order to ensure that tap water is safe to drink, the EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants, yet does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the **EPA's Safe Drinking Water Hotline at 1-800-426-4791.**

lead contaminants

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City of North Miami Water Utility is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for thirty seconds to two minutes before using the water for drinking or cooking. Information on lead in drinking water, testing methods and steps you can take to minimize exposure is available at **epa.gov/safewater/lead**.

You may find unfamiliar terms and abbreviations in this report. To help you better understand these terms we've provided the following definitions:

Action Level (AL) The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Maximum Contaminant Level Goal (MCLG) The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG'S allow for a margin of error.

Maximum Contaminant Level (MCL) The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MLG'S as possible using the finest available treatment technology.

Maximum Residual Disinfectant Level Goal (MRDLG) The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Maximum Residual Disinfectant Level (MRDL) The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants. ND Not detected and indicates that the substance was not found by laboratory analysis.

Parts per million (ppm) or Milligrams per liter (mg/l) One part by weight of analyte to 1 million parts by weight of the water sample.

Parts per billion (ppb) or Micrograms per liter (µg/l) One part by weight of analyte to 1 billion parts by weight of the water sample.

Picocurie per liter (pCi/L) Measure of the radioactivity in water.

unregulated contaminants

The City of North Miami has been monitoring for unregulated contaminants (UCMR) as part of a study to help the U.S. Environmental Protection Agency (EPA) determine the occurrence of UCMR's in drinking water, and whether or not these contaminants need to be regulated. Currently, no health standards (such as maximum contaminant levels) have been established for UCMR's; however, we are required to publish the analytical results of our UC monitoring in this report.

North Miami is proud to offer the best tasting water on tap in Miami-Dade and Monroe County. In 2014, the North Miami Water Utility took first place for the second year in a row at the American Water Works Association's Region VII Drinking Water Contest. Since 2009, North Miami has consistently ranked in the top at the regional level, including first place recognition in 2009, 2013 and 2014.

the future of our water and service

The city of North Miami is committed to enhance our water service by focusing on our capacity needs for the future. One of the main projects essential to our water production is the rehabilitation of the Winson Water Plant at Sunkist Grove. Built in 1962, the rehabilitation project is necessary to make the plant more efficient and allow our water utility to continue to produce high-quality drinking water for future generations. The costs of the improvements, estimated at $25 Million, are reflected in the current utility rates which were approved by the North Miami City Council in April 2012.

The rehabilitation project includes the following upgrades:

- Lime softening process
- Accelators
- Installation of new filtration system/pipe gallery
- Residuals handling system (sludge)
- High service pumping capacity
- Relocation/replacement of water storage tanks
- Improvements to chemical feed system
- Construction of a new operations building
- Raw water wells and transmission piping

In 2013, the City also acquired property necessary to relocate the water storage tanks and has made over $8 Million of improvements in water distribution mains and water meter replacements. Water service customers can also track water consumption and set up paperless statements, which helps to reduce the environmental impact of our operations. Additionally, the City launched a new Utility Billing service which allows water customers to have online access to account information such as payment history and account summaries.

the mission of our water and sewer utility

The City of North Miami Water Utility is committed to providing an ample supply of high quality, safe drinking water to all North Miami customers by achieving the following objectives:

1) Protect public health by distributing safe, potable water to all customers.
2) Maintain adequate pressure and volume to meet fire protection requirements.
3) Keep the utility's cost as low as possible while complying with all applicable regulations.

The City of North Miami works around the clock to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.

PARAMETERS	FEDERAL MCL (a)	FEDERAL GOAL (b)	STATE MCL	NORTH MIAMI YEAR TESTED	NORTH MIAMI WATER SYSTEM	MIAMI-DADE YEAR TESTED	MIAMI-DADE WATER MAIN SYSTEM	MAJOR SOURCE
MICROBIOLOGICAL CONTAMINANTS								
Total Coliform Bacteria (c)	5%	0	5%	12	0.0%	13	0.2%	Naturally present in the environment
STAGE 2 DISINFECTION BYPRODUCT								
Total Trihalomethanes (ppb) (d)	80	N/A	80	12	45 (12 - 78)	13	72 (3 - 83)	Byproduct of drinking water chlorination
Haloacetic Acid (ppb) (d)	60	N/A	60	12	30 (15 - 53)	13	37 (16 - 45)	Byproduct of drinking water chlorination
DISINFECTANTS								
Cholramines (ppm)	MRDL= 4.0	MRDL= 4.0	MRDL= 4.0	12	2.2 (0.6 - 3.8)	13	2.3 (ND - 4.9)	Water additive used to control microbes
Chlorine (ppm) (e)	MRDL= 4.0	MRDL= 4.0	MRDL= 4.0	12	N/A	13	N/A	
INORGANIC CONTAMINANTS								
Arsenic (ppb)	10	N/A	10	12	ND	11 (g)	1	Erosion of natural deposits
Barium (ppm)	2	2	2	12	0.0045	11 (g)	0.01	Erosion of natural deposits
Chromium (ppb)	100	100	100	12	ND	11 (g)	0.2 (ND - 0.2)	Erosion of natural deposits
Copper (ppm) (f) at tap	AL= 1.3	1.3	AL=1.3	11 (g)	0.028, 0 out of 60 homes (0%) exceeded AL	11/12 (g)	0.06, 0 homes out of 56 (0%) exceeded AL	Corrosion of household plumbing
Fluoride (ppm)	4.0	4	4.0	12 (h)	0.52 (0.16 – 1.22)	11 (g) (h)	0.6 (0.2 - 0.6)	Erosion of natural deposits; water additive which promotes strong teeth
Lead (ppb) (e)	AL= 15	0	AL = 15	11 (g)	0.780, 0 out of 60 homes (0%) exceeded AL	11/12 (g)	2.8, 0 homes out 56 (0%) exceeded AL	Corrosion of household plumbing
Nitrate (as N) (ppm)	10	10	10	12	0.20	13	0.14 (0.01 - 0.14)	Erosion of natural deposits; Runoff from fertilizer
Sodium (ppm)	NE	N/A	160	12	24.6	11 (g)	41 (26 - 41)	Erosion of natural deposits and sea water
RADIOACTIVE CONTAMINANTS								
Alpha Emitter (pCi/L)	15	0	15	12	0.8 (ND - 0.8)	11 (g)	2.4 (ND - 2.4)	Erosion of natural deposits
Combined Radium (pCi/L)	5	0	5	12	1.1 (ND - 1.1)	11 (g)	0.6 (ND - 0.6)	Erosion of natural deposits
Uranium (ug/L)	30	0	30	12	0.9(ND- 0.9)	11 (g)	ND	Erosion of natural deposits

AL = Action Level

MRDL = Maximum residual disinfection level

MRDLG = Maximum residual disinfection level goal

N/A = Not Applicable

ND = None Detected

pCii/L = PicoCuries per Liter

ppb = Parts per billion or micrograms per liter (ug/LJ

ppm = Parts per million or milligrams per liter (mg/L)

( ) = Ranges (low- high) are given in parentheses where applicable

The value preceding the parentheses is the highest detected level reported for the monitoring period except for disinfection by products and disinfectants, where the running annual average is reported

NE= None Established

(a) MCL =Maximum Contaminant Level

(b) Federal Goal= MCLG =Maximum Contaminant Level Goal

(c) The MCL for total coliform bacteria states that drinking water must not show the presence of coliform bacteria in ≥ 5% of monthly samples. A minimum of 80 samples for total coliform bacteria testing are collected each month from the distribution system, in compliance with state regulation.

(d) North Miami's total of 16 samples for Total Trihalomethane and 16 samples for Haloacetic Acid, Miami Dade's total of 32 samples for Total Trihalomethane and 32 samples for Haloacetic Acid testing per year from the distribution system, in compliance with state regulation. Compliance is based on a running annual average. This the value that precedes the parentheses.

(e) Compliance is based on a running annual average computed quarterly from monthly samples collected during coliform bacteria testing.

(f) 90th percentile value reported. If the 90th percentile value does not exceed the AL (ie., less than 10% of the homes have levels above the AL) the system is in compliance and is utilizing the prescribed corrosion control measures.

(g) The 2011 data presented is from the most recent testing conducted for these parameters in accordance with regulations

(h) Fluoride testing to demonstrate compliance with State regulations is required every three years in accordance with the StateS monitoring framework. However, fluoride levels are monitored dally at the treatment plants where fluoride is added to promote strong teeth.

FLOOD HAZARD INFORMATION

1968, Congress created the National Flood Insurance Program (NFIP) to provide affordable flood insurance to people who live in areas with the greatest risk of flooding; this area is called the Special Flood Hazard Area (SFHA). The NFIP makes federally backed flood insurance available in communities that agree to adopt and enforce floodplain management ordinances to reduce future flood damage. This is important since property owners must purchase flood insurance for property located within a SFHA.

The Community Rating System (CRS) is a program developed by the Federal Insurance Administration to provide incentives for NFIP communities that implement more stringent floodplain standards than the minimum NFIP requirements. The CRS rewards these efforts with discounts on flood insurance premiums. **The city of North Miami currently holds a Class 5 CRS rating. This classification equates to a 25% discount on new or renewing flood insurance policies for all SFHA properties and a 10% discount on policies for non-SFHA properties.**

In North Miami, there are approximately 6,100 flood insurance policies in effect. Annually the city's CRS Class 5 rating generates over $900,000 in savings on flood insurance premiums. Since flooding is the most common natural disaster, it is important that you obtain the maximum protection.

You can purchase flood insurance no matter where you reside (in a high, moderate or low risk area) and there is no exclusion based on the type of ownership you represent (i.e. homeowner, renter or business owner).

Since protecting your property from floods is important, the following information and tips may be of interest to you. Please refer to this fact sheet in the event of an impending hurricane, tropical storm or notification of projected heavy rainfall. During extended periods of heavy rainfall, low lying areas within the city are subject to flooding. This information is offered to help protect your property and reduce potential losses due to flooding.

Flood Hazard

Arch Creek, Little Arch Creek, Biscayne Canal and Oleta River are the four major waterways that traverse the city of North Miami. The majority of our storm sewer system empties/discharges toward one of these four waterways or Biscayne Bay, which connects directly with the Atlantic Ocean. The waterways are influenced by tides that contribute to drainage and flood problems in the city. When there is a high tide or heavy rainfall, the storm sewer system will rapidly fill up from surface run-off and tidal waters; this could cause flood conditions in our streets, swale areas and lawns.

The city of North Miami can be divided into two major drainage areas, (1) the area west of the Biscayne Canal, and (2) the area east of the Biscayne Canal. The area west of the Biscayne Canal has primarily sandy soil and a very low water table elevation. The remainder of the City, east of the Biscayne Canal, consists of muck, marl and sand and primarily has high water table levels.

Your property may be elevated high enough that you have not experienced flooding. However, this may change in the future. Hurricane Andrew (1992), South Florida's most devastating storm was not a wet hurricane as compared to Hurricane Irene (1999) which registered 13 inches of rain in Miami-Dade County in a 24-hour period. In 2000, continuous rainfall from the October 3 "No Name" storm deposited more than 19 inches of rain in a 24-hour period. This storm inundated local canals and waterways and caused unprecedented residential property damage and destruction for what was originally forecast as a severe area thunderstorm.

Flood Warning System

The city of North Miami and Miami-Dade County utilize the National Weather Service (NWS) for flood notification. The NWS will issue flood advisories at least six (6) hours prior to expected heavy rainfall that could cause the drainage systems to overflow and create inland ponding of flood waters and the isolation of residential/business areas. Remain tuned to your local radio stations for up-to-date forecasts. In 2001, the

City developed a citywide flood warning plan to provide early warning to neighborhoods that might experience flooding. Police vehicles will drive through the neighborhoods that may be impacted and use their sirens and loud speakers to issue warnings. Evacuation routes will be US Highway 1 (Biscayne Boulevard), NE 125 Street, NE 135 Street and Interstate 95.

FLOOD SAFETY

If you are advised to evacuate, turn off your utilities at the main switches and/or valves. Disconnect electrical appliances, but do not touch any electrical equipment if you are wet or standing in water. Do not walk or drive through standing or flowing water; there may be a downed power line, sinkhole or even a canal that you are unable to see. Watch your step in flooded areas as slip and fall accidents are one of the leading causes of injuries after a storm.

FLOOD INSURANCE

Most mortgage lenders require flood insurance based on the elevation of the property. In the event that your mortgage does not have this provision or if you own your property free and clear, you can still purchase this insurance at any time; however, there is a 30-day waiting period before the policy becomes effective. Remember, neither homeowner's nor windstorm insurance covers flood damage to structures. Since North Miami is an NFIP community, flood insurance is available to protect all homes, condominiums, apartments and non-residential buildings (including commercial structures) within the City. You are eligible for flood insurance, regardless of whether your property has never flooded or has flooded several times in the past. All properties secured by a federally backed mortgage (FHA, VA, FNMA, etc.) must carry flood insurance.

FLOODPLAIN DEVELOPMENT PERMIT REQUIREMENTS

All buildings under construction require permits. These permits should be obtained prior to commencement of construction activities. Contact the Building and Zoning Department before you build, alter, regrade or add fill to your property. Building and Zoning is located at 12340 NE 8 Avenue. If you see building or fill being added to a property without a City permit posted, report the work to 305-895-9820.

SUBSTANTIAL IMPROVEMENT REQUIREMENTS

The city of North Miami and the National Flood Insurance Program require that if the cost of reconstruction, rehabilitation, additions or other improvements to a building equals or exceeds 50 percent of the building's market value during a five-year period, the building must meet the same construction requirements as a new building. This includes elevating the lowest floor to current standards. Substantially damaged buildings must also be brought up to the same standards.

DRAINAGE SYSTEM MAINTENANCE

Proper drainage helps reduce the risk of flooding. It is illegal for any direct or indirect entry of any solid, liquid or gaseous matter to enter the drainage system. The City inspects the drainage system on a regular basis and removes blockages that are found or reported. If you live near areas where waters flow, you can help in this process by keeping the banks clear of brush and debris. Reports of any violations should be made to the Public Works Department at 305-895-9830.

NATURAL AND BENEFICIAL FUNCTIONS

The Oleta State Recreation Area and Mangrove Preserve, located between NE 135 Street and NE 163 Street and east of US Highway 1, has been designated as Environmentally Sensitive Land. These undisturbed natural areas of North Miami act as a natural storage area for flood waters; this helps reduce the possibility of flooding to nearby residences while helping to recharge the groundwater aquifer. Please help keep this area natural and beautiful by reporting any illegal dumping and littering violations to the City's Public Works Department at 305-895-9830 or Miami-Dade County at 311.

MAP DETERMINATIONS

The City provides Flood Insurance Rate Map (FIRM) determinations to let you know if you are in a flood hazard area and if you are required to carry flood insurance. If you would like a determination, contact the Building and Zoning Department at 305-895-9820. You can also refer to the City floodzone map to determine if your property lies in the Special Flood Hazard Area.

SITE VISITS

Upon request, a representative from the North Miami Public Works Department will visit your property to review flooding problems and to explain possible ways to alleviate and prevent flood damage. Also, if you have experienced flooding, drainage, sewer backup problems, or have seen illegal dumping of debris into City canals, lakes, or storm drains, please contact the Public Works Department at 305-895-9838.

flood protection tips

Did you know that floods are the most common natural disaster? Here are a few safety tips to consider if you are ever faced with flooding.

PROTECTING YOUR PROPERTY

If your lot is large enough, you should consider regrading it or building a small floodwall. You can also place watertight closures over the doorways; however, these approaches only protect if flooding is not too deep. You can also consider elevating your home.

Flood-proofing, installing floodgates and making walls waterproof are among the common ways to structurally protect commercial property. Most times, residential structures are elevated higher then the anticipated floodwaters. For additional assistance on how to protect your property from flooding, you may contact the North Miami Public Works Department at 305-895-9838, or you may contact the City's Building Official at 305-895-9820. Additional information on how to perform residential retrofitting or commercial flood proofing is available at the North Miami Public Library in the City's Floodplain Management (CRS) reference section.

MINIMIZING FLOOD DAMAGE

Don't throw or dump anything into storm sewers or canals within the City. Even grass clippings and branches can accumulate and plug channels and drains. A plugged channel or storm drain cannot carry water when it rains. Clogged storm drains will cause water to back up into the street and may cause flooding. Every piece of trash contributes to flooding. If your property is next to a canal, help keep the banks clear of brush and debris. The City has a canal maintenance program which can help remove major blockages such as downed trees; please report any blockages to 305-895-9830.

DO NOT WALK THROUGH FLOWING WATER OR DRIVE THROUGH FLOODED AREA

Drowning is the number one cause of flood deaths. Currents can be deceptive; six inches of moving water can knock you off your feet. If you walk in standing water, use a pole or stick to ensure that the ground is still there. Also do not disregard road barriers, the road or bridge may be washed out.

STAY AWAY FROM POWER LINES AND ELECTRICAL WIRES

Electrocution is the number two flood killer. Electrical currents can travel through water. Report downed power lines to Florida Power and Light; the number is 305-442-8770. You can also report downed power lines to the North Miami Police Department at 305-891-8111.

HAVE YOUR ELECTRICITY TURNED OFF BY FPL

Some appliances, such as television sets, hold electrical charges even after they have been unplugged. Avoid using appliances or motors which have gotten wet unless they have been taken apart, cleaned and dried.

BE READY FOR THE UNEXPECTED

Place important documents inside plastic bags or other waterproof containers. Review your insurance policy to ensure it provides adequate coverage. Know what type of coverage you have. Most policies cover wind storm damage, but not flooding. Any policy change usually takes 30 days before going into effect.

LOOK OUT FOR ANIMALS, ESPECIALLY SNAKES

Small animals that have been flooded out of their homes may seek shelter in yours. Use a pole or stick to poke and turn things over and scare away small animals. Even domesticated animals may react differently after a disaster or storm and could bite or attack.

LOOK BEFORE YOU STEP

After a flood, the ground and floors are covered with debris, including broken bottles and nails. Floors and stairs that have been covered with mud can be very slippery.

BE ALERT FOR GAS LEAKS

If you use natural gas, use a flashlight to inspect for damage. Don't smoke or use candles, lanterns or open flames unless you know the gas has been turned off and the area has been ventilated.

IF YOU MUST EVACUATE

If you are required to evacuate, try to move to the house of a friend or family member not affected by the impending high waters. If you live in a mobile home, or are electrically dependent, plan to evacuate at the first notice of the emergency conditions. Rehearse your evacuation plan with all household members. Plan to leave early to avoid any traffic delays.

Register with the Miami-Dade County Emergency Evacuation Assistance Program at 311 or TDD at 305-468-5402 if you will need assistance to evacuate. Discuss these tips with your neighbors and friends. Try to have a prearranged plan designating how you can contact your neighbors. If you have to evacuate, inform each other of places where you will be staying and leave contact telephone numbers and addresses.

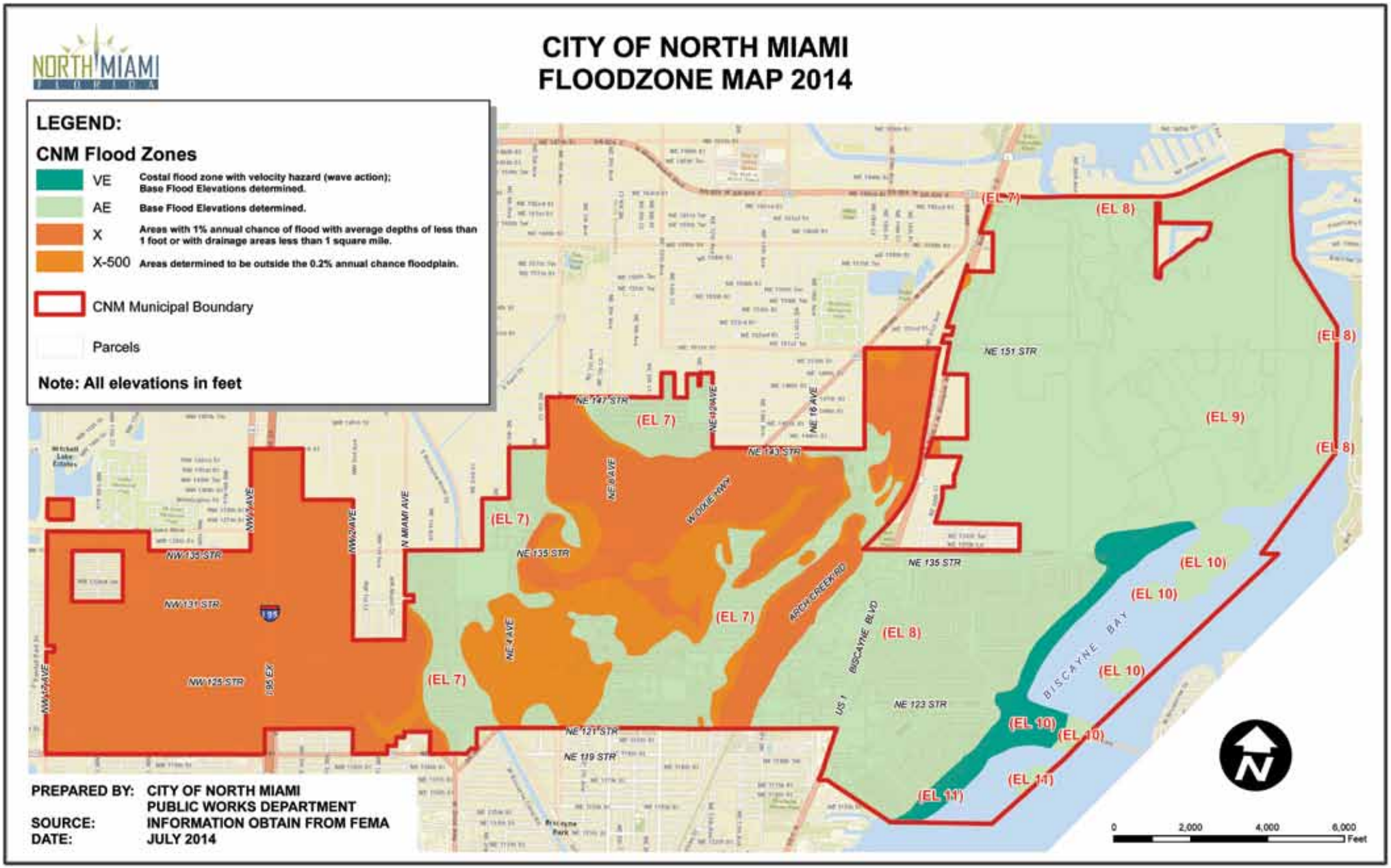
SECURING BOATS

If you own a boat, it's your responsibility to secure it. As a boat owner, you should make a plan in advance to move your boat or arrange for its storage. Check with a local marina for suitable alternatives. If possible, store it inside a garage or warehouse. If you must leave your boat outside, attach the trailer tongue to something firm in the ground, let the air out of the tires and make sure the boat is secure to the trailer. If possible, fill the bilge with water, which adds extra weight. If you plan to keep your boat in the canal, be sure to double the dock lines, leaving sufficient space for the tidal range and put out extra anchors. Don't forget to remove all marine electronics or other unsecured equipment. Sail boaters should remove self-furling sails and Bimini tops. Boats on davits should be secured with extra tie lines and in such a manner to keep the boat from swinging during high winds.

PET SAFETY TIPS

Remember, most evacuation centers will not accept pets. So make plans in advance to board your pets in an animal kennel or with friends. If you plan to ask a friend, be sure to ask in advance. Make certain that your friend lives in an area that is not expected to be affected by the storm. Ask if their home would be open to you and/or your pet should a storm threaten. Do not leave your pet home during a hurricane. A secure room and a few days food and water do not necessarily mean safety for your pet. Many people returned home after Hurricane Andrew to find their pets missing. Keep a current picture of your pet to help identify it. After the storm, take caution in allowing your pet outdoors after the storm has passed. Familiar scents and landmarks will have been altered and your pet may become confused or lost. Downed power lines also present real dangers. Take precautions not to allow your pet to consume food or water which may have become contaminated.

CITY OF NORTH MIAMI FLOODZONE MAP 2014



If you have questions about the information provided in this brochure, please feel free to call any of the numbers listed below.

CITY OF NORTH MIAMI WINSON WATER PLANT AT SUNKIST GROVE
Operates 24 hours /day. Call to report after hours, city-related emergencies (flood, burst pipes, backflow problems etc.)
305-953-2854 or 305-953-2857 (TDD)

North Miami Utility Operation Center
Monday - Friday, 7:30am - 4:00pm
305-895-9838

North Miami Office of Utility Billing
Monday - Friday, 8:00am - 5:00pm
305-895-9880

(Payments) Central Cashier
8:00am - 4:00pm
(CREDIT CARDS NOW ACCEPTED WITH PROPER PHOTO ID)

Miami-Dade County Environment Health Office
(Local contact for FDEP)
305-623-3500

Miami-Dade Department of Environmental Resources Management
305-372-6789

Florida Environment Protection Agency (EPA) Water Resource Management
1-850-245-8336

EPA Safe Drinking Water Hotline
1-800-426-4791

CITY OF NORTH MIAMI WATER AND SEWER RATES

The following rates are currently in effect for residential water and sewer use.

Service	City Code	Monthly Inside City	Quarterly Inside City	Quarterly Outside City
Water Base Charge (Flat Fee)	Water	$11.98	$35.94	$35.94
Sewer Base Charge (Flat Fee)	Sewer	$15.73	$47.19	$47.19

This example is based on a 5,000 gallon monthly or 15,000 quarterly gallon use.
Rates are based on consumption, see "Residential Water Consumption Rates" chart below.

Service	City Code	Monthly 5,000 gal. Use Inside City	Quarterly 15,000 gal. Use Inside City	Quarterly 15,000 gal. Use Outside City
Water Consumption Charge	Water	$9.05	$27.15	$27.15
Sewer Consumption Charge ($4.11 per 1,000 gallons x 85%)	Sewer	$17.47	$52.40	$52.40
County Service Fee (7.5% of the total WT, SR, OWSS and STR)	CSF	$4.07	$12.20	$15.25
Outside City Water & Sewer Surcharge (25% of WT, SR and STR)	OWSS	n/a	n/a	$40.67
Example Minimum Water & Sewer Bill		$58.30	$174.88	$218.60

Rates based on a 3/4" meter, with consumption up to 15,000 gallons every 3 months. Some outside City customers may also have a utility tax imposed by their municipality, which is 10%. For City customers, the above reflects only the water and sewer portion of their utility bill. Other services such as stormwater, and sanitation are excluded for this presentation. Current rates were effective October 1, 2013.

Residential Water Consumption Rates
(per 1,000 gallons)

MONTHLY		QUARTERLY	
0 - 5,000	$1.81	0 - 15,000	$1.81
5,001 - 12,000	$2.54	15,001 - 36,000	$2.54
12,001 - 20,000	$3.27	36,001 - 60,000	$3.27
Above 20,000	$3.64	Above 60,000	$3.64

ADDITIONAL SERVICE FEES

Turn off Fee, Illegal Turn On, or Return Check Charge	$ 20 each
Meter Tampering	$100
Service Reconnect	$ 10
Theft/ Illegal Device used on Premises	$450

Activate your account online at northmiamifl.gov under E-services, Citizen E-Portal.

North Miami City Hall
776 NE 125 Street
North Miami, Florida 33161

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2013 Water Quality Report

2014 Flood Hazard Information

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Details on your water service, flood protection and the National Flood Insurance Program.

FLOODPLAIN MANAGEMENT PLANNING COMMITTEE

Floodplain Resident Survey/ Quetionnaire

At present, you live in a Special Flood Hazard Area which requires you to carry flood insurance on your property if it is covered by a federally backed mortgage as of October, 1999. The City of North Miami participates in the National Flood Insurance Program Community Rating System which makes you eligible to receive a 15% discount on your flood insurance policy. The results of this survey will be used to obtain property owner input for future stormwater planning and to qualify for greater CRS discounts in the future. We hope you will take time to complete and return this questionnaire.

1. ***Do you know what flood zone you live in?***
   _____ ***Yes*** _____ ***No***

2. ***Have you had flood damage within the last 10 years?***
   ____ ***Yes*** ____ ***No***

3. ***Do you have flood insurance?***
   ___***Yes*** ___ ***No***

   If no, thank you for your time. You may stop here. Please note, it is important to return this form to the address listed below.

4. ***Do you know your flood insurance policy limits?***
   ____ ***Yes*** ____***No***

   If yes, is it sufficient to cover the present day value of your property?
   ____ ***Yes*** ____***No***

5. ***Have you filed a Florida flood insurance claim in the last 10 years?***
   ____ ***Yes*** ____***No***

   If yes, how would you list the claim amount? __ ***0 - $1,000***
   __ ***$1,000 - $10,000***
   __ ***$10,000 +***

In order to better understand your opinions and past experiences with floods and flood insurance, please provide additional comments.
Feel free to attach additional pages as needed.

Please mail or fax this form to:

City of North Miami
City Manager's Office
776 N. E. 125 Street
North Miami, FL 33161
(305) 893-6511 (phone)
(305) 893-1267 (fax)

Flood Protection: Things You Should Know!

Flood Hazard: Arch Creek, Little Arch Creek, Biscayne Canal and Oleta River are the four waterways that flow through the City of North Miami. The majority of our storm water drains into one of these four channels or directly into Biscayne Bay. The waterways are influenced by tides, which contribute to drainage and flood problems within the City.

The City of North Miami is divided into two main drainage areas, which are divided by the Biscayne Canal. Areas west of the canal have primarily sandy soil and very low water table elevation. Areas east of the canal sit on a combination of muck, marl and sand and have primarily high water table levels.

Your property may be high enough that it has never flooded; however, it can still flood in the future. Hurricanes, tropical storms and storms that bring heavy rainfall endanger the low-lying areas of the City. Heavy rainfall combined with high tide in the waterways can cause the drainage system to fill-up rapidly, causing our streets, swale areas and lawns to flood.

Flood Warning System: The City of North Miami and Miami-Dade County depend on the National Weather Service (NWS) for information on potential flood hazards. The NWS will issue a flood advisory for the County at least (6) six hours prior to expected rainfall overflowing the drainage system. Residents should stay tuned to local TV and radio stations that have an active news bureau for information. The City of North Miami also has developed a citywide flood warning plan during which police vehicles will use sirens and loudspeakers to issue flood warnings. Motorists are to use US 1 (Biscayne Boulevard), 125 Street, 135 Street and I-95 as evacuation routes.

Flood Safety: If you are advised to evacuate, turn off utilities at the main switches or valves. Safely disconnect electrical appliances, being careful not to touch such equipment if you are wet or standing in water. When outdoors in a flooded area, avoid fast flowing water and unstable banks.

Flood Insurance: Generally, homeowners insurance does not cover flood damage; however, because the City of North Miami participates in the National Flood Insurance Program (NFIP), you can purchase a separate policy. Usually such policies cover only the building structure, so be sure you have content coverage that will cover the present day value of your personal property should you suffer a loss. North Miami residents are eligible to receive a flood insurance discount, as follows:

- 25% discount for North Miami property holders in Special Flood Hazard Areas (SFHAs)
- 5% discount in other areas of the City of North Miami

Floodplain Development Permit Requirements: Any type of construction that is done to a building requires a permit PRIOR to the beginning of any type of construction. Contact North Miami's Building and Zoning division, located at 12400 NE 8th Avenue, to secure a permit, or call 305-893-6511, x2172.

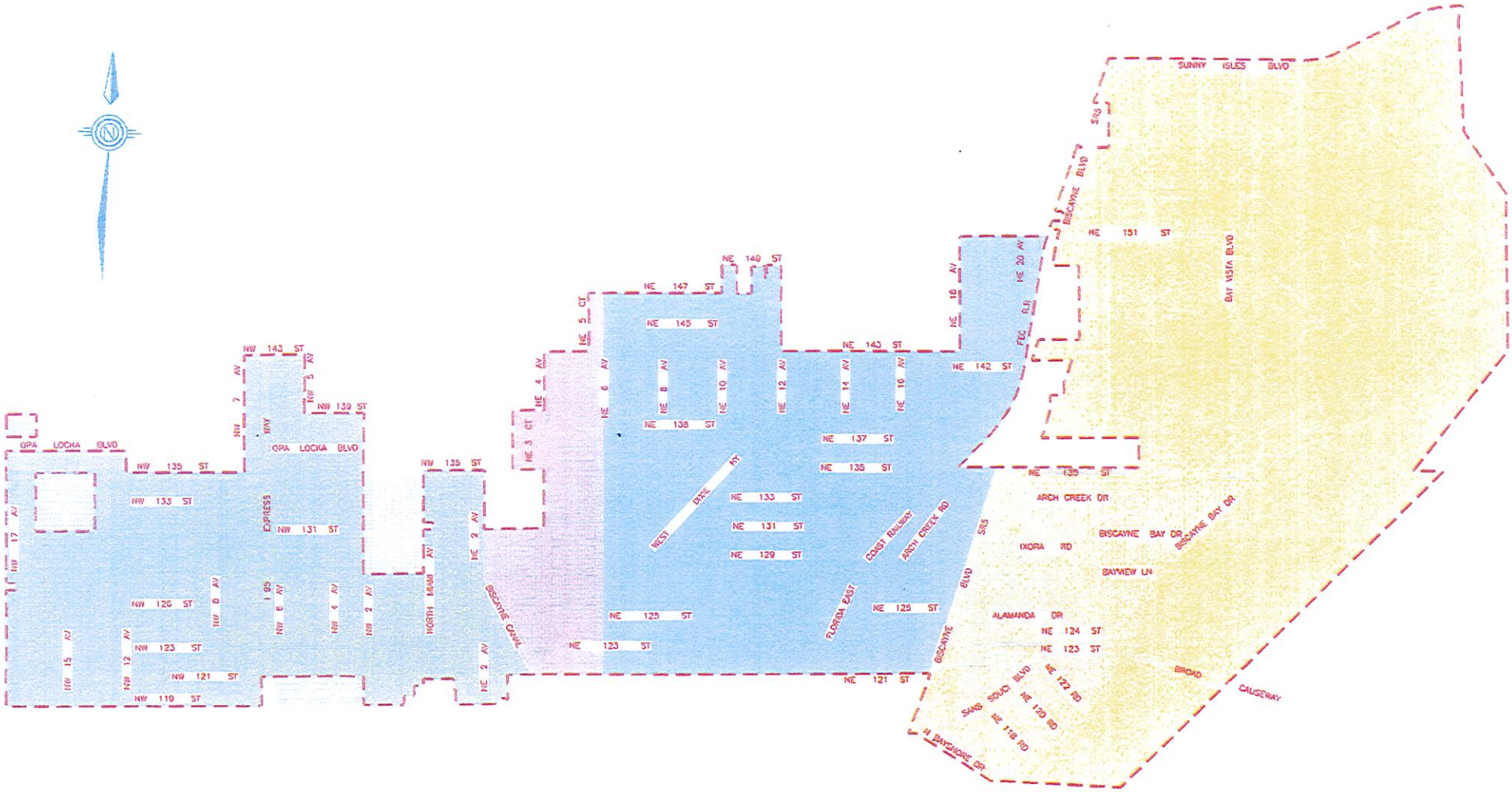
Substantial Improvement: The City of North Miami and the NFIP require that if the cost of reconstruction, rehabilitation, additions, or other improvements to a building equals or exceeds 50% of the building's market value, the building must meet the same construction requirements as a new building. Substantially damaged buildings must also be brought up to the same standards.

Drainage System Maintenance: Proper drainage helps reduce the risk of flooding; therefore, do not dump any substance into the drainage system. **Most importantly, it is illegal to put anything into the sewer drainage system or to block the drains.** Report any violations to the Public Works Department at 305-893-6511, x2207.

Natural and Beneficial Functions: Natural areas, such as the Oleta State Recreation Area and the Enchanted Forest Park, act as a storage areas for flood waters, reducing the possibility of flooding to nearby residences while helping to replenish the groundwater aquifer, the source of our drinking water. Please report any illegal dumping or littering to the Public Works Department at 305-893-6511, x2207.

Map Determinations: The City provides Flood Insurance Rate Map (FIRM) determinations to let you know if you are in a flood hazard area and if you are required by law to carry flood insurance. Please call 305-893-6511, x2107 to determine if your property lies in the Special Flood Hazard Area.

Site Visits: Upon request, a representative from the North Miami Public Works Department can visit your property to review any flooding problems and explain possible ways to stop flooding and prevent flood damage. To schedule an appointment, please call 305-893-6511, x2207.



LEGEND:

- BISCAYNE CANAL WEST
- BISCAYNE CANAL EAST
- ARCH CREEK NORTH
- BISCAYNE BAY
- CITY OF NORTH MIAMI BOUNDARIES

0 2000 4000 6000 8000 10000 Ft.

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			REVISIONS		

CITY OF NORTH MIAMI DRAINAGE BASINS

CITY OF NORTH MIAMI
PUBLIC WORKS DEPARTMENT
STORM WATER UTILITY DIVISION
NORTH MIAMI, FLORIDA

NORTH MIAMI
FLORIDA

Emergency Operation Plan (EOP)

2014

Prepared by

Lumane Pluviose-Claude, PhD
Deputy City Manager

CITY OF NORTH MIAMI
EMERGENCY OPERATION PLAN (EOP)
2014

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I- INTRODUCTION

A disaster, whether man-made or natural, must be properly managed to avert catastrophes. Consequently, municipalities must plan and train to take responsive action to save lives, ensure safety and secure properties. The city of North Miami Emergency Operation Plan (EOP) outlines policies to effectively prepare for, respond to, and mitigate after disasters. The EOP provides procedures as well as departmental roles and responsibilities for the coordination of operational activities during a disaster. The EOP also includes a section on evacuation procedures.

The city of North Miami EOP follows Incident Command System (ICS) principles, a widely applicable comprehensive emergency response system, to identify staff functional roles in responding efficiently to incidents, regardless of their causes and sizes. This EOP includes lessons learned from major disasters and follows National Incident Management System (NIMS) guidelines that reinforce the need for a single or unified command in managing a disaster.

The city of North Miami is committed to follow ICS principles. The city of North Miami officially adopted NIMS principles on September 13, 2005, through Resolution 2005-97, (Section III, Legislation 1) implementing a comprehensive staff-training program and revising both its EOP and organizational charts.

II- CITY OF NORTH MIAMI PROFILE

Location

The city of North Miami comprises 9.98 square miles and is strategically located halfway between two county seats: Miami-Dade and Broward. The city of North Miami is surrounded by the cities of North Miami Beach, Opa-locka, Miami Shores, Biscayne Park, and unincorporated parts of Miami-Dade County. North Miami lies on Biscayne Bay and is home to the Biscayne Bay Campus of Florida International University, the North Miami Campus of Johnson & Wales University, a nationally and internationally recognized Museum of Contemporary Art (MOCA), and the Oleta River State Park, which is the state's largest urban park (Section I, City Boundary Map).

Population

Since its incorporation, North Miami's population has steadily increased (Table 1). In the forty-year span, from 1960 to 2000, North Miami experienced a population increase of 31,172 people, or approximately a 109 percent population growth. This growth averages to an increase of 7,793 residents per decennial census. The city also experienced a substantial 20 percent growth between 1990 and 2000 (Table 1).

Table 1
City of North Miami: A Forty-Year Population Increase

Year	1960	1970	1980	1990	2000	2010
Population Estimate	28,708	37,767	42,566	49,998	59,880	*59,488

Source: U.S. Census Bureau online historical archives, 2007

According to the U.S. Census Bureau, the city's population in 2000 was a reported 59,880. However,

North Miami's population has decreased by 192, with a 2008 population estimate of 59,688, by the Bureau of Economic and Business Research at the University of Florida (BEBR), Florida Estimates of Population 2008. As official state population estimates, these figures are assumed to be sufficiently accurate as a basis for future population projections.

*Based on the 2010 Census data the City's total population is estimated at 58,786 persons. Additionally the City annexed a 38 acre unincorporated area that's estimated to have 702 persons. As such, the current 2014 population is approximately 59,488 persons Citywide.

Topography

The City's surface is covered with more than 85 percent urban land topography (pavement), according to the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS). The soil is generally sandy except for the Biscayne Canal floodplain (Section I, Flood Plan Map). The bay front property is classified as peat, muck, marl and other miscellaneous soils.

There is one public beach in the city of North Miami, located within the state owned Oleta River State Park. Also within city limits are five small, undeveloped spoil islands made from material dredged in the 1920's.

There are three natural waterways and two lakes within the city:

1. The Oleta River, within the Oleta River State Park
2. Little Arch Creek, running from NE 135th Street south through NE 16th Avenue out at NE 125th Street
3. Arch Creek running from NE 143rd Street south to NE 135th Street,
4. Emerald Lake located at approximately NE 16th Avenue, Arch Creek Road and Emerald Drive
5. Pepper Park Lake located at NE 135th Street and NW 17th Avenue.

Biscayne Canal (C-8) located between NE 2nd Avenue and Griffing Blvd. from NE 135th Street south to West Dixie Highway. There are also 26 canals located mainly in Keystone Point and Sans Souci areas. The center of Biscayne Bay's Intracoastal Waterway is the city's eastern boundary, from Sunny Isles Boulevard (State Road 816) to North Bayshore Drive.

Transportation and Major Bridges

The City's major north-south traffic arteries are Biscayne Boulevard in the east and Interstate 95 in the west. The major east-west thoroughfares include NE 135th Street (FL 890) and NE 125th Street (FL 922). The Florida Turnpike ends at its intersection with I-95 just north of the City. The following arterials lie within North Miami boundaries:

- State Principal Arterials:
    1. Interstate 95
    2. Dixie Highway
    3. Biscayne Boulevard

- State Minor Arterials
    1. NW/NE 119 Street/Gratigny Highway

2. NE 163 Street/Sunny Isles Boulevard
3. NW 7th Avenue/US 441
4. NE 6th Avenue

- Bridges:

  The City's bridges are fairly in good condition. They are inspected by the Florida Department of Transportation and maintained by the South Florida Water Management:

  1. Bridge #1 is located on North Bayshore Drive just north of Broad Causeway
  2. Bridge #2 is located in the Keystone area on North Bayshore Drive and Keystone Boulevard.
  3. Bridge #3 is a culvert located on Keystone Boulevard just west of North Bayshore Drive.
  4. Bridge #4 is a culvert located at N.E. 142nd Street just west of N.E. 18th Avenue.
  5. The Iron Foot Bridge crosses over the Biscayne Canal on N.E. 131st Street between N.E. 2nd Avenue and Griffing Boulevard.

III- PURPOSE

This EOP serves as the basis for applying single or unified command principles designed to enhance the city of North Miami's ability to manage any incident effectively and efficiently. The City must be able to respond effectively during the threat, impact and aftermath of a disaster. Proper actions outlined in the EOP are necessary to safeguard lives and property. Proper coordination with the Miami-Dade County Department of Emergency Management and Homeland Security, and other agencies, should facilitate appropriate disaster preparedness and responsiveness to do the following:

1- Provide adequate response to disasters which may affect the city and surrounding areas
2- Assure appropriate actions are taken to address each incident
3- Reduce danger to lives and properties
4- Restore order as fast as possible

IV- AUTHORITY

The federal, state and county statutory and legislative instruments noted below authorize the City to establish policies; procedures and an emergency operation plan (EOP) to respond to disasters effectively. In addition, these legislative instruments are supported by ordinances, resolutions and regulations adopted by the city to direct its emergency response actions legally (Section III, Legislation 1 to 8).

- City of North Miami Resolution 2005-97
- Homeland Security Act of 2002
- Homeland Security Presidential Directive/HSPD-5, *Management of Domestic Incidents*
- Homeland Security Presidential Directive/HSPD-8, *National Preparedness*
- Department of Homeland Security (DHS), *National Incident Management System,* 2004
- Chapter 252, Florida Statutes, State Emergency Management Act
- Chapter 8B of the Miami Dade County Code, Civil Defense
- North Miami Ordinance No. 1009, Emergency Management

Chapter 252, Florida Statutes, Emergency Management Act, directs each county within the state to establish a local emergency management agency, with jurisdiction over and serving the entire county.

The statute further authorizes municipalities to create municipal management agencies that coordinate their activities with those of the County's emergency management agency.

The Miami-Dade County Department of Emergency Management and Homeland Security's Emergency Operation Center (EOC) serve as the County's command and central information center for a designated disaster period. The County Mayor is the Incident Commander (IC) for all municipalities within the county. The Incident Commander is responsible for approving evacuation routes as well as opening and closing shelters for the entire county.

The North Miami City Manager is the Incident Commander (IC) who has the authority to issue evacuation orders and declare a state of emergency for the City. Under Ordinance No.1009, the City establishes an emergency management structure and procedures for the declaration of a state of emergency (Section III, Legislation 7).

The Chief of Staff or Deputy City Manager serves as the emergency management coordinator for the City and is assisted by the directors of Public Works, Parks and Recreation, and the Chief of Police.

V- CONCEPT OF OPERATION

On an annual basis, the city of North Miami provides disaster preparedness education to its residents. A disaster preparedness forum is organized, usually in April, with formal presentations from speakers and field experts to increase public awareness and promote preparedness. In addition, the City's Public Information Officer coordinates a preparedness community outreach program that includes direct mailings to City residents and electronic media programming for subscribers to the City's public government television channel (Channel 77).

City departments are required to complete Emergency Operations Plan reviews prior to June 1st, the beginning of the hurricane season. Each employee receives a copy of his/her department's roles and responsibilities as delineated in the EOP. In addition, employees are regularly sent to emergency preparedness training and participate in at least one annual mock emergency exercise.

Unless approved by the City Manager/IC, an emergency event signals the cancellation of all pending vacations, floating and birthday holidays for all command, general and essential personnel. Essential personnel are those employees who possess desired skills to work emergency operations and assist with pre-, during and post-disaster efforts.

The City Manager/IC announces when non-essential personnel may leave the workplace. It is the responsibility of department heads to notify employees in their respective departments of the City's work status. For example, in the case of a hurricane, non-essential personnel report to duty as soon as an alert is issued by the National Hurricane Center as to whether a hurricane is declared a direct hit, a near miss or a complete miss.

During hours other than the normal workday (nights and weekends), it is the responsibility of each employee, who is not assigned to an emergency work detail, to monitor the listed broadcast stations for announcements pertaining to the city of North Miami, which include but are not limited to:

- Channel 77 – North Miami's government access television station
- WFOR CBS, Channel 4
- WTVJ NBC, Channel 6
- WSVN, Channel 7
- WPLG-ABC, Channel 10
- WLTV-UNIVISION, Channel 23
- News Radio 610 AM-WIOD
- WLRN, 91.3 FM
- Employee Information hotline, a 24-hour automated line, at 305.895.9801
- City Manager's Office, a regular workday line, at 305.893.6391

VI- FRAMEWORK

Procedures outlined in this EOP apply to employees from all departments in the city of North Miami. These procedures aim to assure that appropriate and uniformed responses are implemented, regardless of an incident.

Kinds of Disasters

The Miami-Dade County Department of Emergency Management and Homeland Security declares that Miami-Dade County is most vulnerable to five kinds of disasters: hurricanes, floods, fires, radiological and coastal oil spills. The city of North Miami is also subject to these types of disasters.

1. **Hurricanes**: While hurricane season runs from June 1 to November 30, Miami-Dade County is historically most vulnerable during the months of September and October. Hurricanes exert a tremendous financial and manpower cost to municipalities. In 2005, for example, Hurricane Wilma left Miami-Dade County with extensive roof damage, widespread tree destruction, and massive power outages that proved very costly to the city of North Miami at approximately $7,644,000 in protective measures, response and recovery.

2. **Floods**: Except for a public beach at the state owned Oleta River State Park, there are no other public beaches in the city of North Miami. However, the shores of Biscayne Bay form the eastern boundary for North Miami. In addition, there are a number of man-made and natural waterways and canals including the Oleta River, Little and Arch Creeks, Emerald and Pepper Lakes.

3. **Fires:** Fires usually occur in the western part of Miami-Dade County due to its subtropical and saw grass vegetation; North Miami, nevertheless, is also prone to manmade as well as natural fires in its extensive park system.

4. **Radiological Threats**: Miami-Dade County in its entirety is located within the 50-mile Turkey Point Nuclear Power Plant Emergency-Planning-Zone (EPZ). In case of a radiological threat from the power plant, the city of North Miami will follow county procedures explained by the Miami-Dade County Department of Emergency Management and Homeland Security (DEM&HS)

5. **Coastal Spills**: In the case of coastal oil spills, the U.S. Coast Guard and the Florida Department of Environmental Protection (FDEP) become the lead agencies.

Types of Disasters

The U.S. Department of Homeland Security classifies disasters into five categories based on the number of resources and time span required to contain them:

- **Type 5:** The incident can be handled with one or two single resources and up to six personnel. It is usually contained a few hours after resources are received.
- **Type 4:** Some of the Command and General Staff and task force or strike teams are mobilized. It is managed within one operational period.
- **Type 3:** Some or all Command and General Staff, together with division/group and or units, are activated. It takes several operational periods to address the incident.
- **Type 2:** The incident goes beyond the capacity of the local government. It requires local, regional, and national resources. An agency administrator manages the incident.
- **Type 1:** This is the most complex incident that requires national resources to ensure safety. It lasts multiple operational periods and uses more than 500 staff per operational period.

Level of Activation

The city of North Miami Divisional Emergency Operation Center (EOC) is usually opened at City Hall for personnel assigned to work an incident. The EOC operates three levels of activation based on incident severity and pace.

- **Level 3:** Upon the notification of a threat, city departments are alerted to prepare taking appropriate action, implement required procedures and closely monitor any developments. At this point, incidents are addressed without a written Incident Action Plan (IAP).
- **Level 2:** Miami-Dade County and the city of North Miami EOC are partially activated. Responses are coordinated for a 24-hour operation. All take-home vehicles are returned to city facilities.
- **Level 1:** Miami-Dade County and the city of North Miami EOC are fully activated with the entire Command and General Staff. Formal IAPs are necessary.

VII- NATIONAL INCIDENT MANAGEMENT SYSTEM (NIMS) AND THE INCIDENT COMMAND SYSTEM (ICS) APPLICATION

INCIDENT COMMANDER (IC)

By resolution, the Incident Commander is the City Manager who is ultimately in charge of the overall incident. The Incident Commander commands responses to an incident and ensures clear authority and safety. He/she may have a deputy; however, the IC assigns staff to different functions in managing an incident. The IC has two groups of staff: Command and General Staff (Section II, Table 2).

COMMAND STAFF

Command Staff are officers assigned by the incident commander to carry out needed functions for his/her support. The city of North Miami's Command Staff is composed of a Liaison Officer, Safety Officer, Public Information Officer and an Information Officer. These officers report directly to the IC and may elect to have assistants (Section II, Table 2).

Liaison Officer (LO)

The Liaison Officer is the city's representative and contact to governmental, private, and non-governmental agencies. The LO is the bridge between city personnel and all other outside agencies. The LO may choose to have an assistant.

Safety Officer (SO)

The Safety Officer accepts all assignments from the incident commander and proceeds to monitor incident operations. The SO advises the incident commander on all matters relating to operational safety, including health and safety of emergency responder personnel. The SO has the authority to stop and/or prevent unsafe acts during incident operations and relates all decisions made pertaining to life, safety, and health to the incident commander. The SO apprises the incident commander of all safety efforts as they relate to assessment, coordination, and implementation for both responders and the general incident operations.

The Safety Officer ensures that appropriate safety standards, equipment, and processes are in place for the health and safety of the City's response team. Job hazard analysis are performed to maintain a safe work environment for all the sections, especially Operations (see General Staff below). In addition, measures are taken to safeguard against the execution of unsafe acts at all times.

Public Information Officer (PIO)

The Public Information Officer is responsible for collecting, verifying, and disseminating information to the public through effective communication with the media. The PIO advises the incident commander and other command staff on public information issues and works to establish a joint information center (JIC), when necessary, to manage an incident. Additionally, the PIO ensures the organization is portrayed in a positive manner and markets its message to target audiences and staff through electronic and print media.

Information Officer (IO)

The Information Officer is responsible for developing, conducting, and managing information-related plans and operations. These can include information security and operational security activities. The IO also handles the complex task of ensuring that sensitive information, such as classified, law enforcement, proprietary, personal, or export-control information is safeguarded to reach those who can effectively and safely use them. The Information Officer coordinates information and operational security matters.

GENERAL STAFF

General Staff are chiefs in charge of all functional aspects of an incident. They are qualified professionals assigned by and reporting to the incident commander. They may have deputies, but their position cannot be combined. General staff carry activities in four functional sections: Operations, Planning, Logistics, and Finance (Section II, Table 3).

Operations Section

The Operations Section manages all tactical responses to an incident. It helps develop the Incident Action Plan (IAP) that guides its actions. It executes all tactical operation functions and ensures safe execution of active assignments. It adjusts assignments and requests additional resources as needed. The Operations Section always stays in close communication with the Incident Commander.

The city of North Miami Operations Section is composed of three branches: Recovery, Police, and Residential Services (Section II, Table 4).

- **Recovery Branch**
  The Recovery Branch is composed of one division and five groups: Assessment Division, and the Facility Management, Water and Sewer, Hazardous Trees, Debris Management, and Storm Water Management groups (Section II, Table 4).

  a) Assessment Division
  This division is made of teams that are activated by the IC immediately when it is safe for assessment (in the case of a hurricane, after the winds have reduced below 40 mph).

  The Assessment Division is usually composed of twelve (12) teams that include Public Works, Parks and Recreation, and Code Enforcement employees. These teams conduct a preliminary assessment of damages to City and private properties. The goal is to provide the IC with a fair estimate of damages in the City within a few hours after an incident (Section II, Table 5).

  b) Water and Sewer Group
  The Water and Sewer Group has two teams, who immediately after an incident and upon the incident commander's orders, identify citywide water and sewer breaks and make temporary repairs. The Water and Sewer group proceeds with permanent repairs once the entire system is secured. This group also ensures that, at all times, appropriate water levels and pressure are maintained at the city of North Miami's Winson Water Plant at Sunkist Grove (Section II, Table 6).

  c) Facility Management Group
  The Facility Management Group is comprised of four teams that include Public Works and Parks and Recreation employees who inspect all public and parks facilities to assess damages and report to the group leader. The Facility Management Group is responsible for securing facilities as needed. Once facilities are secured, the City may proceed with permanent repairs in accordance with FEMA and insurance requirements (Section II, Table 6).

  d) Storm Water Management Group
  Immediately after an incident, the Storm Water Management Group begins to clean the city's storm drain inlets and ensure that storm water pumps stations are operational. In the event of a storm with heavy rainfall, the incident commander is notified of the situation so additional resources and support from outside agencies may be requested and secured (Section II, Table 7).

  e) Hazardous Trees Group
  The Hazardous Trees Group identifies documents and reports to the group supervisor all damages to the city's tree canopy. The documentation complies with FEMA requirements for visual imaging and

global positioning systems for every damaged tree that requires work on "leaners" and "hangers". This group works diligently in providing accurate documentation in order to assure proper reimbursement from FEMA, the state and county (Section II, Table 7).

f) Debris Management Group

This group is comprised of City employee teams who are responsible for clearing streets and removing debris within the City. In addition, three independent companies are on standby contracts, should their assistance be required. A fourth independent company is usually contracted to monitor and keep records of debris removal, as needed (Section II, Table 8). Regardless of contractual arrangements, the City's sanitation crews make every effort to provide regularly scheduled garbage and recycling services. Parks and Recreation Department crews as well as Sanitation's bulk trash crews ensure that all City streets are clear for traffic.

- **Police Branch**

The Police Branch is responsible for all functions associated with law enforcement operations. The Police Branch is comprised of a branch director, a deputy director, a field operations division, a support group, a supply group, a casualty response group and an evacuation group. Both the evacuation group and the casualty response group may be activated in the event an evacuation is warranted or casualty occurred (Section II, Table 9).

a) Field Operations Division

The Field Operations Division, led by a supervisor, a ranking major or lieutenant, is comprised of uniformed officers assigned to various strike teams that are generally led by a sergeant. Officers assigned to those strike teams are responsible for patrol function before, during and immediately after a disaster or other catastrophic events. They are responsible for assisting with public notification of evacuation and for public safety at designated emergency shelters (Section II, Table 9).

b) Police Support Group

The Police Support Group provides ongoing communications support for established activities. This group is comprised of two units. The Internal Communications Unit operates as a local EOC to neighboring police departments. The Internal Scribe Unit records relevant data to support financial reporting requirements, post disaster and to maintain logs of essential personnel deployment (Section II, Table 9).

c) Police Supply Group

The Police Supply Group is responsible for equipment and essential supplies to support the Field Operations Division before, during and after a disaster (Section II, Table 9).

d) Casualty Response Group

The Casualty Response Group is activated immediately following a catastrophic event and after responding to an affected area has been determined to be safe. Response may involve search and rescue mission, identifying any persons in need of urgent medical care, further evacuation, identification of casualties, transporting the deceased, and crime scene investigations (Section II, Table 9).

e) Evacuation Group

In the event that an evacuation is necessary, the Evacuation Group supervisor coordinates with other services to assist in evacuating areas identified by the EOC. The Evacuation Group also posts evacuation routes and coordinates the uninterrupted flow of vehicular traffic exiting designated evacuation areas through established safe route detours. This group's supervisor may activate additional strike teams to staff Point of Distribution (POD) sites and media staging areas. The supervisor may also establish perimeters to secure roadblocks or restricted entry points (Section II, Table 9).

- **Residential Services Branch**

  This branch ensures support for city residents. It comprises one division and three groups (Section II, Table 10).

a) Residential Support Division

The Residential Support Division is headed by a supervisor and assesses damages on private properties within the city's boundaries. This division is activated immediately after a disaster and when the Incident Commander deems it is safe to proceed (Section II, Table 10).

b) Communications Group

The Communications Group is coordinated to answer calls and inquiries from residents and employees before, during and after an incident. This group answers, records and reports all inquiries to designated City EOC staff and provides information on, including but not limited to, post incident-related services, city operations, and infrastructure (Section II, Table 10).

c) Point of Distribution Group

The Point of Distribution (POD) Group is activated to provide resources to city residents after an incident has occurred. Activation normally takes place seventy-two hours after an incident, but can be done within 24 hours of the incident, if deemed necessary.

A supervisor oversees the group and is responsible for opening and operating no more than three POD centers within the city. The group's goal is to distribute resources necessary to ensure public health and safety until city utilities and infrastructure are restored and basic necessities are readily available. The POD centers are equipped and have manpower necessary to distribute basic resources as they become available (Section II, Table 10).

d) Facilities Programming Group

This group provides recreational opportunities to residents in city facilities that have been inspected and deemed safe after an incident. Its aim is to provide an alternative to environments that may be harmful to residents. As damaged City facilities are repaired, additional sites may be opened for programming operations (Section II, Table 10).

Planning Section

The Planning Section Chief provides planning services for the incident including:

- Resources management
- Preparation of the incident action plan
- Coordination of briefings

- Coordinating preparation of maps and status board displays

This section is comprised of three units: Resources, Demobilization and Documentation (Section II, Table 11).

- **Resources Unit** coordinates the allocation and re-allocation of resources
- **Demobilization Unit** coordinates the termination of the event, including resources and staff
- **Documentation Unit** coordinates the documentation of allocation of resources and staff.

Logistics Section

The Logistics Section Chief ensures that support and services are provided to EOC staff during and after an incident. The Logistics Section plans, and coordinates food, supplies, equipment and facilities management for the EOC. This includes providing adequate space for EOC staff, transportation (fleet and fuel), ordering and stocking food, supplies and equipment prior to an incident and reordering as needed, and providing and distributing food, supplies and equipment to EOC staff (Section II, Table 12).

a) **Communications Unit**
This unit installs, tests, maintains, and repairs all communications equipment, supervises and operates the incident communications center, and distributes and collects equipment.

b) **Food Unit**
The Food Unit determines food and water needs for staff and orders accordingly through the supply unit, plans menus, prepares or places orders, picks up or arranges delivery, and serves food and maintains all food service areas.

c) **Facilities Unit**
This unit mobilizes, maintains, and demobilizes all facilities and sites supporting the operation of an incident, including personnel, sleeping and food areas.

d) **Supply Unit**
The Supply Unit purchases, stores and distributes all resources needed for specific incidents. It is responsible for filling all citywide requests for supplies and equipment, such as generators, gas, food, water, cots, and blankets, to ensure EOC staff needs are properly met.

e) **Ground Support Unit**
This unit provides, maintains and services vehicles and mobile equipment. It maintains a transportation pool for EOC staff prior and after an incident.

Finance Section

The Finance Section is responsible for managing all financial aspects of an incident. This section is activated only when there is a specific need for finance services. Many activities of the Finance Section continue well after demobilization. Incident documentation is completed during and/or after demobilization.

Major responsibilities of the Finance Section include:

- Providing financial and cost analysis information
- Addressing compensation and claims functions
- Ensuring and paying procurement for ordered resources
- Briefing others on all incident-related financial issues
- Providing financial input for demobilization planning
- Ensuring that all personnel and equipment time logs are accurately completed, recorded and transmitted
- Developing an operating plan for the Section that includes:

    - Disaster Expenditures Reporting (Admin. Reg. 1-22)
    - Standardized Billing Procedures for the Use of City Equipment and Personnel (Admin. Reg. 1-23)
    - Employee Report-To-Work Procedure (During Disasters, Civil Disorder or Other Emergency Situation) (Admin. Reg. 1-24)
    - Disaster Pay (Pay Plan under Disasters, Civil Disorder or Other Emergency Situation) (Section IV, Admin. Reg. 1-77)
    - References:
        - Florida Public Assistance website: www.floridapa.org
        - Public Assistance Policy Digest www.fema.gov/government/grant/pa/padocs.shtm#handbk
        - FEMA Equipment Rates www.floridapa.org/applicant/downloads/FEMA%20Equipment%20Rates%208-28-05.xls
        - Disaster Handbook: www.floridapa.org/applicant/downloads/disasterhandbook.pdf

The city of North Miami's Finance Section is composed of Time, Cost, Procurement, and Compensation Units (Section II, Table 13).

a) Time Unit

The Time Unit Leader ensures that all time records are accurately inputted, employees are paid on a timely basis, and all incident related costs are captured on payroll journals. For example, each employee is responsible for the time entered on his/her time sheet to accurately reflect incident-related work. Each time sheet identifies what the employee was doing, where and when. Team leaders confirm employees' claims by signing off on time sheets before their submission to the payroll clerk.

b) Compensation Claims Unit

The Compensation Claims Unit is subdivided into Disaster Reporting and Insurance Teams.

- **Disaster Reporting Team**

  The team leader is responsible for assigning staff to compile and enter information into FEMA forms for reporting incident expenditures. The team leader and staff are in charge of reviewing reports, recording grant receivables/revenues, requesting reimbursements, and reporting on the status of all financial activities surrounding an incident. The team leader and staff assist in the preparation of project worksheets, which may require coordination with state and FEMA personnel (Section II, Table13).

The major components of disaster reporting are as follows:

- Force account labor
- Force account equipment
- Materials
- Contracted services and equipment rental
- Offsets
- Insurance coverage on damaged facilities

- **Insurance Claims Team**
  The Insurance Claims Team performs a risk manager's function for an incident by addressing workers' compensation and insurance recovery for damaged facilities.

  The Insurance Claim Team responds to all employees' claims of injury and any damage to the city's infrastructure associated with an incident. It facilitates the expeditious delivery of medical services to injured employees and ensures that appropriate documentation is completed.

  The Insurance Claim Team collects damage assessment information that is promptly compiled and reported to the city's property insurance carrier. It facilitates and expedites claim-handling processes. It also assists with the coordination of benefits between FEMA and property insurance carriers.

c) **Procurement Unit**
The Procurement Unit is responsible for the procurement of materials and services using established procurement procedures and federal procurement standards. Federal procurement standards are covered in the Office of Budget Management A-102 (OMB) and the Code of Federal Regulations 44 Part 13 (CFR). Documentation should show why sole source procurement was used and how a price was negotiated, even though the immediate incident response may have forced the use of this procurement method.

d) **Cost Unit**
The Cost Unit Leader assigns staff to audit/reconcile departmental work logs that document equipment usage for force labor. The work logs identify the work done, locations, equipment, materials, and time used by each employee. Consequently, a location can generate several daily work logs. Team leaders accurately complete daily work logs and verify that they concur with team members' time sheets.

The Cost Unit's principal responsibilities are to reconcile work logs with submitted time sheets and insure that times for employees and equipment usage are accurately reported before submission to the Section Chief. Discrepancies are reconciled through follow-up with team leaders.

PRE-DESIGNATED FACILITIES

In case of a disaster, the city of North Miami has three pre-designated incident facilities, an incident command post and two staging areas.

1. **Incident Command Post (ICP)**
   The incident command post is located at City Hall, 776 NE 125th Street, where the IC oversees emergency events along with his/her command and general staff. The ICP has an emergency generator that provides power to most of the building including a kitchen located in the basement.

2. **Staging Areas (SA)**
   - The Motor Pool, located at 1855 NE 142nd Street, is used as a staging area where a fleet superintendent, along with his designated team of mechanics, sanitation, storm water and street crews, wait for tactical assignments. The Motor Pool has an emergency generator that provides power to the entire facility.

   - The Winson Water Plant, located at 12098 NW 11 Avenue, is also a staging area to which the water plant superintendent and other staff, including one electrician, are assigned to ensure a constant supply of potable water. This facility has an emergency generator that provides power for uninterrupted water treatment.

VIII- DEPARTMENTAL RESPONSE ACTIONS

This section includes all procedures that are followed by each City department when facing a disaster. **It comprises of two parts: Closedown Procedures, and Departmental Roles and Responsibilities.** Throughout this section, a hurricane will be used as a sample incident since it is the most common disaster in South Florida.

When a hurricane watch is issued for South Florida, all department employees are on standby and report to work as soon as they are notified. Unless approved by the City Manager, a hurricane signals the cancellation of all pending vacations, floating and birthday holidays.

Department directors or their designees are responsible for contacting and assigning their respective staff to ensure the implementation of this plan.

Definition of Terms

Tropical Storm: Substantial winds of up to 73 mph and heavy rains, resulting in downed trees and power lines, heavy flooding and possible tornadoes.

Hurricane: A violent storm organizing over tropical waters, with winds near its center reaching 74 mph and higher. A storm may range from 50 to 1,000 miles in diameter.

Storm Surge: A dome of seawater, often 50 miles wide that can sweep across the coastline inundating the land with water above normal high tide.

Evacuation: The concept of sheltering people threatened by inundation from hurricane and/or storms in designated areas.

Hurricane Watch: Advance statement issued by the National Hurricane Center, which implies the possibility of dangerous conditions in the specified area of the watch within 36 hours.

Hurricane Warning: Advance statement issued by the National Hurricane Center that confirms hurricane conditions are considered imminent and may begin immediately in the specified area of the warning within the next 24 hours. It also indicates that hurricane winds of 74 mph and higher or a combination of dangerously high water and rough seas are expected on a specified coastal area.

Closedown Procedures

All City departments are responsible for turning off, unplugging, securing, and covering their own computer workstations prior to evacuating a building due to a hurricane warning. If a hurricane watch is issued during a weekend or holiday, the department directors are responsible for contacting members of their staff to implement procedures outlined below:

- Turn off, unplug and move-up all electric appliances
- Relocate all items that are near windows, doorways and on the floor to avoid storm damage
- Place loose items in boxes or bags for storage
- Cover all computers, monitors and printers with plastic bags
- Remove bottom drawers from file cabinets
- Move all books and supplies in low shelves to higher ones (Library)
- Move System Casey files into safe (City Clerk)
- Take personal items home as city insurance will not compensate for damage or loss
- Fuel all city vehicles at the city's Motor Pool and record vehicles odometer readings
- Lock office doors

DEPARTMENTAL ROLES AND RESPONSIBILITIES BEFORE AND AFTER AN INCIDENT

BUILDING AND ZONING

Pre-Storm

Upon the issuance of a Hurricane Watch, staff researches and prints reports of all open permits for new construction, residential, commercial, and additions projects. The Department assigns staff to call contractors and owners of the construction sites to advise them of the need to secure all building materials, equipment and construction debris. The Building Official, Chief Plans Examiner, Building & Zoning Compliance Administrator and Minimum Housing Code Officers visit all large new construction

and renovation sites and advise owners, construction managers and work crews in person of the requirement to secure all construction materials and equipment in accordance with Florida Building Code and the City's Code and Policies. Staff also visits all active construction permits (single family home construction and commercial renovation projects) and places a visible Red Tag Notice on the front door (section V, Form1). The Red Tag Notice states that construction materials and equipment must be secured for the protection of homeowners and their neighbors.

The timeframe for abating construction site violations (non-removal of construction materials, equipment and debris) is **24 hours**. Any site that is noticed for construction materials, equipment or debris is re-checked 24 hours after such a violation is issued. If the construction materials, equipment and or debris have not been removed; the City makes another effort to contact the contractor or property owner to inform them of the immediate need to take action to remove or secure these materials. If the City is unable to reach the contractor or property owner, the City may secure and or remove construction materials or equipment deemed to be potentially dangerous in hurricane conditions. The contractors and or property owners are cited and fined for any and all costs incurred for the removal and or securing of materials, equipment or construction debris undertaken by the City.

During a Hurricane Watch, the Department's Director, Administrative Coordinator and employees designated by the Director, make a listing of all documents (permit logs, process logs, inspection, logs etc). These documents are duplicated, with one copy being stored in a safe place in the building, and another copy to be taken home with the Director for safekeeping. These records are crucial if any permit or process files are damaged during a hurricane.

Should a hurricane watch be issued during a wee-end or extended holiday, the Director and Building Official are responsible to contact members of their staff whom they feel should be responsible for implementing this Plan.

Post-Storm

The City's Chief Building Official stays at the City EOC in the event of a Hurricane. However, the following staff reported to work immediately after a Hurricane has passed: Chief Plans Examiner, Minimum Housing Officers and Building and Planning Department Directors.

This staff is responsible to perform a Post-Storm City-wide building assessment. Any building that is damaged extensively and deemed to be a danger to the health, safety and welfare of the community would be cited as a Dangerous or Abandoned Structure (DOAS). Said locations are logged and entered into the Property File Maintenance on the Building Computer System if the system is up and operable. These logs and locations are critical to FEMA reporting and other after storm recovery efforts.

Over the days following the storm, other Department staff is called back to duty as needed. The Department continues to assess damage in the days after the storm, and immediately gears up to issue walk-through permits for repairs.

CODE COMPLIANCE

The Code Compliance Division is responsible for notifying residents and contractors to secure all loose items around their properties. It keeps records of all properties notified with a red tag indicating

violations that must be abated within a 24-hour period of time.

Pre-Storm

Code Enforcement officers inspect all properties in their assigned work zones and advise residents and contractors to secure all loose items. They campus the City's residential and commercial areas and make sure all trash is put back on properties and debris is placed in covered dumpsters. Properties that are in any of the above violations are red tagged and documented.

Officers are also responsible for charging their cameras, fueling their vehicles, and securing equipments inside their office or relocating them to another facility. Three officers serve in the Debris Management Group and are assigned to the City Hall EOC prior to and during a storm.

Pre-Storm Supplies

Pre-storm supplies include:

- Digital camera
- Rain coat
- Red tags
- Citation books

Post-Storm

After a storm, officers who were sent home return to work to assess damages in their assigned work zones. Officers conduct visual inspections of their respective work zones and report downed power or cable lines, water and sewer breaks, natural gas leaks, tree obstructions, flooded areas, and damaged properties to the Assessment Division Supervisor. Once officers have completed their inspections, they may continue inspecting any remaining work zones or be assigned to other duties after consultation with the Code Enforcement Director. All damage reports are submitted to the Assessment Division Supervisor within twenty-four hours after a storm.

The three officers assigned to the EOC serve as monitors for the Debris Management Group. These officers are responsible to properly document the first push road clearing process that happens immediately after a storm. Monitors keep records and photographs of locations where debris is found and moved. They submit reports to the Debris Management Group Supervisor.

In the days following a storm, Code Enforcement Officers check, monitor, document and report on clean-up, repair and tree trimming throughout the city.

COMMUNITY PLANNING AND DEVELOPMENT

Pre-Storm

In the event a hurricane watch is issued, the Housing Section's primary task is to visit all housing rehabilitation sites, and advise of the requirements to secure all materials. The Housing Inspector, under the direction of the Housing Manager, ensures that all sites undergoing renovations are visited, and the construction crew is advised of the need to secure all loose building materials. Should the Housing Inspector be unable to personally contact any of the affected parties, the Inspector must notify the Building Official of the specific sites for further action to be taken by the Building & Zoning Department.

The Economic Development Specialist assists in identifying any commercial buildings undergoing renovations under the "Façade Improvement Program".
The City's No-Mi Express buses have signage stating its hurricane procedure in plain sight for passengers. When a Hurricane Warning is issued, the Transportation Planner insures that NOMI Express Bus service continues for an additional four hours. This four-hour window allows drivers to communicate that service is being halted.

Post-Storm
Following a hurricane, Community Planning & Development assists in gathering information on damages to public and private property. All disaster-related expenditure recordings are done in accordance with **Administrative Regulation 1-22** (Section IV).

FINANCE

Pre-Storm
Payroll is processed in accordance with Administrative Regulation #1-77 for Disaster Pay (Section IV, Legislation 3).

Post-Storm
Unless the City's electronic system has been disrupted by a hurricane, payroll procedures continue through Electronic Fund Transfers (EFT) processed by local financial institutions. If EFT is not available and payroll computer support is available, all employees will receive a check that can be cashed at a financial institution or the City's Central Cahier.

Full file save tapes are rotated daily with the library. These would be available for utilization in processing the weekly payroll. Should current input data not be available (i.e., time sheets), and then past payroll data will be used to determine net pay to employees. The final decision on all weekly pay matter after a hurricane will be made by the City Manager.

INFORMATION TECHNOLOGY

The Information Technology (IT) Department is responsible for preserving computer hardware, software and data for City Hall's network and mainframe systems. Once a hurricane watch is issued, IT reminds all departments to protect computer equipment by following the Closedown Procedures described earlier in this document.

Pre-Storm
Following a hurricane watch, IT starts by backing-up payroll. Two backup copies of each system are made and distributed among staff, which live furthest North or South of the city of North Miami. During the back-up process, IT notifies users to log off the system to insure that all transactions are included on the backup. However, users of stand-alone computers must backup their own workstations via disks. Computer services continue until weather conditions permit.

Post-Storm
IT collects all bags after users uncover their monitors, printers and computers. IT strives to address all reported problems and make the system available to all users as soon as possible.

LIBRARY

Once a Hurricane Watch goes into effect, the public is prohibited access to the library. Limited access is granted only to people authorized by the City Manager's Office or Public Works Department.

Pre-Storm

Library staff is responsible for securing the interior contents of the building. They shut down the Galaxy System, remove backup tape from drives and videotape from Security Monitoring Equipment, and turn off all power to building using the main breaker. They unlock all interior doors, tape keys to the north A/C room door, roll the rugs by the front and Program Room doors and tie them against the doors.

They remove reserve books, Circulation Desk supplies, Reference Desk books and supplies from floor or bottom shelf, and cover bookshelves in all offices with plastic sheeting. They also remove and empty all bottom drawers from file cabinets, desks, and lower-tier lockers, and secure book boxes.

Post-Storm

The City's Damage Assessment Team inspects the Library building to evaluate damages and checks if the structure is sound. If the Library building is deemed safe, staff enters to uncover books, clear passageways and plug computer equipment before public access. If the Library building is declared unsafe, staff assists other departments with clerical and post-hurricane related duties.

MUSEUM OF CONTEMPORARY ART (MOCA)

Pre-Storm

At the beginning of June, the ***Paradise Sign*** by Jack Pierson, located at MOCA courtyard, is to be removed from the courtyard wall and secured in storage. The generator is checked for operation and fuel.

Once a hurricane watch is issued, MOCA must participate in preparing the entire building by securing the interior contents prior to evacuating the museum. Registrar backs up all files on two discs, one for the Registrar and the other for the Executive Director. Each disc is placed in sealed plastic bags and removed from the premises. The curatorial staff assesses exhibition and storage areas to remove from display and/or cover with protective materials all works of art that required special attention. All other objects are raised off the floor and covered with plastic sheeting. Tables and chairs in the courtyard are stored inside the building and circulating and waterfall pumps for the pond are turned off.

Post-Storm

After the building has been inspected for damages outside and inside, staff is given access if it is safe. Curatorial staff assesses all art works for possible damage and proceeds with any needed care and attention. Computers are restarted and displays are positioned to bring the museum back to normal operation. Debris and shutters are removed from the outside areas and the pond pumps are restarted

PARKS AND RECREATION

The Parks and Recreation Department maintains parks, parkways, landscaped areas, and trees throughout the City. During a disaster, Parks and Recreation Department becomes a branch of the Operation Section and performs the below-described tasks.

Pre-Storm

- Deactivate and cut power to all irrigation timers and pumps, athletic lights, landscape lighting, fountain pumps, etc.
- Lay down all large plants at City nursery and secure all loose cans, materials and supplies.
- Remove all loose park equipment, windscreens, shade cloth and foul ball netting. Secure vehicles and install cover on bucket truck buckets from wind and rain damage; cover vertical exhaust pipes, store removable seats on tractors, close loose doors and inoperative windows.
- Make sure all chain saws, pumps, generators, impact guns and batteries are in working condition and that spare spark plugs, saw chains, saw files, impact fasteners are available and in good working order.
- Assure that all stored materials, equipment and supplies are placed well above anticipated flood levels.
- Install sandbags to help protect any low-lying building from flooding.
- Fill all water trucks, fuel cans, stockpile 2 and 4 cycle oil, chain saw bar oil, drinking water containers with clean water and store them at Parks Operations Center (POC).
- Remove flags, banners and other aerial decorations.
- Secure all dumpsters by fastening to a sturdy tree or post, or by turning them over in a sheltered location.
- Check roofs, remove any loose objects and turbines and install caps. Check oil, tires, and water and fill all vehicles with fuel.
- Post "Park Closed" signs.

Post-Storm

- Inspect park buildings, facilities and equipment. Photograph damages and make repairs as needed.
- Inspect lighting, timers, pumps, and fixtures for damage; repair if necessary, restore power and check for proper operation.
- Set and check timers throughout the system and adjust, as needed.
- Remove sandbags, plywood, tape, etc., clean and remove water, as needed, to restore buildings and facilities to working order.
- Replace equipment and restore operations throughout park properties.
- Maintain records of time, equipment and materials expended as a result of a hurricane.
- Coordinate with other departments to remove and salvage trees. Clear roads and restore trees, as needed.

PERSONNEL ADMINISTRATION

Pre-Storm

When there is an impending disaster, the Personnel Director is responsible for notifying employees of the early closing of the City for business. Personnel Director records voice messages on the employee hotline to update employees on return to work date.

Post-Storm

After a disaster the Personnel department sends a memo out directing staff on how to code disaster time-off. The Department answers questions and provides guidance on disaster related issues for employees and managers. If the disaster has caused the closing of local restaurants, Personnel Director obtains

lunch for employees. If available, the director stores bags of ice at City Hall for employees to take home. Being an administrator of the deferred compensation plans, the Personnel Director processes and approves emergency withdrawal of funds for individuals.

POLICE

Police personnel respond to an emergency in accordance with the Police Department's Emergency Mobilization Plan. During a disaster, this department becomes the Police Branch of the Operations Section and performs the below described tasks.

When a Hurricane Watch is issued by the National Hurricane Center, all members of the Department are advised of their emergency alert status. At Hurricane Warning, the following shift (Phase I Mobilization) or other available personnel may supplement the on-duty shift prior to the arrival of hurricane force winds. In a Category 3 storm, or greater, or other circumstances, the Chief of Police may authorize a Mobilization Plan. The units on duty when a storm strikes will not be relieved until the storm passes. The relieving shift will report for duty as soon as the storm passes to relieve the other shifts, or when directed by a supervisor.

A- Police Branch Director

The on-duty Uniform Patrol Shift Commander notifies staff personnel and the Department Quartermaster of the estimated time of landfall for the hurricane and implements the Emergency Mobilization Plan, putting the entire department on emergency standby when a Hurricane Warning is issued. In addition, the on-duty Uniform Patrol Shift Commander becomes the Police Branch Director, establishing the Communications Center as the Police Emergency Operations Center. The Police Branch Director or his/her designee ensures that the following are implemented.

- A Liaison Officer is designated in advance to coordinate information with the Miami-Dade Police Department, the American Red Cross, and the National Hurricane Center through the City's Emergency Operation Center, in conjunction with the Miami-Dade Office of Emergency Management at the Miami-Dade Emergency Operations Center.

- Upon issuance of a Hurricane Warning by the Miami-Dade Office of Emergency Management, officers affecting arrests on adults or juveniles need to check with the appropriate detention intake facility for any special procedures that may be in effect.

- The Police Department's Fleet Manager coordinates fleet preparedness with the Public Works Department. Accordingly,

    1. All vehicles, including spare vehicles not being used, are topped off with fuel, oil and other fluids.

    2. Many vehicles are equipped with tire, tire jack and additional flares

    3. Unassigned vehicles are ready for use when primary vehicles are damaged, disabled or out of fuel.

- Security of the police station and other public buildings are assigned, as deemed necessary.
- Public Works is asked to provide a city radio to the Communications Unit to be utilized for emergency situations.

    1. Heavy-duty vehicles and/or equipment are requested from Public Works or other sources to respond to remove hazards or obstructions when necessary.

    2. Generators are requested from Public Works if necessary.

    3. Assigned personnel secure loose objects in the police parking lot and the immediate vicinity of the Police Station.

- Uniform Patrol Units are assigned to designated positions.

    1. Police units are assigned as two-officer units.

    2. PSA's and all police trainees are assigned to assist units and details, as needed.

    3. Miami-Dade School Board Police or, if necessary, two North Miami officers are stationed in a hurricane shelter from the time it is opened to the public until the shelter is closed.

    4. A supervisor is stationed at the City Hall Emergency Operations Center during the emergency period.

    5. Police unit's patrol those areas designated for evacuation, utilizing their police public address system.

        a. Officers cover each area on a block-by-block basis, utilizing the public address system to notify the residents of the evacuation and the need to tune in to TV and radio for further information.

        b. Officers announce every block that an evacuation has been ordered and that people must leave immediately.

        c. Persons with special needs and nursing homes are evacuated in the following manner:

            - Stretcher bound persons and those with medical needs are referred to Miami-Dade Fire Rescue or private ambulance for transportation to designated centers. (Health care facilities and nursing homes should arrange for transportation of stretcher bound patients to designated facilities by private ambulance.)

            - Law enforcement may be requested to assist by escorting convoys of ambulances to designated areas, upon direction of the Uniform Patrol Section Major.

- Police officers monitor the evacuation routes upon being notified that the evacuation order has been announced.

1. Officers facilitate and expedite the evacuation of local residents and those utilizing the Broad Causeway to escape the barrier islands.

2. Alternate routes are determined by conditions (i.e., roadway, construction, etc.).

3. Public Works is notified of any downed trees or debris that might interfere with evacuation process.

4. Only traffic crashes involving serious injuries or fatalities are investigated. For all other accidents, the following shall occur:

    - Vehicles are removed from travel lanes.
    - Officers distribute short form accident reports to both parties to expedite evacuation.
    - Drivers are advised to exchange information.
    - Towing services are notified to remove vehicles that are obstructing roadways.
    - Public Works is also notified of any downed trees or debris that might interfere with evacuation process.
    - PSA's and all police trainees are assigned to assist units and details as needed.

- The quartermaster and maintenance mechanic provide emergency equipment to personnel as needed, and ensure:

    1. Batteries for the generator are fully charted and that the generator is operational.

    2. A rest area is designated for officers.

    3. An emergency supply of drinking water is available.

    4. A portable radio and television have been obtained for the Police Emergency Operations Center.

    5. Personnel are assigned to secure loose objects in the Police parking lot and the immediate vicinity of the Police Station

- A Public Information Officer (PIO) is available for special duties as needed.

B- Communications

The Communications Unit follows those procedures established for emergency situations. In the event of a hurricane, Communications personnel do the following:

- If necessary, relocate to a designated shelter area within the station and establish the temporary

communication (radio) lines, telephone lines, FAX line and e-mail. An AM/FM radio and portable, battery-operated television will be provided.

- Keep on hand a current list of all available emergency shelters to provide to the public through North Miami Police Department's Rumor Control information.

- On-duty supervisors will have an access to a cellular telephone that will be available for emergency contract if regular telephone service is lost.

- Communications personnel monitor the emergency radio broadcasts on radio stations WIOD (610) and NBC6 (87.7FM).

- Become the facilitators for Police Emergency Operations. Command and Staff personnel will centralize departmental resources from the Communications area.

- Coordinate transmission of information as the Divisional Emergency Operations Center from the Miami-Dade Emergency Operations Center to the cities of Biscayne Park, Bay Harbor Islands, Indian Creek, and Surfside.

- Record necessary information following the storm (i.e., wires down, roads closed, shelters open, etc.) and forward to the appropriate entity.

C- Records

Personnel assigned to the Records Unit shall assume various support duties at the station before and after the storm.

- Cover reports and other documents with covers to prevent possible water damage.

- The switchboard is staffed and activated once a Hurricane Watch has been announced.

- The North Miami Police Department's Rumor Control telephone line is activated to facilitate information.

- Emergency notification of personnel is conducted.

D- Sworn Personnel

On-duty police officers have the following responsibilities before and after the hurricane:

- All police personnel report for duty in full uniform, with change of uniform and inclement weather gear, food for 24 hours and a flashlight.

- On-duty personnel survey their assigned areas for possible hazards and advise citizens and business owners to take corrective action.

    1. When an evacuation order is given, officers respond to their designated area and advise citizens of the order utilizing their vehicle public address system.

a. Areas east of Biscayne Boulevard are issued evacuation orders for a Category 2 or greater hurricane.

b. Areas east of the F.E.C. railroad are issued evacuation orders for Category 4 or 5 hurricanes.

2. Officers direct evacuation efforts to those citizens seeking assistance. Metrobus provides pick-up services for evacuating citizens from the following list of locations.

   a. Dorset House, 2500 N.E. 135th Street

   b. Bayview Towers, 2150 Sans Souci Boulevard

- Bus pick-up services are determined by Miami-Dade County in conjunction with the Office of Emergency Management.

- Street patrol is maintained only if it is reasonable and practical to do so.

- Every effort is made to respond to all requests for service. However, it is the responsibility of the Patrol Section Major, or his/her designee assigned to Communications, to determine the order of priority calls and whether or not to dispatch officers on a call, depending on the nature of the call and conditions existing at the time.

- Patrol officers may transport citizens to shelters, as needed, with the approval of their supervisor.

- If, at any time during a hurricane, radio contact with Communications is lost, every officer will establish contact by telephone as soon as possible. In the event no radio or telephone contact can me made, officers will report to the station.

- Officers will monitor radio station WIOD (610 AM) and television stations NBC6 (87.7 FM) for hurricane information.

  1. The Miami-Dade Office of Emergency Management utilizes these media stations for emergency information. In the event that telephone service is lost, these stations will be the primary means of mass communication.

  2. All patrol officers will respond to their assigned quarters when advised and remain quartered until directed otherwise.

  3. Vehicles will not be permitted to operate during the hurricane force winds, except in cases of extreme emergency.

E- Post Hurricane

When notified by the National Hurricane Center that the hurricane has passed the North Miami area, the Patrol Section Major, or his/her designee, ensures that all on-duty personnel have been accounted for.

- All units report the extent of damage and conditions in their assigned areas.

- Supervisors collect, evaluate and prioritize reports of the serious conditions as soon as practical, and make appropriate notifications.

  1. The first priority after a storm is providing search and rescue operations to provide emergency services to sick or injured citizens in every area of the city.

  2. Casualty reports are made to the Police Emergency Operations Center for activation of the Department's Casualty Response Team.

  3. Once emergency medical needs have been satisfied, officers thoroughly search their assigned areas for damage to property, hazards (such as wires down, etc.), and notify Communications by radio. If severe damage to a business or residence is found and it is vulnerable to looting, the officer will advise by radio, and dispatch will make an attempt to notify the owner or employee and have the owner or an employee respond if possible.

  4. If necessary, notification is made to the City's Emergency Operation Center for the need of National Guard response.

- The on-duty Police Branch Director relays to the relief Police Branch Director the assignments of personnel and critical issues.

  1. Officers who have been working during the storm are relieved as quickly as possible after it has been determined they are no longer needed.

  2. The Police Branch Director, or his/her designee, generates an After-Action Report critiquing the event. A cost assessment report is prepared. Strengths and weaknesses are noted to better prepare for future hurricanes.

- If heavy damage is obvious in the eastern sectors, officers accompany the City Engineer to inspect the roads and bridges into the Keystone area to determine whether they are structurally safe before permitting vehicular traffic.

  1. Officers escort the Building and Zoning Department personnel to heavily damaged structures to determine if the buildings are safe for habitation before allowing entry into the area.

  2. Security posts and checkpoints will be established as needed.

  3. If necessary, a base is established before re-entry of the eastern sector of the City and barrier island areas east of Broad Causeway.

  4. The location of the base is determined based on damage assessments following the storm, preferably in the area of the Causeway Shopping Plaza, N.E. 123rd Street and Biscayne Boulevard.

5. The base is staffed of officers from the communities of North Miami, Bal Harbour, Bay Harbor Islands, and Surfside. These officers will determine who will be permitted entry into their respective communities after an assessment regarding the safety of the Causeway has been made by Florida Department of Transportation officials and/or North Miami City Engineer.

6. If necessary, officers will be posted at N.E. 123rd Street and North Bayshore Drive prohibiting all traffic across Broad Causeway, unless permitted by the Command Post.

7. Each city involved will have a representative present at the checkpoint to be responsible for the re-entry of emergency personnel and residents of their respective municipalities.

F- Casualty Response Teams

Designated Investigative Section personnel are assigned to Casualty Response Teams upon notification that casualties have been located. Casualties are being defined as those victims who have not survived, or are not expected to survive, the hurricane.

Casualty Response Teams is organized in the following manner:

- Members of the Investigative Section, working as uniform police units during the hurricane, are re-assigned upon notification of casualties.

- Responding members of the relief Investigative Section are assigned to the Casualty Response Team upon arrival at the station.

- The Investigative Section supervisor assumes command of the teams and become the Team Leader.

The Casualty Response Team responds to each scene of a reported death and assumes the investigation. The duties include:

- Noting the location and circumstances under which the body was discovered.

- Obtain a number from the team leader for the purpose of logging the body.

- Attempt to identify the victim at the scene in order to assist the Medical Examiner with the investigation and for timely notification of next of kin.

- Arrange for transportation to the Miami-Dade County Medical Examiner's office or temporary receiving morgue, whichever is appropriate.

The duties of the Crime Scene Technician include:

- Photographing the body in order to record its condition, location, and any other evidence that will aid the Medical Examiner in the investigation of the death.

- Impound all valuables and identification on or around the body for safekeeping.

- Affix the assigned number to the arm(s) or leg(s) of the victim. Identification tags are stored in the major crime scene van.

The responsibilities of the Casualty Response Team Leader include:

- Assigning all victim identification numbers as they are requested by the teams in the field.

- Maintaining a log of all recovered victims. The log contains:

  1. The location the victim was discovered;

  2. The name of the team members assigned to the victim, and

  3. A brief description of the victim, including the clothing worn.

- Keeping in contact with the Police Branch Director for all reports of missing persons in an attempt to further identify possible victims.

  1. Removal of deceased persons: Transportation of deceased persons to Miami-Dade County Medical Examiner under normal circumstances is the responsibility of the contract provider. Following a catastrophic event, however, such transportation may not be available and the following procedures should be followed:

  2. An appropriate location will be designated as a temporary morgue.

  3. Transportation of victims to the temporary morgue is the City's responsibility. The Investigative Section or the Public Works Department provides a suitable vehicle for transportation.

  4. The Team Leader obtains a suitable closed vehicle.

  5. If necessary, a member of the Investigative Section is assigned to operate the vehicle and retain custody of the victims.

  6. Arrangements are made to transfer the victims to the Miami-Dade County Medical Examiner's office as soon as practical.

G- De-escalation Procedures:
Only the Chief of Police, or his/her designee, may direct the start or rate of de-escalation. These procedures shall include, but are not limited to:

- Deactivating police personnel, leaving adequate staffing to continue control, order, and effect rescue and/or investigative efforts.

- When appropriate, opening or evacuating areas.

- Remove police personnel from stand-by or on-call status.

- Retracting imposed curfew, if appropriate.

- Deactivating state of emergency, if imposed.

After-Action Reports: Within 14 days following the return to normal operations, each unit provides an After-Action Report to the Chief of Police assessing the operation. The Chief, or his/her designee, receives and evaluates all reports for future training, revisions of policy, and any other action deemed necessary.

H- Assessment Teams
Assessment Teams are employees, designated by the Incident Commander, to respond to areas of the City to assess damages, security and other needs. These teams follow the Casualty Response Teams into areas damaged by the storm prior to allowing residents re-entry.

PUBLIC INFORMATION OFFICER (PIO)

It is the responsibility of the PIO to gather, verify, coordinate, and disseminate accurate, accessible, and timely information on an incident (hurricane); the resources the city has committed; and other matters of general interest to the external and internal public. All information must be cleared by the Incident Commander prior to release.

When the city of North Miami is activated as a divisional EOC, the Public Information Officer (PIO), a Command Staff, works closely with the Information Technology Department (IT) to communicate to the general public, including City residents and the media. In the absence of the PIO, the City's Webmaster or IT Director functions as assistant PIO to gather and distribute information to the media and update the Communication Group, as needed, throughout the activation.

Pre-Storm
Prior to a hurricane or tropical storm, the PIO issues a standard press release to the media based on information gathered in the briefing meeting with the Incident Commander and his/her staff. PIO executes the below checklist prior to leaving the city EOC since he/she does not ride a hurricane.

- Prepare and issue the pre-storm press release to the media, webmaster and communication group **(Section V, A-1 template and C-1 Media Contact List)**
- Coordinate with Communications Group Supervisor (CP&D Director) to provide the group with updated Hurricane Switchboard Operator Manual and dry erase board with updated information on the status of city services and programs.
- Work with Webmaster to broadcast messages on hurricane watch and/or hurricane warning through Channel 77, the city's website and phone system.
- Update the North Miami INFO line (305-891-4636) with status of city services and programs prior to storm approaching **(Section V, B-1 for instructions, B-2 for sample script)**
- Prepare outgoing message for EOC main line (305-893-6511), if needed **(Section V, B-3 message template)**

During Storm
The PIO Assistant rides out the storm at the City's Divisional EOC and wears the PIO vest. The PIO

Assistant updates outgoing messages as needed, as per the checklist below:

- Obtain information from Incident Commander, or division chiefs as necessary to update press release **(Section V, A-1 template)**
- Send information to media via E-mail, if possible ***(Section V, C-1 for media distribution list).***
- Contact Television Assignment Desks to confirm or deny rumors or to disseminate other important messages
- Update the North Miami INFO line (305-891-4636) as updates become available ***(Section V, B-1 for instructions, B-2 for sample script)***
- Update city website and Channel 77, if possible

Post-Storm
The PIO reports to the EOC as soon as it is safe after the storm's impact. If this is not possible, the PIO will check with the city's Liaison at the Miami-Dade County EOC for further instructions. PIO used the following checklist after the storm.

- **Gather Information**
  1. Participate in briefing with the IC for updated status of the incident, resources committed to the city and point of contact for the media
  2. Determine media presence and constraints on the information process; coordinate with the Police Department PIO for media response and determine if Joint Information Center (JIC) is needed.
  3. Develop post-storm press release ***(Section V, A-2 template*, utilize the C-1 media distribution list*)***, if communication is down regionally, use the ***A-3 template*** to copy and distribute to reporters by hand.

- **Distribute Information**
  1. Obtain approval for post-storm press release from IC, confirm details and identify site and time for next press briefing, if needed.
  2. Release post-storm release to the media (by email or hand-distribute, if needed) and post information in the divisional EOC.
  3. Provide a summary statement to the Communication Group to use for general requests for information
  4. Update the North Miami INFO line (305-891-4636) as updates become available ***(Section V, B-1 for instructions, B-2 for sample script)***
  5. Work with IT Department to update city website and Channel 77, if possible

- **Manage Public Inquiries**
  1. Assess the type of messages being received by the Communication Group to activate rumor control within media messages, as necessary
  2. Coordinate the need for door-to-door information dissemination with the Operation Section
  3. Respond to requests for tours and other interviews, as required

- **Monitor News Media**
  1. Record all interviews and copy all news releases and news clips
  2. Contact media to correct errors and misleading information, as necessary

- **Complete Forms/Reports**
  - Document Activity on Unit Log **(Section V, ICS Form 214)**
- **Demobilization**
  1. Participate in debriefing session with the IC prior to demobilization
  2. Develop and distribute demobilization release, as necessary, prior to returning to normal operations **(Section V, Template)**
  3. Submit Unit Logs and copies of releases to the EOC manager.

PUBLIC WORKS

It is the responsibility of the Public Works Department to clear all major roadways and local streets to assure that emergency vehicles can respond to all locations as quickly as possible. In June, Public Works Department surveys all city facilities, photographs and filed photos along with a brief description of the facility. The Streets Division makes a videotape of all the bridges and storm water pump stations. The Water and Sewer Division videotapes all sanitary sewer lift stations and the Winson Water Plant at Sunkist Grove.

The Department also organizes hurricane preparedness meetings to remind employees of their duties and assure that all necessary equipment and procedures are in place and ready to go into action, if required. The Public Works Director serves as the Recovery Branch Director to coordinate and direct pre-storm and post-storm procedures. He/She assures that all necessary emergency and safety equipment are ready and in place at all times.

Street – Assessment Division Team I
The Assessment Division is responsible for the maintenance of all roadways, alleys, city owned seawalls, parking lots, sidewalks and curbing. It also assists in maintaining the storm water drainage system, cleaning canals and city facilities and assessing the condition of all federal roads within the city.

Pre-Storm
- Inventory and fuel all vehicles and heavy pieces of equipment. Assure that all necessary emergency and safety equipment are on board and readily accessible.
- Inspect all city-owned parking lots and remove any loose debris.
- Inspect and secure all city owned bridges and report any unsafe conditions.
- Assist other Departments with securing city facilities.
- Keep an ample supply of road rock and cold patch for emergency repairs.
- Maintain a sufficient lumber and nails to construct temporary barricades.
- Maintain an ample supply of sand to fill sand bags and concrete for emergency repairs.
- Remove all trashcans and debris from bus benches.

Pre-Storm Supplies
- Chain saws and additional chains
- Gas and oil for chain saws
- Spot lights and additional batteries
- Street brooms, shovels, rakes and pitchforks
- Digital camera and barricades

- Safety equipment and items such as: gloves, hard hats, vests, rain gear, rubber boots, hearing protection, first aid kits and safety glasses

Post-Storm

- Establish a camp to assist with any supply needs, paper work and water.
- Clear debris from the entrance of the police station, major roadways and city streets. Debris is initially pushed from the road into the swale areas for emergency vehicles to circulate.
- Assist Parks and Streets employees with debris removal after making the first push to open major roads.
- Post a radio dispatcher at the City Hall EOC to coordinate any emergencies with proper Public Works' personnel.

Sanitation – Debris Management Group

The Debris Management Group is responsible for the collection of garbage and trash from the streets. This group oversees the Recycling Program that is usually suspended until all roads are cleared. This group also oversights all private waste collectors operating within the City limits. One Code Enforcement Officer is assigned to this group to monitor private waste collectors and assure they abide by the City's Code of Ordinances and other laws pertaining to waste removal. An Animal Control Officer, a member of this group, clears the streets from dead and loose animals and educates residents on caring for their pets.

Pre-Storm

- Accelerate garbage and trash pick-up, but proceed safely.
- Make rental arrangements with local heavy equipment dealers to have large articulate front-end loaders with four way buckets or clamshell cranes.
- Inspect the ice machines at the Motor Pool that must be operational
- Secure all vehicles and equipment in the Motor Pool.
- Remove all trashcans and other debris from bus benches.

Pre-Storm Supplies

- Chain saws and additional chains
- Gas and oil for chain saws
- Spot lights and additional batteries
- Street brooms, shovels, rakes and pitchforks
- Digital cameras and barricades

Post-Storm

- Establish a camp site to respond to the need for supplies, paper work and water.
- Clear debris from the entrance of the police station then all major roadways first and city streets.
- Assist Parks and the Streets employees with the cutting and removal of debris.

Facility Management Group

Facility Management Group is responsible for the upkeep of various facilities. They perform janitorial duties, rough and finished carpentry and cabinetry work, as needed, in the facilities listed below:

1.	City Hall	776 N.E. 125th Street
2.	Building & Zoning	12340 N.E. 8th Avenue
3.	Motor Pool	1855 N.E. 142nd Street
4.	Utility Operations Center	1815 N.E. 150th Street
5.	Winson Water Plant at Sunkist Grove	12098 N.W. 11th Avenue
6.	North Miami Police Station	700 N.E. 124th Street
7.	Museum of Contemporary Art	770 N.E. 125th Street
8.	Community Planning & Development Annex	12400 N.E. 8th Avenue
9.	North Miami Public Library	835 N.E. 132nd Street
10.	Code Compliance Annex	12330 N.E. 8th Avenue

Pre-Storm

- Inspect all facilities for structural defects and correct what is feasible.
- Install shutters on facilities when hurricane watch is declared
- Remove and secure debris from around the shop area.
- Fuel City vehicles and recharge batteries.

Pre-Storm Supplies

- Keep a supply of plywood, nails, flashlights, and batteries.
- Clean supplies such as mops, buckets, squeegees, push brooms, and rags.
- Equip toolboxes with necessary hand tools; maintain power tools such as, saws, drills, and shop vacuums.
- Have a supply of fasteners screws, various lengths of extension cords, etc.

Post Storm

- Inspect all facilities for damages and secure any damaged facilities.
- Remove and store all storm shutters and perform all necessary repairs and clean up.

Motor Pool – Ground Support Unit

The Motor Pool is responsible for the maintenance and upkeep of the City-owned vehicles including the police boat, all heavy, light and small equipment and emergency generators.

Pre-Storm

- Inspect all emergency generators to be sure they are operational and fueled up.
- Finish working on emergency and sanitation vehicles; do not start any scheduled repairs prior to a storm.
- Secure all debris, tools, vehicles stationed in the Motor Pool yard and the welding shop.
- Be sure the air compressor on the tire truck is operating properly.
- Inspect the entire roll up doors to be sure they are working properly.

Pre-Storm Supplies

- The fuel storage tanks and oil and grease containers should be full.
- Large supply of various size tires, towing straps, chains, tire plugs, and tires on rims are in stock.
- Safety equipment and items such as, first aid kits, back supports, glasses and hearing protection are in place.

Post-Storm

- Open the garage as soon as possible to supply ground crews with fuel and any necessary repairs.
- Prepare a team to handle all road calls and emergency generators for fueling and repairs.
- Prioritize repair on vehicles: first Sanitation, then Police. Only Public Works Director should modify this order.

Water and Sewer

The Water and Sewer division is responsible for the operation and maintenance of the Water and Sewer utilities. This would include all sanitary sewer lift stations as well as the Winson Water Plant at Sunkist Grove.

Pre-Storm

- Secure debris and equipment at the Utility Operation Center.
- Secure City owned sanitary sewer lift stations.
- Prepare vehicles with proper supplies and equipment to handle various water or sewer line breaks.
- Make sure all pumps, generators, icemakers and heavy equipment are operating properly.
- Post a radio dispatcher at City Hall to answer residents' questions and respond to Police emergencies.

Pre-Storm Supplies

- Keep a large supply of various size pipes for repairs, cold patch, towing straps, chains, various size discharge lines and road rock for emergency repairs.
- Store various sizes of clamps and bands used for repairs to water and sewer lines.
- Have digital camera and video; spot, tower and flash lights; chain saws and extra chains; fuel cans and batteries.
- Have barricades with lights and additional batteries; tool boxes with an assortment of wrenches and other hand tools.
- Keep safety equipment and items such as gloves, hard hats, vests, rain gear, rubber boots, hearing protection, first aid kits, and glasses.

Post-Storm

- Inspect the water distribution system, sewer collection system and pump stations for damage.
- Prioritize and assign work crews to repair damaged utilities.
- Complete utility repairs then assist with other Public Works duties.

Winson Water Plant

The Winson Water Plant at Sunkist Grove is responsible for the operation and maintenance of the water plant, water storage tank and several well fields. The Water Plant monitors the production of water to be distributed throughout the community.

Pre-Storm

- Assure all mechanical equipment and communication systems are operational.
- Inspect all auxiliary and standby equipment.
- Fill all water storage tanks, propane and diesel storage containers.
- Secure all debris and equipment in the yard.
- Notify the Department of Environmental Protection Office of all precautionary measures.

Pre-Storm Supplies

- Have sufficient emergency parts in stock to make necessary repairs to pumps and supply lines within the water plant and surrounding well fields.
- Keep a supply of fire hydrant wrenches and spigot connectors for public use, if necessary.
- Have sufficient flashlights, batteries, spotlights, rope, and chains with binders and two-hand-held radios.
- Have safety equipment and items such as gloves, hard hats, hearing protection, respirators, first aid kits, and glasses.

Post-Storm

- Survey and assess all damages to the water plant and coordinate repairs of leaks on the distribution system with the Assistant Public Works Director.
- Inspect the seven locations that interconnect with the County's water system and the two inter-local connections between the city of North Miami Beach and the city of Opa-locka.
- Reduce operating water pressure to minimize water loss from any ruptured water mains and excessive drain on standby power.
- Communicate the condition of the City's plant and its ability to produce potable water with other municipalities and Miami-Dade County.

Storm Water Management Group

The Storm water Management Group is responsible for the maintenance and safekeeping of the storm water drainage system, cleaning the canals and two (2) City-owned pumping stations. This group also assists with the maintenance of roadways, alleys and City-owned facilities, seawalls, parking lots, sidewalks, and curbing. It often assesses the condition of all federal aid roads within the City.

Pre-Storm

- Inventory and fuel all vehicles and heavy pieces of equipment. Be sure all necessary emergency and safety equipment are on board and readily accessible.
- Inspect portable pumps to be sure they are operating properly.
- Inspect all City-owned pump stations and remove any loose debris.
- Inspect all City-owned bridges and seawalls and report any unsafe conditions.
- Assist other departments in securing City facilities.
- Keep an ample supply of sand to fill sand bags and bag concrete for emergency repairs.

Pre-Storm Supplies

- Rope, chains, flash lights, batteries, street brooms, shovels, rakes and pitchforks, digital camera, cones and barricades
- Safety equipment such as: gloves, hard hats, vests, rain gear, rubber boots, hearing protection, first aid kits and safety glasses
- A boat and trailer

Post Storm

- Check all pump stations and seawalls for damage.
- Inspect and clear all storm water grates.
- Help in clearing debris from the entrance of the Police Station, major roadways, and City streets

PURCHASING

Pre-Storm
The purchasing Department serves as the procurement unit during a disaster and performs the functions below:

1. Ensure all debris removal contracts are in place and ready to be used.
2. Alert vendors that the City may need their services/supplies immediately following storm.
3. Make list of purchase order numbers, in the event power is not available after a storm.
4. Shop for all necessary supplies, perishable and non-perishable, to equip EOC and staging areas.
5. Distribute supplies of perishable and non-perishable items to the City EOC and staging areas.

RISK MANAGEMENT

The Risk Manager's primary function is to ensure that all department heads and supervisors are aware that life safety and preservation of property are of paramount importance prior, during and post a storm. Nevertheless, the potential for injury and/or damage is usually high during a disaster since many employees are required to work long hours in extenuating situations. Additionally, the City's infrastructure faces a greater risk depending on the severity of a disaster.

Pre-Storm
Department heads are reminded to review accident and injury protocol with all employees prior to the storm. They are reminded of the following salient points:

- Departments must take the necessary measures to safeguard lives and city properties.
- All accidents and injuries must be reported immediately to supervisors.
- Employee should obtain treatment at the local emergency if the local workers' compensation clinics are closed.

Post-Storm
The Safety Officer usually rides the storm out at the City Hall Incident Command Post. He/she is relieved after a storm by the Risk Manager, who performs the following functions:

- Document all employees whose injuries are attributable to storm related activities and provide appropriate medical treatment.
- Contact the property insurance carrier and the workers compensation third party administrator to coordinate post storm responses and acquire appropriate telephone numbers for damage and injury reporting purposes.
- Serve in the Compensation Claims Unit and work diligently with all department heads that have been affected by the storm to compile a preliminary damage assessment report. Validate the extent and nature of damages, visit affected properties and address safety issues.
- Maintain an inventory of City vehicles damaged during the storm and adhered to the proper procedures necessary to expedite repairs.
- Complete a comparative analysis to reconcile the actual damages with the City's property schedule (values in relation to damage), ascertain the scheduled property number on the insurance contract and record essential descriptions identifying the affected properties.
- Complete damage assessment and forward to the property insurance carrier to initiate the claims

process between the City and the insurer.

- Work with the Assistant Finance Director and FEMA's representative to coordinate federal disaster assistance for losses not covered by the insurer.
- Compile document, such as the statement of property values, flood and property insurance policies for City-owned properties, and statement of loss where applicable, and present them to the FEMA representative at the kickoff meeting.
- Serve as the City's liaison between the insurer, Finance and FEMA for insurance matters throughout the entire recovery process.
- Work with contractors and insurance adjusters to facilitate and expedite the coordination of benefits and the property repair/replacement process.
- Retain contracts for service rendered, warranties for work performed and other relevant documents recovered from contractors with copies to the respective affected department(s).
- Remain actively involved in the process until the last project worksheet impacting insurance is reconciled with FEMA.

IX- EVACUATION PLAN

Procedures

Residents are advised to evacuate when landfall of a hurricane is anticipated. Once an evacuation order is issued for a zone, police officers assigned to that particular zone, notify residents of voluntary evacuation order via police vehicle broadcast speakers or other means available (Section 1, Evacuation Zone Map). Areas east of Biscayne Boulevard are issued evacuation orders for a Category 2 or greater hurricanes. Areas east of the Florida East Coast (F.E.C.) railroad are issued evacuation orders for Category 4 or 5 hurricanes. However, residents throughout the City identified as special needs are evacuated by Miami-Dade County, if previously registered.

Routes

When notified to evacuate, most residents use the shortest, most familiar routes to evacuate. The North Miami Police Department facilitates the orderly and expeditious movement of traffic through local roadways.

- All evacuation routes are clear prior to the arrival of pre-landfall hazards.
- Police units are stationed at locations as needed.
- Officers provide citizens with bus pickup services as determined by Miami-Dade County. Metrobus provides pick-up services for evacuating citizens from the following designated points in North Miami:

    1. Dorset House, 2500 N.E. 135th Street
    2. Bayview Towers, 2150 Sans Souci Boulevard

- The cancellation of bus services is determined by Miami-Dade County in conjunction with the Office of Emergency Management.
- Members of the North Miami Police Department assist in directing the traffic flow for the evacuation of Bal Harbor, Bay Harbor Islands, Surfside and Miami Beach via Broad Causeway.

- **Potential flood areas are identified below:**

  Biscayne Boulevard between Sans Souci Boulevard and N.E. 135th Street.

  N.E. 6th Avenue at N.E. 125th Street intersection

  N.E. 142nd Street from N.E. 3rd Court to N.E. 6th Avenue

  N.E. 3rd Court from N.E. 135th Street to N.E. 142nd Street

  N.E. 7th Avenue from N.E. 10th Avenue from N.E. 143rd Street to N.E. 146th Street

  Local flooding also occurs along N.E. 123rd Street between North Bayshore Drive and Biscayne Boulevard

Routes for Barrier Islands

Broad Causeway has been identified as the roadway segment critical to the evacuation of the island communities of Bal Harbour, Bay Harbor Islands, and Surfside. The North Miami Police Department participates in the evacuation process.

- The main evacuation route is the Westbound on N.E. 123rd Street from Broad Causeway to I-95.
- Traffic control is coordinated with Miami-Dade County Traffic Maintenance to facilitate the flow.
- Police units are stationed at designated intervals to accommodate local traffic feeding into the route as needed.
- Tow trucks under contract with the North Miami Police Department may provide assistance along the evacuation route to assist disabled vehicles (due to mechanical problems or accidents).
- North Miami Public Works road maintenance vehicles remove all debris from essential roadways.

Residential and Business Re-Entry

After a hurricane, police units assigned to a designated zone secure the areas and assess damages. Search and Rescue operations begin with teams of officers entering evacuated areas, as soon as conditions permit, in search of causalities. This operation may be complicated based on the amount of debris and damages and resources required to clean up. This operation may be conducted on foot, by car, boat or through the use of available aircraft, depending on the severity of damages.

- The city Engineer and Building officials assess the damaged areas and determine if the bridges and other structures are safe for re-entry.
- Access to the evacuated areas is prohibited until the areas are determined to be safe.
- Residents and business owners will **not** be able to access evacuated areas under the conditions below:

- Roadways and bridges are declared unsafe.
- Flooding and high tides create life-threatening situations.
- Casualties have been reported and the area contains numerous crime scenes.
- Buildings have been declared unsafe and properly posted.
- Power lines and other hazards have not been secured.

If an entire area is declared unsafe, police units assign security patrols to prevent access. If necessary, members of the Florida National Guard may be called to assist with security.

- Checkpoints will be established to identify emergency personnel, technicians, repairmen, insurance adjusters, private security which must have access to the area.
- Marine Patrol will begin security patrols of the waterways utilizing all water-borne vessels.

Re-Entry to Barrier Islands

When the "all clear" is given for residents to return, they will be required to show proof of residency (i.e., driver's license, utility bill) with correct name and address. Only those individuals bearing the appropriate pass will be allowed through the checkpoint to Broad Causeway.

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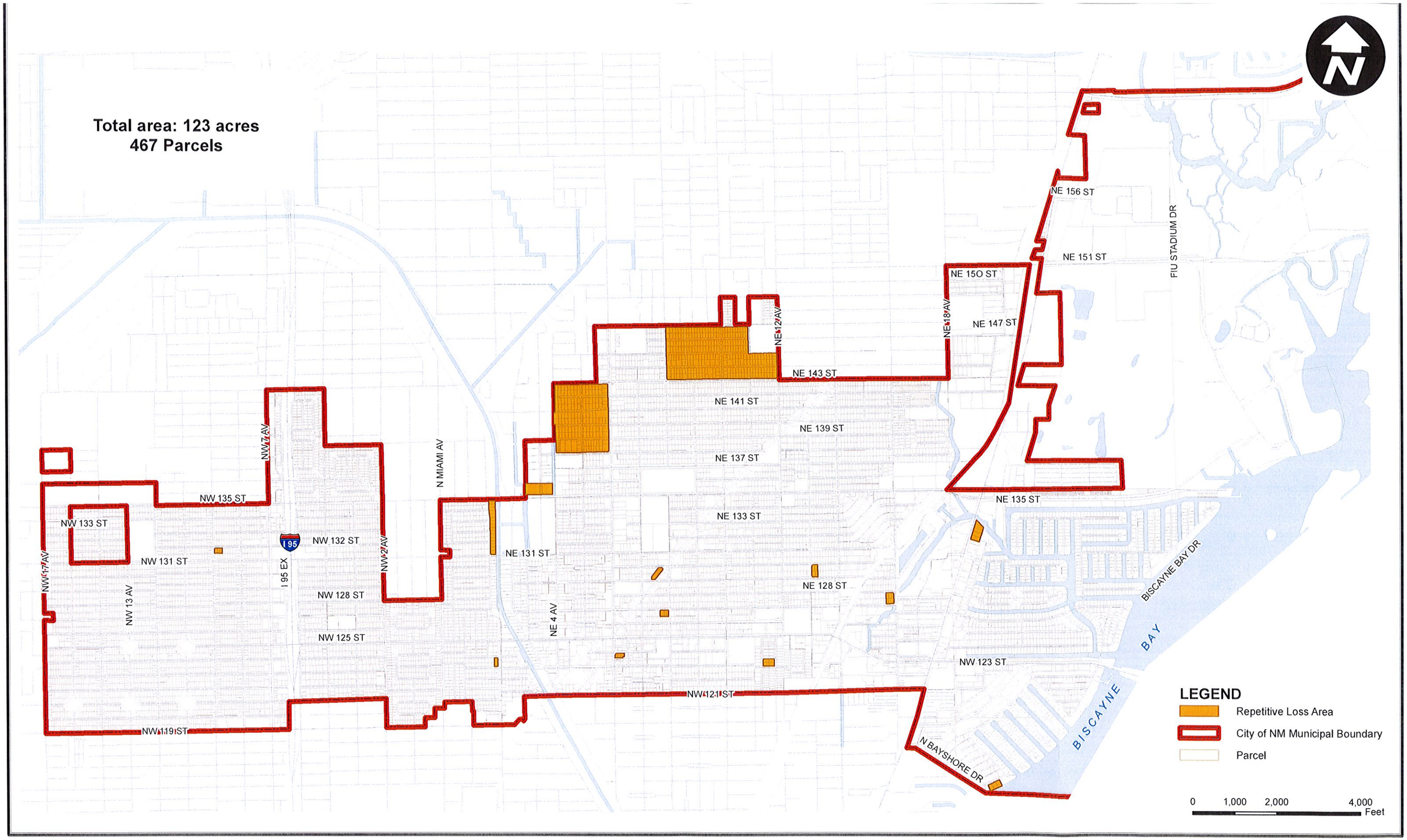


PREPARED BY:	W. FARYNA-ARMIJOS
CHECKED BY:	A. A. GHANY, P.E.
DATE:	NOVEMBER, 2014
DWG. No:	1 OF 1

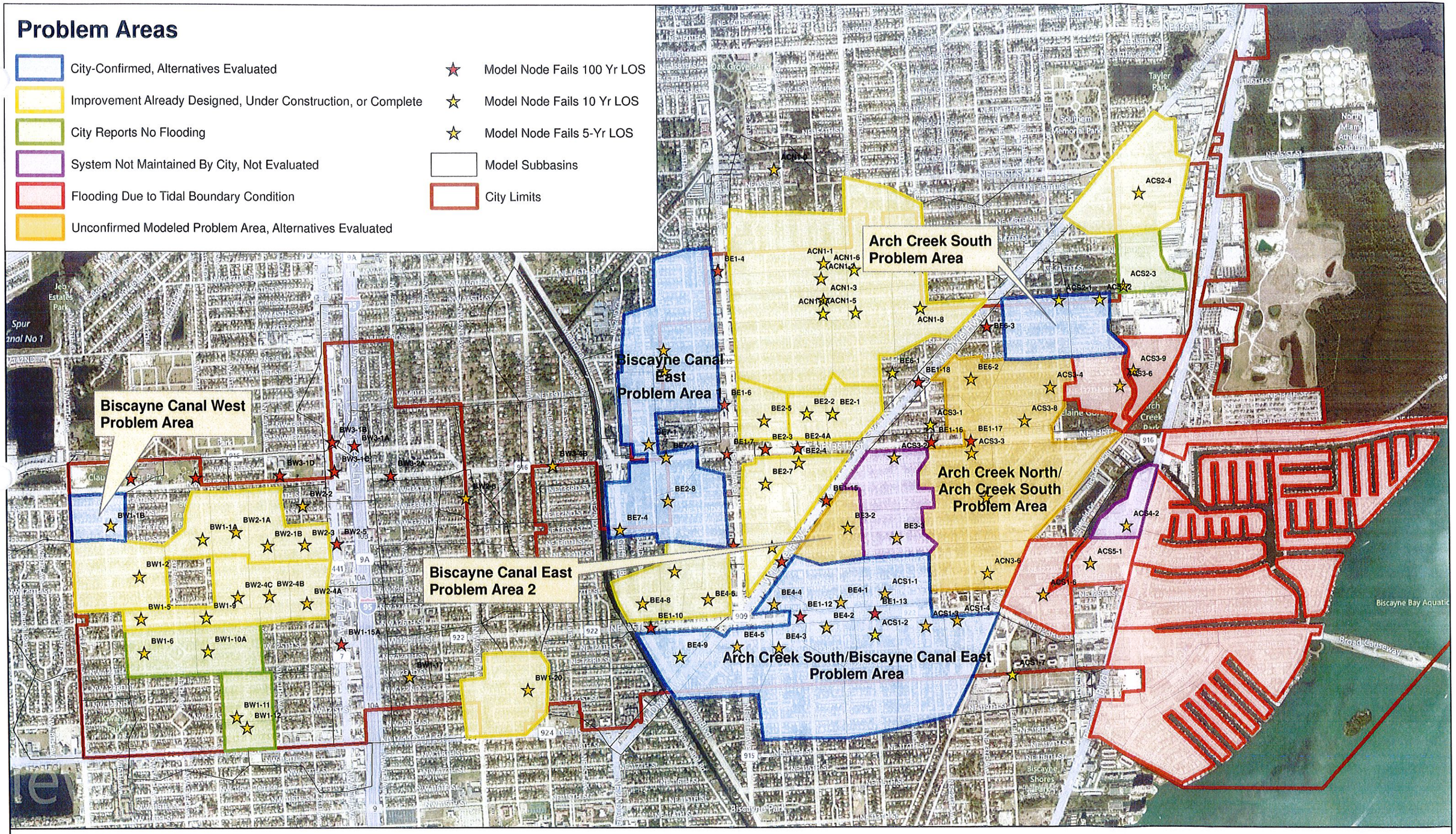
REPETITIVE LOSS AREA YEAR 2013-2014

NORTH MIAMI FLORIDA

CITY OF NORTH MIAMI
PUBLIC WORKS DEPARTMENT
STORMWATER DIVISION
NORTH MIAMI, FLORIDA

Problem Areas

- City-Confirmed, Alternatives Evaluated
- Improvement Already Designed, Under Construction, or Complete
- City Reports No Flooding
- System Not Maintained By City, Not Evaluated
- Flooding Due to Tidal Boundary Condition
- Unconfirmed Modeled Problem Area, Alternatives Evaluated
- Model Node Fails 100 Yr LOS
- Model Node Fails 10 Yr LOS
- Model Node Fails 5-Yr LOS
- Model Subbasins
- City Limits



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City of North Miami
Problem Area and Proposed Capital Improvement Locations

0 875 1,750 3,500 Feet

Figure ES-2

CDM Smith

G:\North Miami\Alternatives Analysis\Figures\Revised\FigES-2_032712.mxd pernezny bj 03/27/12

CITY OF NORTH MIAMI
CRITICAL FACILITIES LIST

CITY GOVERNMENT

• Building & Zoning	12340 NE 8 Avenue
• Code Enforcement	12330 NE 8 Avenue
• Community Planning & Development	12400 NE 8 Avenue
• Museum of Contemporary Art	770 NE 125 Street
• North Miami City Hall	776 NE 125 Street
• North Miami Library	835 NE 132 Street
• North Miami Motor Pool	1855 NE 142 Street
• Parks & Recreation Administration	12300 NE 18 Avenue
• Parks Operations Center	12181 NE 13 Avenue
• Police Department	700 NE 124 Street

COMMUNICATIONS / UTILITIES

• AT&T Communication Tower	835 NE 132 Street
• FP&L Transformer Station #1	126 Street & NW 5 Avenue
• FP&L Transformer Station #2	127 Street & NE 14 Avenue
• North Miami Police Antenna	145 Street & NE 20 Lane
• Public Works Utility Operations Center	1815 NE 150 Street

WATER & SEWER

• Winson Water Treatment Plant	12098 NW 11 Avenue
• Stormwater / Sewer Pump Stations (11 of 45)	
o Lift Station A	125 Street & NW 11 Avenue
o Lift Station B	136 Street & NW 2 Avenue
o Lift Station C	123 Street & NW 3 Avenue
o Lift Station E	143 Street & NE 12 Avenue
o Lift Station E (Storm)	143 Street & NE 12 Avenue
o Lift Station F	123 Terrace & NE 8 Avenue
o Lift Station G	143 Street & NE 15 Avenue
o Lift Station H	130 Street & NE 14 Avenue
o Lift Station I	124 Street & NE 18 Avenue
o Lift Station J	123 Street & NE 4 Avenue
o Breezeswept Station	127 Street & NE 1 Court

SHELTERS

• North Miami Senior High School	13100 NE 8 Avenue
• Johnson & Wales University	1701 NE 127 Street

CONVALESCENT / NURSING HOMES

• Arch Plaza Nursing and Rehabilitation	12505 NE 16 Avenue
• Berkshire Manor Nursing & Rehabilitation	1255 NE 135 Street
• Fountainhead Care Center	390 NE 135 Street
• Pinecrest Convalescent Center	13650 NE 3 Court
• Villa Maria Nursing & Rehabilitation	1050 NE 125 Street

ADULT LIVING FACILITIES

• Bayview Center – Bay House	12690 NE 2 Avenue
• JAS Manor	645 NE 131 Street
• North Miami Retirement Living	1595 NE 145 Street
• Professional Retirement Home	925 NE 144 Street

HAZARDOUS MATERIALS SITES

• AT&T Telecommunications	1360 NE 127 Street
• Battery Sales	12275 NE 13 Avenue
• Miami-Dade Water & Sewer Authority	2575 NE 151 Street
• Supreme Chemical	1460 NE 129 Street

CITY COMMUNITY CENTERS

• Enchanted Forest Community Center	1725 NE 135 Street
• Griffing Community Center	12220 Griffing Boulevard
• Gwen Margolis Community Center	1590 NE 123 Street
• Keystone Center	13050 Ixora Court
• Joe Celestin Center	1525 NW 135 Street
• Judson Community Center	12100 NW 16 Avenue
• Sunkist Grove Community Center	12500 NW 13 Avenue

ANNUAL REPORT FORM FOR INDIVIDUAL NPDES PERMITS FOR MUNICIPAL SEPARATE STORM SEWER SYSTEMS (RULE 62-624.600(2), F.A.C.)

- This Annual Report Form must be completed and submitted to the Department to satisfy the annual reporting requirements established in Rule 62-621.600, F.A.C.
- Submit this fully completed and signed form and any REQUIRED attachments by mail to the address in the box at right.
- Refer to the Form Instructions for guidance on completing each section.
- **Please print or type information in the appropriate areas below.**

Submit the form and attachments to:
Florida Department of Environmental Protection
Mail Station 2500
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

SECTION I. BACKGROUND INFORMATION

A.	Permittee Name: City of North Miami		
B.	Permit Name: Miami-Dade County Municipal Separate Storm Sewer System		
C.	Permit Number: FLS000003-003 (Cycle 3)		
D.	Annual Report Year: ☐ Year 1 ☒ Year 2 ☐ Year 3 ☐ Year 4 ☐ Year 5 ☐ Other, specify Year:		
E.	Reporting Time Period (month/year): 06/ 12 through 06 / 13		
F.	Name of the Responsible Authority: Stephen Johnson		
	Title: City Manager		
	Mailing Address: 776 NE 125th Street		
	City: North Miami	Zip Code: 33161	County: Miami-Dade
	Telephone Number: 305-893-6391	Fax Number: 305-893-1367	
	E-mail Address: SJohnson@Northmiamifl.Gov		
G.	Name of the Designated Stormwater Management Program Contact (if different from Section I.F above): Aleem A. Ghany P.E.		
	Title: Public Works Director		
	Department: Public Works		
	Mailing Address: 776 NE 125th Street		
	City: North Miami	Zip Code: 33161	County: Miami-Dade
	Telephone Number: 305-895-9830	Fax Number: 305-895-4658	
	E-mail Address: AGhany@Northmiamifl.Gov		

SECTION II. MS4 MAJOR OUTFALL INVENTORY (Not Applicable In Year 1)

A.	Number of outfalls ADDED to the outfall inventory in the current reporting year (insert "0" if none): 0 (Does this number include non-major outfalls? ☐ Yes ☐ No ☒ Not Applicable)
B.	Number of outfalls REMOVED from the outfall inventory in the current reporting year (insert "0" if none): 0 (Does this number include non-major outfalls? ☐ Yes ☐ No ☒ Not Applicable)
C.	Is the change in the total number of outfalls due to lands annexed or vacated? ☐ Yes ☐ No ☒ Not Applicable

SECTION III. MONITORING PROGRAM

A. Provide a brief statement as to the status of monitoring plan implementation:

The monitoring plan is carried out through an inter-local agreement with Miami-Dade County. Please see the Miami-Dade County Annual Report for the monitoring information

B. Provide a brief discussion of the monitoring results to date:

Please see the Miami-Dade County Annual Report for the monitoring information.

C. Attach a monitoring data summary, as required by the permit.

SECTION IV. FISCAL ANALYSIS

A. Total expenditures for the NPDES stormwater management program for the current reporting year: $1,791,383

DEP Note: If program resources have decreased from the previous year, attach a discussion of the impacts on the implementation of the SWMP as per Part II.F of the permit.

B. Total budget for the NPDES stormwater management program for the subsequent reporting year: $1,919,860

SECTION V. MATERIALS TO BE SUBMITTED WITH THIS ANNUAL REPORT FORM

Only the following materials are to be submitted to the Department along with this fully completed and signed Annual Report Form (check the appropriate box to indicate whether the item is attached or is not applicable):

DEP Note: Please complete Checklists A & B at the end of the tailored form.

Attached	N/A	
☒	☐	Any additional information required to be submitted in this current annual reporting year in accordance with Part III.A of your permit that is not otherwise included in Section VII below.
☐	☒	A monitoring data summary as directed in Section III.C above and in accordance with Rule 62-624.600(2)(c), F.A.C.
☐	☒	Year 1 ONLY: An inventory of all known major outfalls and a map depicting the location of the major outfalls (hard copy or CD-ROM) in accordance with Rule 62-624.600(2)(a), F.A.C.
☐	☒	Year 3 ONLY: The estimates of pollutant loadings and event mean concentrations for each major outfall or each major watershed in accordance with Rule 62-624.600(2)(b), F.A.C.
☐	☒	Year 4 ONLY: Permit re-application information in accordance with Rule 62-624.420(2), F.A.C.

DO NOT SUBMIT ANY OTHER MATERIALS

(such as records and logs of activities, monitoring raw data, public outreach materials, etc.)

SECTION VI. CERTIFICATION STATEMENT AND SIGNATURE

The Responsible Authority listed in Section I.F above must sign the following certification statement, as per Rule 62-620.305, F.A.C:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based upon my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name of Responsible Authority (type or print): Stephen Johnson

Title: City Manager

Signature: [signature] Date: 12/17/2015

SECTION VII. STORMWATER MANAGEMENT PROGRAM (SWMP) SUMMARY TABLE

A. Permit Citation/ SWMP Element	B. Permit Requirement/Quantifiable SWMP Activity	C. Number of Activities Performed	D. Documentation / Record	E. Entity Performing the Activity	F. Comments
Part III.A.1	**Structural Controls and Stormwater Collection Systems Operation**				

Maintain an up-to-date inventory of the structural controls and roadway stormwater collection structures operated by the permittee, including, at a minimum, all of the types of control structures listed in Table II.A.1.a of the permit. Report the current known inventory.

DEP Note: The permittee needs to "customize" this section by adding any structural controls to the list below that are part of the permittee's MS4 currently or are planned for the future. The permittee may remove any structural controls listed that it does not have currently or will likely not have during this permit cycle. Please see the attached description of each type of structure. In addition, the permittee may choose its own unit of measurement for each structural control to be consistent with the unit of measurement in the documentation. Unit options include: miles, linear feet, acres, etc.

Provide an inventory of all known major outfalls covered by the permit and a map depicting the location of the major outfalls (hard copy or CD-ROM). Provide the outfall inventory and map with the Year 1 Annual Report.

Report the number of inspection and maintenance activities conducted for each type of structure included in Table II.A.1.a, and the percentage of the total inventory of each type of structure inspected and maintained. If the minimum inspection frequencies set forth in Table II.A.1.a were not met, provide as an attachment an explanation of why they were not and a description of the actions that will be taken to ensure that they will be met.

DEP Note: If the minimum inspection frequencies set forth in Table II.A.1.a of the permit were not met for one or more type of structure, the permittee must provide as an attachment an explanation of why they were not and a description of the actions that will be taken to ensure that they will be met. Please provide the title of the attached explanation in Column D and the name of the entity who finalized the explanation in Column E.

Type of Structure	Number of Activities Performed					Documentation / Record	Entity Performing the Activity	Comments
	Total Number of Structures	Number of Inspections	Percentage Inspected	Number of Maintenance Activities	Percentage Maintained			
Exfiltration trench / French drains (linear feet)	49,129	35,320	72%	N/A	N/A	Exfiltration Trench Inspection Form	City Staff	Maintenance activities performed are Reported under Catch Basins
Grass treatment swales (miles)	16	3 Days	100%	N/A	N/A	Swale Inspection Form	City Staff	Per Ordinance Swale Maintenance is the Property Owners

SECTION VII. STORMWATER MANAGEMENT PROGRAM (SWMP) SUMMARY TABLE

A. Permit Citation/ SWMP Element	B. Permit Requirement/Quantifiable SWMP Activity				C. Number of Activities Performed		D. Documentation / Record	E. Entity Performing the Activity	F. Comments
									Responsibility.
	Dry detention systems	1			0				Systems just added
	Wet detention systems	N/A			0				Systems plan to be added
	Pollution control boxes	2	23	1150%	2	100%	Pump Station Logs	City Staff	
	Stormwater pump stations	3	34	1134%	1	33%	Pump Station Logs	City Staff	
	Major stormwater outfalls	2	2	100%	1	50%	Outfall Inspection Form	City Staff	
	MS4 pipes / culverts (miles)	38.8	9	23%	4.1	11%	Vac-Con Daily Reports	City Staff	Two forms one for inspections and one for maintenance
	Inlets / catch basins / grates	2,273	1174	52%	2385	104%	Stormwater Daily Reports	City Staff	Two forms one for inspections and one for maintenance
	ATTACH explanation if any of the minimum inspection frequencies in Table II.A.1.a were not met								
	Year 1 ONLY: Attach a map of all known major outfalls								
Part III.A.2	**Areas of New Development and Significant Redevelopment**								
	Report the number of significant redevelopment projects reviewed by the permittee for post-development stormwater considerations. *DEP Note: Please provide an explanation in Column F for any "0" reported in Column C.*								
	Number of significant redevelopment projects reviewed				0				There were no projects this reporting period
	Provide in the Year 2 Annual Report the summary report of the review of local codes activity. Provide in the Year 4 Annual Report the follow-up report on plan implementation of modifying codes to allow low impact design BMPs. *DEP Note: Refer to Part III.A.2 of the permit for details regarding what the review entails, and what must be included in the summary report and follow-up report. Please provide the title of the attached report in Column D and the name of the entity who finalized the report in Column E.*								
	Year 2 ONLY: Attach the summary report of the review activity								
	Year 4 ONLY: Attach the follow-up report on plan implementation								
Part III.A.3	**Roadways**								
	Annually review (and revise, as needed) and implement the permittee's written procedures for the litter control program(s) for public streets, roads, and highways, including rights-of-way, employed within the permittee's jurisdictional area and properly dispose of collected material. Implement the program on a monthly, or on an as needed, basis. Report on the litter control program, including the frequency of litter collection, an estimate of the total number of road miles cleaned or amount of area								

SECTION VII. STORMWATER MANAGEMENT PROGRAM (SWMP) SUMMARY TABLE

A. Permit Citation/ SWMP Element	B. Permit Requirement/Quantifiable SWMP Activity	C. Number of Activities Performed	D. Documentation / Record	E. Entity Performing the Activity	F. Comments
	covered by the activities; and an estimate of the quantity of litter collected.				
	DEP Note: Please provide an explanation in Column F for any "0" reported in Column C. In addition, the permittee may choose its own units of measurement for the reporting items. Unit options for the amount of litter include: bags, cubic yards, pounds, tons. Unit options for the amount of area covered by the activity include: square feet, linear feet, yards, miles, acres. If all litter collection is performed by staff or by contractors, but not by both, please remove the non-applicable reporting items.				
	PERMITTEE Litter Control Program: Frequency of litter collection	Daily	Daily Worksheets	City Staff	Bus Bench, Right-of-way and Pet waste Stations
	PERMITTEE Litter Control Program: Estimated amount of area maintained (Miles)	10	Daily Worksheets	City Staff	
	PERMITTEE Litter Control Program: Estimated amount of litter collected (Cubic Yards)	350	Daily Worksheets	City Staff/Contract Hauler	City contracted out solid waste services inMarch 2012
	CONTRACTOR Litter Control Program: Frequency of litter collection	0			No outside vendors
	CONTRACTOR Litter Control Program: Estimated amount of area maintained (linear feet)	0			No outside vendors
	CONTRACTOR Litter Control Program: Estimated amount of litter collected (cubic yards)	0			No outside vendors
	If an Adopt-A-Road or similar program is implemented, report the total number of road miles cleaned and an estimate of the quantity of litter collected.				
	DEP Note: The permittee may choose its own unit of measurement for the amount of litter collected. Unit options include: bags, cubic yards, pounds, tons. If an Adopt-A-Road or similar program is not implemented by the permittee, please note that in Column F but do not remove the Adopt-A-Road Program reporting items.				
	Trash Pick-up Events: Total miles cleaned	1.5	Email from Special Events Supervisor	City Staff/ Students / Volunteers	
	Trash Pick-up Events: Estimated amount of litter collected (Trash Bags)	50	Estimate from Special Events Supervisor	City Staff/ Students / Volunteers	
	Report on the street sweeping program, including the frequency of the sweeping, total miles swept, an estimate of the quantity of sweepings collected, and the total nitrogen (TN) and total phosphorus (TP) loadings that were removed by the collection of sweepings. If no street sweeping program is implemented, provide the explanation of why not in the Year 1 Annual Report.				
	DEP Note: Please provide an explanation in Column F for any "0" reported in Column C. Also, the permittee may choose its own unit of measurement for the amount of sweeping material collected. Unit options include: cubic yards, pounds, tons.				
	DEP Note: If the permittee has curbs and gutters but no street sweeping program is implemented, the permittee must provide an explanation of why not in the Year 1 Annual Report. Refer to Part III.A.3 of the permit for the information that must be included in the explanation (including the alternate BMPs used or planned in lieu of street sweeping). Please provide the title of the attached explanation in Column D and the name of the entity who finalized the explanation in Column E.				

SECTION VII. STORMWATER MANAGEMENT PROGRAM (SWMP) SUMMARY TABLE

A. Permit Citation/ SWMP Element	B. Permit Requirement/Quantifiable SWMP Activity	C. Number of Activities Performed	D. Documentation / Record	E. Entity Performing the Activity	F. Comments
	Frequency of street sweeping	Daily			
	Total miles swept (per year)	6,053	Street Sweeper Log	City Staff	
	Estimated quantity of sweeping material collected (cubic yards)	655	Street Sweeper Log	City Staff	
	Total nitrogen loadings removed (pounds)	846			FSA Assessment Tool
	Total phosphorus loadings removed (pounds)	543			FSA Assessment Tool
	Year 1 ONLY: If have curbs and gutters, attach explanation of why no street sweeping program and the alternate BMPs used or planned				
	Annually review (and revise, as needed) and implement the permittee's written standard practices to reduce the pollutants in stormwater runoff from areas associated with road repair and maintenance, and from permittee-owned or operated equipment yards and maintenance shops that support road maintenance activities. Report the number of applicable facilities and the number of inspections conducted for each facility.				
	DEP Note: The permittee needs to "customize" this section by listing the names of the applicable facilities in Column B and the number of inspections of each facility in Column C. Add more rows if necessary. If "0" is reported in Column C for the number of inspections conducted and the permittee has one or more applicable facilities, please provide an explanation in Column F for why no inspections were conducted. In addition, if the same facility is applicable under both Parts III.A.3 and III.A.5 of the permit, the same site inspection can count towards both inspection requirements as long as it covers the applicable waste area(s). Be sure to report the site inspection under both Parts III.A.3 and III.A.5.				
		Number of Inspections			
	Name of facility #1: City of North Miami Motorpool	1	Facilities Inspection Form	City Staff	
Part III.A.4	**Flood Control Projects**				
	Report the total number of flood control projects that were constructed by the permittee during the reporting period and the number of those projects that did NOT include stormwater treatment. The permittee shall provide a list of the projects where stormwater treatment was not included with an explanation for each of why it was not. Report on any stormwater retrofit planning activities and the associated implementation of retrofitting projects to reduce stormwater pollutant loads from existing drainage systems that do not have treatment BMPs.				
	DEP Note: A "stormwater retrofit project" is one implemented primarily to provide stormwater treatment for areas currently without treatment.				
	DEP Note: The status of the flood control and retrofit projects should be reported as of the last day of the applicable reporting period. Therefore, there should be no duplication for those reported as planned, for those reported as under construction and for those reported as completed.				
	DEP Note: If applicable, please provide the title of the attached list of flood control projects that did not include stormwater treatment in Column D and the name of the entity who finalized the list in Column E.				
	Flood control projects completed during the reporting period	5	Stormwater Daily reports	City Staff	Small in-house projects for localized flooding
	Flood control projects completed during the reporting period that did not	0			

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A. Permit Citation/ SWMP Element	B. Permit Requirement/Quantifiable SWMP Activity	C. Number of Activities Performed	D. Documentation / Record	E. Entity Performing the Activity	F. Comments
	include stormwater treatment				
	ATTACH a list of the flood control projects that did not include stormwater treatment and an explanation for each of why it was not				
	Stormwater retrofit projects planned	0			City has adopted an updated Stormwater Master Plan and will be beginning the design phase.
	Stormwater retrofit projects under construction during the reporting period	0			See Above
	Stormwater retrofit projects completed during the reporting period	0			See Above
Part III.A.5	**Municipal Waste Treatment, Storage, and Disposal Facilities Not Covered by an NPDES Stormwater Permit**				
	Annually review (and revise, as needed) and implement the permittee's written procedures for inspections and the implementation of measures to control discharges from the following facilities that are not otherwise covered by an NPDES stormwater permit: • Operating municipal landfills; • Municipal waste transfer stations; • Municipal waste fleet maintenance facilities; and • Any other municipal waste treatment, waste storage, and waste disposal facilities. Report the number of applicable facilities and the number of the inspections conducted for each facility. If a permittee relies on Miami-Dade County to conduct these activities on its behalf, the permittee shall obtain (and, upon request, Miami-Dade County shall make available) the necessary annual report information from the County. *DEP Note: The permittee needs to "customize" this section by listing the names of the applicable facilities in Column B and the number of inspections of each facility in Column C. Add more rows if necessary. If "0" is reported in Column C for the number of inspections conducted and the permittee has one or more applicable facilities, please provide an explanation in Column F for why no inspections were conducted.* ***An applicable facility under Part III.A.5 includes, but is not limited to, those facilities/yards where street sweeping material and/or yard waste are temporary stockpiled, and where solid waste collection vehicles are parked and/or maintained.*** *In addition, if the same facility is applicable under both Parts III.A.3 and III.A.5 of the permit, the same site inspection can count towards both inspection requirements as long as it covers the applicable waste area(s). Be sure to report the site inspection under both Parts III.A.3 and III.A.5.*				
		Number of Inspections			
	Name of facility #1:City of North Miami Motorpool	1	Facilities Inspection Form	City Staff	City Privatized its Solid Waste services in March 2012; Solid Waste vehicles are no longer parked or serviced at this

SECTION VII. STORMWATER MANAGEMENT PROGRAM (SWMP) SUMMARY TABLE

A. Permit Citation/ SWMP Element	B. Permit Requirement/Quantifiable SWMP Activity	C. Number of Activities Performed	D. Documentation / Record	E. Entity Performing the Activity	F. Comments
					facility.
Part III.A.6	**Pesticides, Herbicides, and Fertilizer Application**				
	Continue to require proper certification and licensing by the Florida Department of Agriculture and Consumer Services (FDACS) for all applicators contracted to apply pesticides, herbicides, or fertilizers on permittee-owned property, as well as any permittee personnel employed in the application of these products. Report the number of permittee personnel applicators and contracted commercial applicators of pesticides and herbicides who are FDACS certified / licensed. Report the number of permittee personnel and contractors who have been trained through the Green Industry BMP Program, and the number of contracted commercial applicators of fertilizer who are FDACS certified / licensed. *DEP Note: If "0" is reported in Column C for any of the reporting items, please include in Column F an explanation of why training was not provided to / obtained by personnel and contractors during the applicable reporting year, the most recent year that training / certification was previously provided / obtained, and the names of the personnel and contractors previously trained / certified.*				
	PERSONNEL: Florida Department of Agriculture and Consumer Services (FDACS) certified applicators of pesticides and herbicides	2	Copy of Applicator License	City Staff	
	CONTRACTORS: FDACS certified / licensed applicators of pesticides and herbicides	0			City Does not have a contract with an outside vendor
	CONTRACTORS: FDACS certified / licensed applicators of fertilizer	0			See Above
	PERSONNEL: Green Industry BMP Program training completed	1	Copy of Certificate	AEC	
	CONTRACTORS: Green Industry BMP Program training completed				
	Pursuant to SB 2080 (2009), all local governments are encouraged to adopt a Florida-friendly Landscaping Ordinance similar to the one set forth in the document "Florida-friendly Guidance Models for Ordinances, Covenants and Restrictions." If the broader Florida-friendly ordinance described above is not adopted, then all local governments within the watershed of a nutrient-impaired water body shall adopt the Department's Model Ordinance for Florida-Friendly Fertilizer Use on Urban Landscapes pursuant to SB 494 (2009) or an ordinance that includes all of the requirements set forth in the Model Ordinance. The ordinance shall be adopted within 24 months of the date of permit issuance. Provide a copy of the adopted ordinance with the subsequent Year 1 or Year 2 Annual Report. *DEP Note: If this provision is not applicable because the permittee is not within the watershed of a nutrient-impaired water body, then please indicate that in Column F, but do not remove this reporting item.* *DEP Note: Please provide the title and citation of the ordinance in Column D, and the name of the entity who finalized the ordinance in Column E.*				
	Year 1 or Year 2 ONLY: Attach copy of adopted Florida-friendly ordinance		Chapter 29 – Land Development Regulations. Article 5. – Development Standards. Division 12 – Landscaping and Screening	City of North Miami	
	During Year 1 of the permit, develop and implement a written public education and outreach program plan to encourage citizens to reduce their use of pesticides, herbicides, and fertilizers. Report on the public education and outreach activities that are performed or sponsored by the permittee within the permittee's jurisdiction to encourage citizens to reduce their use of pesticides, herbicides, and fertilizers, including the type and number of activities conducted, the type and number of materials distributed, the percentage of the population reached by the activities in total, and the number of Web site visits (if applicable). Activities performed under the Florida				

SECTION VII. STORMWATER MANAGEMENT PROGRAM (SWMP) SUMMARY TABLE

A. Permit Citation/ SWMP Element	B. Permit Requirement/Quantifiable SWMP Activity	C. Number of Activities Performed	D. Documentation / Record	E. Entity Performing the Activity	F. Comments
	Yards and Neighborhoods (FYN) program should only be reported if the permittee is contributing funding towards the FYN staff and program within its jurisdiction.				
	DEP Note: The permittee should "customize" the list of public outreach activities by removing items or adding items to the list below as appropriate to their particular public outreach program. However, the reporting item of "Estimated percentage of the population reached by the activities in total" must remain. The permittee may add more specifics to the reporting items, such as the name of the brochure or newsletter distributed. If "0" is reported in Column C for all the reporting items please include in Column F an explanation for why no outreach was performed.				
	DEP Note: Miami-Dade County is to report the public education and outreach activities that it performed county-wide (and not just in the unincorporated areas of Miami-Dade County). The co-permittees are to report just the public education and outreach activities that they performed.				
	DEP Note: Indicate under Column E "Entity Performing the Activity" if FYN or IFAS is performing any of the reported public education and outreach activities. In addition, please complete the following line: FYN PROGRAM FUNDING: Permittee Provides Funding? ☐ Yes ☒ No Amount of Funding = $				
	Estimated percentage of the population reached by the activities in total	20%			
	Brochures/Flyers/Fact sheets distributed	1000			HOA Meetings, Special Events and Public Displays
	FYN: Brochure/Flyers/Fact sheets distributed	0		FYN	The City is looking into FYN Funding
	Neighborhood presentations: Number conducted	3	HOA Minuets	City Staff	
	FYN: Neighborhood presentations: Number of participants	0		FYN	The City is looking into FYN Funding
	FYN: Neighborhood presentations: Number conducted	0		FYN	The City is looking into FYN Funding
	Neighborhood presentations: Number of participants	25-30	HOA Minuets	City Staff	
	Newspapers & newsletters: Number of articles/notices published	0			
	Newsletters: Number of newsletters distributed	0			
	Public displays (e.g., kiosks, storyboards, posters, etc.)	2	City Hall	City Staff	City Hall Main Lobby and Public Works Office
	FYN: Public displays (e.g., kiosks, storyboards, posters, etc.)	0		FYN	The City is looking into FYN Funding
	Radio or television Public Service Announcements (PSAs)	Daily	Cable Ch. 77	City of North Miami	
	FYN: Radio or television Public Service Announcements (PSAs)	0		FYN	The City is looking into FYN

SECTION VII. STORMWATER MANAGEMENT PROGRAM (SWMP) SUMMARY TABLE

A. Permit Citation/ SWMP Element	B. Permit Requirement/Quantifiable SWMP Activity	C. Number of Activities Performed	D. Documentation / Record	E. Entity Performing the Activity	F. Comments
					Funding
	School presentations: Number conducted	9	E-Mail from Public Information Officer	City Staff	
	School presentations: Number of participants	Unknown			Speakers will speak to 3-4 classes of different sizes.
	FYN: School presentations: Number conducted	0		FYN	The City is looking into FYN Funding
	FYN: School presentations: Number of participants	0		FYN	The City is looking into FYN Funding
	Seminars/Workshops: Number conducted	0			Parks Dept. provides when requested, There were no requests this Reporting Period
	Seminars/Workshops: Number of participants	0			See Above
	FYN: Seminars/Workshops: Number conducted	0		FYN	The City is looking into FYN Funding
	FYN: Seminars/Workshops: Number of participants	0		FYN	The City is looking into FYN Funding
	Special events: Number conducted	1	Earth Day Event	City of North Miami	
	Special events: Number of participants	75	Email from Special Events Coordinator	City Staff and volunteers	
	FYN: Special events: Number conducted	0		FYN	The City is looking into FYN Funding
	FYN: Special events: Number of participants	0		FYN	The City is looking into FYN Funding
	Web Site: Number of hits / visitors to the stormwater-related pages	Unknown			Tracking has been requested through IT Department
Part III.A.7.a	Illicit Discharges and Improper Disposal — Inspections, Ordinances, and Enforcement Measures				

SECTION VII. STORMWATER MANAGEMENT PROGRAM (SWMP) SUMMARY TABLE

A. Permit Citation/ SWMP Element	B. Permit Requirement/Quantifiable SWMP Activity	C. Number of Activities Performed	D. Documentation / Record	E. Entity Performing the Activity	F. Comments
	Where applicable, strengthen the legal authority to conduct inspections, conduct monitoring, control illicit discharges, illicit connections, illegal dumping and spills into the MS4 and to require compliance with conditions in ordinances, permits, contracts, and orders. Report amendments, as needed.				
	DEP Note: If applicable, please provide the title of the attached report in Column D and the name of the entity who finalized the report in Column E.				
	ATTACH a report on any amendments to the applicable legal authority				
Part III.A.7.c	**Illicit Discharges and Improper Disposal — Investigation of Suspected Illicit Discharges and/or Improper Disposal**				
	During Year 1 of the permit, develop and implement a written proactive inspection program plan for identifying and eliminating sources of illicit discharges, illicit connections, or dumping to the MS4. Report on the proactive inspection program, including the number of inspections conducted, the number of illicit activities found, and the number and type of enforcement actions taken.				
	DEP Note: If "0" is reported in Column C for the first reporting item, please include an explanation in Column F for why no proactive inspections were performed. In addition, the permittee should re-word the "NOVs / warning letters / citations issued" reporting item to more accurately reflect its particular initial enforcement activity, if necessary.				
	DEP Note: Proactive inspections may include, for example, suspect areas (e.g., industrial areas), commercial businesses (e.g., restaurants, car washes, service stations, laundries / dry cleaners, auto body shops, mobile carpet cleaners) or temporary activities (e.g., special events / fairs / circus) that would not otherwise be inspected during routine inspections and maintenance of the MS4, in association with high risk industrial facilities or construction sites, or in response to citizen or staff reports.				
	DEP Note: Miami-Dade County is to report the ONLY the proactive inspections it performed in the unincorporated areas of Miami-Dade County – any proactive inspections it performed in the co-permittees jurisdictions are to be reported by the co-permittees. The co-permittees may report the IWP inspections performed by Miami-Dade County in their jurisdictions only if the inspections included looking for illicit discharges / connections / dumping to the MS4. Each co-permittee is to report the Miami-Dade County proactive inspections in their jurisdiction separately from the proactive inspections that the co-permittee performed itself.				
	DEP Note: Refer to Part III.A.7.c of the permit for what must be included in the written proactive inspection program plan. Please provide the title of the attached plan in Column D and the name of the entity who finalized the plan in Column E.				
	Proactive inspections performed by Miami-Dade County on behalf of a co-permittee for suspected illicit discharges / connections / dumping	88	E-Mail sent from MDC	Miami-Dade County DERM	
	Proactive inspections performed by the permittee for suspected illicit discharges / connections / dumping	9	Inspection Form	City Staff	
	Illicit discharges / connections / dumping found during a proactive inspection	1	E-mail / Inspection Form	City Staff / Miami-Dade County DERM	
	Notices of Violation (NOVs) / warning letters / citations issued for illicit discharges / connections / dumping found during a proactive inspection	1	E-Mail sent from MDC	Miami-Dade County DERM	
	Fines issued for illicit discharges / connections / dumping found during a proactive inspection	0			
	Year 1 ONLY: Attach the written proactive inspection program plan				
	Annually review (and revise, as needed) and implement the permittee's written procedures to conduct reactive investigations to identify and eliminate the source(s) of illicit discharges, illicit connections or improper disposal to the MS4, based on reports received from permittee personnel, contractors, citizens, or other entities regarding suspected illicit activity. Report on the reactive investigation program as it relates to responding to reports of suspected illicit discharges, including the				

SECTION VII. STORMWATER MANAGEMENT PROGRAM (SWMP) SUMMARY TABLE

A. Permit Citation/ SWMP Element	B. Permit Requirement/Quantifiable SWMP Activity	C. Number of Activities Performed	D. Documentation / Record	E. Entity Performing the Activity	F. Comments
	number of reports received, the number of investigations conducted, the number of illicit activities found, and the number and type of enforcement actions taken. If a permittee relies on Miami-Dade County to conduct these activities on its behalf, the permittee shall obtain (and, upon request, Miami-Dade County shall make available) the necessary annual report information from the County.				
	DEP Note: If the number of reports received differs from the number of reactive investigations, please provide an explanation for the discrepancy in Column F. In addition, the permittee should re-word the "NOVs / warning letters / citations issued" reporting item to more accurately reflect its particular initial enforcement activity, if necessary.				
	Reports received by DERM of suspected illicit connections / discharges / dumping received	0	E-Mail sent from MDC	Miami-Dade County DERM	
	Reports received by permittee of suspected illicit connections / discharges / dumping received	0			None Reported this Period
	Reactive investigations of reports of suspected illicit discharges/ connections / dumping	0	E-Mail sent from MDC	Miami-Dade County DERM	
	Illicit discharges / connections / dumping found during a reactive investigation	0	E-Mail sent from MDC	Miami-Dade County DERM	
	Notices of Violation (NOVs) / warning letters / citations issued for illicit discharges / connections / dumping found during a reactive investigation	0	E-Mail sent from MDC	Miami-Dade County DERM	
	Fines issued for illicit discharges / connections / dumping found during a reactive investigation	0	E-Mail sent from MDC	Miami-Dade County DERM	
	During Year 1 of the permit, develop and implement a written plan for the training of all appropriate permittee personnel (including field crews, fleet maintenance staff, and inspectors) and contractors to identify and report conditions in the stormwater facilities that may indicate the presence of illicit discharges / connections / dumping to the MS4. Refresher training shall be provided annually. Report the type of training activities, and the number of permittee personnel and contractors trained (both in-house and outside training). If a permittee relies on Miami-Dade County to conduct these activities on its behalf, the permittee shall obtain (and, upon request, Miami-Dade County shall make available) the necessary annual report information from the County.				
	DEP Note: If "0" is reported for either reporting item, please include in Column F an explanation of why training was not provided to / obtained by personnel and contractors during the applicable reporting year, the most recent year that training was previously provided / obtained, and the names of the personnel and contractors previously trained.				
	Initial Training / **Refresher Training**				
	Personnel trained: 0 / 11		Sign in Sheet	City Staff	Excal Visual DVD
	Contractors trained: 0 / 0				None this Reporting Period
Part III.A.7.d	**Illicit Discharges and Improper Disposal — Spill Prevention and Response**				
	Annually review (and revise, as needed) and implement the permittee's written spill-prevention/spill-response plan and procedures to prevent, contain, and respond to spills that discharge into the MS4. Report on the spill prevention and response activities, including the number of spills addressed. If a permittee relies on the Miami-Dade County Fire Department to conduct these activities on its behalf, the permittee shall obtain (and, upon request, Miami-Dade County shall make available) the necessary annual report information from the County.				
	DEP Note: The permittee may report the number of hazardous material spills separately from the number of non-hazardous material spills, or report one combined number, to more accurately reflect its tracking of these spills.				

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A. Permit Citation/ SWMP Element	B. Permit Requirement/Quantifiable SWMP Activity	C. Number of Activities Performed	D. Documentation / Record	E. Entity Performing the Activity	F. Comments
	Hazardous and non-hazardous material spills responded to	0	E-Mail sent from MDC	Miami-Dade County	

During Year 1 of the permit, develop and implement a written plan for the training of all appropriate permittee personnel (including field crews, firefighters, fleet maintenance staff and inspectors) and contractors on proper spill prevention, containment, and response techniques and procedures. Refresher training shall be provided annually. Report the type of training activities, and the number of permittee personnel and contractors trained (both in-house and outside training). If a permittee relies on Miami-Dade County to conduct these activities on its behalf, the permittee shall obtain (and, upon request, Miami-Dade County shall make available) the necessary annual report information from the County.

DEP Note: If "0" is reported for either reporting item, please include in Column F an explanation of why training was not provided to / obtained by personnel and contractors during the applicable reporting year, the most recent year that training was previously provided / obtained, and the names of the personnel and contractors previously trained.

	Initial Training	Refresher Training				
Personnel trained		11		Sign in Sheet	City Staff	Instructed to call 911
Contractors trained	0	0				Instructed to call 911

Part III.A.7.e	**Illicit Discharges and Improper Disposal — Public Reporting**				

During Year 1 of the permit, develop and implement a written public education and outreach program plan to promote, publicize, and facilitate public reporting of the presence of illicit discharges and improper disposal of materials into the MS4. If a permittee relies on the 24-Hour Miami-Dade County hotline as its telephone line for citizen reporting, the permittee shall publicize the existence of the 24-Hour Miami-Dade County pollution complaint hotline number on a routine basis. Report on the public education and outreach activities that are performed or sponsored by the permittee within the permittee's jurisdiction to encourage the public reporting of suspected illicit discharges and improper disposal of materials, including the type and number of activities conducted, the type and number of materials distributed, the percentage of the population reached by the activities in total, and the number of Web site visits (if applicable).

DEP Note: The permittee should "customize" the list of public outreach activities by removing items or adding items to the list below as appropriate to their particular public outreach program. However, the reporting item of "Estimated percentage of the population reached by the activities in total" must remain. If the permittee relies on the 24-Hour Miami-Dade County hotline, the reporting item of "Publicize the Miami-Dade County Pollution Complaint Hotline" must also remain. The permittee may add more specifics to the reporting items, such as the name of the brochure or newsletter distributed. If "0" is reported in Column C for all the reporting items, please include in Column F an explanation for why no outreach was performed.

DEP Note: Miami-Dade County is to report the public education and outreach activities that it performed county-wide (and not just in the unincorporated areas of Miami-Dade County). The co-permittees are to report just the public education and outreach activities that they performed.

Estimated percentage of the population reached by the activities in total	20%			
Publicize the Miami-Dade County Pollution Complaint Hotline	Daily	Cable Ch. 77 and City Website	City Staff	
Brochures/Flyers/Fact sheets distributed	1000			HOA Meetings, Special Events and Public Displays
Neighborhood presentations: Number conducted	3	HOA Meeting	City Staff	

SECTION VII. STORMWATER MANAGEMENT PROGRAM (SWMP) SUMMARY TABLE

A. Permit Citation/ SWMP Element	B. Permit Requirement/Quantifiable SWMP Activity	C. Number of Activities Performed	D. Documentation / Record	E. Entity Performing the Activity	F. Comments
	Neighborhood presentations: Number of participants	25-30	HOA Meeting	City Staff	
	Newspapers & newsletters: Number of articles/notices published	2	City Hall	City Staff	Progress Line & CCR
	Newsletters: Number of newsletters distributed		Public Displays and Mailed to every Resident	City Staff	
	Public displays (e.g., kiosks, storyboards, posters, etc.)	2	City Hall	City Staff	
	Radio or television Public Service Announcements (PSAs)	Daily	Cable Ch. 77	City Staff	
	School presentations: Number conducted	9	E-Mail from Public Information Officer	City Staff	
	School presentations: Number of participants	Unknown			Presenters will speak to 3-4 classes of different sizes
	Seminars/Workshops: Number conducted	0			None this Reporting Period
	Seminars/Workshops: Number of participants	0			None this Reporting Period
	Special events: Number conducted	1	Earth Day Event	City of North Miami	
	Special events: Number of participants	Unknown			Table was set up with Fact Sheets
	Web Site: Number of visitors to the stormwater-related pages	Unknown			Tracking has been requested through IT Department
Part III.A.7.f	**Illicit Discharges and Improper Disposal — Oils, Toxics, and Household Hazardous Waste Control**				
	During Year 1 of the permit, develop and implement a written public education and outreach program plan to encourage the proper use and disposal of used motor vehicle fluids, leftover hazardous household products, and lead acid batteries. On a routine basis, inform the public of the locations of collection facilities for these materials, including a description of the types of materials accepted and the hours of operation. Report on the public education and outreach activities that are performed or sponsored by the permittee within the permittee's jurisdiction to encourage the proper use and disposal of oils, toxics, and household hazardous waste, including the type and number of activities conducted, the type and number of materials distributed, the amount of waste collected / recycled / properly disposed, the percentage of the population reached by the activities in total, and the number of Web site visits (if applicable). If a permittee relies on Miami-Dade County to conduct these activities on its behalf, the permittee shall obtain (and, upon request, Miami-Dade County shall make available) the necessary annual report information from the County. *DEP Note: The permittee should "customize" the list of public outreach activities by removing items or adding items to the list below as appropriate to their particular public outreach program. However, the reporting items of "Estimated percentage of the population reached by the activities in total" and "Publicize the Miami-Dade County Home Chemical Collection Program" must remain. The permittee may add more specifics to the reporting items, such as the name of the brochure or newsletter distributed. If "0" is reported in Column C for all the reporting items, please include in Column F an explanation for why no outreach was performed.*				

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A. Permit Citation/ SWMP Element	B. Permit Requirement/Quantifiable SWMP Activity	C. Number of Activities Performed	D. Documentation / Record	E. Entity Performing the Activity	F. Comments
	DEP Note: Miami-Dade County is to report the public education and outreach activities that it performed county-wide (and not just in the unincorporated areas of Miami-Dade County). The co-permittees are to report just the public education and outreach activities that they performed.				
	Estimated percentage of the population reached by the activities in total	20%			
	Publicize the Miami-Dade County Home Chemical Collection Program	Daily	Cable Ch.77 and Web Site	City of North Miami	
	Brochures/Flyers/Fact sheets distributed	1000			HOA Meeting
	Neighborhood presentations: Number conducted	3	HOA Meeting	City Staff	
	Neighborhood presentations: Number of participants	25-30	HOA Meeting	City Staff	
	Newspapers & newsletters: Number of articles/notices published	0			None this Reporting Period
	Newsletters: Number of newsletters distributed	0			None this Reporting Period
	Public displays (e.g., kiosks, storyboards, posters, etc.)	2	City Hall	City Staff	
	Radio or television Public Service Announcements (PSAs)	Daily	Cable Ch. 77	City of North Miami	
	School presentations: Number conducted	9	E-Mail from Public Information Officer	City Staff	
	School presentations: Number of participants	Unknown			Presenters will speak to 3-4 classes of different sizes
	Seminars/Workshops: Number conducted	0			None this Reporting Period
	Seminars/Workshops: Number of participants	0			None this Reporting Period
	Special events: Number conducted	1	Earth Day Event	City of North Miami	
	Special events: Number of participants	Unknown			Table was set up with Fact Sheets
	Storm sewer inlets newly marked/replaced	50	Worksheet	City Staff	
	Web Site: Number of visitors to the stormwater-related pages	Unknown			Tracking has been requested through IT Department
Part III.A.7.g	**Illicit Discharges and Improper Disposal — Limitation of Sanitary Sewer Seepage**				
	Annually review (and revise, as needed) and implement the permittee's written procedures to reduce or eliminate sanitary wastewater contamination into the MS4, including discharges to the MS4 from sanitary sewer overflows (SSOs) and from inflow / infiltration from collection / transmission systems and/or septic tank systems. Advise the appropriate utility owner of a violation if constituents common to wastewater contamination are discovered in the MS4. Report on the type and number of activities undertaken to reduce or eliminate SSOs and inflow/ infiltration, the number of SSOs or inflow / infiltration incidents found and the number resolved, and the				

SECTION VII. STORMWATER MANAGEMENT PROGRAM (SWMP) SUMMARY TABLE

A. Permit Citation/ SWMP Element	B. Permit Requirement/Quantifiable SWMP Activity	C. Number of Activities Performed	D. Documentation / Record	E. Entity Performing the Activity	F. Comments
	name of the owner of the sanitary sewer system within the permittee's jurisdiction. *DEP Note: The permittee should contact the appropriate authorities for accurate reporting information, such as the sanitary sewer system operator who is responsible for investigating and eliminating SSOs and the local health department who is responsible for permitting / overseeing septic tank systems.* *DEP Note: Report only the SSOs and inflow / infiltration incidents into the MS4.*				
	SSO incidents discovered	0	0	City of North Miami/ Miami-Dade County WASD	
	SSO incidents resolved	0	0	City of North Miami/ Miami-Dade County WASD	
	Inflow / infiltration incidents discovered	0	0	City of North Miami/ Miami-Dade County WASD	
	Inflow / infiltration incidents resolved	0	0	City of North Miami/ Miami-Dade County WASD	
	Name of owner of the sanitary sewer system	City of North Miami/ Miami-Dade County WASD			
Part III.A.8.a	**Industrial and High-Risk Runoff — Identification of Priorities and Procedures for Inspections**				
	Continue to maintain an up-to-date inventory of all existing high risk facilities discharging into the permittee's MS4. The inventory shall identify the outfall and surface water body into which each high risk facility discharges. For the purposes of this permit, high risk facilities include: • Operating municipal landfills; • Hazardous waste treatment, storage, disposal and recovery facilities; • Facilities that are subject to EPCRA Title III, Section 313 (also known as the Toxics Release Inventory (TRI) maintained by the U.S. EPA); and • Any other industrial or commercial discharge that the permittee determines is contributing a substantial pollutant loading to the permittee's MS4. This could include facilities identified through the proactive inspection program as per Part III.A.7.c of the permit. Report on the high risk facilities inventory, including the type and total number of high risk facilities and the number of facilities newly added each year. If a permittee relies on Miami-Dade County to conduct these activities on its behalf, the permittee shall obtain (and upon request, Miami-Dade County shall make available) the necessary annual report information from the County. *DEP Note: The TRI is updated every spring / summer by the U.S. EPA at www.epa.gov/triexplorer. Select "Facility" on the left, chose your Geographic Location, and then select "Generate Report." Please indicate in Column F when (month / year) you last checked EPA's TRI for applicable facilities.* *DEP Note: The total number of high risk facilities reported needs to equal the sum of the numbers of the four types of applicable facilities.*				

SECTION VII. STORMWATER MANAGEMENT PROGRAM (SWMP) SUMMARY TABLE

A. Permit Citation/ SWMP Element	B. Permit Requirement/Quantifiable SWMP Activity	C. Number of Activities Performed	D. Documentation / Record	E. Entity Performing the Activity	F. Comments
	During Year 1 of the permit, develop and implement a written plan for conducting inspections of high risk facilities to determine compliance with all appropriate aspects of the stormwater program. While the permittee may determine the order and frequency of the inspections, the permittee shall inspect each identified facility at least once during the permit term; however, facilities identified as high risk due to the findings of the proactive inspection program as per Part III.A.7.c of the permit shall be inspected annually. Report on the high risk facilities inspection program, including the number of inspections conducted and the number and type of enforcement actions taken. If a permittee relies on Miami-Dade County to conduct these activities on its behalf, the permittee shall obtain (and, upon request, Miami-Dade County shall make available) the necessary annual report information from the County. *DEP Note: If "0" is reported for the number of inspections conducted and the permittee has one or more high risk facilities, please provide an explanation in Column F for why no inspections were conducted. In addition, the permittee should re-word the "NOVs / warning letters / citations issued" reporting item to more accurately reflect its particular initial enforcement activity, if necessary.* *DEP Note: Miami-Dade County is to report ONLY the inventory of high risk facilities in the unincorporated areas of Miami-Dade County – the inventory of high risk facilities located in the co-permittees' jurisdictions are to be reported by the co-permittees. Likewise, the County is to report ONLY the high risk facility inspections it performed in the unincorporated areas of Miami-Dade County – any high risk facility inspections performed in the co-permittees' jurisdictions are to be reported by the co-permittees. Each co-permittee is to obtain the necessary information from Miami-Dade County that pertains to its jurisdiction.*				
		Number of Facilities / Number of Inspections / For violations discovered during a high risk inspection: Fines issued / Notices of Violation (NOVs) / warning letters / citations issued			
	Total high risk facilities	0	E-Mail sent from MDC	Miami-Dade County DERM	Facilities Closed
	New high risk facilities added to the inventory during the current reporting period	0	E-Mail sent from MDC	Miami-Dade County DERM	
Part III.A.8.b	**Industrial and High-Risk Runoff — Monitoring for High Risk Industries**				
	Sampling of the discharge to the stormwater system may be required on an as-needed basis in the event that inspections of high-risk facilities disclose suspected illicit discharges to the MS4. New high-risk industrial facilities as defined in 40 CFR 122.26(d)(2)(iv)(C) must be evaluated to determine if the new discharge is contributing a substantial pollutant load to the MS4. The evaluation may include site-specific monitoring. Report the number of high risk facilities sampled. If a permittee relies on Miami-Dade County to conduct these activities on its behalf, the permittee shall obtain (and, upon request, Miami-Dade County shall make available) the necessary annual report information from the County. *DEP Note: Miami-Dade County is to report ONLY the number of high risk facilities in the unincorporated areas of Miami-Dade County that were sampled – the high risk facilities located in the co-permittees' jurisdictions that were sampled by the County are to be reported by the co-permittees.*				
	High risk facilities sampled	0	E-Mail sent from MDC	Miami-Dade County DERM	
Part III.A.9.a	**Construction Site Runoff — Site Planning and Non-Structural and Structural Best Management Practices**				
	Continue to implement the local codes or land development regulations and the written pre-construction site plan review procedures that require the use and maintenance of appropriate structural and non-structural erosion and sedimentation controls during construction to reduce the discharge of pollutants to the MS4.				

SECTION VII. STORMWATER MANAGEMENT PROGRAM (SWMP) SUMMARY TABLE

A. Permit Citation/ SWMP Element	B. Permit Requirement/Quantifiable SWMP Activity	C. Number of Activities Performed	D. Documentation / Record	E. Entity Performing the Activity	F. Comments
	Report the number of permittee and private pre-construction site plans reviewed for stormwater, erosion, and sedimentation controls, and the number approved.				
	DEP Note: Please provide an explanation in Column F for any "0" reported in Column C.				
	PERMITTEE SITES: Construction site plans reviewed	0			Only Small Projects for Localized Flooding this Reporting Period
	PERMITTEE SITES: Construction site plans approved	0			See Above
	PRIVATE SITES: Construction site plans reviewed	6	Plan Review form on file with City Engineer	City Engineer	
	PRIVATE SITES: Construction site plans approved	6	Plan Review form on file with City Engineer	City Engineer	
	Annually review (and revise, as needed) and implement the permittee's written procedures to notify all new development / redevelopment permit applicants of the need to obtain all required stormwater permits. Report the number of new development/redevelopment permit applicants notified of the ERP and CGP, and the number of applicants who confirmed ERP and CGP coverage.				
	DEP Note: Please provide an explanation in Column F for any "0" reported in Column C. If the number of applicants notified of ERP or CGP coverage is less than the number of construction site plans reviewed, please provide an explanation for the discrepancy in Column F.				
	Notified of ERP stormwater permit requirements				City requires that all Applicants go through the MDC Permitting and Approval Process Prior to the City Issuing a Permit
	Confirmed ERP coverage				See Above
	Notified of CGP stormwater permit requirements				City requires that all Applicants go through the MDC Permitting and Approval Process Prior to the City Issuing a Permit
	Confirmed CGP coverage				See Above
Part III.A.9.b	**Construction Site Runoff — Inspection and Enforcement**				
	As an attachment to the Year 1 Annual Report, the permittee shall submit a written plan that details the standard operating procedures for implementation of the				

SECTION VII. STORMWATER MANAGEMENT PROGRAM (SWMP) SUMMARY TABLE

A. Permit Citation/ SWMP Element	B. Permit Requirement/Quantifiable SWMP Activity	C. Number of Activities Performed	D. Documentation / Record	E. Entity Performing the Activity	F. Comments
	stormwater, erosion and sedimentation inspection program for construction sites discharging stormwater to the MS4. The permittee shall implement the plan for inspecting construction sites immediately upon written approval by the Department. Prior to Department approval, the permittee shall continue to perform inspections in accordance with its previously developed construction site inspection procedures. Report on the inspection program for privately-operated and permittee-operated construction sites, including the number of active construction sites during the reporting year, the number of inspections of active construction sites, the percentage of active construction sites inspected, and the number and type of enforcement actions / referrals taken. *DEP Note: If "0" is reported in Column C for the number of inspections conducted, please provide an explanation in Column F of why no inspections were conducted. If the number of inspections reported is equal to or less than the number of active construction sites, or the percentage inspected is less than 100%, please provide an explanation in Column F. In addition, the permittee should re-word the "NOVs / warning letters / citations issued" reporting item to more accurately reflect its particular initial enforcement activity, if necessary.* *DEP Note: Refer to Part III.A.9.b of the permit for what must be included in the construction site inspection program plan. Please provide the title of the attached plan in Column D and the name of the entity who finalized the plan in Column E.*				
	PERMITTEE SITES: Active construction sites	0			Only Small Projects for Localized Flooding this Reporting Period
	PERMITTEE SITES: Inspections of active construction sites for proper stormwater, erosion and sedimentation BMPs	0			See Above
	PERMITTEE SITES: Percentage of active construction sites inspected				See Above
	PRIVATE SITES: Active construction sites	6			
	PRIVATE SITES: Inspections of active construction sites for proper stormwater, erosion and sedimentation BMPs	18	Email from Building Mgr.	Cap	Permits on file at Bldg. Dept
	PRIVATE SITES: Percentage of active construction sites inspected	100%			
	Notices of Violation (NOVs) / warning letters / citations issued				
	Stop Work Orders issued				
	Fines issued				
	Year 1 ONLY: Attach the written construction site inspection program plan				
Part III.A.9.c	**Construction Site Runoff — Site Operator Training**				
	During Year 1 of the permit, develop and implement a written plan for stormwater training / outreach for construction site plan reviewers, site inspectors and site operators. Provide training for permittee personnel (employed by or under contract with the permittee) involved in the site plan review, inspection or construction of stormwater management, erosion, and sedimentation controls. Also provide training for private construction site operators that perform work for the permittee. All permittee inspectors (employed by or under contract with the permittee) of construction sites shall be certified through the Florida Stormwater, Erosion and Sedimentation Control Inspector Training program, or an equivalent program approved by the Department. Refresher training shall be provided annually. Report the type of training activities, the number of inspectors, site plan reviewers and site operators trained (both in-house and outside training), and the number of private construction site operators trained by the permittee. *DEP Note: If "0" is reported for any of these reporting items, please include in Column F an explanation of why training was not provided to / obtained by the permittee's staff and private construction site operators during the applicable reporting year.*				

SECTION VII. STORMWATER MANAGEMENT PROGRAM (SWMP) SUMMARY TABLE

A. Permit Citation/ SWMP Element	B. Permit Requirement/Quantifiable SWMP Activity				C. Number of Activities Performed	D. Documentation / Record	E. Entity Performing the Activity	F. Comments
	DEP Note: The permittee should report only the number of staff and private construction site operators trained / certified during the applicable reporting year, and then note in Column F the number of staff who were previously trained / certified. Private site operator training can include pre-construction meetings.							
		Certification Training	**Initial Training (non-certification)**	**Refresher Training**				
	Permittee construction site inspectors							
	Permittee construction site plan reviewers							
	Permittee construction site operators	0	0	7		Sign in Sheet	City Staff	
	Private construction site operators	0	0					

SECTION VIII. CHANGES TO THE STORMWATER MANAGEMENT PROGRAM (SWMP) ACTIVITIES (Not Applicable In Year 4)

A.	**Permit Citation/ SWMP Element**	**Proposed Changes to the Stormwater Management Program Activities Established as Specific Requirements Under Part III.A of the Permit (Including the Rationale for the Change) — REQUIRES DEP APPROVAL PRIOR TO CHANGE IF PROPOSING TO REPLACE OR DELETE AN ACTIVITY.** *DEP Note: There may be changes deemed necessary after developing / reviewing your plans and SOPs as per Part III.A of the permit, after completing your SWMP evaluation as per Part VI.B.2 of the permit, or due to a TMDL / BMAP as per Part VIII.B of the permit.*
		None
B.	**Permit Citation/ SWMP Element**	**Changes to the Stormwater Management Program Activities NOT Established as Specific Requirements Under Part III.A of the Permit (Including the Rationale for the Change)** *DEP Note: There may be changes deemed necessary after developing / reviewing your plans and SOPs as per Part III.A of the permit, after completing your SWMP evaluation as per Part VI.B.2 of the permit, or due to a TMDL / BMAP as per Part VIII.B of the permit.*
		None

CHECKLIST A: ATTACHMENTS TO BE SUBMITTED WITH THE ANNUAL REPORTS

Below is a list of items required by the permit that may need to be attached to the annual report. Please check the appropriate box to indicate whether the item is attached or is not applicable for the current reporting period. Please provide the number and the title of the attachments in the blanks provided.

Attached	N/A	Rule / Permit Citation	Required Attachment	Attachment Number	Attachment Title
☐	☒	Part II.F	**EACH ANNUAL REPORT:** If program resources have decreased from the previous year, a discussion of the impacts on the implementation of the SWMP.		
☐	☒	Part III.A.1	**EACH ANNUAL REPORT:** An explanation of why the minimum inspection frequency in Table II.A.1.a was not met, if applicable.		
☐	☒	Part III.A.4	**EACH ANNUAL REPORT:** A list of the flood control projects that did not include stormwater treatment and an explanation for each of why it did not, if applicable.		
☐	☒	Part III.A.7.a	**EACH ANNUAL REPORT:** A report on amendments / changes to the legal authority to control illicit discharges, connections, dumping, and spills, if applicable.		
☐	☐	Part V.B.9	**EACH ANNUAL REPORT:** Reporting and assessment of monitoring results. **[Also addressed in Section III of the Annual Report Form]**		
☒	☐	Part VI.B.2	**EACH ANNUAL REPORT:** An evaluation of the effectiveness of the SWMP in reducing pollutant loads discharged from the MS4 that, at a minimum, must include responses to the questions listed in the permit.		
☐	☒	Part VIII.B.3.e	**EACH ANNUAL REPORT:** A status report on the implementation of the requirements in this section of the permit and on the estimated load reductions that have occurred for the pollutant(s) of concern.		
☐	☒	Part VIII.B.4.f	**EACH ANNUAL REPORT after approval of the BPCP:** The status of the implementation of the Bacterial Pollution Control Plan (BPCP).		
☐	☒	Part III.A.1	**YEAR 1:** An inventory of all known major outfalls and a map depicting the location of the major outfalls (hard copy or CD-ROM).		
☐	☒	Part III.A.3	**YEAR 1:** If have curbs and gutters but no street sweeping program, an explanation of why no street sweeping program and the alternate BMPs used or planned.		
☐	☒	Part III.A.6	**YEAR 1 or YEAR 2:** A copy of the adopted Florida-friendly Ordinance, if applicable.		
☐	☒	Part III.A.7.c	**YEAR 1:** A proactive illicit discharge / connection / dumping inspection program plan.		
☐	☒	Part III.A.9.b	**YEAR 1:** A construction site inspection program plan. **[For approval by DEP]**		
☒	☐	Part III.A.2	**YEAR 2:** A summary report of a review of codes and regulations to reduce the stormwater impact from new development / redevelopment.		
☐	☒	Part V.A.2	**YEAR 3:** Estimates of annual pollutant loadings and EMCs, and a table comparing the current calculated loadings with those from the previous two Year 3 ARs.		
☐	☒	Part III.A.2	**YEAR 4:** A follow-up report on plan implementation of changes to codes and regulations to reduce the stormwater impact from new development / redevelopment.		
☐	☒	Part V.A.3	**YEAR 4:** If the total annual pollutant loadings have not decreased over the past two permit cycles, revisions to the SWMP, as appropriate.		
☐	☒	Part V.B.3	**YEAR 4:** The monitoring plan (with revisions, if applicable).		
☐	☒	Part VII.C	**YEAR 4:** An application to renew the permit.		
☐	☒	Part VIII.B.3.d	**YEAR 4:** A TMDL Implementation Plan / Supplemental SWMP.		

CHECKLIST B: THE REQUIRED ANNUAL REVIEWS OF WRITTEN STANDARD OPERATING PROCEDURES (SOPs) & PLANS

The permit requires annual review, and revision if needed, of written Standard Operating Procedures (SOPs) and plans (e.g., public education and outreach, training, inspections). Please indicate your review status below. **If you have made revisions that need DEP approval, you must complete Section VIII.A of the annual report.**

Did not complete review of existing SOP / Plan	Developed new written SOP / Plan	Reviewed & no revision needed to existing SOP / Plan	Reviewed & revised existing SOP / Plan	Permit Citation	Description of Required SOPs / Plans
☐	☐	☒	☐	Part III.A.1	SOP and/or schedule of inspections and maintenance activities of the structural controls and roadway stormwater collection system.
☐	☐	☒	☐	Part III.A.2	SOP for development project review and permitting procedures and/or local codes and regulations for new development / areas of significant development.
☐	☐	☒	☐	Part III.A.3	SOP for the litter control program.
☐	☐	☒	☐	Part III.A.3	SOP for the street sweeping program.
☐	☐	☒	☐	Part III.A.3	SOP for inspections of equipment yards and maintenance shops that support road maintenance activities.
☐	☐	☒	☐	Part III.A.5	SOP for inspections of waste treatment, storage, and disposal facilities not covered by an NPDES stormwater permit.
☐	☐	☒	☐	Part III.A.6	Plan for public education and outreach on reducing the use of pesticides, herbicides and fertilizer.
☐	☐	☒	☐	Part III.A.6	SOP for reducing the use of pesticides, herbicides and fertilizer, and for the proper application, storage and mixing of these products.
☐	☐	☒	☐	**Part III.A.7.c**	**Plan for proactive illicit discharge / connections / dumping inspections.***
☐	☐	☒	☐	Part III.A.7.c	SOP for reactive illicit discharge / connections / dumping investigations.
☐	☐	☒	☐	Part III.A.7.c	Plan for illicit discharge training.
☐	☐	☒	☐	Part III.A.7.d	SOP for spill prevention and response efforts.
☐	☐	☒	☐	Part III.A.7.d	Plan for spill prevention and response training.
☐	☐	☒	☐	Part III.A.7.e	Plan for public education and outreach on how to identify and report the illicit discharges and improper disposal to the MS4.
☐	☐	☒	☐	Part III.A.7.f	Plan for public education and outreach on the proper use and disposal of oils, toxics and household hazardous waste.
☐	☐	☒	☐	Part III.A.7.g	SOP to reduce / eliminate sanitary wastewater contamination of the MS4.
☐	☐	☒	☐	Part III.A.8	SOP for inspections of high risk industrial facilities.
☐	☐	☒	☐	Part III.A.9.a	SOP for construction site plan review for stormwater, erosion and sedimentation controls, and ERP and CGP coverage.
☐	☐	☒	☐	**Part III.A.9.b**	**Plan for inspections of construction sites.***
☐	☐	☒	☐	Part III.A.9.c	Plan for stormwater, erosion and sedimentation BMPs training.

*** Revisions to these plans require DEP approval – please complete Section VIII.A of the annual report.**

REMINDER LIST OF THE TMDL / BMAP REPORTS TO BE SUBMITTED SEPARATELY FROM AN ANNUAL REPORT		
Rule / Permit Citation	**Report Title**	**Due Date**
Part VIII.B.3.a	**6 MONTHS from effective date of permit:** TMDL Prioritization Report.	12/21/11
Part VIII.B.3.b	**12 MONTHS from effective date of permit:** TMDL Monitoring and Assessment Plan.	6/21/12
Part VIII.B.3.c	**6 MONTHS from receiving analyses from the lab:** TMDL Monitoring Report.	TBD
Part VIII.B.4	**30 MONTHS from effective date of permit:** A Bacterial Pollution Control Plan (BPCP).	12/21/13

END OF REVISED TAILORED MS4 AR FORM
CYCLE 3 PERMIT

City of North Miami

Inter-Departmental Review Summary Report

The City of North Miami (City) staff conducted an inter-departmental review of our current local codes and land development regulations to identify potential changes to existing codes or regulations that will further reduce the stormwater impacts of new development and areas of significant redevelopment. The departments that were involved included Public Works, Building and Zoning and Community Planning and Development. The focus was on changes to the code that will promote: reductions in impervious surfaces, the use of swales, the incorporation of low impact development principles, reduction in flow and volume of stormwater, increase in natural hydrology and adherence to the principles of the Florida Yards and Neighborhoods program in new landscaping.

Local code and regulation citations reviewed

The applicable local code and regulation citations reviewed (both current and draft) were as follows:

1. City of North Miami, Code of Ordinances, Chapter 29 - Land Development Regulations (Codified through Ordinance No. 1357, adopted July 9, 2013)
2. City of North Miami Comprehensive Plan (Adopted through Ordinance Number 1248 on December 11, 2007)
3. City of North Miami, Code of Ordinances, Chapter 12 – Nuisances, Article III. Maintenance of Swale Areas, Division 2. Swale Areas

Description of the current and proposed techniques

Description of the current and proposed techniques aimed at reducing the stormwater impacts of new development and areas of significant redevelopment that are included within the applicable codes and regulations

1. Objective 4D.7 of our Comprehensive Plan encourages the use of xeriscaping concepts and native plantings to minimize the need for irrigation. The use of native plantings is a principle of the Florida Yards and Neighborhoods program and xeriscaping concepts promote water conservation thus increases natural hydrology.
2. Policy 4E.3.7 of our Comprehensive Plan encourages the restoration of natural volume, timing, quality, and distribution of water to the Everglades, Florida Bay, Biscayne Bay,

other estuaries, and the Atlantic Ocean. Xeriscaping concepts promote water conservation thus increases natural hydrology

Description of innovative stormwater planning techniques

Description of innovative stormwater planning techniques, including those described above, recommended for possible future incorporation into the codes and regulations (beyond what may be currently in draft); and a plan for implementing changes to codes and regulations.

Objective 1.10 of our Comprehensive Plan encourages sustainable development throughout the City and implements green building requirements for development and redevelopment projects to reduce energy usage, landfill waste and emissions, create a healthy indoor environment, conserve building materials and resources, and promote water efficiency. Our policies encourage the use of green and/or Leadership in Energy and Environmental Design (LEED design and construction standards. These design and construction standards promote innovative stormwater designs that have already been constructed throughout the City and will continue to be constructed in the future. The City plans to monitor and evaluate our codes and regulations on a regular basis to ensure that the most innovative stormwater planning techniques are incorporated in our code and regulations.

NORTH MIAMI
FLORIDA

Part VI.B.2 Evaluation of the SWMP

Which components of the SWMP are working well and are effective in reducing stormwater pollutant loadings? Why are they effective?

The components of the City's SWMP that are working well and effective are:

1. Structural Controls and Stormwater System Operation
   - The Public Works Department, Stormwater division is responsible for maintaining the City's MS4. A properly maintained infrastructure will reduce pollutant discharges by removing sediment and floatables before an event which helps maintain system capacity and also reduces flooding. The City continues to Inspect / Maintain each structure and strives for 2x per year with additional funding for Contract Drain Cleaners to supplement City Staff.
2. Roadways
   - The Stormwater Division employs a full time Street Sweeper Position for the cleanliness of our Streets and ROW. Through the daily duties, pollutants and floatables are reduced by removing them before they can reach the MS4 and an additional sweeper has been proposed.
3. Flood Control Projects
   - The City hired CDM Smith to update the Stormwater Master Plan and in September of 2012 it was adopted by City Council. All flood management projects adopted through the updated Master Plan include stormwater treatment and meet all current rules and requirements. Projects also address the City's aging infrastructure which when replaced or retrofitted will provide controls for water quality. The City is in the process of hiring a firm to do the design.
4. Pesticide, Herbicide and Fertilizer Application
   - The City's Parks and Recreation staff has been properly trained in the storage and application BMPs of these products. Through these BMPs they reduce the exposure and overuse of these products reducing pollutant run-off.
5. Illicit Discharges and Improper Disposal
   - The City continues to look at the SOP for this activity which was revised and improved last year, to provide for a more complete proactive and reactive inspection program. They provide for inspections that will detect, record and address illicit discharges and improper disposal into the MS4.

NORTH MIAMI
FLORIDA

Which components of the SWMP are not working well and need to be revised to make them more effective in reducing stormwater pollutant loadings?

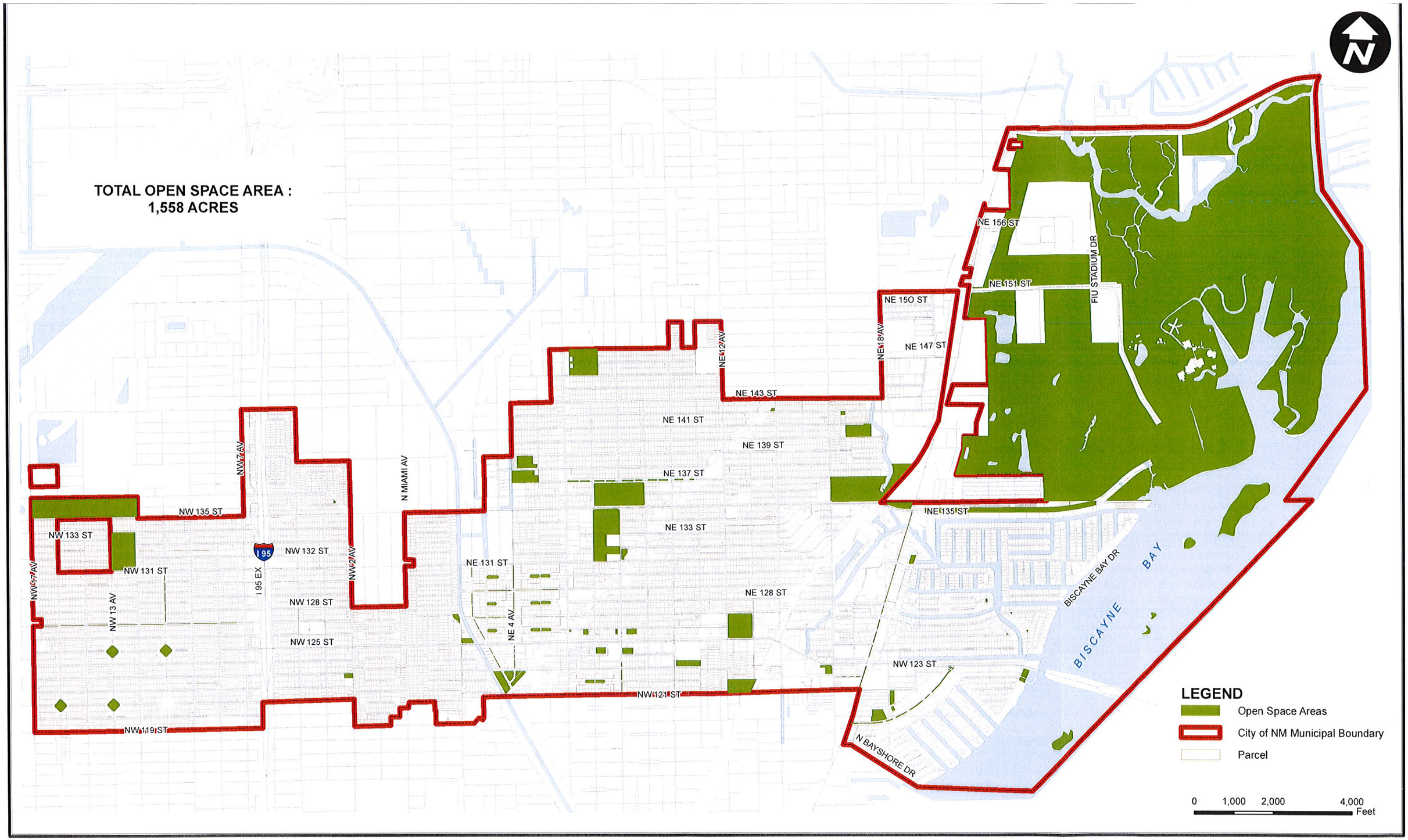
The City is continually looked at the existing SOPs and will make changes or modifications to them as necessary, along with some new ones. All elements of the SWMP work on some level to reduce pollutant loadings and through current and modified SOPs will continue to evaluate the effectiveness for reductions in pollutant loadings.

Which components of the SWMP do not contribute to reducing stormwater pollutant loads and could be revised or eliminated, and why?

1. Municipal Waste Treatment, Storage or Disposal Facilities not covered by an NPDES Permit
   - The City does not have any municipal waste treatment sites so there is no impact to the City's MS4.
2. Industrial and High Risk Runoff
   - Currently there are no high risk facilities in the City's jurisdiction so there is no impact to the City's MS4.

Is the monitoring program providing data that can be used to assess the effectiveness of the SWMP in reducing stormwater pollutant loadings, assess the effectiveness of specific BMPs, and determine whether stormwater retrofitting projects should be prioritized for implementation?

The City of North Miami has signed an Inter-local Agreement with Miami-Dade County providing for the County to conduct surface water quality monitoring on behalf of the City. Miami-Dade County produces, on an annual basis, a Surface Water Quality Discussion and Analysis Report which summarizes the data generated for the reporting year by the monitoring program. Miami-Dade County subdivides the County into different monitoring regions that do not necessarily coincide with municipal boundaries. An increase or decrease in the pollutant loadings within the region could result from the successes or failures of one or more of the region's co-permittees.



PREPARED BY:	W. FARYNA-ARMIJOS
CHECKED BY:	A. A. GHANY, P.E.
DATE:	NOVEMBER, 2014
DWG. No:	1 OF 1

OPEN SPACE AREAS
YEAR 2013-2014

NORTH MIAMI FLORIDA

CITY OF NORTH MIAMI
PUBLIC WORKS DEPARTMENT
STORMWATER DIVISION
NORTH MIAMI, FLORIDA

NORTH MIAMI
FLORIDA

October 4, 2012

Ms. Heidi Liles
ISO/CRS Specialist
284 West Sabal Palm Place
Longwood, FL 32779

RE: Activity 420 – Open Space Preservation

Dear Ms. Liles

Since the City of North Miami's last cycle visit in October 2006, there have not been any changes to the City's open space areas/locations. Additionally, we have not made any changes to our open space regulations.

If you require additional information on how updates are recorded, please feel free to call (305-895-9840) or e-mail me at jgeimer@northmiamifl.gov.

Sincerely,

Jeff Geimer
Director of Parks and Recreation / CRS Coordinator

776 NE 125 Street | North Miami | Florida | 33161 305.893.6511

City of North Miami

776 Northeast 125th Street, P.O. Box 610850, North Miami, Florida 33261

420

October 1, 2003

Sherry Harper, ISO/CRS Specialist
2382 Susan Drive
Crestview, FL 32536

RE: ACTIVITY 420 – City of North Miami Open Space

Dear Ms. Harper:

Regarding your request for additional information regarding the development restrictions assigned to areas claimed as Open Space, please be advised of the following:

Florida International University – This comes under the jurisdiction of the Florida Board of Regents; which has developed a Master Plan guiding the future use and development of the campus. The area is designated as a "public facility" on the future land use map series of the City of North Miami Comprehensive Plan. The City has limited jurisdiction over the use and development of this area.

Oleta River State Park – This comes under the jurisdiction of the State of Florida. The park is designated on the future land use map series of the City's Comprehensive Plan as "recreation/park/open space". Again, the City has limited jurisdiction over the use and development of this area.

Barrier Islands – Three of these islands are under the jurisdiction of the City, and are designated on the City's Comprehensive Plan future land use map series as "recreation/park/open space", and as such can only be changed to another use through the processing of a Comprehensive Plan amendment with the State of Florida. The other two islands are under the jurisdiction of Miami-Dade County, and do not appear to be delineated on the future land use map series of the City's Comprehensive Plan.

City-owned property – This category includes property owned by the City east of Biscayne Boulevard, in the vicinity of Florida International University and Oleta River State Park. They are designated on the City's Comprehensive Plan future land use map series as "public use – planned unit development." This is a zoning mechanism described in detail in the North Miami Zoning Code, and requires that all development be undertaken in accordance with specific planned unit development procedures, requiring review and approval by the

City Council at public hearings. Such development must be devoted to and accessible to the general public, and conform to a limited list of permitted uses.

Jurisdictional wetlands – These are areas that are, for the most part, owned by various governmental entities. They are designated on the City's Comprehensive Plan future land use map series as "wetlands". As jurisdictional wetlands, they are subject to the regulatory control of the United States Government, which regulations are designed to encourage their preservation.

Landscaped/Passive areas – These areas are contained within public rights-of-way under the jurisdiction of the City. They are not delineated on the future land use map series of the City's Comprehensive Plan, however, it is specified in the Recreation and Open Space Element that they are intended for scenic purposes, which implies they will be maintained as such indefinitely.

Mini-Neighborhood, Community and Metropolitan Parks and facilities – This category is comprised of parks that are under the jurisdiction of the City and/or within City limits. They are designated on the City's Comprehensive Plan future land use map series as "open space", and as such can only be changed to another use through the processing of a Comprehensive Plan amendment with the State of Florida.

Schools – These facilities are under the jurisdiction of the Miami-Dade County School Board. They are designated on the City's Comprehensive Plan future land use map series as "public education". While they are not explicitly afforded the same level of protection as open space facilities under the City's jurisdiction, all development decisions for these facilities are subject to review by the City, to the extent authorized by State statute.

Hopefully this will provide sufficient documentation to support the request for Open Space credit in the Community Rating Service re-certification review for the City of North Miami. Should you need additional information, please contact me at (305) 893-6511, Ext. 2205.

Sincerely,

Ricardo Noguera, M.C.P., Director
Community Planning & Development

RN/gf

c: Jeff Geimer, Assistant to the City Manager

EXERPTS TAKEN FROM
LOCAL MITIGATION STRATEGY
(ICF INCORPORATED, JUNE 1999)

II. REGIONAL AND COUNTY PLANS

Throughout south Florida, there are many government agencies and programs already in place that address hazard mitigation activities. The Local Mitigation Strategy (LMS) planning process fully considers these programs to ensure that the mitigation strategy can achieve one of its most basic purposes – to unify and coordinate local programs in a single regional context.

> ***What is Hazard Mitigation?***
>
> Hazard mitigation is any action taken to permanently reduce or eliminate long-term risk to people and their property from the effects of hazards. Some examples of hazard mitigation include land use planning techniques that limit infrastructure in high hazard areas and programs for retrofitting existing structures to meet new building codes and standards. Ideally, a community can minimize the effects of future hazards through a mix of code enforcement, planning, and responsible development.
>
> *– The Local Mitigation Strategy, A Guidebook for Florida Cities and Counties. Prepared by Florida Department of Community Affairs, June 1997.*

Florida's 67 counties have been granted broad powers for planning, zoning, and subdivision regulations within their unincorporated areas. State growth management legislation requires that all municipalities and counties have comprehensive plans that are consistent with their respective Regional Comprehensive Policy Plans and Florida's State Comprehensive Plan. Miami-Dade County has a Commission that is responsible for providing all governmental services in unincorporated areas of the County. These services include annexation, incorporation, environmental regulation, police, most water and sewer utilities, solid waste collection and disposal, and parks and recreation services. The Commission also serves an important planning function in the County.

The Miami-Dade County Comprehensive Emergency Management Plan has a major influence on the local mitigation strategy. In addition, other regional planning documents and their amendments have been reviewed as part of this LMS planning process and representatives from Miami-Dade County have actively participated in meetings throughout the LMS preparation process. Key goals and objectives from these documents that affect the local mitigation planning process are described in the following sections. Other local plans, codes, ordinances, and regulations also were considered during development of this document and are addressed in Chapter IV.

A. MIAMI-DADE COUNTY COMPREHENSIVE EMERGENCY MANAGEMENT PLAN

The Miami-Dade County Comprehensive Emergency Management Plan (CEMP), last updated July 24, 1998, provides an organized system of preparedness, response, and recovery by which the Mayor and the Board of County Commissioners are assisted in implementing their statutory responsibilities of providing direction and control during a disaster. The Plan has been designed to achieve a number of goals, the most important of which are:

1. To provide an organized system of hazard vulnerability reduction to the citizens of and visitors to Miami-Dade County and to promote their general safety and welfare.

2. To develop an enhanced level of awareness relative to emergency preparedness throughout the population at large.
3. To provide the most efficient response and recovery system possible through effective coordination and maximum utilization of all available resources.
4. To coordinate the return of essential services to normal as quickly and effectively as possible after a disaster.
5. To maintain a high level of readiness through quality community outreach and regular Office of Emergency Management (OEM) training.
6. To reduce the public's vulnerability to recurrent hazards by the promotion of hazard mitigation strategies, especially in the areas of critical infrastructure, land use, and building codes.

The CEMP is designed to address all hazards facing the County and its inhabitants. Past experience has shown that the magnitude of any given incident or disaster largely determines the approach used to manage the response effort. The guidelines provided in the CEMP provide a blueprint for the effective management of virtually any emergency situation that may be encountered in Miami-Dade County.

The CEMP supports the LMS planning process because it establishes official policy for any Miami-Dade County municipality that has not obtained official approval for use of its own plan. It also establishes official Emergency Management Policy for all County agencies and municipalities to follow in response to, and recovery from, emergencies and disasters within the County. The document was produced through the group efforts of the Miami-Dade Emergency Management staff, almost every County and Municipal agency, and many not-for-profit organizations. In addition, the State Division of Emergency Management provided input throughout the development of this Plan.

B. MIAMI-DADE COUNTY OFFICE OF EMERGENCY MANAGEMENT (OEM), 5-YEAR STRATEGIC PLAN PROGRESS REPORT AS OF OCTOBER 1, 1997

Strategic planning efforts of OEM are identified in its five-year strategic plan. The 1997 progress report lists a number of goals that are directly related to local mitigation planning. Associated with each of these goals is a list of specific activities needed to accomplish the goals. Some of the goals most relevant to the LMS process are listed below:

- Improve disaster response planning and coordination within Miami-Dade County.
- Develop or revise enabling local regulations in order to clarify the emergency authority and responsibilities of the OEM.
- Improve the evacuation equation for Miami-Dade County (i.e., transportation resources, number of people to evacuate, clearance times, and/or receiving facility/shelter space).
- Optimize community outreach and public education programs to increase the self-sufficiency and preparedness of Miami-Dade County residents.

- Optimize the personnel resources and community support for OEM's Special Needs Program.
- Optimize the effectiveness of the critical facility inventory project in order to comply with the state-mandated critical facilities program.
- Improve the County's ability to mitigate disaster events.

C. SOUTH FLORIDA REGIONAL PLANNING COUNCIL

The South Florida Regional Planning Council (SFRPC) is a planning and public policy agency authorized under Rule 295-2.009 of the Florida Administrative Code. SFRPC's main objectives are to work with the public and private leadership in the South Florida region to achieve a vision of the future, to identify challenges and opportunities which are regional in scope, and to create and implement strategies to achieve its desired future.[4]

The Council, with input from other governmental entities and the private sector, prepares, adopts, and implements the goals and policies of the Strategic Regional Policy Plan for South Florida (SRPP).[5] This Plan, adopted in 1995, guides Council activities such as the review of local government comprehensive plans and developments of regional impact pursuant to Chapters 163 and 380, Florida Statute, respectively. No part of the SRPP is applied in isolation; rather the goals and policies are used to balance the needs of the Region. The following regional strategic goals, excerpted from the SFRPC SRPP, were identified as relevant to the LMS.

Land Use and Public Facilities

- 2.1 – Achieve long-term efficient and sustainable development patterns by guiding new development and redevelopment within the region to areas which are most intrinsically suited for development, including areas (1) which are least exposed to coastal storm surges; (2) where negative impacts on the natural environment will be minimal; and (3) where public facilities and services already exist, are programmed, or, on an aggregate basis, can be provided most economically.

Regional Transportation

- 5.2 – To enhance the regional transportation system's role in system-wide preparedness for emergency situations.

Emergency Preparedness

- 7.1 – Direct future development away from the areas most vulnerable to storm surges.
- 7.5 – Minimize future risk to lives and property partly through the timely completion of post-disaster redevelopment plans.

The mitigation measures included in the LMS document are generally consistent with the SFPRC strategic regional goals and policies. For example, the SFRPC encourages sound emergency planning, public and private sector partnerships to provide timely shelters for hurricane evacuation areas, and the timely completion of post-disaster redevelopment plans.

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[4] SFPRC's internet site, http://www.sfrpc.com/council/mission.htm.
[5] South Florida Regional Planning Council, August 1995. *Strategic Policy Plan for South Florida.*

The SFRPC strongly supports the LMS planning process. In coastal high hazard areas, the SFRPC suggests lowering residential densities, as has been done in Miami Beach. Higher densities are encouraged on the mainland, west of US Route 1. Maintaining the status quo generally is viewed as policy neutral, and in most cases, is neither encouraged nor discouraged by SFRPC.[6] In general, SFRPC supports directing new development away from undeveloped areas and towards areas that have existing infrastructure capacity or where increased densities can been accommodated in an efficient manner.

D. FLORIDA STATUTES AND RULES

The following excepts from the State of Florida's Statutes and Rules clearly are related to the LMS. They illustrate the continuing steps Florida is taking at the state level to mitigate the adverse effects of disasters and emergencies and to take appropriate legislative actions when necessary. By requiring all counties to develop emergency management plans, the State is setting the stage for a comprehensive, proactive approach to mitigation.

Florida Statutes, Chapter 252.44: Emergency Mitigation

(1) In addition to prevention measures included in the state and local comprehensive emergency management plans, the Governor shall consider on a continuing basis steps that could be taken to mitigate the harmful consequences of emergencies. At the Governor's direction and pursuant to any other authority and competence they have, state agencies, including, but not limited to, those charged with responsibilities in connection with floodplain management, stream encroachment and flow regulation, weather modification, fire prevention and control, air quality, public works, land use and land use planning, and construction standards, shall make studies of emergency-mitigation-related matters. The Governor, from time to time, shall make such recommendations to the Legislature, local governments, and other appropriate public and private entities as may facilitate measures for mitigation of the harmful consequences of emergencies.

(2) The appropriate state agencies, in conjunction with the division, shall keep land uses and construction of structures and other facilities under continuing study and identify areas which are particularly susceptible to severe land shifting, subsidence, flood, or other catastrophic occurrence, manmade or natural. The studies under this subsection shall concentrate on means of reducing or avoiding the dangers caused by these occurrences or the consequences thereof.

(3) If the division believes, on the basis of the studies or other competent evidence, that an area is susceptible to an emergency of catastrophic proportions without adequate warning; that existing building standards and land use controls in that area are inadequate and could add substantially to the magnitude of the emergency; and that changes in zoning regulations, other land use regulations, or building requirements are essential in order to further the purposes of this section, it shall specify the essential changes to the Governor. If the Governor upon review of the recommendation finds after public hearing that changes are essential, she or he shall so recommend to the agencies or political subdivisions with jurisdiction over the area and subject matter. If no action, or insufficient action, pursuant to her or his recommendations is taken within the time specified by the Governor, she or he shall so inform the Legislature and request legislative action appropriate to mitigate the impact of such an emergency. (History.–s. 1, ch. 74-285; s. 27, ch. 83-334; s. 135, ch. 95-148.)

[6] Comments of John Hulsey, Senior Planner, South Florida Regional Planning Council, in telephone conversation on May 13, 1999.

Florida Rules (Florida Administrative Code), Chapter 9G-7:

(2) County emergency management plans will be coordinated and consistent with the provisions of the State comprehensive emergency management plan. The county emergency management plan will include an evacuation component, a shelter component, and a post-disaster and recovery component and will consist of provisions addressing aspects of preparedness, response, recovery and mitigation. The county plan will assign lead and support responsibilities for county agencies and personnel for emergency support functions and other support functions.

(6) The county comprehensive emergency management plan shall provide a detailed description of the process to be followed at the local level whenever an emergency or disaster occurs as a result of natural or manmade causes. Such emergencies include, but are not limited to: tornadoes, hurricanes, windstorms, flooding, freezes, electric generating capacity shortages, drought, hazardous materials releases or spills and civil disturbances. The plan shall identify and describe pre-emergency warning systems, evacuation and sheltering plans, hazard mitigation and other anticipatory actions as well as post-event response and recovery actions.

III. REGIONAL HAZARDS AND VULNERABILITIES

South Florida has no shortage of hazards and vulnerabilities. Flooding, hurricanes, and thunderstorms pose serious threats throughout the State in general, and in Miami-Dade County in particular. One indication of how vulnerable Florida communities are to flooding is the high number of National Flood Insurance policies statewide – more than 40 percent of the total number of policies written nationwide.[7]

While this Local Mitigation Strategy (LMS) includes consideration of man-made hazards, such as toxic chemical releases, a nuclear incident at the Turkey Point Nuclear Power Plant, civil disorder, and other man-made hazards, the focus is on the more commonly recognized natural hazards affecting south Florida, such as hurricanes and flooding. These natural hazards are a more pressing concern for mitigation planners and generally are more amenable to successful mitigation strategies.

The Problem:

- 80% of Florida's population live within ten miles of the coast.
- Florida's population is growing fast, and the majority of these new residents are settling along the coast.
- Recent disasters, including Hurricane Andrew, have almost bankrupted the insurance industry.
- After a disaster, residents want to repair their property as fast as possible.

A. REGIONAL TOPOGRAPHY AND GEOGRAPHY

Miami-Dade County has a relatively level terrain with a mean elevation of 11 feet. An early Pleistocene reef, also known as "Cutler Ridge," parallels the western coast of Biscayne Bay approximately 300 yards inland, with a mean elevation of 18 feet. West of this ridge is a comparatively level early Pleistocene and late Tertiary limestone plane that extends for approximately 12 miles to the west in the northern part of the county and 9 miles to the west in the southern part. The mean elevation of this plane is approximately 11 feet. West of this plane the terrain dips down into the Everglades basin with a mean elevation of approximately 5 feet. This western lowland is almost continually on the verge of flooding and in most areas, is considered a sensitive wetland.

The eastern border of Miami-Dade County consists of 25 coastal barrier islands starting with Miami Beach in the north and ending with Palo Alto Key in the south, forming Biscayne Bay with a total water area of 245 square miles. The northernmost 15 miles of Miami-Dade County has only two deep-water channels between the Bay and the Atlantic Ocean: Haulover Inlet, and Government Cut. This geography affects the traditional storm surge models because both surge inflow and outflow to North Biscayne Bay from the Atlantic Ocean are impeded, while flow to and from the same area from southern Biscayne Bay is exacerbated.

The drainage patterns of Miami-Dade County are almost exclusively governed by the South Florida Water Management District (SFWMD) canal system, which collects runoff throughout the county and discharges it through a system of flood control gates into Biscayne Bay. The finite size of the canal system and the relatively flat topography of the area limit the

[7] Florida Department of Community Affairs, June 1997. *The Local Mitigation Strategy: A Guidebook for Florida Cities and Counties.*

general drainage capacity of the system to approximately one inch of rainfall per day. Therefore, prolonged periods of precipitation tend to overwhelm the drainage system and result in flooding in low-lying areas.

The porous aquifers and shallow groundwater in the County cause significant problems of ground saturation and saltwater intrusion. A careful balance must be maintained between ground saturation and the resultant exposure to flooding and saltwater intrusion.

B. TYPES OF HAZARDS

1. HURRICANES AND TROPICAL STORMS

Southeast Florida experienced 29 hurricanes from 1890 to 1992, fifteen of which were classified as a Category 3 hurricane or above.[8] The large number of coastal residents and the relatively flat topography of the region make the potential damages to human health, safety, and property that could result from a major hurricane astronomical. For example, Hurricane Andrew, a small, fast moving Category 4 hurricane, struck the sparsely populated, agricultural area of southern Miami-Dade County in 1992, causing over $27 billion in damages and posing a serious economic threat to a number of municipalities, the County, and the insurance industry at large.[9] A similar or stronger hurricane striking in the more populated regions of the County could place over 1.9 million residents, as well as the region's financial stability, at risk.

Because of the area's high population density and the limited number of evacuation routes, the clearance time for a fast-moving hurricane may require individuals to begin evacuating before the actual landfall and intensity of a storm can accurately be predicted. This problem would be compounded if the size or location of a storm required multiple counties and municipalities to evacuate. Even if evacuation is posted early, other issues such as traffic jams on roadways, flooded evacuation routes, and torrential rains frequently render evacuation routes impassable long before the predicted landfall of the storm. As a result, evacuation is not always the best alternative and, depending on circumstances, Miami-Dade County residents may be discouraged from evacuating unless they are using air transportation or evacuate very early.

2. TORNADOES

Southeast Florida has the highest rate of tornadoes per square mile in the United States and the State is ranked seventh in the nation in the number of deaths caused by tornadoes.[10] Historically, the majority of the tornadoes occur between May and August, with peak activity in June. Although these storms pose a threat to all structures, mobile home parks are particularly vulnerable to the high winds and thunderstorms associated with tornadoes.

3. FLOODS

Most municipalities are subject to localized flooding, particularly during the rainy season of June through October. In Miami-Dade County, serious flooding can occur near rivers,

[8] Miami-Dade County Comprehensive Emergency Management Plan, July 24, 1998. Prepared by Miami-Dade Office of Emergency Management.
[9] Ibid.
[10] Ibid.

streams, and canals, as well as in urban areas, due to poor percolation rates and low elevations. The threat of flooding from storm surge represents a serious hazard to the barrier islands and the adjacent communities, which have the potential to experience flood depths of up to 21 feet due to storm surges and torrential rainfall.

The SFWMD is responsible for water management in Miami-Dade County. The water management system is designed to retain water in certain areas and drain the excess water into Biscayne and Florida Bays through a series of flood control gates. Unfortunately, both the topography and the growth patterns of the County limit the amount of flood control that can be achieved. The relatively flat terrain limits this drainage system to a maximum flow of approximately one inch of water every 24 hours. Additionally, recent construction in previously uninhabited areas of Miami-Dade County has led to small changes in groundwater elevations, which in turn, has increased the susceptibility of certain areas to flooding. After heavy periods of rain, these areas generally flood, isolating residences and businesses, damaging roadways and utilities, contaminating water supplies, and interrupting essential emergency services.

4. DROUGHTS AND CONTAMINATED WATER SUPPLIES

Miami-Dade County obtains its potable water supply from the Biscayne Aquifer, which is primarily replenished by rainwater. Over-pumping the well fields in time of drought can lead to salt water intrusion and permanently compromise Miami-Dade County's potable water supply. In times of drought, supplemental water is supplied by the SFWMD's regional system, however this system is not designed to replace the County's main water source. The SFWMD constructed levees to help protect the County's well fields from salt water intrusion, but the gradual advance of salt water into the water table continues with the ever-increasing demands for water.

5. MAN-MADE DISASTERS

As with most metropolitan areas, the participating municipalities are vulnerable to a number of man-made disasters. The probability of any of these events occurring is low, however it is essential that the communities be aware of any potentially harmful events. These include:

- ***Hazardous Materials Releases:*** Large volumes of hazardous materials are routinely transported through the county by railroad, highway, air, water, and pipeline, thereby posing a threat of an accidental or intentional release.

- ***Nuclear Accident:*** All of the municipalities are located within the Emergency Planning Zone (EPZ) of the Turkey Point Nuclear power plant, which is located in the southeastern portion of Miami-Dade County.

- ***Mass Casualty:*** A variety of natural and man-made disasters (e.g., aircraft and mass transit accidents, structural failures) are capable of resulting in mass casualty incidents that could overwhelm the area's standard system of medical assessment and treatment.

- ***Civil Disturbance:*** Miami-Dade County has a diverse population with broad education backgrounds, and originating from countries with widely differing

political systems, and religious beliefs. As with any large metropolitan area with diverse cultures, civil disturbances must be anticipated and expected.

- ***Mass Immigration:*** Miami-Dade County has a history of mass migrations of immigrants from the Caribbean basin, particularly Cuba and Haiti. A large uncontrolled influx of immigrants has the potential to alter the area's social and economic fabric and overwhelm the delivery of essential services such as medical and public safety. Additionally, armed violence abroad may also precipitate spontaneous mass immigrations to south Florida.

- ***Coastal Oil Spills:*** Miami-Dade County has 368 miles of coastline subject to contamination caused by an oil spill.

- ***Terrorism:*** Due to its proximity to Latin America, Cuba, and other Caribbean nations, Miami-Dade County is particularly vulnerable to acts of international terrorism, which increases the likelihood of mass casualty and mass evacuation from a target area.

- ***Epidemic:*** The proximity of the municipalities to the Caribbean basin, Central and South America, the sub-tropical climate, and the "gateway" status maintained by the county's transportation industry, makes it susceptible to a variety of viral infections and diseases.

- ***National Security:*** The ever increasing technical capabilities of terrorists groups inevitably increases the probability of the illicit production of weapons of mass destruction. The possibility that a terrorist group could obtain weapons of this nature possesses a serious planning concern.

C. POPULATION AT RISK

1. GENERAL CHARACTERISTICS

In 1998, the population of Miami-Dade County was estimated at 2.1 million a 1.1 percentage increase since 1997.[11] More than 90 percent of the these individuals live and work within 12 miles of the coast and thus are affected by a number of disaster and evacuation scenarios.

Exhibit III-1 presents the total population of each municipality and its associated population density. Excluding Indian Creek Village, the average population density of these municipalities is over 7,800 persons per square mile.[12] This is 7.9 times higher than the average population density for Miami-Dade County as a whole (996 persons per square mile).[13]

[11] US Census Bureau, http://www.census.gov/population/estimates/county/co-98-1/98C1_12.txt
[12] The population density of Indian Creek Village is significantly lower than that of the other municipalities and has not been included in this average. US Census Bureau. *Land Area, Population, and Density for Places in Florida: 1990*, Table 3. http://www.census.gov/population/censusdata/places/12fl.txt.
[13] US Census Bureau. *Land Area, Population, and Density for States and Counties: 1990* http://www.census.gov/population/censusdata/90den_stco.txt

Over the next twenty years, the County expects its population to increase by approximately 50,000 persons annually.[14]

EXHIBIT III-1: POPULATION DENSITY BY MUNICIPALITY

MUNICIPALITY	POP.	AREA (SQ. MI)	POPULATION PER SQ/MI
Bay Harbour Islands	4,800	0.4	12,000
Biscayne Park	3,049	0.6	5,802
Indian Creek	44	0.4	110
North Miami	50,000	9.5	5,263
Surfside	4,200	0.5	8,400

In general, the population age distribution of the County is heavily weighted towards elderly persons. In the five municipalities, 18.7 percent of the population (approximately 11,300 people) is 65 years old or older.

2. GROUPS REQUIRING SPECIAL CONSIDERATION

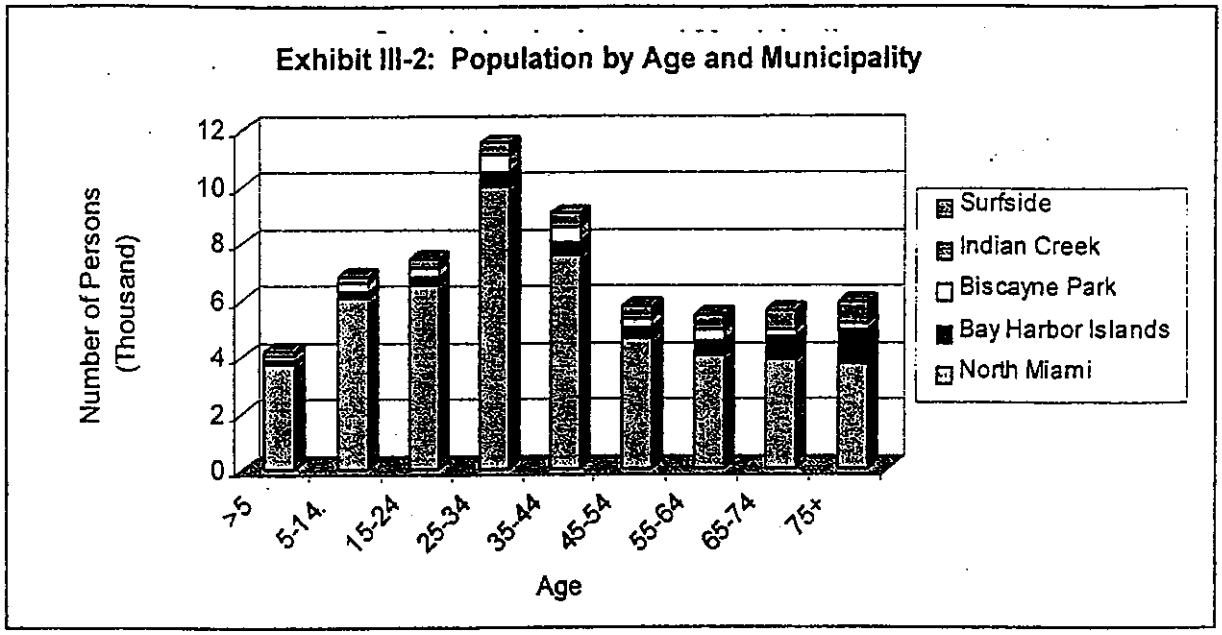
A large percentage of the population of these communities is made up of elderly persons who require special assistance during the evacuation and recovery phases of a disaster (see Exhibit III-2). To address these needs, the County has established a "Special Needs" program. However, as of November 1996, only 1,581 individuals were registered with this Program. Although special shelter space has been designated for these individuals, it is likely that a large percentage of persons requiring special assistance are not signed up for this Program.

The multitude of different languages spoken by the residents of Miami-Dade County have the potential to create barriers to disaster education, evacuation, and recovery. Approximately 330,000 people in Miami-Dade County either do not speak English or have such a poor comprehension of the English language that they would be unable to understand basic emergency instructions if they were given only in English. In recognition of this barrier, Miami-Dade County has developed a program to ensure that any emergency message to the community is issued not only in English but also in Spanish and Creole.

3. TOURISTS

The area's beachfronts, shopping, and other attractions draw a large tourist population to the individual municipalities and to Miami-Dade County as a whole. Many tourists are unfamiliar with the area's geography and the potential threat of disasters. Disseminating information related to potentially hazardous situations and providing evacuation and recovery information requires an ongoing commitment from the municipalities.

[14] Miami-Dade County Comprehensive Emergency Management Plan, July 24, 1998. *Population Projections, Dade County by Minor Statistical Area: 1990-2015*, Table 1, p. 17.



4. SHELTER SPACE

The current quantity of shelter space is inadequate to accommodate with the potential number of individuals who would be displaced in the event of a disaster. In a worst-case scenario (i.e., a Category 5 hurricane moving slowly in a westerly direction), it could be necessary to evacuate over 30 percent of the County's total population, approximately 650,000 people. For planning purposes, it is likely that approximately 20 percent of these residents (130,000 people) will seek public shelter during such an event. Current shelter capacity stands at roughly 50,000 spaces, less than half of what would be required in such an event.

Potential problems, unless mitigated, are only likely to increase as the coastal population continues to swell. Notwithstanding Florida's long history of recovering from disasters, recovery will become increasingly difficult in the future. The growing elderly population in south Florida, as well as those with special needs, pose additional challenges during an evacuation. Recovery, without the help of hazard mitigation efforts, will simply pose unacceptable risks to human life and become cost prohibitive.

D. CRITICAL FACILITIES AT RISK

Critical facilities include those buildings and facilities that municipalities utilize to provide the mission-critical services needed to protect the health and safety of residents and emergency workers. These include public buildings (e.g., city, town, or village halls; police and fire departments, schools), transportation infrastructure (e.g., major roadways, airports, bridges), hospitals, and utilities (e.g., water and sewer lines, pump stations, electrical lines). This section briefly highlights the different types of critical facilities in Miami-Dade County, as well as non-critical but equally important facilities.

1. TRANSPORTATION INFRASTRUCTURE

Major Roadways

Seven major roadways are located within the participating municipalities, including:

- A1A: Serves the beach areas of the County and continues up the length of the Atlantic Seaboard.
- US 1: Runs the entire length of Miami-Dade County and was the first main highway in the County.
- US 441: Starts at the Tamiami Trail (US 41) and runs north to Palm Beach County and points north.
- I-95: Branches off US-1 at approximately 12th Avenue and continues north, up the length of the Atlantic Seaboard.
- S.R. 826: Starts at S.W. 104th Street, and continues to the northern end of the County where it turns east and intersects I – 95.
- Florida Turnpike Extension: Starts at Florida City (SW 344th St.) and continues to northern Florida.
- S.R. 997: Starts at S.W. 360th St. and continues north to Lake Okeechobee.

Bridges

Miami-Dade County has more than 900 bridges, 25 of which are major drawbridges. Unlike other bridges, drawbridges have the ability to obstruct traffic, thereby posing a potential hazard during an evacuation. Special coordination is required to balance the evacuation needs of boat owners with the needs of the general populace, while still complying with evacuation orders. Depending on the type of hazard, Miami-Dade County's bridge lock-down policy is coordinated and implemented with the assistance and cooperation of the U.S. Coast Guard and the Florida Department of Transportation (FDOT).

Waterways

Miami-Dade County has over 1,000 miles of waterways, all of which are connected to Biscayne Bay. Additionally, the Intracoastal Waterway runs the length of the County in a north/south direction and provides a marine corridor from the Florida Keys along the length of the eastern seaboard. The resulting network of canals and rivers provide inland access to storm surges, which result in flooding in areas that would otherwise be unaffected. In addition, Biscayne Bay and its waterways support the largest fleet of recreational marine craft in the United States. These marine interests represent a significant economic influence in Miami-Dade County and the County must recognize the issues associated with protecting this essential resource.

2. PUBLIC BUILDINGS AND UTILITIES

A list of critical facilities in each of the participating municipalities is maintained by Miami-Dade County's OEM. The list includes facilities such as schools, solid waste facilities, and municipal buildings (e.g., hospitals, police stations, and sewer pump stations). Exhibit III-3 shows all of the critical facilities that have been recorded in OEM's geographic information

system (GIS) database. Although Working Group participants had the opportunity to update the list during the development of this LMS, additional changes may be forthcoming.

Specific vulnerabilities within each municipality were identified partly on the basis of data available in Miami-Dade County's GIS database. This information included three different types of data believed to be most relevant to the local mitigation planning process:

- ***Repetitive Loss Facilities***: facilities for which two or more National Flood Insurance Program (NFIP) losses of at least $1,000 each have been paid in the last 10 years.
- ***Hazardous Materials Sites:*** facilities that hold permits with the Miami-Dade County Department of Environmental Resources Management (DERM).
- ***Historical Flood Facilities:*** sites that have been reported to DERM as having caused localized flooding problems, such as clogged storm drains, flooded streets, etc.

Exhibit III-4 is a map showing the most recent data available from Miami-Dade County's GIS database of each of these types of facilities.

3. OTHER PUBLIC BUILDINGS AND FACILITIES

In addition to critical facilities, a number of additional buildings, parks, and other facilities in a municipality are eligible for public assistance if they are damaged or destroyed during a presidentially declared disaster. These facilities typically meet eligibility requirements under the Federal Emergency Management Agency's (FEMA's) Public Assistance Program. Each municipality assembled a list of these other public buildings and facilities and submitted it to Miami-Dade County. These public buildings and facilities are not an integral part of this LMS. However, if damaged in a disaster, they may be eligible for public assistance including repair to their pre-disaster design and function and the implementation of appropriate hazard mitigation measures to prevent future damages.

E. INTERAGENCY ROLES AND RESPONSIBILITIES

Hazard mitigation is not the responsibility of any one agency or level of government. Rather, all levels of government play critical roles in advancing mitigation, either by articulating the vision or developing programs and incentives that encourage and support community-based implementation. The federal government supports and encourages mitigation actions at the state and local levels by providing leadership and coordination. Although the federal government plays a key, ongoing role in disaster mitigation, its role must be limited.

Since most mitigation occurs at the local level, partnerships must be formed among all levels of government and the private sector to develop consensus on mitigation issues. Participants at all levels of government and from the private sector must acknowledge their vulnerabilities and accept their responsibilities for reducing potential risk. Based on these premises, FEMA developed the National Mitigation Strategy (NMS).[15] This Strategy provides a conceptual framework for the federal, state, and local governments, private industry, and individuals to implement disaster mitigation initiatives. The anticipated roles and responsibilities of each group are outlined below.

[15] FEMA internet site, http://www.fema.gov/MIT/ntmstrat.htm

1. FEMA

- Make mitigation the highest priority in recovery efforts following disasters.
- Provide mitigation technical assistance to other federal agencies, and state and local governments.
- Facilitate the development of implementation plans among participants for the actions outlined in the NMS.
- Coordinate mitigation activities among all levels of government and the private sector.
- Communicate mitigation successes to stakeholders and interested parties.

2. OTHER FEDERAL AGENCIES

- Apply the best mitigation practices to their own facilities.
- Develop partnerships to advance research, standards development, and cost-effectiveness measures.
- Provide incentives for development and implementation of hazard mitigation measures.
- Complete and publish a national natural hazard risk assessment.
- Collaborate with academia, national standards and code-writing groups, and the private sector to speed the development and application of mitigation technologies.
- Support applied research on priority mitigation issues.
- Collaborate with all interested parties to develop processes and conventions for characterizing the impacts of natural hazards and for assessing the costs and benefits of alternative mitigation measures.
- Spearhead a national public awareness campaign for hazard reduction.

3. STATES AGENCIES AND LOCAL GOVERNMENT

- Develop strategic mitigation plans and identify funding sources to support them.
- Develop administrative structures to support implementation of mitigation programs and priorities.
- Adopt incentives and disincentives to encourage mitigation.
- Adopt and enforce building codes and land use measures.
- Incorporate mitigation of natural hazards into their land use management plans and programs.
- Develop, support, and conduct ongoing public information campaigns on disaster awareness and mitigation.

4. PRIVATE INDUSTRIES AND INDIVIDUAL CITIZENS

- Be aware of the potential disasters that threaten their facilities and investments and reduce any vulnerabilities.
- Develop business interruption plans and implement mitigation to minimize loss of jobs and business activity.
- Develop incentives for mitigation with insurance and banking institutions.
- Promote awareness of hazard risk and mitigation solutions among customers and the public.
- Support adoption and enforcement of measures designed to reduce vulnerabilities.
- Take other appropriate actions to protect lives and property against the impacts of disasters.

As stated above, interagency coordination is essential for hazard mitigation planning and implementation to work efficiently and effectively. In the NMS, FEMA identifies building federal-state-local partnerships and public-private partnerships as and essential step in effectively implementing measures to reduce the potential damages from disasters.

D. CITY OF NORTH MIAMI

1. INTRODUCTION

The City of North Miami was originally incorporated in 1926 as the Town of Miami Shores. It is strategically located halfway between Miami and Fort Lauderdale. The City encompasses an area of approximately 9.5 square miles and supports a mix of diverse residential dwellings and a variety of commercial and industrial uses. The City provides a full spectrum of public services to its approximately 50,000 residents.

North Miami's eastern boundary is protected by the barrier islands from direct storm surge. However, the City is vulnerable to hurricanes because most of the land is low-lying and prone to flooding. Areas east of the Florida East Coast Railway are subject to coastal flooding under a category 3 hurricane landfall. There are also two large wetland areas within the City limits that are subject to flooding.

2. RELEVANT PLANNING DOCUMENTS

The City of North Miami's Comprehensive Plan has three elements that support the LMS: Future Land Use Element (FLUE), Sanitary Sewer, Solid Waste, Drainage, Potable Water, and Natural Groundwater Aquifer Recharge Element (SSE), and Coastal Management Element (CME). This section presents excerpts of key goals, objectives, and policies from these elements, followed by a summary table (Exhibit VI-13) showing the linkages between these elements and the City's identified potential mitigation measures. Please note that excerpts have been taken verbatim from the cited document. References to Dade County should be updated to read Miami-Dade County.

Future Land Use Element (FLUE)

- ***Policy 1.3.2:*** Require that all new development and redevelopment, minor or major, comply with all applicable laws, including zoning, building, environmental regulations, subdivision control, stormwater management, open space requirements, traffic flow requirements, and parking.[51]

Sanitary Sewer, Solid Waste, Drainage, Potable Water, Natural Groundwater Aquifer Recharge Element (SSE)

- ***Policy 2.1.1:*** Allocate funds to renew and replace existing sewage pumping equipment, sewage collection lines, and individual lateral lines, as they reach their useful life. [52]
- ***Goal 3:*** To provide an adequate storm water management system.[53]
- ***Objective 3.1:*** In perpetuity, maintain the efficiency of existing systems.[54]

[51] City of North Miami Comprehensive Plan. *Future Land Use Element.* April 1991. p. 15
[52] City of North Miami Comprehensive Plan. *Sanitary Sewer, Solid Waste, Drainage, Potable Water, Natural Groundwater Aquifer Recharge Element.* April 1991. p.14.
[53] Ibid.
[54] Ibid.

- ***Objective 3.2:*** In connection with new development, require construction of new stormwater systems that provide disposal of two-year design storm, in conformance with Florida Department of Environmental Regulations standards.[55]

Coastal Management Element (CME)

- ***Goal 1:*** Protect human life and property in the coastal area of North Miami.[56]
- ***Objective 1.1:*** Upon Plan adoption, the City shall enforce the minimum flood plain management regulations of the Federal Emergency Management Agency (FEMA) or the Dade County Flood criteria, whichever is most restrictive for new construction.[57]
- ***Policy 1.2.2:*** As part of on-going monitoring and updating procedures, the City shall ensure that all applicable provisions of the hazard mitigation annex of the Dade County Emergency Operations Plan, and from other applicable hazard mitigation reports, are incorporated and/or addressed in local regulatory procedures.[58]
- ***Policy 1.2.3:*** The City shall monitor problems and life-threatening situations resulting from natural disaster occurrences and take the appropriate steps to ensure that the potential for such problems and situations in the future is lessened.[59]
- ***Objective 1.3:*** Upon Plan adoption, the review and approval of all plans for future development within the coastal area will consider the impacts of development on hurricane evacuation times.[60]
- ***Policy 1.3.1:*** Review of development proposals within the coastal area shall consider vehicular accessibility and internal circulation patterns so that the time required to evacuate the site(s) shall be minimized.[61]
- ***Goal 2:*** Protect existing Public Water Department and water related uses.[62]
- ***Goal 4:*** Protect the existing and future infrastructure improvements and their ability to serve public demand.[63]
- ***Objective 4.2:*** Upon Plan adoption, the location of future infrastructure improvements in designated high-hazard coastal areas shall consider the vulnerability of such improvements to anticipated storm activities, as well as the alternative for location of such facilities outside of the high-hazard area(s).[64]
- ***Policy 4.2.1:*** Monitor storm activities which threaten or cause damage to existing structures and facilities, so that the vulnerability of such can be assessed, and the potential for the identification and designation of high-hazard areas evaluated.[65]

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[55] Ibid.
[56] City of North Miami Comprehensive Plan, *Coastal Management Element* . April 1991. p. 11.
[57] Ibid.
[58] Ibid.
[59] Ibid.
[60] Ibid.
[61] Ibid.
[62] Ibid. p. 12.
[63] Ibid. p. 13.
[64] Ibid.
[65] Ibid.

- ***Policy 4.2.2:*** The development or redevelopment of unsafe, vulnerable, and/or inappropriately located uses shall not be undertaken in designated high-hazard areas, unless the proper measures have been taken to ensure the safety and soundness of such uses, in accordance with existing law.[66]

EXHIBIT IV-13: CITY OF NORTH MIAMI
LINKAGE BETWEEN PROPOSED MITIGATION MEASURES AND PLANNING DOCUMENTS

#	MITIGATION MEASURE	FLUE	SSE	CME
1	Provide Backup Power to Sewer Pump Stations		✔	
2	Install Storm Shutters on City Buildings			✔
3	Line Sewer Pipes and Rehabilitate Manholes		✔	
4	Correct Water Infiltration in The Basement of City Hall		✔	
5	Develop Public Education Campaign			✔
6	Develop Floodplain Management Plan	✔		✔
7	Acquire Properties for Stormwater Staging	✔		
8	Reconstruct Keystone Point Bridges		✔	✔
9	Improve Storm Surge Resistance in Canals		✔	
10	Debris Removal in Canals		✔	
11	Prepare Flood Zone Data	✔		
12	Backup Computer for Building and Zoning Dept.	✔		

3. CRITICAL FACILITIES

Critical facilities include all municipal buildings and other facilities within a municipality's jurisdiction that are essential for public health and safety during a disaster. The City of North Miami identified a number critical facilities, listed in Exhibit IV-14 that provide fundamental services either during or immediately following a disaster. A number of the proposed mitigation described in Part 4 of this Section are focused on enhancing and protecting one or more of the identified critical facilities so they can remain operational in the event of a disaster.

[66] Ibid.

EXHIBIT IV-14: CITY OF NORTH MIAMI CRITICAL FACILITIES

CATEGORY	FACILITY NAME	STREET ADDRESS
City Government	North Miami City Hall	776 NE 125th St.
	North Miami Building and Zoning	12400 NE 8th Ave.
	Parks and Recreation Dept.	13100 NE 8th Ave.
	North Miami Motor Pool	1855 NE 142nd St.
Police	North Miami Police Dept.	700 NE 124th St.
	Police Department / Community Resource	1035 NE 125th St. # 100
	North Miami Police Resource	13150 NW 7th Ave.
Communications/ Utility	Bell South Tower	835 NE 132nd St.
	City of North Miami Police Antennae	NE 144th – 146th St. & 20th Ln.
	Park Operations Center	12181 NE 13th Ave.
	Utility Operations Center	1815 NE 150th St.
	Transformer Station #1	126th-127th St. & NW 5th Ave.
	Transformer Station #2	127th St. & NE 14th St.
Sewer System	Sewer lift stations throughout the City	45 locations in North Miami
Water	Winson Water Treatment Plant	12098 NW 11th Ave.
Transportation	Keystone Bridge 1	Bayshore Dr. & 123rd
	Keystone Bridge 2	N. Bayshore Dr. & Keystone Blvd.

4. PROPOSED MITIGATION MEASURES AND PRIORITIES

The following section presents the various mitigation measures proposed by the City of North Miami. These measures were ranked according to priority, risk reduction, and cost using the mitigation prioritization tool developed for this LMS (see Appendix A). Detailed priorization worksheets on each project follow these project descriptions. Exhibit IV-15 presents the measures in descending order by score, indicates if the project is included in the Town's Capital Improvement Plan (CIP), and includes information on the project's sponsors and potential funding sources. Exhibit IV-16 provides a graphical illustration of the scores for each measure. Irma Plummer, Assistant to the City Manager, and Mark Collins, Director of Public Works, will serve as the points of contact and sponsors for these projects.

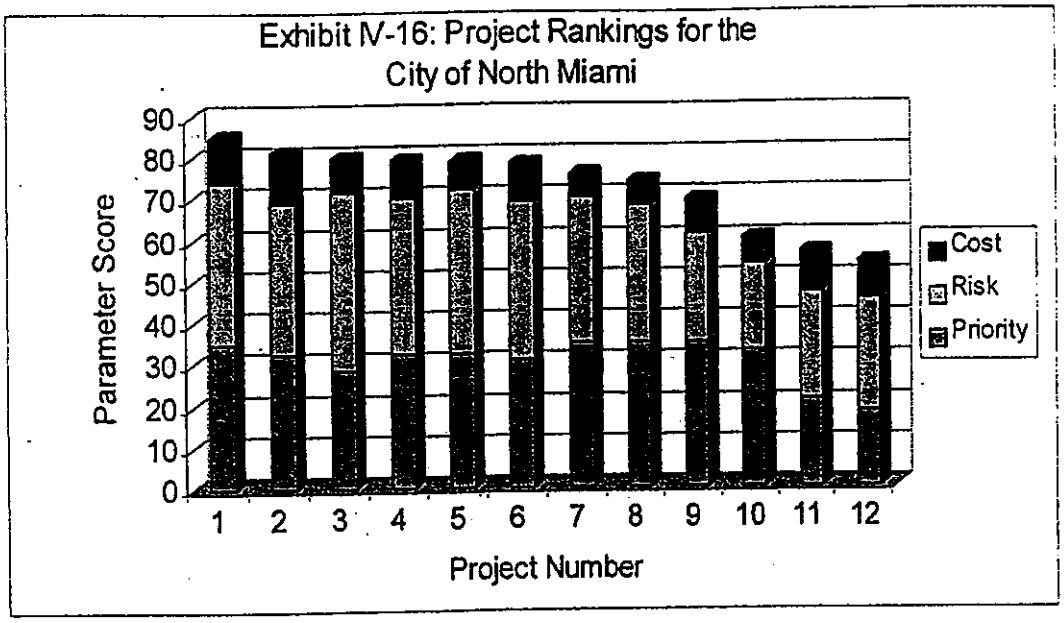
EXHIBIT IV-15: CITY OF NORTH MIAMI PRIORITIZED MITIGATION MEASURES

#	MITIGATION MEASURE	SCORE	CIP
1	Provide Backup Power to Sewer Lift Stations	85	✔
2	Install Storm Shutters on City Buildings	81	✔
3	Line Sewer Pipes and Rehabilitate Manholes	80	✔
4	Correct Water Infiltration in The Basement of City Hall	79	✔
5	Develop Public Education Campaign	79	
6	Develop Floodplain Management Plan	78	
7	Acquire Properties for Stormwater Staging	76	
8	Reconstruct Keystone Point Bridges	74	✔
9	Improve Storm Surge Resistance in Canals	69	✔
10	Debris Removal in Canals	60	
11	Prepare Flood Zone Data	57	
12	Backup Computer for Building and Zoning Department	54	
AVERAGE		73	

Project 1: Provide Backup Power to Sanitary Sewer Lift Stations

The City operates and maintains 45 sanitary sewer lift stations. Although these lift stations range in both size and configuration, they all perform the same function of ensuring that sanitary sewage continues to flow through a pressurized sewer main. If any of the lift stations shut down, either due to power failure or mechanical problems, sanitary sewage could back up in the pipes and eventually enter into the homes of residents, causing property damage and public health risks.

Slightly more that half (23) of the City's 45 sanitary sewer lift stations have been designated as having a high priority need for generators to provide backup power in case the normal supply of electricity is not available. Thirteen of these lift stations are constructed of concrete and are large enough to house a permanent generator. The remaining ten are located either underground or in compact spaces above ground and will require portable generators. Portable generators would be stored in secure areas of the City when not in use. The City's CIP for the years 1989-1994 allocated annual funds for sanitary sewer rehabilitation. It is unclear, however, if these similar funds are included in the current CIP.



Project 2: Install Storm Shutters on City Buildings

The City has identified a number of municipal buildings as critical facilities (see Exhibit IV-14). The glass doors and windows on these facilities must be protected from strong winds and flying objects during a disaster. Currently, most windows and doors are protected with plywood, which takes time to install and requires considerable storage space. Installing permanent, fixed metal shutters to the buildings would reduce the time required to secure the facilities as well as the space required to store the plywood. Placing these shutters on the facilities that house emergency response teams and the district emergency operations center would also increase the safety of those employees and equipment.

Project 3: Line Sanitary Sewer Lines and Rehabilitate Manholes

Infiltration of groundwater into sewer lines is a constant problem. Installing a lining inside existing sewer lines would greatly reduce this infiltration, thereby reducing the amount of sewage being treated by Miami-Dade County, resulting in cost savings. In addition to reducing infiltration, this measure would also reduce the amount of sewage leaking from the existing lines into the groundwater, thereby reducing threats to human health and the environment. The 1988-1994 CIP identified a number of general and specific ongoing water and sewer renewal and replacement projects, including upgrades, rehabilitation, replacements, and conversions. It is unclear if the current CIP includes similar provisions for improving the water and sewer system and if such provisions could be used to line sanitary sewer pipes.

Project 4: Correct Water Infiltration in the Basement of City Hall

When City Hall was constructed in 1963, the basement was designed as a civil defense bomb shelter. Over the years, as the need for a bomb shelter diminished, the basement has been converted into offices, classrooms, employee break rooms, and document storage space, including vital City records. Additionally, the basement of City Hall currently houses an Emergency Operations Center (EOC) for five municipalities.

The basement is located below the water table and over time, there has been some infiltration of water through the walls and flooring. Due to the building's role as a critical facility, it must be secured in the event of a disaster. The water infiltration could be corrected by sealing

the building's walls and flooring and excavating and sealing the building's outside walls. An alternative to correcting the flooding problem would be for the City to relocate the records, other important documents, and the EOC to a separate facility.

Project 5: Develop Public Education Campaign

The City would like to implement a public education program that would educate the community on the threat of storms and inform residents of safe evacuation routes and potential mitigation measurers. Possible media to disseminate this information include videos, presentations, and an internet web site. A wide variety of information is currently available on the world wide web through FEMA and other emergency management agencies and organizations. This project has the potential to benefit 100 percent of the City's residents at a relatively low cost.

Project 6: Develop Floodplain Management Plan

The City of North Miami has authorized the formation of the Floodplain Management Planning Committee that will be responsible for overseeing the development of a comprehensive Floodplain Management Plan for the City. Developing such a plan would allow the City to further reduce its exposure to flood related damages and allow it to maintain and possibly improve its rating under the Community Rating System (CRS) as part of FEMA's National Flood Insurance Program. The estimated cost of this effort is less than $50,000.

Project 7: Acquire Properties for Stormwater Staging

The City is currently in the process of identifying locations with drainage problems and determining what corrective measures should be taken to avoid future flooding problems. One identified area lies between NE 6 Avenue and NE 12 Avenue, from NE 143 Street to NE 147 Street. Although the area already has a storm sewer system in place, the current system is unable to accommodate stormwater flows during heavy rainstorms. Possible solutions include:

- Purchase the property and install stormwater injection wells.
- Purchase the property and construct a stormwater pumping station.
- Upgrade existing piping and install booster pumps.

Project 8: Reconstruction of Keystone Point Bridges #1 and #2

Bridge #1, located on 123rd St., is one of three bridges that provide access to Keystone Point. This bridge is inspected by the Florida Department of Transportation (FDOT) annually and is considered to be in good condition. However, if the bridge was damaged or destroyed, approximately 500 residents who live on four of the six islands would be forced to utilize one of the two entrances off of Biscayne Boulevard (US 1). This could cause traffic congestion and lead to lengthy delays for residents. Additionally, because water and sewer utility lines are located along the length of the bridge, damage to or destruction of the bridge could interrupt utility service to residents. These utilities could be relocated under the canal to increase the reliability of utility service for these residents.

Bridge #2 provides the only access to the two remaining islands in Keystone Point. Additionally, the water and sewer utilities that serve these two islands are located on the bridge. If this bridge fails, approximately 400 residents would be stranded until either a temporary pontoon bridge could be constructed or they could be transported to the mainland via boat. Additionally, if the sewer line was to be damaged, sanitary sewage could spill into waters that

flow into the Biscayne Bay and the Intercoastal Waterway. This bridge is inspected by FDOT annually and has been found to be only in fair condition. The bridge should be either strengthened or reconstructed and, if possible, the utilities should be rerouted under the canal.

Project 9: Improve Storm Surge Resistance in Canals

The subdivisions of Keystone Point and Sans Souci lie along Biscayne Bay and form the easternmost boundaries of North Miami. There are five canal ends in Sans Souci and 23 canal ends in Keystone Point. When these subdivisions were developed, the retaining walls were constructed at the end of the canals to keep the earth from being washed away. They were not designed to be seawalls.

The City recently received a grant from FEMA to reconstruct 19 of the 28 retaining walls, however the remaining 9 retaining walls need to be reconstructed to ensure their structural integrity in the event of a disaster-related tidal surge. If the remaining retaining walls are damaged from tidal surge, approximately 50 homes and utilities could be damaged, causing the residents to be without water, sanitary sewer service, and telephone service until repairs are made.

Project 10: Debris Remove in Canals

During storm events, the canals often become cluttered with debris, including lumber, marine vegetation, furniture, and broken pieces from wooden docks. If the debris is not removed within several days, the organic material begins to decompose creating a foul odor. Options to address the problem include:

- Purchase equipment, such as an Aqua Dozer, to allow City personnel to remove the debris before it becomes a problem;
- Work with the U.S. Army Corps of Engineers to clean canals;
- Contract with a private company to remove the debris; and
- Purchase equipment that could remove some of the debris from the canal ends.

Anticipated benefits of this activity include reductions in insurance claims, the elimination of odors from decomposing debris, increased accessibility for boats, and fewer complaints from local residents.

Project 11: Prepare Flood Zone Data

This project would update the City's Community Planning & Development Department's database to reflect flood zone designations for all folios within the City of North Miami. While some of the work already has been completed, much of the effort remains to be done. The work would require an intern (or temporary worker) to look up the flood zone data on existing flood insurance maps, and input the data into the appropriate places in the City's database. No new software would be needed. The estimated cost of this effort is approximately $6,000.

Project 12: Backup Computer System for Building and Zoning Department

The City currently uses a Unix-based mainframe computer to store all building and zoning information, code enforcement data, and flood zone and elevation data. City policy is to shut the system down and secure the system during a major storm. As a result, the data may not available to City officials precisely when it is needed most: in the immediate aftermath of a disaster when access to building records, folio information, and addresses is essential for

preparing damage estimates. The City of North Miami is seeking a backup system for its mainframe that can operate own its own, independently of the existing system. Although detailed cost estimates have not yet been prepared, the estimated hardware cost for the system is $15,000. Additional software and labor costs needed to implement the system would require additional funding, possible as much as $50,000, for a total estimated project cost of $65,000.

Miami-Dade County Fire Rescue

Local Mitigation Strategy (LMS)

Why Mitigation?

Miami-Dade County, in fact, all of South Florida, is vulnerable to disasters of all types affecting every part of our community; no one is immune. We've suffered hurricanes, tornadoes, severe flooding, lightening, wildfires, plane crashes, hard freezes, droughts, citrus canker, mass migration and more. For more information or to submit a project for the LMS Project list, please contact mdlms@miamidade.gov *(mailto:mdlms@miamidade.gov)*.

Local Mitigation Strategy Working Group

The Local Mitigation Strategy Working Group has created the Local Mitigation Strategy (LMS), which is updated semi-annually on June 30th and December 31st. The LMS Working Group is made up of representatives from Miami-Dade municipalities, county departments, state and federal agencies, schools, colleges and universities, hospitals, and private for profit and not-for-profit organizations.

A FEMA approved LMS document enables members of the working group to access available funding for mitigation such as, but not limited to, the Hazard Mitigation Grant Program, Pre-Disaster Mitigation, Flood Mitigation Assistance, Severe Repetitive Loss, and Repetitive Flood Claims. The latest published version of the Local Mitigation Strategy is available here for public scrutiny and commentary. Please send your comments via email *(mailto:mdlms@miamidade.gov)*.

Page Last Edited: Wed Aug 20, 2014 2:30:56 PM

MIAMI-DADE COUNTY

LMS Project

Incident: LMS Project Tracking Board

Record Details

Agency Type:	Municipalities
Agency:	North Miami
Project Title:	Flood Prevention and Mitigation: Drainage Basin13
Tracking Number:	#699
Entry Type:	Update
Original Date of Entry:	
Last Updated:	08/01/2014 12:02:17
Status:	50% complete
Hazard:	Flood
Project Type:	Infrastructure (Water/Sewer/Drainage)
Mapper Label:	
Address:	
Longitude:	
Latitude:	
Flood Basin:	C8
Completion Time frame:	
Mitigation Goals:	Minimize future lossess fom all disasters by reducing the risk to people and property.
Funding Source:	Capital Improvement
Is a Match Required?:	Unknown
Match Identified:	Unknown
Grant Source:	
Estimated Costs:	500,000.00
Global Match:	Unknown
Project Description:	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.
Comments:	
Attachment #1:	
Attachment #2:	
Attachment #3:	
Name:	Natasha Colebrook-Williams
Email:	ncolebrook-williams@northmiamifl.gov
Phone:	305-893-6511
BCA Completed:	No
BCA Score:	
Self Prioritization Score:	7
Archived:	No
Benefit Cost Review	61

LMS Project

Incident: LMS Project Tracking Board

Record Details

Agency Type:	Municipalities
Agency:	North Miami
Project Title:	Non-critical Facilities Hazard Mitigation
Tracking Number:	#700
Entry Type:	Update
Original Date of Entry:	
Last Updated:	08/01/2014 12:12:42
Status:	Future Unfunded Project
Hazard:	,Flood/Storm Surge,Flood,Storm Surge,Other
Project Type:	Infrastructure (Building)
Mapper Label:	
Address:	
Longitude:	
Latitude:	
Flood Basin:	
Completion Time frame:	
Mitigation Goals:	Minimize future lossess fom all disasters by reducing the risk to people and property.
Funding Source:	Capital Improvement
Is a Match Required?:	Unknown
Match Identified:	Unknown
Grant Source:	
Estimated Costs:	400,000.00
Global Match:	Unknown
Project Description:	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.
Comments:	
Attachment #1:	
Attachment #2:	
Attachment #3:	
Name:	Natasha Colebrook-Williams
Email:	ncolebrook-williams@northmiamifl.gov
Phone:	305-893-6511
BCA Completed:	No
BCA Score:	
Self Prioritization Score:	9
Archived:	No
Benefit Cost Review	61

LMS Project

Incident: LMS Project Tracking Board

Record Details

Agency Type:	Municipalities
Agency:	North Miami
Project Title:	Surge Resistance and Flood Mitigation at Keystone Point and Sans Souci
Tracking Number:	#702
Entry Type:	Update
Original Date of Entry:	
Last Updated:	08/01/2014 11:11:12
Status:	75% complete
Hazard:	
Project Type:	Beach/Seawall
Mapper Label:	
Address:	
Longitude:	
Latitude:	
Flood Basin:	C8
Completion Time frame:	
Mitigation Goals:	Minimize future lossess fom all disasters by reducing the risk to people and property.
Funding Source:	Capital Improvement
Is a Match Required?:	Unknown
Match Identified:	Unknown
Grant Source:	
Estimated Costs:	500,000.00
Global Match:	Unknown
Project Description:	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.
Comments:	
Attachment #1:	
Attachment #2:	
Attachment #3:	
Name:	Natasha Colebrook-Williams
Email:	ncolebrook-williams@northmiamifl.gov
Phone:	305-893-6511
BCA Completed:	No
BCA Score:	
Self Prioritization Score:	10
Archived:	No
Benefit Cost Review	62

LMS Project

Incident: LMS Project Tracking Board

Record Details

Agency Type:	Municipalities
Agency:	North Miami
Project Title:	Sanitary Sewer Backup
Tracking Number:	#703
Entry Type:	Update
Original Date of Entry:	
Last Updated:	08/01/2014 12:09:25
Status:	50% complete
Hazard:	,Power Failure
Project Type:	Equipment
Mapper Label:	
Address:	
Longitude:	
Latitude:	
Flood Basin:	
Completion Time frame:	
Mitigation Goals:	Reduce Miami-Dade's vulnerability to natural and man- made hazards.
Funding Source:	Capital Improvement
Is a Match Required?:	Unknown
Match Identified:	Unknown
Grant Source:	
Estimated Costs:	700,000.00
Global Match:	Unknown
Project Description:	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, & Breezeswept) require emergency generator back up to be installed.
Comments:	
Attachment #1:	
Attachment #2:	
Attachment #3:	
Name:	Natasha Colebrook-Williams
Email:	ncolebrook-williams@northmiamifl.gov
Phone:	305-893-6511
BCA Completed:	No
BCA Score:	
Self Prioritization Score:	2
Archived:	No
Benefit Cost Review	73

LMS Project

Incident: LMS Project Tracking Board

Record Details

Agency Type:	Municipalities
Agency:	North Miami
Project Title:	Safeguarding Availability of Potable Water
Tracking Number:	#704
Entry Type:	Update
Original Date of Entry:	
Last Updated:	08/01/2014 12:01:21
Status:	Other
Hazard:	,Other,Health,Power Failure
Project Type:	Infrastructure (Water/Sewer/Drainage)
Mapper Label:	
Address:	12098 NW 11 Avenue
Longitude:	-80.2174206745769
Latitude:	25.8852209377703
Flood Basin:	
Completion Time frame:	
Mitigation Goals:	Promote mitigation measures for critical facilities.
Funding Source:	Capital Improvement
Is a Match Required?:	Unknown
Match Identified:	Unknown
Grant Source:	
Estimated Costs:	325,000.00
Global Match:	Unknown
Project Description:	Six remote raw water wells provide water to the city's Winson 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 Opalocka, the City of North Miami Beach and Miami-Dade County.
Comments:	
Attachment #1:	
Attachment #2:	
Attachment #3:	
Name:	Natasha Colebrook-Williams
Email:	ncolebrook-williams@northmiamifl.gov
Phone:	305-893-6511
BCA Completed:	No
BCA Score:	
Self Prioritization Score:	6
Archived:	No
Benefit Cost Review	79

LMS Project

Incident: LMS Project Tracking Board

Record Details

Agency Type:	Municipalities
Agency:	North Miami
Project Title:	Emergency Portable Stormwater Pumps
Tracking Number:	#707
Entry Type:	No Change In Status
Original Date of Entry:	
Last Updated:	08/01/2014 11:20:07
Status:	Funding Applied for
Hazard:	,Flood,Flood/Storm Surge
Project Type:	Equipment
Mapper Label:	
Address:	
Longitude:	
Latitude:	
Flood Basin:	C8
Completion Time frame:	
Mitigation Goals:	Minimize future lossess fom all disasters by reducing the risk to people and property.
Funding Source:	Capital Improvement
Is a Match Required?:	Unknown
Match Identified:	Unknown
Grant Source:	
Estimated Costs:	225,000.00
Global Match:	Unknown
Project Description:	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.
Comments:	
Attachment #1:	
Attachment #2:	
Attachment #3:	
Name:	Natasha Colebrook-Williams
Email:	ncolebrook-williams@northmiamifl.gov
Phone:	305-893-6511
BCA Completed:	No
BCA Score:	
Self Prioritization Score:	3
Archived:	No
Benefit Cost Review	71

LMS Project

Incident: LMS Project Tracking Board

Record Details

Agency Type:	Municipalities
Agency:	North Miami
Project Title:	Gravity Sewer Systems Improvements for Groundwater Infiltration Reduction
Tracking Number:	#708
Entry Type:	Update
Original Date of Entry:	
Last Updated:	08/01/2014 12:07:53
Status:	Other
Hazard:	,Other
Project Type:	Infrastructure (Water/Sewer/Drainage)
Mapper Label:	
Address:	
Longitude:	
Latitude:	
Flood Basin:	
Completion Time frame:	
Mitigation Goals:	Minimize future lossess fom all disasters by reducing the risk to people and property.
Funding Source:	Capital Improvement
Is a Match Required?:	Unknown
Match Identified:	N/A
Grant Source:	
Estimated Costs:	6,000,000.00
Global Match:	Unknown
Project Description:	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.
Comments:	Miami Dade County General Obligations Fund as well as the City of North Miami Utility Funds will be used for this project.
Attachment #1:	
Attachment #2:	
Attachment #3:	
Name:	Natasha Colebrook-Williams
Email:	ncolebrook-williams@northmiamifl.gov
Phone:	305-893-6511
BCA Completed:	No
BCA Score:	
Self Prioritization Score:	1
Archived:	No
Benefit Cost Review	63

LMS Project

Incident: LMS Project Tracking Board

Record Details

Agency Type:	Municipalities
Agency:	North Miami
Project Title:	Emergency Power for Water and Sewer Utility Operations Center
Tracking Number:	#709
Entry Type:	Update
Original Date of Entry:	
Last Updated:	08/01/2014 11:19:07
Status:	Funding Applied for
Hazard:	,Power Failure
Project Type:	Equipment
Mapper Label:	
Address:	1815 NE 150 St
Longitude:	-80.162564163722
Latitude:	25.914413644041
Flood Basin:	
Completion Time frame:	
Mitigation Goals:	Promote mitigation measures for critical facilities.
Funding Source:	Capital Improvement
Is a Match Required?:	Unknown
Match Identified:	Unknown
Grant Source:	
Estimated Costs:	90,000.00
Global Match:	Unknown
Project Description:	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.
Comments:	
Attachment #1:	
Attachment #2:	
Attachment #3:	
Name:	Natasha Colebrook-Williams
Email:	ncolebrook-williams@northmiamifl.gov
Phone:	305-893-6511
BCA Completed:	No
BCA Score:	
Self Prioritization Score:	4
Archived:	No
Benefit Cost Review	68

LMS Project

Incident: LMS Project Tracking Board

Record Details

Agency Type:	Municipalities
Agency:	North Miami
Project Title:	Replacement Generator for Police Station
Tracking Number:	#710
Entry Type:	Update
Original Date of Entry:	
Last Updated:	08/01/2014 11:10:10
Status:	Future Unfunded Project
Hazard:	,Power Failure
Project Type:	Equipment
Mapper Label:	
Address:	700 NE 124th St
Longitude:	-80.1838439715614
Latitude:	25.88923398688
Flood Basin:	C8
Completion Time frame:	
Mitigation Goals:	Minimize future lossess fom all disasters by reducing the risk to people and property.
Funding Source:	Unknown/None
Is a Match Required?:	Unknown
Match Identified:	Unknown
Grant Source:	
Estimated Costs:	325,000.00
Global Match:	Unknown
Project Description:	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.
Comments:	
Attachment #1:	
Attachment #2:	
Attachment #3:	
Name:	Natasha Colebrook-Williams
Email:	ncolebrook-williams@northmiamifl.gov
Phone:	305-893-6511
BCA Completed:	No
BCA Score:	
Self Prioritization Score:	11
Archived:	No
Benefit Cost Review	63

LMS Project

Incident: LMS Project Tracking Board

Record Details

Agency Type:	Municipalities
Agency:	North Miami
Project Title:	Correct Water Infiltration at City Hall (EOC) Basement
Tracking Number:	#712
Entry Type:	Update
Original Date of Entry:	
Last Updated:	08/01/2014 11:12:30
Status:	Future Unfunded Project
Hazard:	,Flood,Storm Surge
Project Type:	Infrastructure (Building)
Mapper Label:	
Address:	776 NE 125 ST
Longitude:	-80.1829956455568
Latitude:	25.8897301190797
Flood Basin:	
Completion Time frame:	
Mitigation Goals:	Minimize future lossess fom all disasters by reducing the risk to people and property.
Funding Source:	Unknown/None
Is a Match Required?:	Unknown
Match Identified:	Unknown
Grant Source:	
Estimated Costs:	45,300.00
Global Match:	Unknown
Project Description:	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
Comments:	
Attachment #1:	
Attachment #2:	
Attachment #3:	
Name:	Natasha Colebrook-Williams
Email:	ncolebrook-williams@northmiamifl.gov
Phone:	305-893-6511
BCA Completed:	No
BCA Score:	
Self Prioritization Score:	5
Archived:	No
Benefit Cost Review	64

LMS Project

Incident: LMS Project Tracking Board

Record Details

Agency Type:	Municipalities
Agency:	North Miami
Project Title:	Replacement of U.P.S. for Police Station
Tracking Number:	#713
Entry Type:	Update
Original Date of Entry:	
Last Updated:	08/01/2014 11:09:42
Status:	Future Unfunded Project
Hazard:	,Power Failure
Project Type:	Infrastructure (Building)
Mapper Label:	
Address:	700 NE 124th St
Longitude:	-80.1838439715614
Latitude:	25.88923398888
Flood Basin:	
Completion Time frame:	
Mitigation Goals:	Minimize future lossess fom all disasters by reducing the risk to people and property.
Funding Source:	Unknown/None
Is a Match Required?:	Unknown
Match Identified:	Unknown
Grant Source:	
Estimated Costs:	80,000.00
Global Match:	Unknown
Project Description:	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.
Comments:	
Attachment #1:	
Attachment #2:	
Attachment #3:	
Name:	Natasha Colebrook-Williams
Email:	ncolebrook-williams@northmiamifl.gov
Phone:	305-893-6511
BCA Completed:	No
BCA Score:	
Self Prioritization Score:	12
Archived:	No
Benefit Cost Review	65

LMS Project

Incident: LMS Project Tracking Board

Record Details

Agency Type:	Municipalities
Agency:	North Miami
Project Title:	Utility Operation Center Surge Suppression System
Tracking Number:	#714
Entry Type:	Update
Original Date of Entry:	
Last Updated:	08/01/2014 12:10:33
Status:	Future Unfunded Project
Hazard:	,Storm Surge,Power Failure
Project Type:	Infrastructure (Building)
Mapper Label:	
Address:	1815 NE 150 St
Longitude:	-80.162564163722
Latitude:	25.914413644041
Flood Basin:	
Completion Time frame:	
Mitigation Goals:	Minimize future lossess fom all disasters by reducing the risk to people and property.
Funding Source:	Capital Improvement
Is a Match Required?:	Unknown
Match Identified:	No
Grant Source:	
Estimated Costs:	20,000.00
Global Match:	Unknown
Project Description:	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.
Comments:	
Attachment #1:	
Attachment #2:	
Attachment #3:	
Name:	Natasha Colebrook-Williams
Email:	ncolebrook-williams@northmiamifl.gov
Phone:	305-893-6511
BCA Completed:	No
BCA Score:	
Self Prioritization Score:	8
Archived:	No
Benefit Cost Review	66

CITY OF NORTH MIAMI

EAR-BASED COMPREHENSIVE PLAN AMENDMENTS

VOLUME I: GOALS, OBJECTIVES, AND POLICIES

AND

VOLUME II: DATA, INVENTORY, AND ANALYSIS

Adopted through Ordinance Number 1248
On December 11, 2007

PREPARED BY*

MICHELE MELLGREN
& ASSOCIATES, INC.
www.mmaplanning.com

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Appendix: Visioning Workshop Summary
Future Land Use Map (current adopted)

*Note on the preparation of the Comprehensive Plan: The EAR-Based Comprehensive Plan Amendments were commenced by Iler Planning Group in conjunction with Kimley-Horn and Associates, Inc. and Architectural Design Consortium, this final version of the Comprehensive Plan was completed by Michele Mellgren, & Associates, Inc.

INTRODUCTION

Under State law, the municipal Comprehensive Plan is the ultimate regulatory authority governing all land development activities within the jurisdiction of North Miami - either existing or occurring in the future. The City of North Miami adopted its first Comprehensive Plan in 1989. On September 13, 2005, the City adopted its Evaluation and Appraisal Report (EAR) of the Comprehensive Plan which recommended substantial revisions to update the plan to current conditions and the City's redevelopment objectives. This update to the Comprehensive Plan reflects recommendations in the City's 2005 EAR and current City goals and objectives, as well as requirements from the first EAR round.

The City's Land Development Regulations (LDR), which contains zoning, subdivision and other local development regulations, takes its purpose and direction from the Goals, Objectives and Policies adopted in this Comprehensive Plan. The Land Development Regulations must be fully consistent with the adopted Comprehensive Plan and also further its Goals, Objectives and Policies.

The specific authority and requirement for municipalities to do comprehensive planning in Florida derives from Chapter 163, Florida Statutes. In 1985, the State Legislature amended Chapter 163 through the adoption of the Local Government Comprehensive Planning and Land Development Regulation Act. This Act substantially increases the requirements for local land use plans, associated infrastructure and other plan elements as well as mandates that local governments adopt land development regulations to implement the policies of the local comprehensive plan. The Comprehensive Planning and Land Development Regulation Act is implemented primarily via Rules 9J-5 and 9J-11 of the Florida Administrative Code, as amended. This Comprehensive Plan has been prepared to be fully consistent with Chapter 163, F.S., and Rule 9J-5, as required by State law.

Consistent with State requirements, the City's new Comprehensive Plan is divided into two (2) components:

- **Volume I: Goals, Objectives, and Policies (GOPs)**
- **Volume II: Data, Inventory, and Analysis (DIA) Reports**

This is the "Comprehensive Plan: Volume I - GOPs" document, which must be formally adopted by ordinance by the City Council. The "Comprehensive Plan: Volume II - Data, Inventory, and Analysis (DIA) Reports" is a separately bound document and is used to provide supporting data and conclusions as the foundation for the Goals, Objectives, and Policies. The DIA section of the Comprehensive Plan is not formally adopted by the City Council.

The Goals, Objectives and Policies contained herein are organized into eleven (11) plan elements (chapters). Each element addresses an important aspect of land development and growth in North Miami including, but not limited to, future land use, transportation, housing, infrastructure, parks and recreation, public schools facilities, intergovernmental coordination, economic development and capital improvements. Nine of these elements are mandated by Chapter 163 F.S. and Rule 9J-5, and the other two (parks and recreation and economic development) are optional elements. The Future Land Use Element also contains the official Future Land Use Map (FLUM) for the City, and specific definitions for the various future land use categories are referenced in the FLUM. The City's official Zoning Map and Land Development Regulations must be consistent with the FLUM and accompanying land use category specifications contained in the Future Land Use Element.

The Comprehensive Plan for the City of North has been prepared in accordance with State requirements to encourage significant opportunities for public involvement throughout the process. These opportunities included City Council Visioning Workshops with public attendance and a Community Visioning workshop held to develop consensus for the long-range vision of the community. The topics for the workshops were: land use, parks and recreation, transportation, redevelopment, urban design, education, economic development, post-storm recovery, and conservation. The comments and recommendations from these workshops are incorporated throughout the Comprehensive Plan.

The intent of the Goals, Objectives, and Policies contained within this Comprehensive Plan is to provide the overall policy framework from which zoning and other land development regulations can be developed. Together, the Comprehensive Plan and implementing tools will ensure that the development patterns for future land uses within North Miami match the community vision and quality-of-life expectations of its residents.

The Comprehensive Plan was considered and approved by the Planning Commission (Local Planning Agency) on July 12, 2007, and the City Council on July 25, 2007, and then transmitted to the Florida Department of Community Affairs (DCA) for consideration pursuant to the rules and requirements under State law. The City received formal review comments from the DCA in their Objections, Recommendations, and Comments Report (ORC) dated October 9 2007. The recommendations from the State and their reporting review agencies are addressed in the final Comprehensive Plan formally adopted by the City Council Ordinance Number 1248 on December 11 2007.

NORTH MIAMI'S PLACE IN SOUTH FLORIDA

Approximately 23 percent of Florida's approximately eighteen million residents live in the State's two most populated counties - Miami-Dade and Broward. The City of North Miami is strategically located halfway between the two County seats, Miami and Fort Lauderdale.

Not only is the City well placed in terms of potential markets and labor pools, but in terms of accessibility. It lies adjacent to Interstate 95 (the major north/south highway), the Golden Glades Interchanges and N.W. 7th Avenue, all of which provide easy access to the rest of Miami-Dade and Broward Counties. Major transportation hubs include the Port of Miami, Miami International Airport, Broward County's major Air- and Sea-ports, and the Florida Turnpike.

Freight traffic is easily accommodated via the Florida East Coast railway line running through the heart of North Miami's Industrial Area. Projected expansions of the FEC railway to support commuter trains further linking Miami-Dade and Broward Counties, have not yet come to fruition.

Additionally, the City is served by numerous arteries including Federal Highway #I also known as Biscayne Boulevard, N.W. 125 Street, N.E. 6th Avenue, Federal Highway #44 1,N.E./N.W. 135 Street, West Dixie Highway and Broad Causeway. The latter is heavily utilized by residents of North Miami's two affluent bayfront neighborhoods, Keystone Point and Sans Souci, as well as residents of nearby Bal Harbour and Bay Harbour Villages.

The City, which boasts a population of 60,312 people living in a 9.98 square mile area, has struck a working balance between modernization, industrialization, and diversification on the one hand and an excellent residential environment on the other. Of the City's total land area; approximately 4 percent is allocated to commercial uses and approximately 3 percent to light industrial uses. With a growing population the City now plans to undergo redevelopment through initiatives from the newly created Community Redevelopment Agency (CRA). The creation of the CRA will assist in attracting new development at higher intensities that will likely spur economic development. Land use shifts in the City will also introduce mixed-use categories encouraging the creation of mixed-use downtown districts in the City.

Some History

North Miami can be traced back one hundred years to a settlement called Arch Creek. Historical sites such as the Arch Creek Natural Bridge link North Miami to its interesting past. By the turn of the century, Arch Creek was a flourishing rural

town where crops such as tomatoes, beans and pineapples grew abundantly. Visitors arriving at the Arch Creek train station discovered a one-room school, a church, and a narrow Main Street. From 18 homes then to more than 22,000 housing units now, North Miami continues to flourish. Newcomers today find nearly 20 houses of worship, public schools from elementary to university level, plentiful shopping and easy access to other parts of the region and the world.

North Miami's households are diverse in nature and size. Traditional families and single households co-exist harmoniously. The average household size is 2.85 according to the 2000 Census and the population's median age, for both men and women is 32. Regardless of whether they choose to rent or own, potential residents can select from a variety of housing choices, ranging from residences to condominiums, to apartments, to townhouses.

Services and Amenities:

The City offers much in services and amenities. The City-wide water, sanitary sewer, and storm drainage networks rank among the best in South Florida. The same is true for the City's garbage and trash collection system, free sidewalk maintenance programs, and extensive range and variety of recreational and educational facilities.

Excellent land-based and marine-based protection is provided to City residents by the North Miami Police Department, among the top ranked in Miami- Dade County. Additionally, a professional team of full-time Code Enforcement Officers work hard to ensure that the City's quality of life is maintained.

North Miami's recreational facilities and programs, run by the North Miami Parks and Recreation Department, have been the recipient of national awards attesting to their quality and high standards. The many facilities can be found in the Parks and Recreation Element included in this Comprehensive Plan. The City offers a variety of green spaces and is home to more than 20 passive and active parks, including the 1,033 acre Oleta River State Recreational Area.

The North Miami Athletic Stadium, a 5000 seat multi-purpose complex providing soccer and football fields for the high schools in the area, provides an Olympic quality running track.

Recreational programs range from supervised playground activities for young children to a variety of sports such as aquatics, athletics, football and soccer. There are special summer programs such as Summer Nature Camp and Aquatics Camp. Special interest and cultural events abound with weekend parades and festivals and monthly exhibits at the nationally recognized North Miami Museum of Contemporary Art (MOCA).

The North Miami Library has a collection of approximately 120,624 total volumes of print and non-print material. In addition, the library offers a variety of programs

to serve the residents and business community. These include: lectures, classes, films on specific topics, books by mail for the homebound of all ages. The Library literacy collection is used extensively by tutors and their students. A 60,000 sq. ft expansion is planned for the North Miami Library, partly funded by the developers of the Biscayne Landing development.

There is a wealth of educational opportunities in the City ranging from elementary to university level. In fact, North Miami is one of the cities in the Miami-Dade and Broward region which has a State university campus within its corporate boundaries. The City's educational facilities include four elementary schools, a middle high school, a senior high school, two charter schools, eight private schools, the North Miami Campus of Florida International University (FIU), and Johnson and Wales University. FIU offers both undergraduate and graduate programs and contains a major library facility, classrooms, residential housing, Olympic-sized swimming pool, tennis courts, and is renowned and ranked nationwide for the quality of its hotel management program. The City is also home to Johnson and Wales University.

Also within easy reach are Miami-Dade Community College, one of the largest community colleges in the nation, Barry University, St. Thomas University, which includes a Law School with, among others, an International Law program, and Florida Memorial College, one of the oldest universities and historically Black colleges in the State of Florida.

The residents of North Miami and neighboring areas also have access to quality health care. Within its boundaries lie Villa Maria, a facility, State renowned for its quality, which offers nursing home and rehabilitative services to the elderly. Additionally, the North Miami Health Center, a hospital facility which provides a full range of services on the premises, including pediatrics, obstetrics, psychiatry and an excellent substance abuse control program, is located just outside of the City limits.

Conclusion

The City of North Miami, incorporated in 1926 as the Town of Miami Shores, and once one of the fastest-growing cities in the country, is a modern and vibrant community. The City has undergone important demographic, social, and economic changes, challenging local planners and officials to address new needs and demands. The purpose of this document is to ensure the City's unique qualities are preserved and to guide the development of programs that will improve those areas requiring attention. Implementation of this Comprehensive Plan will help to mitigate the efforts of projected population increases and changes in make-up and to meet the rising expectations of the population, making use of the available physical, social, and cultural resources.

STATEMENT OF LEGISLATIVE INTENT

This Statement expresses the legislative intent of the City Council of the City of North Miami with regard to the Comprehensive Plan. It is applicable to the City of North Miami Comprehensive Plan in its entirety and is declared to be incorporated by reference in each element thereof.

1. Nothing in this Comprehensive Plan shall be construed or applied to constitute a temporary or permanent taking of private property or the abrogation of vested rights as determined to exist under applicable law.

2. Nothing in this Comprehensive Plan shall be construed or implied to constitute an abrogation or removal of any private, regulatory, or governmental covenant or special condition in affect on any private or public property located within the City of North Miami.

3. This Comprehensive Plan is intended to set general guidelines and principles concerning its purposes and contents. The Plan is not a substitute for specific implementation mechanisms that are contained in the City of North Miami's Land Development Regulations (LDR).

4. The City Council recognizes that any application for development approval may bring into conflict and necessitate a choice between different goals, objectives, policies, priorities, and provisions of the Plan. While it is the intent of the City Council that the Future Land Use Element be afforded a high priority, other elements must be taken into consideration given the City Council's responsibility to provide for the multitude of needs of the City's growing and diverse community. Recognizing that the City Council and City agencies will be required to balance competing Goals, Objectives, and Policies of this Plan, the primary intention of the Comprehensive Plan is to protect the public health, safety and welfare.

5. The terms "shall" and "will" are construed as mandatory in this Comprehensive Plan, subject, however, to this Statement of Legislative Intent. The term "should" is construed as directory and not mandatory. Wherever implementation responsibility is not explicitly stated within a particular objective or policy in this Plan, that responsibility lies with the City of North Miami to the extent that the objective or policy specifies implementation.

EAR-Based Comprehensive Plan Amendments

Volume I: Goals, Objectives, and Policies
Future Land Use Element

1. Future Land Use Element

GOAL 1

Encourage redevelopment in order to enhance the economic base of the City, improve the aesthetic quality of the built environment and provide a range of housing and employment opportunities to accommodate, serve and employ the projected population, while protecting established single family neighborhoods.

Future Land Use

Objective 1.1

Establish land use designations that guide redevelopment through transit oriented development urban form principles, densities and intensities along major roadway corridors, which are NW 7th Avenue; NE 6th Avenue; Dixie Highway; Biscayne Boulevard; NE 125th/123rd Street; and, NE 135th Street.

Monitoring and Evaluation:

- Creation and adoption of new Land Development Regulations by December 2009.

Policy 1.1.1

The following land use categories are established, with corresponding intensity standards.

Nonresidential intensity standards are expressed in terms of heights and lot coverage. Lot coverage is the percentage of a lot that can be occupied by the footprint of a building, excluding parking structures. The purpose of the lot coverage standard is to quantify maximum buildable floor area for the purpose of analyzing the potential impact of future land use plan map amendments.

Residential intensity is expressed in terms of densities (du/ac). Nonconforming densities and intensities and are subject to the provisions of Policy 1.1.7:

USE	MAXIMUM DENSITY	MAXIMUM LOT COVERAGE	MAXIMUM HEIGHT (ft) or FAR
RESIDENTIAL LOW	5.1 du/ac	n/a	35 ft
RESIDENTIAL LOW-MEDIUM	12 du/ac	n/a	40 ft.
RESIDENTIAL MEDIUM	16.3 du/ ac	n/a	75 ft
RESIDENTIAL HIGH	25 du/ ac	n/a	110 ft*
RESIDENTIAL OFFICE	n/a	85%	35 ft.
COMMERCIAL/OFFICE	n/a	85%	55 ft
MIXED USE LOW**	25 du/ ac	85%	55 ft
MIXED USE MEDIUM**	40 du/ ac	85%	75 ft

USE	MAXIMUM DENSITY	MAXIMUM LOT COVERAGE	MAXIMUM HEIGHT (ft) or FAR
MIXED USE HIGH**	45 du/ ac, up to 60 du/ac	85%	110 ft; 130 ft w/ incentives
NEIGHBORHOOD REDEVELOPMENT OVERLAY (NRO) & CENTRAL CITY DISTRICT NODE	See Policy 1.12.1	100%, subject to Policy 1.12.4	90 ft; 110 ft w/ incentives, except in Node: 110 ft; 130 w/ incentives
REGIONAL ACTIVITY CENTER (RAC)	Per underlying plan designations (See Policy 1.13.12.2	Per underlying plan designations (See Policy 1.13.12.2	Per underlying plan designations (See Policy 1.13.12.2
INDUSTRIAL	n/a	75%	55 ft
COMMUNITY FACILITIES, EXCEPT FOR UNIVERSITIES	n/a	75%	55 ft
INSTITUTIONAL	n/a	75%	110 ft
UTILITIES	n/a	100%	n/a
OPEN SPACE/RECREATION Principal buildings, structures (ex: gymnasium) Accessory buildings, structures (ex: restrooms, concessions)	n/a n/a	n/a n/a	2.0 FAR for site or portion thereof devoted to principal building or structure .10 FAR
WATER	n/a	n/a	n/a
CONSERVATION	n/a	n/a	n/a
WETLANDS	n/a	n/a	n/a

Note: Industrial uses within the Industrial land use classification shall be limited to 55 feet in height. As stated in the Permitted Uses section of this Comprehensive Plan, mixed uses are permitted within the Industrial land use designation. Mixed uses within the Industrial land use classification shall be limited to the density/intensity and height specified for the Mixed Use High land use designation.

* Any residential use category immediately north of the Village of Biscayne Park (121st Street boundary), may not exceed their current entitlement and is subject to strict design standards further established in Permitted Uses section of this Element.

Policy 1.1.2

By December 2009, the City shall adopt revised Land Development Regulations establishing zoning districts that implement the adopted Future Land Use Map designations, including, corresponding intensity, density, use and urban form standards. The Land Development Regulations shall require buffering and/or compatible transitions between single family neighborhoods and higher intensity uses through regulation of building scale, design, building placement, open space, and use.

Policy 1.1.3
The densities and intensities set forth in this Future Land Use Element cannot be changed without the concurrence of a supermajority of the City Council.

Policy 1.1.4
By December 2009, the City shall adopt regulations in the Land Development Regulations that establish the maximum impervious areas allowed.

Policy 1.1.5
By December 2009, adopt regulations in the Land Development Regulations that support and implement the City's housing policies and programs.

Policy 1.1.6
The City shall ensure facilities and services are available to serve proposed redevelopment through its concurrency management system.

Policy 1.1.7
In the event of partial or total destruction of any lawfully existing structure exceeding the maximum height or density contained in Policy 1.1.1, the structure may be restored or reconstructed to its original height and density upon a finding by the City Council that the structure, as rebuilt, would be consistent with the intent of the Comprehensive Plan. In addition, any project, building or structure previously approved by the City Council, through the adoption of any resolution or ordinance, shall be vested in its right to be developed at its previously approved height and/or density, notwithstanding the maximum heights or densities contained in Policy 1.1.1.

Policy 1.1.8
The City shall study the feasibility of adopting an Accessory Dwelling Unit Ordinance by December 2009 to address overcrowding and to increase the availability of affordable housing for extremely low income, very low income, low income, or moderate income persons, in the retention of existing accessory dwelling units consistent with the intent of Florida Statute 163.31771.

Policy 1.1.9
The City shall utilize the Neighborhood Redevelopment Overlay to encourage the creation of a range of housing options to accommodate future growth.

Policy 1.1.10
The City shall conduct a study by December 2008 to determine the feasibility of annexing unincorporated County owned properties that are contiguous to the City's boundaries and currently utilize the City's water and sewer services.

Transit-Oriented Development

Objective 1.2

The City shall aim to implement the recommendations of the 2005 Transit Oriented Development Study to create a pedestrian environment to reduce automobile dependence and encourage utilization of alternative modes of transportation.

Monitoring and Evaluation:

- Commencement of corridor plans by December 2008.
- Adoption of land development regulations that establish urban development and design standards.
- Adoption of land development regulations that establishes a Transit Oriented Development Master Plan with the creation of a TOD Overlay District inclusive of the RAC recommendation, by Ordinance with incentives to encourage the provision of alternate modes of transportation.

Policy 1.2.1

By December 2008, the City shall implement applicable strategies from the Transit Oriented District Master Plan and incentives for achieving transit oriented development along designated corridors. One such strategy may be the dedication of easements to provide for adequate sidewalk width and the placement of bus shelters to promote mass transit.

Policy 1.2.2

By December 2008, the City shall commence preparation of corridor plans for NE 6th Avenue; Dixie Highway; NE 135th Avenue; and, NE 125th Street from Biscayne Boulevard to NE 10th Avenue. The preparation of the corridor plans shall be coordinated with the recommendations of the Transit Oriented District Master Plan.

Policy 1.2.3

The City shall take active measures to discourage the overhead placement of major transmission lines along the City's major roadway corridors.

Land Development Regulations

Objective 1.3

The City's Land Development Regulations (LDR) shall provide clear guidance on land development and conform to comprehensive plan goals, objectives and policies.

Monitoring and Evaluation:

- The LDR should reflect updated Comprehensive Plan policies by December 2009.

Policy 1.3.1

The Land Development Regulations shall allow for a clear and easy-to-follow development review process.

Policy 1.3.2
Prior to approval of plans for new development or redevelopment, the City shall review for compliance with all applicable regulations including Cone of Influence land use restrictions and applicable environmental regulations.

Policy 1.3.3
Prior to issuance of permits for new development and redevelopment projects, the City shall ensure that measures for the protection of affected natural resources are provided for.

Policy 1.3.4
Implement the adopted impact fees ordinance through land development regulations requiring land dedication or payment of park impact fees in order to maintain the adopted LOS standards for Parks and Recreation.

Policy 1.3.5
Places of worship are allowed in all land use categories on the FLUM; however, the Land Development Regulations shall establish compatibility measures where places of worship are located within or adjacent to residential neighborhoods.

Policy 1.3.6
Home occupations may be approved in all residential land use categories as a special exception use provided the activity is secondary and incidental to the primary residential use, maintains a residential appearance, does not adversely impact the surrounding neighborhood and complies with all other applicable criteria contained in the City's Land Development Regulations.

Policy 1.3.7
Community residential homes shall be permitted as provided in Chapter 419 of the Florida Statues. Congregate living facilities, group homes, nursing homes facilities and similar facilities shall be allowed in all residential land use categories provided they are consistent with the maximum allowable density of the Future Land Use Map and the LDR. A maximum of 2.5 occupants in these types of facilities shall be considered one (1) dwelling unit for purposes of determining allowable density.

Policy 1.3.8
All lawful existing land uses are deemed to be compatible with this Future Land Use Element provided such uses are in full compliance with their respective valid development orders and approvals, and the use does not cause substantial public harm, as determined by the City Council. In addition, currently valid development orders, development permits and vested rights approvals are also deemed to be compatible with this Future Land Use Element provided they have and maintain valid concurrency/capacity reservations for all required public facilities, including roadways, and the proposed use will not cause substantial public harm, as determined by the City Council.

Policy 1.3.9
The City shall examine the possibility of an inclusionary zoning ordinance, mandating the creation of affordable housing units in proposed developments or providing options such as payment in lieu of, with fees payable to a Housing Trust Fund established for the creation of affordable housing units in the City.

Policy 1.3.10
The City shall consider the feasibility of a linkage program, commissioning a study to analyze the effects of the employment sector in increasing the need for additional housing.

Urban Design

Objective 1.4
The City shall identify methods of creating a sense of place and encourage citywide implementation of urban design guidelines.
Monitoring and Evaluation:

- Adopt urban design guidelines by December 2009.
- Adopt regulations that regulate urban form along major corridors b 2009.
- Explore the feasibility of the creation of a North Miami Public Art Program in the Arts Overlay District by July 2008.
- By 2009, conduct a feasibility study on burying all utility lines.
- Adoption of corridor plans that address streetscape improvements.

Policy 1.4.1
By December 2009, the City shall adopt guidelines for unified urban design, architectural, and landscape regulations for major corridors to further assist in creating a sense of place throughout the City. During the creation of the urban design guidelines, the City should consider the use of Universal Design in new construction, residential rehabilitation and remodeling to simplify life for everyone by installing products, and making the built environment more usable by as many people as possible and to benefit people of all ages and abilities.

Policy 1.4.2
The City should create an Urban Design and Architecture Review Board to implement the urban design guidelines developed for the City, ensuring conformity of development and redevelopment to said guidelines.

Policy 1.4.3
Parks, plazas, pedestrian access, civic and cultural activities and amenities shall be employed along major corridors including the Neighborhood Redevelopment Overlay.

Policy 1.4.4
The City should explore the feasibility of a North Miami Public Art Program in the Arts Overlay District using grants, County funds or development impact fees and public art requirements in development and redevelopment initiatives.

Policy 1.4.5
The City shall enhance way finding markers in the City by providing gateway and entrance features to announce arrival into the City.

Policy 1.4.6
By December 2009, the City shall develop sign regulations that specifically address mixed use developments.

Policy 1.4.7
By December 2009, the City should conduct a feasibility study on burying all utility lines.

Policy 1.4.8
By December 2009, the City shall address landscape and streetscape requirements as it applies to the beautification of the City and existing development and redevelopment.

Policy 1.4.9
The City should enhance and promote the Arts Overlay District with the Museum of Contemporary Art as the anchor.

Policy 1.4.10
By December 2010 the City will coordinate with the South Florida Regional Planning Council to identify opportunities for North Miami to participate in the State Road 7 collaboration process.

Community Redevelopment

Objective 1.5
The City shall utilize the adopted Community Redevelopment Agency Plan, as may be amended, to guide the redevelopment of identified urban infill areas, especially within the Neighborhood Redevelopment Overlay, to promote economic revitalization of blighted neighborhoods.

Monitoring and Evaluation:

- The preparation of a land assembly methodology by December 2010.
- Implementation of a financial and relocation strategy for businesses located in the Neighborhood Redevelopment Overlay by July 2010.
- The completion of a feasibility study for a Creative Arts center or theater in the City Arts District by December 2010.
- This objective shall also be measured by the implementation of its policies.

Policy 1.5.1
By 2010, the City shall assist the Community Redevelopment Agency (CRA) to prepare a methodology for land assembly to achieve goals described in the Community Redevelopment Agency Plan, as amended.

Policy 1.5.2
The City should utilize market studies of the redevelopment area that reflect real estate market demands to determine future land use changes in the Community Redevelopment Area. The market study shall also evaluate whether the height limits within the City are appropriate for the recommended target businesses.

Policy 1.5.3
The City should encourage the creation of a financial strategy to strengthen businesses in Neighborhood Redevelopment Overlay and develop incentives for the retention and attraction of businesses in said district.

Policy 1.5.4
The City should encourage the creation of a displacement plan in accordance with the Federal Uniform Relocation Assistance and Real Property Act as related to the City and CRA policies.

Policy 1.5.5
By December 2010, the City should conduct a feasibility study for the creation of a Creative Arts center or theater in the City Arts District.

Policy 1.5.6
By January 2010, the City shall establish streamlined development review procedures for timely development in the Community Redevelopment Area in accordance with the adopted Land Development Regulations.

Policy 1.5.7
The City shall facilitate development in the CRA to promote mixed-use development, encourage mass transit, reduce the need for automobile travel, provide incentives for quality development and give definition to the urban form. A principal means of implementing this Policy shall be the creation of the Neighborhood Redevelopment Overlay, the Transit Oriented Development Overlay District, and its implementing land development regulations and programs.

Policy 1.5.8
The City shall continue to identify areas of slum and blight in the community, and rank these areas in order of priority, and develop a schedule which will ensure all such areas are studied and solutions are identified.

Policy 1.5.9
The City should encourage the use of Crime Prevention Through Environmental Design (CPTED) standards in the redevelopment of the City, enhancing the safety of the City and limiting design factors which abet crime.

Policy 1.5.10
Encourage mixed use developments along NW 7th Avenue that incorporate Transit Oriented Development and green design standards that enhance both the aesthetic and economic vitality of the NW 7th Avenue corridor and help to create a sense of place.

Policy 1.5.11
Prior to the establishment of passenger rail service on the FEC Railroad line, the City shall consider amendments to the Comprehensive Plan that would allow mixed use redevelopment of lands currently designated Industrial and located adjacent to the railroad.

Parking

Objective 1.6
The City shall provide for efficient and attractive parking areas to enhance the economic environment and protect neighborhood character.

Monitoring and Evaluation:
- The creation of a Parking Master Plan by December 2009.
- This objective shall also be measured by the implementation of its policies.

Policy 1.6.1
By December 2009, the City shall conduct a parking study to assess parking needs citywide and create an inventory of existing parking facilities in the City and include recommendations for future parking and suggested locations.

Policy 1.6.2
The City shall develop a Parking Master Plan by December 2009 with the intention to:

1. Utilize, to the maximum extent feasible, the joint use of parking among land use types in residential and business areas.
2. Design parking areas for existing and future neighborhoods and business use that are safe, attractive and space efficient.
3. Construct parking areas and structures to support downtown businesses and mixed-use developments.

Policy 1.6.3
The City should implement the recommendations of the Transportation Master Plan by encouraging parking management strategies such as metered parking, shared use parking including time restrictions, and establish regulations for mixed-use and multi-family developments to reduce the need for additional parking structures in the Neighborhood Redevelopment Overlay and the Central City District.

Neighborhood Planning

Objective 1.7
The City shall maintain and continuously improve neighborhoods through effective code enforcement, community outreach and implementation of neighborhood beautification programs.

Monitoring and Evaluation:

- Bring 85 percent of code violations into voluntary compliance by December 2009.
- By June 2008, appoint a member of City staff to act as a Neighborhood Improvement Coordinator.

Policy 1.7.1
The City should appoint a staff designee as a Neighborhood Improvement Coordinator to ensure that issues and concerns from all neighborhoods have been properly documented and expressed.

Policy 1.7.2
The City should encourage equal access to its residents and encourage participation in community activities from disenfranchised neighborhoods, to ensure that all residents are well represented in affairs affecting the City.

Policy 1.7.3
The City should develop a Community Aesthetics program in conjunction with the City's Code Enforcement department to enforce appropriate standards for maintenance, appearance and occupancy of residential areas.

Policy 1.7.4
The City should maintain a minimum ratio of one code enforcement officer for every square mile of developed property.

Policy 1.7.5
The City appointed designee shall implement a neighborhood beautification program, "Keep North Miami Beautiful" to organize volunteers to assist elderly and disabled homeowners in property improvement and maintenance. In conjunction with this program, the City shall also encourage residents to clear litter and trash from vacant lots, improve dilapidated buildings and decrease the number of abandoned and old car bodies located on individual lots.

Policy 1.7.6
The City shall strengthen the social fabric of its neighborhoods by supporting community policing and community watch organizations to reduce opportunities for criminal activity.

Policy 1.7.7
The City should utilize neighborhood design standards as adopted in the land development regulations to enhance neighborhood preservation.

Hurricane Evaluation and Disaster Preparedness

Objective 1.8

The City shall coordinate with Miami-Dade County, the South Florida Regional Planning Council and the State of Florida in addressing the evacuation, structural integrity and disaster-preparedness needs of North Miami.

Monitoring and Evaluation:

- By January 2009, the City shall develop an Emergency Plan.

Policy 1.8.1

The City shall coordinate with the Miami-Dade County and the South Florida Regional Planning Council in implementing the approved Local Mitigation Strategy, by assessing the vulnerability of governmental, medical and public safety sites and structures in the City to storm damage, and in developing an action plan, if necessary, to address wind stability and flood protection for key buildings.

Policy 1.8.2

The City shall continue to work with Miami-Dade County to ensure that City employees are well-trained in the programs, procedures and policies required during a disaster emergency and the longer-term post-disaster redevelopment process.

Policy 1.8.3

The City should undertake a study to consider alternate methods for maintaining traffic signals and cellular phone service after storms.

Policy 1.8.4

By January 2009, the City should develop a City Emergency Plan addressing disaster-preparedness, hurricane evacuation, and post-disaster redevelopment plans, procedures and personnel duties.

Policy 1.8.5

All proposed large-scale amendments to this Comprehensive Plan and/or zoning applications shall be evaluated for their impact on hurricane evacuation routes and times, and effect on currently available off-site shelter capacities. Roadway improvements and shelter improvements shall be required, if deemed necessary, to mitigate negative impacts and phased with new residential development.

Environmental Sustainability

Objective 1.9

To preserve the existing environment by encouraging and requiring native plants and green space in development and redevelopment projects and to encourage the use of alternative fuels in City owned vehicles.

Monitoring and Evaluation:

- The creation of an approved plant list by July 2010.

Policy 1.9.1
By July 2010, the City shall amend its LDR to include an approved plant list and prohibit the planting of exotic invasive species in new development and redevelopment projects.

Policy 1.9.2
Include in the LDR appropriate regulations to properly address local topography, flooding frequency, soil and other applicable environmental conditions in development approvals. In addition, provide for adequate drainage and stormwater management, open space, vehicle parking and safe, convenient on-site traffic flow.

Policy 1.9.3
Ensure that a variety of parks, recreation, and open space facilities area available to City residents.

Policy 1.9.4
The City should consider investing in a fleet of fuel efficient cars to carry out the daily tasks of the City while being as energy and fuel efficient as possible.

Green Building and Sustainability

Objective 1.10
To encourage sustainable development throughout the City and implement green building requirements for development and redevelopment projects to reduce energy usage, landfill waste and emissions, create a healthy indoor environment, conserve building materials and resources, and promote water efficiency.

Monitoring and Evaluation:

- Adoption of minimum LEED design and construction standards, and/or any nationally recognized green standards acceptable to the City, by December 2009.

Policy 1.10.1
By December 2008, the City shall adopt minimum requirements in its LDR for sustainable development by implementing nationally recognized green standards acceptable to the City, such as the standards of the Leadership in Energy and Environmental Design (LEED) green building rating system as adopted by the U.S. Green Building Council; and address all resource constraints that may be applicable to its implementation.

Policy 1.10.2
The City shall consider the feasibility of providing tax incentives, reduced parking requirements, density and height bonuses or expedited permitting for buildings

proposing to be built under LEED standards, especially for buildings proposed on the tiered LEED levels of Platinum, Gold or Silver; and/or any nationally recognized green standards acceptable to the City.

Policy 1.10.3
The City shall require all newly developed public buildings in the City to be designed and constructed to the standards of LEED Silver and all City funded projects to be at a minimum LEED Certified and/or to any nationally recognized green standards acceptable to the City.

Policy 1.10.4
The City should prepare an ordinance in coordination with the CRA requiring all buildings in the redevelopment area to have LEED certification, with an allowance for exception in cases of undue hardship, as determined by the City Council.

Policy 1.10.5
The City should consider the applicability of other green building standards, such as standards of the Florida Green Building Coalition, to create an ordinance unique to the City of North Miami encompassing the requirements of Objective 1.10.

Schools and Collocation with Public Facilities

Objective 1.11
To assist the Miami-Dade County School Board and respective local charter school developers in providing high-quality elementary, secondary and college level education facilities and resources necessary to meet the future needs of North Miami's youth and adult population.

Monitoring and Evaluation:
- This objective shall also be measured by the implementation of its policies.

Policy 1.11.1
The City shall ensure that public schools are allowed in all land use categories shown on the adopted Future Land Use Map and all zoning districts contained in the LDR.

Policy 1.11.2
As provided for in the Interlocal Agreement between North Miami and the Miami-Dade County School Board, the City will work with the School Board to plan future public school sites in the City and ensure adequate lands are available, proximate to neighborhoods, to accommodate the present and future student population of the City.

Policy 1.11.3
The City should utilize all feasible opportunities to collocate public facilities, such as parks, libraries, recreational and community centers, with schools.

Policy 1.11.4
Consistent with the provisions of the Interlocal Agreement between North Miami and the School Board, the City will consider the individual and cumulative impacts of land use plan amendments and rezoning applications that increase residential density on existing and planned public elementary and secondary schools, and solicit input from the Miami-Dade County School Board on local school impacts prior to the hearings for subject amendments or applications.

Policy 1.11.5
The City will provide expedited development review process for all proposed schools within North Miami.

Policy 1.11.6
As part of the Interlocal Agreement between North Miami and the School Board, the City shall establish a joint process for collaborative planning and decision-making on population projections and public school siting to accomplish coordination between the City's adopted Comprehensive Plan and the long range plans of the School Board.

Policy 1.11.7
The City will encourage universities, colleges and non-profit education providers to establish college-level and adult education facilities in North Miami.

Policy 1.11.8
The City will work closely with the Miami-Dade County School Board to investigate methods to apply to the development approval stage to ensure that charter schools in the City remain in operation, or if forced to close, an alternative plan is triggered to make sure the quality and size of the school is replicated in another nearby location.

Policy 1.11.9
The City shall encourage the creation of educational campus development plans and to the extent feasible ensure that plans are consistent with urban design guidelines and uses as outlined in the Future Land Use Map.

Neighborhood Redevelopment Overlay

Objective 1.12
The Neighborhood Redevelopment Overlay (NRO) shall be designated as the City's urban core, and the City shall direct growth into the Overlay area in a manner that will achieve the redevelopment, economic development, housing choice, and multi-modal transportation objectives and policies of the Comprehensive Plan.

Monitoring and Evaluation:

- Creation of new Land Development Regulations, to specify in detail how following policies of Redevelopment Overlay shall be implemented, by December 2009.

Policy 1.12.1
The maximum allowable development within the NRO shall be governed by the future land use plan map designations therein, and as follows:

1. A pool of 1,800 floating dwelling units and 375,000 s.f. of commercial use are reserved for the Central City District (CCD) Node. A pool of 2,200 floating dwelling units and 375,000 s.f. of commercial use is established for use anywhere within the NRO. This pool may be used to facilitate mixed-use development, and either higher intensities or additional land uses that are not permitted by the underlying map designations.
2. A secondary pool of 1,000 unassigned dwelling units is established within the NRO. Potable water supply and treatment capacity limitations necessitate that the potable water supply reserved for the secondary pool of dwelling units may be allocated to land use plan amendments in the remainder of the City for additional redevelopment. For each additional dwelling unit approved via plan amendment outside of the NRO, one dwelling unit shall be debited from the secondary pool.
3. The maximum permitted height within the CCD Node shall be 110 feet, with additional 40 feet for following policies contained under Objective 1.2 and 1.10; 90 feet in other locations within NRO with additional 40 feet for following policies contained under Objective 1.2 and 1.10, subject to the intensity transition policies herein.
4. Permitted uses within mixed-use, residential, commercial and community facility categories are allowed in this district. Density may not exceed 90 du/ac depending on availability of floating units.

Policy 1.12.2
Mixed-use shall be encouraged along the main corridors within the NRO, namely Dixie Highway, 125th Street and NE 6th Avenue. To this end, the land development regulations shall specify ground floor design to accommodate retail, service and entertainment uses.

Policy 1.12.3
Mixed-use is required within the CCD Node, wherein ground floor uses shall be limited to commercial retail, service or entertainment, and upper floors shall contain at least one additional use. All buildings on lots with main corridor frontage shall contain at least two fully inhabitable floors.

Policy 1.12.4
A minimum of 20 percent district-wide open space shall be provided within the NRO. Such open space shall be usable by the general public in the form of parks, plazas, pocket parks and other urban open space types as shall be defined in the land development regulations. Landscaped areas that are not part of a park or plaza shall not count towards required open space. Water area may count towards required open space if located within a park, plaza or other open space recognized by the land development regulations.

Policy 1.12.5
Off-site open space provision is allowed. To this end, several small, triangular-shaped parcels along Dixie Highway that are unsuitable for intense development should be utilized for open space purposes to the extent feasible.

Policy 1.12.6
Properties in the redevelopment area that do not front any of the main corridors shall be developed according to transition area regulations of the land development regulations, which shall be guided by the transition principles herein. Transition areas shall occur between the more intense mixed use and commercial corridors and existing low-density residential neighborhoods.

Policy 1.12.7
The City should consider adopting form-based land development regulations that specify acceptable transitions within the NRO. Form-based regulations prescribe certain aspects of building placement, spacing, building mass, types of building frontages, parking location, and access in order to affect a specified development pattern. Form-based regulations may be the tool used to manage the transition between high intensity structures and outlying single family residential neighborhoods.

Policy 1.12.8
Guiding principles for transition zones shall include the following:

1. Orderly transition from higher to lower buildings to protect the character of existing single-family neighborhoods outlying the NRO.
2. North-South corridors should be treated with architectural and massing consistency, such that each north south corridor has an identity.
3. Generally, for east-west transitions, avenues should be used to separate multiple-family dwellings from single-family neighborhoods, rather than mid-block transitions. Lots fronting avenues, however, should be treated equally on both sides.
4. North-south transitions should occur along the latitudinal centerline of the block, so that both sides of any given street are treated similarly.
5. Acceptable transitions adjacent to single-family neighborhoods outlying the NRO should be single-family detached and attached dwellings, two-family dwellings made to appear as single-family detached dwellings, and multiple-family dwellings that appear as single-family attached dwellings. Buildings adjacent to single family residential neighborhoods outlying the NRO should be no higher than three floors. When abutting a single-family residential lot outlying the NRO, yards and setbacks along the common lot line should be equal to or greater than that of the single-family lot. Landscaped alleys may also be used to accomplish the setback and provide separation.
6. Appropriate transitional uses between main corridors and single-family neighborhoods outlying the NRO shall include office, gallery, studio, compatible and small-scale community facilities, multiple-family residential and attached single-family residential

Policy 1.12.9
Parking requirements may be reduced for mixed-use buildings within the NRO and CCD Node. Land development regulations shall specifically address the reduction. Shared parking between adjoining buildings or off-site parking and centralized parking should be allowed.

Policy 1.12.10
The City and CRA should coordinate efforts to provide public parking as an incentive to encourage redevelopment.

Policy 1.12.11
Safe and secure bike parking should be required. Well lit and shaded bus stops should be provided. Motorcycle parking may be provided in lieu of some car parking spaces.

Policy 1.12.12
All redevelopment shall be sensitive to the community character enhancement, specifically transit and pedestrian friendliness. Interconnected sidewalks and shade from shade trees, awnings, canopies or other shading devices are paramount.

Permitted Uses in Future Land Use Categories

Objective 1.13
Land use categories are further defined as follows:

Policy 1.13.1
RESIDENTIAL
The areas designated Residential on the Future Land Use Map are intended primarily for residential dwellings, but other land uses related to a residential environment, including schools and places of worship, may also be appropriate.

Uses permitted in areas designated residential are as follows:

1. Residential dwelling units, subject to the limitation for a parcel as shown on the Future Land Use Map, and subject to the density and intensity limitations set forth in Policy 1.1.1. Subject to unit availability per Policy 1.12.1, low-medium, medium and high density residential designations may allow a density bonus not to exceed an additional 25 du/ac if developed in accordance with the policies contained under objectives 1.2 and 1.10 as further defined in the City's Land Development Regulations. Developments within the NRO are subject to the density and height bonuses in accordance with the policies contained under Objective 1.12 as further defined in the City's Land Development Regulations.

2. Nonprofit neighborhood social and recreational facilities.
3. Home occupations that are listed as permitted uses in the LDR conducted with mail, telephone and computer use only, with no customers, clients or employees on site at any time.
4. Active and passive parks.
5. Community facilities, such as schools, places of worship, in-home child and adult day care, nursing homes, governmental administration, police and fire protection facilities, and libraries.
6. Ancillary uses and activities such as clubhouses and private restaurants owned by a homeowners' association, neighborhood community centers, small daycare centers, low-impact public facilities and utilities, and parks and recreational facilities.

7. Small-scale public facilities and utilities intended to serve the immediate needs of the residential community may be permitted on compatible sites in all residential land use categories subject to adequate design and buffering as determined by the City.

Restriction on Height:

1. Buildings and structures immediately north of the Village of Biscayne Park (121st Street boundary), shall not exceed 35 feet in height, for the first 100 feet north of 121st Street. Thereafter the height may increase at the rate of one foot vertical for every two feet horizontal, not to exceed the maximum height allowed by the underlying land use designation.

Policy 1.13.2
COMMERCIAL/OFFICE
The areas designated Commercial/Office on the Future Land Use Map are intended to provide land area for business, office, retail, service and other commercial enterprises.

1. Retail uses, including restaurants.

2. Office and business uses.

3. Professional offices and businesses.

4. Community facilities such as schools, museums, places of worship, child and adult day care centers, nursing homes, governmental administration, police and fire protection facilities, and libraries.

5. Passive parks and open space.

6. Nonprofit neighborhood social and recreational facilities.

Restriction on Height:

1. All developments fronting on the Biscayne Boulevard commercial corridor beginning at NE 123rd Street north to NE 135th Street shall maintain a maximum height of 55 feet and all future land use amendments shall conform to the 55 ft. height restriction subject to LDR as further defined.

Policy 1.13.3
CENTRAL BUSINESS COMMERCIAL
Permitted uses shall be the same as Commercial/Office designation.

Policy 1.13.4
MIXED USE
The areas designated Mixed Use on the Future Land Use Map are intended to provide a mix of uses that will encourage pedestrian activity, by providing retail uses to serve the residential population. Mixed uses shall contain no ground floor residential uses.

Uses permitted in areas designated Mixed Use are as follows:

1. Residential dwelling units, subject to the limitation for a parcel as shown on the Future Land Use Map, and subject to the density and intensity limitations set forth in Policy 1.1.1. Mixed use low, medium and high may allow an additional density bonus not to exceed15 du/ac, if developed in accordance with the policies contained under Objective 1.2 and 1.10 as further defined in the City's Land Development Regulations. A minimum of 75 percent of the ground floor gross area of a development in the Mixed Use land use designation shall contain retail uses. Mixed use development within the NRO or CCD Node are subject to the density and height bonuses in accordance with the policies contained under Objective 1.12 as further defined in the City's Land Development Regulations.
2. Commercial and office uses, subject to the limitation for a parcel as shown on the Future Land Use Map, and subject to the density and intensity limitations set forth in Policy 1.1.1.
3. Home occupations that are conducted with mail, telephone and computer use only, with no customers, clients or employees on site at any time.
4. Hotels and similar lodging. The number of lodging units permitted on a parcel shall not exceed double the number of residential units permitted (50 units per acre in Mixed-Use Low, 80 units per acre in Mixed-Use Medium and 120 units per acre in Mixed-Use High). Residential use, commercial or office use that is not intended for, or restricted to, hotel guests, must comprise at least ten percent of a lodging development. Examples of uses intended for, or restricted to, use by guests include ballrooms, informal poolside bars and grills, business centers, and hotel gift shops.

5. Community facilities designed to serve the residential area, such as schools, museums, places of worship, child and adult day care centers, nursing homes, hospitals, governmental administration, police and fire protection facilities, and libraries.
6. Active and passive parks and open space.
7. Non profit neighborhood social and recreational facilities.
8. Planned Unit Development (PUD)

Policy 1.13.5
INDUSTRIAL
The Industrial land use designation shall be applied only to those lands proximate to the FEC Railway. The Industrial designation is designed to provide areas for light and heavy industrial uses and, because of its proximity to the FEC Railway, mixed uses.

Uses permitted in areas designated Industrial are as follows:

1. Light and heavy industrial uses.

2. Education, scientific and research facilities, research laboratories, and medical or dental laboratories.

3. Wholesaling.

4. Office uses.

5. Governmental administration, and police and fire protection facilities.

6. At such time that commuter ridership is programmed on the FEC Railway lines, Mixed Use-High as described in Policy 1.1.1 and subject to the uses permitted under the Mixed Use land use designation.

7. Parks and open space.

8. Nonprofit neighborhood social and recreational facilities.

9. Entertainment.

Policy 1.13.6
COMMUNITY FACILITIES
The Community Facilities land use designation is intended to provide a full range of community uses to serve the City's population.

Uses permitted in the Community Facilities designation are as follows:

1. Community Facilities uses such as schools, places of worship, hospitals, governmental administration, police and fire stations, libraries,

community theaters, community centers, museums, civic centers, nursing homes, and parks and recreational facilities.

Policy 1.13.7
COMMUNITY FACILITIES - UNIVERSITIES
The Community Facilities - Universities land use designation is intended to provide universities a flexibility of uses and heights from the more restrictive Community Facilities use.

Uses permitted in the Community Facilities - Universities designation are as follows:

1. Community Facilities uses such as class rooms, student/faculty residences, training facilities, research centers, cafeterias, offices and other supporting facilities, including but not limited to libraries, theaters, health care, and parks and recreational facilities.

Policy 1.13.8
UTILITIES
The areas designated Utilities on the Future Land Use Map are intended to provide for utility services to meet the current and future needs of North Miami.

Uses permitted in the Utilities land use designation are as follows:

1. Utilities such as water and wastewater treatment plants, pumping stations, electrical power plants, substations, solid waste disposal and transfer stations.
2. Other uses determined to be ancillary to the permitted uses described in (1) next above.

Policy 1.13.9
OPEN SPACE/RECREATION

1. The primary purpose and intent of the Open Space/Recreation land use designation is to accommodate open space recreation uses to serve the public recreation needs.
2. Uses permitted in areas designated Open Space/Recreation are as follows:
3. Passive recreational uses, including but not limited to nature centers; trails; bikeways; scenic areas; feeding stations; aquatic preserves and picnic areas.
4. Active recreational uses including but not limited to playgrounds; swimming pools; and, athletic fields and courts.
5. Boat ramps and docks.
6. Concessions only when accessory to the above uses. Examples of concessions are refreshment stands, pro shops, souvenir shops and rental facilities.

Policy 1.13.10
CONSERVATION
The Conservation land use designation is intended to protect natural reservations, wetlands and major reserve water supply areas.

Policy 1.13.11
WATER
The Water land use designation is intended to record and protect existing natural or man made water bodies in the City.

Policy 1.13.12
Regional Activity Center

The Regional Activity Center (RAC) designation is intended to encourage and promote large-scale development and redevelopment as well as small parcel infill development and redevelopment that facilitate a balanced mix of land uses by providing maximum flexibility for development and redevelopment activities. In accordance with Chapter 28-24.014(10)(b)2, F.A.C., a Regional Activity Center in the City of North Miami shall be a compact, high intensity, high density multi-use area designated as appropriate for intensive growth by the City and may include: residential use; commercial; office; cultural and community facilities; educational facilities; recreational and entertainment facilities; hotels or motels; transportation facilities; utilities; and appropriate industrial activities. The major purposes of this designation are to facilitate mixed use development, encourage mass transit, reduce the need for automobile travel, provide incentives for quality development and give definition to the urban form.

Policy 1.13.12.1
Chapter 380.06(2)(e), Florida Statutes, and Chapter 28-24.014(10), Florida Administrative Code, authorize local governments to designate areas as Regional Activity Centers where the local government seeks to encourage higher intensities of development by increasing the threshold of development size required to undergo State review as a Development of Regional Impact (DRI), referred to "Chapter 380 Regional Activity Centers." Additionally, Policy 2.1.12 of the Strategic Regional Policy Plan for South Florida authorizes the designation of "Regional Development Districts" to implement the provisions of Chapter 380.0651(3)(d)(3) and (3)(g)(2), Florida Statutes, which provide for the designation of geographic areas highly suitable for increased DRI review threshold intensity.

The designation of a specific area and boundaries as a Chapter 380 regional activity center for the purpose of increasing DRI review thresholds does not change the City of North Miami Land Use Plan map designation of any land, nor does it change the uses or intensities of development authorized by the Future Land Use Plan Element of the City's Comprehensive Plan. It only changes the circumstances under which proposed development in the designated area would have to be reviewed through the Ch. 380, F.S., DRI process.

For an area to qualify as a Regional Activity Center, the following criteria must be met:

1. The type of land uses permitted within each Regional Activity Center and the density of residential uses shall be specified within the City Land Use Plan.
2. Regional Activity Centers shall include mixed land uses of regional significance.
3. Each Regional Activity Center shall be a defined geographical area described in the City Future Land Use Plan text and delineated on a map that is an exhibit to the City Future Land Use Plan.
4. Regional Activity Centers shall be proximate and accessible to interstate or major arterial roadways.

The following area has been designated Regional Activity Center within the City of North Miami Land Use Plan:

North Miami Urban Infill Regional Activity Center

General Location: The Regional Activity Center (RAC) totals approximately 1,739 acres in area. The RAC area is generally bound by Biscayne Bay to the east, NE 163rd Street to the north, Biscayne Boulevard to the west, and NE 135th Street to the south, excluding property not located within the city limits of North Miami. The boundaries of the proposed Regional Activity Center also include the area west of Biscayne Boulevard generally bound by 151st Street to the north, NE 18th Avenue to the west, FEC rail corridor to the east and NE 137th Street and NE 140th Street to the south. The proposed RAC boundaries are identified on the FLUM (Map 1-5).

Policy 1.13.12.2
The permitted uses and density and intensity of uses within the RAC shall be governed by the underlying land use designations of the subject property.

The North Miami Urban Infill Regional Activity Center is designated to be a Chapter 380 Regional Activity Center and, subject to amendment of the Strategic Regional Policy Plan for South Florida by the South Florida Regional Planning Council, as a regional development district (a geographic area specifically designated as highly suitable for increased threshold intensity) for the purpose of increasing DRI thresholds.

EAR-Based Comprehensive Plan Amendments

Volume I: Goals, Objectives, and Policies
Coastal Management Element

5. Coastal Management Element

GOAL 5A
Protect human life and property in the coastal area of North Miami.

Flood Protection

Objective 5A.1
The City shall enforce the minimum floodplain management regulations of the Federal Emergency Management Agency (FEMA) and the City's Flood Damage Prevention Ordinance for new and substantially improved buildings.-

Monitoring and Evaluation:
- Enforcement of the flood plain management regulations.

Policy 5A.1.1
As part of the existing permitting and zoning approval procedures, the City shall review all plans for construction within the floodplain area to ensure conformity with minimum acceptable standards set forth in Chapter 8.5 of the City's Code of Ordinances.

Policy 5A.1.2
The City shall discourage variances under the City's Flood Damage Prevention Ordinance, Chapter 8.5, which shall undergo review by the City's Flood Plain Management Planning Committee - which shall hold frequent meetings.

Policy 5A.1.3
The City intends to maintain the Flood Plain Management Planning Committee as an oversight body to enforce Chapter 8.5 of the City's Code of Ordinances and to review all requested amendments to the provision.

Policy 5A.1.4
The City shall continue to participate in the Community Rating System (CRS) and the National Flood Insurance Programs (NFIP), and disseminate information relative to its provisions.

Policy 5A.1.5
In an effort to minimize flood insurance premium rates for North Miami residents, the City shall endeavor to maintain or improve upon it's Class 5 rating to a Class 4 or better - recognized by the Community Rating System as floodplain management activities that exceed the minimum NFIP requirements.

Policy 5A.1.6
To prevent further additions to the list of Repetitive Loss (RL) properties published by FEMA, the City shall remain committed to working on eliminating RL properties within the City to a point that qualifies as a category A or B Community.

Policy 5A.1.7
The City shall also continue to enforce Chapter 8.5 of the City's Code of Ordinances, in an effort to eliminate an increase in the number of RL properties.

Policy 5A.1.8
Continuous attempts should be made by the City to promote the acquisition, or retrofit of RL properties.

Policy 5A.1.9
The City of North Miami adopts the Hurricane Vulnerability Zone (HVZ) as defined in Florida Statutes Chapter 163, and Rule 9J-5.003(57), as the areas requiring evacuation during a Category 3 hurricane event and as the area identified as Storm Surge Evacuation Zone B by the Miami-Dade County Office of Emergency Management.

Policy 5A.1.10
Within the City, the Coastal Planning Area, also known as the Hurricane Vulnerability Zone (HVZ) shall be defined as the land east of Biscayne Boulevard, continuing to the easternmost boundary of the City which extends into the waters of Biscayne Bay.

Hazard Mitigation

Objective 5A.2
The City shall implement programs and policies in conjunction with Miami-Dade County to protect residents and business from disasters and mitigate hazards.

Monitoring and Evaluation:

- Implementation of programs and policies to protect residents and business from disasters.

Policy 5A.2.1
The City shall implement the post-disaster programs and procedures outlined in the City's Hurricane Manual, as amended, and the County's Hurricane Procedures, to identify immediate actions necessary to protect the health, welfare, and safety of its residents.

Policy 5A.2.2
As part of on-going monitoring and updating procedures, the City shall ensure that all applicable provisions of the hazard mitigation annex of the Miami-Dade County Emergency Operations Plan, and the Miami-Dade County Local Mitigation Strategy (LMS) are incorporated and/or addressed in local hazard mitigation procedures.

Policy 5A.2.3
The City shall monitor problems and life-threatening situations resulting from natural disaster occurrences and take the appropriate steps to ensure that the potential for such problems and situations are minimized in the future.

Policy 5A.2.4
The City shall implement the provisions included in the Local Mitigation Strategy to provide for debris clearance as well as immediate repair and replacement of public infrastructure required to protect public health and safety.

Policy 5A.2.5
The City shall make every effort to support and implement the initiatives and projects listed in the Local Mitigation Strategy, including both countywide initiatives and the following proposed hazard mitigation projects located in North Miami:

1. Flood Prevention and Mitigation at Arch Creek East Drainage Basin
2. Flood Prevention and Mitigation: Basins 8 and 9
3. Critical Facilities Hazard Mitigation
4. Non-critical Facilities Hazard Mitigation
5. Embankment Stabilization at Keystone Point Bridge #2
6. Surge Resistance and Flood Mitigation at Keystone Point and Sans Souci
7. Sanitary Sewer Backup
8. Safeguarding Availability of Potable Water
9. Flood Zone Data Maintenance: GIS System
10. Global Positioning System
11. Emergency Portable Stormwater Pumps
12. Gravity Sewer Systems Improvements: Groundwater Infiltration Reduction
13. Emergency Power: Water and Sewer Utility Operations Center
14. Communications and Records Management System
15. Marine Patrol Vessel
16. Security for Police Station
17. Security for City Hall
18. Security for the Winson Water Plant at Sunkist Grove
19. Correct Water Infiltration at City Hall (EOC) Basement
20. Structural Hardening for Police Station

Policy 5A.2.6
The City shall continue to participate in the National Incident Management System (NIMS), which is especially beneficial to local governments as a comprehensive and consistent approach to emergency management at all jurisdictional levels and across all functional emergency management disciplines.

Policy 5A.2.7
In an effort to achieve compliance with NIMS adopted practices, the City shall adopt NIMS at the community level for all government departments and agencies and promote NIMS adoption and use by associations, utilities, non-governmental organizations and

the private sector by the year 2010. Furthermore, NIMS should be adopted through executive order, proclamation, resolution, or legislation as the jurisdiction's official all-hazards, incident response system.

Policy 5A.2.8
The City's Marine Patrol shall continue to patrol the waterways of the greater North Miami marine area, and shall increase enforcement of regulations such as Department of Homeland Security initiatives, as well as Federal, State, local and marine laws.

Policy 5A.2.9
The City shall encourage the "hardening" of homes through the City's Housing Rehabilitation Program to strengthen homes against hurricanes and natural hazards and to reduce hurricane damage exposure in the City.

Policy 5A.2.10
The City shall promote and educate the public on strengthening their structures against natural disasters by promoting the hardening of structures in accordance with the Florida Comprehensive Hurricane Damage Mitigation Program (My Safe Florida Home).

Coastal Area Hurricane Evacuation

Objective 5A.3
The review and approval of all plans for future development within the coastal area will consider the impacts of development on hurricane evacuation times to maintain or reduce hurricane evacuation times.

Monitoring and Evaluation:
- The maintenance or reduction of hurricane evacuation times within the coastal area.

Policy 5A.3.1
Review of development proposals within the coastal planning area shall consider vehicular accessibility and internal circulation patterns to minimize the time required to evacuate the coastal planning area.

Policy 5A.3.2
Direct high-density population concentrations away from the coastal planning area and provide incentives to encourage and promote development within the City's central core/Neighborhood Redevelopment Overlay.

Policy 5A.3.3
The City shall relieve deficiencies identified in the hurricane evacuation analysis and endeavor to integrate regional and local preparation and evacuation procedures into the City's hazard mitigation measures.

Post-Disaster Redevelopment

Objective 5A.4
Prepare post-disaster redevelopment plans in the coastal area which reduce or eliminate the exposure of human life and public and private property to natural hazards.

Monitoring and Evaluation:
- The implementation of policies contributing to the reduction or elimination of exposure of human life and property to natural hazards by June 2010.

Policy 5A.4.1
Prepare a post-disaster redevelopment plan by 2010 addressing public safety, land use, infrastructure, and public investment concerns. Included in the post-disaster redevelopment plan shall be policies that determine procedures needed to protect the public health and safety and immediate and long-term cleanup and repair activities; as well as the removal, relocation, or structural modification of damaged infrastructure and unsafe structures.

Policy 5A.4.2
Incorporate recommendations found in interagency hazard mitigation reports into the comprehensive plan and post-disaster redevelopment plan.

Policy 5A.4.3
Limit redevelopment in areas known to suffer repeated damage during hurricane and other natural disaster events.

GOAL 5B
Protect existing public water dependent and water related uses.

Public Access to Shoreline

Objective 5B.1
The City shall proactively work to increase public access to beaches or shorelines consistent with public needs.

Monitoring and Evaluation:
- The increase of the amount of public access to beaches or shorelines.

Policy 5B.1.1
The City shall continue to support the implementation of the Arch Creek Bike Path which provides additional access to the 12-acre Arch Creek East Environmental Preserve - an area that will eventually provide additional public shoreline access.

Policy 5B.1.2
The City shall preserve and provide public access to the spoil islands located in Biscayne Bay within North Miami boundaries.

Policy 5B.1.3
Provide transportation or parking facilities for beach and shoreline access.

Provide for Water-dependent Uses

Objective 5B.2
The review and approval of all plans for future development within the coastal area shall consider the need for the placement of water-dependent uses and prioritize shoreline uses.

Monitoring and Evaluation:

- Consideration through plan review of future development and water related land uses to ensure compatibility with adjacent land uses.

Policy 5B.2.1
Through the adopted regulatory processes, the City shall ensure that water-dependent and related uses are compatible with adjacent land uses and accessible to upland support services, taking into consideration the protective status of private ownership, compatibility with established hurricane procedures, and sensitivity to environmental constraints.

Policy 5B.2.2
The City shall establish priorities for siting water-dependent and water-related land uses.

Policy 5B.2.3
By the year 2010 amend the Land Development Regulations (LDR) and establish performance standards for shoreline development.

Policy 5B.2.4
Institute marina siting criteria that address existing protective status of ownership, hurricane contingency planning, protection of water quality, water depth, availability of upland support services, land use compatibility, environmental disruptions and mitigation actions, availability for public use, and economic need and feasibility.

GOAL 5C
Protect, preserve and maintain the natural resources within the coastal area and restrict development activities that would damage or destroy coastal resources.

Protect Coastal Natural Resources

Objective 5C.1

The City shall coordinate closely with the Biscayne Bay Management Committee, the Miami-Dade County Department of Environmental Resource Management (DERM), and other appropriate regulatory agencies to maintain or improve estuarine environmental quality, and protect, conserve, and enhance coastal resources including coastal wetlands, living marine resources, and wildlife habitats.

Monitoring and Evaluation:

- Maintenance or improvement of the estuarine environmental quality and coastal resources through coordination with the agencies listed in this objective.

Policy 5C.1.1
The City shall be an active participant in the Miami-Dade County Shoreline Development Review Committee, to ensure that future development and activities in the City do not negatively impact the identified estuarine systems.

Policy 5C.1.2
The City shall continue to restore those natural resources within the coastal planning area disturbed by activities undertaken by the City, as may be required by law.

Policy 5C.1.3
The City, through its regulatory processes shall limit specific and cumulative impacts of development or redevelopment upon wetlands water quality, water quantity, surface water runoff, exposure to natural hazards, wildlife habitat, and living marine resources.

Policy 5C.1.4
The City shall develop programs to identify, protect, preserve, and establish performance standards for the development and sensitive reuse of historic resources located within the coastal planning area.

Policy 5C.1.5
The City shall continue to participate in the National Pollution Discharge Elimination System (NPDES) and the Total Maximum Daily Loads (TMDL) programs.

Policy 5C.1.6
The City shall establish construction standards consistent with the DERM and the Army Corps of Engineers, which minimize the impacts of man-made structures on beach or dune systems.

Policy 5C.1.7
The City shall continue to protect the natural habitat found in the area known as Arch Creek East Environmental Preserve, 12 acres of City-owned bayfront property containing regionally significant and environmentally important natural communities such as mangrove tidal swamps and wildlife habitats.

Policy 5C.1.8
The City shall enforce the Code of Ordinances provision prohibiting dumping or solid waste deposits in certain protected areas.

Policy 5C.1.9
The City shall adopt landscaping requirements in the Land Development Regulations that restrict certain invasive non-native plants and species - thereby protecting the existing native natural resources.

GOAL 5D
Limit future infrastructure improvements and other public expenditures in areas vulnerable to destruction by natural disasters.

Coastal Planning Area of Service

Objective 5D.1
Level of service standards, areas of service, and the phasing of infrastructure will be developed for the coastal planning area.

Monitoring and Evaluation:
- Level of service standards within the coastal planning area are being maintained.

Policy 5D.1.1
All infrastructure improvements needed to serve future developments in the coastal planning area shall be in place prior to the issuance of the necessary development orders, approvals or permit(s), in order to maintain adopted levels of service.

Policy 5D.1.2
Development in the coastal planning area shall be limited to uses which have historically proven to be less vulnerable to storm damage.

Policy 5D.1.3
Ensure the availability of required infrastructure to serve the development or redevelopment in the coastal planning area at the densities proposed by the future land use plan, consistent with coastal resource protection and safe evacuation. The funding for such infrastructure shall be phased as to coincide with the demands generated by development or redevelopment.

Coastal Planning Area / Hurricane Vulnerability Zone Improvements

Objective 5D.2
The location of future infrastructure improvements in designated coastal planning areas shall minimize public expenditures that subsidize development except for the restoration or enhancement of natural resources.

Monitoring and Evaluation:

- Infrastructure improvements and public expenditures in coastal planning area, particularly the hurricane vulnerability zone.
- The identification and designation of hurricane vulnerability zone through the monitoring of storm activities.
- The implementation of measures to ensure that unsafe, vulnerable, and/or inappropriately placed land uses are not developed or redeveloped.

Policy 5D.2.1
Monitor storm activities which threaten or cause damage to existing structures and facilities, so that the vulnerability of such can be assessed, and the potential for the identification and designation of potential hurricane vulnerability zones can be evaluated.

Policy 5D.2.2
The development or redevelopment of unsafe, vulnerable, and/or inappropriately located uses shall not be undertaken in designated hurricane vulnerability zones, unless the proper measures have been taken to ensure the safety and soundness of such uses, in accordance with existing law.

METROPOLITAN DADE COUNTY, FLORIDA

METRODADE

DERM

ENVIRONMENTAL RESOURCES MANAGEMENT
33 S.W. 2nd AVENUE
MIAMI, FLORIDA 33130-1540
(305) 372-6789

November 9, 1993

Mr. John P. D'Amanda, Director
Engineering and Planning
City of North Miami
776 N.E. 125 Street
North Miami, FL 33161

RE: Interlocal Agreements for sampling and monitoring costs associated with the NPDES Stormwater Permit

Dear Mr. D'Amanda:

As you are aware from earlier correspondences, Part 2 of our Joint Application for the EPA NPDES Stormwater Permit has been submitted, and will now be reviewed by EPA with a five-year permit eventually being issued to Dade County. Part of this Permit will consist of sampling and monitoring of outfalls and rain events, and we as Joint Applicants had, for Parts 1 and 2, executed Interlocal Agreements to share the associated costs with Dade County performing the professional services. These Agreements are scheduled to expire with most Joint Applicants in November, 1993.

As the NPDES Permit will include continued sampling and monitoring activities, we have attached for your review a "Draft" Interlocal Agreement to cover all Permit-associated sampling and monitoring costs. You will note very little has changed from the first Agreement, except for the way payments are proportioned between the Joint Permit Holders. In Part 2, "Pro Rata" payments were made, whereas in the present "Draft" Agreement, payments will be made based on the number of outfalls existing in the jurisdiction of each Joint Permit Holder. All payments will be required ten (10) days after execution of the new Interlocal Agreement. A Table has been provided for your review showing all Joint Permit Holders and their respective costs (Attachment "B").

One other item in the Draft Agreement should be noted: Under Section II, Term of Agreement, the expiration date is listed as November 16, 2000. Seven years is used as the Agreement term because EPA regulations state that permit reviewers have one year to review the Permit Application, decide Permit conditions and actually issue the NPDES Permit. Thus, for the first year, negotiations may still be ongoing between EPA and Dade County's Joint Permit Holders, and exact sampling and monitoring activities may not be finalized.

We are requesting that you review the attached documents and submit any comments or questions to our Department by November 29, 1993.

Please call my office or Mr. Dorian K. Valdes, at 372-6789 with your comments or questions.

Sincerely,

Carlos Espinosa, P.E.
Assistant Director

CE/MG/np
Attachments

cc: Dorian K. Valdes

3(A)(30)
7-12-94
R-1051-94

INTERLOCAL AGREEMENT FOR PERFORMANCE BY METROPOLITAN DADE COUNTY DEPARTMENT OF ENVIRONMENTAL RESOURCES MANAGEMENT (DERM) OF PROFESSIONAL SERVICES ASSOCIATED WITH THE FIVE YEAR NPDES OPERATING PERMIT BY THE CITY OF NORTH MIAMI AND DERM

This Interlocal Agreement ("Agreement") is made and entered into this 12 day of July, 1994, by and between Metropolitan Dade County, through its Department of Environmental Resources Management (DERM) [hereinafter sometimes referred to collectively as the "COUNTY"] and the City of North Miami, [hereinafter sometimes referred to as the "CITY"], in order that the City may be included as a co-permittee as provided under the Environmental Protection Agency [hereinafter "EPA"] National Pollutant Discharge Elimination System [hereinafter "NPDES"] Permit Application Regulations for Storm Water Discharges; Final Rule [hereinafter "NPDES Final Rule"], and that the professional services required to accomplish the tasks set forth in the NPDES Final Rule and the NPDES Operating Permit may be initiated and performed on behalf of both the CITY and the COUNTY as co-permittees.

Section I
Definitions

For purposes of this Agreement, the following terms shall apply:

Agreement shall mean this document, including any written amendments thereto, and other written documents or parts thereof which are expressly incorporated herein by reference.

CITY shall mean the City of North Miami, by and through its Office of the City Manager or designated representative.

COUNTY shall mean Metropolitan Dade County, by and through its Department of Environmental Resources Management ("DERM").

FORCE MAJEURE shall mean an act of God, epidemic, lightning, earthquake, fire, explosion, hurricane, flood or similar occurrence, strike, an act of a public enemy, or blockade, insurrection, riot, general arrest or restraint of government and people, civil disturbance or similar occurrence, which has had or may reasonably be expected to have a material adverse effect on the rights or obligations under this Agreement.

In all other instances, terms used in this Agreement shall have the definitions contained in the EPA NPDES Final Rule 40 CFR Parts 122, 123 and 124 (Attachment "A"), incorporated herein by reference.

Section II
Term of Agreement

The term of this Agreement shall commence with the date of execution, and shall expire on November 16, 2000.

Section III
Scope of Work

The parties hereto stipulate and agree that the EPA is requiring as part of a five year NPDES Operating Permit the sampling, monitoring, and analyzation (hereinafter "analysis") of a variety of storm sewer systems throughout Dade County. The parties hereby agree that the costs attributable to implementation of this operating permit shall be the joint responsibility of all participating municipalities, and shall be based on a percentage rate obtained by dividing the number of outfalls that drain to United States bodies of water existing in each participating municipality by the total number of outfalls existing within the geographic boundaries of all co-permittees.

Section IV
COUNTY's Obligations

Compliance with NPDES Operating Permit The COUNTY shall perform all analysis and related activities as required in Dade County's NPDES Operating Permit (hereinafter "NPDES Permit").

Permits The COUNTY shall obtain all applicable federal, state and local permits and approvals (with the exception of CITY permits and approvals, if any, which shall be obtained by the CITY) which are required in order to conduct activities required under the NPDES Permit.

Report The COUNTY shall provide the CITY with a report which shall set forth the CITY's obligations under the NPDES Permit and the results of all monitoring and sampling activities required under the NPDES Permit.

Notice of DERM Meeting(s) The COUNTY shall provide the CITY with oral or written notice of all regular meetings held by DERM staff for the purpose of reviewing the compliance status with the NPDES Permit.

Section V
CITY's Obligations

Submittal of Outfall Information The CITY agrees to provide the COUNTY with outfall update information as promptly as any changes in outfalls occur, in order that the data maintained by the COUNTY may be accurate and current.

Prevention of Theft of COUNTY Equipment The CITY shall take reasonable steps to prevent theft or vandalism of COUNTY equipment located within the CITY's jurisdiction. The CITY acknowledges that such equipment may be placed within the CITY's area of jurisdiction for extended periods of time, as necessary to complete the sampling and monitoring tasks contemplated by this Agreement and the NPDES Permit.

Compensation Within ten (10) days from the date of execution of this Agreement, the CITY shall make a lump sum payment to the COUNTY of its proportional share of the payment due to the COUNTY for associated monitoring activities which are the CITY's financial obligation pursuant to this Agreement. The sum due shall be determined by dividing the total cost for analysis by the relative percentages that each participating municipality contributes towards stormwater drainage to United States bodies of water. It is hereby stipulated and agreed that the total cost for analysis is a yearly stipend. The yearly cost as calculated will be subsequently due on the anniversary date of execution of this Agreement in years two (2), three (3), four (4), and five (5) of the five year NPDES Permit. Failure to pay the agreed-upon lump sum payment or subsequent payments shall be deemed default by the CITY pursuant to this Agreement, and shall result in a reversion of the CITY's NPDES Permit status to Individual Permit Holder. As of June 1, 1993, twenty (20) cities and the Florida Department of Transportation (FDOT) have indicated their participation as co-permittees in the NPDES Final Rule process. Therefore, based on these commitments, the proportional share of each co-permittee has been calculated and is listed on Attachment "B".

Hold Harmless The CITY shall hold harmless the COUNTY from any and all damages or other liability incurred by the CITY by virtue of any action which might be taken by EPA against the CITY based upon the results obtained during the sampling and reporting set forth by the Part 2 EPA NPDES Final Rule process, or by any results obtained during the five year term of the NPDES Permit.

Access/City Permits The CITY shall provide the COUNTY with reasonable access at all times as necessary to accomplish the analysis of any storm sewer systems which may be located within the CITY's jurisdiction. The CITY shall obtain any CITY permits and CITY regulatory approvals required in order for the COUNTY to accomplish the above activities that may be located within the CITY's jurisdiction.

Section VI
County Event of Default

Without limitation, the failure by the COUNTY to substantially fulfill any of its material obligations in accordance with this Agreement, unless justified by Force Majeure, shall constitute a "COUNTY event of default".

If a COUNTY event of default should occur, the CITY shall have all of the following rights and remedies which it may exercise singly or in combination:

1. the right to declare that this Agreement together with all rights granted to COUNTY hereunder are terminated, effective upon such date as is designated by the CITY;

2. any and all rights provided under federal laws and the laws of the State of Florida.

Section VII
City Event of Default

In addition to the provisions set forth in Section V, Compensation, and without limitation, the failure by the CITY to substantially fulfill any of its material obligations in accordance with this Agreement, unless justified by Force Majeure, shall constitute a "City Event of Default".

If a City Event of Default should occur, the COUNTY shall have all of the following rights and remedies which it may exercise singularly or in combination:

1. the right to declare that this Agreement together with all rights granted to CITY hereunder are terminated, effective upon such date as is designated by the COUNTY;

2. any and all rights provided under federal laws and the laws of the State of Florida.

Section VIII
General Provisions

Authorization to Represent CITY in NPDES Permit The CITY hereby authorizes the COUNTY to act on its behalf with respect to the monitoring and sampling portions of the NPDES Permit and shall comply with all requirements imposed by EPA with respect thereto as a condition of the NPDES Permit.

Attendance at DERM Permit Review Meetings The CITY may, but is not required to, attend any or all regular meetings held by DERM staff for the purpose of reviewing the status of the NPDES Permit.

Termination Either party may terminate this Agreement without cause by providing sixty (60) days prior written notice of intent to terminate to the other party. The CITY shall be entitled to reimbursement of monies paid to the COUNTY only in the event of termination for cause by the CITY, or termination without cause by the COUNTY, and the CITY shall then be entitled to such reimbursement only to the extent that services providing information useful to the NPDES Permit have not been rendered by the COUNTY. Upon termination by either party, the NPDES Permit status of the City shall revert to Individual Permit Holder.

Entire Agreement; Prior Agreements Superseded; Amendment to Agreement This Agreement incorporates and includes all prior negotiations, correspondence, conversations, agreements, and understandings applicable to the matters contained herein. The parties agree that there are no commitments, agreements, or understandings concerning the subject matter of this Agreement that are not contained in this Agreement, and that this Agreement contains the entire agreement between the parties as to matters contained herein. Accordingly, it is agreed that no deviation from the terms hereof shall be predicated upon any prior representations or agreements, whether oral or written. It is further agreed that any oral representations or modifications concerning this Agreement shall be of no force or effect, and that this Agreement may be modified, altered or amended only by a written amendment duly executed by the parties hereto or their representatives.

Headings Captions and headings in this Agreement are for ease of reference only and do not constitute a part of this Agreement and shall not affect the meaning or interpretation of any provisions herein.

Notices and Approval Notices and approvals required or contemplated by this Agreement shall be written and personally served or mailed, registered or certified United States mail, with return receipt requested, addressed to the parties as follows:

To County:

Dade County Department of Environmental
Resources Management
33 S.W. 2 Ave, Suite 1200
Miami, Florida 33130
Attn: Department Director
305/372-6789

To City:

City of North Miami
P.O. Box 610850
North Miami, Florida 33261-0850
Attn: City Manager
305/893-6511

Performance by Parties Except as otherwise provided in this Agreement, in the event of any dispute arising over the provisions of this Agreement, the parties shall proceed with the timely performance of their obligations during the pendency of any legal or other similar proceedings to resolve such dispute.

Rights of Others Nothing in the Agreement express or implied is intended to confer upon any person other than the parties hereto any rights or remedies under or by reason of this Agreement.

Time is of Essence It is mutually agreed that time is of the essence in the performance of all terms and conditions to be met and performed pursuant to this Agreement.

Governing Law This Agreement shall be governed by and construed in accordance with the laws of the State of Florida. The COUNTY and the CITY agree to submit to service of process and jurisdiction of the State of Florida for any controversy or claim arising out of or relating to this Agreement or a breach of this Agreement. Venue for any court action between the parties for any such controversy arising from or related to this Agreement shall be in the Eleventh Judicial Circuit in and for Dade County, Florida, or in the United States District Court for the Southern District of Florida, in Dade County, Florida.

Severability The invalidity of one or more of the phrases, sentences, clauses, or Sections contained in this Agreement shall not affect the validity of the remaining portion of the Agreement, provided the material purposes of this Agreement can be determined and effectuated.

Waiver There shall be no waiver of any right related to this Agreement unless in writing signed by the party waiving such right. No delay or failure to exercise a right under this Agreement shall impair such right or shall be construed to be a waiver thereof. Any waiver shall be limited to the particular right so waived and shall not be deemed a waiver of the same right at a later time, or of any other right under this Agreement.

IN WITNESS WHEREOF, Metropolitan Dade County, Florida, has caused this Agreement to be executed in its name by the County Manager or his designee, attested by the Clerk of the Board of County Commissioners and has caused the seal of the Board of County Commissioners to be hereto attached; and the City of North Miami, Florida has caused this Agreement to be executed in its name by the City Manager or his designee, attested by the Clerk of the City Council and has caused the seal of the Council to be hereto attached, all on the day and year first written above.

Harvey Ruvin,
Clerk of the Board

By: _____
Clerk of the Board

METROPOLITAN DADE COUNTY, FLORIDA, BY ITS BOARD OF COUNTY COMMISSIONERS Attest:

By: _____
for County Manager

Clerk of the City

By: _____
Deputy Clerk

City of North Miami, FLORIDA BY ITS COUNCIL Attest:

By: _____
City Manager

APPROVED AS TO FORM AND LEGAL SUFFICIENCY

By: _____
Assistant County Attorney

1.22

RESOLUTION NO. R91-45

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF NORTH MIAMI, FLORIDA APPROVING AN INTERLOCAL AGREEMENT WITH METROPOLITAN DADE COUNTY FOR PROFESSIONAL SERVICES ASSOCIATED WITH THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT APPLICATION FOR STORM WATER DISCHARGES AND AUTHORIZING THE CITY MANAGER TO EXECUTE THE AGREEMENT.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF NORTH MIAMI THAT:

Section 1. The interlocal agreement with Metropolitan Dade County, attached as Exhibit A, is hereby approved.

Section 2. If any of the other municipalities entering into an agreement with the County obtains any favorable contractual advantages not included in Exhibit A, then Exhibit A shall be considered amended to include such provisions.

Section 3. The City Manager is authorized to execute the agreement on behalf of the City as a co-permitee.

Section 4. This resolution shall be effective immediately from and after adoption hereof.

PASSED AND ADOPTED by a 5-0 vote of the City Council of the City of North Miami, Florida, this 10th day of DECEMBER 1991.

MAYOR

ATTEST:

CITY CLERK

APPROVED:

SECTION 4: This Resolution shall become effective upon its adoption.

PASSED AND ADOPTED THIS 3rd DAY OF December 1991.

DR. PAUL VOGEL, Mayor

Attest:

SALLY MacDONALD
City Clerk

APPROVED AS TO FORM:

MURRAY H. DUBBIN
City Attorney

FINAL VOTE AT ADOPTION:

Mayor Paul Vogel Yes

Vice Mayor Irving Leighton Aye

Commissioner Alvin M. Blake Yes

Commissioner Irving Gurien Yes

Commissioner Deborah Mash-Geller Absent

d:\nbv\npdes.res

ATTACHMENT "B"

"ANNUAL MONITORING COSTS FOR DADE COUNTY AND CO-PERMITTEES"

	Municipality/Agency	Number of Outfalls	Percentage Total of Outfalls	Dollar Contribution for NPDES County Plus C.P[1]
1.	Bal Harbour Village	11	0.3	1,800
2.	Town of Bay Harbor Islands	54	1.6	9,600
3.	City of Coral Gables	104	3.0	18,000
4.	Miami-Dade County	1,495	42.9	257,400
5.	Fla. Dept. of Trans. (FDOT)	740	21.3	127,800
6.	Town of Golden Beach	39	1.1	6,600
7.	City of Hialeah Gardens	4	0.1	600
8.	City of Homestead	6	0.2	1,200
9.	Indian Creek Village	13	0.4	2,400
10.	Town of Medley	1	0.1	600
11.	City of Miami Beach	206	5.9	35,400
12.	Miami Shores Village	36	1.0	6,000
13.	City of Miami Springs	2	0.1	600
14.	City of North Bay Village	52	1.5	9,000
15.	City of North Miami	163	4.7	28,200
16.	City of North Miami Beach	222	6.4	38,400
17.	City of Opa-Locka	9	0.3	1,800
18.	City of South Miami	12	0.3	1,800
19.	Town of Surfside	12	0.3	1,800
20.	City of West Miami	2	0.1	600
21.	Village of Key Biscayne	23	0.7	4,200
22.	Village of Pinecrest	62	1.8	10,800
23.	City of Aventura	110	3.2	19,200
24.	Village of El Portal	7	0.2	1,200
25.	City of Sunny Isles Beach[3]	87	2.5	15,000
	Totals	**3,472**	**100.0**	**$600,000** [2]

[1] C.P. is Co-Permittees
[2] Total Annual Cost for County and Co-Permittees' NPDES Requirements
[3] Revised adding City of Sunny Isles Beach. Changes affect only Sunny Isles Beach and Miami-Dade County

INTERLOCAL AGREEMENT BETWEEN THE CITY OF NORTH MIAMI STORMWATER UTILITY AND THE MIAMI-DADE COUNTY STORMWATER UTILITY FOR STORMWATER MANAGEMENT

THIS INTERLOCAL AGREEMENT, [the "Agreement"] by and between the Miami-Dade County Stormwater Utility, a public body corporate and politic, through its governing body, the Board of County Commissioners of Miami-Dade County, Florida [hereinafter sometimes referred to as "UTILITY",] and the City of North Miami Stormwater Utility, a public body corporate and politic, through its governing body, the North Miami City Council of the City of North Miami, Florida [hereinafter sometimes referred to as "CITY",] is entered into this 15 day of MARCH, 1999.

WITNESSETH

WHEREAS, Section 403.0893, Florida Statutes, authorizes the establishment of stormwater utilities to plan, construct, operate, and maintain stormwater management systems; and

WHEREAS, the Board of County Commissioners of Miami-Dade County, did, by adoption of Miami-Dade County Ordinances No. 91-66 and Ordinance No. 91-120, as amended by Ordinance Nos. 92-44 and 92-86, create a stormwater utility [hereinafter referred to as the "UTILITY",] and which UTILITY may, operate within a municipality or municipalities; and

WHEREAS, it is the intent of the UTILITY and the CITY, through this Agreement, to establish relationships and responsibilities for operation, maintenance, repair, and enhancement of shared stormwater systems by the CITY and the UTILITY; and

WHEREAS, the UTILITY and the CITY recognize that there are capital and operating costs as well as benefits associated with operating, maintaining, repairing and enhancing shared stormwater drainage systems; and

WHEREAS, the UTILITY and the CITY want to share these costs in proportion to the drainage area the service provided and the benefits received,

Now, therefore, in consideration of the mutual promises and covenants contained herein and the mutual benefits to be derived from this Agreement, the parties hereto agree as follows:

ARTICLE I
PURPOSES

The UTILITY and the CITY enter into this Agreement to further the following purposes:

(1) to protect and promote the public health, safety, and general welfare through the management of stormwater run-off;

(2) to maintain and improve water quality and preserve and enhance the environmental quality of the receiving waters;

(3) to control flooding that results from rainfall events;

(4) to deter unmanaged rainwater from eroding sandy soils and causing sedimentation;

(5) to deter the disruption of the habitat of aquatic plants and animals;

(6) to promote intergovernmental cooperation in effectively and efficiently managing stormwater run-off;

(7) To maintain, repair and enhance shared stormwater systems located within the limits of the drainage service areas in accordance with the approved plans. These include maintaining canals, flow control structures and stormwater pump stations and their mechanical and electrical components; and enhancing stormwater systems as determined by conditions of the system and the level of service established.

(8) To provide a mechanism for the UTILITY and the CITY to share and allocate the cost of maintaining, repairing and enhancing shared stormwater drainage systems as stated in (7), above.

ARTICLE II
DEFINITIONS

Agreement shall mean this document, including any written amendments, attachments, and other written documents which are expressly incorporated by reference.

Stormwater Management Plans shall mean stormwater management plans developed by both the CITY and by the UTILITY, to meet the required level of service as established in their respective stormwater management programs or master plan pursuant to Florida Statute 403.0891.

City Stormwater Utility Budget shall mean the CITY's developed and approved fiscal year budget which includes a component for stormwater management of its drainage system, including capital and operating outlays necessary to maintain the level of service established in the City's Stormwater Management Plans.

Utility Stormwater Budget shall mean the UTILITY's developed and approved fiscal year budget for stormwater management of its drainage system, including capital and operating outlays necessary to maintain the level of service established in the UTILITY'S Stormwater Management Plans.

Shared Stormwater Drainage System shall mean that portion of the drainage system owned by either the CITY or the UTILITY to which both the CITY and the UTILITY contribute, stormwater runoff and which is identified in Attachment A.

Costs allocable to the City shall mean those portions of the actual capital and operating outlays budgeted by the UTILITY in its yearly budget process, which are allocated to the CITY based on the CITY's relative stormwater runoff contribution to the shared portion of the stormwater drainage system of the UTILITY.

Costs allocable to the Utility shall mean those portions of the actual capital and operating outlays budgeted by the CITY in its yearly budget process, which are allocated to the UTILITY based on the UTILITY's relative stormwater runoff contribution to the shared portion of the stormwater drainage system of the CITY.

Operating Outlays shall mean expenses budgeted by the CITY and the UTILITY which are actual expenses incurred in the fiscal year, which due to their nature are considered reoccurring expenses to sustain yearly stormwater drainage operations.

Capital Outlays shall mean expenses budgeted by the CITY and the UTILITY which are actual expenses incurred in the fiscal year, which due to their nature are considered non-reoccurring and producing a long term benefit to the users. The yearly charges allocable to the CITY or to the UTILITY shall be that amount prorated over the useful life of the capitalized item based on a 20 year useful life.

Fiscal Year shall mean the period beginning on October 1 and ending on September 30.

Force Majeure shall mean an act of God, epidemic, lightning, earthquake, fire, explosion, hurricane, flood or similar occurrence, strike, an act of a public enemy, or blockade, insurrection, riot, general arrest or restraint of government and people, civil disturbance or similar occurrence, which has had or may reasonably be expected to have a material adverse effect on the rights or obligations under this Agreement, and which, by the exercise of due diligence, such parties shall not have been able to avoid. Such acts or events DO NOT INCLUDE inclement weather (except as noted above) or the acts or

omissions of subcontractors, third-party contractors, material men, suppliers, or their subcontractors, unless such acts or omissions are otherwise encompassed by the definition set forth above.

Project Manager shall mean the persons designated by the CITY and by the UTILITY to serve as the representative of each for the purposes of exchanging communications and to issue and receive directives pursuant to and within the powers provided under this Agreement.

Written notice shall mean written communication to and from the Project Managers.

ARTICLE III
STATEMENT OF WORK

The CITY AND the UTILITY shall fully and timely perform all work tasks described in this Statement of Work:

The CITY shall maintain, repair and enhance shared stormwater systems located within the limits of the drainage service areas in accordance with the, CITY's stormwater management plans including the NE 12th Avenue E - Storm Pump Station.

The UTILITY shall maintain, repair and enhance shared stormwater management systems located within the limits of the drainage service areas in accordance with the, Attachment "A". In addition the pump station located at Rucks Park shall be maintained by the UTILITY at no cost to the CITY.

The CITY's relative stormwater runoff contribution to the UTILITY's shared drainage system: is 30% for the pump station at Seaboard Acres and the Seaboard Acres ditch, and100% for the Little Arch Creek Salinity Control Structure and the Little Arch Creek Canal. The UTILITY's relative stormwater runoff contribution to the shared drainage system is 30% for the NE 12th Avenue E - Storm Pump Station.

ARTICLE IV
TERM OF THE AGREEMENT

Initial Term

The initial term of this Agreement shall be for a period of five (5) years beginning on the date of execution by both parties hereto, provided, however, either party may terminate this Agreement without cause prior to the expiration date upon one (1) year's advance written notice to the other party of such termination.

Option to Renew

Upon mutual written consent of the parties, this Agreement may be extended for another term of five (5) years.

ARTICLE V
CITY AND UTILITY RESPONSIBILITIES

A. Upon the request of either the CITY or the UTILITY, each shall share information in matters related to operations, maintenance, design and construction costs and cost allocation determinations associated with shared drainage systems.

B. The CITY and the UTILITY shall provide notice to each other, as provided, in this Agreement designating their respective Project Manager. Each shall promptly notify each other of any change in the Project Manager designation by written notice as specified in this Agreement.

C. Prior to each fiscal year, the CITY will provide the UTILITY and the UTILITY will provide the CITY with a summary of shared costs on shared drainage systems. For ensuing fiscal years the CITY's and the UTILITY's estimated costs showing the shared costs allocation shall be available and transmitted to each other by March 1 of each year.

D. Commencing with fiscal year 1998-1999, the costs allocable to the CITY and the costs allocable to the UTILITY based on the relative stormwater runoff contribution to each other's shared portion of the stormwater drainage systems are included in this Agreement and presented as described in Attachment "B".

E. All shared costs are subject to review during the CITY's and UTILITY's preliminary budget process and may be accepted by the CITY and the UTILITY and are to be finalized by April 1 of each year.

These costs shall be the minimum costs necessary to accomplish the functions of the CITY and the UTILITY pertaining to the shared stormwater drainage systems.

F. At the CITY's option, an increase in the number of cycles per year service level may be performed by the CITY at the CITY's expense.

G. Payments by the CITY are to be made within 30 days after the bill presentation. In the event of a dispute on the paid amount, the CITY may notify the UTILITY of the nature of the dispute and the UTILITY shall make arrangements for the pertinent records to be made available for inspection by the CITY, as indicated under Article V(H) of this Agreement. The UTILITY shall reimburse the CITY for any amounts determined to have been overpaid by the CITY within 30 days after verification of the overpayment.

H. The CITY and the UTILITY shall maintain financial records for 5 years pertaining to this Agreement, and shall make them available within reasonable time after requesting them for inspection and copying by either the CITY or the UTILITY, at the place where the records are maintained.

I. The CITY and the UTILITY shall each be responsible for procuring independently all necessary permits in the performance of their respective work under this Agreement.

J. The CITY and the UTILITY shall each comply with all applicable regulations, ordinances and laws in effect in the performance of this Agreement.

ARTICLE VI
COMPENSATION/CONSIDERATION

A. It is the intent and understanding of the parties that this Agreement is solely for the CITY and the UTILITY. No person or entity other than the CITY or the UTILITY shall have any rights or privileges under this Agreement in any capacity whatsoever, either as a third-party beneficiary or otherwise.

ARTICLE VII
DEFAULT

CITY Event of Default

Without limitation, the failure by the CITY to substantially fulfill any of its material obligations in accordance with this Agreement, unless such failures are justified by Force Majeure, shall constitute a "CITY event of default".

If a CITY event of default should occur, the UTILITY shall have all of the following cumulative and independent rights and remedies:

1. The right to declare that this Agreement together with all rights granted to CITY are terminated, effective upon such date as is designated by the UTILITY;

2. Any and all rights provided under federal laws and the laws of the State of Florida.

UTILITY Event of Default

Without limitation, the failure by the UTILITY to substantially fulfill any of its material obligations in accordance with this Agreement, unless such failures are justified by Force Majeure, shall constitute a "UTILITY event of default".

If a UTILITY event of default should occur, the CITY shall have all of the following cumulative and independent rights and remedies:

1. The right to declare that this Agreement together with all rights granted to UTILITY are terminated, effective upon such date as is designated by the CITY;

2. Any and all rights provided under federal laws and the laws of the State of Florida.

ARTICLE VIII
GOVERNING LAW

This Agreement shall be governed by and construed in accordance with the laws of the State of Florida. The UTILITY and the CITY agree to submit to service of process and jurisdiction of the State of Florida for any controversy or claim arising out of or relating to this Agreement or a breach of this Agreement. Venue for any court action

between the parties for any such controversy arising from or related to this Agreement shall be in the Eleventh Judicial Circuit in and for Miami-Dade County, Florida, or in the United States District Court for the Southern District of Florida, in Miami-Dade County, Florida.

ARTICLE IX
ENTIRETY OF AGREEMENT

This Agreement incorporates and includes all prior negotiations, correspondence, conversations, agreements, and understandings applicable to the matters contained in this Agreement The parties agree that there are no commitments, agreements, or understandings concerning the subject matter of this Agreement that are not contained in this Agreement, and that this Agreement contains the entire agreement between the parties as to all matters contained herein. Accordingly, it is agreed that no deviation from the terms hereof shall be predicated upon any prior representations or agreements, whether oral or written. It is further agreed that any oral representations or modifications concerning this Agreement shall be of no force or effect, and that this Agreement may be modified, altered or amended only by a written amendment duly executed by both parties hereto or their authorized representatives.

ARTICLE X
HEADINGS

Captions and headings in this Agreement are for ease of reference only and do not constitute a part of this Agreement and shall not affect the meaning or interpretation of any provisions herein.

ARTICLE XI
RIGHTS OF OTHERS

Nothing in this Agreement expressed or implied is intended to confer upon any person other than the parties any rights or remedies under or by reasons of this Agreement.

ARTICLE XII
REPRESENTATION OF CITY

The CITY represents that this Agreement has been duly authorized, executed and delivered by the City of North Miami City Council, as the governing body of the CITY and it has the required power and authority to perform this Agreement.

ARTICLE XIII
REPRESENTATION OF UTILITY

The UTILITY represents that this Agreement has been duly approved, executed and delivered by the Board of County Commissioners, as the governing body of the UTILITY, and it has granted the Miami-Dade County Manager the required power and authority to perform this Agreement.

ARTICLE XIV
WAIVER

There shall be no waiver of any right related to this Agreement unless in writing and signed by the party waiving such right. No delay or failure to exercise a right under this Agreement shall impair such right or shall be construed to be a waiver thereof. Any waiver shall be limited to the particular right so waived and shall not be deemed a waiver of the same right at a later time or of any other right under this Agreement.

ARTICLE XV
INVALIDITY OF PROVISIONS, SEVERABILITY

Wherever possible, each provision of the Agreement shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Agreement shall be prohibited or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provision or the remaining provisions of this Agreement, provided that the material purposes of this Agreement can be determined and effectuated.

ARTICLE XVI
INDEPENDENT CONTRACTOR

CITY shall perform all work and services described as an independent contractor and not as an officer, agent, servant, or employee of the UTILITY. CITY shall have

control of the work performed in accordance with the terms of this Agreement and of all persons performing the same, and CITY shall be responsible for the acts and omissions of its officers, agents, employees, contractors, and subcontractors, if any.

UTILITY shall perform all work and services described herein as an independent contractor and not as an officer, agent, servant, or employee of the CITY. UTILITY shall have control of the work performed in accordance with the terms of this Agreement and of all persons performing the same, and UTILITY shall be responsible for the acts and omissions of its officers, agents, employees, contractors, and subcontractors, if any.

Nothing in this agreement shall be construed as creating a partnership or joint venture between the UTILITY and the CITY. No person performing any of the work or services described hereunder shall be considered an officer, agent, servant or employee of the UTILITY, nor shall any such person be entitled to any benefits available or granted to employees of UTILITY.

ARTICLE XVII
INDEMNIFICATION

To the extent permitted by law the CITY shall indemnify and hold harmless the UTILITY and its officers, employees, agents and instrumentalities from any and all liability, losses or damages, including attorneys' fees and costs of defense, which the UTILITY or its officers, employees, agents or instrumentalities may incur as a result of claims, demands, suits, causes of actions or proceedings of any kind or nature arising out of, relating to or resulting from the performance of this Agreement by the CITY or its employees, agents, servants, partners, principals, subconsultants or subcontractors. The CITY shall pay all claims and losses in connection therewith and shall investigate and defend all claims, suits or actions of any kind or nature in the name of the UTILITY, where applicable, including appellate proceedings, and shall pay all costs, judgments, and attorney's fees which may issue thereon. Provided, however, this indemnification shall only be to the extent and within the limitations of Section 768.28 Fla. Stat., subject to the provisions of that statute whereby the CITY shall not be held liable to pay a personal injury or property damage claim or judgment by any one person which exceeds the sum of $100,000, or any claim or judgment or portions thereof, which, when totaled with all other claims or judgment paid by the CITY arising out of the same incident or occurrence, exceed the sum of $200,000 from any and all personal injury or property damage claims, liabilities, losses or causes of action which may arise as a result of the negligence of the CITY.

The UTILITY shall indemnify and hold harmless the CITY and its officers, employees, agents and instrumentalities from any and all liability, losses or damages, including attorneys' fees and costs of defense, which the CITY or its officers, employees, agents or instrumentalities may incur as a result of claims, demands, suits, causes of actions or proceedings of any kind or nature arising out of, relating to or resulting from

the performance of this Agreement by the UTILITY or its employees, agents, servants, partners, principals, subconsultants or subcontractors. The UTILITY shall pay all claims and losses in connection therewith and shall investigate and defend all claims, suits or actions of any kind or nature in the name of the CITY, where applicable, including appellate proceedings, and shall pay all costs, judgments, and attorney's fees which may issue thereon. Provided, however, this indemnification shall only be to the extent and within the limitations of Section 768.28 Fla. Stat., subject to the provisions of that statute whereby the UTILITY shall not be held liable to pay a personal injury or property damage claim or judgment by any one person which exceeds the sum of $100,000, or any claim or judgment or portions thereof, which, when totaled with all other claims or judgment paid by the UTILITY arising out of the same incident or occurrence, exceed the sum of $200,000 from any and all personal injury or property damage claims, liabilities, losses or causes of action which may arise as a result of the negligence of the UTILITY.

IN WITNESS THEREOF, the parties through their duly authorized representatives hereby execute this AGREEMENT with an effective date of MAR. 15, 1999.

Attest:

Deputy City Clerk 4/2/99
Date

FORM APPROVED
OFFICE OF CITY ATTORNEY
Date 4.2.99

CITY OF NORTH MIAMI, FLORIDA
776 N.E. 125 Street
North Miami, Florida 33161

Authorized signature on behalf
of the City of North Miami, Florida.

By: _____ 4/6/99
City of North Miami Date

MIAMI-DADE COUNTY, FLORIDA

BY: _____
For Merrett R. Stierheim
County Manager

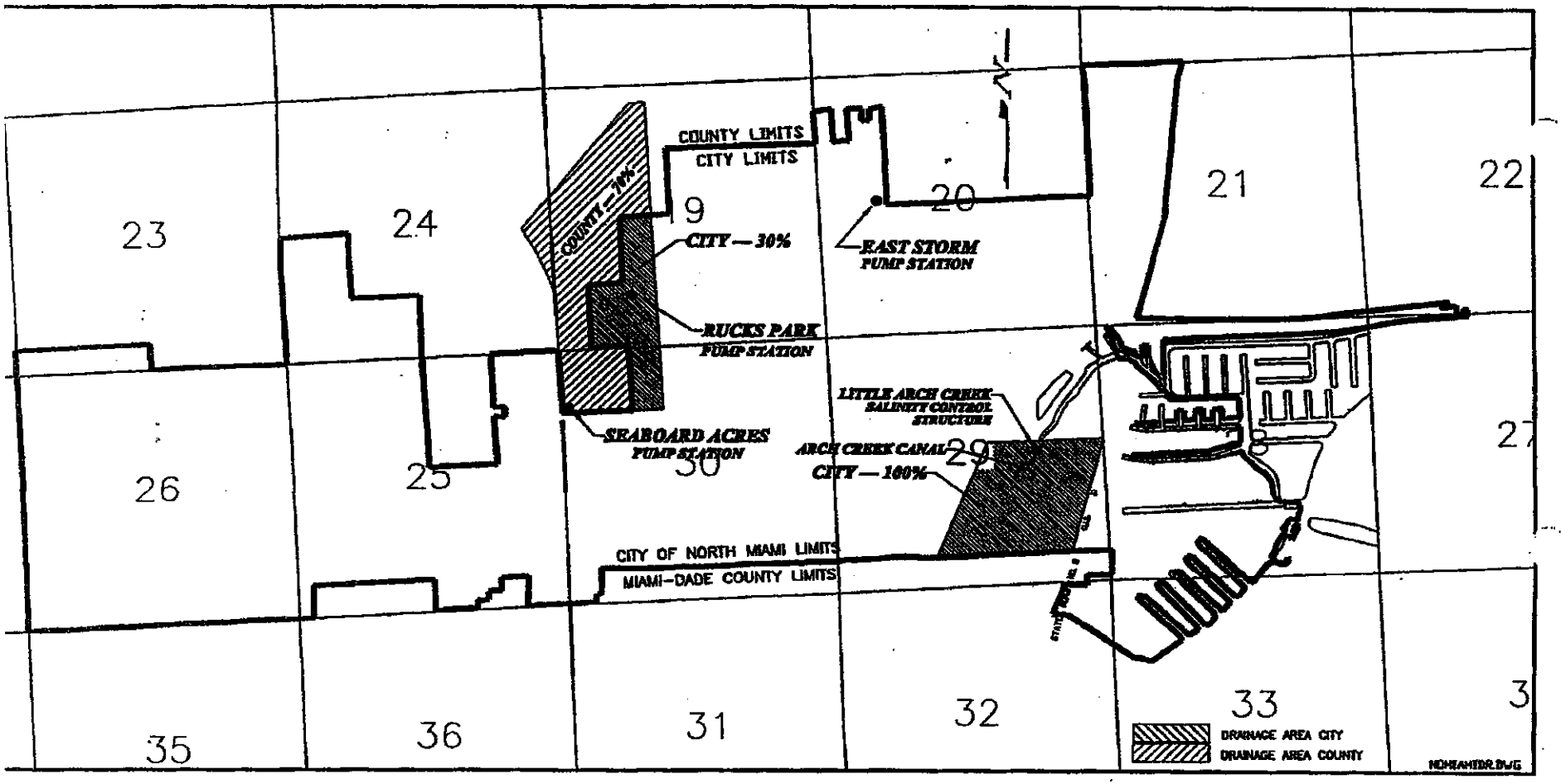
For the Board of County Commissioners, Miami-Dade County, Florida, as Governing Body of the Miami-Dade County Stormwater Utility.

Stephen P. Clark Center
111 N.W. 1st. Street
Miami, Florida 33128

HARVEY RUVIN, CLERK
Attest:

By: _____
Deputy Clerk Date 3/15/99

ATTACHMENT "A"



ATTACHMENT 'B'
MIAMI-DADE COUNTY STORMWATER UTILITY
AND CITY OF NORTH MIAMI
SHARED COSTS ON SHARED DRAINAGE SYSTEMS
Fiscal Year Budget October 1998 - September 1999

Summary:

SWU Costs:

	Cycles/Yr Budgeted	Cycle Cost $	Cost/Yr $	CITY's Share %	CITY's Share $
Canal Maintenance					
Culverts Above					
Seaboard	2	5,523	11,046	30%	3,314
Culverts below					
Seaboard	1	9,288	9,288	30%	2,786
Slope Mowing					
Seaboard	3	764	2,292	30%	688
Chemical Treatment					
Little A. Creek	5	2,839	14,195	100%	14,195
Seaboard	5	5,678	28,390	30%	8,517
Obstruction Removal					
Little A. Creek	1	1,451	1,451	100%	1,451
Seaboard	1	1,451	1,451	30%	435
Salinity Control Structure:					
Arch Creek					
Labor	52	130	6,760	100%	6,760
Energy			141	100%	141
Pump Stations:					
Seaboard					
Labor	52	130	6,760	30%	2,028
Energy		3,342	3,342	30%	1,002
CITY TOTAL SHARE					41,317

	Cost/Yr $	UTILITY's Share %	UTILITY's Share $
CITY COSTS			
Pump Stations:			
E-Storm Pump Station			
Labor & Energy	25,000	30%	7,500
UTILITY's TOTAL SHARE			7,500
NET DUE UTILITY:			33,817

NOTE: The CITY and the UTILITY will each pay their share of the actual expenses incurred, not exceeding the above amount.

NORTH MIAMI
FLORIDA
Parks and Recreation Department

FLOODPLAIN MANAGEMENT COMMITTEE

NFIP/CRS ACTIVITY 330
PUBLIC INFORMATION PROGRAM STRATEGY EVALUATION
ANNUAL REVIEW - 2014

1. Annual goals of the Public Information Program Strategy (OPS) through September 30, 2014.

   a. Make citizens aware of potential flood hazards.
   b. Make citizens aware of the appropriate steps to minimize damage to property or loss of life.
   c. Make citizens aware of the need to maintain adequate levels of flood insurance.
   d. Make realtors aware of the need to educate clients about the floodplain.
   e. Work with the homeowners associations to distribute information to their members.
   f. Train additional staff through FEMA's Emergency Management Institute.

2. Projects implemented to meet those goals and their objectives.

   a. Channel 77 – continued to present topics pertaining to the floodplain/flooding during hurricane season as PSA.
   b. Continued school-based education and outreach programs.
   c. Sent educational/informational letter to the City's real estate agents, insurance agents and lenders annually.
   d. Made presentations to interested homeowners associations, business organizations and City boards and committees.
   e. Continued to provide information on the floodplain/flooding on the City's web page.

3. Were any projects not implemented or objectives not reached? If not, why?

   - The "Today in North Miami" program on flooding was not shown on Channel 77 because the information needs to be updated and the show needs to be re-recorded.
   - We were not able to train additional staff through FEMA's Emergency Management Institute because the courses were not offered at the appropriate times.

4. What new projects should be implemented and what projects or objectives should be revised?

   a. Provide information and links on local Homeowners Association websites.
   b. Provide information to the public on global warming and its potential impacts.

Jeff Geimer, CRS Coordinator

9/25/14
Date completed

776 NE 125 Street | North Miami | Florida | 33161 305.893.6511

CITY OF NORTH MIAMI

PUBLIC INFORMATION PROGRAM STRATEGY (OPS)
NFIP/CRS ACTIVITY 330

Purpose

The Public Information Program Strategy is designed to advise North Miami property owners about the flood hazard, flood insurance, ways to prevent or reduce flood damage to buildings and the natural and beneficial functions of floodplains.

This Public Information Strategy will assist property owners, residents, insurance agents, lenders and real estate agents in accessing information which will assist in protecting themselves and their properties.

1. The local flood hazard

The City of North Miami is located in eastern Miami-Dade County, Florida, bordering Biscayne Bay. North Miami is somewhat buffered from the Atlantic Ocean by offshore barrier islands. The terrain is very flat and low-lying, with base flood elevations ranging from 8 to 13 feet above sea level.

The Arch Creek, Little Arch Creek, Biscayne Canal and Oleta River are the four waterways that traverse the City of North Miami. The City's stormwater collection system discharges through outfalls towards one of these waterways, or empties directly into the Biscayne Bay, which is connected to the Atlantic Ocean. These waterways are influenced by tides which contribute to drainage and flood problems within the City. For example, at high tide and during heavy rainfall, the storm sewer system will rapidly fill-up, from both run-off and the tidal waters, causing our streets, swale areas and lawns to be flooded.

The South Florida Water Management District operates a system of levees, canals and water control structures (including salinity structures) in order to reduce flooding during heavy storms and hurricanes, and provide a barrier against salt water intrusion. The District attempts to maintain a delicate balance within this system, since the water level in these canals has a direct influence on the level of the Biscayne Aquifer, which is Miami-Dade County's source of drinking water. This task becomes more difficult because of the extreme climate conditions experienced throughout South Florida, further exacerbated by unanticipated hurricanes, floods or droughts.

The City of North Miami can be divided into five major drainage basins, each with distinctive drainage characteristics as depicted in Appendix G.

The Biscayne Canal-West drainage basin has elevations which range from 10 to 13 feet above sea level and is composed primarily of sandy soil and limestone. The relatively high elevation, combined with a very low water table, fosters good groundwater percolation and good drainage conditions in this area.

The Biscayne Canal-East, Arch Creek-North and Arch Creek-South drainage basins are low-lying areas, consisting of sand, mucky soils, marl and limestone rock. The drainage in these areas are hampered by poor groundwater percolation, low elevations and a seasonably high water table. These areas include the majority of the flood prone areas within the City.

The Biscayne Bay Drainage Basin consists of San Souci and Keystone Point neighborhood, Florida International University, Oleta River State Park and a mangrove preserve. Many of the residential properties in this area border a network of canals, which minimizes drainage problems, due to the numerous outfalls and proximity to the water. Approximately 90% of the non-residential areas is open space, which significantly reduces the possibility of flooding. The primary flood hazard in this area is attributed to storm surge and tidal flooding.

2. The flood safety and property protection measures appropriate for the hazard.

During hurricanes or major flooding events, the Miami-Dade County Mayor will issue general evacuation orders. Prior to departure, property owners should disconnect the main source for electric power and natural gas. For impending threats of a greater magnitude to North Miami, the City Manager shall determine the proper course of action which may include community-wide notification to leave dangerous areas, or assisting with emergency floodproofing, such as issuing sandbags or clearing blocked drains.

Since local drainage concerns pose the greatest ongoing challenge, citizens are urged to:

a. prevent or remove the accumulation of debris from stormdrains in their areas
b. maintain swale areas around their property
c. keep canal banks free from debris (waterfront property)
d. become familiar with flood safety measures and how to protect their property from flood damage
e. cooperate when advised to evacuate
f. consider the purchase of flood insurance

3. Flood related public information activities currently implemented within the community.

a. ACIS – Automated Citizen Information System (305/891-INFO).
b. Channel 33
c. Citizen telephone requests to the Public Works Department
d. Site visits (as requested by citizens)
e. OPC – Progress Line one-liner in each issue, annual insert to all residents
f. OPF – Annual mailing to all floodplain residents
g. Library (holdings located in North Miami Public Library – Floodplain Reference Section)

4. Goals for the community's public information program

a. Make citizens aware of potential flood hazard and appropriate steps to minimize damage to property or loss of life.
b. Make citizens aware of the need to maintain adequate levels of flood insurance.

5. The outreach projects that will be done each year to reach the goals

a. "Today in North Miami" program with flooding as the topic. This program will be shown quarterly on Channel 33 and made available to all interested parties.
b. WAXY-AM 790 talk show.

c. Expand ACIS scripts to cover the ten general information topics now presented with the annual OPC brochure mailed as ProgessLine insert.
d. Channel 33 – present a new topic each month as a PSA
e. Chamber of Commerce luncheon presentation – once a year. (April or May)
f. School-based education and outreach programs (i.e. - Only Rain Down The Drain)
a. Postcards to all real estate agents, insurance agents and lenders in the City re: how to get map determinations within the City.
b. Presentations to interested homeowners associations and business organizations
c. City's Webpage

6. The process that will be followed to monitor and evaluate the projects

The North Miami City Council has expanded the mission of the Floodplain Management Committee to include ongoing planning and oversight for all floodplain activities. It shall be responsible for annual review of the OPS strategy, the Floodplain Management Plan and shall assist in identifying and implementing projects which reduce flood hazards within the City. It is expected that a working sub-committee of the Floodplain Management Committee will meet mid-year to monitor existing projects outlined in the Floodplain Management Plan and evaluate future projects. The full FPMC will meet annually to oversee the work of the sub-committee and propose new projects for the coming year.

7. Documentation that the strategy is being implemented.

Annually, the Public Works, Community Planning & Development and the City Manager's Office will provide a listing to the Floodplain Management Committee of all floodplain projects implemented.

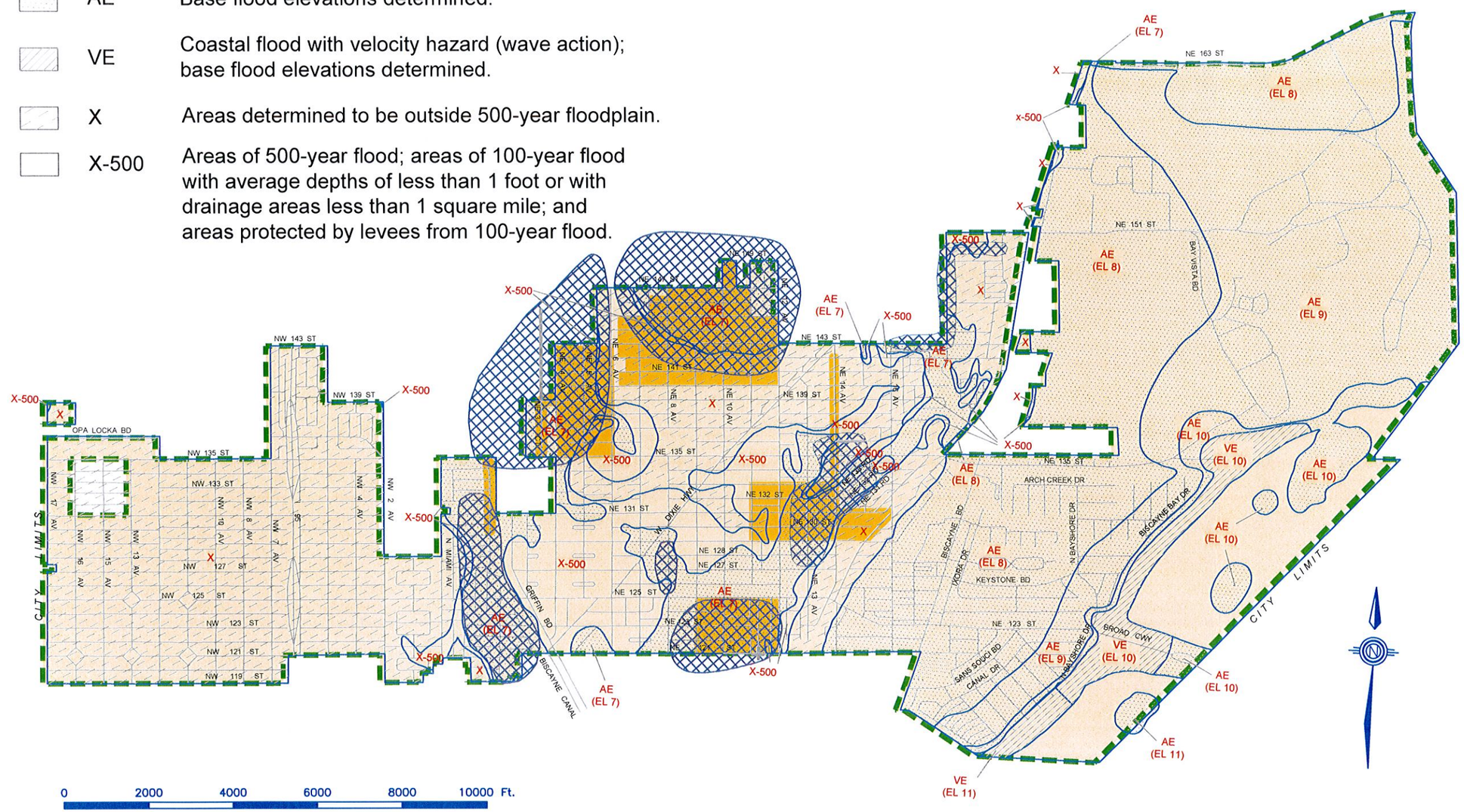
8. Annual report evaluating the projects implemented.

The Floodplain Management Committee will meet at years' end to review the work of staff, and the sub-committee. Minutes of the meeting and a written evaluation of ongoing projects will be prepared by the committee and maintained by the CRS coordinator with other City documentation.

Oct. 3, No-Name Storm

Hurricane Irene impact areas

AE	Base flood elevations determined.
VE	Coastal flood with velocity hazard (wave action); base flood elevations determined.
X	Areas determined to be outside 500-year floodplain.
X-500	Areas of 500-year flood; areas of 100-year flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 100-year flood.



SCALE: AS SHOWN	DESIGN BY:	**IMPACT AREAS FROM HURRICANE IRENE OCTOBER 15, 1999** (RAINFALL AMOUNT 11"-14" THROUGHOUT THE COUNTY) **AND FROM OCTOBER 3, 2000, NO-NAME STORM** (RAINFALL AMOUNT 10"-19" THROUGHOUT THE COUNTY)	CITY OF NORTH MIAMI PUBLIC WORKS DEPARTMENT STORM WATER UTILITY DIVISION NORTH MIAMI, FLORIDA
DATE: JAN. 2005	CHECKED BY: A. GHANY		
DWG. No: 1 OF 1	DRAWN BY: W. FARYNA		

Chapter 8.5

FLOOD DAMAGE PREVENTION ORDINANCE*

Art. I.	**In General, §§ 8.5-1—8.5-20**
Art. II.	**Definitions, §§ 8.5-21—8.5-30**
Art. III.	**Flood Damage Prevention Provisions, §§ 8.5-31—8.5-55**
	Div. 1. Generally, §§ 8.5-31—8.5-40
	Div. 2. Administration, §§ 8.5-41—8.5-50
	Div. 3. Provisions for Flood Hazard Reduction, §§ 8.5-51—8.5-55
Art. IV.	**Surfacewater and Stormwater Management, §§ 8.5-56—8.5-63**

***Editor's note**—Ord. No. 877, Arts. 1—5, adopted Sept. 22, 1992 amended this Code by adding a new chapter 30. In order to maintain the alphabetical sequence of the Code, the editor has redesignated the provisions of Ord. No. 877 as Chapter 8.5.

Cross references—Code enforcement, § 2-96 et seq.; buildings and building regulations, § 5-1 et seq.; utilities, § 19-1 et seq.; zoning, App. A.

ARTICLE I. IN GENERAL

Sec. 8.5-1. Creation of flood damage prevention ordinance.

The flood damage prevention ordinance is hereby created and adopted.
(Ord. No. 877, Art. 1, § A, 9-22-92)

Sec. 8.5-2. Findings of fact.

(a) The flood hazard areas of the City of North Miami are subject to periodic inundation which results in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety and general welfare.

(b) These flood losses are caused by the cumulative effect of obstructions in floodplains causing increases in flood heights and velocities, and by the occupancy in flood hazard areas by uses vulnerable to floods or hazardous to other lands which are inadequately elevated, flood-proofed, or otherwise unprotected from flood damages.
(Ord. No. 877, Art. 1, § B, 9-22-92)

Sec. 8.5-3. Statement of purpose.

It is the purpose of this chapter to promote the public health, safety and general welfare and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:

(1) Restrict or prohibit uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities;

(2) Require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;

(3) Control the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of flood waters;

(4) Control filling, grading, dredging and other development which may increase erosion or flood damage, and;

(5) Prevent or regulate the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards to other lands.

(Ord. No. 877, Art. 1, § C, 9-22-92; Ord. No. 1129, § 1, 5-13-03)

Sec. 8.5-4. Objectives.

The objectives of this chapter are:

(1) To protect human life and health;

(2) To minimize expenditure of public money for costly flood control projects;

(3) To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;

(4) To minimize prolonged business interruptions;

(5) To minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, street and bridges located in floodplains;

(6) To help maintain a stable tax base by providing for the sound use and development of flood prone areas in such a manner as to minimize flood blight areas, and;

(7) To ensure potential home buyers are notified that property is in a flood area.

(Ord. No. 877, Art. 1, § D, 9-22-92; Ord. No. 1129, § 2, 5-13-03)

Secs. 8.5-5—8.5-20. Reserved.

ARTICLE II. DEFINITIONS

Sec. 8.5-21. Words, terms and phrases defined.

Unless specifically defined below, words or phrases used in this chapter shall be interpreted so as to give them the meaning they have in common usage and to give this chapter its most reasonable application.

Addition (to an existing building) means any walled and roofed expansion to the perimeter of a building in which the addition is connected by a common load-bearing wall other than a fire wall. Any walled and roofed addition which is connected by a fire wall or is separated by independent perimeter load-bearing walls is new construction.

Appeal means a request for a review of the building official's interpretation of any provision of this chapter or a request for a variance.

Area of special flood hazard means the land in the floodplain within a community subject to one (1) percent or greater chance of flooding in any given year.

Base flood means the flood having a one (1) percent chance of being equaled or exceeded in any given year.

Basement means that portion of a building having its floor subgrade (below ground level) on all sides.

Breakaway wall means a wall that is mesh screening or open lattice and not part of the structural support of the building and is intended through its design and construction to collapse under specific lateral loading forces without causing damage to the elevated portion of the building, the supporting foundation system, or other buildings.

Building means any structure built for support, shelter, or enclosure for any occupancy or storage.

Coastal high hazard area means the area subject to high velocity waters caused by, but not limited to, hurricane wave wash. The area is designated on a FIRM as Zone V1—30, VE or V.

Critical facility means any structure or facility that produces, uses or stores highly volatile, flammable, explosive, toxic and/or water-reactive materials; or any hospital, nursing home or housing likely to contain occupants who may not be sufficiently mobile to avoid death or injury during a flood; or any police station, fire station, vehicle and equipment storage facility, or emergency operation center that is needed for flood response activities before, during and after a flood. All critical facilities built after the date of this Ordinance shall be flood protected from damage and loss of access as a result of the 500-year flood or the flood of record, whichever is greater.

Development means any manmade change to improved or unimproved real estate, including, but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, excavating, drilling operations, or permanent storage of materials or equipment.

Elevated building means a nonbasement building built to have the lowest floor elevated above the ground level by means of fill, solid foundation perimeter walls, pilings, columns (posts and piers), shear walls, or breakaway walls.

Existing construction means any structure for which the "start of construction" commenced before September 29, 1972.

Existing manufactured home park or subdivision means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including at a minimum the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed before September 29, 1972.

Expansion to an existing manufactured home park or subdivision means the preparation of additional sites by the construction of facilities for servicing lots on which the manufactures homes are to be affixed (including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads).

Flood or *flooding* means a general and temporary condition of partial or complete inundation of normally dry land areas from:

(1) The overflow of inland or tidal waters;

(2) The unusual and rapid accumulation or runoff of surface waters from any source.

Flood Hazard Boundary Map (FHBM) means an official map of a community, issued by the Federal Emergency Agency, where the boundaries of the areas of special flood hazard have been defined as Zone A.

Flood Insurance Rate Map (FIRM) means an official map of a community, on which the Federal Emergency Management Agency has delineated both the areas of special flood hazard and the risk premium zones applicable to the community.

Flood Insurance Study is the official report provided by the Federal Emergency Management Agency. The report contains flood profiles, as well as the Flood Boundary Floodway Map and the water surface elevation of the base flood.

Functionally dependent facility means a facility which cannot be used for its intended purpose unless it is located or carried out in close proximity to water, such as a docking or port facility necessary for the loading and unloading of cargo or passengers, shipbuilding, or ship repair. The term does not include long-term storage, manufacture, sales, or service facilities.

Highest adjacent grade means the highest natural elevation of the ground surface, prior to construction, next to the proposed walls of a building.

Historic structure means any structure that is:

(1) Listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;

(2) Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;

(3) Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of the Interior; or

(4) Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:

(a) By an approved state program as determined by the Secretary of the Interior; or

(b) Directly by the Secretary of the Interior.

Lowest floor means the lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access or storage in an area other than a basement area is not considered a building's lowest floor; provided, that such enclosure is not built so as to render the structure in violation of the applicable nonelevation design requirements of the National Flood Insurance Program.

Mangrove stand means an assemblage of mangrove trees which is mostly low trees noted for a copious development of interlacing adventitious roots above the ground and which contain one or more of the following species: black mangrove (*Avicennia nitida*); red mangrove (*Rhizophora mangle*); white mangrove (*Longuncularia racemosa*) and buttonwood (*Conocarpus erecta*).

Manufactured home means a building, transportable in one (1) or more sections, which is built on a permanent chassis and designed to be used with or without a permanent foundation when connected to the required utilities. The term also includes park trailers, travel trailers, and similar transportable structures placed on a site for one hundred eighty (180) consecutive days or longer and intended to be improved property.

Mean sea level means the average height of the sea for all stages of the tide. It is used as a reference for establishing various elevations within the floodplain. For purposes of this chapter, the term is synonymous with National Geodetic Vertical Datum (NGVD).

National Geodetic Vertical Datum as corrected in 1929 is a vertical control used as a reference for establishing varying elevations within the floodplain.

New construction means any structure for which the "start of construction" commenced after September 29, 1972. The term also includes any subsequent improvements to such structure.

New manufactured home park or subdivision means a manufactured home park or subdivision for which the construction of facilities for servic-

ing the lots on which the manufactured homes are to be affixed (including at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed on or after the effective date of floodplain management regulations adopted by the city.

Primary frontal dune means a continuous or nearly continuous mound or ridge of sand with relatively steep seaward and landward slopes immediately landward and adjacent to the beach and subject to erosion and overtopping from high tides and waves during major coastal storms. The inland limit of the primary frontal dune occurs at the point where there is a distinct change from a relatively steep slope to a relatively mild slope.

Recreational vehicle means a vehicle which is:

(1) Built on a single chassis;

(2) Four hundred (400) square feet or less when measured at the largest horizontal projection;

(3) Designed to be self-propelled or permanently towable by a light duty truck; and

(4) Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel or seasonal use.

Reference features is the receding edge of a bluff or eroding frontal dune, or if such a feature is not present, the normal high water line or the seaward line of permanent vegetation if a high water line cannot be identified.

Sand dunes mean naturally occurring accumulations of sand in ridges or mounds landward of the beach.

Start of construction (for other than new construction or substantial improvements under the Coastal Barrier Resources Act (P.L. 97-348)), includes substantial improvement, and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, or improvement was within one hundred eighty (180) days of the permit date. The actual start means the first placement of permanent construction of a building (including a manufactured home) on a site, such as the pouring of slabs or footings, installation of piles, construction of columns, or any work beyond the stage of excavation or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling; nor does it include the installation of streets for walkways; nor does it include excavation for a basement, footings, piers or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main building. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

Structure means a walled and roofed building, a liquid or gas storage tank that is principally above ground, as well as a manufactured home.

Substantial damage means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed fifty (50) percent of the market value of the structure before the damage occurred.

Substantial improvement means any combination of reconstruction, rehabilitation, addition, or other improvements to a building, taking place during a five (5) year period, in which the cumulative cost equals or exceeds fifty (50) percent of the market value of the building. The market value of the building should be (1) the appraised value, as determined, by a state certified appraiser, of the building prior to the start of the initial repair or improvement, or (2) the assessed value of the building prior to the start of the initial repair or improvement, or (3) in the case of damage, the value of the building prior to the damage occurring. This term includes structures which have incurred "substantial damage", regardless of the actual repair work performed. For the purposes of this definition, "substantial improvement" is considered to occur when the first alteration of any wall, ceiling, floor, or other structural part of the building commences, whether or not that alteration affects the external dimensions of the building. The term does not, however, include

any project for improvement of a building required to comply with existing health, sanitary, or safety code specifications which have been identified by the code enforcement official and which are solely necessary to assure safe living conditions or (2) any alteration of a "historic structure", provided that the alteration will not preclude the structure's continued designation as a "historic structure".

"*Substantially improved existing manufactured home parks or subdivisions*" is where the repair, reconstruction, rehabilitation or improvement of the streets, utilities and pads equals or exceeds fifty (50) percent of the value of the streets, utilities and pads before the repair, reconstruction or improvement commenced.

Variance means a grant of relief from the requirements of this chapter.

X-Zone means an area of minimum or moderate flood hazard above the base flood elevation, which does not meet the criteria of a Special Flood Hazard Area. For purposes of this chapter, base flood elevation in an X-Zone shall be equivalent to the elevation of the crown of the road abutting a property plus one (1) foot.

Zone of imminent collapse means an area subject to erosion adjacent to the shoreline of an ocean, bay, or lake and within a distance equal to ten (10) feet plus five (5) times the average annual longterm erosion rate for the site, measured from the reference feature.

30-year setback means a distance equal to thirty (30) times the average annual long term recession rate at a site, measured from the reference feature.

60-year setback means a distance equal to sixty (60) times the average annual long term recession rate at a site, measured from the reference feature.
(Ord. No. 877, Art. 2, 9-22-92; Ord. No. 1044, § 1, 2-22-00; Ord. No. 1129, § 3, 5-13-03; Ord. No. 1187, § 1, 7-12-05)

Secs. 8.5-22—8.5-30. Reserved.

ARTICLE III. FLOOD DAMAGE PREVENTION PROVISIONS

DIVISION 1. GENERALLY

Sec. 8.5-31. General provisions.

(a) *Lands to which this chapter applies.* This chapter shall apply to all areas of special flood hazard within the jurisdiction of the City of North Miami, Florida.

(b) *Basis for establishing the areas of special flood hazard.* The areas of special flood hazard identified by the Federal Emergency Management Agency in its original flood insurance rate map (FIRM) dated September 29, 1972, with other supporting data, and any revision, are adopted by reference and declared to be part of this chapter.

(c) *Establishment of development permit.* A development permit shall be required in conformance with the provisions of this ordinance prior to the commencement of any development activities.

(d) *Compliance.* No structure or land shall hereafter be located, extended, converted or structurally altered without full compliance with the terms of this chapter and other applicable regulations.

(e) *Abrogation and greater restrictions.* This ordinance is not intended to repeal, abrogate, or impair any existing easements, covenants or deed restrictions. However, where this ordinance and another conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

(f) *Interpretation.* In the interpretation and application of this chapter all provisions shall be: (1) considered as minimum requirements; (2) liberally construed in favor of the governing body; and (3) deemed neither to limit nor repeal any other powers granted under state statutes.

(g) *Warning and disclaimer of liability.* The degree of flood protection required by this chapter is considered reasonable for regulatory purposes and is based on scientific and engineering consideration. Larger floods can and will occur on rare occasions. Flood heights may be increased by man made or natural causes. This chapter does not

imply that land outside the areas of special flood hazard or uses permitted within such areas will be free from flooding or flood damages. This chapter shall not create liability on the part of the City of North Miami or by an officer or employee thereof for any flood damages that result from reliance on this chapter or any administrative decision lawfully made thereunder.

(h) *Penalties for violation.* Violation of the provisions of this chapter or failure to comply with any of its requirements, including violation of conditions and safeguards established in connection with grants of variance or special exceptions, shall constitute a municipal ordinance violation. Any person who violates this chapter or fails to comply with any of its requirements shall, upon conviction thereof, be fined not more than five hundred dollars ($500.00) or imprisoned for not more than sixty (60) days, or both, and in addition, shall pay all costs and expenses involved in the case. Each day such violation continues shall be considered a separate offense. This chapter shall also be subject to enforcement by the Local Government Code Enforcement Boards Act, Chapter 162, F.S., as amended. Enforcement may also be by suit for declaratory, injunctive or other appropriate relief in a court of competent jurisdiction. Nothing herein contained shall prevent the City of North Miami from taking such other lawful actions as is necessary to prevent or remedy any violation.
(Ord. No. 877, Art. 3, 9-22-92; Ord. No. 1129, § 4, 5-13-03)

Secs. 8.5-32—8.5-40. Reserved.

DIVISION 2. ADMINISTRATION

Sec. 8.5-41. Designation of building official.

The building official is hereby appointed to administer and implement the provisions of this chapter.
(Ord. No. 877, Art. 4, § A, 9-22-92)

Sec. 8.5-42. Permit procedures.

Application for a development permit shall be made to the building official on forms furnished by him or her prior to any development activities, and may include, but not be limited to, the following plans in duplicate drawn to scale showing the nature, location, dimensions, and elevations of the area in question; existing or proposed structures, earthen fill, storage of materials or equipment, drainage facilities, and the location of the foregoing. Specifically, the following information is required:

(1) *Application stage.*

(a) Elevation in relation to mean sea level of the proposed lowest floor (including basement) of all buildings;

(b) Elevation in relation to mean sea level to which any nonresidential building will be floodproofed;

(c) Certificate from a registered professional engineer or architect that the nonresidential floodproofed building will meet the floodproofing criteria in section 8.5-52(2);

(d) Description of the extent to which any watercourse will be altered or relocated as result of proposed development, and;

(2) *Construction stage.* Provide a floor elevation or floodproofing certification after the lowest floor is completed, or instances where the building is subject to the regulations applicable to costal high hazard areas, after placement of the horizontal structural members of the lowest floor. Upon placement of the lowest floor, or floodproofing by whatever construction means, or upon placement of the horizontal structural members of the lowest floor, whichever is applicable, it shall be the duty of the permit holder to submit to the building official a certification of the elevation of the lowest floor, floodproofed elevation, or the elevation of the lowest portion of the horizontal structural members of the lowest floor, whichever is applicable, as built, in relation to mean sea level. Said certification shall be prepared by or under the direct supervision of a registered land surveyor or professional engineer and certified by same. When

floodproofing is utilized for a particular building, said certification shall be prepared by or under the direct supervision of a professional engineer or architect and certified by same. Any work undertaken prior to submission of the certification shall be at the permit holder's risk. The building official shall review the floor elevation survey data submitted. Deficiencies detected by such review shall be corrected by the permit holder immediately and prior to further progressive work being permitted to proceed. Failure to submit the survey or failure to make said corrections required hereby, shall be cause to issue a stop work order for the project.

(Ord. No. 877, Art. 4, § B, 9-22-92)

Sec. 8.5-43. Duties and responsibilities of the building official.

Duties of the building official shall include, but not be limited to:

(1) Review all development permits to assure that the permit requirements of this ordinance have been satisfied;

(2) Advise permittee that additional federal or state permits may be required, and if specific federal or state permit requirements are known, require that copies of such permits be provided and maintained on file with the development permit.

(3) Notify adjacent communities and the Florida Department of Community Affairs prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Emergency Management Agency.

(4) Assure that maintenance is provided within the altered or relocated portion of said watercourse so that the flood-carrying capacity is not diminished.

(5) Verify and record the actual elevation (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved buildings, in accordance with section 8.5-42(2).

(6) Verify and record the actual elevation (in relation to mean sea level) to which the new or substantially improved buildings have been flood proofed, in accordance with section 8.5-42(2).

(7) In coastal hazard areas, certification shall be obtained from a registered professional engineer or architect that the building is designed and securely anchored to adequately anchored pilings or columns in order to withstand velocity waters and hurricane wave wash.

(8) In coastal high hazard areas, the building official shall review plans for adequacy of breakaway walls in accordance with section 8.5-52(6)(h).

(9) When flood proofing is utilized for a particular building, the building official shall obtain certification from a registered professional engineer or architect, in accordance with section 8.5-52(2).

(10) Where interpretation is needed as to the exact location of boundaries of the areas of special flood hazard (for example, where there appears to be a conflict between a mapped boundary and actual field conditions) the building official shall make the necessary interpretation. The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in this article.

(11) When base flood elevation data and floodway data have not been provided in accordance with section 8.5-31(b), then the building official shall obtain, review and reasonably utilize any base flood elevation and floodway data available from a federal, state or other source, in order to administer the provisions of article III, division 3.

(12) All records pertaining to the provision of this ordinance shall be maintained in the office of the building official and shall be open for public inspection.

(Ord. No. 877, Art. 4, § C, 9-22-92; Ord. No. 1129, § 5, 5-13-03)

Sec. 8.5-44. Variance procedures.

(a) The board of adjustment as established by the City of North Miami shall hear and decide appeals and requests for variances from the requirements of this chapter.

(b) The board of adjustment shall hear and decide appeals when it is alleged there is an error in any requirement, decision, or determination made by the building official in the enforcement or administration of this chapter.

(c) Any person aggrieved by the decision of the board of adjustment or any taxpayer may appeal such decision to the circuit court, pursuant to the Florida Rules of Civil Procedure.

(d) Variances may be issued for the repair or rehabilitation of historic structures (see definition) upon a determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as a historic structure and the variance is the minimum to preserve the historic character and design of the structure.

(e) In passing upon such applications, the board of adjustment shall consider all technical evaluations, all relevant factors, all standards specified in other sections of this ordinance; and

(1) The danger that materials may be swept onto other lands to the injury of others;

(2) The danger of life and property due to flooding or erosion damage;

(3) The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;

(4) The importance of services provided by the proposed facility to the community;

(5) The necessity of the facility to a waterfront location, in the case of a functionally dependent facility;

(6) The availability of alternative locations, not subject to flooding or erosion damage, for the proposed use;

(7) The compatibility of the proposed use with existing and anticipated development;

(8) The relationship of the proposed use to the comprehensive plan and floodplain management program for that area;

(9) The safety of access to the property in times of flood for ordinary and emergency vehicles;

(10) The effect in the flood insurance rates;

(11) The expected heights, velocity, duration, rate of rise and sediment transport of the flood waters and the effects of wave action, if applicable, expected at the site; and

(12) The costs of providing governmental services during and after flood conditions including maintenance and repair of public utilities and facilities such as sewer, gas, electrical, and water systems, and streets and bridges.

(f) Upon consideration of the factors listed above, and the purposes of this chapter, the board of adjustment may attach such conditions to the granting of the variances as it deems necessary to further the purposes of this chapter.

(g) Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.

(h) Conditions for variances.

(1) Variances shall be issued only upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief; and in the instance of a historical building, a determination that the variance is the minimum necessary so as not to destroy the historic character and design of the building;

(2) Variances shall be issued upon (i) a showing of good and sufficient cause, (ii) a determination that failure to grant the variance would result in exceptional hardship; and (iii) a determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisance, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances.

(3) Any applicant to whom a variance is granted shall be given written notice specifying the difference between the base flood elevation and the elevation to which the building is to be built and stating that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation.

(4) The building official shall maintain the records of all appeal actions and report any variances to the Federal Emergency Management Agency upon request.

(5) The city shall notify the applicant of the following in writing, with the signature of the building official:

(i) The issuance of a variance to construct a structure below the base flood level will result in increased premium rates for flood insurance up to amounts as high as twenty-five dollars ($25.00) per one thousand dollars ($1,000.00) of insurance coverage for the life of the structure, as long as it remains non-compliant; and

(ii) Such construction below the base flood level increases the risks to life and property.

(6) The City of North Miami will issue variances for the following:

1) Historic structures;

2) Functionally dependant facilities; and

3) Restrooms in public parks.

(Ord. No. 877, Art. 4, § D, 9-22-92; Ord. No. 1129, § 6, 5-13-03)

Sec. 8.5-45. Required disclosure in contracts for sale of real estate.

In any contract for the sale of improved real estate located in the City of North Miami which is in a special flood hazard area, the seller shall include in the contract or a rider to the contract the following disclosure in not less than ten-point bold-faced type:

THIS HOME OR STRUCTURE IS LOCATED IN A SPECIAL FLOOD HAZARD AREA. IF THIS HOME OR STRUCTURE IS BELOW THE APPLICABLE FLOOD ELEVATION LEVEL AND IS SUBSTANTIALLY DAMAGED OR SUBSTANTIALLY IMPROVED, AS DEFINED IN CHAPTER 8.5 OF THE NORTH MIAMI CODE OF ORDINANCES, IT MAY, AMONG OTHER THINGS, BE REQUIRED TO BE RAISED TO THE APPLICABLE FLOOD ELEVATION LEVEL.

(Ord. No. 1077, § 1, 1-23-01; Ord. No. 1129, § 7, 5-13-03)

Sec. 8.5-46. Calculating substantial improvement and damage.

(1) *Substantial improvement.* An addition or renovation shall be considered a substantial improvement when the costs of improving the structure exceeds fifty (50) percent of the market value of the building:

(a) For the purposes of this section, the costs of improvements for a project shall be obtained from one of the following sources:

1. Detailed cost estimate from the licensed general contractor of record; or

2. Professional construction estimation software, such as Marshall and Swift or the Federal Emergency Management Agency's (FEMA) residential substantial damage estimation program.

(b) For the purposes of this section, the following sources will be considered acceptable estimates of market value:

1. An independent appraisal by a professional appraiser. The appraisal must exclude the value of the land and not use the "income capitalization approach" which bases value on the use of the property, not the structure.

2. Detailed estimates of the structure's actual cash value - the replacement cost for a building, minus a depreciation percentage based on the age and condition.

3. Property appraisals used for tax assessment purposes with an adjustment recommended by the Miami-Dade County Property Appraiser to reflect market conditions (adjusted assessed value).

(c) For structures in which the substantial improvement percentage is greater than or equal to forty (40) percent, a more precise market value may be required.

(2) *Substantial damage.* Damage to a structure, including damage from demolition, in which the cost to repair exceeds fifty (50) percent of the market value of the building:

(a) Cost to repair a structure shall be calculated for full repair to the building before damage condition, even when the owner elects not to restore the building to its prior state. Cost to repair shall also include the cost of any improvement that the owner has opted to include during the repair project. For the purposes of this section, the cost to repair shall be obtained from one of the following objective third party sources:

1. A licensed general contractor;

2. Professional construction estimation software, such as Marshall and Swift or the Federal Emergency Management Agency's (FEMA) residential substantial damage estimation program;

3. Insurance adjustment papers; or

4. Damage assessment field surveys conducted by building inspection, emergency management or tax assessment agencies after a disaster.

(b) Market value shall be calculated as set forth in section 8.5-43 (1)(b), above.

(c) For structures in which the substantial damage percentage is greater than or equal to forty (40) percent, a more precise market value may be required.

(3) *Exclusions regarding substantial improvement.* The term substantial improvement shall not, however, include either:

(a) Functionally dependent structures;

(b) Alteration of historic structures provided that the alteration will not preclude the structure's continued designation as a historic structure; or

(c) Restrooms in public parks.

(Ord. No. 1129, § 8, 5-13-03)

Secs. 8.5-47—8.5-50. Reserved.

DIVISION 3. PROVISIONS FOR FLOOD HAZARD REDUCTION

Sec. 8.5-51. General standards.

In all areas of special flood hazard the following provisions are required:

(1) New construction and substantial improvements shall be anchored to prevent flotation, collapse or lateral movement of the structure;

(2) Manufactured homes shall be anchored to prevent flotation, collapse, or lateral movement. Methods of anchoring may include, but are not limited to, use of over-the-top or frame ties to ground anchors. This standard shall be in addition to and consistent with applicable state requirements for resisting wind forces;

(3) New construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage;

(4) New construction or substantial improvements shall be constructed by methods and practices that minimize flood damage;

(5) Electrical, heating, ventilation, plumbing, air conditioning equipment (including duct work), and other service facilities shall be designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding;

(6) New and replacement water supply system shall be designed to minimize or eliminate infiltration of flood waters into the system;

(7) New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the system and discharges from the systems into flood waters;

(8) On-site waste disposal systems shall be located and constructed to avoid impairment to them or contamination from them during flooding, and;

(9) Any alteration, repair, reconstruction or improvements to a building which is in compliance with the provisions of this chapter, shall meet the requirements of "new construction" as contained in this article;

(10) Any reconstruction, rehabilitation, or other improvements to a pre-firm structure which is not in compliance with the provisions of this chapter, shall be undertaken only if the lowest floor of said noncompliance is at or above the existing lowest floor elevation, and does not constitute substantial improvement.

(11) All improvements, modifications, and/or additions to all existing structures shall be calculated cumulatively for five (5) years from the date of the initial permit date. Additionally, all reconstruction and/or repairs to a damaged structure shall be calculated cumulatively for five (5) years from the date of the initial permit date.

(Ord. No. 877, Art. 5, § A, 9-22-92; Ord. No. 1129, § 9, 5-13-03; Ord. No. 1187, § 2, 7-12-05)

Sec. 8.5-52. Specific standards.

In areas of special flood hazard other than coastal high hazard, residential and commercial X-Zones, where base flood elevation data has been provided, as set forth in section 8.5-31(b), or section 8.5-43(11), the following provisions are required:

(1) *Residential construction.* New construction or substantial improvement of any residential building (or manufactured home) shall have the lowest floor, including basement (A) elevated no lower than one (1) foot above the base flood elevation or the crown of the road abutting the property, whichever is greater, or, (B) elevated no lower than two (2) feet above base flood elevation. Should solid foundation perimeter walls be used to elevate a structure, openings sufficient to facilitate the equalization of hydrostatic forces on two (2) sides of exterior walls in accordance with standards of section 8.5-52(3).

(2) *Non-residential construction.* New construction or substantial improvement of any commercial, industrial, or non-residential building (or manufactured home) shall have the lowest floor, including basement (A) elevated no lower than one (1) foot above the base flood elevation or the crown of the road abutting the property, whichever is greater, or (B) Elevated no lower than two (2) feet above base flood elevation. Buildings located in all A-zones may be flood proofed in lieu of being elevated provided that all areas of the building below the required elevation are watertight with walls substantially impermeable to the passage of water, and use structural components having the capability of resisting hydrostatic and hydrodynamic loads and the effect of buoyancy. A registered professional engineer or architect shall certify that the standards of this subsection are satisfied. Such certification shall be provided to the official as set forth in section 8.5-43(9). An operational plan shall be included to describe the installation of the flood proofing measures.

(3) *Elevated buildings.* New construction or substantial improvements of elevated buildings that include fully enclosed areas formed by foundation and other exterior walls below the lowest floor elevation shall be designed to preclude finished living space and designed to allow for the

entry and exit of floodwaters to automatically equalize hydrostatic flood forces on exterior walls.

a. Designs for complying with this requirement must either be certified by a professional engineer or architect or meet the following minimum criteria:

1. Provide a minimum of two (2) openings having a total net area of not less than one (1) square inch for every square foot of enclosed area subject to flooding;

2. The bottom of all openings shall be no higher than one (1) foot above grade; and

3. Openings may be equipped with screens, louvers, valves or other coverings or devices provided they permit the automatic flow of floodwaters in both directions.

b. Access to the enclosed area shall be the minimum necessary to allow for parking of vehicles (garage door) or limited storage of maintenance equipment used in connection with the premises (standard exterior door) or entry to the living area (stairway or elevator); and

c. The interior portion of such enclosed area shall not be partitioned or finished into separate rooms.

(4) *Standards for manufactured homes and recreational vehicles.*

(a) All manufactured homes placed or substantially improved, on individual lots or parcels, in expansions to existing manufactured home parks or subdivisions, or in substantially improved manufactured home parks or subdivisions, must meet all the requirements for new construction, including elevation and anchoring.

(b) All manufactured homes placed or substantially improved in an existing manufactured home park or subdivision must be elevated so that:

1. The lowest floor of the manufactured home is elevated no lower than two (2) feet above the base flood elevation; or

2. The manufactured home chassis is supported by reinforced piers or other foundation elements of at least an equivalent strength, of no less than thirty-six (36) inches in height above grade.

3. The manufactured home must be securely anchored to the adequately anchored foundation system to resist flotation, collapse and lateral movement.

4. In an existing manufactured home park or subdivision on which a manufactured home has incurred "substantial damage" as the result of a flood, any manufactured home placed or substantially improved must meet the standards of subsection 4(b)1., and 3. above.

(c) All recreational vehicles placed on sites must either:

1. Be fully licensed and ready for highway use; or

2. The recreational vehicle must meet all the requirements for new construction, including anchoring and elevation requirements of subsection 4(b)1., and 3., above. A recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices and has no permanently attached structures.

(5) *Floodways.* Located within areas of special flood hazard established in section

8.5-31(b), are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of flood waters which carry debris, potential projectiles and has erosion potential, the following provisions shall apply:

(a) Prohibit encroachments, including fill, new construction, substantial improvements and other developments unless certification (with supporting technical data) by a registered professional engineer is provided demonstrating that encroachments shall not result in any increase in flood levels during occurrence of the base flood discharge;

(b) If section 8.5-52(5)(a) is satisfied, all new construction and substantial improvements shall comply with all flood damage prevention provisions of section 8.5-52.

(c) Prohibit the placement of manufactured homes (mobile homes), except in an existing manufactured homes (mobile homes) park or subdivision, except where otherwise required by law and required by the city's comprehensive land use master plan. A replacement manufactured home may be placed on a lot in an existing manufactured home park or subdivision provided the anchoring standards of section 8.5-51(2), and the elevation standards of section 8.5-52 (1) and (2) and the encroachment standards of section 8.5-52(5)(a), are met.

(6) *Coastal high hazard areas (V zones).* Located within the areas of special flood hazard established in section 8.5-31(b), are areas designated as coastal high hazard areas. These areas have special flood hazards associated with wave wash, therefore, the following provisions shall apply:

(a) All buildings shall be located twenty-five (25) feet landward of the reach of the mean high tide;

(b) All buildings shall be elevated so that the bottom of the lowest supporting horizontal member (excluding pilings or columns) is located no lower than one (1) foot above the base flood elevation, with all space below the lowest horizontal structural member open so as not to impede the flow of water. Open lattice work or decorative screening may be permitted for aesthetic purposes only and must be designed to wash away in the event of abnormal wave action and in accordance with section 8.5-52(6)(h);

(c) All buildings or structures shall be securely anchored on pilings or columns;

(d) All pile and column foundations and structures attached thereto shall be anchored to resist flotation, collapse, and lateral movement due to the effect of wind and water loads acting simultaneously on all building components. Water loading values shall equal or exceed the base flood. Wind loading values shall be in accordance with Florida Building Code, current edition;

(e) A registered professional engineer or architect shall certify that the design, specifications and plans for construction are in compliance with the provisions contained in section 8.5-52(6)(b), (c) and (d) of this article;

(f) There shall be no fill used as structural support. Noncompacted fill may be used around the perimeter of a building for landscaping/aesthetic purposes provided the fill will wash out from storm surge, (thereby rendering the building free of obstruction) prior to generating excessive loading forces, ramping effects, or wave deflection. The building official shall approve design plans for landscaping/aesthetic fill only after the applicant has provided an analysis by an engineer, architect, and/or soil

scientist, which demonstrates that the following factors have been fully considered:

1. Particle composition of fill material does not have a tendency for excessive natural compaction;
2. Volume and distribution of fill will not cause wave deflection to adjacent properties; and
3. Slope of fill will not cause wave run-up or ramping.

(g) There shall be no alteration of sand dunes or mangrove stands which would increase potential flood damage;

(h) Lattice work or decorative screening shall be allowed below the base flood elevation provided they are not part of the structural support of the building and are designed so as to breakaway, under abnormally high tides or wave action, without damage to the structural integrity of the building on which they are to be used and provided the following design specifications are met:

1. No solid walls shall be allowed, and;
2. Material shall consist of lattice or mesh screening only.

(i) If aesthetic lattice work or screening is utilized, such enclosed space below the lowest floor shall be designed to be used only for parking of vehicles, building access, or limited storage of maintenance equipment used in connection with the premises;

(j) Prior to construction, plans for any buildings that will have lattice work or decorative screening must be submitted to the building official for approval;

(k) Any alteration, repair, reconstruction or improvement to a structure shall not enclose the space below the lowest floor except with lattice work or decorative screening, as provided for in section 8.5-52(6)(h) and (i);

(l) Prohibit the placement of manufactured homes (mobile homes), except in an existing manufactured homes (mobile home) park or subdivision, except where otherwise required by law and required by the City's Comprehensive Land Use Master Plan. A replacement manufactured home may be placed on a lot in an existing manufactured home park or subdivision provided the anchoring standards of section 8.5-52(6)(e), and the elevation standards of section 8.5-52(6)(b) are met.

(Ord. No. 877, Art. 5, § B, 9-22-92; Ord. No. 1044, § 2, 2-22-00; Ord. No. 1129, § 10, 5-13-03; Ord. No. 1187, § 3, 7-12-05)

Sec. 8.5-53. Standards for streams with established base flood elevations without floodways.

Located within the areas of special flood hazard established in section 8.5-31(b), where streams exist but where no base flood data has been provided or where base flood data has been provided without floodways, the following provisions apply:

(1) No encroachments, including fill material or structures shall be located within areas of special flood hazard, unless certification by a registered professional engineer is provided demonstrating that the cumulative effect of the proposed development, when combined with all other existing and anticipated development will not increase the water surface elevation of the base flood more than one foot at any point within the community. The engineering certification should be supported by technical data that conforms to standard hydraulic engineering principles.

(2) New construction or substantial improvements of buildings shall be elevated or floodproofed to elevations established in accordance with section 8.5-43(11).

(Ord. No. 877, Art. 5, § C, 9-22-92; Ord. No. 1129, § 11, 5-13-03)

Sec. 8.5-54. Standards for subdivision proposals.

(a) All subdivision proposals shall be consistent with the need to minimize flood damage;

(b) All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize flood damage;

(c) All subdivision proposals shall have adequate drainage provided to reduce exposure to flood hazards; and

(d) Base flood elevation data shall be provided for subdivision proposals and other proposed development (including manufactured home parks and subdivisions) which is greater than the lesser of fifty (50) lots or five (5) acres whichever is the lesser.
(Ord. No. 877, Art. 5, § D, 9-22-92; Ord. No. 1129, § 12, 5-13-03)

Sec. 8.5-55. Reserved.

Editor's note—Ord. No. 1129, § 13, adopted May 13, 2003, repealed § 8.5-56 in its entirety. Formerly, said section pertained to standards for areas of shallow flooding (AO zones) as enacted by Ord. No. 877, Art. 5, § E, adopted Sept. 22, 1992.

ARTICLE IV. SURFACEWATER AND STORMWATER MANAGEMENT*

Sec. 8.5-56. Title.

This ordinance shall be known as the Surface and Stormwater Management (SSM) Ordinance of the city.
(Ord. No. 1045, § 1, 2-22-00)

Sec. 8.5-57. Definitions.

(a) *City* shall mean the City of North Miami.

(b) *Construction* shall mean any onsite activity that will result in the creation of a new stormwater management system, including the building, assembling, expansion, modification, or alteration of the existing contours of the property, the erection of buildings or other structures, or any part thereof, or land clearing.

(c) *Construction permit* shall mean an SSM permit issued by the city to an entity with the legal ability to construct the stormwater management system in accordance with the system design and permit conditions.

*Editor's note—Ord. No. 1129, § 14, adopted April 22, 2003, amended the title of article IV to read as herein set out.

(d) *Control device* shall mean the element of a discharge structure that allows the gradual release of water under controlled conditions, sometimes referred to as bleed-down.

(e) *Control elevation* shall mean the lowest elevation at which water can be released through the control device.

(f) *Director* shall mean the director, or designee, of the city's public works department.

(g) *Detention* shall mean the collection and temporary storage of stormwater in such a manner as to provide treatment through physical, chemical, or biological processes, with subsequent gradual release of the stormwater.

(h) *Development* shall mean any of the following:

(1) Construction, installation, alteration, demolition or removal of a structure, impervious surface, or stormwater management system, or

(2) Clearing, scraping, grubbing, or otherwise removing or killing the vegetation of a site;

(3) Adding, removing, exposing, excavating, leveling, grading, digging, dumping, or otherwise disturbing the soil or rock of a site in a manner that is contrary to the requirements of this article.

(i) *Discharge structure* shall mean a structural device, usually constructed of a material such as concrete, metal, or plastic, through which water from a stormwater management system is discharged to a receiving water body.

(j) *Dry detention* shall mean water storage with the bottom elevation at least one foot above the control elevation. Sumps, swales, and other minor features may be at a lower elevation.

(k) *Drainage area* shall mean the watershed area contributing surface and stormwater runoff to the city's stormwater management system.

(l) *Elevation* shall mean the height, in feet above mean sea level, according to the National Geodetic Vertical Datum (NGVD).

(m) Engineer shall mean a professional engineer registered in Florida, or other person authorized pursuant to the provisions of Chapter 471, Florida Statutes, who is competent in the fields of hydrology and stormwater management. Engineer shall not be a current employee of the city.

(n) *Historic discharge* or *volume* shall mean the peak rate or volume at which stormwater runoff leaves a parcel of land in an undisturbed natural site condition by gravity or the legally allowable discharge at the time of permit approval.

(o) *Impervious surface* shall mean a surface that has been compacted or covered so that it is highly resistant to infiltration of water.

(p) *Operation permit* shall mean an SSM permit issued by the city to an entity with the legal ability to operate and maintain the stormwater management system in accordance with the system design and permit conditions.

(q) *Overflow elevation* shall mean the design elevation of a discharge structure at which, or below which, water is contained behind the outlet of the control device, except for that which leaks out, or bleeds out, through a control device down to the control elevation.

(r) *Retention* shall mean the prevention of, or to prevent the discharge of, a given volume of stormwater runoff into surface waters by complete onsite storage.

(s) *Soil conservation plan* shall mean a document prepared or approved by a local Soil and Water Conservation District Board organized pursuant to Chapter 582, Florida Statutes, that outlines a system of management practices to control stormwater and soil erosion, reduce sediment loss, or protect receiving water quality on a specific parcel of property.

(t) *Stormwater* shall mean the flow of water that results from and occurs immediately following a rainfall event.

(u) *Stormwater management plan* shall mean a plan for receiving, handling, and transporting storm and surface-waters within the city's stormwater management system.

(v) *Stormwater management system* shall include all natural and manmade elements used to convey stormwater from the first point of impact with the surface of the earth to a suitable outlet location internal or external to the boundaries of the city. The stormwater management system includes all pipes, channels, streams, ditches, wetlands, sinkholes, detention/retention basins, ponds, and other stormwater conveyance and treatment facilities, whether public or private.

(w) *Surface water* shall mean water that finds its way to an open channel without infiltrating into the soil.

(x) *Surface and stormwater management (SSM) permit* shall mean a construction or operation permit issued by the city in compliance with the provisions of this article.

(y) *Swale* shall mean a natural or manmade trench that:

(1) Has a top width-to-depth ratio of the cross section equal to or greater than 6:1, or side slopes equal to or greater than three (3) feet horizontal to one (1) foot vertical; and

(2) Contains contiguous areas of standing or flowing water only following a rainfall event, and

(3) Is planted with or has stabilized vegetation suitable for soil stabilization, surface water treatment, and nutrient uptake; and

(4) Is designed to take into account the soil erodibility, soil percolation, slope, slope length, and drainage area so as to prevent erosion and reduce pollutant concentration of any Stormwater as defined in chapter 24 of the Miami-Dade County Water Quality Standards.

(z) Wet detention shall mean water storage with the bottom elevation lower than one (1) foot below the control elevation of the system.
(Ord. No. 1045, § 2, 2-22-00; Ord. No. 1129, § 15, 5-13-03)

Sec. 8.5-58. Permitting.

(a) The provisions of this article shall apply to all land within the city. No person may subdivide, develop, change to a more intense land use, construct or reconstruct a structure, or change the size of a structure, except as exempted without first obtaining a SSM permit from the city. The city shall issue SSM permits as identified below:

(1) *Construction permits* shall be required prior to initiating any construction, development, or alteration activities.

(2) *Operation permits* shall be required prior to the occupancy or use of facilities authorized under a construction permit. An operation permit cannot be issued until an engineer has certified that construction has been completed according to permit conditions.

(b) Nonconforming areas. An existing development must be brought into full compliance with this article when any of the following activities occur.

(1) *Impervious area expansion.* The gross impervious area of a property is expanded by more than five thousand (5,000) square feet. Repeated expansions of a development, constructed over a period of time commencing with the effective date of this article, shall be combined in determining whether the threshold has been reached.

(2) *Use change.* The use of a development changes to a more intense classification.

(3) *Site alteration.* A site alteration activity requires the submission of a development plan or amended development plan and involves ten (10) percent or more of the site area.

(4) *Reconstruction.* A structure is reconstructed following substantial destruction by fire or other calamity. A structure is considered substantially destroyed if the cost of reconstruction is fifty (50) percent or more of the fair market value of the structure before the calamity.

(c) Exemptions. The provisions of this article shall not apply to:

(1) Land which is developed as single family residences;

(2) Parcels of one-half (1/2) acre or less; or,

(3) Developments which increase the impervious area by five thousand (5,000) square feet or less.

(Ord. No. 1045, § 3, 2-22-00)

Sec. 8.5-59. Processing and fees.

Procedures for processing of permit applications shall be as follows:

(1) *Application.* SSM permit applications for both construction and operation shall be submitted to the director for review, processing, and approval.

(2) *Fees.* A non-refundable permit application fee shall be paid when the application is submitted to cover the cost of plan review, administration and management of the permitting process, and inspection of project implementation and operation. A schedule of permit application and inspection fees shall be established pursuant to an administrative regulation by the city manager.

(3) *Sufficiency review.* An application sufficiency review shall be conducted by the director, and within ten (10) days from the submittal date, written comments shall be provided to the applicant regarding the completeness of the application and requesting additional information, if necessary.

(4) *Issuance.* If the director determines that the permit application submittal is in compliance with all provisions of this article, a permit may be issued. If the director determines that the permit application submittal does not conform with all provisions of this article, permit issuance shall be denied and a written statement as to the reasons for the denial shall be provided to the applicant.

(5) *Appeals.* Any applicant who believes that a permit application is denied without sufficient cause and that the submittal conforms with all provisions of this article may petition in writing to the director. If the applicant is again denied a permit, that denial may be appealed to the City of North Miami Board of Adjustment, whose decision shall be final.

(Ord. No. 1045, § 4, 2-22-00)

Sec. 8.5-60. Permit submittal and conditions.

(a) Submittals. An SSM permit application shall be submitted to the city using appropriate forms as provided by the director. A permit application shall contain sufficient information to allow the director to determine whether the project complies with the requirements of this article. The following specific items are minimum submittal requirements for a permit application:

(1) *Applicant information,* including the name, address, and telephone number of the applicant and proof of ownership for the property to be permittees.

(2) *Aerial photograph* of the project vicinity, taken not more than three (3) years before the application date, coveting the project area and the total lands that contribute runoff.

(3) *Topographic map* of the project area, showing the location and elevation of benchmarks, including at least one (1) benchmark for each control structure.

(4) *Land use map* showing both current and proposed conditions for the drainage area that contributes runoff.

(5) *Soils and vegetation map* displaying the most recent U.S. Soil Conservation Service information and encompassing both the project area and the drainage area that contributes runoff.

(6) *Proposed grading, drainage, paving, and building plan* showing details of proposed grading, drainage, paving, and buildings.

(7) *Erosion and sediment control plan* identifying the type, location, and schedule for implementing erosion and sediment control measures, including total disturbed area and appropriate provisions for maintenance and disposition of temporary measures. All inspections shall be conducted in accordance with the Florida Stormwater, Erosion, and Sedimentation Control Inspector's Manual, published by Florida Department of Environmental Protection (FDEP) Stormwater/Nonpoint Source Management Section.

(8) *Technical report* prepared by an engineer, describing the assumptions, calculations, and procedures used for determining compliance with the performance criteria established by this article.

(9) *Operation and maintenance plan* prepared by an engineer, describing the activities and schedule required to operate and maintain the permitted facilities.

(b) Each permit issued by the city shall be subject to the following conditions.

(1) *Area.* The development, including associated construction, shall be conducted only within the area specified in the approved permit.

(2) *Execution.* Activities requiring an SSM permit shall not be commenced until the construction permit is approved and posted in a conspicuous place. The construction permit shall be protected from weather and shall remain posted until an operation permit has been issued.

(3) *Inspections.* A schedule of inspections to be carried out during the construction and operation phases of permitting shall be established as conditions to the permit.

(4) *Duration.* Unless revoked or otherwise modified, the duration of a construction permit issued pursuant to this article shall be consistent with the building permits issued for the development. If the permitted project discharge structure is completed prior to expiration, the construction permit duration can be extended to cover the project duration. Operation permits are subject to annual review by the director.

(5) *Maintenance.* Operation and maintenance activities, as specified in the approved operation and maintenance plan, shall be executed routinely, with scheduled reporting to the director, as long as the operation permit is in effect.

(6) *Modifications.* If the activity authorized by the permit is not completed according to the approved schedule and permit conditions, the director shall be notified in writing by the permit holder. For revisions resulting in a schedule extension of more than thirty (30) days, or if deviations from the permit conditions are expected to occur, approval of a permit modification is required.

(7) *Revocation.* An SSM permit may be revoked if the approved schedule and permit conditions are violated without an approved permit modification.

(8) *Transfer.* No transfer, assignment, or sale of the rights granted by virtue of an approved permit shall be made without prior written approval from the director.

(9) *Special conditions.* Any additional special conditions, as deemed appropriate by the director, shall be established to address specific project needs or circumstances.

(Ord. No. 1045, § 5, 2-22-00)

Sec. 8.5-61. Performance criteria.

Except as otherwise provided herein, a development must be designed, constructed, operated and maintained to comply with the following performance criteria:

(1) *Floodplain management.* Provisions for floodplain management criteria shall be consistent with those contained in applicable Building Codes and the Flood Damage Prevention Ordinance of the city.

(2) *Water quality.* All stormwater management systems, serving areas of one (1) acre or more, shall be evaluated based on their ability to prevent degradation of receiving waters and adverse impacts on the site's natural systems, their efficiency in removing pollutants, and their ability to conform to state water quality standards as established in Chapters 17-3 and 17-4 of the Florida Administrative Code and local water quality standards as established by section 24-11(4) of the Code of Miami-Dade County.

(3) *Peak discharge.* The post-development peak rate of surface discharge for new developments must not exceed the pre-development discharge for the 25-year, 3-day storm.

(4) *Runoff volume.* The post-development volume of surface runoff must not exceed the pre-development volume of surface runoff for the 25-year, 3-day storm event.

(5) *Treatment volume.* Detention or retention treatment volume in the stormwater management system shall be provided according to one (1) of the following criteria:

a. Wet detention treatment volume shall be provided for the first inch of runoff from the project site, including offsite areas draining to the system, or the total of two and one-half (2½) inches times the percentage of imperviousness, whichever is greater.

b. Dry detention treatment volume shall be provided equal to seventy-five (75) percent of the amount established above for wet detention.

c. Retention treatment volume shall be provided equal to fifty (50) percent of the amount established above for wet detention.

(6) *Pretreatment volume.* Commercial or industrial project categories shall provide at least one-half (½) inch of dry detention or retention pretreatment of site runoff in addition to the base treatment volume required for all sites.

(7) *Oil and grease separation.* Stormwater management systems receiving runoff from areas with greater than fifty (50) percent impervious surface or containing a potential source of oil and grease contamination shall include a baffle, skimmer, grease trap, or other suitable oil and grease separation mechanism.

(Ord. No. 1045, § 6, 2-22-00)

Sec. 8.5-62. Maintenance responsibility.

(a) *Dedication.* Those stormwater management systems approved in compliance with this article that will function as an integral part of the city's maintained system, as determined by the director, shall be dedicated to the city. All areas and/or structures to be dedicated to the City of North Miami must be dedicated by plat or separate instrument and accepted by the City of North Miami.

(b) *Approved entities.* All stormwater management systems accepted as dedications by the city shall be maintained by the city. Maintenance of all other stormwater management systems approved in compliance with this article shall be accomplished by the legal entity responsible for maintenance, which may include an approved entity as identified below:

(1) *Local government.* A county, municipality, municipal service taxing unit, special district, or other appropriate governmental unit.

(2) *Special district.* An active water control district created pursuant to Chapter 298 of the Florida Statutes, a drainage district created by special act, a community development district created pursuant to Chapter 190 of the Florida Statutes, or a special assessment district created pursuant to Chapter 170 of the Florida Statutes.

(3) *State or federal agency.* An appropriate state or federal agency.

(4) *Public utility.* An officially franchised, licensed, or approved communication water, sewer, electrical stormwater, or other public utility.

(5) *Developer* or *property owner.* A developer or property owner who provides a bond or other assurance of continued financial capability to operate and maintain stormwater management systems and who executes a maintenance and annual certification agreement with the director.

(6) *Property owner association.* Property owner associations able to comply with the following provisions.

a. The association provides a binding legal instrument through which it assumes full responsibility for stormwater management system operation and maintenance.

b. The association has sufficient powers to operate and maintain the system, establish rules, assess members, contract for services, exist perpetually, and, if dissolved, to provide alternate operation and maintenance services.

c. The association can provide a bond or other assurance of financial capability to operate, maintain and certify the system.

All systems not dedicated to the city shall have adequate easements to permit the city to inspect and, if necessary, to take corrective action should the responsible entity fail to properly maintain the system.

(c) *Inspections.* As part of the construction permit approval process, a construction inspection schedule shall be established to address the critical milestones of a project. Under the approved inspection schedule, no work shall proceed until the director inspects and authorizes work to proceed beyond each schedule milestone. Any portion of the work that does not comply with the permit conditions shall be specified in writing by the director and promptly corrected by the permittee. Annual inspections by the director to ensure continued maintenance of the stormwater management system after construction is complete will be established as conditions to the operation permit. An annual inspection fee shall be paid when the application to renew the operating permit is submitted.
(Ord. No. 1045, § 7, 2-22-00)

Sec. 8.5-63. Enforcement and penalties.

(a) *Public nuisance.* Any development activity commenced without obtaining an SSM permit approved pursuant to this article, or any activity conducted contrary to such a permit, shall be deemed a public nuisance and may be restrained by injunction or otherwise abated in a manner provided by law. The city may institute injunctive, mandamus, or other appropriate action for the enforcement of this article.

(b) *Violation notice.* When the city determines that development activity or maintenance of an approved stormwater management system is not being carried out in accordance with the requirements of this article, it shall issue a written notice of violation to the owner or other appropriate responsible entity. The notice of violation shall contain the following items.

(1) The name and address of the owner or other responsible entity.

(2) The street address, when available, or a description of the building, structure, or land where the violation is occurring.

(3) A statement specifying the nature of the violation.

(4) A description of the remedial actions necessary to bring the development activity into compliance with this article and a time schedule for completion of such remedial actions.

(5) A statement of the penalty or penalties that shall or may be assessed against the person(s) to whom the notice of violation is directed.

(6) A statement that the determination of violation by the city may be appealed to the City of North Miami Board of Adjustment within fifteen (15) days of service of notice of violation.

The notice is to be served upon the person(s) to whom it is directed either personally, in the manner provided for personal service of notices in the court, or through certified mail postage prepaid, return receipt requested.

(c) *Penalties.* Any person convicted of violating the provisions of this article shall be subject to a fine of not more than two hundred fifty dollars ($250.00) for each and every violation. Each day that a violation continues shall be considered a separate offense.

(d) *Corrective action.* A person or entity found to be in violation of this article might be required to restore any alteration of the affected property to its undisturbed condition. In the event that restoration is not undertaken within a reasonable

time after notice, the city may take necessary corrective action, the cost of which shall become a lien upon the property until paid.
(Ord. No. 1045, § 8, 2-22-00)

[The next page is 601]

RESOLUTION NO. ___

A RESOLUTION OF THE MAYOR AND CITY COUNCIL OF THE CITY OF NORTH MIAMI, FLORIDA, ADOPTING THE UPDATED CITY OF NORTH MIAMI FLOODPLAIN MANAGEMENT PLAN, IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE FLOODPLAIN MANAGEMENT PLANNING COMMITTEE ANNUAL REVIEW OF THE FLOODPLAIN MANAGEMENT PLAN; PROVIDING FOR AN EFFECTIVE DATE AND FOR ALL OTHER PURPOSES.

WHEREAS, on April 27, 1999, the Mayor and City Council of the City of North Miami ("City") passed and adopted Resolution Number R-99-28, establishing the Floodplain Management Planning Committee ("Committee"); and

WHEREAS, the duty and function of the Committee is to conduct annual reviews of the City Floodplain Management Plan ("Management Plan"), and to recommend to the Mayor and City Council updates to the Management Plan every five (5) years; and

WHEREAS, in addition to creating the Committee, Resolution Number R-99-28 contained a sunset provision terminating the Committee upon adoption of the Management Plan, unless the Committee's term was concurrently extended by the Mayor and City Council; and

WHEREAS, the Management Plan is one of the requirements for the City's participation in the National Flood Insurance Program and the Community Rating System Program ("Programs"); and

WHEREAS, by participating in these Programs, City property owners become eligible for discounts on their annual flood insurance coverage premiums; and

WHEREAS, in order for the City to reap the benefits of the Program, the Management Plan is required to be updated by the Mayor and City Council every five (5) years; and

WHEREAS, on December, 8, 2009, the Mayor and City Council passed Resolution Number R-2009-164, adopting the Management Plan in accordance with Committee recommendations, and also extended the existence of the Committee for the purpose of conducting annual reviews of the Management Plan; and

WHEREAS, on November 5, 2014, the Committee unanimously accepted an updated Management Plan in response to the requirements of maintaining the Program class rating; and

WHEREAS, the Committee respectfully recommends to the Mayor and City Council adoption of the updated Management Plan, in the best interest of the City.

NOW, THEREFORE, BE IT RESOLVED BY THE MAYOR AND CITY COUNCIL OF THE CITY OF NORTH MIAMI, FLORIDA:

Section 1. **Adoption of Floodplain Management Plan.** The updated Floodplain Management Plan prepared and presented by the Floodplain Management Planning Committee is hereby adopted by the Mayor and City Council, and the City administration is directed to implement the recommendations and programs of the Floodplain Management Plan, attached hereto as Exhibit "1".

Section 2. **Continuation of Committee.** The Floodplain Management Planning Committee shall continue to provide annual reviews of the Floodplain Management Plan, in order to recommend revisions to the Floodplain Management Plan. The Committee shall meet at least once annually for this purpose.

Section 3. **Effective Date.** This Resolution shall be effective immediately upon adoption.

PASSED AND ADOPTED by a _____ vote of the Mayor and City Council of the City of North Miami, Florida, this _____ day of _____, 2014.

_____
SMITH JOSEPH
MAYOR

ATTEST:

_____
MICHAEL A. ETIENNE, ESQ.
CITY CLERK

APPROVED AS TO FORM AND
LEGAL SUFFICIENCY:

_____
REGINE M. MONESTIME
CITY ATTORNEY

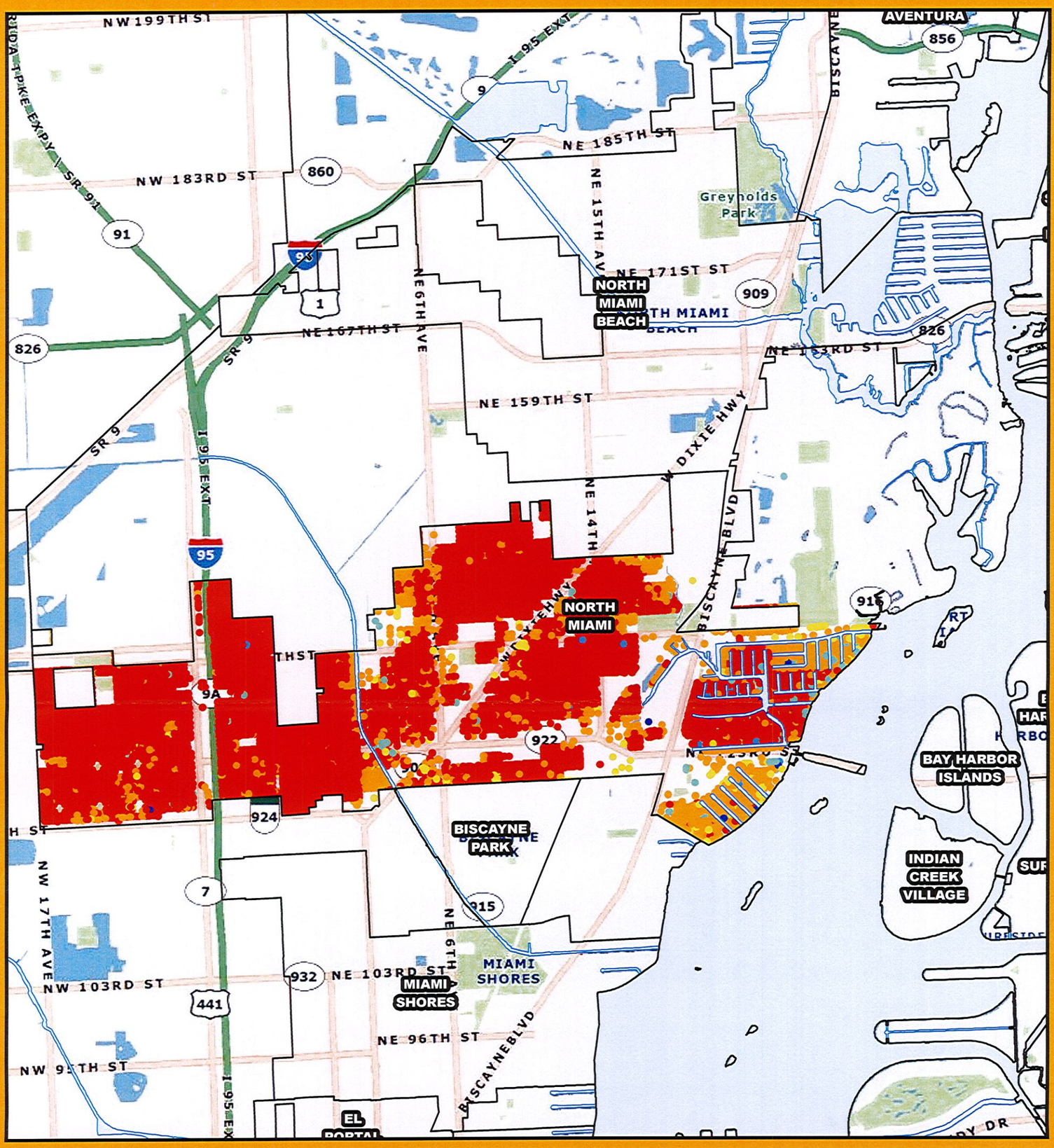
SPONSORED BY: CITY ADMINISTRATION

Moved by: _____

Seconded by: _____

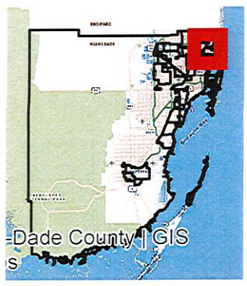
Vote:

Mayor Smith Joseph	_____ (Yes)	_____ (No)
Vice Mayor Philippe Bien-Aime	_____ (Yes)	_____ (No)
Councilperson Marie Erlande Steril	_____ (Yes)	_____ (No)
Councilperson Carol Keys, Esq.	_____ (Yes)	_____ (No)
Councilperson Scott Galvin	_____ (Yes)	_____ (No)



NORTH MIAMI

Miami-Dade County Residential Building Age
Flood Protection Milestones



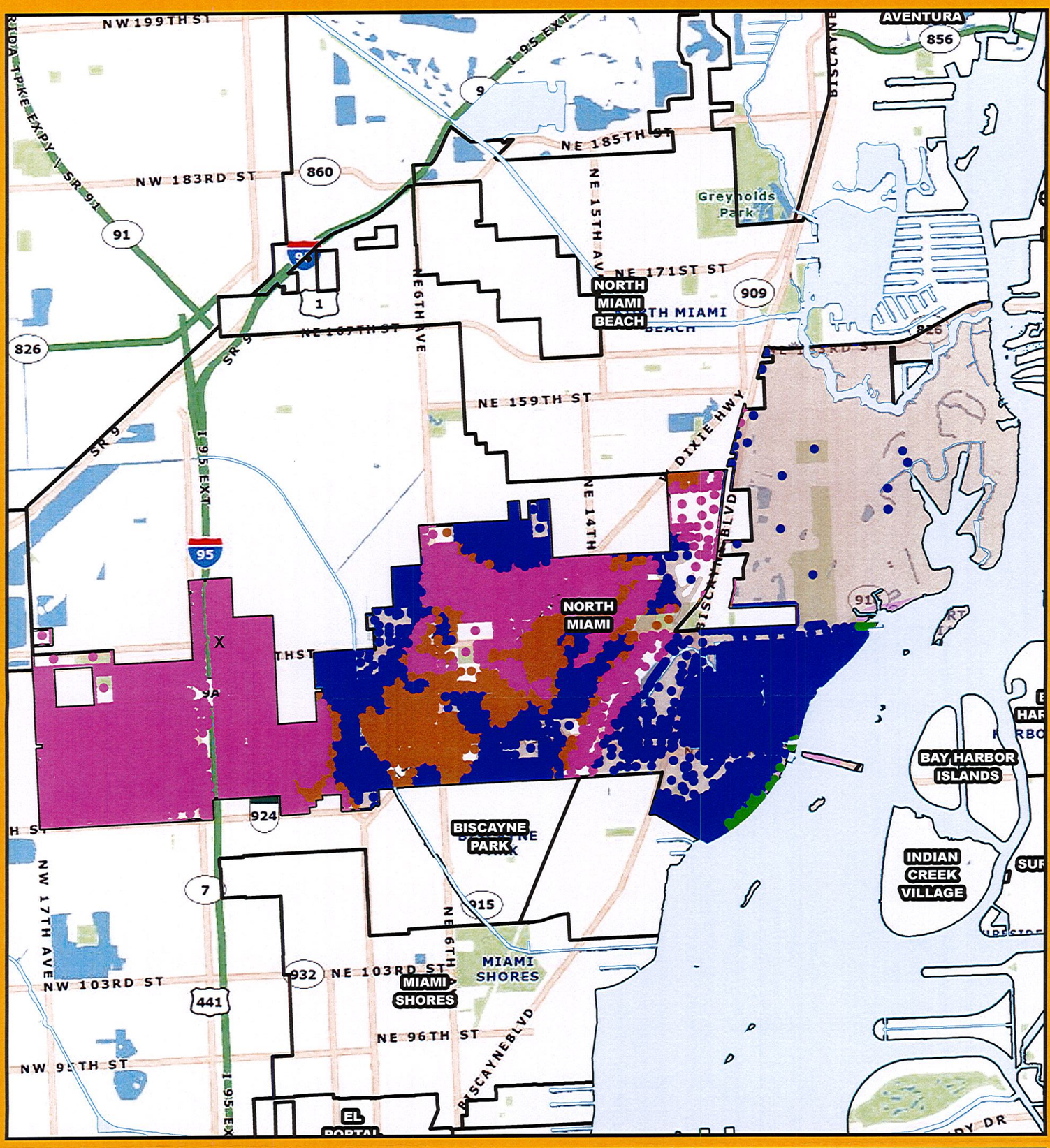
Emergency Management
http://www.miamidade.gov/oem
Soheila.ajabshir@miamidade.gov

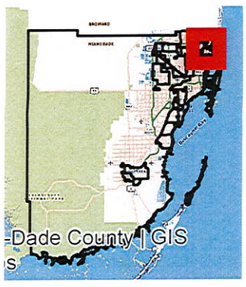
Date: 9/16/2014

1 0.5 0 1 Miles

Residential Building
YR_BUILT

- Pre 1957 (8,305)
- 1957 - 1973 (5,271)
- 1974 - 1992 (1,217)
- 1993 - 2008 (644)
- 2009 - 2011 (15)
- 2012 - Present (9)





NORTH MIAMI

Emergency Management
http://www.miamidade.gov/oem
Soheila.ajabshir@miamidade.gov

Date: 10/17/2014

1 0.5 0 1 Miles

Buildings By FEMA Flood Zone

FZONE
- A (0)
- AE (8,713)
- AH (0)
- D (0)
- OPEN WATER (0)
- VE (261)
- X (6,061)
- X (SHADED) (2,021)

FEMA Flood Zone

FLOOD_ZONE
- A - 100 Year Flood - Base Flood Elevation are not provided
- AE - 100 Year Flood - Base Flood Elevation are provided
- AH - Local Ponding 1- 3 Feet
- VE
- OPEN WATER
- 0.2 PCT ANNUAL CHANCE FLOOD HAZARD
- D
- X - No Flood