



2011

Water Quality Report



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 of this report are available by calling the North Miami Utility Operations Center at 305-895-9838.



2012

Flood Hazard Information



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 goal of North Miami's Water Utility is to provide you with a safe and dependable supply of drinking water every day.



THE SOURCE OF OUR WATER

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).

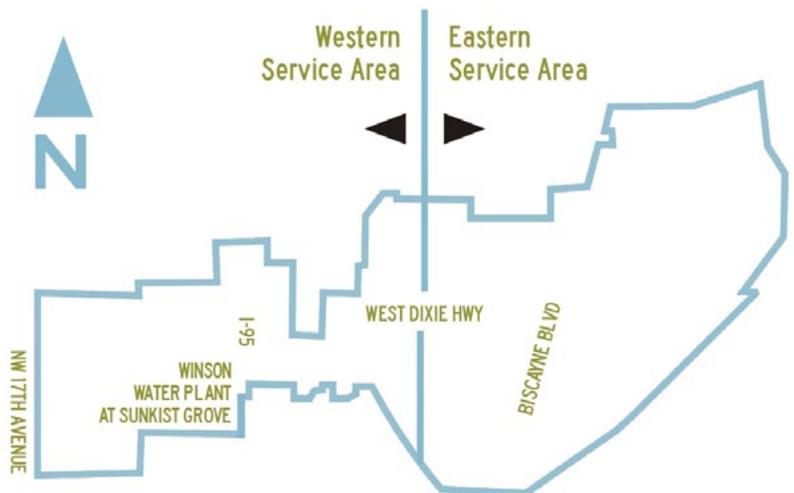
The **Biscayne Aquifer** is located just below the land surface in South Florida. It consists of porous rock with tiny cracks and holes, which water flows through like an underground river. This water is often referred to as ground water or the water table, and provides virtually all of the water that 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.

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.

North Miami's Winson Water Plant at Sunkist Grove supplies water to the western portion of the service area. This is approximately all of the area west of NE 8 Avenue. The plant pumps and treats an average of 8.5 million gallons of water per day. This water accounts for approximately



65% of the total water supplied to customers of the City of North Miami on a daily basis. The eastern portion of our service area, approximately all of the service area east of NE 8 Avenue, is supplied by water purchased from Miami-Dade County's main water system through several metered interconnects located through out the distribution system.

every
drop
counts



TREATING YOUR WATER

Currently, the City of North Miami operates one lime softening water treatment plant. The water from the Biscayne Aquifer (ground water) contains many minerals such as calcium and magnesium. Treatment is necessary to reduce the levels of these minerals in order to prevent build up in the pipes and discoloration of household fixtures. Aeration is the first treatment process that the water is passed through. This 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 for the purpose of softening the water and reducing the levels of iron. Without this process, plumbing fixtures and sinks would become stained by iron deposits. The water then flows through anthracite coal filters to remove any suspended 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 the task of ensuring that every drop of water delivered to our utility customers is completely safe to drink.

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

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.

The typical North Miami water customer (a family of three) uses about 103,000 gallons of water each year. All of this water is treated according to the drinking standards described in this brochure, even though less than 2% (approximately 2,000 gallons) is actually used for drinking and cooking. Approximately half of the remaining 101,000 gallons is used indoors; the other half is used for outdoor purposes, such as landscape irrigation, washing cars, etc.

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



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. It's that simple!

This program is available Monday through Friday, 8 am - 5 pm at the following locations:

NM City Hall-Utility Billing Office: 776 NE 125 ST, First floor

NM City Hall-Public Works Administration Office: 776 NE 125 ST, Third floor

Utility Operations Center Office: 1815 NE 150 ST

HEALTH AND SAFETY 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. These secondary standards do not impact public health. To ensure microbiologically safe water, the City of North Miami collects more than 80 water samples a month from the City's distribution system.

The City of North Miami routinely monitors your drinking water for contaminants according to all federal, state laws, rules and regulations. Except where indicated otherwise, this report is based on the results of our monitoring period from January 1 to December 31, 2011. Data obtained before January 1, 2011, 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 persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people 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.

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.

SOURCE WATER ASSESSMENT (SWA)

The Florida Department of Environmental Protection conducts an ongoing assessment of public drinking water systems. The City of North Miami's system was assessed in 2009. 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, www.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 production 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.

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. The presences of contaminants 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 from the Safe Drinking Water Hotline 1-800-426-4791 or at www.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 MCLG'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. If you would like more information on the EPA's Unregulated Contaminants Monitoring Rule, please call the Safe Drinking Water Hotline at (800) 426-4791.



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

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%	11	0.0%	11 (g)	0.2%	Naturally present in the environment
DISINFECTION BYPRODUCT								
Total Trihalomethanes (ppb) (d)	80	N/A	80	11	40 (9 - 66)	11 (g)	30 (3 - 71)	Byproduct of drinking water chlorination
Haloacetic Acids (ppb) (d)	60	N/A	60	11	40 (18 - 41)	11 (g)	28 (5 - 60)	Byproduct of drinking water chlorination
DISINFECTANTS								
Chloramines (ppm)	MRDL=4.0	MRDL=4.0	MRDL=4.0	11	2.1 (1.0 - 3.0)	11 (g)	2.5 (ND - 4.3)	Water additive used to control microbes
Chlorine (ppm) (e)	MRDL=4.0	MRDL=4.0	MRDL=4.0	11	N/A	11 (g)	N/A	
INORGANIC CONTAMINANTS								
Arsenic (ppb)	10	N/A	10	11	ND	11 (g)	1	Erosion of natural deposits
Barium (ppm)	2	2	2	11	ND	11 (g)	0.01	Erosion of natural deposits
Chromium (ppb)	100	100	100	11	ND	011 (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	11/09 (g)	0.06, 0 homes out of 56 (0%) exceed AL	Corrosion of household plumbing system
Fluoride (ppm)	4.0	4	4.0	11 (g) (h)	.66 (0.17 - 0.91)	11 (g) (h)	0.1	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	11/09 (g)	2.8, 0 homes out of 56 (0%) exceed AL	Corrosion of household plumbing system
Nitrate (as N) (ppm)	10	10	10	11	ND	11 (g)	0.2 (0.01 - 0.2)	Erosion of natural deposits;Runoff from fertilizer
Sodium (ppm)	NE	N/A	160	11	23.3	11 (g)	41 (26 - 41)	Erosion of natural deposits and sea water
RADIOACTIVE CONTAMINANTS								
Alpha Emitter (pCi/L)	15	0	15	09	1	11 (g)	2.4 (ND 2.4)	Erosion of natural deposits
Combined Radium (pCi/L)	5	0	5	09	0.45	11 (g)	0.6 (ND - 0.6)	Erosion of natural deposits
Uranium (ug/L)	30	0	30	09	0.5	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

pCi/L = PicoCuries per Liter

ppb = Parts per billion or micrograms per liter (ug/L)

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 byproducts 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) A total of 40 samples for Total Trihalomethane and 40 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 2008 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 State's monitoring framework. However, fluoride levels are monitored daily at the treatment plants where fluoride is added to promote strong teeth.

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.

THE FUTURE OF OUR WATER SERVICE

In our continuing efforts to maintain a safe and dependable water supply, it is necessary to make improvements to the water system. The costs of these improvements are reflected in the current utility rates, which were approved by the North Miami City Council in April 2012. The increase was approved to fund projects that will allow us to produce potable water for future generations. One of the main projects essential to our water production is the rehabilitation of the Winson Water Plant at Sunkist Grove, which is estimated to cost approximately \$25 million.

The expansion of North Miami's only water treatment plant will have a major regional impact on water service. The plant has had minimal upgrades since it was built in 1963. The plant's permitted capacity will reduce over time, as the South Florida Water Management District (SFWMD) seeks additional methods to conserve water. This forces water utilities to seek alternative sources of water.

Currently, North Miami's Water Utility produces 8.5 million gallons of potable (drinking) water daily. Due to our projected growth and a mandated need to be self-sufficient in water production, the City must plan to produce an additional 8 million gallons of water per day. To accomplish this, the City

is expanding the existing water plant and plans to add a new membrane treatment facility in the future.

During Fiscal Year 2011, the City hired a consultant to conduct an extensive rate study for the City's water and sewer utility in order to examine the ability of the utility system to meet operating and capital requirements through September 2016. The study

was used to develop utility rates that recover operating and capital requirements, promote the efficient usage of water resources, address the equitability of existing rates amongst existing customers, and address issues of affordability for customers served by the City. To encourage water conservation a tiered rate structure was implemented driven by the Consumptive Use Permit issued by the South Florida Water Management Department. Prior to this recent rate study, the last comprehensive study conducted by the city of North Miami was completed over 20 years ago.



Currently, the City is implementing the new Utility Billing financial software module. The new system is expected to bring significant improvements to the billing and reporting of water use to utility customers, as well as allow for online account access.





FLOOD HAZARD INFORMATION

In 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 7,500 flood insurance policies in effect. Annually the city's CRS Class 5 rating generates over \$800,000 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.

Because North Miami is an NFIP community, flood insurance is available to protect all homes, condominiums, apartments and nonresidential 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

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 than 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 floodproofing 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 a 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.

**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.**

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 2012

LEGEND:

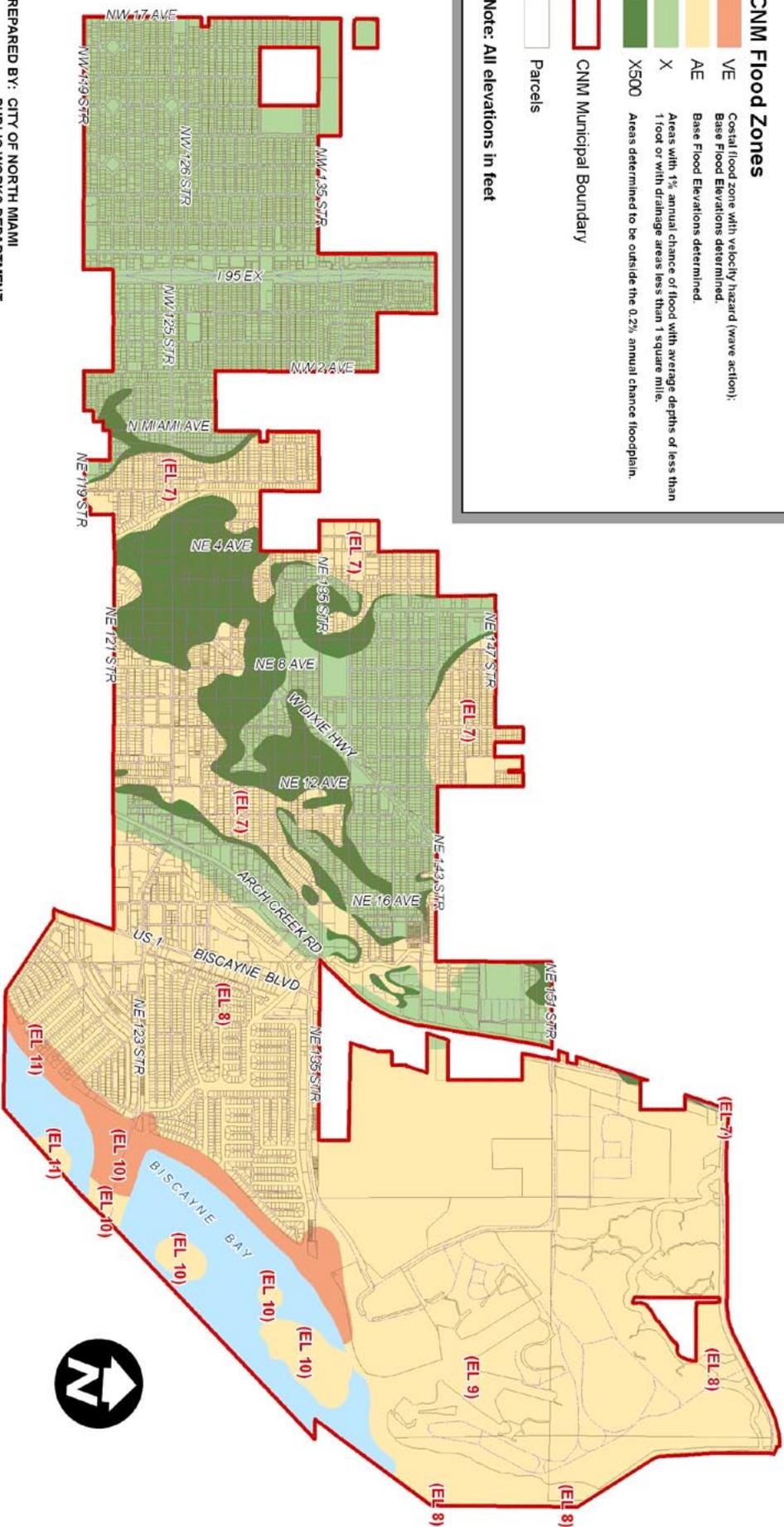
CNM Flood Zones

- VE Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.
- AE Base Flood Elevations determined.
- X Areas with 1% annual chance of flood with average depths of less than 1 foot or with drainage areas less than 1 square mile.
- X500 Areas determined to be outside the 0.2% annual chance floodplain.

CNM Municipal Boundary

Parcels

Note: All elevations in feet



PREPARED BY: CITY OF NORTH MIAMI
PUBLIC WORKS DEPARTMENT
SOURCE: INFORMATION OBTAIN FROM FEMA
DATE: JULY 2012

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 pipe, backflow problem, etc.) (305) 953-2855

North Miami Utility Operation Center

Monday – Friday, 7:30 a.m. – 4:00 p.m. (305) 895-9838

North Miami Office of Utility Billing

Monday – Friday, 8:00 a.m. – 5:00 p.m. (305) 895-9880

Miami-Dade Permitting, Environment and Regulation Affairs (PERA)

(305) 372-6529

Florida Environmental Protection Agency (EPA) Water Resource Management

1-850-245-8336

Miami-Dade County Drinking Water Programs Services (Local contact for FDEP)

(305) 623-3500 dadehealth.org

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 and are based on a 5,000 monthly/15,000 quarterly gallon use minimum

SERVICE	CITY CODE	Monthly 5,000 USE INSIDE CITY	QUARTERLY 15,000 USE INSIDE CITY	QUARTERLY 15,000 USE OUTSIDE CITY
Water Base Charge	WT	\$11.40	\$34.20	\$34.20
Overage Rate (\$1.07 per 1,000 gallons over 15,000)				
Water Consumption Charge (See water rates below)		\$8.65	\$29.95	\$25.95
Sewer Base Charge	SR	\$12.15	\$36.45	\$36.45
Sewer Consumption Charge (\$3.18 per 1,000 gallons x 85%)	SRT	\$13.52	\$40.55	\$40.55
County Service Fee (7.5% of the total WT, SR, OWSS and STR)	CSF	\$3.43	\$10.39	\$12.86
Outside City Water & Sewer Surcharge (25% of WT, SR, and STR)	OWSS	n/a	n/a	\$34.29
Sample Minimum Water & Sewer Bill (One Quarter)		\$49.15	\$147.44	\$184.30

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. The tax may be 10% or less.

For City customers, the above reflects only the water and sewer portion of their utility bill. Other service such as storm water, sanitation, and recycling are excluded for this presentation.

Current rates were effective April 1, 2012.

Residential Water Consumption Rates (per 1,000 gallons)

MONTHLY		QUARTERLY	
0 - 5,000	\$1.73	0 - 5,000	\$1.73
5,000 - 12,000	\$2.42	5,000 - 12,000	\$2.42
12,001 - 20,000	\$3.11	12,001 - 20,000	\$3.11
Above 20,000	\$3.46	Above 20,000	\$3.46

Additional Service Fees:

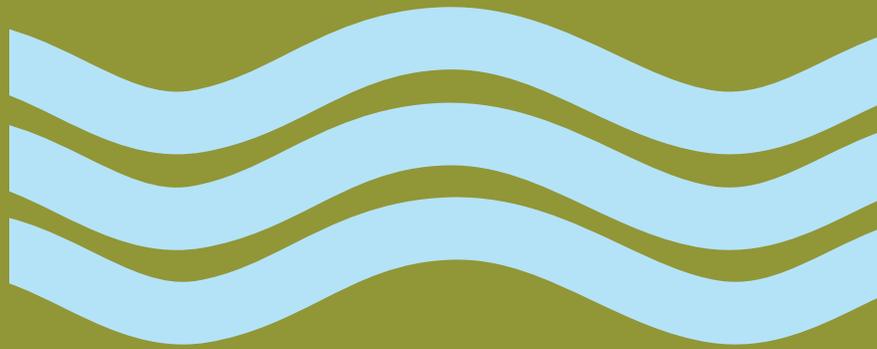
Turn off due to non-payment or returned check, Illegal turn on, or return check charge	\$20 each
Meter tampering	\$100
Service reconnect	\$10
Theft / Illegal device used on premises	\$450



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What you need to know about your water service and flood protection.



City of North Miami
2011 Water Quality Report and
2012 Flood Hazard Information

