

# INFRASTRUCTURE ELEMENT

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## **INFRASTRUCTURE**

### **I. POTABLE WATER SUBELEMENT AND 10-YEAR WATER SUPPLY FACILITIES WORK PLAN**

#### **A. POTABLE WATER SYSTEM**

The Town of Longboat Key owns and operates a potable water distribution system. The Town purchases potable water from Manatee County through a wholesale contract. The wholesale water contract between Longboat Key and Manatee County, signed February 6, 2007, will be effective until the year 2031. A copy of the wholesale water contract is presented as Appendix A. The water contract allocates 2.5 million gallons per day (MGD) reserve capacity in the County's potable water system for Town use. The wholesale contract is the vehicle that the Town and Manatee County utilize for coordinating water supply and demand needs. Per Item No. 2 in the agreement, additional reserve capacity is an option should the Town demonstrate a need and pay a Facility Investment Fee (FIF). The Town, as the water purveyor, resells the water to its residents.

The Town's water facilities include 42 miles of water lines, 345 fire hydrants, and 3 pumping stations. The three pumping stations are the Mid-Key Station No. 1, the South Key Station No. 2, and the Inline Booster Station No. 3 (Appendix B: Figure 1). The water storage facilities consist of a 1.0-million-gallon tank at the South Key Station and a 1.5-million-gallon tank at the Mid-Key Station. The main potable pipeline providing water service from Manatee County traverses Longboat Pass via the Longboat Pass Bridge. The 16-inch diameter pipeline was put into operation in 1984. A secondary potable pipeline is east of the Longboat Pass Bridge and was constructed in 1971. A secondary backup water interconnect source from the City of Sarasota was completed in 2008. The subaqueous pipelines were inspected in October 2011 and found to be in good condition. This potable pipeline is not utilized but is kept under pressure for emergency purposes. Replacement of the main potable pipeline with a subaqueous pipeline is planned for 2014.

#### **B. LONGBOAT KEY POTABLE WATER SOURCE - MANATEE COUNTY POTABLE WATER SYSTEM**

The Town of Longboat Key purchases potable water from Manatee County through a wholesale contract. Manatee County Public Works Department's Cortez Pumping Station is used to maintain flow and pressure to Anna Maria Island and Longboat Key. The pumping station consists of two small pumps, one large pump, and a one million gallon ground storage tank. A copy of the wholesale water contract is presented as Appendix A. Detailed information regarding Manatee County's Water Supply Plan is presented through the Manatee County Final Water Supply Facilities Work Plan.

#### **C. GEOGRAPHIC SERVICE AREA**

The geographic service area of the Longboat Key water system includes the Longboat Key corporate limits, excluding Jewfish Key. Jewfish Key is within the Island Preserve Land Use category, designated as one home per five acres and can accommodate a total of thirteen home

sites, which will require water wells for domestic purposes and the Town's policy does not require hook-up to the system. The existing four residences located on Jewfish Key are using wells for potable water and it has been the Town's policy to not require hook-up. Domestic water wells for each home site on Jewfish Key will result in a withdrawal of 200 gallons per day from ground water resources, assuming 100 gallons per capita day (gpcd). Domestic water wells of this nature are anticipated to tap the Intermediate Aquifer or the Floridan Aquifer system for potable water. Since at build out these wells will have a minimal collective withdrawal rate of 2,600 gallons per day, they are not anticipated to create or cause harm to the natural environment.

#### **D. CAPACITY ANALYSIS AND WATER SUPPLY AND DEMAND PROJECTIONS**

The Manatee County Lake Manatee Water Treatment Plant is the primary source of drinking water for the Town of Longboat Key. Longboat Key can receive an average of 2.5 MGD from Manatee County. The 2011 functional population of Longboat Key is 16,810, based on the SWFWMD Water Use Permit Information Manual: Requirements for the Estimation of Permanent and Temporal Service area Populations in the Southern Water Use Caution Area, Appendix C dated November 20, 2009. Based upon the Town's 2011 Water Use Public Supply Survey the Town's water use was 98.7 gallons per capita day.

The Town of Longboat Key is virtually built out, unless and until redevelopment or revitalization occurs, with most construction centering focused on redevelopment. Analysis of population projections indicates a shift in demographics. A portion of the Town's tourism component is being replaced by low-density residential development, which results in a slight increase in residential development coupled with a decrease in tourism population. Overall, the Town's population is declining. The need for new water facilities is not expected to increase significantly nor require new water supply facilities for the 10 year planning horizon, unless and until redevelopment or revitalization occurs. Water consumption is not expected to increase significantly nor require new water supply facilities for the 10-year planning horizon.

Longboat Key anticipates a small increase in potable water demand for tourism units as a result of the referendum vote of March 16, 2008, in which the Town approved the adoption of land development regulations that provide a process to allow for a limited increase of density and intensity standards for the development of no more than a total of 250 tourism units islandwide to help restore the historic balance between residential and tourism uses. Based on the potable water level of service and census density, the maximum expected water demand from the 250 tourism units is expected to be 60,000 gallons per day, when and if redevelopment or revitalization occur that use the available units.

As requests for development of the 250 tourism units are brought to the Town, any approvals in excess of 500 gallons per day shall require the developer to secure the requisite increased capacity from Manatee County and pay the appropriate Facility Investment Fee in accordance with a developer's agreement. By ordinance, a development that requires an increase in demand for potable water in excess of 500 gallons per day would invoke the provisions of the water agreement with Manatee County for increasing reserve capacity/available supply. The contract allows for increased reserve capacity to be purchased on a yearly basis in 1,000 gallon per day

increments.

The total expected increase in demand presented by the additional tourism units will not require any capital improvements. The existing water distribution system is adequate to accommodate this increase. The Town estimates the additional development of 85 tourism units for the proposed Hilton development in the first three years because of the approval and construction processes, followed by a spike of 50 to 60 units the next year, then a slow progression of tourism development on the magnitude of five to ten units per year over the remainder of the 10-year planning horizon or until the 250 units are committed. The slow progression in anticipated use and development of the available tourism units is based on the lack of development proposals since the 250 units became available several years ago. The Town anticipates no additional development of tourism units for the first two to three years because of the approval and construction processes, followed by a spike of 50 to 60 units the next year, then a slow progression of tourism development on the magnitude of 10 to 20 units per year over the remainder of the 10-year planning horizon or until the 250 units are committed.

According to the Town's Land Use Element, the permanent population is not projected to slightly increase between 2012 and 2025, by seven individuals and the functional population is projected to increase by 498 individuals. 2010 and 2015, however the functional population is projected to increase slightly, by 409 individuals. Coupling this information with the recently adopted 250 tourism unit increase (550 capita equivalent), Table 1 provides the water demand and population projections for the 10 year Water Supply Plan.

**TABLE 1  
WATER DEMAND AND POPULATION PROJECTIONS  
BY YEAR**

<b>Year</b>	<b>Permanent Population</b>	<b>Functional Population</b>	<b>Water Demand (mgd)</b>
2012	6,888	16,344	2.50
2013	6,888	16,344	2.50
2014	6,888	16,424	2.50
2015	6,895	16,441	2.51
2016	6,895	16,451	2.51
2017	6,895	16,461	2.51
2018	6,895	16,471	2.51
2019	6,895	16,481	2.51
2020	6,895	16,491	2.52
2025	6,947	16,942	2.56

Note: 2011 Permanent Population based on 2010 U.S. Census Bureau data. 2011 Functional Population based on SWFWMD calculation method in the Town of Longboat Key 2011 Water Use Public Supply Survey.

## **E. ALTERNATIVE WATER SOURCES AND SUPPLY PROJECTS**

Alternative water sources are not required to meet projected demands for the Town of Longboat Key. The Town relies on Manatee County as its supplier for alternative sources. However, the

Town has a continued commitment to exploring alternative water source options with the local governments of Manatee and Sarasota Counties, and the Southwest Florida Water Management District (SWFWMD). As a consecutive system to Manatee County and approaching build out status, unless and until redevelopment or revitalization occurs, the Town does not have a specific project identified in the Water Supply Development Option in the SWFWMD 2010 Regional Water Supply Plan. However, the Town does monitor the region's water issues to support other local governments and to explore opportunities available to the Town.

The SWFWMD Plan contains references to three projects related to Longboat Key. One reference is to an emergency potable water interconnect between the Town and the City of Sarasota. This project was completed in 2008. A second is to a reclaimed water interconnection between the Town, City of Sarasota, and Manatee County that was found to not be feasible at this time. The third reference in the Plan provides for water conservation rebate program suggestions. Information regarding the emergency potable water interconnect and the Town's water conservation program is presented in the following paragraphs. The Town continues to monitor the region's water issues to support other local governments and to explore opportunities available to the Town.

The Town of Longboat Key and the City of Sarasota have interconnected their respective potable water systems through an interlocal agreement. The interconnection provides an additional water source to the Town in case of emergencies or low water pressure. Construction of the interconnect commenced in 2007 and was completed in 2008. Funding for the interconnect accumulated annually since FY 2005 and totaled \$1.5 million. This interconnection project is supported by SWFWMD and the Peace River/Manasota Regional Water Supply Authority (PRMWSA). Fund matching was provided by the Manasota Basin Board of SWFWMD through the Cooperative Funding Initiative. The PRMWSA ranked the interconnect as a priority short list project through the Regional System Planning and Engineering Study, August 2005.

The Town has secured an emergency alternative water source. The Town of Longboat Key and the City of Sarasota have entered into an interlocal agreement to interconnect their respective potable water systems. The interconnection provides an additional water source to the Town in case of emergencies or low water pressure. Construction of the interconnect commenced in 2007 and was completed in 2008. Funding for the interconnect accumulated annually since FY 2005 and totaled \$1.5 million. This interconnection project is supported by SWFWMD and the Peace River/Manasota Regional Water Supply Authority (PRMWSA). Fund matching was provided by the Manasota Basin Board of SWFWMD through the Cooperative Funding Initiative. The PRMWSA ranked the interconnect as a priority short list project through the Regional System Planning and Engineering Study, August 2005.

The Town implemented a Water Conservation Plan in 2004 to promote responsible consumption. The Water Conservation Plan has been effective and the overall water consumption has decreased an average of 27.8% from 2003 to 2011. Table 2 presents the annual average daily water consumption.

**TABLE 2  
WATER CONSUMPTION BY YEAR**

<b>Year</b>	<b>Average Daily Consumption (mgd)</b>
2003	2.30
2004	2.15
2005	1.86
2006	1.91
2007	1.87
2008	1.83
2009	1.70
2010	1.68
2011	1.66

The Town water conservation program is ongoing. Funding is provided through the Town utility system and has an annual budget of \$2,000. As a part of the Water Conservation Plan, the Town utilizes:

- **Inverted rate structure:**  
A tiered structure of increasing rates with increasing volume of water utilized is employed. The tiered structure is designed to promote efficient use of water.
- **Low flow plumbing fixtures:**  
Low flow plumbing fixtures are available to residents to promote efficient water use.
- **Shut-off devices for irrigation systems:**  
Ordinance 05-15 requires the use of an automatic rain shut off device for all automated irrigation systems.
- **Landscape ordinance for irrigation efficiency:**  
Ordinance 06-14 requires the use of efficient irrigation practices in the planning and maintenance of landscaped areas.
- **Watering restrictions:**  
Irrigation on Longboat Key is allowed only once per week. This restriction is enforced by the Longboat Key Police Department.
- **Outreach education:**  
The Town promotes efficient water use through many outreach programs such as education seminars, presentations to homeowner associations and local clubs, and booth participation at local conferences and expos. Informational handouts, water conservation kits, low flow shower heads, and pre-rinse restaurant nozzles are made available to Town residents and businesses. The Town has reviewed the suggested SWFWMD rebate programs and has not found them to be viable at this time.

**F. PERMITS AND REGULATIONS**

The impact of the potable water supply system on the water resources is regulated by the SWFWMD under its consumptive use permitting program. To ensure that the water resources are

adequately protected, withdrawal quantities and the length of the permit duration are determined by SWFWMD staff hydrologists through a water use permit (WUP). The quantity of water withdrawn is regulated by SWFWMD under Chapter 40D-2, FAC, Consumptive Use. The Town of Longboat Key coordinates with SWFWMD directly through a WUP and indirectly through its water supplier Manatee County's WUPs. Longboat Key is located within a highly scrutinized area designated as the Most Impacted Area (MIA) of the Southwest Water Use Caution Area (SWUCA). This designation is based on an area where water resources are or will become critical.

Longboat Key operates under WUP No. 20010963.003 issued January 24, 2012 and is subject to renewal in 2014. Special Condition No. 6 identifies that the permit quantities are based on a 100 gpcd and also sets an upper limit of 120 gpcd. The town adopts a potable water level of service at 120 gpcd. Based on the Town's 2011 Water Use Public Supply Survey, the annual water use was 98.7 gpcd.

Manatee County has a series of WUPs allowing the withdrawal of surface water and groundwater. The WUPs that Manatee County operates under are discussed in detail in Manatee County's Water Supply Plan, Manatee County Final Water Supply Facilities Work Plan..

## **G. CONDITION OF FACILITIES, PERFORMANCE, AND CAPITAL IMPROVEMENTS**

The Town's potable water distribution system is capable of providing the adopted level of service. An aggressive five-year Capital Improvement Plan (CIP) is utilized to maintain and increase the efficiency of the distribution system. The five-year schedule of improvements, the long range (years 6-10) capital projects, and the demonstration of financial feasibility is provided in the Capital Improvement Element's (CIE) Data and Analysis. The CIE will be updated on an annual basis. The 10-year Water Supply Work Plan contained in the Infrastructure Element will be updated within 18 months after SWFWMD approves its Regional Water Supply Plan 2010 Update. The Town's water system is generally in good to fair condition. Needed rehabilitation and maintenance of the water storage facilities and select piping networks were completed in 2011. The improvements increased efficiency, reliability, and emergency capabilities. These improvements were part of an adopted five-year CIP.

## **H. LOCAL REGULATIONS**

The Town of Longboat Key regulates water use under Town Code Chapters 50 through 54. All buildings within the Town's service area are required to connect to the Town's water system with the exception of single-family residences using acceptable private water sources on Jewfish Key. Under Chapter 53 of the Town Code, the Town Commission can declare an emergency drought condition; can define the boundaries of the affected area; and can limit water use through restrictions on the quantity, purpose, and timing of water use. Chapter 54 of the Code contains water shortage regulations for water shortage emergencies declared in any part of Manatee County or Sarasota County by SWFWMD. The water-use restrictions adopted by SWFWMD, as outlined in Chapter 40D-21, FAC, are subject to enforcement action by law enforcement officials of the county or municipality. Town water-use restrictions are enforced to

the extent that they are more restrictive than and are not inconsistent with SWFWMD's restrictions. Violations are subject to fines and imprisonment.

## **II. WASTE WATER SUBELEMENT**

### **A. SANITARY SEWER SYSTEM**

The Town of Longboat Key provides mandatory wastewater service within its service area coinciding with its geographical boundaries, not including Jewfish and Sister Keys. The Town of Longboat Key's sanitary sewer system is owned and maintained by the Town and is a collection system only, with no treatment facilities. The Town has an agreement with Manatee County to pump the Town's wastewater to the County to be treated by the Manatee County Utilities System. The current wastewater agreement between Longboat Key and Manatee County, signed in 1971, will be effective until the year 2011. The Town's wastewater system was installed in the mid-1970's and consists of 40 miles of sewer lines, approximately 550 manholes, and 47 lift stations, including a central pumping station located on Gulf Bay Road. The locations of lift stations and master lift stations are indicated on Figure 2 (Appendix C).

### **B. MANATEE COUNTY SOUTHWEST REGIONAL WASTEWATER TREATMENT PLANT**

The Manatee County Southwest Regional Wastewater Treatment Plant (SWRTP), located in southwestern Manatee County, serves the Town of Longboat Key. The treatment plant has a capacity of 22 million gallons per day (MGD). Manatee County treats the wastewater using the conventional activated sludge process, with secondary sedimentation and sodium hypochlorite chlorination. The treated effluent is disposed of through irrigation and deep well injection. The County is in the testing phase of a permit for an Aquifer Storage and Recovery Well (ASR), which allows additional storage of treated effluent. Land application of the sludge occurs in Charlotte and Polk Counties.

### **C. GEOGRAPHIC SERVICE AREA**

The geographical service area of the Longboat Key wastewater system coincides with its geographical boundaries, not including the outer islands. Except for development on Jewfish Key, there are no active septic tanks within the geographical boundaries of the Town, which is limited to 13 platted single-family lots.

The service area of Manatee County's SWRTP includes the geographical service area of the Town of Longboat Key, unincorporated southwestern Manatee County, Holmes Beach, Bradenton Beach, and Anna Maria Island. Manatee County's service area outside of the Town's corporate limits consists of residential, commercial and industrial users. Users in the Town's geographical service area consist of residential and commercial users only.

### **D. CAPACITY ANALYSIS**

At a Level of Service (LOS) of 109 gpcd and a functional population of 17,224, based on the

SWFWMD Water Use Permit Information Manual: Requirements for the Estimation of Permanent and Temporal Service area Populations in the Southern Water Use Caution Area, Appendix C dated November 20, 2009, the Town would generate 1.88 MGD in wastewater.

The Town maintains a 20-inch subaqueous sewer line to Manatee County. The 20-inch subaqueous line has an ultimate design capacity of 6,000 GPM (8.64 MGD) peak flow. The average daily flow through this line is 2.16 MGD (allowing for a 4 times peaking factor). This analysis indicates that the 20-inch subaqueous line can easily accommodate the average daily and peak flows anticipated from the Town.

As stated in the Potable Water Subelement Goals and Objectives, the Town will explore the availability of reclaimed or other alternative water with all of the local governments of Manatee and Sarasota Counties, and SWFWMD.

### **III. STORMWATER SUBELEMENT**

#### **A. DRAINAGE FEATURES**

The Town of Longboat Key ranges in elevation from sea level to approximately +12 feet above sea level (NGVD) and most of the key has an elevation of less than +10 feet (NGVD). All of the drainage systems on the island drain into either Sarasota Bay, the passes between Sarasota Bay and the Gulf of Mexico, or into interior areas specifically designed for stormwater management, with the exception of one outfall into the Gulf of Mexico on the northern-most end of the island. The last complete survey of the Town owned and maintained drainage facilities was completed in 1995 as part of the Town's initial National Pollution Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) permitting process. The Town updated the inventory of owned and maintained systems in the subsequent permit issued in 2001. The majority of condominiums in the Town have private independent drainage systems. The Town does not maintain these systems, but does monitor and inspect them as a condition of the NPDES MS4 permit. No direct outfalls into Sarasota Bay have been constructed in the Town since the mid-to late 1970's. All new development is required to incorporate stormwater best management practices and techniques, and provide design features into the site plans in accordance with the criteria set forth in Chapter 40D-4, Florida Administrative Code (FAC).

Development on Longboat Key has occurred predominantly within the last 40 years. Drainage facilities constructed prior to 1972 were designed to provide for minor flood protection only. Specific information on drainage design standards was not required. Development since 1972 has been required to comply with the Town's development standards that specify a drainage design for an appropriate 10-year storm event. Development occurring since 1982 has been required to comply with Florida Department of Environmental Protection and Southwest Florida Water Management District rules and regulations, and obtain an Environmental Resource Permit. However, most drainage facilities on Longboat Key can be influenced by tides and therefore the performance of a specific drainage is subject to tidal variations in the bay.

## **B. GENERAL PERFORMANCE**

Barrier islands such as Longboat Key are susceptible to flooding conditions due to tropical storms and depressions with associated higher than normal tidal influences. These higher tidal influences can cause temporary localized flooding on some roads, especially those with elevations of +4 feet (NGVD) or less. The use of tide restriction valves, to prevent intrusion of tidal water into storm water outfalls, has been implemented in a variety of areas with lower road elevations with limited success.

## **C. EFFECT ON NATURAL RESOURCES**

All of the drainage systems in Longboat Key have outfalls either to Sarasota Bay, the passes between Sarasota Bay and the Gulf of Mexico, or to interior stormwater management areas. The Town of Longboat Key retrofits drainage facilities as part of street reconstruction and repaving by providing for vegetated drainage swales, installing baffles in existing drainage pipes, and stormwater inlets. New developments are required to develop drainage systems that meet the criteria of Chapter 40D-4, FAC and obtain an Environmental Resource Permit from the Southwest Florida Water Management District.

The Town in conjunction with Sarasota County and the other municipal co-permittees in the MS4 NPDES program have entered into interlocal agreements to conduct water quality monitoring of Sarasota Bay. The Town also conducts public outreach and education activities in compliance with the MS4 NPDES permit to help reduce non-point source pollutant loads to the surrounding Sarasota Bay waters. The Town also participates and assists in funding the Sarasota Bay Estuary Program (SBEP) that also conducts public outreach and education programs to reduce the environmental impacts and effects of stormwater in the surrounding waters of Longboat Key.

## **D. CAPITAL IMPROVEMENTS PLANNED**

Because the Town of Longboat Key is essentially built out, its drainage infrastructure is completely built. The Town's drainage improvements are limited to the replacement of older culvert and drainage structures as they reach their intended service life expectancy. The ongoing program of replacing drainage structures as needed is done during road construction and resurfacing and is not included (or identified) in the Capital Improvement Element since it is not considered essential to provide an improved level of service.

The cost estimate for the ongoing replacement program for the drainage structures is included in the General Operating fund. Additionally, the Town reports that the percentage of the Public Works operating budget required to meet the permit conditions of the NPDES program is approximately \$290,000 to \$300,000 per year, with annual increases of approximately five percent. The General Operating budget, including the road reconstruction and repairs, is estimated to cost approximately \$20,000 per year for the next five years.

## **IV. SOLID WASTE SUBELEMENT**

### **A. COLLECTION SERVICE**

Waste Management of Florida, Inc. provides solid waste collection for the Town of Longboat Key under a franchise agreement with the Town that will expire December 31, 2013. Collection is provided twice a week for residential accounts and as needed for commercial accounts. An Automated Cart System is utilized for the collection of solid waste for single family, duplex, and small multifamily residential accounts. Billing is handled by the Town for residential accounts whereas commercial accounts are billed directly by Waste Management.

### **B. DISPOSAL SITE**

The Town's solid waste is disposed of by Waste Management at the Manatee County Landfill on Lena Road (Appendix D: Figure 3). Requirements for operating a landfill are contained in Chapter 62-701, FAC, Solid Waste Management Facilities. The current permit allows for landfill activities on 313 acres of land. Current demand on the facility is 1,200 tons per day. The Town of Longboat Key was estimated to have generated and disposed a total of 6,536 tons at the landfill in 2006. This is approximately 1.5 percent of the total Manatee County generation rate. Manatee County estimates that 34 years of use are still available in the Lena Road Landfill.

Solid waste volumes are not expected to increase significantly. Therefore, based on the best available data, the Manatee County Lena Road Landfill has adequate capacity to serve the Town of Longboat Key's solid waste disposal needs.

### **C. SERVICE AREA**

The geographical service area of the Longboat Key solid waste collection system coincides with its developable geographical boundaries. The geographic service area of the Manatee County landfill is all of Manatee County. Manatee County's service area outside of the Town's corporate limits consists of residential, commercial, and industrial users. Users in the Town's geographical service area consist of residential and commercial customers only. Waste Management does not have a solid waste allocation agreement with the County and there have been no limitations placed on the amount of solid waste that Waste Management can dispose of at the landfill.

### **D. LEVEL OF SERVICE**

The 2005 average solid waste generation rate for Manatee County is 8.1 pounds per capita per day (ppcd) according to the Manatee County Solid Waste Department. The adopted Level of Service for the Town is 7.1 ppcd.

In 2006, the Town's solid waste stream, including recyclables, totaled 10,350 tons. During that year, the Town collected 3,814 tons of recyclables. Consistent with the Town's Water Use Permit's functional population of 23,501 persons, the Town's total waste stream equaled 2.2 pounds per capita per day. The total waste stream less recyclables equaled 1.5 ppcd.

## **E. RECYCLING PROGRAM**

The Town of Longboat Key has had mandatory recycling (Town Code 95.42) for all single-family units, multifamily units, and businesses since 1991. Waste Management provides the Town with recycling collection, disposal services, and reporting. Curbside pickup is provided to Longboat Key customers.

## **F. LOCAL REGULATIONS**

Solid waste is regulated under Chapter 95 of the Town Code. Solid waste collection is mandatory and it is unlawful to remove or dispose of garbage unless the Town grants a special permit for garbage or trash removal. There are limitations on the materials that will be collected. Removal of materials such as unburnable metals and large tree stumps is the responsibility of the owner or contractor. The burning or burying of garbage or rubbish on Longboat Key is prohibited.

## **III. STORMWATER SUBELEMENT**

### **A. DRAINAGE FEATURES**

The Town of Longboat Key ranges in elevation from sea level to approximately +12 feet above sea level (NGVD) and most of the key has an elevation of less than +10 feet (NGVD). All of the drainage systems on the island drain into either Sarasota Bay, the passes between Sarasota Bay and the Gulf of Mexico, or into interior areas specifically designed for stormwater management, with the exception of one outfall into the Gulf of Mexico on the northern-most end of the island. The last complete survey of the Town owned and maintained drainage facilities was completed in 1995 as part of the Town's initial National Pollution Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) permitting process. The Town updated the inventory of owned and maintained systems in the subsequent permit issued in 2001. The majority of condominiums in the Town have private independent drainage systems. The Town does not maintain these systems, but does monitor and inspect them as a condition of the NPDES MS4 permit. No direct outfalls into Sarasota Bay have been constructed in the Town since the mid-to late 1970's. All new development is required to incorporate stormwater best management practices and techniques, and provide design features into the site plans in accordance with the criteria set forth in Chapter 40D-4, Florida Administrative Code (FAC).

Development on Longboat Key has occurred predominantly within the last 40 years. Drainage facilities constructed prior to 1972 were designed to provide for minor flood protection only. Specific information on drainage design standards was not required. Development since 1972 has been required to comply with the Town's development standards that specify a drainage design for an appropriate 10-year storm event. Development occurring since 1982 has been

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Solid waste volumes are not expected to increase significantly. Therefore, based on the best available data, the Manatee County Lena Road Landfill has adequate capacity to serve the Town of Longboat Key's solid waste disposal needs.

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### **E. RECYCLING PROGRAM**

The Town of Longboat Key has had mandatory recycling (Town Code 95.42) for all single-family units, multifamily units, and businesses since 1991. Waste Management provides the Town with recycling collection, disposal services, and reporting. Curbside pickup is provided to Longboat Key customers.

APPENDIX A: WHOLESALE WATER CONTRACT

AGREEMENT

THIS AGREEMENT is made and entered into this 6<sup>th</sup> day of February, 2007, by and between MANATEE COUNTY, FLORIDA, a political subdivision of the State of Florida, hereinafter referred to as the "COUNTY," and the TOWN OF LONGBOAT KEY, FLORIDA, a municipal corporation of the State of Florida, hereinafter referred to as the "TOWN."

WITNESSETH:

WHEREAS, the COUNTY owns and operates a countywide potable water treatment and distribution system under the authority of Section 125.01, Florida Statutes, and Chapter 63-1598, Laws of Florida, as amended; and

WHEREAS, the TOWN owns and operates a potable water distribution system which distributes potable water to real property located within the municipal boundaries of the TOWN as depicted on Exhibit A, attached hereto and incorporated herein; and

WHEREAS, the TOWN intends to continue said potable water distribution system within its municipal boundaries; and

WHEREAS, the COUNTY provides potable water to the TOWN under an Agreement dated March 17, 1970, as amended by Amendment to Agreement dated August 7, 1973, Second Amendment to Agreement dated January 19, 1978, and Third Amendment to Agreement dated June 4, 1996, which expires on or about September 30, 2011; and

WHEREAS, the COUNTY and the TOWN desire to enter into a new written agreement for the provision of potable water by the COUNTY to the TOWN.

NOW, THEREFORE, in consideration of the mutual covenants contained herein and other good and valuable consideration, the parties agree as follows:

1. The COUNTY agrees to sell potable water to the TOWN as a wholesale customer and the TOWN agrees to purchase potable water from the COUNTY which the TOWN shall deliver through the TOWN's potable water distribution system and sell to the TOWN's potable water

customers within the areas depicted on Exhibit A.

2. Effective upon execution of this Agreement by both parties, the COUNTY agrees to allocate for the TOWN two and five-tenths (2.5) million gallons per day (MGD) reserve capacity in the COUNTY's potable water system. Effective October 1, 2007, the TOWN may increase the reserve capacity in the COUNTY's potable water system by increments of one thousand (1,000) gallons per day no more than one (1) time each fiscal year, subject to payment of Facility Investment Fees established by the COUNTY ordinance relating to Facility Investment Fees in effect at the time and in accordance with the following procedures:

- A. For each year ending June 30 effective in 2007, the TOWN shall submit an annual report to the COUNTY no later than August 1 of each year for the period of time from July 1 through June 30 of the previous year. The annual report shall itemize all new or increased connections to the TOWN's potable water distribution system, the meter size of each connection, and the reserve capacity equivalent of each connection. The TOWN shall maintain records relating to each connection itemized on the annual report. Such records shall be open for audit, inspection, examination and copying in compliance with Chapter 119, Florida Statutes.
- B. Subject to the COUNTY's receipt of water use permits from the Southwest Florida Water Management District (SWFWMD), the TOWN may purchase additional reserve capacity in the COUNTY's potable water system by paying to the COUNTY the appropriate amount of all Facility Investment Fees for wholesale customers established by the COUNTY ordinance relating to Facility Investment Fees in effect for the period of time covered by the annual report described in paragraph 2.A above for all new and increased connections to the TOWN's potable water distribution system for potable water use only, not for irrigation. The Facility Investment Fees shall be paid to the COUNTY at the same time the TOWN submits

the annual report to the COUNTY described in paragraph 2.A above and no later than August 1 of each year.

- C. Effective October 1 of each year following receipt of the annual report and the appropriate amount of Facility Investment Fees from the TOWN, the COUNTY shall adjust the reserve capacity in its potable water system to accommodate the additional reserve capacity for the TOWN. The increased reserve capacity shall also result in a corresponding increase in the monthly customer charge paid by the TOWN effective October 1 of each year.

3. The TOWN agrees to pay to the COUNTY on a monthly basis customer charges based on two and five-tenths (2.5) MGD reserve capacity, or such higher reserve capacity increased in accordance with section 2 of this Agreement, at the rates established by the COUNTY utility rate resolution in effect at the time.

4. The TOWN agrees to pay to the COUNTY on a monthly basis quantity rates and excess demand charges based on two and five-tenths (2.5) MGD reserve capacity, or such higher reserve capacity increased in accordance with section 2 of this Agreement, at the rates established by the COUNTY utility rate resolution in effect at the time, provided such rates are equivalent to the rates charged to other wholesale customers of the COUNTY.

5. Unless otherwise specifically provided in this Agreement, the TOWN agrees to render full payment to the COUNTY in United States funds within thirty (30) calendar days of receipt of any bills, statements, costs, expenses, rates and charges from the COUNTY.

6. The COUNTY shall submit to the TOWN the COUNTY's estimated utility rates for wholesale customers no later than July 1 of each year. The COUNTY shall provide notice of any proposed resolutions establishing or revising the COUNTY's utility rates in accordance with Chapter 63-1598, Laws of Florida, as amended.

7. The COUNTY and the TOWN agree that the areas located within the municipal

boundaries of the TOWN depicted on Exhibit A constitute the only areas of Manatee County and Sarasota County, Florida, served by the TOWN's potable water distribution system. The TOWN shall not distribute or sell potable water to any other areas of Manatee County or Sarasota County, Florida, located outside the municipal boundaries of the TOWN without the prior written consent of the COUNTY, except as otherwise provided for emergency potable water service or emergency potable water supply in compliance with section 11 or section 12 of this Agreement, respectively. The TOWN shall not purchase, provide, furnish, or sell potable water reserve capacity in the COUNTY's potable water system for or to any other jurisdiction, including Sarasota County, Florida, or the City of Sarasota, Florida.

8. It is understood and agreed that the supply of potable water as set forth in this Agreement is subject to the rules, regulations, orders and permits of SWFWMD and that the COUNTY's ability to supply potable water under this Agreement is so governed. The COUNTY shall work with SWFWMD to assure its ability to supply potable water and shall comply with all applicable SWFWMD rules, regulations, orders and permits.

9. The COUNTY agrees that potable water service to be furnished under this Agreement shall be continuous at all times; provided, however, that disruption or interruption of service at any time caused by an act of God (including drought conditions or any other natural condition resulting in insufficient ground or surface water to meet the needs of the users of the COUNTY's potable water system), fire, strike, casualty, war, terrorism, natural disaster, accident, federal, state, regional or local governmental action or order, necessary maintenance work, breakdown of or damage to machinery, pumps or pipelines, act or omission of any federal, state, regional or local governmental authority, civil or military authority, insurrection, riot, or any cause beyond the reasonable control of the COUNTY shall not constitute a breach of this Agreement by the COUNTY, and the COUNTY shall not be liable to the TOWN or any of its customers for any claims, damages, injuries, liabilities, losses, costs or expenses resulting from such unavoidable

disruption or interruption of service. The COUNTY agrees to correct any and all disruptions or interruptions that may occur and restore service as soon as practicable.

10. The Director of the Utility Operations Department of the COUNTY shall attempt to give a written or verbal communication to the Public Works Director of the TOWN at least seventy-two (72) hours in advance of any scheduled maintenance work which will affect the quality, volume or pressure of the potable water service furnished by the COUNTY to the TOWN under this Agreement; provided, however, that any failure to give a written or verbal communication or any scheduled maintenance, unscheduled maintenance or emergency work shall not constitute a breach of this Agreement by the COUNTY, and the COUNTY shall not be liable to the TOWN or any of its customers for any claims, damages, injuries, liabilities, losses, costs or expenses resulting from such failure to give communication or such scheduled maintenance, unscheduled maintenance or emergency work.

11. In the case of an emergency, a written or verbal communication from the Director of the Utility Operations Department of the COUNTY or the Public Works Director of the TOWN shall be made to the other party specifying the following information:

- A. The emergency need for potable water service;
- B. The anticipated daily amount of potable water required; and
- C. The estimated time period for the purchase of emergency potable water service.

Upon approval by the respective director of the other party, emergency potable water service shall be furnished to the requesting party for a period not to exceed seventy-two (72) hours or for a period of time agreed upon by the County Administrator of the COUNTY and the Town Manager of the TOWN; provided, however, that any emergency potable water service shall not exceed thirty (30) consecutive days unless approved by the governing body of the party furnishing such emergency potable water service.

12. It is understood that short term potable water supply emergencies may exist during

a state of emergency declared by the governing body of the COUNTY or the TOWN. Under such conditions wherein the TOWN shall need a higher short term potable water supply than the reserve capacity may allow during a state of emergency, the Board of County Commissioners of the COUNTY shall take appropriate action to waive any excess demand charges and charge all excess consumption at the wholesale rate established by the COUNTY rate resolution in effect at the time. The obligation to deliver such higher potable water supply shall be conditioned on the COUNTY having adequate supply to provide the increased delivery and/or on the ability of the COUNTY to receive emergency water use permits to allow for increased withdrawals that may be necessary. If the COUNTY has a short term potable water supply emergency and is unable to deliver the full reserve capacity to the TOWN, the associated monthly customer charges shall be based on the average daily delivery for the month(s) of reduced supply used as the reserve capacity for that period. If the COUNTY needs and can receive emergency potable water supply from the TOWN during a state of emergency, such potable water that is delivered shall be metered and billed to the COUNTY at the TOWN's bulk rate plus any base charge in effect at that time, based on the average daily delivery rate as a reserve capacity. Any short term potable water supply emergency declaration shall not exceed ninety (90) consecutive days or a total of ninety (90) days in any fiscal year.

13. Either party may refuse to provide or may cancel the provision of emergency potable water service or short term emergency potable water supply as set forth in section 11 or section 12 of this Agreement, respectively, if the party determines that the provision of such service or supply would constitute a danger to the health, safety, and welfare of its customers, which may include the ability to provide potable water service to its customers. In the event of such refusal, the other party agrees to waive any claim of loss or damage against the refusing party. The purchase of potable water pursuant to section 11 or section 12 of this Agreement shall not represent a long term entitlement of potable water reserve capacity from the other party.

14. Effective upon execution of this Agreement by both parties, the TOWN is connected to the COUNTY's potable water system by one (1) meter at the following location: ten-inch (10") meter located at 1901 Gulf Drive South. All potable water lines extending from the COUNTY's potable water treatment plant to and including the meter shall be the property and responsibility of the COUNTY, and all potable water lines extending beyond the meter shall be the property and responsibility of the TOWN.

15. The quality of potable water furnished by the COUNTY to the TOWN under this Agreement shall meet all applicable standards for drinking water established by the United States Environmental Protection Agency and the Florida Department of Environmental Protection, or succeeding regulatory agencies. The TOWN shall comply with all such regulations and standards beyond the meter within the municipal boundaries of the TOWN served by the TOWN's potable water distribution system. The COUNTY agrees to provide to the TOWN written potable water quality information necessary for the TOWN to satisfy reporting requirements to the TOWN's customers.

16. The quantity of potable water delivered to the TOWN shall be determined based on readings of the meter by calculating the difference in quantity registered from the previous reading of the meter, said meter readings to be made by the COUNTY. In the event of a meter malfunction, the quantity of potable water consumption shall be based on all available information agreed to by the utility staffs of both parties. The COUNTY agrees to render monthly bills to the TOWN for amounts then due and payable. Said monthly bills shall consist of two (2) components computed in accordance with the COUNTY utility rate resolution in effect at the time: (1) a monthly customer charge; and (2) a quantity rate.

17. All potable water furnished to the TOWN under this Agreement shall be measured by meter equipment of standard manufacture located at the point of connection, said meter to be maintained, calibrated and read by the COUNTY at its expense. No meter shall be allowed to

remain in service which has an error in excess of the normal test flow rates (less than 96% or greater than 102%) for accuracy limits established by the American Water Works Association (A.W.W.A.) guidelines, or succeeding guidelines, as of the time of testing. The COUNTY shall inspect and test the meter at intervals recommended by the A.W.W.A., with the meter tested at least twice per year. The COUNTY shall forward copies of the results of such tests to the TOWN within seven (7) calendar days of the COUNTY's receipt of the written test results. The COUNTY shall pay all inspection and testing costs, except as provided below. Upon written request by the TOWN, the COUNTY shall inspect and test the meter in the presence of a representative or representatives of the TOWN. If the meter conforms to the A.W.W.A. guidelines upon testing, the TOWN shall pay all inspection and testing costs. In the event a faulty meter is discovered, the COUNTY shall immediately take steps to restore the meter to an accurate condition or to install a new meter at the COUNTY's cost.

18. The COUNTY agrees to deliver potable water to the TOWN at a minimum static pressure of sixty (60) pounds per square inch. If the TOWN requires increased or reduced pressure at any point of connection, the TOWN shall pay for the necessary pressure regulation equipment together with all costs and expenses for installation, operation, maintenance and repair of such equipment.

19. It is understood that this is not an Agreement between the COUNTY and the potable water customers of the TOWN. Nothing in this Agreement shall be construed to convey to the TOWN any ownership interest in any portion of the assets of the COUNTY's potable water system, including treatment and distribution facilities.

20. This Agreement shall commence upon execution by both parties and shall expire on September 30, 2031. Subject to mutual written agreement by both parties, this Agreement may be renewed for one (1) additional period of ten (10) years, commencing on October 1, 2031, and expiring on September 30, 2041. The Town Commission shall provide written notice of the

TOWN's intent to renew this Agreement to the COUNTY at least eighteen (18) months prior to the expiration date of this Agreement. Upon approval of the TOWN's written renewal notice by the Board of County Commissioners, this Agreement shall be renewed for the additional ten (10) year period. If the Board of County Commissioners determines not to approve the TOWN's renewal notice, this Agreement shall terminate ten (10) years from such determination. In the event the COUNTY does not intend to renew this Agreement, the COUNTY shall provide written notice of such intent to the TOWN no later than ten (10) years prior to the expiration date of this Agreement.

21. This Agreement or any renewal of this Agreement may be canceled or terminated by mutual written consent of the parties or as described below:

A. If canceled or terminated by the COUNTY, at least ten (10) years advance written notice to the TOWN is required; or

B. If canceled or terminated by the TOWN, at least eighteen (18) months advance written notice to the COUNTY is required.

22. All requests and notices required to be given by either party under this Agreement shall be in writing, addressed to the other party as follows, and delivered by certified mail, return receipt requested, or by hand delivery:

A. COUNTY: Director  
Utility Operations Department  
Manatee County  
4410 66<sup>th</sup> Street West  
Bradenton, Florida 34210

WITH COPY TO: County Administrator  
Manatee County  
1112 Manatee Avenue West  
Bradenton, Florida 34205

B. TOWN: Town Manager  
Town of Longboat Key  
Longboat Key Town Hall  
501 Bay Isles Road  
Longboat Key, Florida 34228

WITH COPY TO: Public Works Director  
Town of Longboat Key  
Longboat Key Town Hall  
501 Bay Isles Road  
Longboat Key, Florida 34228

Either party may, by written notice to the other party as provided above, change the address for subsequent notice.

23. Neither party shall assign this Agreement or any rights or duties under this Agreement to any other person.

24. The failure of either party to insist at any time upon the strict performance of any covenant or agreement or to exercise any option, right, power or remedy contained in this Agreement shall not be construed as a waiver or relinquishment of such covenant, agreement, option, right, power or remedy for the future. No payment by either party or receipt of payment by the other party of a lesser amount than the amount that party claims to be due shall be deemed to be other than on account of the earliest payment due, nor shall any endorsement or statement on any check or any letter accompanying any check for any payment due either party be deemed an accord and satisfaction, and either party may accept such check or payment without prejudice to that party's right to recover the balance of any payment then due or to pursue any other remedy provided by law.

25. The parties agree that they have each participated in the drafting of this Agreement, and that the rules with respect to construing ambiguities against the drafter of a contract shall not apply in any action or litigation regarding this Agreement.

26. This Agreement shall be governed by and construed in accordance with the laws of the State of Florida.

27. Should any term, provision, covenant, condition, section, paragraph, sentence or portion of this Agreement be held invalid or unenforceable by any court of competent jurisdiction, the remaining terms, provisions, covenants, conditions, sections, paragraphs, sentences and

portions shall, nevertheless, remain in full force and effect.

28. This Agreement sets forth all covenants, promises, agreements and understandings between the parties concerning the subject matter of this Agreement, and there are no covenants, promises, agreements or understandings, either oral or written, between the parties except as herein set forth. No subsequent alterations, amendments, changes or additions to this Agreement shall be binding upon the parties unless reduced to writing and approved and executed by the TOWN and the COUNTY with the same formality as this Agreement.

29. This Agreement shall supersede and replace the Agreement between the parties dated March 17, 1970, as amended by Amendment to Agreement dated August 7, 1973, Second Amendment to Agreement dated January 19, 1978, and Third Amendment to Agreement dated June 4, 1996, which expires on or about September 30, 2011. Upon the commencement date as provided in section 20 of this Agreement, the Agreement between the parties dated March 17, 1970, Amendment to Agreement dated August 7, 1973, Second Amendment to Agreement dated January 19, 1978, and Third Amendment to Agreement dated June 4, 1996, shall be rescinded in their entirety and shall have no further force or effect.

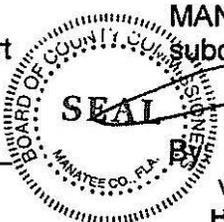
IN WITNESS WHEREOF, the parties hereto have executed this Agreement, by and through their duly authorized representatives, on the respective dates below.

COUNTY

Manatee County, Florida, a political subdivision of the State of Florida, acting by and through the Board of County Commissioners, with a quorum present and voting, hereby approves this Agreement on the 6<sup>th</sup> day of February, 2007.

ATTEST: R. B. Shore  
Clerk of the Circuit Court

By *Ausara Lomine*  
Deputy Clerk



MANATEE COUNTY, FLORIDA, a political subdivision of the State of Florida

By *Jane von Hahmann*  
Vice Chairman, Jane von Hahmann  
Board of County Commissioners

Date: 2/6/07

TOWN

The Town of Longboat Key, Florida, a municipal corporation of the State of Florida, acting by and through the Town Commission, with a quorum present and voting, hereby approves this Agreement on the 18<sup>th</sup> day of January, 2007.

TOWN OF LONGBOAT KEY, FLORIDA,  
a municipal corporation of the State of Florida

ATTEST: Jane M. O'Connor  
Jane M. O'Connor, Town Clerk

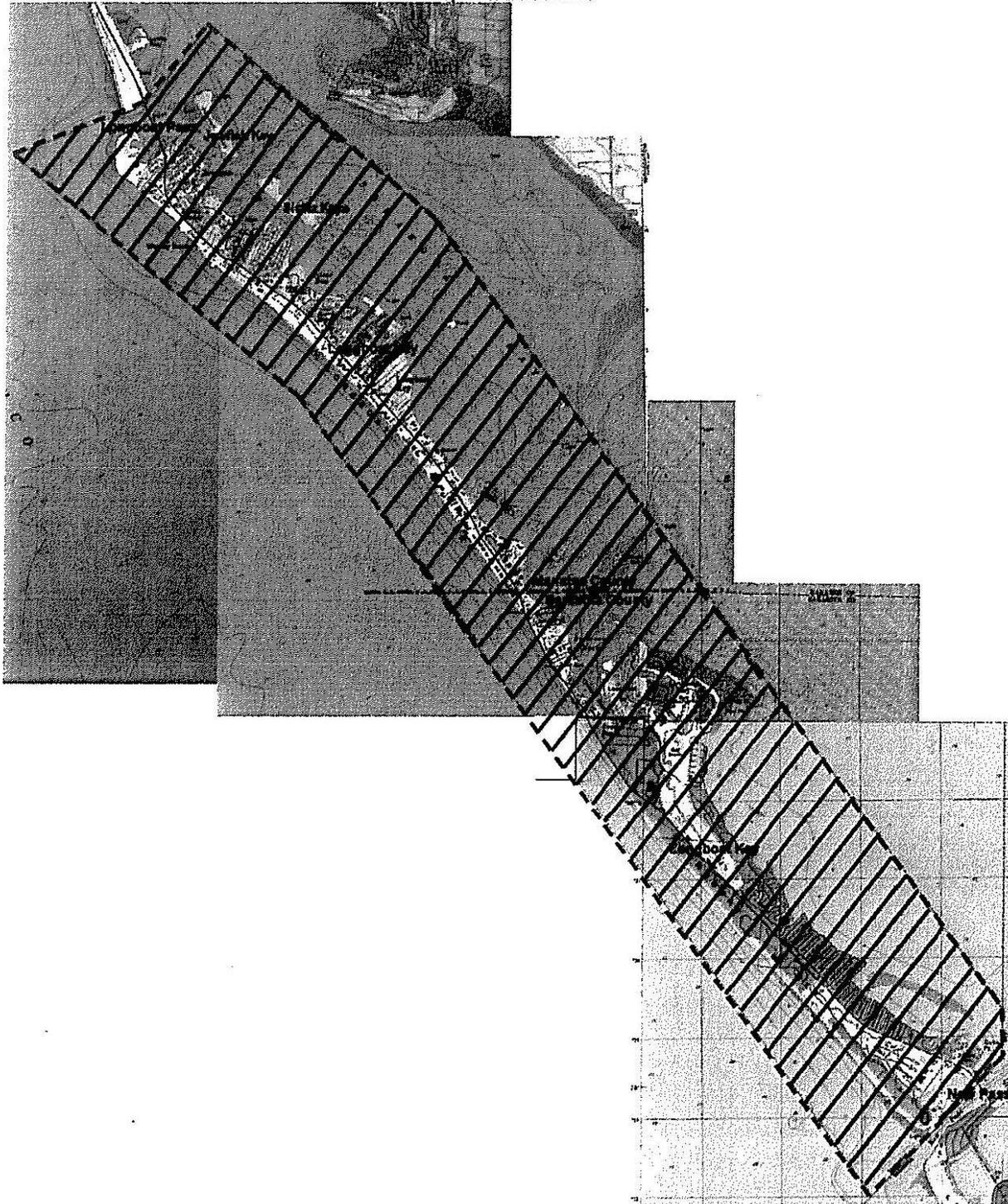
By: Joan M. Webster  
Joan M. Webster, Mayor

Date: 1-18-2007

Approved as to Legal Form and Correctness:

David P. Persson  
David P. Persson, Esquire, Town Attorney

**Exhibit A  
Town of Longboat Key  
Corporate Boundaries**



**Legend and Notes**

Longboat Key Corporate Limits 

Not to Scale

Source: USGS Bradenton, Sarasota, and Bradenton Beach (FL) Quadrangle Maps





**APPENDIX D: FIGURE 3 – MANATEE COUNTY LANDFILL**

