

# Comprehensive Plan



City of Edgewater



## **City of Edgewater 2030 Comprehensive Plan**

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**CITY OF EDGEWATER**

**COMPREHENSIVE PLAN**

**FUTURE LAND USE ELEMENT**

**GOALS, OBJECTIVES AND POLICIES**

**CHAPTER I**

**CHAPTER I  
 FUTURE LAND USE ELEMENT  
 GOALS, OBJECTIVES AND POLICIES**

**A. GOALS, OBJECTIVES AND POLICIES**

**GOAL 1:** Ensure that the character and location of land uses in Edgewater promote the conservation of resources, efficiency and concurrency in the provision of public facilities and services, maximization of economic benefits for existing and future citizens, compliance with adopted minimum levels of service standards, and concurrently minimize detrimental impacts to health, safety and welfare which may be jeopardized by environmental degradation, nuisances and incompatible land uses.

**Objective 1.1:** *Land Use Categories.* To maintain regulations for land use categories within the City and a *Future Land Use Map* (FLUM) to ensure the coordination of future land uses with existing and adjacent land uses.

**Policy 1.1.1:** *Future Land Use Categories.* The adopted *Future Land Use Map* shall contain and identify appropriate locations for the following land use categories, as defined in this *Element*. [9J-5.006 (3)(c)1. and (3)(c)7., F.A.C.]

Land Use Categories	Maximum Density/Intensity
Agriculture	1 dwelling unit/2.5 acres
Low Density Transition	1 dwelling unit/acre
Low Density Residential	4 dwelling units/acre
Medium Density Residential	8 dwelling units/acre
High Density Residential	12 dwelling units/acre
Commercial	0.5 floor area ratio
Mixed Use	12 dwelling units per acre and 0.5 floor area ratio
Industrial	0.5 floor area ratio
Recreation and Open Space	0.25 floor area ratio
Conservation	Not Applicable
Conservation Overlay	Not Applicable
Public/Semi-Public	0.5 floor area ratio
Sustainable Community Development	See SCD Sub-Element

- Policy 1.1.2:**        *Density/Intensity.* The City shall adopt maximum densities and intensities for each land use category which encourage economic development while protecting the natural environment as indicated in the above table. [9J-5.006 (3)(c)1., F.A.C.]
- Policy 1.1.3:**        *Zoning Districts.* The City shall maintain an adopted zoning matrix which shall establish zoning districts that correspond to specific land use categories. The matrix shall further define allowable densities and intensities in each zoning district. [9J-5.006 (3)(c)7., F.A.C.]
- Policy 1.1.4:**        *Innovative Design.* The City shall encourage innovative land use development techniques (including procedures for Mixed-Use planned unit development and cluster development), as further specified in the data and analysis of this *Element*. The City shall encourage Low Impact Development (LID) to promote resource management and protection including water use management.
- Policy 1.1.5:**        *Housing.* The *Future Land Use Map* shall contain an adequate diversity of lands for residential uses to meet the future demand for residential densities identified in the *Housing Element*.
- Policy 1.1.6:**        *Density Bonus.* The land development regulations may also provide for up to 25% increase in permitted residential densities for Mixed-Use planned unit developments. Specific standards and procedures for allowing such increases shall be included in the land development regulations. [9J-5.006 (3)(c)5., F.A.C.]
- The Land Development Regulations may provide for up to a 25% increase in the maximum permitted intensity of commercial or industrial development where exceptional provisions are made for buffers, landscaping, open space and protection of existing native trees. Provision of such additional amenities shall be in addition to minimum requirements.
- Policy 1.1.7:**        *Recreation and Open Space.* Public or private lands may be designated as Recreation and Open Space. If the facility is not resourced-based, a maximum of 25% impervious area shall be allowed in areas designated as Recreation and Open Space to ensure their protection, proper development and future public use and benefit.

Urban infill areas may have development exceptions. Development in this land use category should be in the public interest. [9J-5.006 (3)(c)4., F.A.C.]

**Policy 1.1.8:** *Conservation Overlay.* Properties that are designated as Conservation Overlay areas may potentially contain wildlife habitat areas including habitat for rare, endangered and threatened species, hydric soils/wetlands (as defined in the *Conservation Element*), mangrove swamps, cypress swamp, mixed hardwood swamp, hydric hardwood hammock and sand pine/xeric oak scrub, estuarine marsh ecotone, freshwater marshes, special vegetative communities, areas within a public water well radii of 500-feet, 100-year floodplain areas and other areas subject to environmental or topographic constraints. [9J-5.006 (3)(c)1., F.A.C.]

- A final determination of the suitability for development of any individual parcel, as it relates to a Conservation Overlay area on the FLUM shall be determined prior to issuance of any development approval.
- The Conservation Overlay area on the *Future Land Use Map* is not to be considered the exact boundary of the conservation area, but to act as an indicator of a potential conservation area. The exact boundary shall be determined by a qualified professional on a case-by-case basis at the expense of the Developer.
- The Conservation Overlay area is not all inclusive and other areas that do not fall within the boundaries that meet the definition of conservation areas are also subject to the regulations affecting them.
- Development approval will be subject to an Environmental Impact Study as to the extent of the impact of development or redevelopment for any lands within Conservation Overlay areas.
- If an area within the Conservation Overlay area is determined to be developable and all mitigation requirements have been met, then the underlying land use on the *Future Land Use Map* will apply.
- Any property in a Conservation Overlay area is required to undergo the planned unit development procedure which includes site specific plan approval and the clustering of density to protect these areas.

- Principal permitted structures may not be located in any mangrove swamp, estuarine marsh ecotone or freshwater marsh. Access for recreation will be permitted by the City on a limited basis.
- Efforts should be made to protect wetlands, if feasible. Otherwise, appropriate mitigation is required.
- Natural resources that are discovered as a result of a required environmental study will be protected. The environmental impact study will require that a qualified professional analyze the natural functions of eco-systems and connectivity of resource corridors. A Conservation land use designation or a conservation easement will be required to protect the functions of natural resources. Mitigation may be allowed on a case-by-case basis through the appropriate reviewing agencies.
- Land use categories that have Conservation Overlay areas may be allowed to transfer development densities/intensities (up to 1 unit per 10 acres for residential or the gross floor area density for non-residential development) to other areas of the site that are determined not to have natural resources.
- Sites that are determined to be comprised of more than 30% natural resources will be required to provide additional performance standards to allow the transfer of developments densities/intensities, such as increased landscaping, stormwater design amenities, reclaimed water usage, conservation devices, etc.
- All applicable land development regulations must be met to transfer development rights, including 25% open space and minimum pervious surface requirements.
- Upon completion of an environmental assessment, the area(s) determined to be ecologically sensitive by a professional ecological expert will be placed in a conservation easement to be preserved or mitigated through the appropriate reviewing/regulatory agency. At a minimum, the following areas shall be placed in a conservation easement; habitat for rare, endangered or threatened species; wetlands of ½ acre or more; mangrove swamps; cypress swamp; mixed hardwood swamps; hydric hardwood hammock; sand pine/xeric oak scrub and areas within a public water well radii of 500-feet. If a conservation



easement is more than five (5) acres, the City will designate it as Conservation of the *Future Land Use Map* during the next comprehensive plan amendment cycle. [9J-5.006 (3)(c)1. and (3)(c)6., F.A.C.]

**Policy 1.1.9:** *Mixed Use.* The Mixed-Use land use category permits low, medium and high density residential development; commercial uses (retail and office); light industrial; educational facilities; recreation facilities and compatible public facilities. The following restrictions are applicable to all Mixed-Use developments: [9J-5.006 (3)(c)5., F.A.C.]

- A minimum of fifteen acres is required for the Mixed-Use land use category designation.
- The only zoning districts permitted in the Mixed-Use land use categories are planned developments, including community center and employment center districts.
- The City currently has an abundance of single-family residential land and limited commercial and light industrial uses. To encourage a variety of uses within the mixed use district, the community center and employment center districts will limit the percentage of any one type of use in the district, as follows:

*Community Center* – The maximum amount of residential will be 60% of the site. The maximum amount of commercial uses (office and retail) will be 75% of the site. The maximum amount of light industrial will be 75% of the site. The maximum amount of educational and public facilities will be 60% of the site.

*Employment Center* – The maximum amount of residential will be 30% of the site. The maximum amount of commercial uses (office and retail) will be 80% of the site. The maximum amount of light industrial will be 70% of the site. The maximum amount of educational and public facilities will be 40% of the site.

- Mixed use land use categories that have Conservation Overlay areas may be allowed to transfer development densities/intensities (up to 1 unit per 10 acres for residential or

the gross floor area density for non-residential development) from sensitive natural resource locations to upland areas of the site that are determined not to have natural resources.

- Sites that are determined to be comprised of more than 30% natural resources will require additional performance standards to allow the transfer of development densities/intensities, such as increased landscaping, stormwater design amenities, reclaimed water usage, conservation devices and transition uses for compatibility with adjacent land uses.
- The transference of development rights to upland portions of the site will not negate the City’s Land Development Regulations. All regulations must still be met to transfer development rights, including 25% open space and minimum pervious surface requirements.

**Employment Center Zoning District**

Types of Uses Allowed	Allowable Range of Development
Residential	0% - 30%
Commercial	0% - 80%
Industrial	0% - 70%
Public/Semi-Public	0% - 40%
Recreation/Open Space	25% Minimum

**Community Center Zoning District**

Types of Uses Allowed	Allowable Range of Development
Residential	0% - 60%
Commercial	0% - 75%
Industrial	0% - 75%
Public/Semi-Public	0% - 60%
Recreation/Open Space	25% Minimum

**Policy 1.1.10:** *Residential Density and the Future Land Use Map.* The City shall ensure that residential density on the *Future Land Map* is based on the following considerations:

- Past and anticipated future population and housing trends and characteristics;
- Provision and maintenance of quality residential neighborhoods and preservation of cohesive neighborhoods;
- Protection of environmentally sensitive lands; and
- Transition of density between low, medium and high residential districts. [9J-5.006(3)(c)7, F.A.C.]

**Policy 1.1.11:** *Group Home and Foster Care Facilities.* The City shall continue to allow the location of group homes and foster care facilities in residential areas. These facilities shall serve as alternatives to institutionalization.

**Objective 1.2:** *Natural Resource Protection.* Maintain land development regulations that protect natural resources from the impact of development. Prevent development in areas that have inadequate soils, topography or other constraints to protect public health and welfare. Protect manatees in the Indian River through the continued implementation of the Volusia County *Manatee Protection Plan*. [9J-5.006 (3)(b)1. and (3)(b)4., F.A.C.]

**Policy 1.2.1:** *Septic Tanks and the Central Sewer Service.* Since the year 2000, the City will no longer permit the use of septic tanks within the City to prevent potential soil and groundwater contamination. When financially feasible, the City shall extend central sanitary sewer service to all developed properties within the current City limits. The City will also coordinate with the County to limit septic tank permits.

**Policy 1.2.2:** *Requirement to Connect to the Sewer System.* All previously developed properties must connect to central sanitary sewer when it becomes available within 500-feet of the property and/or structure. [9J-5.006 (3)(c)3., F.A.C.]

**Policy 1.2.3:** *Retrofitting Development and Septic Tanks.* The City shall continue to pursue funding to retrofit all development that is utilizing septic systems on unsuitable soils.

**Policy 1.2.4:** *Wellhead Protection.* The City shall provide for wellhead protection in accordance with Florida Department of Environmental Protection (FDEP) standards, Rule #62-521, effective as of the date of the initial adoption of the City's *Water Supply Facilities Work Plan*, and the Volusia County Wellhead Protection Ordinance. [9J-5.006 (3)(c)6., F.A.C.]

- Policy 1.2.5:** *Floodplain Management.* The City shall continue to maintain a floodplain management ordinance, which includes the development standards required for participation in the National Flood Insurance Program. Furthermore, the ordinance shall require that new construction or substantial improvement of any structure have the lowest floor elevated to one foot (1') above the established 100-year flood elevation without the use of fill. [9J-5.006 (3)(c)1., F.A.C.]
- Policy 1.2.6:** *Environmental Impact Study and Floodplains.* The City shall use the Conservation Overlay on the *Future Land Use Map* and required Environmental Impact Studies to protect the natural functions of the floodplains in the City and adjacent jurisdictions. [9J-5.006 (3)(c)1., F.A.C.]
- Policy 1.2.7:** *Performance Standards and Environmental Impact Study.* Additional performance standards will be required for development sites that are determined through the Environmental Impact Study to have floodplains, such as vegetative buffers, additional setbacks and clustered development away from the floodplains areas. [9J-5.006 (3)(c)1., F.A.C.]
- Policy 1.2.8:** *Prohibiting Development on Mangrove and Spoil Islands.* The City shall support the prohibition of development on the mangrove and spoil islands located within the Indian River/ Mosquito Lagoon estuary. [9J-5.006 (3)(c)1., F.A.C.]
- Policy 1.2.9:** *Stormwater Management.* The City shall continue to enforce the stormwater management requirements in the Land Development Code, which provide specific standards for the design of on-site stormwater systems, as well as strategies and measures to minimize runoff into the Indian River Lagoon. [9J-5.006 (3)(c)4., F.A.C.]
- Policy 1.2.10:** *Development Orders and the Stormwater Master Plan.* No development orders shall be issued unless the proposed development is determined to be in compliance with the City's *Stormwater Master Plan*. [9J-5.006 (3)(c)3. and (3)(c)4., F.A.C.]
- Policy 1.2.11:** *Identifying Properties with Potential Development Constraints.* The City shall utilize the natural vegetative map, USGS, Soil Conservation Service and the Hydric Soils of Florida Handbook to

identify properties which have potential development constraints based upon hydric soils, wetland vegetation, flood hazard potential or other topographic constraints, and, if necessary, require an Environmental Impact Study. [9]-5.006 (3)(c)1., F.A.C.]

- Policy 1.2.12:** *Regulating Boating Impacts.* The City shall regulate boating impacts on the Indian River pursuant to Phase II, the Boat Facility Siting component, of the *Manatee Protection Plan* for Volusia County as adopted by the City on August 1, 2005.
- Policy 1.2.13:** *Aggregated Number of Boat Slips.* The City shall implement the “slip aggregation” option referenced in the Volusia County *Manatee Protection Plan*. The aggregated number of motorized boat slips to be constructed within the City is 418 and is based upon data and research contained in the *Manatee Protection Plan* for Volusia County.
- Policy 1.2.14:** *Boat Slips and Single-Family Lots.* Single-Family residential lots with Indian River frontage shall not be denied their riparian rights to construct a minimum of two (2) motorized boat slips per lot. [9]-5.006 (3)(c)1., F.A.C.]
- Policy 1.2.15:** *Encouraging Shared, Multi-slip Facilities.* The City shall encourage shared, multi-slip facilities and aggregation of slips during development and redevelopment, including single-family lots of record.
- Policy 1.2.16:** *Marina Development/Redevelopment.* Any marina development/redevelopment shall be consistent with the *Manatee Protection Plan* for Volusia County.
- Policy 1.2.17:** *Manatee Protection.* The City shall monitor the manatee protection policies pursuant to the *Manatee Protection Plan* for Volusia County.
- Policy 1.2.18:** *Floodplain Mitigation.* Development within the 100 Year Floodplain shall provide necessary mitigation to maintain the natural stormwater flow regime. The 100 Year Floodplain Zone shall be delineated within the *Future Land Use Map Series*. The boundary of the 100 Year Floodplain Zone shall be determined by the most recent Flood Insurance Maps prepared by the Federal Emergency Management Agency. Mitigation shall occur through the following activities:

- a. ***Prohibited Land Uses and Activities.*** Storing or processing materials that would, in the event of a 100 Year Storm, be buoyant, flammable, explosive or potentially injurious to human, animal or plant life is prohibited. Material or equipment immune to substantial damage by flooding may be stored if securely anchored to prevent flotation or if readily removable from the area upon receipt of a flood warning. Manufacturing land uses shall be discouraged from encroaching into the 100 Year Floodplain Zone.
- b. ***Minimum Floor Height Elevation.*** All new construction and substantial improvements of existing construction must have the first floor elevation for all enclosed areas at twelve inches above the 100 year flood elevation.
- c. ***Construction Materials and Methods.*** All new construction and substantial improvements of existing construction shall be constructed with materials and utility equipment resistant to flood damage, and using methods and practices that will minimize flood damage and prevent the pollution of surface waters during a 100 year flood event.
- d. ***Service Facilities and Utilities.*** Electrical heating, ventilation, plumbing, air conditioning and other service facilities shall be designed or located to prevent water from entering or accumulating within the components during a base flood. All new and replacement water supply and sanitary sewage systems shall be designed to minimize or eliminate both infiltration of flood water into the systems and discharges for the systems into flood waters.
- e. ***Residential Subdivision Plans and Design.*** Plans and designs for subdivisions shall minimize potential flood damage by locating recreation and conservation uses, if included in the plans, to areas within the Flood Zone, reserving as much land as possible outside the flood zone for other land uses. Flood zones shall be identified on all final development plans submitted to the City.

- f. ***Stormwater Facilities.*** The City shall require development to have drainage facilities in place and functioning concurrent with the impacts of development, as stipulated by deadlines established within the Concurrency Management System. Such drainage facilities shall be designed to comply with the City's established level of service standard. Developers shall be required to install all necessary drainage facilities necessary to maintain the natural flow regime of the 100 year floodplain, consistent with level of service standards.

**Objective 1.3:** ***Concurrency.*** Ensure that future development provides essential services and facilities at acceptable standards by incorporating the following policies into the site plan review process and the City's Concurrency Management System. [9J-5.006 (3)(b)9., F.A.C.]

**Policy 1.3.1:** ***Impacts on Current LOS Services and Facilities.*** The City shall review all development and redevelopment proposals to determine their specific impacts on current Levels of Service (LOS) for all services and facilities addressed in this *Comprehensive Plan*. [9J-5.006 (3)(c)3., F.A.C.]

**Policy 1.3.2:** ***Denial of Development Orders and LOS.*** When a proposed development would result in a degradation of the adopted LOS, then a development order will be denied unless it can be demonstrated that sufficient improvements will be in place concurrent with the impacts of such development to maintain the adopted minimum LOS standard. [9J-5.006 (3)(c)3., F.A.C.]

**Policy 1.3.3:** ***Seeking Fiscal Resources to Expand Services and Facilities.*** The City will continue to seek fiscal resources to expand water and wastewater collection zones within established service areas, improve City roadways and make other improvements necessary to accommodate growth and maintain services and facilities at adopted standards.

**Policy 1.3.4:** ***Adoption of the City's Water Supply Plan.*** The City hereby adopts by reference the *Water Supply Facilities Work Plan (WSFWP)* dated April 2009 as prepared by the City of Edgewater (see Attachment A of the *Potable Water Element*). The City will maintain the *WSFWP* for a planning period of not less than ten years. The *Water Supply Facilities Work Plan* addresses issues that pertain to water supply facilities and requirements needed to serve current and future development within the City's water service area.



The City shall review and update the *WSFWP* at least every five years. Any changes to occur within the first five years of the *WSFWP* shall be included in the annual *Capital Improvements Plan* update to ensure consistency between the *Potable Water Sub-element* and the *Capital Improvements Element*.

**Policy 1.3.5:** *Concurrency Requirement.* In accordance with Section 163.31 80(2)(a), F. S., the City shall, prior to approval of a building permit or its functional equivalent, determine that there will be adequate water supplies and facilities available no later than the date at which the City anticipates issuing a certificate of occupancy, to serve the new development. All development is subject to the City's Concurrency Management system.

**Policy 1.3.6:** *Tracking Water Demand.* The City shall track current water demand and outstanding commitments in order to determine the availability of an adequate water supply for proposed developments.

**Policy 1.3.7:** *Inventory of Water Supply Facilities.* The City shall maintain an ongoing inventory of the water supply facilities and a plan for improvements needed to support existing and future demands. These shall be included in the *WSFWP*.

**Objective 1.4:** *Discourage Urban Sprawl and Encourage Redevelopment.* Maintain regulations and procedures in the Land Development Code to limit the proliferation of urban sprawl and encourage redevelopment and revitalization of blighted areas. [9J-5.006 (3)(b)2. and (3)(b)8., F.A.C.]

**Policy 1.4.1:** *Limiting Development and the Utility Service Area.* The City will limit land development activities outside of the adopted Utility Service Area boundary to encourage infill and ensure the availability of services and facilities to accommodate development. [9J-5.006 (3)(c)3., F.A.C.]

**Policy 1.4.2:** *Development Outside of the Utility Service Area.* Intensive development proposed for areas outside the established utility service area shall be discouraged unless it can be demonstrated that such development will be adequately served by alternative service delivery systems. [9J-5.006 (3)(c)3., F.A.C.]

**Policy 1.4.3:** *Reducing Limitations on Infill and Redevelopment.* If necessary, the City may reduce limitations on infill and redevelopment activities consistent with the land uses and densities indicated in this *Plan* in situations that will not jeopardize public health, safety or welfare.

**Policy 1.4.4:** *Revitalizing US Highway 1 and Park Avenue Corridors.* By December 2014, the City shall re-evaluate the U.S. Highway 1 corridor and the Park Avenue corridor to develop a plan for revitalization. The plan shall identify land uses and densities to be permitted, including density bonuses, and will address traffic circulation (both on-site and off-site), landscaping and open spaces, sign controls and buffers for contiguous residential areas.

**Policy 1.4.5:** *Addressing Blighted or Deteriorated Areas.* If blighted or otherwise deteriorated areas develop within the City, the areas shall be targeted for special consideration through the redevelopment plan and/or the community redevelopment plan as contained in Policies 3.1.1 and 3.1.2 of the *Capital Improvements Element* of this *Plan*. In such a case, the City shall pursue available Federal, State, County and Local funds for redevelopment.

**Objective 1.5:** *Future Land Use Compatibility.* Ensure future development must be consistent with the adopted *Future Land Use Map* and existing incompatible uses shall not be allowed to expand and shall be eliminated, when feasible. [9J-5.006 (3)(b)3., F.A.C.]

**Policy 1.5.1:** *Inconsistent Land Uses.* Proposed land use amendments, which are inconsistent with the character of the community or inconsistent with adjacent future land use shall not be approved by the City, unless the adjacent future land use can be shown to be inconsistent with the *Comprehensive Plan*. [9J-5.006 (3)(c)2., F.A.C.]

**Policy 1.5.2:** *Repair or Rehabilitation of Structures.* The City's Land Development Regulations shall contain provisions that prohibit the repair or rehabilitation of an inconsistent structure that is abandoned or damaged beyond 50% of its appraised value and require demolition of the structure. Redevelopment of the property will only be allowed if it is consistent with the *Future Land Use Map*.

- Policy 1.5.3:** *Intensive Commercial Uses and Established Residential Areas.* Intensive commercial land uses over 100,000 gross square feet shall be prohibited within established residential areas. Such uses shall be located at intersections of arterial roads or at intersections of an arterial and a major collector road. Such uses may also be considered as appropriate along U.S. 1 where the use is part of a Mixed Use development appropriately buffered from adjacent older residential areas. Smaller commercial retail uses (including convenience stores) shall be located along arterial or major collector roads, but must be integrated in terms of traffic flow with adjacent development and buffered from single family uses. [9J-5.006 (3)(c)1. and (3)(c)2., F.A.C.]
- Policy 1.5.4:** *Buffer Requirement and Intensive Commercial and Industrial Uses.* Intensive commercial and industrial land uses shall be buffered from low-density residential areas. This will be accomplished by locating less intensive transitional uses in between or by visual buffering with berms, trees or other methods to be included in the Land Development Code as deemed appropriate by the City. [9J-5.006 (3)(c)1. and (3)(c)2., F.A.C.]
- Policy 1.5.5:** *Higher Density Residential Areas.* Higher density residential development shall be designated for areas adjacent to more intensive land uses such as Commercial and Light Industrial. Where feasible, visual buffering shall be utilized to reduce any negative effects on the residents of such development. [9J-5.006 (3)(c)1. and (3)(c)2., F.A.C.]
- Policy 1.5.6:** *Maintaining a Landscape Ordinance.* The City shall maintain a Landscape Ordinance that requires adequate buffering between transitional uses. [9J-5.006 (3)(c)2., F.A.C.]
- Policy 1.5.7:** *Maintaining Site Design Requirements and Subdivision Regulations.* The City shall maintain site design requirements and subdivision regulations in the Land Development Code, which adequately address the impacts of new development on adjacent properties in all land use categories and zoning districts. [9J-5.006 (3)(c)1. and (3)(c)2., F.A.C.]
- Policy 1.5.8:** *Signage Limitation and Location.* The City's Land Development Regulations shall limit signage which can be viewed from residential

property and restrict the location of signs which interfere with traffic flow and sight distance. [9J-5.006 (3)(c)1., F.A.C.]

**Policy 1.5.9:** *Conversion of Residential Structures and SR 442.* Due to the widening of S.R. 442, the City shall permit conversion of existing residential structures to professional office uses only when the following conditions shall apply: [9J-5.006 (3)(c)2., F.A.C.]

- The property is located on S.R. 442, east of Pinedale Road and west of U.S. Highway 1, and has a minimum of 100-foot frontage along S.R. 442;
- A Conditional Use Permit is applied for and granted by the Planning and Zoning Board;
- Adequate access and parking to redeveloped parcels is provided;
- Land Development Code standards for buffers and site visibility triangle can be provided to effectively maintain the viability of adjacent residential uses; and
- A site plan is approved by City staff.

Professional office uses permitted are restrictive and shall be designed to serve primarily the residents of the immediate neighborhood.

The usage of these properties shall not be detrimental to, nor incompatible with, the current nature of the area. Specific guidelines and requirements for conversion of those properties are provided in the City's Land Development Code.

**Policy 1.5.10:** *Ensuring Adequate Water Supplies.* In accordance with Section 163.3180(2)(a), F.S., the City shall determine whether there will be adequate water supplies to serve the new development prior to approval of a building permit or its functional equivalent. All development is subject to the City's Concurrency Management system. The City shall track current water demand and outstanding commitments in order to determine the availability of an adequate water supply for proposed developments. [9J-5.006 (3)(c)3., F.A.C.]

**Objective 1.6:**        *Transportation/Land Use Compatibility.* Ensure that population densities, housing types, employment patterns and land uses in the City are consistent with the City's transportation network. [9J-5.006 (3)(b)1., F.A.C.]

**Policy 1.6.1:**        *Minimizing Curb Cuts and Access Points.* Curb cuts and points of access to the traffic circulation system shall be minimized on major roads. [9J-5.006 (3)(c)4., F.A.C.]

**Policy 1.6.2:**        *Requiring Shared Driveways and Cross Access.* Shared driveways and cross access between adjacent properties shall be required in all new development or redevelopment projects, as determined by the City's Development Services Department, to improve the traffic flow along major roads. [9J-5.006 (3)(c)4., F.A.C.]

**Policy 1.6.3:**        *Proposed Transportation Improvements.* Proposed transportation improvements shall be consistent with the land use patterns on the *Future Land Use Map*. [9J-5.006 (3)(c)2., F.A.C.]

**Policy 1.6.4:**        *Land Uses with High Traffic Counts.* Land uses that may generate high traffic counts shall be encouraged to locate adjacent to arterial roads and mass transit systems.

**Policy 1.6.5:**        *On-site Parking.* The City shall require an adequate quantity of on-site parking to accommodate land uses. [9J-5.006 (3)(c)4., F.A.C.]

**Policy 1.6.6:**        *Guidelines for the SR 442 Corridor.* The City shall continue to use the *S.R. 442 Corridor Plan*, adopted in April 2004, as a guide to implement regulations for specific streetscape, landscape, architectural design standards and all other applicable requirements for properties developed along the S.R 442 corridor.

**Objective 1.7:**        *Adjacent Jurisdictions.* Promote the compatibility of adjacent land uses with Volusia County and the neighboring cities of New Smyrna Beach and Oak Hill. [9J-5.006 (3)(b)3., F.A.C.]

**Policy 1.7.1:**        *Considering Adjacent Existing and Proposed Land Uses.* When reviewing land use amendments, the City shall consider the existing and proposed land uses in any jurisdictions that are adjacent to the proposed amendment. [9J-5.006 (3)(c)2., F.A.C.]

**Policy 1.7.2:** *Joint Planning Agreement with Volusia County.* The City shall continue efforts to enter into a Joint Planning Area agreement with Volusia County to control the timing of urban expansion. [9J-5.006 (3)(c)3., F.A.C.]

**Policy 1.7.3:** *Intergovernmental Coordination.* Continue intergovernmental coordination through associated technical committees with neighboring jurisdictions, such as the Transportation Planning Organization (TPO), the Volusia Council of Governments (VCOG) and the Volusia Growth Management Commission (VGMC).

**Objective 1.8:** *Annexation.* Pursue a policy of annexation, which will provide for the most efficient use of public facilities and services, eliminate areas of jurisdictional problems and provide for sound growth and development of the City and surrounding area. [9J-5.006 (3)(b)1. and (3)(b)9., F.A.C.]

**Policy 1.8.1:** *Interlocal Agreement with Volusia County.* The City will continue its efforts to enter into an interlocal agreement with Volusia County regarding a future joint planning area, future annexation boundaries, urban service boundaries and a matrix of compatible County and City land uses. [9J-5.006 (3)(c)2. and (3)(c)4., F.A.C.]

**Policy 1.8.2:** *Reducing Land Use Conflicts.* In order to reduce land use conflicts and for efficient public service provision, the City shall investigate and, where feasible, annex all enclaves as soon as possible. [9J-5.006 (3)(c)2., F.A.C.]

**Policy 1.8.3:** *Annexation of New Development.* New development proposed within the County in areas that are contiguous to the City shall be annexed into the City and developed to City standards as a condition for the extension of public utilities. [9J-5.006 (3)(c)3., F.A.C.]

**Policy 1.8.4:** *Availability of Water Supply and Facilities.* The City will prepare data and analysis to address the availability of the water supply and facilities needed for all lands annexed into the City.

**Policy 1.8.5:** *Establishing Incentives to Annex into the City.* By December 2014, the City shall conduct an analysis demonstrating the benefits of unincorporated areas, including those within existing enclaves, annexing

into the City. At minimum, the analysis shall include: incentives to property owners who annex in the City and compare public safety response times and services that are available to City residents. The City shall present the residents of above mentioned properties with the findings of the analysis through the form of an educational brochure and/or the City's website.

**Objective 1.9:** *Historic and Archeological Sites.* Identify, designate and protect historically significant housing and significant archeological sites. [9J-5.006 (3)(b)4., F.A.C.]

**Policy 1.9.1:** *Protecting and Preserving Historic Sites and Properties.* The City will protect and preserve its historic sites and properties, buildings, artifacts, treasure troves and objects of antiquity, which have scientific or historic value, or are of interest to the public. [9J-5.006 (3)(c)8., F.A.C.]

**Policy 1.9.2:** *Prohibiting Development and Historically Significant Properties.* Development shall be prohibited which alters or damages any site or building determined to be historically significant that is designated on the register of historically significant property maintained by the State of Florida. [9J-5.006 (3)(c)8., F.A.C.]

**Policy 1.9.3:** *Historic Preservation Standards.* By December 2014, the City shall reevaluate the current standards for historic preservation in the Code of Ordinances to ensure the protection of historically significant cultural sites and historic structures from development or redevelopment. The City shall coordinate with Edgewater's Recreation/Cultural Services Board to determine if new historic preservation standards shall be implemented. [9J-5.006 (3)(c)8., F.A.C.]

**Policy 1.9.4:** *Working with the Historical Museum.* By December 2014, the City shall work with the historical museum to identify historic and archeological sites in Edgewater. If any are identified, the City shall maintain a database that identifies the location of potential archeological and historic sites and review all future development and redevelopment to prevent any negative impact to these sites. [9J-5.006 (3)(c)8., F.A.C.]

**Policy 1.9.5:** *Identifying and Protecting of Archeological Resources and Historical Significant Buildings.* The City shall identify and protect buildings and improvements that have historical or architectural



significance. The City shall use the Florida Master Site File as a resource to identify archeological resources and historically significant structures. All historically significant sites or structures listed on the Florida Master File or the National Register of Historic Places shall be identified in the *Future Land Use Map* Series. In addition, the City shall also distinguish buildings as historic if the following criteria are met [9J-5.006(3)(c)(8), F.A.C.]:

- The age of the subject site exceeds fifty years;
- Whether the building, structure or object represents the last remaining example of its kind in the neighborhood or City; or
- Whether documented proof indicates that the site played a significant role in the history of Edgewater, Volusia County or the State of Florida.
- If type, density and intensity of adjacent land use shown on the *Future Land Use Map* is not compatible to the preservation of the historic site, then appropriate buffering and screening techniques shall be requirements imposed on encroaching adjacent new development. Such requirements shall be stipulated within the Land Development Regulations.

**Policy 1.9.6:** *Rehabilitating, Relocating or Demolition of Historic Sites.* Criteria established in the Land Development Regulations pertaining to the rehabilitation or relocation of a designated historic structure shall follow the U.S. Secretary of the Interior’s “Illustrated Guidelines for Rehabilitating Historic Buildings”. Additional criteria for approving the relocation, demolition or rehabilitation of a historic structure shall include the following factors [9J-5.006(3)(c)8, F.A.C.]:

- a. The historic character and aesthetic interest of the building, structure or object and how it contributes to its present setting;
- b. Whether there are definite plans for the area to be vacated and the effect of those plans on the character of the surrounding neighborhood;
- c. Whether the building, structure or object can be moved without significant and irreversible damage to its physical integrity;
- d. Whether the building, structure or object represents the last remaining example of its kind in the neighborhood or City;

- e. Whether definite plans exist to reuse the subject property if a proposed demolition is carried out, and the effect of those plans on the character of the surroundings; and
- f. Whether reasonable measures can be taken to save the building, structure or object to a level safe for occupation.

**Objective 1.10:**     ***Public Utilities.*** Maintain Land Development Regulations and procedures which will require provision of land for utility facilities necessary to support development and will limit land development activities when such land for utility facilities is not available. [9J-5.006 (3)(b)1. and (3)(b)9., F.A.C.]

**Policy 1.10.1:**     ***Proposed Development and Public Utilities.*** Proposed development shall be reviewed in relation to existing and projected utility systems and any land needs of these systems; such as, water and sewer plants; transmission corridors for electric and other utilities; easements for maintenance and other requirements. [9J-5.006 (3)(c)3., F.A.C.]

**Policy 1.10.2:**     ***Development Orders and Utilities.*** No development orders shall be issued unless it can be demonstrated that the land required by utility systems serving the City will be preserved. [9J-5.006 (3)(c)3., F.A.C.]

**Objective 1.11:**     ***Public Schools.*** Implement standards for the siting of public schools and to increase the quality of life and local educational opportunities for Edgewater’s citizens.

**Policy 1.11.1:**     ***Permitting Public Schools.*** Public schools shall be allowed in all future land use designations except Conservation. In addition, public schools shall continue to be allowed in all zoning districts with the exception of the Conservation (CN), Residential Professional (RP), Mobile Home Park (MH-1) and Heavy Industrial (I-2) zoning districts. [9J-5.006 (3)(c)1. and (3)(c)7., F.A.C.]

**Policy 1.11.2:**     ***New School Site Locations.*** New school sites shall not adjoin an active railroad or airport; and must not be adjacent to any noxious industrial uses or other property from which noise, vibration, odors, dust, toxic materials or other disturbances would have a negative impact. [9J-5.006 (3)(c)1., F.A.C.]

**Policy 1.11.3:**     ***Minimizing Detrimental Impacts and New Schools.*** New schools shall minimize detrimental impacts on residential neighborhoods,

hospitals, nursing homes and similar uses through proper site location, configuration, design layout, access, parking, traffic controls and buffers. [9J-5.006 (3)(c)1. and (3)(c)7., F.A.C.]

- Policy 1.11.4:** *Size of New School facilities and Land Area.* The size of new school facilities and land areas shall satisfy the minimum standards established by the School Board of Volusia County, whenever possible.
- Policy 1.11.5:** *New School Sites Guidelines.* New school sites shall be well drained and education buildings shall be located away from floodplains, wetlands and other environmentally sensitive lands. Education facilities shall not have an adverse impact on historic or archeological resources.
- Policy 1.11.6:** *New School Sites and Concurrency.* Public utilities, as well as police and fire protection, shall be available concurrently with the construction of new school sites. [9J-5.006 (3)(c)3., F.A.C.]
- Policy 1.11.7:** *New School Sites and Road Frontage.* New school sites shall have frontage on or direct access to a collector or arterial road and shall have suitable ingress and egress for pedestrians, bicycles, cars, buses, service vehicles and emergency vehicles. [9J-5.006 (3)(c)4., F.A.C.]
- Policy 1.11.8:** *Collation of Public Facilities.* To the extent possible, during pre-development program planning and school site selection activities, the City shall coordinate with the School Board of Volusia County to collocate public facilities, such as parks, libraries and community centers, with schools. [9J-5.006 (3)(c)4., F.A.C.]
- Policy 1.11.9:** *New Schools and Emergency Shelters.* Portions of new schools, in accordance with the recommendations of the Volusia County Emergency Management Department, should be constructed to serve adequately as emergency shelters in case of natural disasters.
- Policy 1.11.10:** *Public Elementary, Middle, and High Schools.* Public elementary, middle and high schools shall be considered essential infrastructure for the support of residential development.

**Objective 1.12:** *Hurricane Evacuation.* Control future density and intensity in areas subject to coastal flooding to protect the safety, health and welfare of the citizens of Edgewater. In

addition, the City shall continue to coordinate coastal population densities with appropriate hurricane evacuation plans. [9J-5.006 (3)(b)5., F.A.C.]

**Policy 1.12.1:** *Coordinating Land Use Density and Intensity and Coastal Flooding.* Coordinate land use density and intensity in areas subject to coastal flooding with the East Central Florida Regional Planning Council and the Volusia County *Comprehensive Emergency Management Plan (CEMP)*. [9J-5.006 (3)(c)7., F.A.C.]

**Policy 1.12.2:** *Maintaining a Disaster Preparation, Response and Recovery Plan.* The City will continue to maintain a *Disaster Preparation, Response and Recovery Plan* that sets forth the planning and procedures for evacuation and coordinates with County, State and Federal efforts.

**Policy 1.12.3:** *Submit Proof of Acceptable Hurricane Evacuation Time.* Land use amendments and zoning changes that will increase the density or intensity of uses in areas subject to coastal flooding are required to submit proof of acceptable hurricane evacuation time. [9J-5.006 (3)(c)7., F.A.C.]

**Policy 1.12.4:** *Prohibiting Development and Hurricane Evacuation Time.* Increased development will not be allowed in areas that do not meet standards for hurricane evacuation time. [9J-5.006 (3)(c)7., F.A.C.]

**Policy 1.12.5:** *Maintaining Post Disaster Recovery Procedures.* The City will continue to maintain post disaster recovery procedures in the *Disaster Preparation, Response and Recovery Plan*.

**Objective 1.13:** *Dredge Spoil Locations.* Ensure the designation of adequate sites for dredge spoil disposal since Edgewater is located within the coastal area. [9J-5.006 (3)(b)11., F.A.C.]

**Policy 1.13.1:** *Supporting the Florida Inland Navigation District.* The City will continue to support the efforts of the Florida Inland Navigation District to develop a spoil site on a large tract of land north of Park Avenue. [9J-5.006 (3)(c)9., F.A.C.]

**Policy 1.13.2:** *Reserving Adequate Sites for Soil Disposal.* Coordination with the navigation and inlet districts and other applicable agencies will continue to ensure that adequate sites have been reserved for dredge spoil disposal to meet the future needs of the State. [9J-5.006 (3)(c)9., F.A.C.]

- Policy 1.13.3:** *Environmental Impact Study Requirement.* The City shall require an Environmental Impact Study for all sites proposed for dredge spoil disposal. [9J-5.006 (3)(c)9., F.A.C.]
- Policy 1.13.4:** *Criteria for Sites Selected for Dredge Spoil Disposal.* Sites selected for dredge spoil disposal must be financially feasible, provide adequate access and have adequate utilities and buffers. [9J-5.006 (3)(c)9., F.A.C.]
- Objective 1.14:** *Innovative Land Development Regulations.* Maintain and promote innovative land development regulations. [9J-5.006(3)(b)10., F.A.C.]
- Policy 1.14.1:** *Encouraging Innovative Land Use Development Techniques.* The City shall continue to encourage the use of innovative land use development techniques such as planned development projects, cluster housing techniques and mixed use developments. [9J-5.006(3)(c)5., F.A.C.]
- Policy 1.14.2:** *Identifying and Prioritizing Infill Development Sites.* Utilize existing inventories of land use information to identify and prioritize infill development sites; then coordinate with the Volusia County Office of Economic Development to make this information available to the private sector.
- Policy 1.14.3:** *Economic Development Incentives for Infill and Redevelopment.* By December 2014, the City shall establish initiatives to provide economic development incentives to infill and redevelopment development projects that are currently served by the City's utilities.
- Policy 1.14.4:** *Maintaining the City's Historical Built Environment.* Through the land development and permitting processes, the City shall cooperate with the private sector to recognize and maintain the integrity of the City's historical built environment. [9J-5.006 (3)(c)8., F.A.C.]
- Policy 1.14.5:** *Attracting High Technology and Other Industrial Development.* Ensure that appropriate land, infrastructure and amenities are available to attract high technology and other industrial development that is compatible with the local labor force, raw materials and landform/environmental constraints. [9J-5.006 (3)(c)3., F.A.C.]

**Policy 1.14.6:** *Incentives for Developers and Variety Housing Types.* By December 2014, the City shall amend the Land Development Code to provide incentives for developers providing for a variety of housing types.

**Policy 1.14.7:** *Larger Lots for Rural Homesteads.* The City shall encourage a certain percentage of planned unit developments to include larger lots than currently in the City. Priority shall be given to those lots adjoining conservation areas. Additionally, quasi-commercial ventures, such as selling products that are grown on the land, providing horseback riding lessons, Bed & Breakfast establishments and other suitable uses, shall be an overall component of the rural homestead guidelines.

**Policy 1.14.8:** *Requiring Underground Utilities.* The City shall require all new subdivisions, residential and commercial developments, approved after the adoption of this *Comprehensive Plan*, to have underground telephone, cable and electrical utility lines to provide a more attractive, efficient, and safer development, when feasible.

**Objective 1.15:** *Hazard Mitigation Reports.* Eliminate or reduce future land uses that are inconsistent with the Volusia County Local Hazard Mitigation Strategy and other existing and future interagency hazard mitigation reports. [9J-5.006(3)(b)6., F.A.C.]

**Policy 1.15.1:** *Reviewing Interagency Hazard Mitigation Reports.* The City shall review interagency hazard mitigation reports as they become available to determine if actions are appropriate to eliminate or reduce future land uses that are inconsistent with the report.

**Objective 1.16:** *Electric Infrastructure.* To maintain, encourage and ensure adequate and reliable electric infrastructure is readily available in the City.

**Policy 1.16.1:** *Permitting New Electric Distribution Substations.* The City shall allow new electric distribution substations in all land use categories except Conservation. The City shall, if possible, avoid locating substations where they would be incompatible with adjacent land uses [Chapter 163.3208 (4), F.S.].

**Policy 1.16.2:** *Compatibility of New Electric Distribution Substations.* The City shall require the compatibility of new electric distribution substations

with surrounding land uses (including heightened setback, landscaping, buffering, screening, lighting, etc.) as part of a joint public/private site planning effort. [9J-5.006(3)(c)2, F.A.C.]

**Policy 1.16.3:** ***New Electric Distribution Substation Standards.*** By December 2014, the City shall amend the Land Development Regulations to ensure that the following standards apply to new distribution electric substations (to the extent of State's requirements):

In nonresidential areas, the substation must comply with the setback and landscaped buffer area criteria applicable to other similar uses in that district, if any.

Unless the City Council approves a lesser setback or landscape requirement, in residential areas, a setback of up to 100 feet between the substation property boundary and permanent equipment structures shall be maintained as follows:

1. For setbacks between 100 feet and 50 feet, an open green space shall be formed by installing native landscaping, including trees and shrub material, consistent with the relevant local government's land development regulations. Substation equipment shall be protected by a security fence consistent with the City's Land Development Regulations.
2. For setbacks of less than 50 feet, a buffer wall 8 feet high or a fence 8 feet high with native landscaping consistent with the relevant local government's regulations shall be installed around the substation.

**Policy 1.16.4:** ***New Electric Distribution Substation Compliance.*** All new distribution electric substations in the City shall comply with the guidelines and standards established in Chapter 163.3208, F.S.

**Objective 1.17:** ***Renewable Energy Resources.*** Encourage the development and use of renewable energy resources, efficient land use patterns and reducing greenhouse gas emissions in order to conserve and protect the value of land, buildings and resources, and to promote the good health of the City's residents. [9J-5.006(3)(b)(12), (3)(b)(13), and (3)(b)(14), F.A.C.]



- Policy 1.17.1:** *Energy Efficient Land Use Pattern.* The City shall maintain an energy efficient land use pattern and shall continue to promote the use of transit and alternative methods of transportation that decrease reliance on the automobile. [9J-5.006(3)(c)(11), F.A.C.]
- Policy 1.17.2:** *Promoting Walking and Bicycling.* The City shall continue to encourage and develop the “walk-ability and bike-ability” of the City as a means to promote the physical health of the City’s residents, access to recreational and natural resources, and as a means to reduce greenhouse gas emissions. [9J-5.006(3)(c)(12), F.A.C.]
- Policy 1.17.3:** *Establishing an Energy Management Plan.* By December 2014, the City shall develop and implement an Energy Management Plan to minimize electric, fuel and water resources in City buildings, fleet vehicles and on public properties. [9J-5.006(3)(c)(13), F.A.C.]
- Policy 1.17.4:** *Solar Collectors.* No action of the City shall prohibit or have the effect of prohibiting solar collectors, or other energy devices based on renewable resources from being installed on a building and as further set forth within Section 163.04, Florida Statutes. [9J-5.006(3)(c)(13), F.A.C.]
- Policy 1.17.5:** *Construction of Public Facilities and Buildings.* Public buildings and facilities shall be constructed and adapted where reasonably feasible to incorporate energy efficient designs and appropriate “green” building standards. Green Building standards that should be observed are contained in the Green Commercial Buildings Designation Standard, Version 1.0, published by the Florida Green Building Coalition, Inc. [9J-5.006(3)(c)(11), F.A.C.]
- Policy 1.17.6:** *Energy Efficient Design and Construction Standards.* The City shall continue to promote and enforce energy efficient design and construction standards as these become adopted as part of the State Building Codes. The City shall also promote commercial and residential standards that are promulgated from time to time by the Florida Green Building Coalition, Inc. [9J-5.006(3)(c)(11), F.A.C.]
- Policy 1.17.7:** *Promoting Mixed Use Developments.* The City shall continue to promote mixed use developments in areas planning for urban development or redevelopment as a mean to produce energy efficient

land use patterns and reduce greenhouse gas emissions. [9]-5.006(3)(c)(11) and (3)(c)(12), F.A.C.]

**Policy 1.17.8:** *Development Incentives for Smart Growth Development.* By December 2014, the City shall offer incentives and flexibility for development projects that will make development application, review and approval processes easier, faster and more cost effective for projects that are consistent with the Smart Growth Principles of the *Comprehensive Plan* and that can be demonstrated to reduce infrastructure costs, promote the preservation of open space and habitat lands, provide energy efficient land use patterns and reduce greenhouse gas emissions. Other incentives shall also be evaluated for projects that participate in energy-efficient development programs such as:

- U.S. Environmental Protection Agency's Energy Star Buildings and Green Lights Program to increase energy efficiency through lighting upgrades in buildings;
- Rebuild America;
- Building for the 21st Century;
- Energy Smart Schools;
- National Industrial Competitiveness through Energy;
- U.S. Department of Environmental Protection's Pollution Prevention (P2) Program;
- U.S. Green Building Council (LEED); or
- Florida Green Building Coalition (FGBC), including pursuing certification as a Green Government.

**Objective 1.18:** *Low Impact Development.* Establish guidelines for and promote the use of Low Impact Development (LID) techniques to allow developers more flexibility in the site design and development.

**Policy 1.18.1:** *Defining Low Impact Development.* Low Impact Development is an ecologically friendly approach to site development and storm water management that aims to mitigate development impacts to land, water and air. The approach emphasizes the integration of site design and planning techniques that conserve the natural systems and hydrologic functions of a site.

**Policy 1.18.2:** *Low Impact Development and Stormwater Management Techniques.* The City shall encourage all new development and redevelopment projects to implement permeable surfaces, bioretention areas, grassed swales, vegetated roof tops or rain barrels in the development, when feasible, as a Low Impact Development stormwater management technique(s) to:

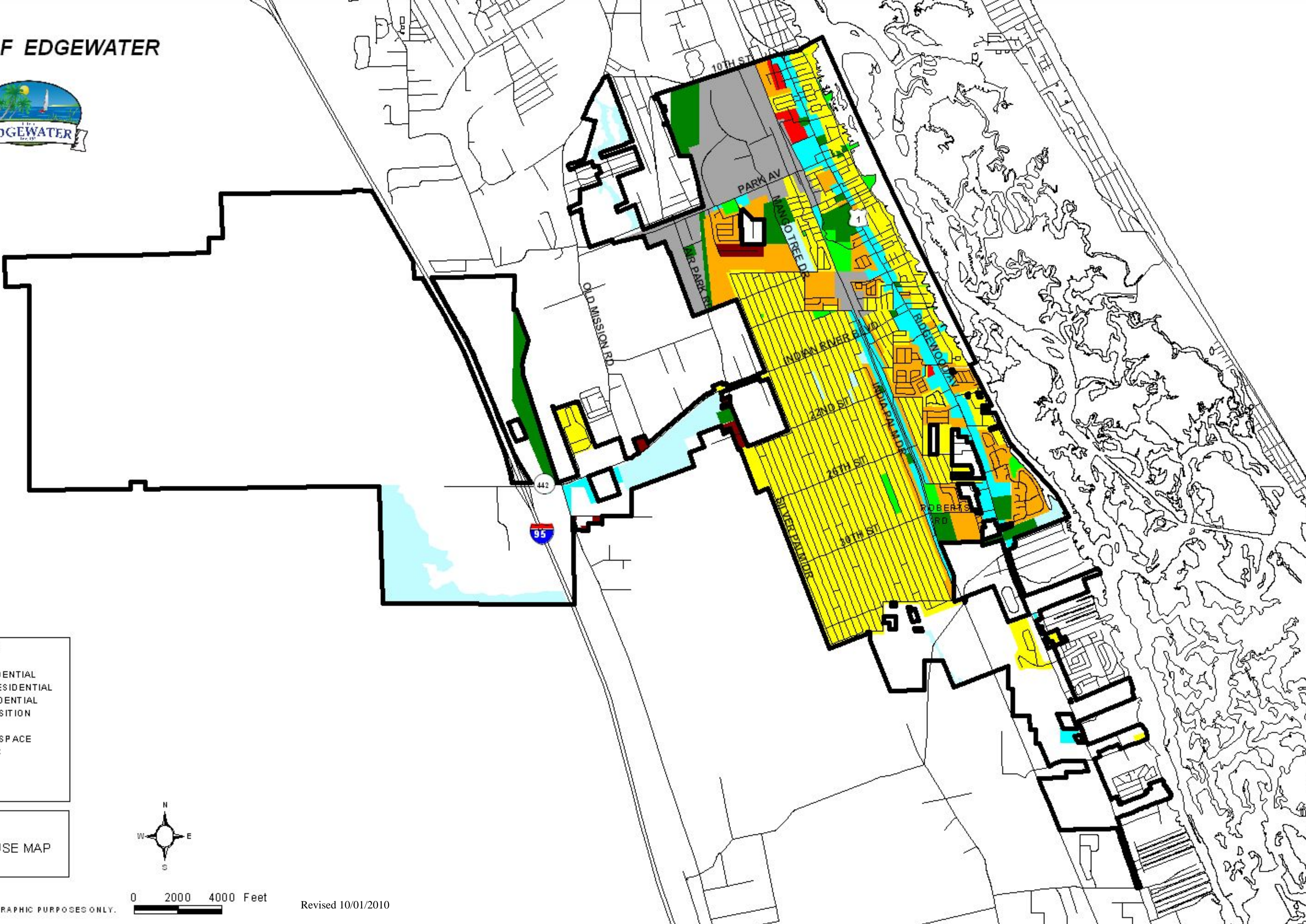
- Reduce stormwater runoff;
- Minimize pollutant discharges;
- Decrease soil erosion;
- Maintain aquifer recharge; and
- Maintain base flows of receiving streams.

**Policy 1.18.3:** *Incorporating Natural Site Elements in the Design Process.* As a Low Impact Development technique, the City shall ensure that all development and redevelopment projects, when feasible, incorporate natural site elements such as wetlands, river or stream corridors, drainage ways or mature forests as a design element to further protect the City's natural resources.

**Policy 1.18.4:** *Promoting the Benefits of Low Impact Development Techniques.* Prior to the approval of a final site plan, the City shall promote the benefits of implementing Low Impact Development techniques to all applicants of developments.

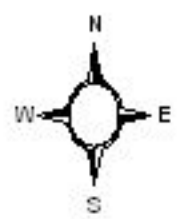


# CITY OF EDGEWATER



- LEGEND**
- CITY LIMITS
  - LOW DENSITY RESIDENTIAL
  - MEDIUM DENSITY RESIDENTIAL
  - HIGH DENSITY RESIDENTIAL
  - LOW DENSITY TRANSITION
  - INDUSTRIAL
  - RECREATION/OPEN SPACE
  - PUBLIC/SEMI-PUBLIC
  - COMMERCIAL
  - CONSERVATION
  - VACANT

MAP I-1  
EXISTING LAND USE MAP



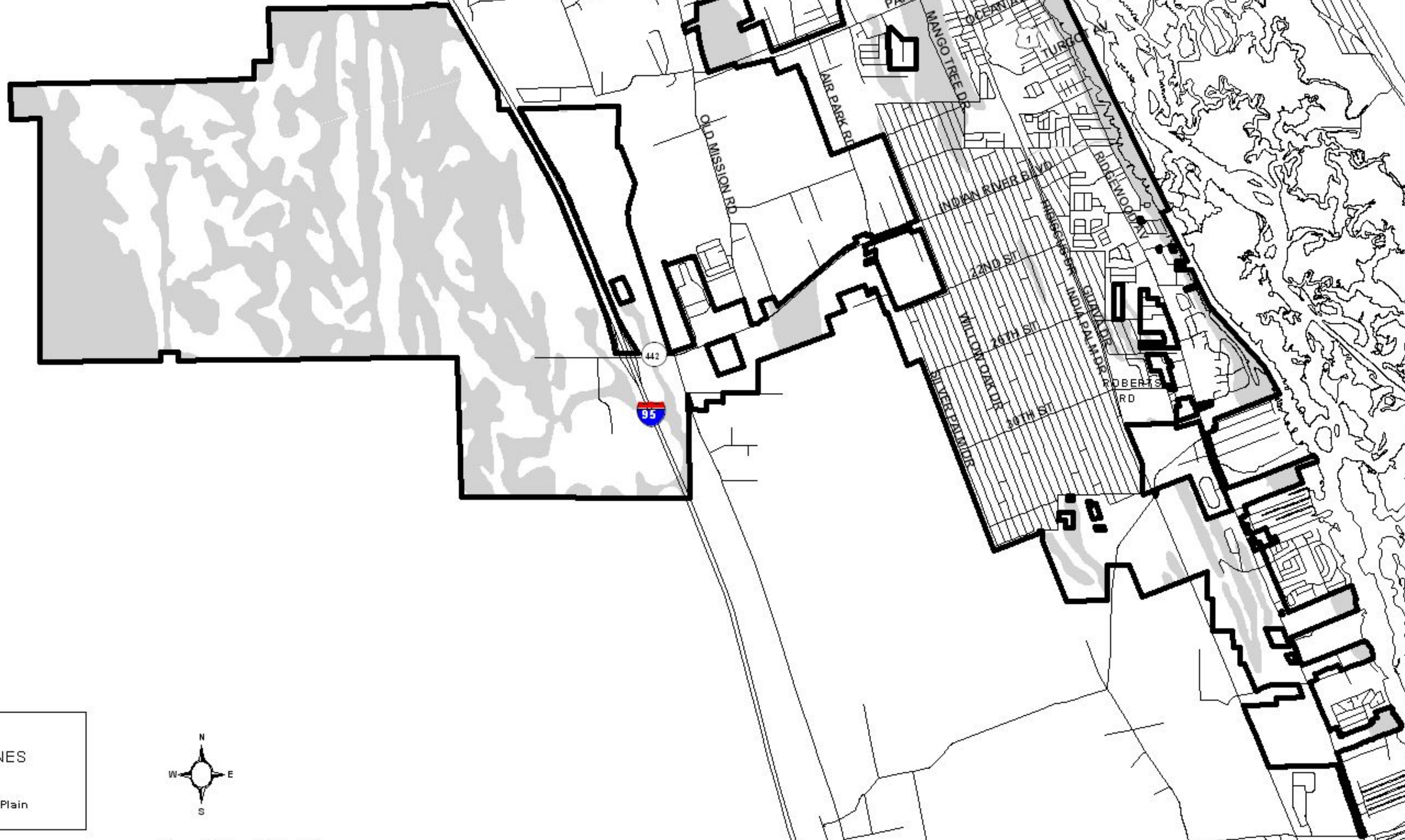
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\* MAP IS TO BE USED FOR GRAPHIC PURPOSES ONLY.

Revised 10/01/2010

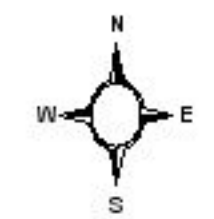


# CITY OF EDGEWATER



MAP I-2  
FLOOD ZONES

- City Limits
- 100 Year Flood Plain



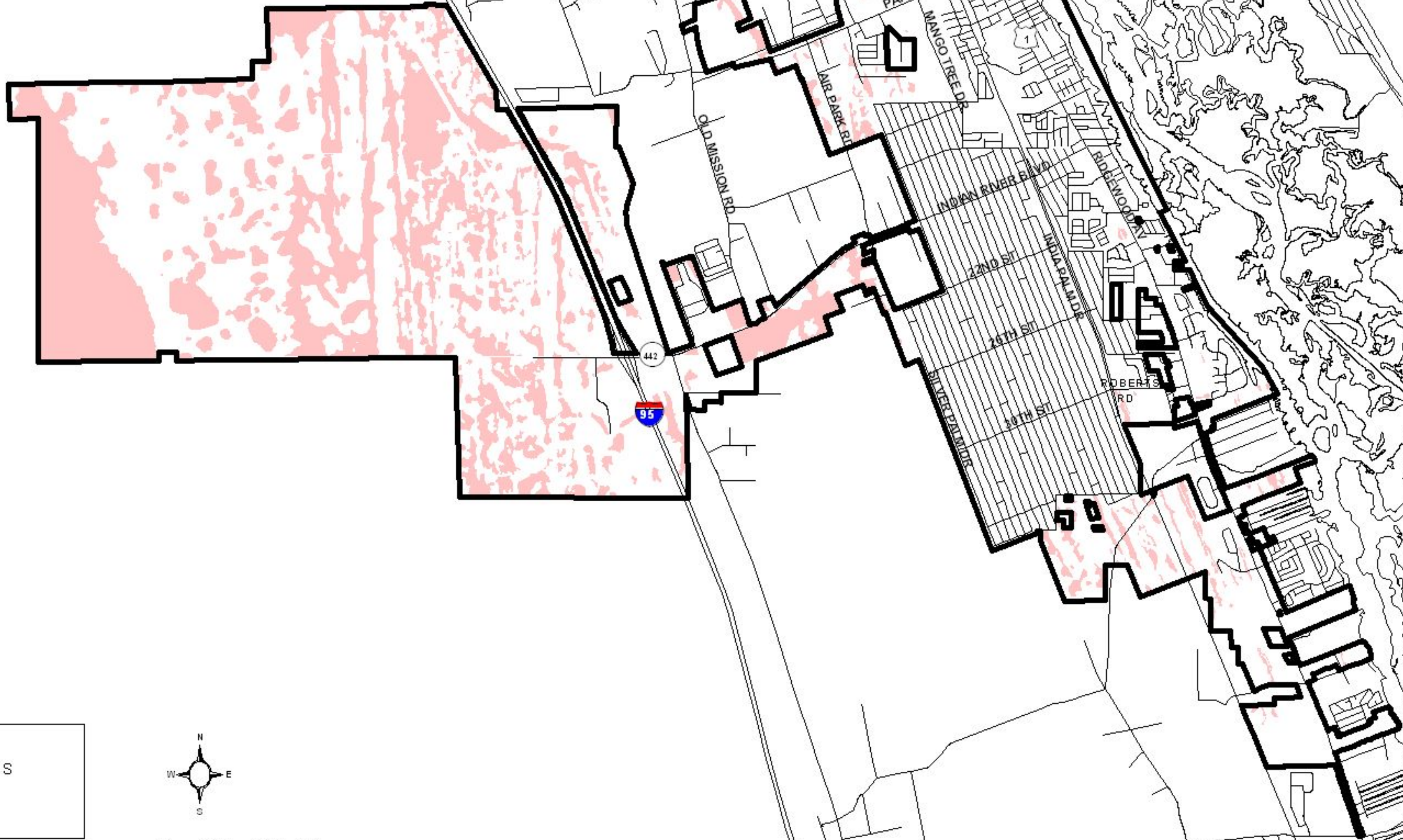
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\* MAP IS TO BE USED FOR GRAPHIC PURPOSES ONLY.

Revised 10/01/2010

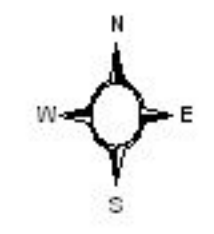


# CITY OF EDGEWATER



MAP I-3  
WETLANDS

- City Limits
- Wetlands



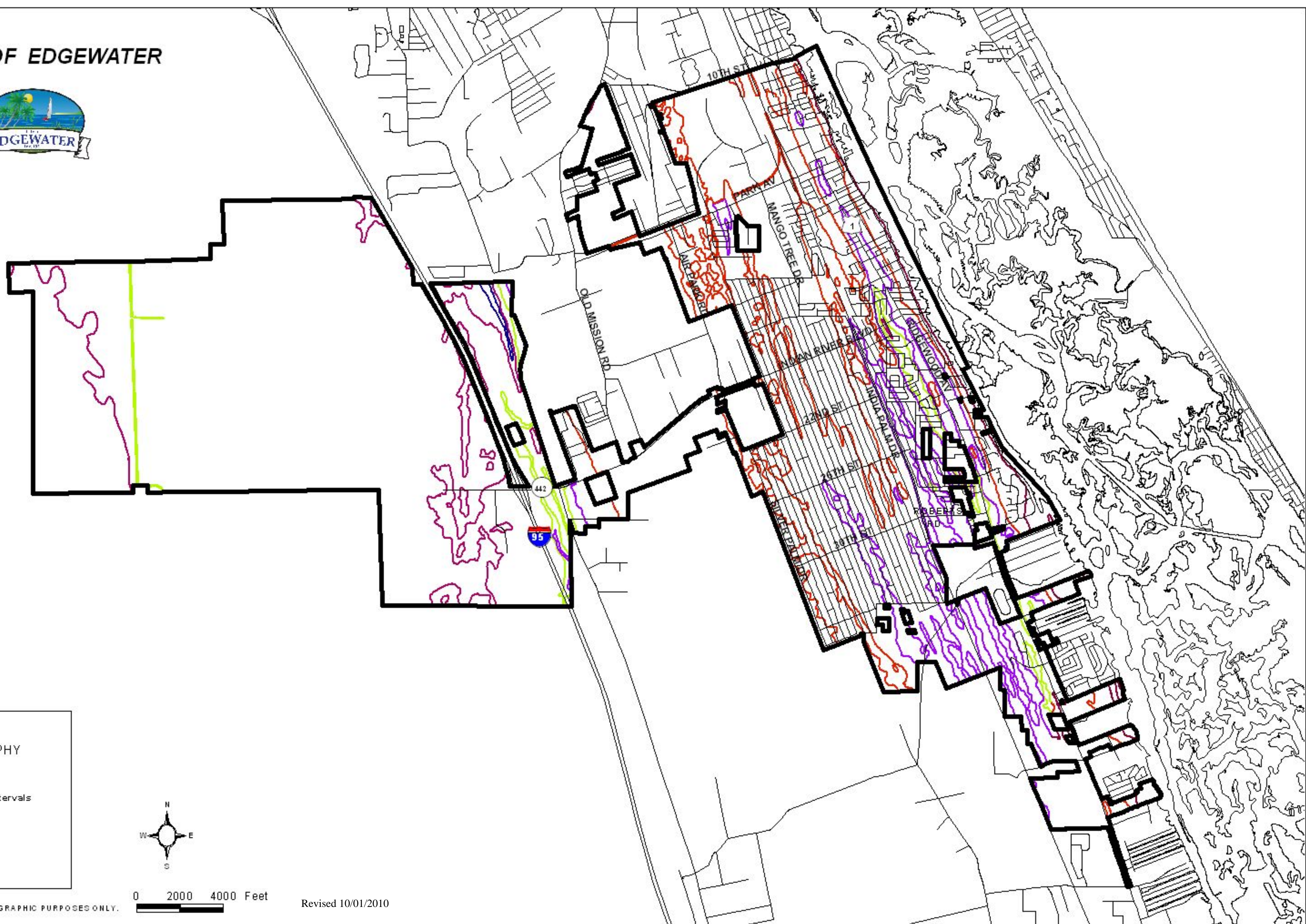
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\* MAP IS TO BE USED FOR GRAPHIC PURPOSES ONLY.


Revised 10/01/2010









# CITY OF EDGEWATER

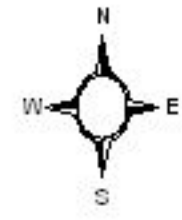


MAP I-4  
TOPOGRAPHY

 City Limits

Five Foot Elevation Intervals

-  5
-  10
-  15
-  20
-  25
-  30



0 2000 4000 Feet

\* MAP IS TO BE USED FOR GRAPHIC PURPOSES ONLY.

Revised 10/01/2010



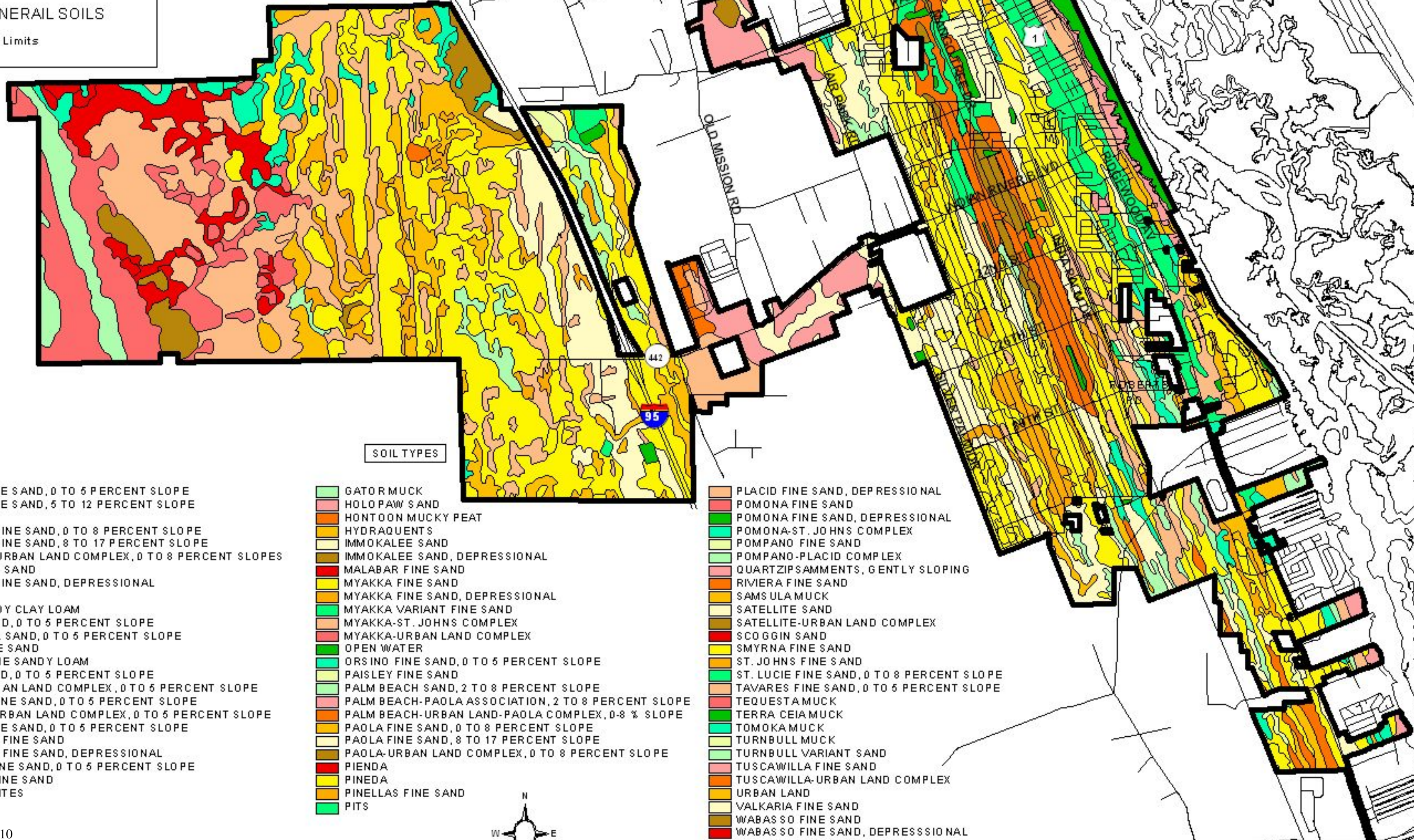
# CITY OF EDGEWATER



MAP 1-5

## GENERAL SOILS

City Limits



### SOIL TYPES

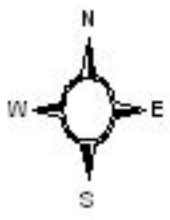
- APOPKA FINE SAND, 0 TO 5 PERCENT SLOPE
- APOPKA FINE SAND, 5 TO 12 PERCENT SLOPE
- ARENTS
- ASTATULA FINE SAND, 0 TO 8 PERCENT SLOPE
- ASTATULA FINE SAND, 8 TO 17 PERCENT SLOPE
- ASTATULA-URBAN LAND COMPLEX, 0 TO 8 PERCENT SLOPES
- ASTOR FINE SAND
- BASINGER FINE SAND, DEPRESSIONAL
- BEACHES
- BLUFF SANDY CLAY LOAM
- BULOW SAND, 0 TO 5 PERCENT SLOPE
- CANAVERAL SAND, 0 TO 5 PERCENT SLOPE
- CASSIA FINE SAND
- CHOBEE FINE SANDY LOAM
- COCOA SAND, 0 TO 5 PERCENT SLOPE
- COCOA-URBAN LAND COMPLEX, 0 TO 5 PERCENT SLOPE
- DAYTONA FINE SAND, 0 TO 5 PERCENT SLOPE
- DAYTONA-URBAN LAND COMPLEX, 0 TO 5 PERCENT SLOPE
- DELAND FINE SAND, 0 TO 5 PERCENT SLOPE
- EAU GALLIE FINE SAND
- EAU GALLIE FINE SAND, DEPRESSIONAL
- ELECTRA FINE SAND, 0 TO 5 PERCENT SLOPE
- FARMTON FINE SAND
- FLUVAQUENTES

- GATOR MUCK
- HOLOPAW SAND
- HONTOON MUCKY PEAT
- HYDRAQUENTS
- IMMOKALEE SAND
- IMMOKALEE SAND, DEPRESSIONAL
- MALABAR FINE SAND
- MYAKKA FINE SAND
- MYAKKA FINE SAND, DEPRESSIONAL
- MYAKKA VARIANT FINE SAND
- MYAKKA-ST. JOHNS COMPLEX
- MYAKKA-URBAN LAND COMPLEX
- OPEN WATER
- ORSINO FINE SAND, 0 TO 5 PERCENT SLOPE
- PAISLEY FINE SAND
- PALM BEACH SAND, 2 TO 8 PERCENT SLOPE
- PALM BEACH-PAOLA ASSOCIATION, 2 TO 8 PERCENT SLOPE
- PALM BEACH-URBAN LAND-PAOLA COMPLEX, 0-8 % SLOPE
- PAOLA FINE SAND, 0 TO 8 PERCENT SLOPE
- PAOLA FINE SAND, 8 TO 17 PERCENT SLOPE
- PAOLA-URBAN LAND COMPLEX, 0 TO 8 PERCENT SLOPE
- PIENDA
- PINEDA
- PINELLAS FINE SAND
- PITS

- PLACID FINE SAND, DEPRESSIONAL
- POMONA FINE SAND
- POMONA FINE SAND, DEPRESSIONAL
- POMONA-ST. JOHNS COMPLEX
- POMPANO FINE SAND
- POMPANO-PLACID COMPLEX
- QUARTZIPSAMMENTS, GENTLY SLOPING
- RIVIERA FINE SAND
- SAMS ULA MUCK
- SATELLITE SAND
- SATELLITE-URBAN LAND COMPLEX
- SCOGGIN SAND
- SMYRNA FINE SAND
- ST. JOHNS FINE SAND
- ST. LUCIE FINE SAND, 0 TO 8 PERCENT SLOPE
- TAVARES FINE SAND, 0 TO 5 PERCENT SLOPE
- TEQUESTAMUCK
- TERRA CEIA MUCK
- TOMOKA MUCK
- TURNBULL MUCK
- TURNBULL VARIANT SAND
- TUSCAWILLA FINE SAND
- TUSCAWILLA-URBAN LAND COMPLEX
- URBAN LAND
- VALKARIA FINE SAND
- WABASSO FINE SAND
- WABASSO FINE SAND, DEPRESSIONAL
- WAUCHULA FINE SAND
- WAUCHULA FINE SAND, DEPRESSIONAL
- WINDER FINE SAND

Revised 10/01/2010

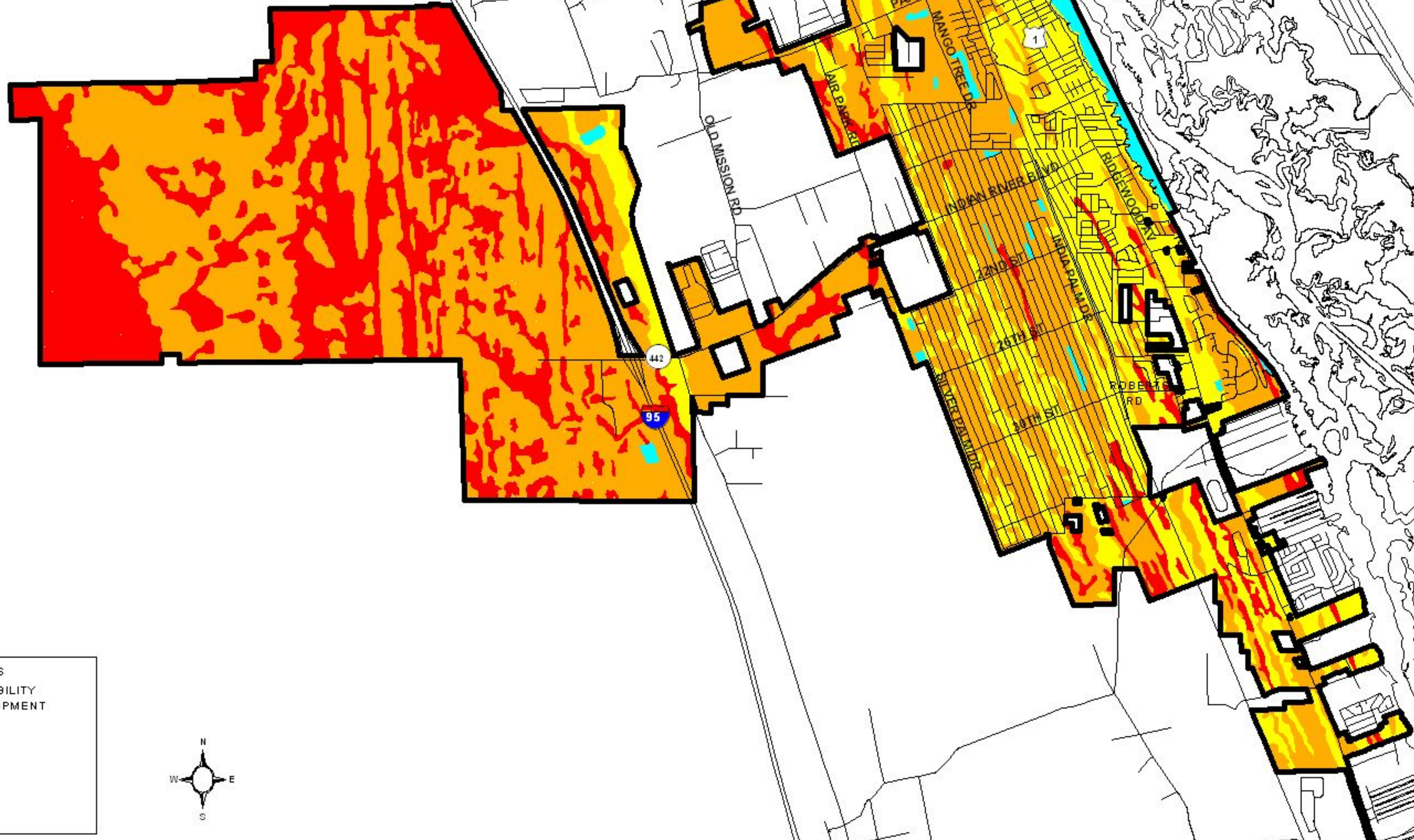
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\* MAP IS TO BE USED FOR GRAPHIC PURPOSES ONLY.

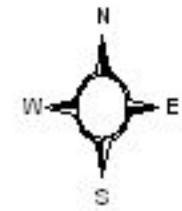


# CITY OF EDGEWATER



MAP I-6  
SOIL SUITABILITY  
FOR DEVELOPMENT

- City Limits
- Water
- High
- Moderate
- Low



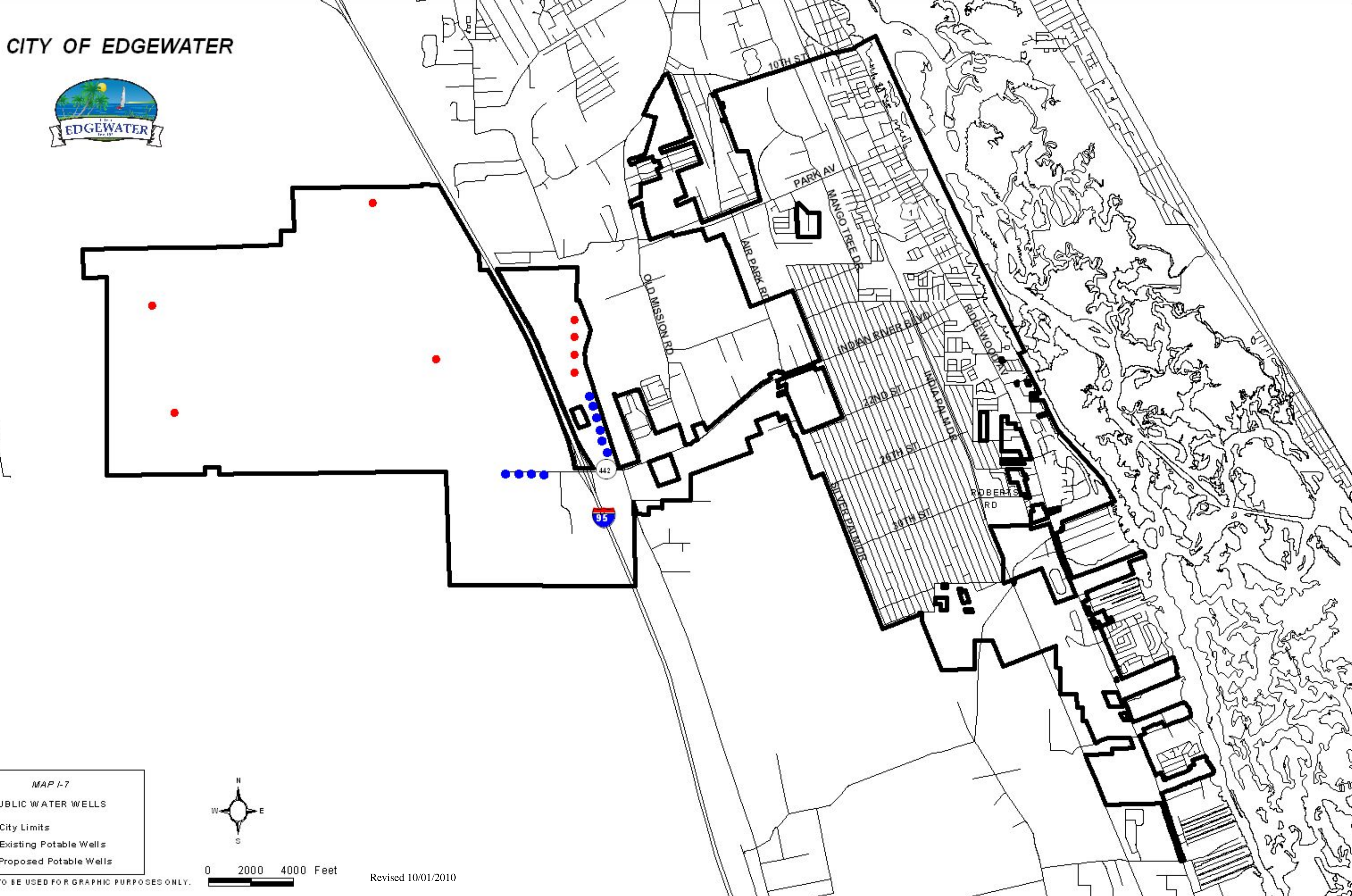
0 2000 4000 Feet

\* MAP IS TO BE USED FOR GRAPHIC PURPOSES ONLY.

Revised 10/01/2010



# CITY OF EDGEWATER



**MAP I-7**  
**PUBLIC WATER WELLS**

- City Limits
- Existing Potable Wells
- Proposed Potable Wells

0 2000 4000 Feet

Revised 10/01/2010

\* MAP IS TO BE USED FOR GRAPHIC PURPOSES ONLY.



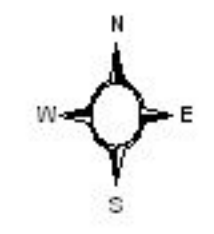
# CITY OF EDGEWATER



**LEGEND**

- City Limits
- Agriculture
- Recreation
- Conservation
- Public/Semi-Public
- Low Density Residential
- Medium Density Residential
- High Density Residential
- Low Density Transition
- Mixed Use
- Industrial
- Commercial
- Conservation Overlay
- Sustainable Community Development

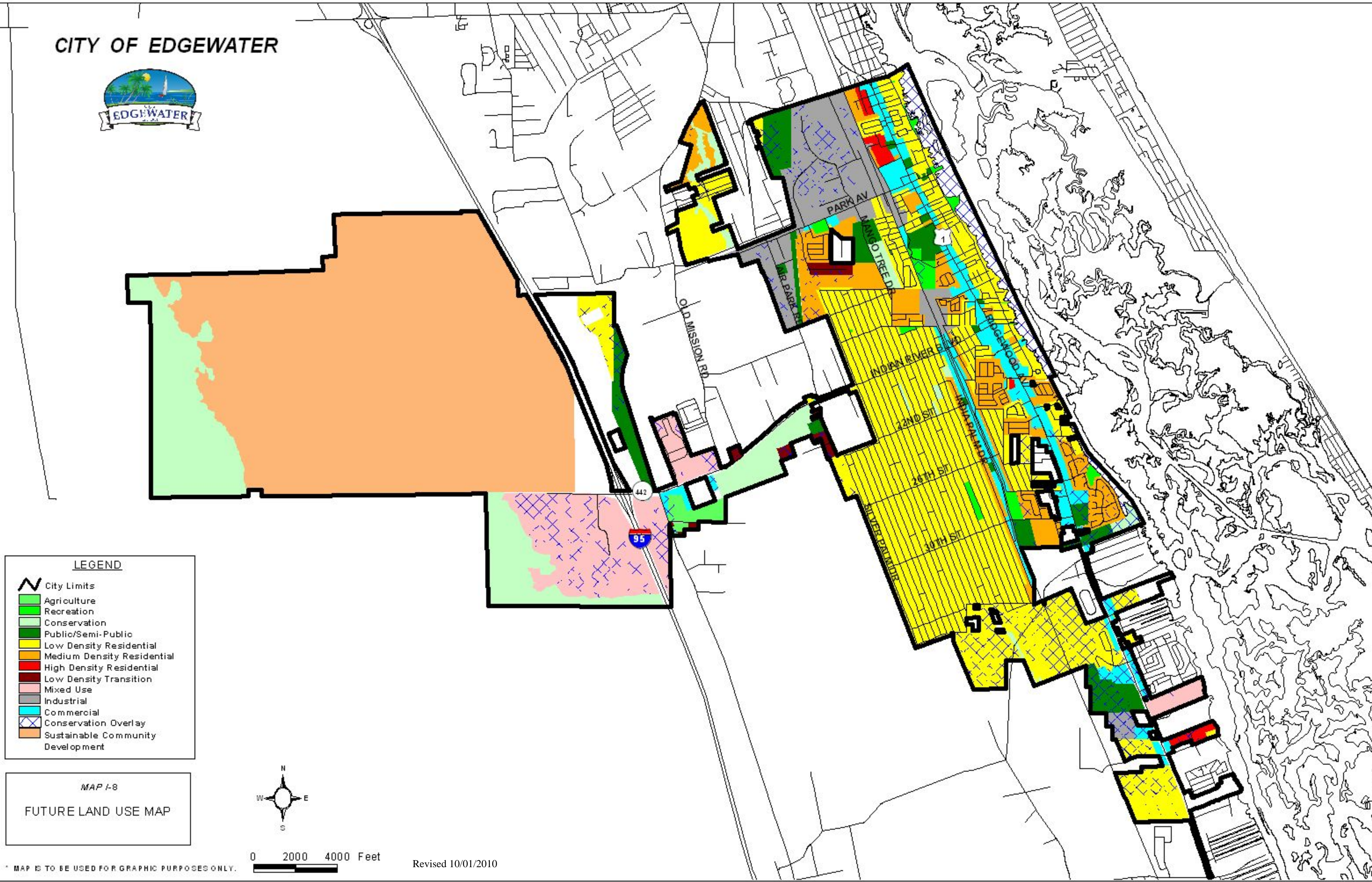
MAP I-8  
FUTURE LAND USE MAP



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\* MAP IS TO BE USED FOR GRAPHIC PURPOSES ONLY.

Revised 10/01/2010







COMPREHENSIVE PLAN

**FUTURE LAND USE**

RESTORATION SUSTAINABLE COMMUNITY  
DEVELOPMENT DISTRICT SUB-ELEMENT

Effective February 23, 2010

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# SUSTAINABLE COMMUNITY DEVELOPMENT DISTRICT

## A. INTRODUCTION

The City of Edgewater ("City") desires to create a new land use category that will require new and enhanced transportation and land use planning strategies, including planning for alternative modes of travel, more compact mixed-use development, greater attention to jobs-housing balance, and higher densities of residential housing containing a mix of housing types and price points in order to address changing dynamics in the relationship between land development, transportation, energy and the environment. This new category of land use is called Restoration Sustainable Community Development ("SCD"). It has been crafted from the data, inventory and analysis generated by the City and is described below with Goals, Objectives and Policies. It shall apply only to and is prepared specifically for a development within the City known as Restoration. Restoration is located in the City on the west side of Interstate 95 and contains 5,187.1 +/- acres. The Restoration SCD land-use category has been designed to meet and exceed the design and sustainability criteria found within the principles of Smart Growth, Traditional Neighborhood Design, New Urbanism and Transit Ready Development and Design.

The Restoration SCD designation is designed to facilitate the expansion of the urban area of the City through the integration of a number of different land uses, including office, commercial, residential, recreational, governmental and housing components so that all work seamlessly in a New Urbanist framework. The residential portion of the Restoration SCD development must include housing units of various densities and types, at various price points and sizes. The housing inventory shall include, but not be limited to, single-family, multi-family and townhouse homes as well as some residential inventory to be located above retail or commercial uses where appropriate in the context of the overall planning for the Restoration SCD.

The Restoration SCD shall require the innovative use of land planning that is consistent with and implements the keystone principles of Smart Growth as set forth by Volusia County's Smart Growth Implementation Committee and transect based planning as supported by the Congress of New Urbanism and set forth in Smart Code, Version 9.0 ©. These are to be the cornerstones of the Restoration SCD development in the City of Edgewater. The principles of Smart Growth that are to be employed are as follows:

*Environment.* Smart Growth emphasizes the early identification and preservation of environmentally important areas and open space areas. These are conceived of as a connected network of multi-purpose lands that form the community's "green infrastructure."

*Communities.* Smart Growth emphasizes compact, walkable, mixed-use communities that provide alternative modes of travel together with greater jobs/housing balance and higher densities. It seeks to use land and infrastructure efficiently to reduce the costs of servicing new development and shall provide for a range of housing choices and lifestyles. Such development emphasizes innovation in sustainable design in both the conservation of water resources and energy.

*Economy.* Smart Growth communities place an emphasis on a mix of land uses including residential, office, commercial, recreational, and governmental that all work seamlessly in a New

Urbanist framework with public investments that support the needs of sustainable economic development.

*Transect Based Planning.* Transect based planning has its roots in the environmental transect, which is based on an analysis of the natural sequence of environments and their relationship to each other. Because “New Urbanist” planning recognizes that “one size does not fit all” and because humans desire to live in different kinds of places, transect based planning attempts to mirror the environmental transect and allow for an urban to rural pattern or “Transect Zones” which shall place a premium on a continuum of different market offerings. These are to be arranged harmoniously and appropriately in the natural landscape. Accordingly, the Restoration SCD shall have a variety of places and corresponding appropriate building typologies, including lower density residential, so that the over-all mixed-use characteristics of the Restoration SCD are maximized.

The Restoration SCD is the result of a conscientious planning approach based on the most current New Urbanist research and advanced practices. The compact development pattern is designed to and shall provide for a diverse community with distinct place types and multiple experiences that are appealing to residents, employees, and visitors. It shall provide for walkability, a broad range of inclusive household demographics, the ability to connect the community directly to a natural experience, transit ready design, and a high level of environmental stewardship and planning.

In order to facilitate the outcome described herein and to further demonstrate the City’s support of the development represented by Restoration, the City makes the following representations and commitments. The City of Edgewater will process its next Evaluation and Appraisal Report (EAR) amendments in 2010/2011. Incident to that effort, the planning horizon EAR-based amendment to the comprehensive plan will be extended through 2030. Notwithstanding that the content of this plan amendment is intended to and does authorize the development of 8,500 residential units, until the City adopts the EAR-based amendments extending the planning horizon through 2030, no more than 5,000 residential units are authorized for the Restoration SCD. Once the EAR-based amendments are in effect and the planning horizon has been extended through 2030, then the total number of residential units (8,500) as set forth in this comprehensive plan amendment shall be authorized as set forth herein.

As further indicia of the City’s commitment to this undertaking, until the following EAR-based amendment cycle (anticipated in 2017), the City will not process:

1. any annexations increasing residential density and increasing the City’s boundaries (with the exception of small scale enclaves);
2. any large scale comprehensive plan amendments increasing residential density not associated with a redevelopment project located in the City’s proposed redevelopment area as set forth in the City’s adopted 2008 Evaluation and Appraisal Report and graphically depicted on Exhibit “A”.

To ensure that the Restoration project is commenced in a timely fashion, the Master Developer (which is the developer identified in and a party to the DRI Development Order of even date) shall commence development within four years from the effective date of this plan amendment

(the “Commencement Date”). For purposes of this provision, the commencement of development means to begin performing on-site modification, fabrication, erection or installation of a treatment facility or a conveyance system for the discharge of wastes and on-site modification, fabrication, erection or installation of a treatment facility or a transmission system for the conveyance of potable water. Land clearing and site preparation activities alone do not constitute commencement of development. The City Council may grant an extension of the Commencement Date if a request demonstrating good cause is filed in writing with the Clerk of the City Council at least sixty (60) days prior to the expiration of the Commencement Date; however, if the Commencement Date as set forth herein expires with no extension being requested or having been requested is not granted, then the City Council may, at its discretion, undertake an amendment to its comprehensive plan to remove the Restoration SCD designation from the property. Failure of the City Council to initiate a comprehensive plan amendment as herein provided shall leave the Restoration SCD land use designation in place but in no way shall serve as a waiver of the City’s right to later undertake a comprehensive plan amendment to remove the Restoration SCD designation from the Restoration property if development as described herein has not yet commenced.

Given the nature of the Restoration SCD, it is designed to be a collaborative planning process between the developer, public agencies, non-governmental organizations and citizens that collectively seek to holistically address varying community needs in a flexible, yet systematic manner consistent with the Goals, Objectives and Policies hereinafter set forth. Because this process is site specific and certain of the Objectives and Policies reflect the same, this Restoration SCD text amendment shall apply only to the Restoration development. All other projects seeking similar outcomes are subject to the creation of an applicable project specific land use category through the comprehensive plan text/map amendment process and shall comply with all other applicable regulatory processes.

## **B. GOALS, OBJECTIVES, AND POLICIES**

### **GOAL 1: DEFINING THE RESTORATION SUSTAINABLE COMMUNITY DEVELOPMENT.**

The City of Edgewater shall utilize innovative land use planning techniques, creative urban design, environmental protection, and the judicious use of sustainable development principles and practices in order to meet the spirit and intent of the Restoration SCD. In order to facilitate this vision, the City shall recognize that density is important to the Restoration SCD outcome, but no more important than the mixing of uses, the development of a diverse population through the provision of housing choice and employment centers, the connection of streets and the design of structures and spaces on a human scale. These attributes are to be coupled with context sensitive solutions in planning for thoroughfares so as to make for a walkable community. All of this is accomplished within an overall framework of environmental protection and sustainable design within the built environment of the Restoration SCD.

Objective 1.1: *Develop SCD Effective Fiscal and Land Use Planning Technique.*

Edgewater shall use the Restoration SCD as an effective fiscal and land -use planning technique for managing growth, controlling sprawl, and ensuring that the built environment does not compromise the workings of the natural environment within the Restoration SCD. The Restoration SCD shall demonstrate its consistency with the policies set forth below.

**Policy 1.1.1:**

Protection and Management of Lands within Volusia County Natural Resource Management Area (“NRMA”) and Environmental Systems Corridor (“ESC”). The Restoration SCD is located within an area currently designated by Volusia County as NRMA and includes both Environmental Core Overlay Lands (“ECO” a.k.a Map “A”) and Environmental System Corridor (“ESC”). As a result, development will necessarily impact portions of the NRMA, but such development will not materially or adversely impact the natural resources or systems of the NRMA as a whole. Appropriate environmental studies have been performed to guide development to the approximate eastern one-third of the Restoration SCD so that development within NRMA is clustered in the most suitable location within the Restoration SCD thereby protecting the majority of the NRMA and the important natural resources lying within it (See Policy 4.1.1 below). Further, the environmental development and compliance standards within the Restoration SCD are equal to or exceed NRMA standards. Portions of the Restoration SCD are within an area designated as Environmental Core Overlay and are designated by Volusia County as Map “A” lands (See Policy 4.1.5 below). These lands shall be designated as Conservation lands on the Restoration SCD Conservation/Development Areas Map described below. In addition, portions of the Restoration SCD are within an area formerly designated on the Volusia County FLU Map as Environmental System Corridor (“ESC”). The majority of the ESC lands are interconnected wetland strands within the Restoration SCD and substantially all ESC lands outside of the SCD Community Development Lands as described below shall be protected so as not to degrade their natural functions. Where impacts are authorized to these wetland strands, the Restoration SCD shall provide for all required mitigation as contemplated under both state and Federal law (See Policy 4.1.2 below). The restoration, enhancement and management of these lands shall be the responsibility of the developer or its successors and assigns, (See Policy 11.1.5 below).

The ecological integrity and eco-diversity of the NRMA lands not otherwise impacted by the development contemplated herein shall be restored and maintained by the developer, its successors and assigns so that they contribute to an interconnected system of

integrated habitat in a post-development setting (See Policy 11.1.5 below).

The Restoration SCD shall be developed consistent with the Restoration SCD Conservation/Development Areas Map (“**CDA Map**”) which delineates three regions of the Restoration SCD as (1) Conservation, (2) SCD Conservation/Restoration, and (3) SCD Community Development lands. The lands designated as Conservation on the CDA Map are also lands designated by Volusia County as Environmental Core Overlay (Map “A”). The SCD Community Development Lands are also further described as the “Build Envelope.” The CDA Map is incorporated by reference into and made a part of this Comprehensive Plan Amendment. The City recognizes that the exact configuration and territorial limits of the areas designated on the CDA Map shall be subject to final engineering, regulatory review and adjustment by one or the other or both of the State of Florida and the Federal government through the review and approval of the ERP permit administered by the St. Johns River Water Management District and the Section 404 Permit administered by the U.S. Army Corps of Engineers. The submission of applications for the referenced permits and the processing of the same by the developer shall be consistent with the designated regions shown on the CDA Map.

**Policy 1.1.2:**                    **Restoration SCD Implementation Specifics.** The specific requirements for implementing the Restoration SCD shall be memorialized through (1) the processing and obtaining of a Chapter 380.06, Florida Statutes, DRI Development Order, (2) a Planned Unit Development (“PUD”) approval including a Master Development Plan and a Regulating Book/Design Guidelines, and (3) a Site Mitigation and Management Plan (“SMMP”) each of which are more particularly described below. Each of these instruments shall be crafted so that they individually and cumulatively implement the Goals, Objectives and Policies set forth herein.

**Policy 1.1.3:**                    **Timing of Restoration SCD Implementation Specifics.** The DRI Development Order shall be processed and approved concurrently with the approval of the Restoration SCD land use amendment as contemplated by Subsection 380.06(6), Florida Statutes. A Planned Unit Development (“PUD”) approval including a Master Development Plan and a Regulating Book/Design Guidelines shall be initiated and processed to completion and adoption by the City within eighteen (18) months following the effective date of this Restoration SCD land use amendment. For this purpose, the effective date shall be the date upon which this amendment is finally approved and not subject to further appeal or review. Policy 11.1.1 below details the content of

the Regulating Book/Design Guidelines. The SMMP shall be prepared for processing and review consistent with the time constraints set forth herein and as set forth in the DRI Development Order adopted concurrently herewith. The SMMP shall contain minimally the information, protocols and procedures set forth in Policy 4.1.11 below. The PUD approval together with the Master Development Plan, Regulating Book/Design Guidelines and the SMMP shall be processed in accordance with the ordinary procedures of the City.

In no event shall the City of Edgewater issue permits or development approvals, including the execution of any PUD Agreement or allow construction/work to commence on the Restoration project prior to the completion and adoption of each of the above-described documents.

**GOAL 2: DEFINING THE COMPONENTS OF SUSTAINABILITY IN RESTORATION SCD:** The Restoration SCD is designed to and shall be developed with a mix of uses including, residential, commercial, recreational and governmental uses to be accompanied by both “active” and “passive” open space as those terms are hereinafter defined.

**Objective 2.1: *Sustainability.*** To ensure that the Restoration SCD is sustainable, the following principles shall be implemented as comprehensive plan policies:

- Policy 2.1.1:** Contain a mixture of uses within the Restoration SCD land use that provides for a balance of commercial, residential, recreational, open space (active and passive), resource protection, educational and other supporting uses.
- Policy 2.1.2:** Preservation of open space and the management, restoration and preservation of important environmental systems.
- Policy 2.1.3:** A design that is based on the principles of Smart Growth, Traditional Neighborhood Design (“TND”), New Urbanism, Transit Oriented Design (“TOD”) and the urban to rural transect as accepted by the Congress of New Urbanism and defined in the Smart Code, Version 9.0 ©. As such the Restoration SCD shall include walkability, compact development patterns, quality architecture and urban design, and a hierarchy of streets or street systems to foster connectivity and pedestrian mobility as well as alternate modes of travel, including transit. All are to be appropriately located in a transect-based community that includes a range of transects from T5 Urban Center to T1 Natural Zone as the same are described in the Congress of New Urbanism and Smart Code, Version 9.0 ©.

- Policy 2.1.4:** A diversity and choice of housing types, settings and price points ranging from lower density more sub-urban type development to higher density, compact development patterns and variety will be required in order to limit sprawl. Housing types will include mid-rise stacked flat product both as stand-alone residential and residential above commercial. Single-family detached residential on varying lot sizes, Carriage homes, Village homes, Garden homes and Townhouses will be provided. Multifamily products will also include for rent product. Some for sale product may be offered as a condominium. The mix of product types will vary depending on the section of the community in which the housing is developed, but overall the Restoration SCD will have approximately forty-five percent (45%) single family and fifty-five percent (55%) multifamily.
- Policy 2.1.5:** The provision of opportunities throughout all phases of the development for residents to work in the Restoration SCD, thereby reducing automobile dependence.
- Policy 2.1.6:** The utilization of selected sustainable development techniques that promote the reduction of greenhouse gases, energy efficiency, water conservation and alternative transportation options.
- Policy 2.1.7:** Promote the efficient and effective use of utility and transportation infrastructure.

**GOAL 3: MIXED-USE FACILITIES.** The Restoration SCD development shall be required to provide a balanced mix of uses in order to facilitate meeting the goal of sustainable community development.

**Objective 3.1: *Provide for Land Use Designations which Promote a Mix of Uses.*** In order to accomplish the Goal, the City of Edgewater shall require and facilitate the development of a transect-based urban mixed-use community that relates to and is an extension of the existing city, through the adoption of land use designations described herein through the Restoration SCD.

- Policy 3.1.1:** The following land use designations shall be required within the Restoration SCD. These designations are not separate future land use categories, but are intended to further guide the form and design of the development that is permitted in the Restoration SCD. Specific uses, square footages and number of dwelling units shall be memorialized in the DRI Development Order. However, the total number of dwelling units within Restoration shall not exceed 8,500 and the total number of non-residential square feet shall not exceed 3,300,000 square feet.

The acreage calculations set forth in the land use designations set forth below are net of and exclude acreage used for Williamson Boulevard, Indian River Boulevard, manmade lakes and storm

water detention areas, overhead utility lines, and schools. Subject to the foregoing, the Land Use Designations within Restoration are as follows:

a. **Residential (“SCD-R”).** This designation supports a variety of housing types including single family, townhomes, coach homes, condominiums, multifamily rental apartments, together with appropriate civic, institutional and recreational uses along with accessory dwelling units associated with single-family residential units. The Residential designation is primarily characteristic of a T-4 and T-5 transect, with some outer portion being a T-3 transect.

- **Size:** Approximately 598 Acres (+ or -)
- **Residential Units:** 4,043 Maximum; 2,000 Minimum

b. **Mixed-Use Town Center (“MUTC”).** The Mixed-Use Town Center is designed to be the commercial core of the Restoration SCD. This designation shall require a vertically integrated mixture of higher density and intensity uses and development, providing multi-family housing, hospitality and lodging, commercial retail and service, office uses and civic, government, institutional, and recreational uses.

“Big Box” retail development, defined as retail establishments in which one or more of the stand-alone facilities are equal to or larger than 75,000 square feet, shall only be permitted in the Mixed-Use Town Center, but the design of the same shall be consistent with the integration of the other uses required for this part of the Restoration development.

- **Size:** Approximately 88 Acres (+ or -)
- **Residential Units:** 1000 Maximum, 450 Minimum
- **Maximum Residential Density:** 36 du/acre
- **Maximum Non-residential Intensity:** 1,200,000 SF
- **Minimum Non-residential Intensity:** 550,000 SF

c. **Work Place (“WP”).** The Work Place designation is designed to be the primary employment center for the Restoration SCD. Importantly, it is not the exclusive employment center as a significant number of jobs are anticipated within both the MUTC and TRC described elsewhere herein.



Permitted Uses within the Work Place include office, institutional, light industrial, civic, lodging, multi-family residential, and convenience commercial uses serving the needs of businesses and workers employed within the Work Place.

- **Size:** Approximately 79 Acres (+ or -)
- **Maximum Residential Density:** 36 du/acre
- **Minimum Residential Density:** 15 du/acre
- **Maximum Nonresidential Intensity:** 1,003,547 SF
- **Minimum Non-residential Intensity:** 500,000 SF
- **Residential Units:** The number and placement of residential product in this area shall be market driven but to the extent used shall be developed as multi-family and deducted from allowable residential density in any other Land Use Designation herein so that the total of residential units does not exceed 8,500.

- d. **Transit-Ready Corridor (“TRC”).** The TRC is specifically designed to accommodate residential densities and commercial intensities in a mixture of uses that shall support public transit. This designation is to be located along the major arterial corridor of the Restoration SCD which is to be designed as a multiway boulevard that can eventually support streetcars, buses, pedestrians, bicyclists and autos, while creating a walkable urban environment.

Permitted uses within the TRC include commercial, office, institutional, civic, residential and lodging.

- **Size:** Approximately 85 Acres (+ or -)
- **Residential Units:** Maximum 3,457; Minimum 2,000. A minimum of 35% of the residential product in this portion of the Restoration SCD shall be developed as mixed use (i.e., residential above commercial.)
- **Maximum Residential Density:** 36 du/acre
- **Minimum Residential Density:** 15 du/acre
- **Minimum Non-residential Intensity:** 200,000 SF
- **Maximum Non-residential Intensity:** 1,305,000 SF.

- e. **Utility Infrastructure Site.** The area designated on Map “H” attached to the DRI Development Order and on the CDA Map attached hereto and labeled as Utility Infrastructure Site is to be developed with appropriate utility infrastructure to expand the city’s capacity to deliver water, sewer and wastewater facilities.

- f. **Schools.** In order to provide residents within the Restoration SCD access to schools, two school sites totaling 85 acres have been identified and shall be dedicated to the Volusia County School Board (“School Board”) in accordance with the terms and conditions of a Capacity Enhancement Agreement (“CEA”) entered into between the School Board, the City and the developer, the same being recorded in the Public Records of Volusia County, Florida at O.R. Book 6313, Page 219, Public Records of Volusia County, Florida. See Policy 9.1.1 for administration of CEA.
  
- g. **Open Space.** The Open Space designation is designed to and shall protect and permanently preserve Activity and Resource Based Open Space areas throughout the Restoration SCD. Additionally, Resource Based Open Space may, subject to the terms of permits to be obtained from either or both of the St. Johns River Water Management District or the U. S. Army Corps of Engineers, provide for mitigation for impacts to wetlands that shall result from development activities within the SCD/Community Development area of the Restoration SCD as depicted on the CDA Map. These areas and the administration of them are further defined below.

**Policy 3.1.2:** Within each of the land use designations identified above, it is recognized that to achieve the overall objective of the Restoration SCD, some or all of the following additional uses are authorized in all of the land uses described above, to-wit: conservation or mitigation areas and stormwater management areas. Within the built environment, ancillary uses that are supportive of the identified land use designations shall also be allowed on a case-by-case basis, and shall be reviewed as part of the building review process of the City.

**Policy 3.1.3:** Development may only be permitted within the Restoration SCD if consistent with the land use designations set forth above. In order to maximize the attributes of the urban form, the City shall require that the Restoration SCD utilize density in concert with the mixing of uses, the development of population and employment centers, the interconnection of streets and the design of structures and spaces within the Restoration SCD so as to support a variety of lifestyles and needs. All uses may be mixed horizontally on a site or may be contained within multiple use buildings such that differing uses exist vertically in one building or structure. Where residential product is located above commercial, retail, office or institutional uses and located in the MUTC, the WP or the TRC

land use designations, such product shall be considered as mixed-use and treated as “commercial” development under the Land Development Regulations of the City.

**GOAL 4: OPEN SPACE/NATURAL RESOURCE MANAGEMENT AND PROTECTION STANDARDS:** The City shall require that development under the Restoration SCD designation does not adversely impact the function and value of natural resources located in either the “Conservation” or the “SCD/Conservation/Restoration” areas as noted on the CDA Map attached hereto. Development standards for land use activities in these areas will be more restrictive than other areas and will be limited as provided hereinafter in Objective 4.1. Because high-density and intensity development are a recognized part of the Restoration SCD planning protocol, impacts to natural resources and systems will occur but the vast majority of those are limited to the areas labeled as SCD/Community Development on the CDA Map. Impacts that do occur will be allowed only with appropriate mitigation for the loss of the function and value of those natural resources as provided for within the regulatory framework of the local, state and Federal government programs and consistent with the Objectives and Policies discussed below. Conformance to the Objectives and policies associated with this Goal shall be deemed to establish consistency with Policy FLUE 1.2.6.

**Objective 4.1: *Minimization of the Impacts of Development on the Natural Environment.*** Within the Restoration SCD, development shall be directed only to those locations on the CDA Map labeled as SCD/Community Development, except that minimal intrusions into the Conservation and SCD Conservation/Restoration areas noted on the CDA Map shall be authorized for maintenance of utility infrastructure such as roads, stormwater management systems and to service and maintain the ecological restoration contemplated as part of this development and as authorized by the state and Federal government in permits issued by the same, limited recreational access shall be allowed and appropriate trails and bike paths constructed. Development within the Restoration SCD is to be designed so as to minimize the impact on natural resources and systems with the ultimate goal at build out to be that the built environment and the natural environment can coexist to the fullest extent practicable as a seamless undertaking.

**Policy 4.1.1: Requirement of Appropriate Environmental Studies.** Because the Restoration SCD is located within NRMA, the developer and other stakeholders have completed appropriate environmental studies to guide development so that it is clustered in the most suitable locations on the site consistent with Objective 4.1 above.

**Policy 4.1.2: Protection of Environmental System Corridor Lands.** A portion of the Restoration SCD is within an area formerly designated on the Volusia County FLU Map as Environmental System Corridor (“ESC”). The portion of the ESC lands lying within the area designated as SCD Community Development Land on the CDA Map will be impacted by the proposed development. Notwithstanding those impacts, the City of Edgewater shall require that substantially all of the remaining ESC lands be protected so as not to degrade natural functions and values, and to maintain ecological integrity and eco-diversity within such lands. The goal is

that the remaining ESC lands shall contribute to an interconnected system of integrated habitat. Minimal impacts to these remaining ESC lands will occur, but only at the edge of the SCD Community Development Lands and for road or bridge crossings connecting portions of the build envelope and for other uses authorized for Resource Based Open Space. Accordingly, the remaining ESC lands are to be placed in either the Conservation area or the SCD Conservation/Restoration areas of CDA Map and designated as Resource Based Open Space. Impacts to and the management of the ESC lands shall be accommodated through Policy 4.1.3 and 4.1.10 below.

**Policy 4.1.3: Designation of Land as Resource Based Open Space.** The Restoration SCD shall designate lands to be set aside as Resource Based Open Space. In doing so, the Restoration SCD shall be guided by the Natural Resources of Regional Significance decision support model of the East Central Florida Regional Planning Council ("ECFRPC"). Utilization of this model shall result in the protection of the majority of wetlands on site, and all wetlands within the areas to be designated as Resource Based Open Space shall be preserved and restored consistent with the protocols described below. Impacts to wetlands shall occur in the areas labeled SCD Community Development on the CDA Map and when they occur, appropriate mitigation through preservation and restoration within the areas labeled Conservation and SCD Conservation/Restoration on the CDA Map shall be provided to ensure that there is no overall net loss of wetland function and value. The determination of net loss of wetland function and value shall be undertaken using the approved methodology and protocols in use by the St. Johns River Water Management District and the U.S. Army Corps of Engineers.

**Policy 4.1.4: Minimum Open Space Requirements.** Because the Restoration SCD is to be developed within an overall plan of natural resource management that minimizes adverse impact to existing natural resources, the plan of development shall conserve large areas of uninterrupted environmentally sensitive areas which shall need to be restored and managed as part of a system for habitat, wetlands, surface water protection and to provide recreational opportunities (both active and passive).

Accordingly, not less than fifty percent (50%) of the Restoration SCD shall be in permanent, protected open space consisting of a mix of Activity and Resource Based Open Space. The location of the Resource Based Open Space within the Restoration SCD has been determined and is shown on the CDA Map as Conservation and SCD Conservation/Restoration areas. Activity Based Open

Space shall be located within the areas shown on the CDA Map as SCD Community Development.

**Policy 4.1.5:** **Volusia County Environmental Core Overlay.** All lands designated by Volusia County as Environmental Core Overlay or ECO Lands (Map “A”) and located within the boundary of the Restoration SCD development shall be protected as integrated habitat and managed to protect its ecological function. Such lands are shown on the CDA Map as Conservation and shall additionally be designated as Resource Based Open Space lands and protected as such.

**Policy 4.1.6** **Location of Development within Restoration SCD.** Urban development within the Restoration SCD shall be clustered on the eastern one-third of the Restoration SCD towards the right-of-way of Interstate 95 and within the area labeled on the CDA Map as SCD Community Development. The built environment within this area shall encompass innovative land development practices which promote sustainability, as well as, conservation and conservation management. It is recognized that the clustering of development in this portion of the Restoration site and the development of the same in an urban form shall result in the loss of some wetlands, but the developer shall impact only those wetlands which have been determined through applicable regulatory review to be of less ecological significance to the overall integrity of the larger wetland regime that encompasses the Resource Based Open Space.

**Policy 4.1.7** **Resource Based Open Space/Environmental Resource Permit.** Where land development proposals of the Restoration SCD are subject to the St. Johns River Water Management District Environmental Resource Permit process, the secondary impact requirement (pursuant to Section 12.2.7 of the Management and Storage of Surface Waters Handbook) shall satisfy the intent of this goal. The protected Resource Based Open Space shall be designed as integrated habitat so to as enhance habitat protection and protect its ecological function as set forth below.

**Policy 4.1.8:** **Minimization of Wetland Impacts.** As noted in Policy 4.1.6 above, the clustering of development in the urban form will result in the loss of wetlands. Which wetlands are to be lost to development is to be determined through applicable Federal and state regulatory review, but the goal is to avoid wetland impacts to the fullest extent practicable. Wetland impacts that cannot be avoided after regulatory review under applicable law shall be compensated for through appropriate mitigation so as to ensure that there is no overall net loss in wetland function and value.

**Policy 4.1.9:**

**Defining Open Space.** Open Space shall include (1) Activity Based Open Space and (2) Resource Based Open Space areas within the Restoration SCD. The Restoration SCD shall contain approximately 3,872 acres (+ or -) of Resource Based Open Space.

- a. **Activity Based Open Space** is open space that has generally been developed by the developer in order to provide areas for active recreation in a post-development setting. As such, it includes areas such as walkways, bikeways, trails, lakes, picnic areas, playgrounds, tot-lots, neighborhood parks, plazas and sports and active parks (baseball, tennis, swimming, soccer facilities, boardwalks, etc.).
- b. **Resource Based Open Space** is open space intended to protect and enhance environmental systems. Consistent with Policies 4.1.3, 4.1.4 and 4.1.7 above and 4.1.10 below, it may include in addition to areas set aside for ecological preservation, enhancement and restoration, nature trails, conservation education programs, observation decks and similar facilities including lakes used for detention or retention of surface water.

**Policy 4.1.10:**

**Protection Standards for Resource Based Open Space.** Resource protection standards for Resource Based Open Space is to be provided for in the Restoration SCD by the preparation and adoption of a Site Mitigation and Management Plan (“SMMP”) as provided in Policy 1.1.3 above and the DRI Development Order. The purpose of the SMMP is to provide for the imposition of a set of site mitigation and management protocols designed to ensure the long-term maintenance by the developer, its successors and assigns, (See Policy 11.1.5 below) of the ecologic value of the Resource Based Open Space within the Restoration SCD and the effective integration of the same into the built environment. The following principles shall form the basis of the SMMP.

- a. Resource Based Open Space in the Restoration SCD shall, to the greatest extent practicable, be aligned and connected so that free and unencumbered movement from one section of the Resource Based Open Space to another is achieved within the boundaries of the Restoration project. To the extent practicable and in order to promote habitat connectivity external to the Restoration SCD, the Resource Based Open Space shall be aligned with and connected to like natural systems outside the boundaries of the Restoration project.

Areas set aside for Resource Based Open Space may be

accessed by walkways, boardwalks, trails and bikeways where such access is consistent with the maintenance of the ecological resource and its habitat values. Resource Based Open Space may include facilities for environmental education and research.

- b. Resource Based Open Space areas shall be designated, permanently protected, and maintained as undeveloped and/or restored or enhanced conservation areas that are accessible for passive recreational uses consistent with the protocols of the SMMP and permits issued by either the state or Federal government. Resource Based Open Space shall be selected and designed according to the following principles:
  - (i) ECO Lands, Environmental System Corridors, wetlands, natural and historic resources shall receive top priority for and be a part of the designated Resource Based Open Space area.
  - (ii) Resource Based Open Space shall be designed as a contiguous area to eliminate or minimize fragmentation and promote the formation of linked networks with existing or potential Resource Based Open Space areas on adjacent properties, or other developments.
  - (iii) Resource Based Open Space areas may include storm water management facilities.
  - (iv) To the extent that roads are necessary for access to the Conservation and SCD Conservation/Restoration areas as shown on the CDA Map, they shall, to the fullest extent practicable, avoid wetlands and other ecological resources that comprise the environmental integrity of these areas.
  - (v) Resource Based Open Space, all of which is located within the areas shown on the CDA Map as either Conservation or SCD Conservation/Restoration shall be permanently protected by conservation easement so that such areas are and remain undeveloped in perpetuity by recording the Conservation Easement in the Public Records of Volusia County, no later than the date of the

issuance by the City of the first building permit authorizing the construction of horizontal improvements or land clearing on the Restoration site or such earlier time as might be required by either the state or Federal government in their respective permits authorizing impacts to wetlands within the Restoration site. The Conservation Easement(s) providing for such protection shall run with the land and shall be written in such a manner so as to provide for enforcement rights by the Grantees, the City of Edgewater, the St. Johns River Water Management District and to the extent required, third party enforcement rights by the U.S. Army Corps of Engineers and any other party or person that the permits authorizing the wetland impacts might require. The Conservation Easement(s) shall be set forth in the Covenants, Conditions and Restrictions (“CCRs”) of the Restoration SCD and recorded in the Public Records of Volusia County. The CCRs shall be provided to each subsequent land owner within the Restoration SCD.

- (vi) Resource Based Open Space shall be managed according to the SMMP and/or the terms and conditions set forth in any Conservation Easement encumbering the same or by any other entity or format authorized under Policy 4.1.12 below.

**Policy 4.1.11:**

**SMMP Requirements and Minimum Standards.** Resource Based Open Space protection standards are to be provided for in the Restoration SCD by the preparation and adoption of a Site Mitigation and Management Plan (“SMMP”) which by its terms will incorporate by reference all terms and conditions imposed by both the SJRWMD and the ACOE in the issuance of their respective permits. The purpose of the SMMP is to provide for the imposition of a set of site mitigation and management protocols which shall ensure the long-term maintenance of the ecological values of the Resource Based Open Space and the effective integration of the same into the built environment. In addition, the SMMP will detail the protocols to be followed in the design, planning and implementation for the restoration of wetlands and uplands within the Resource Based Open Space.

With respect to the wetlands restoration, the goal is to restore the landscape back to a “native Florida ecosystem” by reversing the effects of the silviculture operation that has characterized the use



of the project site for the past fifty plus years. This will be accomplished by the developer of the Restoration SCD, its successors and assigns, by among other things (1) selectively timbering the existing pine plantation so as to return upland pine forest to native pine flatwoods; (2) creating a herbaceous layer understory; (3) removing planted pines from wetlands; (4) restoring natural hydroperiods in a manner that is consistent with the various wetland types found in the Resource Based Open Space; (5) removing and managing exotic infestation; (6) managing hydrology by plugging selected ditches and canals; (7) managing hydrologic conditions through its integration into the master stormwater system; and (8) restoring natural sheet flow through the Spruce Creek Swamp.

Further, with respect to the wetlands restoration as described above, the restoration will be commenced prior to any impacts to wetlands unless an earlier start date is required by the terms of the ERP Permit to be obtained from the SJRWMD or the Section 404 Permit to be obtained from the U.S. Army Corps of Engineers and once started shall continue until completion of the wetlands restoration project, but in no event shall the completion of the wetlands restoration project exceed five (5) years after commencement. See Policy 11.1.5 relative to administration of cost for the wetland restoration.

In addition to the foregoing, the SMMP shall set standards and management protocols for the following matters: (1) trees and tree removal, (2) habitat of protected species, (3) flood hazard management, (4) performance standards for development, (5) potable water and well field protection, (6) erosion control, (7) post-development land management protocols to include water conservation and landscape standards incorporating drought tolerant and native vegetation, (8) identification of ownership and management responsibilities and (9) fire management.

The matters noted above are the minimum to be included in the SMMP, and are not necessarily exhaustive, it being the intention of the City and the developer of the Restoration SCD to prepare a SMMP that is site specific and addresses all issues essential to the maintenance of the ecological systems within the Resource Based Open Space.

Notwithstanding the foregoing, the SMMP will defer to and incorporate by reference the terms and conditions of the Federal and/or state permits to be obtained and the same shall be controlling of the undertakings of the developer, its successors and assigns, as the same pertain to the restoration, enhancement and management of the Resource Based Open Space; (i.e., the St.

Johns River Water Management District ERP Permit pursuant to Chapter 403, Florida Statutes, and the implementing regulation and rules of the District found at 40C-4001 and 40C-42.011 et. seq. F.A.C., and the U.S. Army Corps of Engineers Section 404 Permit pursuant to 33 U.S.C. Section 1344 et. seq. and 16 U.S.C. Sections 1536 and 1539 et. seq.). Accordingly, the City shall defer to the requirements of the same, but the City shall reserve the right to review such regulatory outcomes and determine whether or not such outcomes are substantially consistent with the guidelines enumerated here. The SMMP must be reviewed and approved by the City and other stakeholder agencies with particular competency in the subject under review consistent with the requirements of the DRI Development Order and the SMMP shall be incorporated into the DRI Development Order by reference and made a part thereof through a Notice of Proposed Change (NOPC).

**Policy 4.1.12:**

**Ownership of Activity or Resource Based Open Space.**

Ownership of either Activity or Resource Based Open Space shall be by one or a combination of the following: (1) a homeowner's association, (2) a land trust, (3) a qualified conservation organization, (4) a Chapter 190, Florida Statutes, Community Development District or (5) another public agency deemed acceptable to the City and the developer. Where Resource Based Open Space is subject to a conservation easement held by the city, county, state or Federal government or a qualified conservation organization, then the developer, or its assignee, may continue to hold underlying fee title to the identified Resource Based Open Space.

**GOAL 5: COMMUNITY DESIGN: PRINCIPLES OF TRADITIONAL NEIGHBORHOOD DESIGN AND NEW URBANISM:** The City shall establish Restoration SCD Design Policies to ensure walkability and connectivity using design principles that are consistent with Traditional Neighborhood Design, Transit-Oriented Development and New Urbanism as these terms are understood in the literature of the Congress of New Urbanism, the Urban Land Institute and other like-kind organizations. These Policies shall control the design of the built environment within the Restoration SCD. They are set forth below and shall be further memorialized and detailed in a Regulating Book/Design Guidelines to be adopted by the City consistent with this Restoration SCD land use and in conjunction with the PUD zoning of the Restoration site.

**Objective 5.1:** *Design Attributes.* The City shall define the essential design attributes that must be a part of the development within the Restoration SCD. They are listed here with the expectation that they shall be further refined and implemented through both the DRI Development Order and the Regulating Book/Design Guidelines. In all events the DRI Development Order and the Regulating Book/Design Guidelines must be consistent with the essential design attributes listed here.

**Policy 5.1.1:** **Walkability.** To ensure that the Restoration SCD is pedestrian friendly the following design principles shall be incorporated into and made a part of the Regulating Book/Design Guidelines:

- a. At build out, all homes shall be within a half (0.5) mile of transit, a mixed-use activity center or facility or an institutional or civic use such as a school, government office.
- b. Streets are to be pedestrian friendly. Homes are to be built close to streets; with the majority of the homes having street-facing facades and/or porches, windows and doors. Other homes may be constructed in a manner that does not front on the street so long as the home is designed in a manner that is consistent with the principles of Traditional Neighborhood Design or New Urbanism. Mixed-use and commercial structures in the TRC shall in like manner be built close to streets with street facing facades and entrances. Streets are to be tree-lined and provide for on-street parking where appropriate. Parking lots and parking structures are to be hidden to the fullest extent practicable.
- c. Street and pedestrian-way lighting are to be designed to enhance safety and be consistent with “dark sky” objectives to the maximum extent practicable.
- d. Brick pavers, roundabouts, traffic circles and other traffic calming techniques are to be employed in key locations to enhance aesthetics, improve pedestrian access, reduce vehicle speeds and promote safety within all travel modes.

- e. Signs identifying streets, speed limits, and neighborhoods shall be designed to reflect neighborhood character.
- f. All streets having vertical development or units on one or both sides shall have sidewalks adjacent to the vertical development or units and such sidewalks shall be a minimum of five (5) feet in width to accommodate pedestrian activity. Sidewalks will be designed and constructed so that there is no break in a linear run of the same, except for street crossings.
- g. The City will require that the developer submit to the City both a bicycle routing and mobility plan, including a trail plan as a part of the Regulating Book/Design Guidelines to be reviewed and approved by the City.

**Policy 5.1.2:**

**Connectivity.** To ensure the efficient movement of people through the Restoration SCD, the following design principles shall be incorporated into and made a part of the Regulating Book/Design Guidelines.

- a. The street system shall be a well-connected grid based system that is fully integrated. Because the Restoration SCD shall develop over a period of years, the street system shall be designed to facilitate the expansion of the same as the community grows.
- b. The street system shall be designed in a hierarchy that provides for alternative cross sections to facilitate the development of narrow neighborhood streets, boulevards, and alleys. Streets are to be shaded by trees and interconnected both internally and externally to both move traffic efficiently through the Restoration SCD and to disperse traffic off site efficiently. Streets shall allow for on-street parking where appropriate and the location and configuration of the same shall be set forth in the Regulating Book/Design Guidelines.
- c. The arrangement and design of streets shall promote a pleasant, pedestrian and bicycle-friendly environment with an emphasis on convenient access to surrounding neighborhoods and community amenities. Restoration SCD road design standards may apply to County- or State-owned and maintained roads and as such be subject to County or State approval.

**GOAL 6: AFFORDABLE HOUSING/HOUSING CHOICE:** In addition to the housing choices identified in Policy 3.1.1 above, the City shall require that the housing offered within the Restoration SCD shall be offered at a variety of price points, including affordable housing.

**Objective 6.1:** *Promote Diversity and Choice in Housing Options.* The objective is a robust mix of different types and kinds of housing, and particularly housing targeted to those who have an Average Median Income (“AMI”) that limits their housing choices. To ensure, to the fullest extent possible, that the Restoration SCD is developed as a socially and economically diverse community with a wide range of housing types, various price points shall be made available.

**Policy 6.1.1:** **Provide Affordable Housing.** Within the Restoration SCD, ten percent (10%) of all residential units shall qualify as “affordable housing” which for this purpose shall mean housing for which persons whose incomes fall between eighty percent (80%) and one hundred forty percent (140%) of Volusia County’s AMI shall qualify to purchase.

**Policy 6.1.2** **Housing Choice.** Within the Restoration SCD, the developer will provide a diversity of housing products as described in Policy 2.1.4 above.

**GOAL 7: JOBS/HOUSING BALANCE:** The City desires to reduce dependence on automobile travel and, therefore, vehicle miles traveled (“VMT”). Accordingly, the Restoration SCD shall be required to develop and implement a program designed to ensure an adequate number of jobs per residential dwelling unit exists in the Restoration SCD at build out.

**Objective 7.1:** *The Reduction of VMT through a Jobs -to -Housing Balance.* The objective is to (1) reduce VMT and (2) establish and measure over time the jobs/housing balance so as to provide a framework for determining the number of jobs created and to measure the internal capture of trips within Restoration and to ensure a built community that, to the fullest extent possible, provides for alternative modes of transportation to and from the work and recreation places within the Restoration SCD.

**Policy 7.1.1** **Community Mixed-Use Thresholds.** To ensure a mixture of and balance between land uses and promote the creation of employment opportunities on the project site, the following mixed-use thresholds are established for the Restoration SCD:

1. Prior to the issuance of residential building permits for more than 1,500 dwelling units, there shall have been constructed a minimum of 180,000 square feet of nonresidential development;
2. Prior to the issuance of residential building permits for more than 2,500 dwelling units, there shall have been constructed a minimum of 300,000 square feet of nonresidential development;

3. Prior to the issuance of residential building permits for more than 5,000 dwelling units, there shall have been constructed a minimum of 600,000 square feet of nonresidential development;

4. Prior to the issuance of residential building permits for more than 7,500 dwelling units, there shall have been constructed a minimum of 900,000 square feet of nonresidential development; and

5. Prior to the issuance of residential building permits for the 8,500<sup>th</sup> dwelling unit, there shall have been constructed a minimum of 1,200,000 square feet of nonresidential development.

**Policy 7.1.2:**

**Interim Measuring of Jobs/Housing Ratios.** The Master Developer ("Master Developer") shall measure the jobs/housing ratio after the issuance of the final plats and/or commercial site plan approval as set forth below. The designated ratios are goals, but if there has been insufficient employment created pursuant to this Policy, the Master Developer shall confer with the City and the East Central Florida Regional Planning Council (ECFRPC) for the purpose of determining whether and to what extent the Master Developer has initiated and maintained a program designed to attract jobs and employment to the Project and the prospects for making up any shortfall in achieving the goals described below as the development progresses. If at check point (ii) or (iii) below, it is determined that the shortfall is material, that the efforts of the Master Developer to meet the jobs/housing ratio have not been at a level and with a consistency that evidences a good faith effort to meet the jobs/housing ratio, then the City may require appropriate mitigation to offset the failure to meet the established goal or, in its discretion, the City may suspend the issuance of residential building permits until the targeted thresholds agreed to by the City, the ECFRPC and the Master Developer as set forth here are met. This Policy is in addition to and not in limitation of Policy 7.1.1 above, it being the intention of the City that a series of different checks are to be made and evaluated as the development proceeds forward. The goals are, to-wit:

(i) After the issuance of final CO's for the occupancy of the 3,400<sup>th</sup> residential unit

0.1 jobs per residential unit

(ii) After the issuance of final CO's for the occupancy of the 6000<sup>th</sup> residential unit

0.5 jobs per residential unit

(iii) After the issuance of final CO's for the occupancy of the 8000<sup>th</sup> residential unit

0.6 jobs per residential unit

**Policy 7.1.3**

**Build Out Jobs/Housing Balance.** At build out of the Restoration SCD, a jobs-to-housing balance of 0.65 jobs per residential unit shall be achieved. During development of the Restoration SCD, the jobs/housing balance shall be measured at various intervals in accordance with the standards set forth above and in the DRI Development Order and the results shall be reported to the City, the ECFRPC and the Department of Community Affairs as often as the reports are generated so that progress toward the goal set forth here can be assessed and remedial action taken as determined to be appropriate under the procedures set forth here and in the accompanying DRI Development Order.

**Policy 7.1.4**

**The Jobs Calculation.** For purposes of making the jobs calculation, the Master Developer may consider all jobs created within the boundary of the Restoration SCD and count them as one full job. Additionally, the Master Developer may consider such additional jobs as are created after the commencement of work on the Restoration site that are within a three mile radius of the boundary of Restoration and within the municipal boundary of the City. This latter category shall be counted as one-half job. To document the jobs calculation, the Master Developer must submit information which is specific to the type of industry or business; i.e. retail/office/industrial, and provide a map showing the location of each nonresidential development that is included. For this purpose, jobs created in the public sector, i.e. Federal, state or local government including school jobs whether private or public shall be included. Development which is under construction may be included, provided that vertical construction will be completed within eighteen (18) months of the date of the submittal of the documentation. The Master Developer may demonstrate compliance with these Policies by surveying the expansion of existing businesses and/or the creation of new businesses by utilizing the following employment ratios, to-wit:

350 square feet of office = 1 job

600 square feet of retail/commercial = 1 job

If any actual survey of existing nonresidential development is utilized, the documentation must include information on the nature of the business including the name of the business, the date

the information was generated and the name, address and telephone number of the individual supplying the information.

**GOAL 8: REDUCTION IN GREENHOUSE GASES:** By utilizing the principles of Smart Growth, Traditional Neighborhood Design, Transit-Oriented Design and New Urbanism, the City seeks to reduce reliance on the automobile; and, therefore, reduce the production of greenhouse gases. Additionally, the City desires to moderate the demand for energy utilized to heat and cool houses and commercial structures built in Restoration, not only to reduce the production of greenhouse gases, but to conserve available energy resources. In the furtherance of this goal, the Restoration SCD development shall adhere to the following Objective and Policies.

**Objective 8.1:** *Reduce VMT through the Utilization of Sound Planning Paradigms.* The objective of using the planning paradigms noted in the Goal is to create a framework that gives the City the best possible opportunity to reduce VMT and by doing so reduce the production of greenhouse gases. Further, the objective is to create a place where persons can live, work and play without undue reliance on the automobile while also enjoying a living environment that is “green.” In order to implement this Goal and Objective, the Restoration SCD shall implement the following Policies:

**Policy 8.1.1:** **Compact Development Pattern.** Compact development patterns shall be required so that land is used efficiently and at a density and intensity that assures that the planning paradigms noted herein are adhered to. Streets are to be narrow, buildings are clustered together and yard space is to be concentrated where it is most usable. These requirements shall be implemented through the adoption of the DRI Development Order and further refined and developed through the Restoration Regulating Book/Design Guidelines to be implemented as herein provided.

**Policy 8.1.2:** **Avoid Large Single Uses of Land and Provide for a Mixture of Land Uses.** Except as otherwise provided at Policy 3.1.1(d), the Restoration SCD shall avoid large single uses of land and defer to a mixture of land uses. The Regulating Book/Design Guidelines shall provide for and require a mixture of uses to include residential, commercial, office, public/civic, recreation and Activity Based Open Space, and Resource Based Open Space all in a mixed-use configuration. This mix of uses shall occur both vertically and horizontally. On a vertical plane, commercial and retail uses may be augmented by residential uses above. With regard to horizontal mixing, the developer shall create a mixture of residential uses in close proximity to commercial, including retail and service uses and public/civic uses. The developer shall also incorporate appropriate cost stratification of housing products to ensure housing at various price points is developed throughout and to comply with the policies noted above at Policy 2.1.4 and Policy 6.1.2. The overall policy requires a fully-integrated community with a variety and mix of housing products at various price points and serving a variety of markets.



The SCD Total Land Area is 5,187.1 acres. Of that amount, approximately 3,872 (+ or -) acres have been designated as either Activity Based Open Space or Resource Based Open Space.

The following maximum and minimum calculations are based on the portion of the Restoration SCD labeled as SCD Community Development on the CDA Map. This area is also referred to as the “build envelope” of the Restoration SCD. The build envelope consists of approximately 1,315.1 acres (+ or -). To ensure a variety of uses within the build envelope, the Restoration development shall be limited to the following:

- a. **Residential** -- The minimum amount of residential shall be forty-eight percent (48%) of the build envelope.
- b. **Commercial** – The minimum amount of commercial use (retail, service) shall be five percent (5%) of the build envelope.
- c. **Office** – The minimum amount of office use shall be five percent (5%) of the build envelope.
- d. **Civic/Institutional** – The minimum amount of Civic/Institutional use shall be six percent (6%) of the build envelope. For this purpose, Civic/Institutional shall include schools, utility sites, and other like kind government facilities.
- e. **Recreation and Open Space** – The minimum amount of Activity and Resource Based Open Space shall be fifteen percent (15%) of the build envelope. The minimum amount of Resource Based Open Space shall be fifty percent (50%) of the SCD Conservation/Restoration and the SCD Community Development area noted on the SCD Conservation/Development Areas Map.
- f. **Work Place** – The minimum amount of work place to include office/light industrial use shall be two and one-half percent (2.5%) of the build envelope.
- g. **Mixed-Use** – The minimum amount of mixed use which shall include a mix of at least two of either office, retail, institutional, service, public/civic and residential shall be five percent (5%) of the build envelope.

Importantly, when measured against the total land area of Restoration, approximately seventy-four point six percent (74.6%) of the total land area of the Restoration SCD shall be lands outside of the build envelope.

The “build envelope” of the Restoration SCD consists of approximately 1,315.1 acres calculated as the total land area of Restoration SCD (5,187.1 acres) less all Resource Based Open Space (3,872 acres). The Resource Based Open Space includes the Conservation Area and SCD Conservation/Restoration areas as shown on the CDA Map.

The build envelope of the Restoration SCD is to be comprised of the use groups identified above. No single-use group may exceed fifty-three percent (53%) of the build envelope.

**Policy 8.1.3: Walkable, Bikeable Community Design.** The Restoration SCD shall incorporate a pedestrian and bike mobility system to provide for the efficient and pleasurable movement of pedestrian and cyclists throughout the development. This system shall include a hierarchy of pedestrian and bicycling facilities including sidewalks (at least five (5) feet wide), Bike Lanes (four (4) feet wide and limited to major arterials), multi-purpose recreational trails (at least ten (10) feet wide) and unimproved nature trails and boardwalks connecting residential areas with work, shopping, entertainment and open space/recreational opportunities. Pursuant to Policy 5.1.1(g) the developer will prepare and submit with the Regulating Book/Design Guidelines the details of the bike mobility plan and trail plan.

**Policy 8.1.4: Transit-Oriented Development.** The Restoration SCD shall provide for the development of a Transit Corridor Plan. The Transit Corridor Plan shall lay out the strategy for the design, development and operation of a fixed-rail, electric transit system within the TRC to be built and operated by the developer and at no expense to the City. The transit system will operate in the TRC and be designed, permitted and constructed so that it is operational by 2021 or the end of Transportation Phase 2a as that term is defined in the DRI Development Order. In order to maximize the economic viability of the TRC, densities and intensities of development within both the MUTC and TRC shall, as set forth in Policy 3.1.1, be sufficiently high so as to support the utilization and economic viability of the transit system. To further assist in the economic viability of the transit system, the Regulating Book/Design Guidelines shall require that development at the site plan level be transit friendly to include reduced setbacks, pedestrian connections between buildings, parking in the rear of buildings, and the provision for transit shelters, provided, however, on-street parking shall be allowed in the multi-way boulevard described in Policy 8.1.5 below. In addition, the developer shall work with the City of Edgewater and Volusia County Public Transit System to ensure external connections are provided

between the Restoration SCD, the City of Edgewater and other incorporated and unincorporated portions of Volusia County. The design of the TRC shall support and facilitate the optimum and safe operation of the transit system.

**Policy 8.1.5: Williamson Boulevard as a Multi-Way, Transit Ready Boulevard.** Williamson Boulevard is to be the primary north-south transportation corridor within the Restoration SCD and shall be designed, permitted and constructed so as to support the operation of a fixed-rail, electric transit system that shall, upon completion, run along Williamson Boulevard through the Restoration SCD. As a multi-way, transit-ready boulevard, Williamson Boulevard shall have a design profile that accommodates the operation of the automobile, the electric transit cars, bicycles and pedestrians. The design, dimensions and alignment of Williamson Boulevard shall be driven by the requirement that it support the overall need for continuous, direct and efficient vehicular movement from surrounding areas of the City and County through the Restoration SCD, coupled with the requirement that it further the concept of a pedestrian-oriented and transit-ready, operational roadway.

**GOAL 9: SCHOOLS:** The City and the Volusia County School Board seek to ensure that opportunities for residents of the City and Restoration shall have adequate school facilities to serve the City and Restoration.

**Objective 9.1: School Concurrency.** Residential development within the Restoration SCD shall be planned to ensure sufficient capacity within the public school system to meet the population needs consistent with and subject to “school concurrency” requirements imposed by Volusia County School Board from time to time.

**Policy 9.1.1 Capacity Enhancement Agreement.** The applications for the construction of residential housing product within the Restoration SCD shall be coordinated with the Volusia County School Board to determine if there shall be sufficient student capacity to meet the requirements of the new development pursuant to standards and procedures as more fully set forth in the Interlocal Agreement for School Planning, Public School Facilities Element, and Section 206 of the Volusia County Charter. To accommodate the management of school capacity within the Restoration SCD, the Volusia County School Board, the City and the developer have entered into a Capacity Enhancement Agreement (“CEA”) which has been designed to ensure that public schools can be timely planned and constructed to serve the student population. The CEA has been recorded in the Public Records of Volusia County, Florida at O.R. Book 6313, Page 219, Public Records of Volusia County Florida. The conveyance of the school sites shall occur on the earlier of (a) approval by the City of a final site plat or a final

plat for the 2,000<sup>th</sup> residential dwelling unit or issuance of a Certificate of Occupancy for the same; or (b) upon approval by the City of all or a portion of the property wherein the portion of the property to be platted is to include one or the other of the parcels designated as school sites pursuant to the CEA. Consistent with the foregoing and the CEA, the developer shall convey to the School Board one or the other or both of the designated school sites upon completion of the School Board's inspection period and due diligence review.

**GOAL 10: RESOURCE EFFICIENT DESIGN AND OPERATION:** The City requires that the Restoration SCD development include adherence to a suite of “green” building and design initiatives to the end that the structures (both residential and commercial) shall be designed, constructed and occupied using a variety of applicable green design and building protocols as hereinafter set forth.

**Objective 10.1:** *The Utilization of Defined Benchmarks and Metrics to Measure Success.* Sustainable development practices are understood to include a variety of practices and protocols that are designed to allow development that promotes “resource efficiency” across a broad spectrum of resources. The primary objective of the City in promoting the Restoration SCD is to develop a rational and robust set of green infrastructure protocols that assure that development within the Restoration SCD uses a whole systems approach to the design, development, construction and operation of the Restoration SCD and to do so with defined benchmarks and metrics that can be used to measure success.

**Policy 10.1.1:** **Utilization of Innovative Sustainable Programs.** The Restoration SCD shall utilize a number of innovative sustainable development techniques and measure the success of each to determine their individual and collective impact on conserving energy and water resources, internalizing trip capture and providing appropriate landscapes and biodiversity. The protocols to be used shall include the following:

- a. **Site Design and Land Use.** Calculate the density of residential units and intensity of non-residential units within the Restoration SCD in order to measure jobs per unit. Focus site design on creating required synergies to enhance and improve prospects for a walkable, transit-ready and transit-using community.
- b. **Landscape and Biodiversity.** Create balanced, multispecies living environments within the context of East Central Florida using native and other appropriate vegetation in the landscape palette with the goal of reducing water usage and treating groundwater so as to remove identifiable pollutants. Landscaping within the

built environment shall be substantially designed and installed using the University of Florida's Florida Friendly Plant List and managed in accordance with the University of Florida Yards and Neighborhoods Recognition Checklist (January 2007 Version).

- c. **Transportation.** Create multi-modal synergies that facilitate a reduction in the use of the automobile, promote pedestrian and bicycle utilization and the use of transit.
- d. **Energy.** Design the built environment so it reduces the use of energy by incorporating green development practices in building design, construction and operation. Certification programs certifying compliance with this protocol that would satisfy the same are the United States Green Building Coalition Commercial Standard certification for commercial structures and for residential structures, USGBC LEED for Homes or FGBC Green Home Designation Standard. All buildings constructed within the Restoration SCD shall meet one of these criteria.
- e. **Water.** Design the water management system so that as nearly as possible it incorporates total water balance into the design, construction and operation of the development.

The benchmarks and metrics by which the City and the developer shall measure "sustainability" shall be set forth and detailed in the DRI Development Order that is to accompany the adoption of this text amendment. It is recognized that the standards and protocols which define sustainability are constantly evolving such that what is determined to be acceptable today may be unacceptable tomorrow. As new programs or technologies emerge that may be more supportive of the goals that are both explicit and implicit in the development of the Restoration SCD, the City and/or developer shall seek to incorporate them into the DRI Development Order by using adaptive management over the life of the Restoration SCD. The goal is to ensure that the most current programs, policies and protocols are used throughout the life of the Restoration SCD.

**GOAL 11: CONFORMANCE WITH THE GOALS, OBJECTIVES, POLICIES:** The City shall ensure that development within the Restoration SCD area is in conformance with the goals, objectives and policies, contained herein, through the execution of the DRI Development Order, the adoption of Restoration Regulating Book/Design Guidelines, the adoption of the Restoration PUD Zoning Overlay and such further and other agreements as may be necessary to ensure the outcomes contemplated by this land use text amendment.

**Objective 11.1: *Maintaining Conformity with Goals, Objectives and Policies.*** The objective of the City is to make sure that the broadly-stated goals, objectives and policies described in this Restoration SCD text amendment are refined and set forth in more detail in the DRI Development Order and accompanying documents and agreements so as to ensure to the fullest

extent practicable that the Restoration SCD shall be developed and managed consistent with this text amendment.

**Policy 11.1.1:**            **Creation of the Restoration Planned Unit Development.** The City shall allow development of the Restoration SCD or any portion of the same to proceed upon the adoption of the Restoration Sustainable Community Development/Planned Unit Development (“SCD/PUD”) zoning category and the accompanying Regulating Book/Design Guidelines in a form that is consistent with the Restoration DRI Development Order and the Restoration SCD Future Land Use Category together with the SMMP as previously provided in Policy 1.1.3 above. This shall require the preparation, submission and approval of a SMMP, a Zoning/Land Use Plan and a Restoration SCD/PUD prior to the initiation of construction within the Restoration SCD, or any sub-districts, or portion thereof. Map “H,” as approved and appended to a DRI Development Order, shall serve as the basis for a Zoning/Land Use Plan. The Restoration SCD/PUD Regulating Book/Design Guidelines shall contain planning and urban design standards that govern development within the Restoration SCD/PUD and where the Restoration SCD/PUD Regulating Book/Design Guidelines conflict with existing City Land Development Regulations, the Restoration SCD/PUD Regulating Book/Design Guidelines shall control.

All properties to be developed shall undergo the Restoration SCD/PUD Rezoning process, which involves two steps:

**Step 1:** Zoning/Land Use Plan approval provides zoning approval on the overall Restoration site.

**Step 2:** Development Plan approval may occur in a staged process and as increments of the overall Land Use Plan are submitted for approval. A Development Plan may be approved by the City Council after review by the Planning and Zoning Board. Nothing herein shall preclude the developer from making application to the City to amend or modify a previously adopted Zoning/Land Use Plan as and when the developer determines such an application is appropriate.

The Regulating Book/Design Guidelines shall address and describe in appropriate detail the following areas:

- Principles of the Plan
- Environmental/Open Space Development Standards
- Streets, Roadway and Utility Standards
- Mixed-Use Town Center Development Standards

- Work Place Development Standards
- Residential Development Standards,
- Infrastructure and Engineering Development Standards
- Transit Development Standards
- General Landscaping Standards
- Lighting Standards
- Signage Standards
- Definitions

**Policy 11.1.2:**

**Processing of Development Approvals.** Because the Restoration SCD requires for its implementation the integration of a number of different land uses including office, commercial, retail, residential, recreational, institutional (including governmental) all of which are to be arranged within the built environment with a vigorous effort to utilize sustainable principles, it is recognized that modifications to the existing Land Development Regulations of the City are necessary and desirable to accommodate and allow for the implementation of the Restoration SCD.

It is contemplated that the Restoration SCD shall accomplish the required modifications to the City Land Development Code through the review and approval by the City of the Regulating Book/Design Guidelines using the PUD zoning process to accomplish the same. The property within the Restoration SCD/PUD district shall be rezoned to PUD prior to commencement of development. The rezoning shall include a Zoning/Land Use Plan with a description of how the overall site plan meets the Goals, Objectives and Policies set forth herein. The Zoning/Land Use Plan and the accompanying Regulating Book/Design Guidelines shall define with particularity how each of the development components of the Restoration SCD/PUD development shall be implemented. The Zoning/Land Use Plan shall set forth the capacity for development inside the areas designated as Restoration SCD/PUD on a site -specific basis and in conformity with the limitations described herein. In addition to the maximum base amount of any specific land use category described herein, development capacity may be altered but may not exceed that which is set forth herein.

**Policy 11.1.3:**

**Coordination on Transportation Improvements.** Where road improvements required by the adoption of the Restoration SCD designation are provided for in the DRI Development Order contemplated by this designation, then the City of Edgewater will amend its Comprehensive Land Use Plan and its Transportation and Capital Improvement Elements to incorporate the road improvements provided for in the DRI Development Order. Where the road improvements are provided for in the DRI

Development Order, but are outside the jurisdiction of the City, Interlocal Agreements with the affected jurisdiction shall be required and identify the source of capital and the timing of construction for those specific road improvements such that the road improvements are provided prior to development in the affected area of the Restoration SCD. The road improvements to be undertaken within the first five years of the development of Restoration are, or shall be, included in the City's CIE.

**Policy 11.1.4:** **Maximum Daily Trips at Build Out.** The land use and resulting trip generation for the Restoration SCD land use shall not exceed 114,828 daily two-way trips at build out as calculated by the then current Institute of Transportation Engineers (“ITE”) Trip Generation Manual.

**Policy 11.1.5:** **Funding of Public Facilities and Infrastructure.** To ensure the provision of adequate public facilities that are fiscally neutral and avoid inequitable burdens on parties outside the Restoration SCD, public facilities and infrastructure for development within the Restoration SCD shall be funded and maintained by the developer, its successors and assigns, including, without limitation, a Community Development District (“CDD”) formed in accordance with Chapter 190, Florida Statutes, or such other financial mechanisms that are not dependent upon a budgetary allocation of the City of Edgewater. For the purpose of this Policy, the term “public facilities and infrastructure” includes the following: (1) water and water supply systems, (2) stormwater management systems, (3) roads, (4) transit system, (5) sewer and wastewater systems, (6) fire, emergency operations, EMS and Police, and (7) restoration of wetlands, uplands and ecological features of the Resource Based Open Space. To the extent a new city hall is to be built, the provisions of the DRI Development Order shall be controlling for purposes of allocating the financial responsibility for the same.



**GOAL 12: FLOOD PLAIN MANAGEMENT:** The City, in the furtherance of the Restoration SCD, recognizes that modifications and adjustments to its Land Development Regulations are necessary to accommodate the Restoration SCD. Those adjustments shall be undertaken consistent with the Policies set forth below.

**Objective 12.1: *Revised Flood Plain Management Policies and Protocols.*** The objective is to create a series of Policies that are consistent with established state and Federal law and protocols to ensure the proper administration of floodplain development and management in a post-development setting within the Restoration SCD.

**Policy 12.1.1:** **Floodplain Management.** The City shall maintain a floodplain management ordinance, which includes the development standards required for participation in the Federal Emergency Management Agency (“FEMA”) National Flood Insurance Program. The ordinance shall require that any new construction or substantial improvement of any existing structure have the lowest finished floor elevated to at least one (1) foot above the established 100-year flood elevation.

**Policy 12.1.2:** In areas that are designated by FEMA as Zone “A” (no elevation established), a flood study of the Restoration SCD site, as prepared by a qualified State of Florida Licensed Professional Engineer, subject to technical review by the City, shall be required to establish the existing base flood elevation(s). Such flood studies shall be submitted to FEMA as a Letter of Map Revision (“LOMR”) to establish the existing conditions base flood elevation(s). Elevations shall be established prior to approval for construction of any portion of the project lying within the existing FEMA flood zone.

**Policy 12.1.3:** After establishment of the FEMA Base Flood elevation(s), all new projects must protect the natural functions of the floodplains in the City and adjacent jurisdictions, with the understanding that new major projects occurring within the Restoration SCD Future Land Use Designation area may provide for innovative floodplain protections and provision of compensating storage (based on the open space set-aside), and may be used to redefine the floodplain limits subject to the Restoration SCD/PUD Regulating Book/Design Guidelines described above. The Restoration SCD/PUD Regulating Book/Design Guidelines shall include requirements that the proposed design demonstrates that there are no adverse flood impacts to any offsite properties. The floodplain management procedures and regulations established in the SCD/PUD Regulating Book/Design Guidelines as approved by the City shall supersede the current floodplain management standards contained in the City’s Land Development Code and be controlling for purposes of the Restoration SCD.

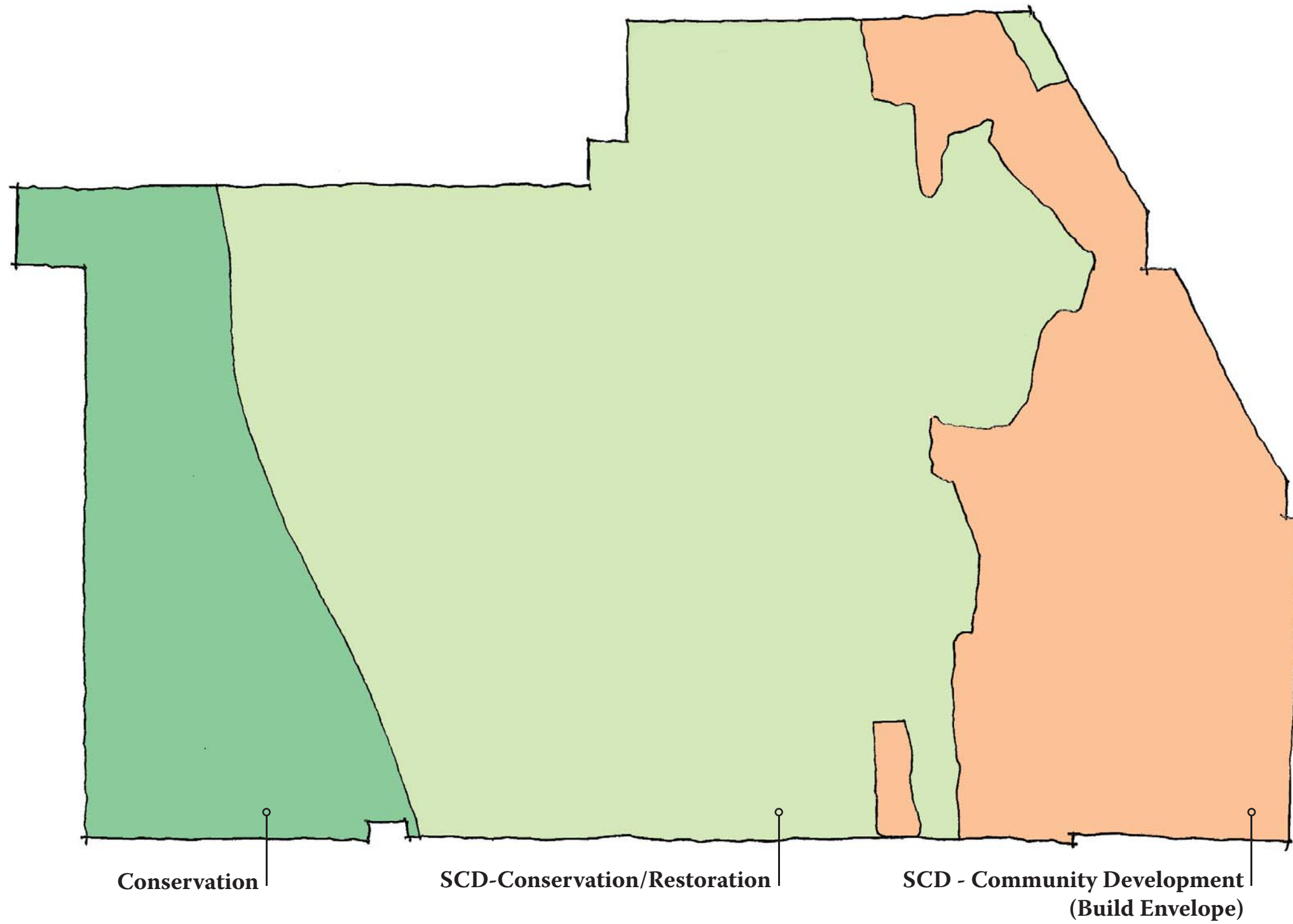
**Policy 12.1.4** Following approval of the conceptual master plan as required for site PUD zoning, a site-wide FEMA Conditional Letter of Map Revision (“CLOMR”) establishing the proposed site-wide floodplain management program, floodplain extents and elevations shall be submitted to FEMA. The developer must submit the CLOMR prior to the commencement of any construction project that impacts areas within the existing FEMA flood zone limits.

**Policy 12.1.5** All construction projects to be undertaken with the Restoration SCD shall submit engineering calculations to the City for review to the extent required by the City to demonstrate that the project to be undertaken is consistent with the floodplain impacts and mitigation as approved in the CLOMR floodplain management program.

**Policy 12.1.6** The floodplain management program to be included in the CLOMR shall comply with Section 804.01(3) of the Volusia County Land Development Code.

**Objective 13: *Restoration Sustainable Community Development District (“SCD”).*** The Restoration SCD is hereby established as shown on the Map I-8 Future Land Use Map (“FLUM”).

**Objective 14: *Maximum Density and Intensity for Restoration SCD.*** The density and intensity of the Restoration SCD District shall be limited to 8,500 residential units and 3,300,000 square feet of non-residential square feet. The density and intensity of the approved project shall be indicated on the FLUM.



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Restoration SCD - Conservation/Development Areas Map

Edgewater, Florida



**CANIN ASSOCIATES**  
 urban planning • landscape architecture • architectural design

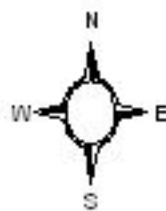
500 delaney avenue orlando, florida 32801 407.422.4040

October 20, 2009 CA Job No. 205115

# *Exhibit A*

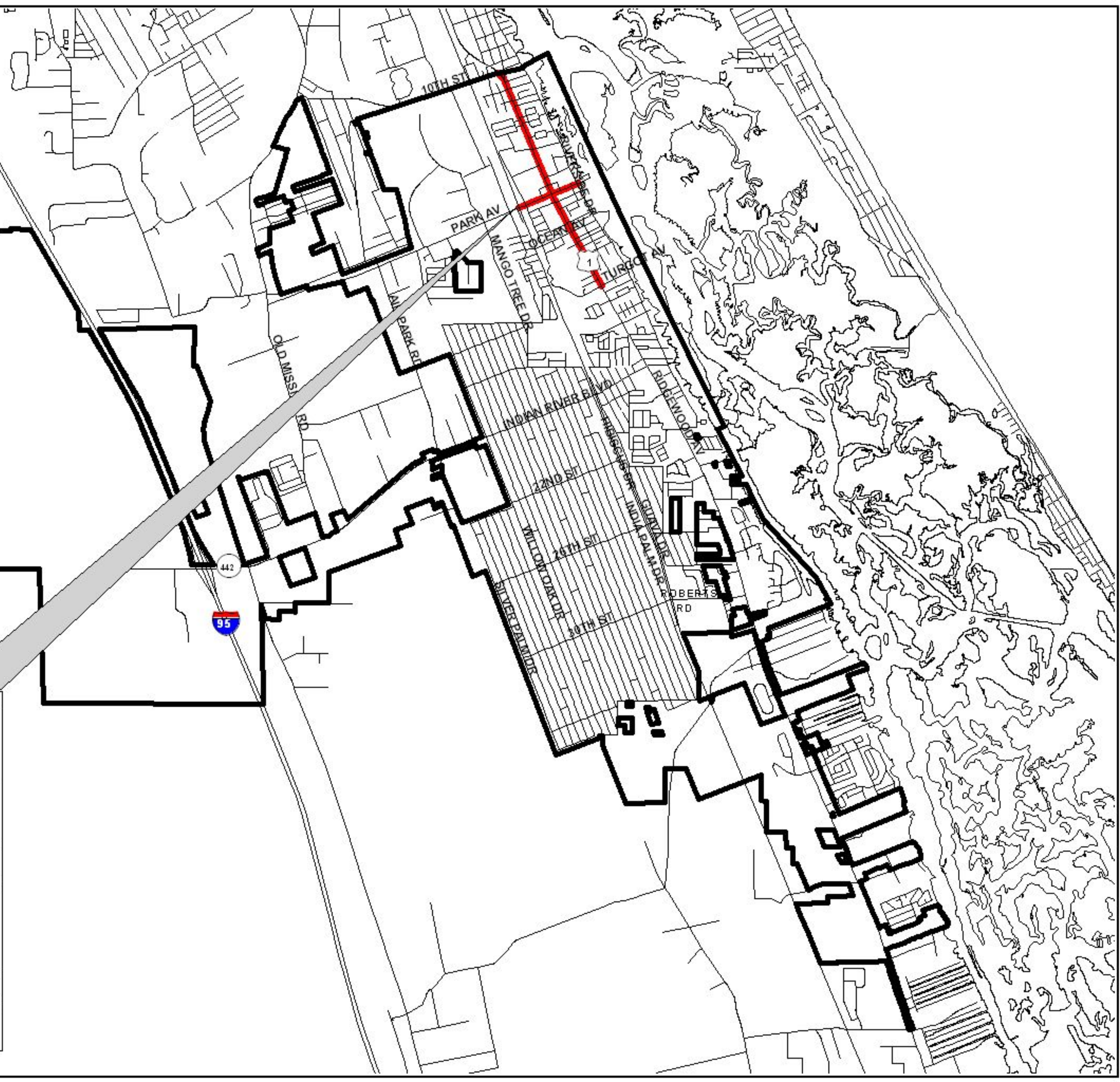


# CITY OF EDGEWATER



PROPOSED REDEVELOPMENT AREA

0 2000 4000 Feet



\* MAP IS TO BE USED FOR GRAPHIC PURPOSES ONLY.





**CITY OF EDGEWATER**

**COMPREHENSIVE PLAN**

**TRANSPORTATION ELEMENT**

**GOALS, OBJECTIVES AND POLICIES**

**CHAPTER II**

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**CHAPTER II  
TRANSPORTATION ELEMENT  
GOALS, OBJECTIVES AND POLICIES**

**GOALS, OBJECTIVES AND POLICIES**

**GOAL 1:**

To develop a safe, convenient, efficient and coordinated system of motorized and non-motorized transportation facilities to ensure adequate movement of people and goods through and within the City.

**Objective 1.1:**        *Roadway Network.* Provide an attractive, safe, convenient and energy efficient arterial, collector and local roadway system that serves travel demands within and through the City. [9J-5.019 (4)(b)1, F.A.C.]

**Policy 1.1.1:**        *Design of Arterial Road System.* The arterial roadway system shall be designed through cooperation with the FDOT and Volusia County to provide high-volume, multi-lane facilities with access controls, as needed, to preserve the through traffic carrying capacity of the facility. The City will require joint use access, cross access easements, and access prohibitions wherever traffic patterns and physical features make it possible in the development approval process.

**Policy 1.1.2:**        *LOS Standard.* The minimum Level-of-service (LOS) standard, to be adopted as part of this *Element* and *Plan*, shall be as follows:

- Limited Access Roads B Peak Hour, or as otherwise prescribed by FDOT;
- Arterials            D Peak Hour; and
- Collectors         D Peak Hour. [9J-5.019 (4)(c)1, F.A.C.]

**Policy 1.1.3:**        *Acceptable Lower LOS.* A lower LOS may be acceptable immediately before and after special events where the impacts of such events on the roadway system are infrequent.

**Policy 1.1.4:**        *Design of Major Roadways.* All major roadways shall be designed as complete transportation corridors, incorporating bicycle, pedestrian and transit features to achieve a true multi-modal system. [9J-5.019 (4)(c)5, F.A.C.]

**Policy 1.1.5:**        *Coastal Evacuation.* The City's roadway network must provide a safe and rapid means of coastal evacuation of its citizens, consistent with the *Coastal Management Element* of this *Plan*.

**Policy 1.1.6:**        *Discouraging Local Traffic and I-95.* The City shall continue to coordinate with FDOT in developing and implementing policies to

discourage local traffic from using I-95 in order to maintain its function as an intrastate transportation network. [9J-5.019(4)(c)13, F.A.C.]

**Policy 1.1.7:** *Projected Transportation System Demand and LOS.* Projected transportation system demand will be met and the LOS standards cited above will be maintained through the year 2030 by undertaking the projects listed on Table II-10. The City will cooperate and extensively coordinate with the State, the County and the TPO to ensure that these improvements are implemented by the dates indicated, and as the need develops. Proposed developments within the City will be monitored to determine if roadway infrastructure will be adequate to service projected demand, and development approvals will be dependent upon these criteria.

**Policy 1.1.8:** *Designation of Riverside Drive as a Constrained Facility.* The City shall, in cooperation with FDOT, the ECFRPC, the TPO and the City of New Smyrna Beach, designate Riverside Drive as a constrained roadway. The City shall continue to work with the County and New Smyrna Beach to maintain the adopted level-of-service on this facility.

**Objective 1.2:** *Roadway Connectivity.* Ensure through the development review process, require the provision of an efficient traffic circulation pattern. [9J-5.019 (4)(b)1, F.A.C.]

**Policy 1.2.1:** *Establishing Design Cross Sections.* By December 2014, the City shall establish design cross sections for local roads in the Land Development Code that accommodate narrower rights-of-way and roadway widths consistent with traditional neighborhood development.

**Policy 1.2.2:** *Dedicating Roadways to the Public.* The City shall require that roadways be dedicated to the public when there is a compelling public interest for the roadways to connect with existing public roadways. [9J-5.019 (4)(c)4, F.A.C.]

**Policy 1.2.3:** *Access Point Requirement for Subdivisions of 25 Units or More.* The City shall require that subdivisions of 25 units or more have at least two (2) points of access open to motor vehicle traffic, unless precluded from adjacent existing development, natural features and/or other code requirements. [9J-5.019 (4)(c)2, F.A.C.]

**Policy 1.2.4:** *“Stub-out” Requirement and New Subdivisions.* New subdivisions shall be required to “stub-out” to adjoining undeveloped lands to promote road connectivity, and to connect to existing roadways that are “stubbed-out” at their boundaries. [9J-5.019 (4)(c)2, F.A.C.]

**Policy 1.2.5:** *Joint-use Driveways and/or Cross Access Easement Requirement.* New development shall be required to establish joint-use driveways and/or cross access easements to access sites when feasible and/or



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determined by the City's Development Services Department. [9J-5.019 (4)(c)2, F.A.C.]

**Policy 1.2.6:** *Parallel Roads or Cross Access Easements.* The City shall preserve the movement function of the major thoroughfare system by requiring development of parallel roads or cross access easements to connect developments as they are permitted along major roads. [9J-5.019 (4)(c)1, F.A.C.]

**Policy 1.2.7:** *Technical Review Committee.* The City shall review through the Technical Review Committee process all proposed development for consistency with future transportation projects listed on Table II-6 and for the implementation of the City's *Bicycle and Pedestrian Master Plan*.

**Policy 1.2.8:** *Offstreet Parking.* The City shall require new development to submit a site plan that provides for adequate offstreet parking and safe, convenient on-site and off-site traffic flow for motorized and non-motorized vehicles. [9J-5.019(4)(c)3 and (4)(c)15, F.A.C.]

**Objective 1.3:** *Multi-Modal System.* Promote alternative modes of transportation to provide a safe and energy efficient multi-modal system. [9J-5.019 (4)(b)1, F.A.C.]

**Policy 1.3.1:** *Public Transit, Bicycle and Pedestrian System Standards.* By December 2014, the City shall develop standards in the Land Development Code for access to public transit, bicycle and pedestrian systems. The City shall conduct a public meeting with VOTRAN and residents of Edgewater in establishing these standards. Such standards shall apply to new developments, substantial improvements of existing developments, and to road improvements. [9J-5.019 (4)(c)5, F.A.C.]

**Policy 1.3.2:** *Maximum Number of Parking Spaces.* By December 2014, the City shall develop standards in the Land Development Code for maximum number of parking spaces to encourage walking, bicycling, ridesharing, transit use and shared parking. [9J-5.019 (4)(c)1 and (4)(c)5, F.A.C.], F.A.C.]

**Policy 1.3.3:** *Provision of Multi-modal Facilities.* By December 2014, the City shall review the Land Development Code to address the provision of bus stops, bike parking and circulation, pedestrian walkways, and handicap accessible facilities within new developments and existing developments undergoing substantial improvements. Site plan reviews will ensure that intermodal transfers are efficiently implemented.

**Policy 1.3.4:** *Encouraging Increased Land Use Densities and Mixed Uses.* The City shall encourage increased land use densities and mixed uses, consistent with the *Future Land Use Element* (FLUE) to enhance the feasibility of transit and promote alternative transportation modes. [9J-5.019 (4)(c)5, F.A.C.]

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- Policy 1.3.5:**     ***New Development and Compatibility Requirements.*** By December 2014, the City shall amend the Land Development Code to require that new development be compatible with and further the achievement of the *Transportation Element*. Requirements for compatibility may include but are not limited to:
- Orienting pedestrian access to transit centers and existing and planned routes. [9J-5.019 (4)(c)5, F.A.C.]
  - Locating parking to the side or behind the development to provide pedestrian accessibility of building entrances and walkways to the street, rather than separating the building from the street by parking. [9J-5.019 (4)(c)3, F.A.C.]
  - Providing clearly delineated routes through parking lots to safely accommodate pedestrian and bicycle circulation. [9J-5.019 (4)(c)3, F.A.C.]
- Policy 1.3.6:**     ***Landscaping and Streetscaping.*** The City shall include landscaping and streetscaping as roadway design components in order to enhance the function of the road for all users.
- Policy 1.3.7:**     ***Bicycle/Pedestrian Master Plan.*** The City shall continue to maintain and update the *Bicycle/Pedestrian Master Plan*. Priority for new pedestrian and bicycle facilities will be given to those walkways or bikeways where heavy recreational usage is projected, as well as those along roadways between residential areas and schools, which can be implemented concurrently with other roadway improvements. [9J-5.019 (4)(c)5, F.A.C.]
- Policy 1.3.8:**     ***Adequate and Safe Pedestrian Circulation System.*** The City's roadway system management will require implementation and construction of an adequate and safe pedestrian circulation system.
- Policy 1.3.9:**     ***Sidewalk Concurrency and New Development.*** The City shall continue to require that sidewalks be constructed concurrently with new development, by the developer. Additional sidewalks will be constructed in existing developed areas when requested and funded by the abutting property owners. [9J-5.019 (4)(c)5, F.A.C.]
- Policy 1.3.10:**    ***Sidewalk Requirement and New Residential Development.*** The City shall continue to require that new residential developments with densities of one (1) or more dwelling units per acre provide sidewalks on both sides of every street. In lieu of sidewalk installation, funds may be paid to the Pedestrian System (Sidewalk) Development Fund. [9J-5.019 (4)(c)5, F.A.C.]
- Policy 1.3.11:**    ***Bike Paths Requirement.*** Bike paths shall be established on one side of every arterial and collector street with sidewalks established on the opposite side of all arterial streets. The City shall coordinate with the

TPO, the County, and the State to expand the current bicycle system consistent with the improvements listed on Table II-4, especially the extension of the U.S. 1 bike path south of its current terminus. [9J-5.019 (4)(c)5, F.A.C.]

**Policy 1.3.12:** ***Pedestrian Friendly Intersections.*** Whenever possible, intersections shall be made pedestrian-friendly by limiting the crossing width to 48-feet; use of adequate lighting; adequate timing for traffic signals; and the provision of facilities for the handicapped. The City shall coordinate with FDOT and the County to implement this policy. [9J-5.019 (4)(c)5, F.A.C.]

**Policy 1.3.13:** ***Arterial and Collector Roadway Design and Mass Transit.*** In review of roadway improvement programs and land development projects, the City shall address whether arterial and collector roadway design should allow for later adaptation to mass transit. [9J-5.019(4)(c)9 and (4)(c)12, F.A.C.]

**Objective 1.4:** ***Rights-of-way.*** Coordinate with the County and the State to protect, prioritize and acquire future rights-of-way in accordance with the City's future transportation plan. [9J-5.019 (4)(b)5, F.A.C.]

**Policy 1.4.1:** ***Adoption of the Future Transportation Map.*** The City shall adopt the *Future Transportation Map* to ensure the protection of future rights-of-way. [9J-5.019 (4)(c)4, F.A.C.]

**Policy 1.4.2:** ***Requiring Dedication of Needed Rights-of-way.*** The City shall continue requiring dedication of needed rights-of-way from new development, through subdivision regulations and applicable local ordinances. [9J-5.019 (4)(c)4, F.A.C.]

**Policy 1.4.3:** ***Consistency of Setback Requirements, Zoning Restrictions and Right-of-way Protection Requirements.*** By December 2014, the City shall amend the Land Development Code so that the setback requirements, zoning restrictions and right-of-way protection requirements are consistent with this *Element*. [9J-5.019 (4)(c)4, F.A.C.]

**Policy 1.4.4:** ***Protection for Intersections, Interchanges, and Future Park and Ride Sites.*** The City shall ensure adequate rights-of-way protection for intersections, interchanges, and future park and ride sites in order to retain flexibility for future growth and expansion. [9J-5.019 (4)(c)4, F.A.C.]

**Policy 1.4.5:** ***Minimum Right-of-way Requirements.*** The City shall require the minimum rights-of-way requirements for new roadways as specified below:

- Arterial Roadways – 150-foot right-of-way;

- Collector Roadways – 100-foot right-of-way; and
- Local Roads – 60-foot right-of-way (open drainage) and 50-foot right-of-way (curb and gutter). [9J-5.019 (4)(c)4, F.A.C.]

**Policy 1.4.6:** *Median Landscaping and Road Beautification.* The City shall pursue grant opportunities for median landscaping and road beautification.

**Policy 1.4.7:** *Protection of Rights-of-way.* The City shall prohibit encroachment of development and required setbacks into established present and future rights-of-way and, within the law, require dedication of rights-of-way through development orders issued by the City by withholding building permits or certificates of occupancy, as appropriate, until the situation is resolved. [9J-5.019(4)(c)4, F.A.C.]

**Policy 1.4.8:** *Building Encroachments.* The City shall continue to provide for protection of rights-of-way from building encroachments as well as providing for the acquisition and preservation of any existing and future rights-of-way. [9J-5.019(4)(c)4., F.A.C.]

**Objective 1.5:** *Public Transit.* Continue to work with VOTRAN to provide a safe and efficient public transit system. [9J-5.019 (4)(b)4, F.A.C.]

**Policy 1.5.1:** *Promoting Public Transit.* The City shall encourage land uses and site developments that promote public transit within designated public transportation corridors, with priority given to those projects that will bring the greatest increase in transit ridership. [9J-5.019(4)(c)12, F.A.C.]

**Policy 1.5.2:** *Space for Bus Stop Requirements.* Residential development greater than 200 units or commercial developments over 50,000 square feet shall incorporate space for bus stops. Transit ridership to and from such developments shall be encouraged and further improved by including elements, such as:

- Transit stops meeting ADA requirements;
- Parking lots and intersections designed with minimum corner turning radii for buses;
- Clearly delineated walkways from the building to the transit stop; and
- Commercial and multi-family buildings and transit stops placed closer to the street. [9J-5.019(4)(c)8 and (4)(c)9, F.A.C.]

**Policy 1.5.3:** *Bus Service and Sufficient Level of Service.* The City shall ensure that all roads serviced by public transit routes function at a level-of-service sufficient to support the bus service. [9J-5.019(4)(c)8, F.A.C.]

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- Policy 1.5.4:**     ***Proposed Traffic Generators/Attractors.*** The City shall notify VOTRAN of any proposed traffic generators/attractors submitted to the City for review. [9J-5.019(4)(c)8, F.A.C.]
- Policy 1.5.5:**     ***Improving Existing and Designing New Bus Stops.*** The City shall work with VOTRAN to improve existing bus stops, and to design new ones to include benches, signage, lights and protection from the elements. Bus stops shall also be convenient for the handicapped.
- Policy 1.5.6:**     ***Maintaining a Fixed Route Mass Transit System.*** The City shall coordinate with Volusia County, the TPO and VOTRAN in maintaining a fixed route mass transit system to serve the City’s industrial, commercial and service sectors. [9J-5.019(4)(c)8, F.A.C.]
- Policy 1.5.7:**     ***Conveyance of all Necessary Rights-of-way or Perpetual Easements.*** The City shall require dedication of rights-of-way or perpetual easements in new development and redevelopment for bus shelters, bus turning radii and bus loading zones (consistent with VOTRAN standards) by requiring conveyance of all necessary rights-of-way or perpetual easements before issuance of building permits for the development. [9J-5.019(4)(c)16, F.A.C.]
- Policy 1.5.8:**     ***Transportation Disadvantaged and the Design of Public Transit.*** The special needs of transportation disadvantaged persons shall be considered in the design of all public transit systems.
- Objective 1.6:**     ***Intergovernmental Coordination.*** Coordinate transportation planning in the City with the plans and programs of the TPO, FDOT, Volusia County, ECFRPC, Volusia Transit Authority, neighboring jurisdictions and other transportation related agencies. [9J-5.019(4)(b)3, F.A.C.]
- Policy 1.6.1:**     ***Review of FDOT’s 5-year Transportation Plan.*** The City’s Development Services and Environmental Services Departments shall review subsequent versions of the FDOT *Five (5)-Year Transportation Plan*, in order to update or modify this *Element*, as necessary. [9J-5.019(4)(c)11, F.A.C.]
- Policy 1.6.2:**     ***Review of the County’s Transportation Element.*** The City’s Development Services and Environmental Services Departments shall review updates to the *Transportation Element* of the *Volusia County Comprehensive Plan*, in order to update or modify this *Element*, as necessary. [9J-5.019(4)(c)11, F.A.C.]
- Policy 1.6.3:**     ***Promoting a Comprehensive Transportation Planning Process.*** The City shall promote a comprehensive transportation planning process that coordinates State, Regional and Local transportation plans. [9J-5.019(4)(c)11, F.A.C.]

- Policy 1.6.4:** *Supporting Alternative Transportation Systems.* The City will support the State and the County on the establishment of alternative transportation systems, including high speed and commuter rail line systems connecting Volusia County with other areas in Florida and the nation.
- Policy 1.6.5:** *TPO Coordination and Population Projections.* The City shall continue to coordinate with the TPO to adjust the population projections used in the model, to make them consistent with the City population projections.
- Policy 1.6.6:** *Transportation Demand Management Strategies.* The City shall coordinate with the TPO on a Congestion/Mobility Management Program to identify Transportation Demand Management strategies to mitigate peak-hour congestion impacts. Strategies may include: growth management and activity center strategies, telecommuting, transit information systems, alternative work hours, carpooling, vanpooling, guaranteed ride home program, parking management, addition of general purpose lanes, channelization, computerized signal systems, intersection or midblock widenings and Intelligent Transportation System. [9]-5.019(4)(c)6 and (4)(c)7, F.A.C.]
- Policy 1.6.7:** *Adoption of Transit Routes, Generators and Hurricane Evacuation Routes.* Transit routes, generators, attractors and hurricane evacuation routes as identified by the Volusia County TPO and the Statewide Regional Evacuation Study are hereby adopted by reference as they apply to the incorporated City of Edgewater.
- Policy 1.6.8:** *TPO Coordination and Numerical Indicators.* The City shall coordinate with the TPO in the establishment of numerical indicators against which the achievement of the mobility goals of the community can be measured, such as modal split, annual transit trips per capita and automobile occupancy rates. [9]-5.019(4)(c)10, F.A.C.]
- Policy 1.6.9:** *Formal and Informal Coordination Mechanisms.* The City shall ensure that all assumptions and policies in the *Transportation Element* are consistent or coordinated with other *Plan Elements*, the TPO *Long-Range Transportation Plan*, the FDOT adopted *Five-year Work Program*, the long-range and short-range elements of the Florida *Transportation Plan*, the East Central Florida *Strategic Regional Policy Plan*, and the Volusia County *Comprehensive Plan* through establishment of formal coordination mechanisms and other informal coordination mechanisms. [9]-5.019(4)(c)11, F.A.C.]
- Policy 1.6.10:** *Utilizing the TPO's Data and the City's Transportation Improvement Plans.* The City shall utilize the TPO database, projections, modeling, traffic counts and mapping as the primary source

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of information for the City's *Transportation Improvement Plans*. [9]-5.019(4)(c)11, F.A.C.]

**Policy 1.6.11:** *Identifying Future Road Conditions and Improvements.* The City shall cooperate with the TPO and FDOT to identify the future conditions and road improvements necessary to develop alternative road bypass route(s). [9]-5.019(4)(c)11, F.A.C.]

**Objective 1.7:** *Traffic Management Systems.* By December 2014, the City shall evaluate the need and feasibility of implementing traffic management systems.

**Policy 1.7.1:** *TPO's Congestion Management System and FDOT's Mobility Management Plan.* The City shall support and where possible, participate in the TPO's Congestion Management System (CMS) and FDOT's *Mobility Management Plan (MMP)*.

**Policy 1.7.2:** *Transportation System Management or Transportation Demand Management Strategies.* If needed, the City shall consider adopting and/or promoting Transportation System Management (TSM) or Transportation Demand Management (TDM) strategies to enhance traffic capacity, movement and safety.

**Objective 1.8:** *Concurrency Management System.* Maintain a Concurrency Management System to ensure that transportation facilities and services needed to support development and redevelopment are available concurrent with the impacts of such development.

**Policy 1.8.1:** *Maintaining Level of Service Standards.* The City shall continue requiring that adequate transportation facilities to maintain the City's level-of-service standards are available to meet the traffic demands of all new development prior to the issuance of a final development order, in accordance with the Concurrency Management Provisions set forth in the *Capital Improvements Element* of this *Plan*.

**Policy 1.8.2:** *New Development Requirement for a Transportation Impact Study.* New developments shall be required to submit a Transportation Impact Analysis pursuant to the *Transportation Impact Analysis (TLA) Guidelines Methodology for Development Applications Requiring a TLA in Volusia County, Florida* as adopted on November 24, 2009, as may be amended from time to time.

**Policy 1.8.3:** *New Development Requirement and Providing Operational Movements.* New developments, regardless of size, shall provide operational improvements to the City's transportation system to mitigate their impacts on the system, to ensure smooth traffic flow, and to aid in the elimination of hazards. Improvements may include the addition of turn lanes, deceleration lanes, signage, signals and pavement markings.

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**Objective 1.9:**        *Concurrency Exception Area.* Evaluate, by December 2014, the need to create a Concurrency Exception Area on the U.S. 1 corridor.

**Policy 1.9.1:**        *Conducting a Study of the U.S. 1 Corridor.* By December 2014, the City shall conduct a study of the U.S. 1 corridor to study the potential for redevelopment and determine whether a Concurrency Exception Area is needed in this area. When determining the potential for redevelopment along the U.S. 1 corridor, the City shall coordinate with the County, neighboring cities, and the TPO to determine the amount of increased traffic if redevelopment was to occur.

**Policy 1.9.2:**        *Consistency with Transportation Modes and Services.* The City shall ensure that existing and proposed population densities, housing and employment patterns, and land uses are consistent with the transportation modes and services proposed to serve those areas.

**Policy 1.9.3:**        *Future Land Use Element and Map Amendments.* As the *Future Land Use Element* and *Maps* are amended and adjusted to reflect changing trends and conditions, corresponding adjustments should be made in the *Transportation Element* and *Plan*.

**Policy 1.9.4:**        *Review of Land Use and Development Proposals.* Land use and development proposals shall be reviewed by the City as to their potential impacts on the traffic circulation system and the adopted LOS standards on affected roadways.

**Policy 1.9.5:**        *Denial of Development and Level of Service.* The City shall deny any proposed development which is determined to adversely impact the roadway system and reduce the LOS below adopted standards, unless roadway improvements necessary to maintain the LOS at its standard and accommodate projected traffic growth will be in place concurrent with the impacts of the proposed development.

**Objective 1.10:**        *U.S. 1 Traffic Flow.* Establish mechanisms that will increase the traffic flow along the U.S. Highway 1 corridor.

**Policy 1.10.1:**        *U.S. 1 Corridor and Joint Use Driveways and/or Cross Access Easements.* By December 2014, the City shall amend the Land Development Code to require redevelopment or new development projects along the U.S. 1 corridor to provide joint-use driveways and/or cross access easements to access sites when feasible. [9J-5.019 (4)(c)2, F.A.C.]

**Policy 1.10.2:**        *Developing Reliever Routes along the U.S. 1 Corridor.* The City shall continue to coordinate with the TPO and FDOT in developing reliever routes to reduce the north-south traffic flow along the U.S. 1 corridor.



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**Policy 1.10.3:** *Proposed Reliever Routes and the Future Transportation Map.* All proposed reliever routes along the U.S. 1 corridor shall be added to the *Future Transportation Map* of this *Element*.

**Objective 1.11:** *Environmental Concern and Expansion of the Transportation System.* Ensure that the environment, with regards to preservation, conservation, and reducing greenhouse gas emissions, is a major concern in any expansion of the transportation system in Edgewater. [9]-5.019(4)(b)1., F.A.C.]

**Policy 1.11.1:** *Natural Environment Sensitivity.* Planning for future transportation improvements shall recognize the sensitivity of the natural environment so as to protect the quality of existing and future neighborhoods.

**Policy 1.11.2:** *Conservation Resource Areas.* Transportation facilities shall not be placed in conservation resource areas or impact those places unless an overriding public need can be clearly demonstrated.

**Policy 1.11.3:** *Energy Efficiency.* Energy efficiency shall be a consideration in any plans for improvements or expansion of the road network by the City.

**Policy 1.11.4:** *Automobile Emission Pollution.* The City shall enforce the guidelines and standards established in the Land Development Regulations regarding bicycle paths and pedestrian walkways to reduce the potential for automobile emission pollution and promote increased use of public transportation.

## GOAL 2:

Coordinate the transportation system with future land use to ensure that existing and proposed land uses are consistent with transportation corridors, capacity, modes and services. [9]-5.019(4)(b)2, F.A.C.]

**Objective 2.1:** *Future Land Use Compatibility.* The *Transportation Element* shall be compatible with the *Future Land Use Element (FLUE)* and the *Future Land Use Map*. [9]-5.019(4)(b)2, F.A.C.]

**Policy 2.1.1:** *Data Assumptions in City Transportation Models.* The City shall utilize population, dwelling unit and employment projections obtained in the *FLUE* as data assumptions in City transportation models.

**Policy 2.1.2:** *Transportation Improvements and Areas Designated for New Growth.* In areas designated for new growth, the City shall determine the transportation system improvements needed prior to development approvals.

**Policy 2.1.3:** *Impacts on the Transportation System and Consistency with the Future Land Use Element and Map.* Decisions and actions the City initiates or implements that will have an impact on the transportation

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system shall be consistent with the adopted *Future Land Use Map* and *Future Land Use* goals, objectives and policies of this *Plan*.

**Objective 2.2:** *Transportation Costs.* Utilize the guidelines established in the City's Proportionate Fair Share Ordinance to allow new growth to proportionally contribute to the cost of new transportation capital facilities.

**Policy 2.2.1:** *Review of all Development Proposals.* The City shall review all development proposals and require that they provide sufficient information to ascertain impacts on the City's transportation systems.

**Policy 2.2.2:** *Development Agreements and Project Impacts.* Where feasible, the City shall enter into development agreements with proposed land developments to establish how project impacts may be addressed through mechanisms such as right-of-way dedication, roadway construction, multimodal design (bicycle, pedestrian, golf cart) and impact fee payments and credits. [9J-5.019(4)(c)4 & (4)(c)5, F.A.C.]

**Policy 2.2.3:** *Proportionate Share of Costs.* Land development shall bear a proportionate share of the cost of the provision of the new or expanded road capital facilities or signalization required by such development. [9J-5.019(4)(c)4, F.A.C.]

**Policy 2.2.4:** *Imposition of Impact Fees.* The imposition of impact fees is a preferred method of regulating land development in order to help ensure that it bears a proportionate share of the cost of road capital facilities necessary to accommodate that development. [9J-5.019(4)(c)4, F.A.C.]

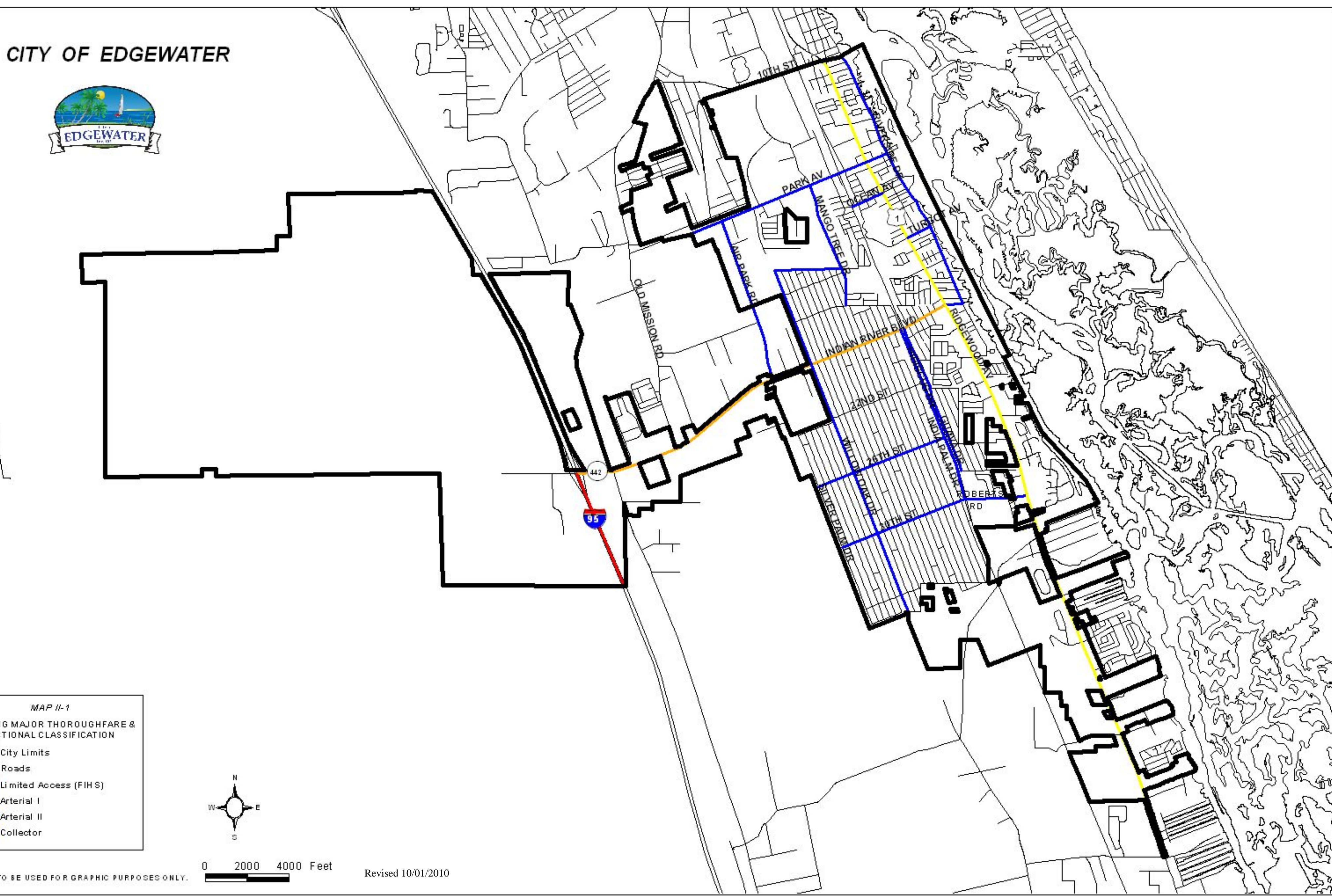
**Policy 2.2.5:** *Use of Remaining Funds Collected from Road Impact Fees.* After compensation for administrative expense, all remaining funds collected from road impact fees shall be used for the purpose of capital improvements for the expansion of transportation facilities associated with the arterial and collector road networks in the City or the adjacent County network.

**Policy 2.2.6:** *Transportation Capital Improvements and Impact Fees.* Transportation capital improvements that may be funded by impact fees include transportation planning, preliminary engineering, engineering design studies, land surveys, rights-of-way acquisition, engineering, permitting, and construction of all the necessary features for arterial and collector road construction projects of the type made necessary by the new development.

**Policy 2.2.7:** *New Development Fair Share Payment.* The City shall require all new developments to pay their fair share for the improvement or construction of needed transportation facilities to maintain adopted level of services standards. Fair share payments will be collected consistent with the adopted Proportionate Fair Share Ordinance.

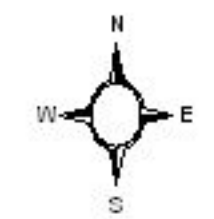


# CITY OF EDGEWATER



**MAP II-1**  
EXISTING MAJOR THOROUGHFARE &  
FUNCTIONAL CLASSIFICATION

- City Limits
- Roads
- Limited Access (FIHS)
- Arterial I
- Arterial II
- Collector



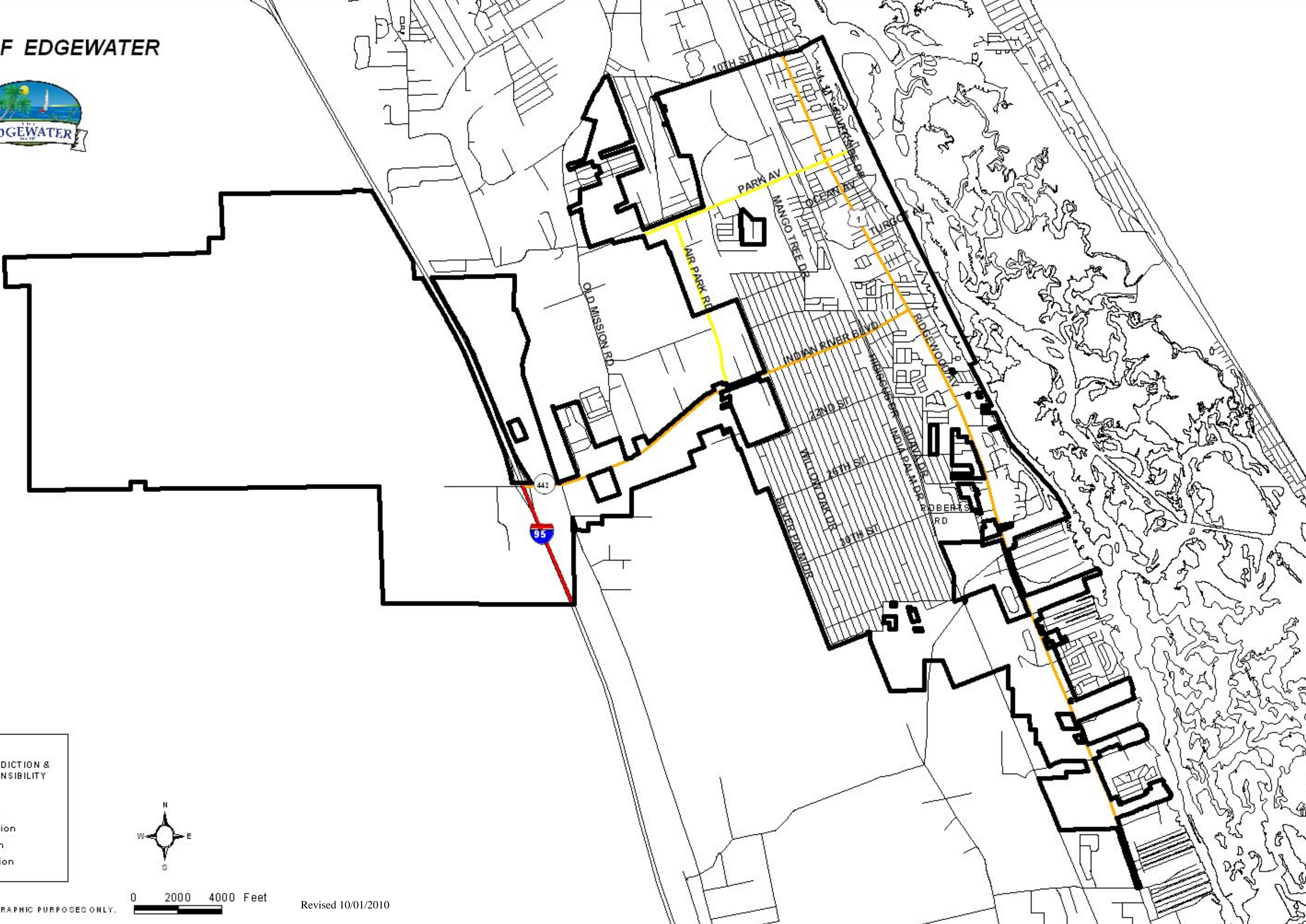
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\* MAP IS TO BE USED FOR GRAPHIC PURPOSES ONLY.

Revised 10/01/2010

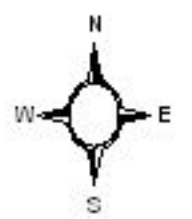


# CITY OF EDGEWATER



**MAP II-2**  
**EXISTING ROAD JURISDICTION & MAINTENANCE RESPONSIBILITY**

- City Limits
- City Jurisdiction
- Federal Jurisdiction
- State Jurisdiction
- County Jurisdiction



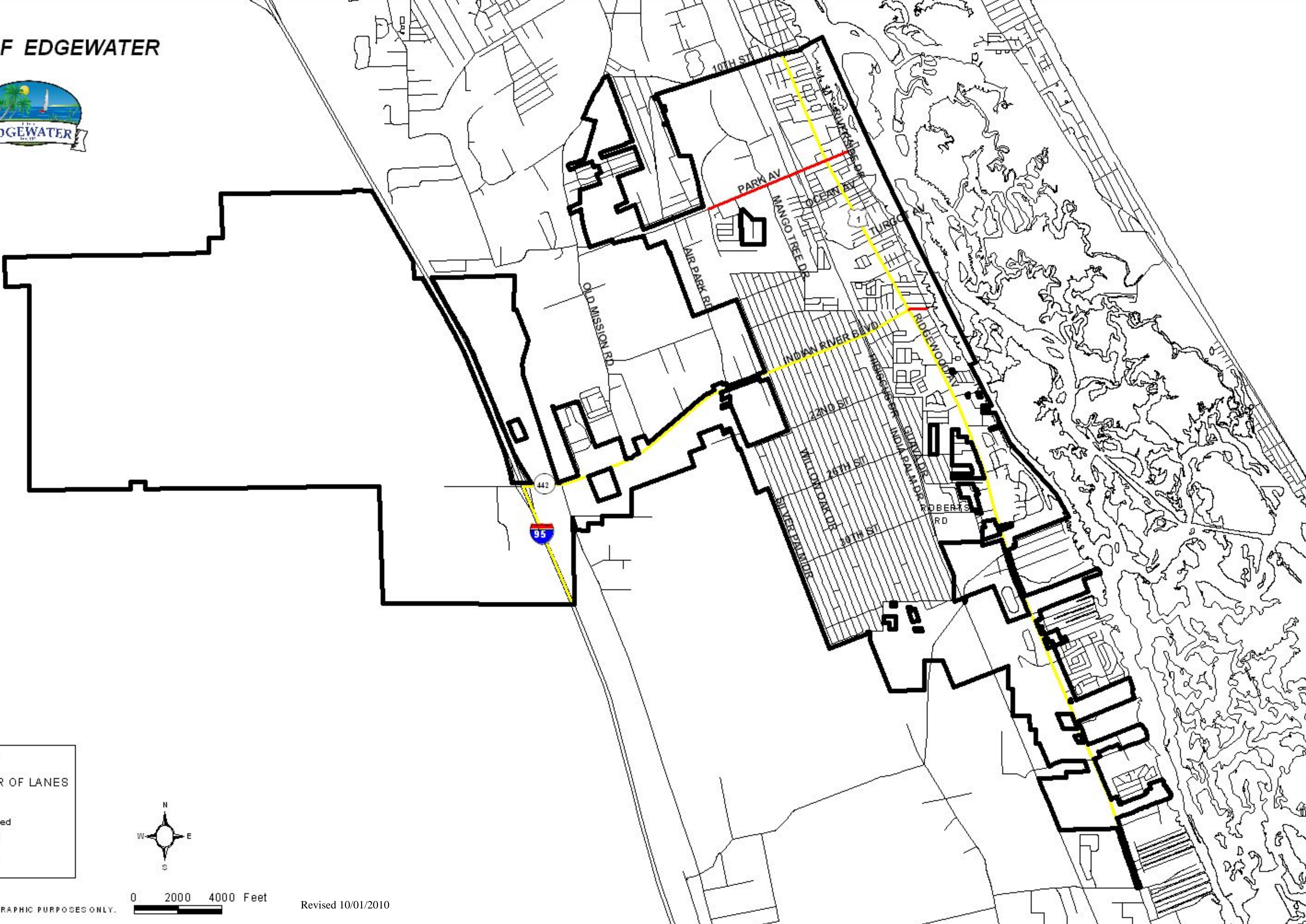
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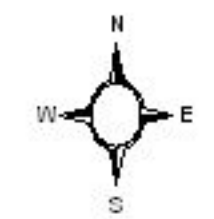


# CITY OF EDGEWATER



MAP II-3  
EXISTING NUMBER OF LANES

- City Limits
- 2 Lane Undivided
- 2 Lane Divided
- 4 Lane Divided



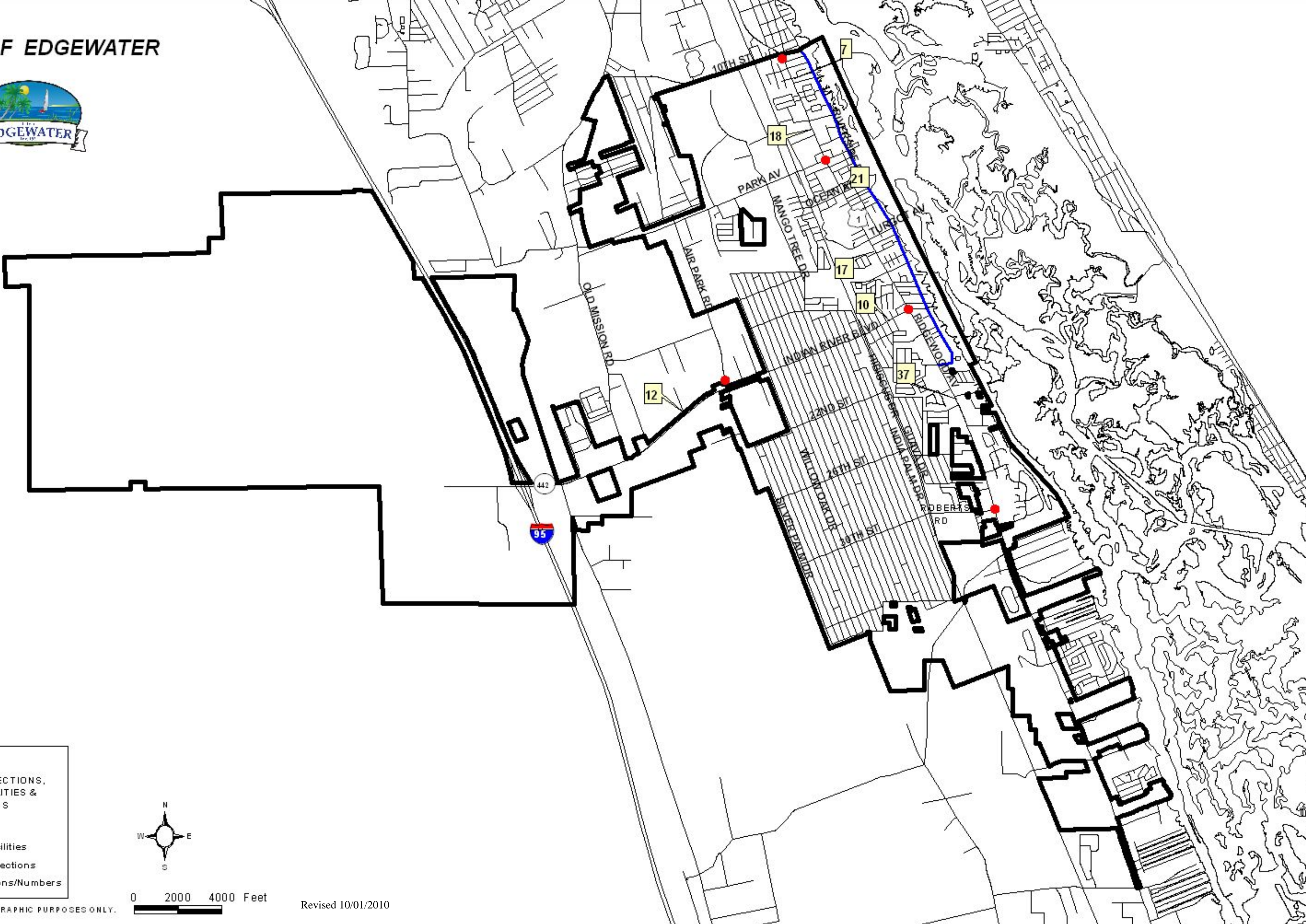
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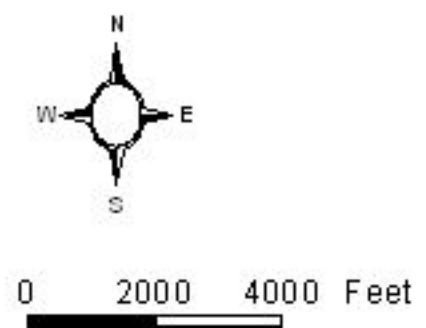


# CITY OF EDGEWATER



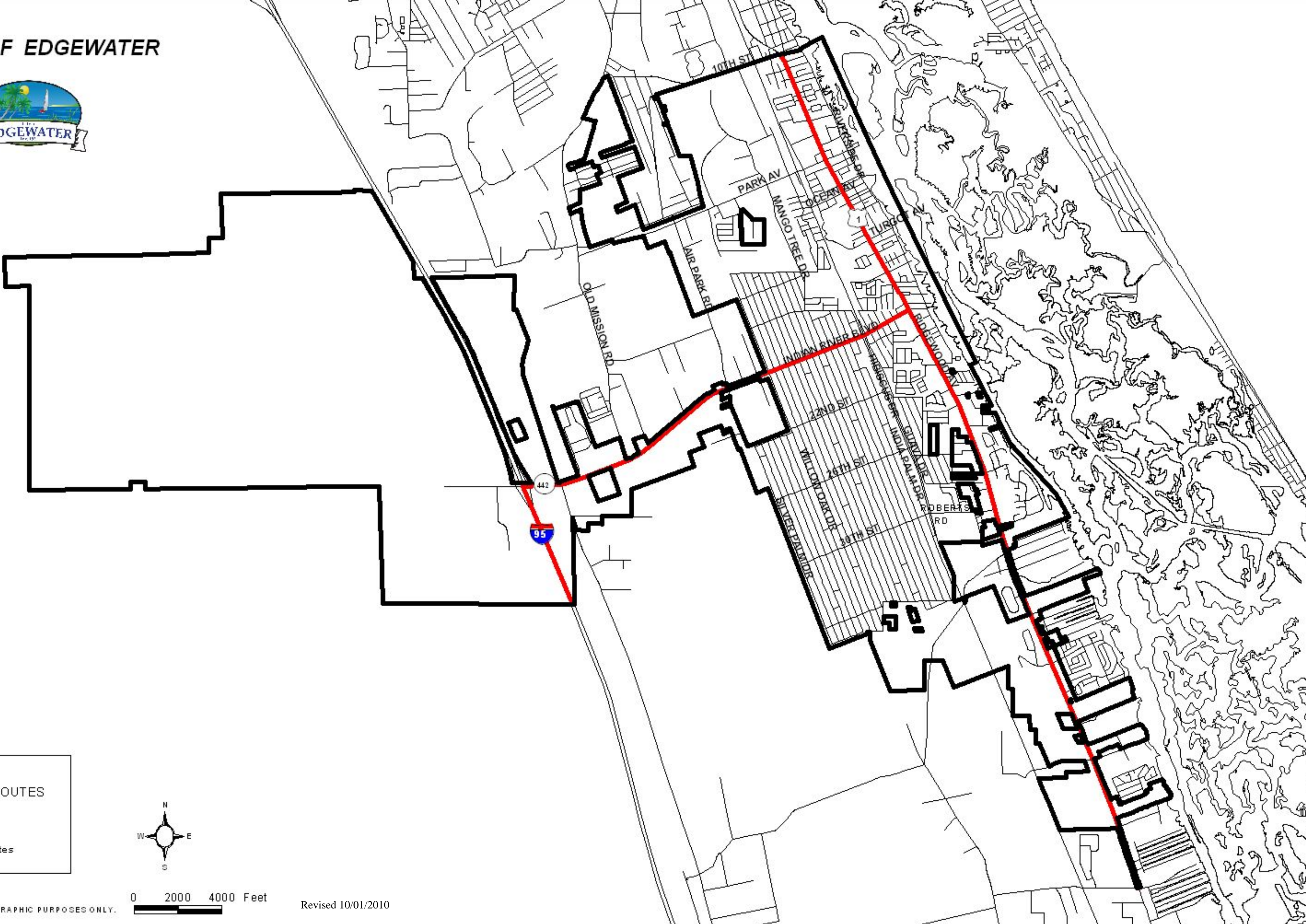
**MAP II-4**  
SIGNALIZED INTERSECTIONS,  
CONSTRAINED FACILITIES &  
ACCIDENT LOCATIONS

- City Limits
- Constrained Facilities
- Signalized Intersections
- Accident Locations/Numbers



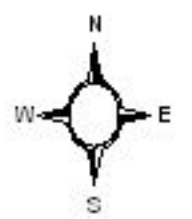


# CITY OF EDGEWATER



MAP II-5  
EVACUATION ROUTES

- City Limits
- Roads
- Evacuation Routes



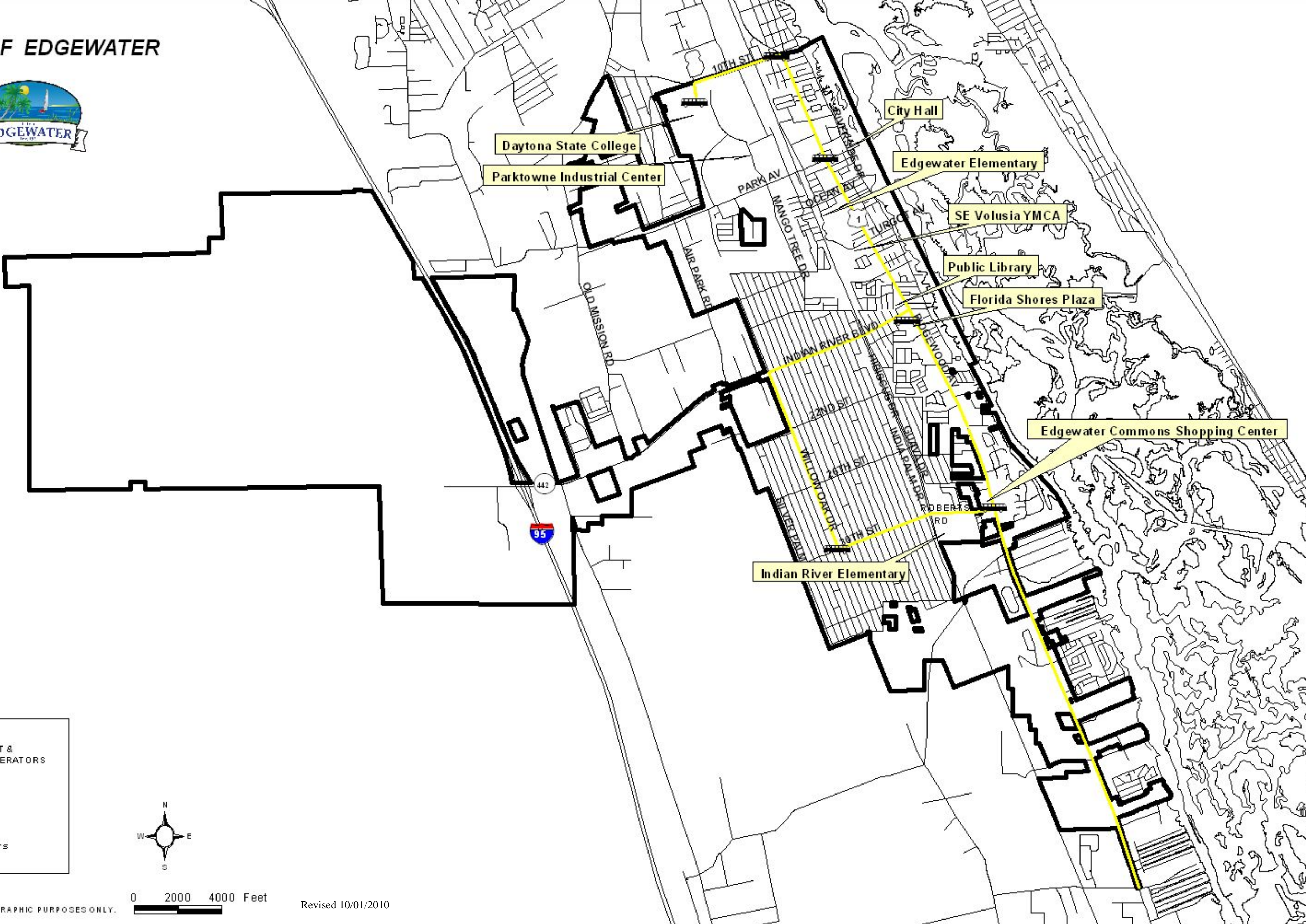
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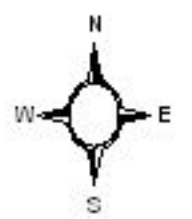


# CITY OF EDGEWATER



**MAP II-6**  
**PUBLIC TRANSIT & MAJOR TRAFFIC GENERATORS**

- City Limits
- Roads
- Bus Routes
- Bus Stops
- Traffic Generators



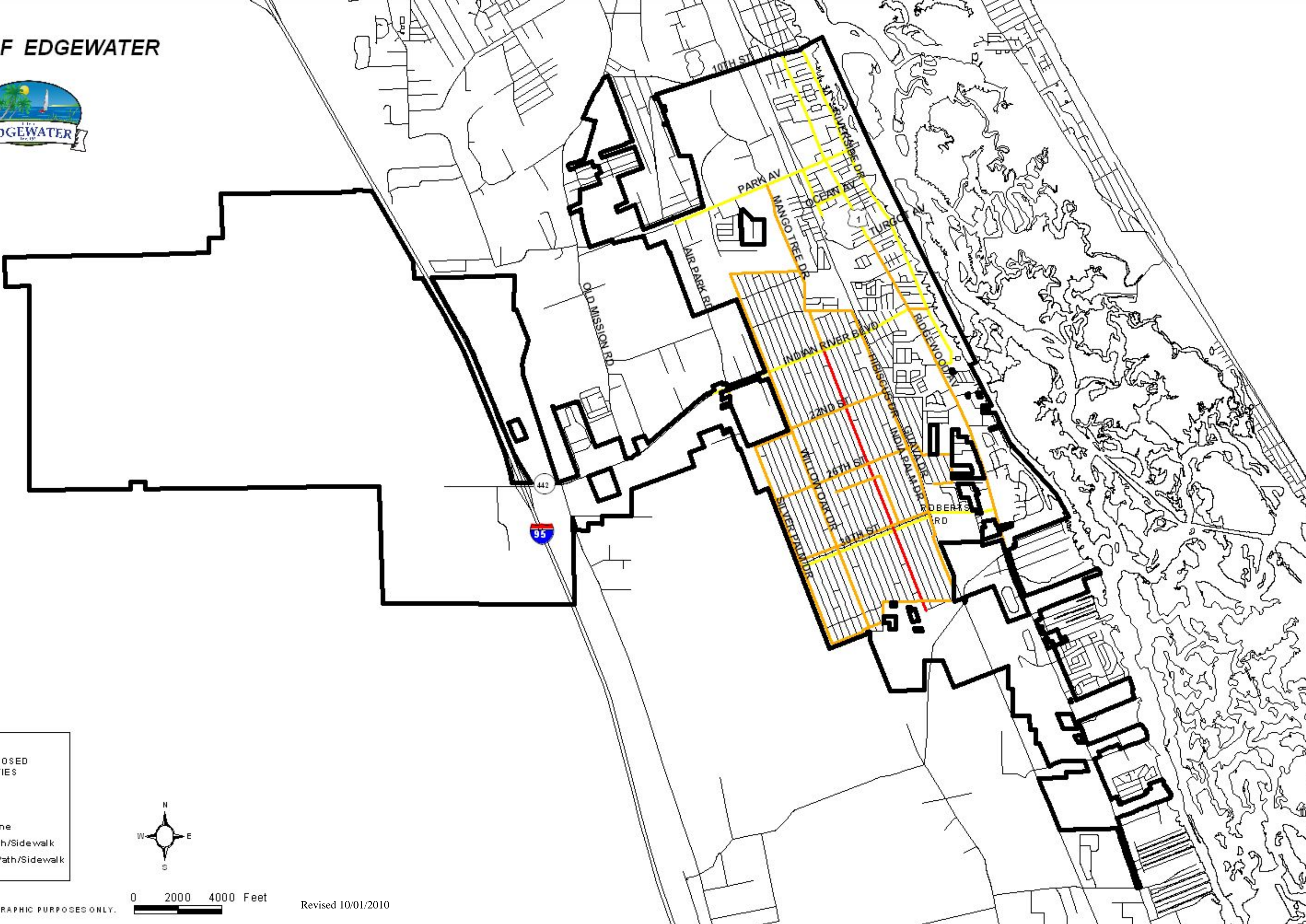
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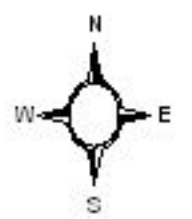


# CITY OF EDGEWATER



**MAP II-7**  
**EXISTING & PROPOSED BICYCLE FACILITIES**

- City Limits
- Roads
- Existing Bike Lane
- Existing Bike Path/Sidewalk
- Proposed Bike Path/Sidewalk



0 2000 4000 Feet

\* MAP IS TO BE USED FOR GRAPHIC PURPOSES ONLY.

Revised 10/01/2010

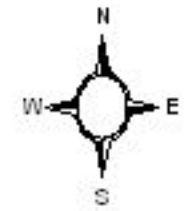


# CITY OF EDGEWATER



MAP II-8  
TRAFFIC ANALYSIS ZONES

- City Limits
- Roads



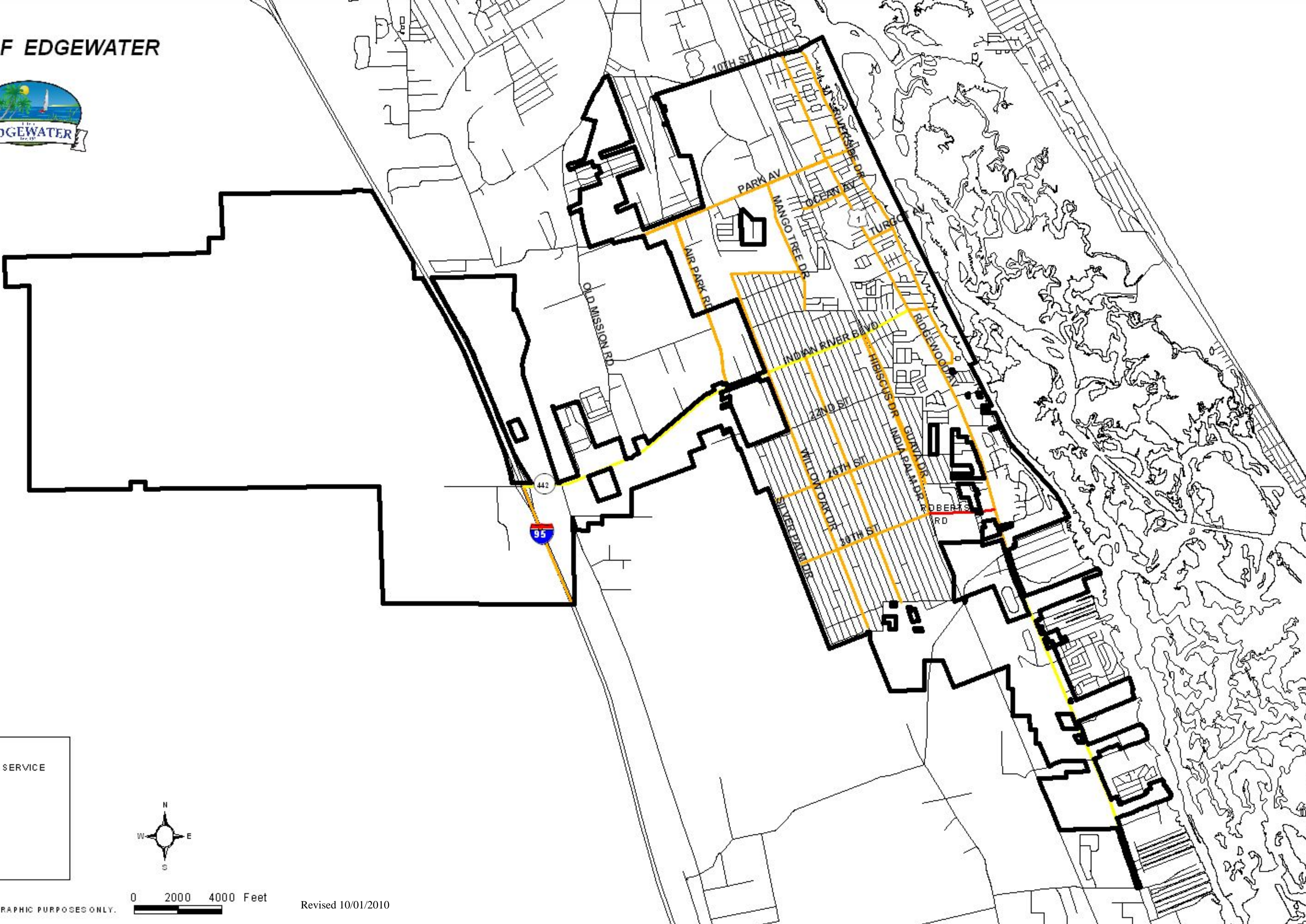
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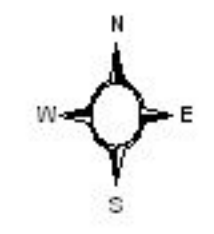


# CITY OF EDGEWATER



MAP II-9  
CURRENT LEVELS OF SERVICE  
(2010)

- City Limits
- Roads
- LOS B
- LOS C
- LOS D



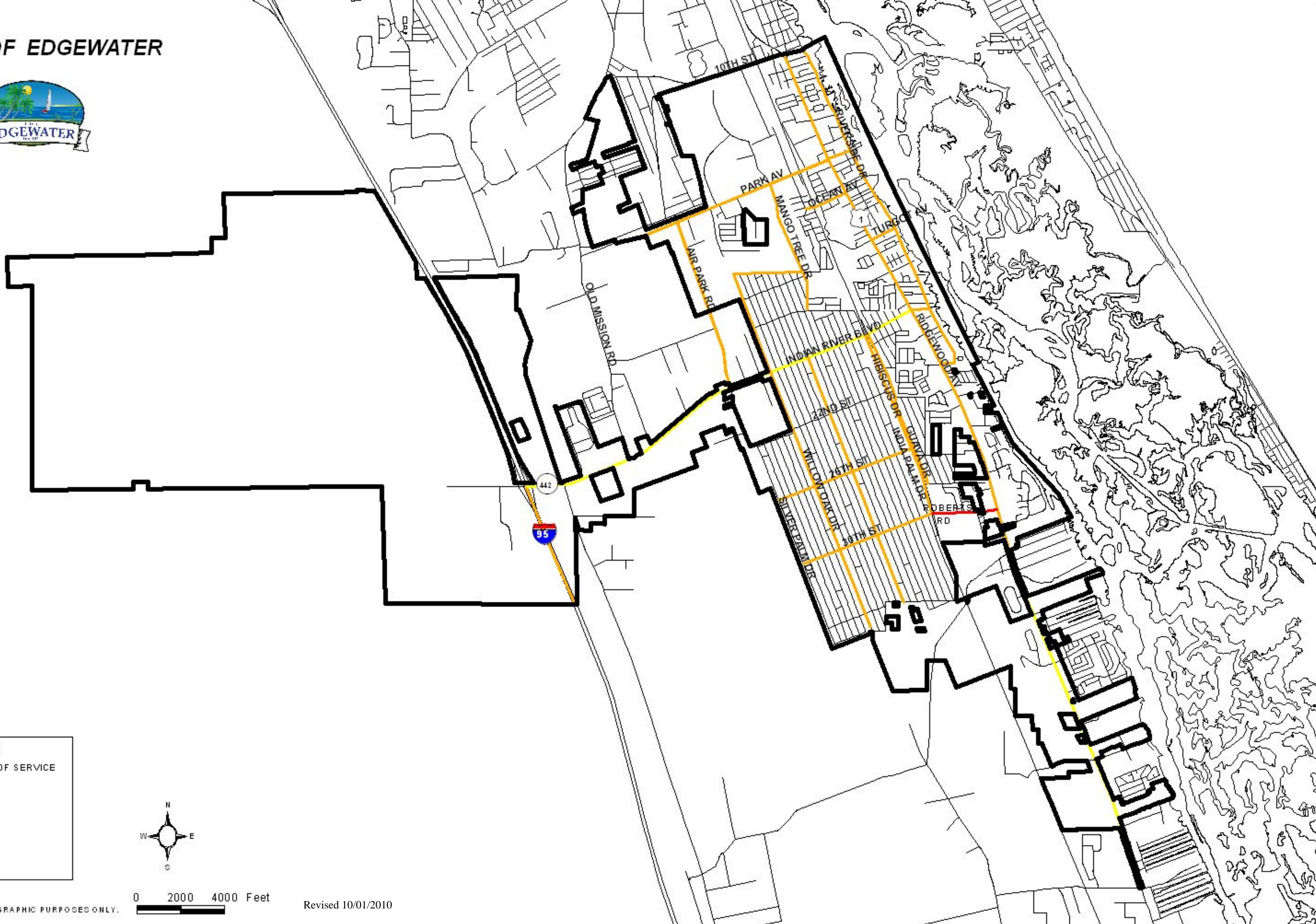
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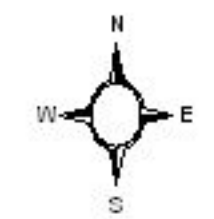


# CITY OF EDGEWATER



MAP II-10  
PROJECTED LEVELS OF SERVICE  
(2030)

- City Limits
- Roads
- LOS B
- LOS C
- LOS D

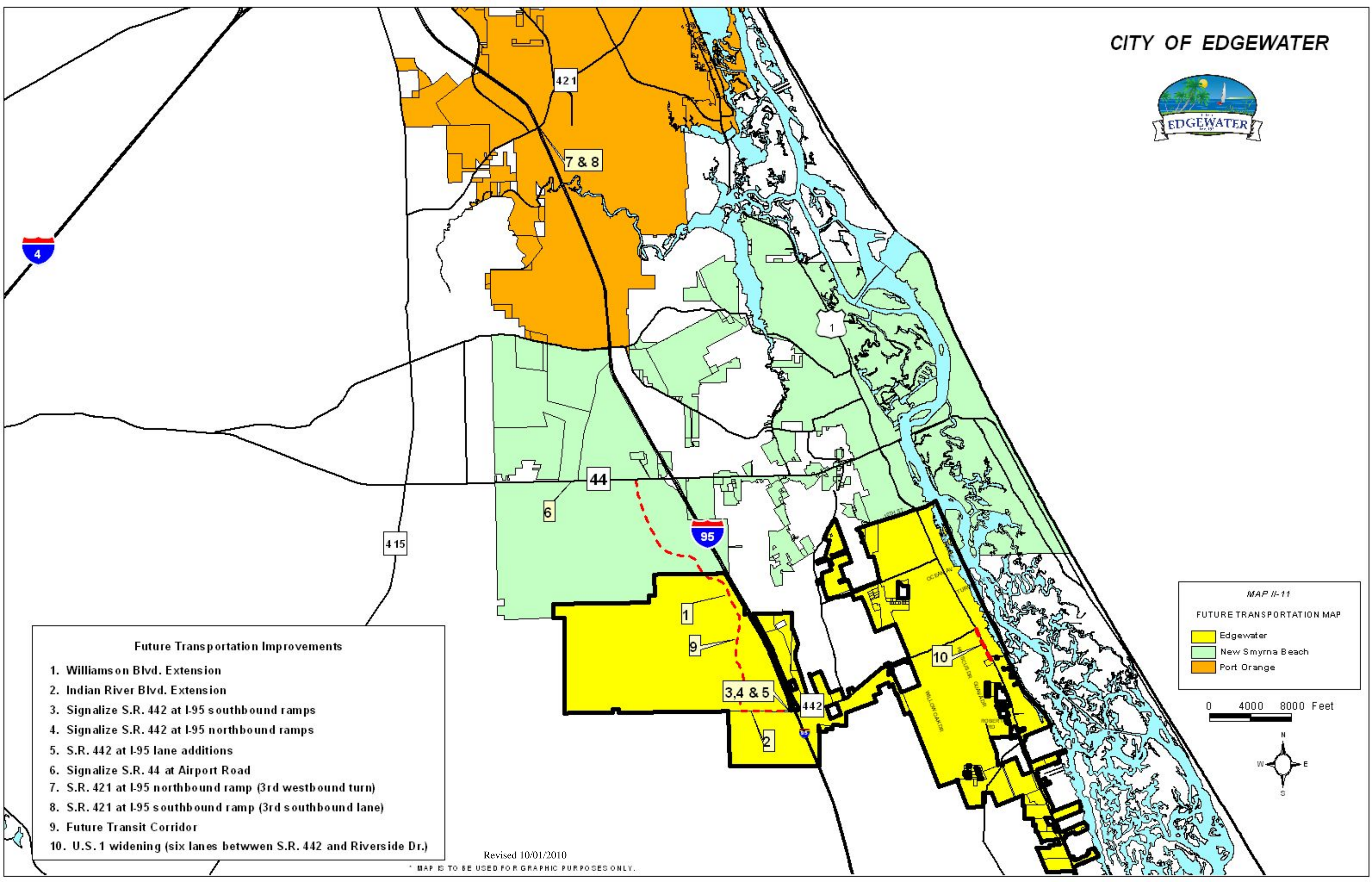


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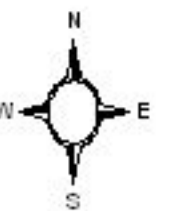


MAP II-11

FUTURE TRANSPORTATION MAP

- Edgewater
- New Smyrna Beach
- Port Orange

0 4000 8000 Feet



Future Transportation Improvements

1. Williamson Blvd. Extension
2. Indian River Blvd. Extension
3. Signalize S.R. 442 at I-95 southbound ramps
4. Signalize S.R. 442 at I-95 northbound ramps
5. S.R. 442 at I-95 lane additions
6. Signalize S.R. 44 at Airport Road
7. S.R. 421 at I-95 northbound ramp (3rd westbound turn)
8. S.R. 421 at I-95 southbound ramp (3rd southbound lane)
9. Future Transit Corridor
10. U.S. 1 widening (six lanes between S.R. 442 and Riverside Dr.)

Revised 10/01/2010

\* MAP IS TO BE USED FOR GRAPHIC PURPOSES ONLY.





**CITY OF EDGEWATER  
COMPREHENSIVE PLAN  
HOUSING ELEMENT  
GOALS, OBJECTIVES AND POLICIES**

**CHAPTER III**

**CHAPTER III  
HOUSING ELEMENT  
GOALS, OBJECTIVES AND POLICIES**

**A. GOALS, OBJECTIVES AND POLICIES**

**GOAL 1:** To encourage and promote the preservation of decent, safe and sanitary housing for the present and future residents of Edgewater.

**Objective 1.1:** *Maintain Quality of Housing Stock.* Continue to extend the life of the existing housing stock, to stabilize neighborhoods and create community pride. [9J-5.010(3)(b)2. F.A.C.]

**Policy 1.1.1:** *Unsafe Building Abatement Program.* The City shall continue enforcing the unsafe building abatement program to reduce the amount of sub-standard housing and preserve the available housing stock. [9J-5.010(3)(c)3, F.A.C.]

**Policy 1.1.2:** *Low-income Residents and Housing Rehabilitation.* The City shall encourage and assist where feasible low-income residents to apply for housing rehabilitation assistance through the County programs.

**Policy 1.1.3:** *Residential Demolitions Waiting Period.* The City shall require a maximum 30-day waiting period for residential demolitions to allow the Planning Department to review, assess and attempt solutions to preserve the dwelling.

**Policy 1.1.4:** *Displaced Residents.* When residents are displaced by City actions through public development or redevelopment, the City shall attempt to ensure that the residents are able to relocate to standard, affordable housing consistent with State and Federal regulations.

**Policy 1.1.5:** *Housing Renovations.* By December 2014, the City shall review the current Land Development Code as it relates to renovations. The regulations should serve to extend the life of the community's housing stock without requiring unnecessary alterations, as long as the intent of the code for new development is met and public health, safety and welfare will not be jeopardized. [9J-5.010(3)(c)3, F.A.C.]

**Objective 1.2:** *Maintain Quality of Life.* Provide mechanisms for the protection of existing residential neighborhoods and the existing quality of life. [9J-5.010(3)(b)2. F.A.C.]

**Policy 1.2.1:** *Prohibiting the Expansion of Non-Compatible Uses.* The City shall implement regulations prohibiting the expansion of non-compatible uses within residential neighborhoods. [9J-5.010(3)(c)3, F.A.C.]

- Policy 1.2.2:**        *Residential Neighborhoods and Incompatible Uses.* The City shall buffer and screen residential neighborhoods from nearby incompatible uses by using landscape buffer yards or transitional uses. [9J-5.010(3)(c)3, F.A.C.]
- Policy 1.2.3:**        *Energy Efficient Housing.* The City shall promote energy efficiency in the design and construction of new housing. [9J-5.010(3)(c)3, F.A.C.]
- Objective 1.3:**        *Promote Infill.* Promote infill development by supporting alternative development standards where necessary and feasible.
- Policy 1.3.1:**        *Inventory of Vacant Lands.* The City shall continue utilizing the most recent parcel database from the Volusia County Property Appraisers Office as a base to monitor and update the inventory of vacant residential lands. Such a system shall include the size, location, physical characteristics and ownership data.
- Policy 1.3.2:**        *Vacant Lands Database.* The City shall make available the vacant lands database to developers and/or builders interested in providing affordable housing.
- Objective 1.4:**        *Historic Preservation.* Strive to preserve structures that have historic, archeological or cultural significance. [9J-5.010(3)(b)5, F.A.C.]
- Policy 1.4.1:**        *Survey of Historically Significant Housing.* The City shall evaluate and update the City’s survey of historically significant structures. The City shall use the most recent Florida Master Site File and the National Register of Historic Places as a base to update the City’s survey of structures that have a historic, archeological or cultural significance. [9J-5.010(3)(c)3, F.A.C.]
- Policy 1.4.2:**        *Identifying and Documenting Historic Structures.* The City shall continue to solicit the support of the Secretary of State, Division of Historic Preservation, and historic preservation societies interested in Edgewater and Volusia County to obtain assistance in identifying and documenting the survey of historic structures in the City. [9J-5.010(3)(c)3, F.A.C.]
- Policy 1.4.3:**        *Protecting Historic Structures.* The City shall continue to protect historic structures identified in the City’s survey of historically significant structures through the regulations established in the Land Development Code. [9J-5.010(3)(c)3, F.A.C.]
- Policy 1.4.4:**        *Historically Significant Housing Rehabilitation and Adaptive Reuse.* The City shall assist in the rehabilitation process and adaptive reuse, where necessary of historically significant housing through technical assistance programs. [9J-5.010(3)(c)3, F.A.C.]



**Policy 1.4.5:** *Assistance Programs and Historically Significant Housing.* The City shall assist property owners of historically significant housing in applying for and utilizing State and Federal assistance programs and for inclusion in the National Register of Historic Places. [9J-5.010(3)(c)3, F.A.C.]

**Policy 1.4.6:** *Rehabilitation or Relocation of Historic Structures.* Criteria pertaining to the rehabilitation or relocation of a designated historic structure shall follow the U.S. Secretary of the Interiors “Standard for Rehabilitation and Guidelines for Rehabilitating Historic Buildings.” Additional criteria for approving the relocation, demolition or rehabilitation of a historic structure shall follow provisions consistent with Florida State Statutes. [9J-5.010 (3)(c)3., F.A.C.]

**Objective 1.5:** *Housing Implementation Program.* Periodically review new and maintain existing programs and/or activities of the intended housing implementation program for the City. [9J-5.010(3)(b)7. F.A.C.]

**Policy 1.5.1:** *Housing Implementation Programs and Activities.* The City shall monitor each program/activity identified for implementation in the adopted *Housing Element* to ensure the timely initiation and execution of such designated housing implementation programs and activities.

**Policy 1.5.2:** *Addressing Affordable Housing Needs.* The City shall support job training, job creation and economic development as a part of the overall strategy addressing the affordable housing needs of the City. [9J-5.010(3)(c)8, F.A.C.]

**Objective 1.6:** *Quality of Housing.* To improve the quality of housing through programs such as code enforcement, building code regulations and grants where appropriate.

**Policy 1.6.1:** *Code Enforcement.* Code enforcement activities shall be increased in neighborhoods where code violations are prevalent to ensure violations are corrected in a timely manner as provided by City code. [9J-5.010(3)(c)3, F.A.C.]

**Policy 1.6.2:** *Housing Subsidy Programs and Substandard Housing.* The City shall continue to seek Federal and State funding for housing subsidy programs and the rehabilitation and/or demolition of identified substandard housing. [9J-5.010(3)(c)4 and (3)(c)7, F.A.C.]

**Policy 1.6.3:** *Blighted Neighborhoods.* Concentrate assistance in blighted neighborhoods by providing capital improvements and/or operating budget improvements in such neighborhoods.

**Policy 1.6.4:** *Removal of Substandard Housing.* The City shall encourage and permit the use of planned unit developments and other innovative reuses

of the existing housing stock that will result in the removal of substandard housing units. [9J-5.010(3)(c)3, F.A.C.]

**Objective 1.7:** *Government Programs.* Continue to ensure that available government programs are being utilized to extend and conserve the useful life of the existing housing stock and provide improvement of neighborhood quality. [9J-5.010(3)(b)2, F.A.C.]

**Policy 1.7.1:** *Urban Revitalization Target Areas.* Designate areas of the City as urban revitalization target areas and carry out the program activities in a timely and efficient manner. [9J-5.010(3)(c)3, F.A.C.]

**Policy 1.7.2:** *Urban Revitalization Grant Programs.* Ensure that urban revitalization grant applications include funding for public infrastructure and support facilities to upgrade the quality of existing neighborhoods. [9J-5.010(3)(c)3, F.A.C.]

**Policy 1.7.3:** *Availability of Relocation Housing and Urban Revitalization.* Prior to urban revitalization program implementation, assurance of relocation housing availability must be provided. [9J-5.010(3)(c)9, F.A.C.]

**Policy 1.7.4:** *Citizen Advisory Groups.* Prior to implementation of governmental programs, create qualified representative citizen advisory groups to provide input to each program administration.

**Objective 1.8:** *Relocation Housing.* Require upon the City's *Comprehensive Plan* adoption and in conformance with Objective 1.7 and Policy 1.7.3 of this *Element*, the availability of relocation housing as a prerequisite of housing revitalization activities. [9J-5.010(3)(b)6, F.A.C.]

**Policy 1.8.1:** *Availability of Relocation Housing.* The availability of relocation housing shall be researched and verified by City staff prior to commencement of any governmental residential revitalization program enacted for the City. [9J-5.010(3)(c)9, F.A.C.]

**Objective 1.9:** *Relocation Needs.* Provide equitable and uniform relocation services for all persons and businesses displaced by governmental action in conformance with the requirements of Chapter 421.55, F.S. [9J-5.010(3)(b)6, F.A.C.]

**Policy 1.9.1:** *Relocation Assistance.* For City-sponsored public projects creating a need for relocation assistance, the City will ensure that relocation payments and assistance are provided to assist in securing adequate housing for the relocated households. For public projects conducted by other government agencies, the City will coordinate with said agency to request that relocation needs and assistance are provided for City residents.

**Policy 1.9.2:** *Relocation Assistance Program.* The City shall require private developers, which cause residential displacement, to implement a

relocation assistance program prior to the issuance of a final development order.

**Objective 1.10:** *Fair Housing Practices.* Continue to promote open occupancy and fair housing practices in the City of Edgewater.

**Policy 1.10.1:** *Housing for Very Low, Low and Moderate Income Persons.* The City shall continue to provide assistance to the Edgewater Housing Authority, Volusia County Housing Authority and other appropriate agencies to determine and develop sites and programs for housing for very low, low and moderate-income persons. [9J-5.010(3)(c)10, F.A.C.]

**Policy 1.10.2:** *Housing Equal Opportunity and Non-discrimination.* The City shall continue to endorse the Federal and State regulations concerning equal opportunity and non-discrimination in housing opportunity.

**Objective 1.11:** *Green House Gas Emissions.* Establish mechanisms to reduce green house gas emissions and encourage the use of renewable resources in the design and construction of new housing. [9J-5.010 (3)(b)8., F.A.C.]

**Policy 1.11.1:** *Green Development.* The City shall promote the highest feasible level of “green” development in both private and municipally-supported housing. Green development specifically relates to the environmental implications of development. Green building integrates the built environment with natural systems, using site orientation, local sources, sustainable material selection and window placement to reduce energy demand and greenhouse gas emissions.

**Policy 1.11.2:** *Energy Efficiency.* The City shall require energy-efficient and water saving measures to be implemented in all new construction and redevelopment projects.

**Policy 1.11.3:** *Renewable Energy Systems.* By December 2014, the City shall provide on its website guidelines that promote the benefits of installing renewable energy systems in City. The City shall continue to provide educational materials regarding energy efficiency, sustainable design, and climate change that encourage community residents and business owners to invest in energy-efficiency improvements through community outreach efforts. [9J-5.010 (3)(c)12., F.A.C.]

**Policy 1.11.4:** *Establishing Green Building and Sustainability Practices.* By December 2014, the City shall amend the Land Development Regulations to establish green building practices and sustainability development guidelines.

**Policy 1.11.5:** *Energy Conservation Techniques.* The City shall promote energy conservation techniques such as Federal Energy Star Standards, as consistent with the requirements of the Florida Building Code.

- Policy 1.11.6:** *Building Orientation.* The City shall encourage building orientation that maximizes energy efficiency and fosters the use of alternative energy sources where appropriate, such as solar or small wind energy systems, to reduce the demand for electricity and reduce greenhouse gas emissions.
- Policy 1.11.7:** *Orientation of Trees and Shrubs.* Encourage appropriate orientation of trees and shrubs on a development site to reduce cooling loads by taking advantage of evapotranspiration and shade.
- Policy 1.11.8:** *Florida Friendly Landscaping.* Maximize natural areas and assets and incorporate Florida Friendly landscaping into development projects to reduce energy and water consumption.

**Objective 1.12:** *Housing Opportunities for Rural and Farm Worker Households.* Provide housing opportunities for rural and farm worker households within agricultural areas. [9]-5.010(3)(b)(1), F.A.C.]

- Policy 1.12.1:** *Available Lands for Farm Worker Households.* The City shall ensure that adequate agricultural lands needed to support the rural and farm worker household demand during the short-range (2011-2015) and long-range (2030) planning period are designated on the *Future Land Use Map*. The City shall also continue to provide a diversity of housing types to accommodate all income groups, including those employed by agricultural businesses. [9]-5.010(3)(c)(5), F.A.C.]

**GOAL 2:** To ensure an adequate supply of a wide range of housing types at various levels of affordability to accommodate the needs of the residents of the City of Edgewater.

**Objective 2.1:** *Adequate Housing.* Assist the private sector to provide sufficient additional dwelling units of various types, sizes and costs needed to support the population demand during the short-range (2011-2015) and long-range (2030) planning periods.

- Policy 2.1.1:** *Providing Technical Support to the Private Sector.* The City shall provide technical support to the private sector to assist in maintaining a housing production capacity level sufficient to meet the demand. Technical support includes, but is not limited to, assistance with meeting the development review requirements of the City and of other regulatory bodies, referral to appropriate agencies for information and assistance in meeting infrastructure standards and requirements imposed by the City, and provision of data regarding housing needs and conditions. [9]-5.010(3)(c)1, F.A.C.]
- Policy 2.1.2:** *Future Land Use Map and Sufficient Sites.* The City shall designate sufficient sites on the *Future Land Use Map* to accommodate the projected housing demand at various densities. [9]-5.010(3)(c)11, F.A.C.].
- Policy 2.1.3:** *Discouraging Private Sector Participation and Meeting Housing Needs.* By December 2014, the City shall review building codes, zoning

ordinances, and land subdivision regulations to determine if there are excessive requirements that would discourage private sector participation in meeting housing needs. [9J-5.010(3)(c)1, F.A.C.]

**Policy 2.1.4:** *Streamlining the Permitting Process.* By December 2014, the City shall review the City's regulatory and permitting process to determine whether there is a need to continue streamlining the process.

**Policy 2.1.5:** *Location of Mobile Homes.* The City shall continue to allow mobile homes in certain residential zoning districts where adequate public facilities and services are available. Mobile homes shall meet current Federal energy regulations where feasible. Mobile home parks should be located adjacent to areas with a comparable density of development or near small-scale convenience or neighborhood commercial activity, in areas accessible to arterial and collector roads; and, they should be located within reasonable proximity to community facilities. [9J-5.010(3)(c)5, F.A.C.]

**Policy 2.1.6:** *Permitting Modular Homes.* The City shall continue to allow modular homes in residentially zoned areas, provided that such housing is compatible with surrounding development and meets applicable building code regulations. [9J-5.010(3)(c)5, F.A.C.]

**Policy 2.1.7:** *Crime Prevention Through Environmental Design (CPTED).* The City shall encourage CPTED principles in order to increase the safety of housing developments.

**Policy 2.1.8:** *Mobile Home Parks and Traditional Residential Subdivisions.* By December 2014, the City shall amend the subdivision regulations to upgrade development requirements for all new mobile home parks and traditional residential subdivisions.

**Policy 2.1.9:** *Providing Adequate Infrastructure.* The City shall continue providing adequate supporting infrastructure, i.e., paved streets, sanitary sewer, drainage, potable water, etc, throughout Edgewater to enhance and compliment the City's housing stock. [9J-5.010(3)(c)5, F.A.C.]

**Policy 2.1.10:** *Local Government Partnerships and Private Sector.* Develop local government partnerships with the private sector to improve the efficiency, affordability, availability and supply of safe and sanitary housing within the City, placing emphasis on the needs of the very low, low and moderate income families and those of the elderly [Rule 9J-5.010(3)(c)1, F.A.C.].

**Objective 2.2:** *Low Income Residents.* Assist the private sector and appropriate agencies in providing safe, clean and affordable housing for current and future very low, low and moderate income residents of the City of Edgewater. [9J-5.010(3)(b)1, F.A.C.]

- Policy 2.2.1:**      ***Definition of Affordable Housing.*** The City hereby adopts by reference the following definition for affordable housing from the Land Development Code.
- Affordable Housing:* Residential units priced so that monthly costs do not exceed thirty (30) % of the household gross income.
- Policy 2.2.2:**      ***Constraints on the Development of Very Low, Low and Moderate Income Housing.*** By December 2014, the City shall review and revise its Land Development Regulations to remove excessive constraints on the development of very low, low and moderate-income housing projects, where such constraints are not supported by a valid concern for the health, safety, or welfare of the community.
- Policy 2.2.3:**      ***Providing Technical Assistance to Non-profit Agencies.*** The City shall provide technical assistance to non-profit agencies to plan and develop low-cost housing. Technical assistance includes, but is not limited to, assistance with meeting the development review requirements of the City and of other regulatory bodies, referral to appropriate agencies (including City agencies and other agencies) for information and assistance in meeting infrastructure standards and requirements.
- Policy 2.2.4:**      ***Establishing an Affordable Housing Trust Fund.*** The City shall review the Land Development Code and determine the feasibility of establishing an Affordable Housing Trust Fund to assist very low and low-income families in the provision and maintenance of housing.
- Policy 2.2.5:**      ***Density Bonuses and Affordable Housing.*** The City shall review the Land Development Code to develop incentives to promote affordable housing by determining the feasibility of establishing a program of density bonuses in return for developer contributions to affordable housing. Density bonus criteria including, but not limited to, bonus amount, eligible future land use categories, receivable eligibility conditions and affordability standards shall be adopted in the *Comprehensive Plan*. Density bonuses shall not be allowed within the Coastal High Hazard Area. Developers shall have the option of either providing affordable housing on the same site or contributing to the Affordable Housing Trust Fund established in Policy 2.2.4.
- Policy 2.2.6:**      ***Reducing Infrastructure Charges and Fees and Affordable Housing.*** The City shall review the Land Development Code to develop incentives to promote affordable housing by reducing the infrastructure charges and fees associated with very low, low and moderate-income housing projects. In addition, consideration should be given to providing funds to offset fees in situations where they cannot be reduced. The City shall encourage the County to assist in this effort as the provision of housing needs benefits the larger area as well as the City itself. [9]-5.010(3)(c)2, F.A.C.]

- Policy 2.2.7:** *Permitting Very Low, Low and Moderate Income Housing.* Very low, low and moderate-income housing shall be permitted in all residential Future Land Use designations. [9J-5.010(3)(c)5, F.A.C.]
- Policy 2.2.8:** *Expedited Development Review Process and Low Income Housing.* The City shall review the Land Development Regulations to determine the feasibility of establishing an expedited development review process for housing projects dedicated to very low and low income households. [9J-5.010(3)(c)2, F.A.C.]
- Policy 2.2.9:** *Concentration of Affordable Housing Units.* The City shall avoid the concentration of affordable housing units only in specific areas of the City. [9J-5.010(3)(c)5, F.A.C.]

**Objective 2.3:** *Low Income Families and Mobile Homes.* The City, through adoption and implementation of the *Housing Element* and *City Zoning Map*, shall provide adequate and appropriate densities and sites for very low, low and moderate income families and mobile homes. [9J-5.010(3)(b)3, F.A.C.]

- Policy 2.3.1:** *Providing Adequate Housing Sites.* The City, upon the adoption of the *Comprehensive Plan* and official *Zoning Map*, in conformance with the time frames specified in Chapter 163, Florida Statutes, shall provide adequate housing sites for very low, low and moderate income families and mobile homes. [9J-5.010(3)(c)5, F.A.C.]
- Policy 2.3.2:** *Ensuring Proper Location for Special Needs Housing.* Pursuant to the formal adoption of the City's *Comprehensive Plan*, *Land Development Code* and *Zoning Map*, the specific principles and criteria established within each guidance mechanism shall be effectively implemented to ensure proper location for very low, low and moderate income housing, mobile homes, group homes and foster care facilities, households with special housing needs, and rural and farmworker housing, to include necessary infrastructure and public facilities to support such development. [9J-5.010(3)(c)5, F.A.C.]

### GOAL 3:

To provide housing opportunities for people with special needs, such as children, the elderly and the physically and/or mentally disabled.

**Objective 3.1:** *Special Needs Groups.* Ensure that adequate sites in residential areas are available to accommodate special needs populations. [9J-5.010(3)(b)4, F.A.C.]

- Policy 3.1.1:** *Location of Community Residential Homes.* The City shall maintain Land Development Regulations that allow for the location of community residential homes, including group homes, and foster care facilities in residential areas in accordance with applicable Florida Statutes. These



facilities shall serve as alternatives to institutionalization. [9J-5.010(3)(c)5. and (3)(c)6, F.A.C.]

- Policy 3.1.2:**      ***Development Review Process and Housing for Special Need Populations.*** The City shall utilize the development review process to review any proposed projects or City Code amendments that impact housing for special need populations.
- Policy 3.1.3:**      ***Supporting Organizations that Assist Elderly and Handicapped Citizens.*** The City shall continue to support organizations that assist elderly and handicapped citizens in finding decent, accessible and affordable housing. Such support may include technical assistance and alternative design standards and code requirements.
- Policy 3.1.4:**      ***Compliance with Federal and State Laws and Special Needs Groups.*** The City shall continue to ensure compliance with Federal and State laws on accessibility for special needs groups.



**CITY OF EDGEWATER  
COMPREHENSIVE PLAN  
UTILITIES ELEMENT  
NATURAL GROUNDWATER &  
AQUIFER RECHARGE SUB-ELEMENT  
GOALS, OBJECTIVES AND POLICIES**

**CHAPTER IV**

NATURAL GROUNDWATER AQUIFER RECHARGE

**CHAPTER IV - UTILITIES ELEMENT  
NATURAL GROUNDWATER AQUIFER RECHARGE SUB-ELEMENT  
GOALS, OBJECTIVES AND POLICIES**

**A. GOALS, OBJECTIVES AND POLICIES**

Goals, objectives and policies are crucial to the implementation of the *Comprehensive Plan* and each of the elements and sub-elements. They represent important official statements of public policy that will be used to manage the future growth of the City.

Periodically, current City practices and the following natural groundwater aquifer recharge sub-element goals, objectives and policies will be reviewed for conformity.

**GOAL 1:** The City will protect and maintain the functions of natural groundwater aquifer recharge areas within the City's existing and future service areas.

**Objective 1.1:** *Intergovernmental Coordination.* Coordinate with the St. John's Water Management District (SJRWMD), Volusia County and State agencies to protect and enhance recharge capabilities of areas within the City's current and future service areas.

**Policy 1.1.1:** *Delineating Areas of Highest Recharge.* The City will work in cooperation with the SJRWMD and Volusia County to delineate areas of highest recharge potential in the City's current and future service areas.

**Policy 1.1.2:** *Designating Recharge Areas as Conservation Areas.* The City shall designate the areas of greatest recharge potential as conservation areas on the City's *Future Land Use Map (FLUM)*. [9J-5.011 (2)(c)4., F.A.C.]

**Objective 1.2:** *Protection of Aquifer Recharge.* Require the protection of aquifer recharge areas through development and implementation of appropriate regulations. [9J-5.011 (2)(b)5., F.A.C.]

**Policy 1.2.1:** *Stormwater Runoff to Enhance Recharge.* The City's Land Development Code provisions related to retaining stormwater runoff to enhance recharge shall be enforced and updated from time to time as data is obtained and under guidance and rules of the SJRWMD. [9J-5.011 (2)(c)4., F.A.C.]

**Policy 1.2.2:** *Promoting Stormwater Runoff Retention.* The City will promote the use of stormwater runoff retention for the purpose of maximizing groundwater aquifer recharge by strictly enforcing the existing Land Development Code.

**Policy 1.2.3:** *Regional Aquifer Recharge Protection.* The City will coordinate with the SJRWMD, Volusia County and State agencies to achieve regional

NATURAL GROUNDWATER AQUIFER RECHARGE

aquifer recharge protection objectives by enacting ordinances which are consistent with County and State standards.

- Policy 1.2.4:** ***Aquifer Recharge Protection and Wellfield Protection.*** The City will continue to achieve regional aquifer recharge protection objectives by enforcing the Land Development Code provisions regarding wellfield protection and updating it from time to time as data is obtained and under guidance and rules of the SJRWMD and Florida Department of Environmental Protection (FDEP). [9J-5.011 (2)(c)4., F.A.C.]
- Policy 1.2.5:** ***Restricting the use of Septic Tank/Drainfield Systems.*** The City will continue to achieve regional aquifer recharge protection objectives by restricting the use of septic tank/drainfield individual sewage treatment systems.
- Policy 1.2.6:** ***Disposal of Hazardous Wastes.*** The City shall continue to enforce County, State and Federal regulations regarding disposal of hazardous waste materials.
- Policy 1.2.7:** ***Prime or High Recharge Areas.*** Prime (or high) aquifer recharge areas appropriate for development shall be developed so as to continue to maintain pre-development net retention and new stormwater management projects in existing developed areas should be designed in a fashion that enhances aquifer recharge. [9J-5.011 (2)(c)4., F.A.C.]
- Policy 1.2.8:** ***Eliminating Sources of Potential Sources of Groundwater Pollution.*** In an effort to eliminate potential sources of groundwater pollution, the City shall coordinate with the County Health Department to compile a listing of all known and suspected underground storage tanks, and to require abandoned or leaking tanks to be removed, repaired, or otherwise neutralized by the land owner at the time of property development, redevelopment, or remodeling.

**Objective 1.3:** ***Protecting the Aquifer.*** Continue to protect the aquifer by reducing the growth in demands for aquifer water.

- Policy 1.3.1:** ***Providing Reclaimed Water.*** The City shall continue to provide for reclaimed water production at its wastewater treatment plants and the development of infrastructure to store and deliver it for non-potable uses such as irrigation.
- Policy 1.3.2:** ***Seeking Alternative Water Supplies.*** The City shall continue to seek alternative water supplies such as stormwater reuse and brackish water. [9J-5.011 (2)(c)3., F.A.C.]

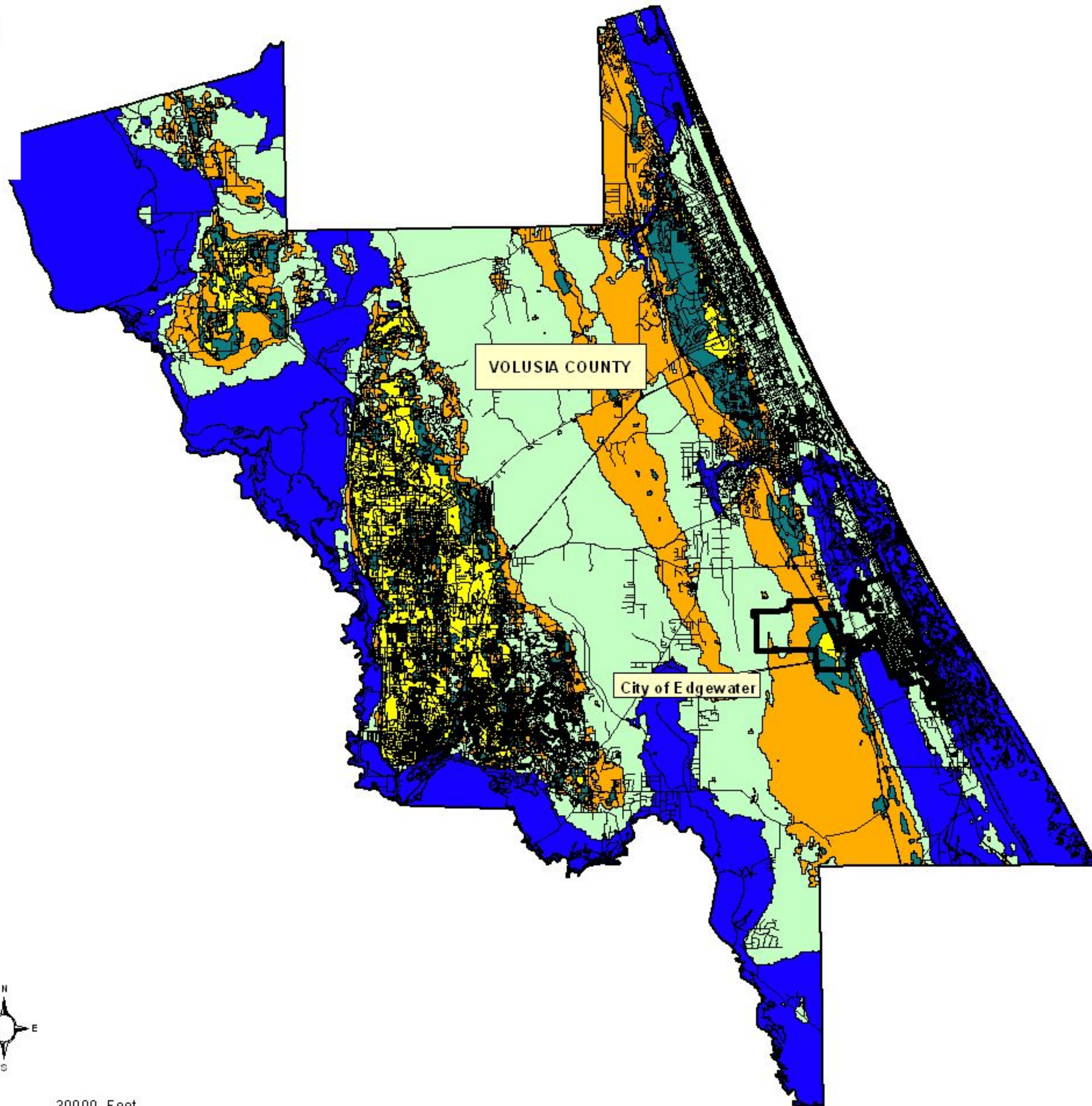
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NATURAL GROUNDWATER AQUIFER RECHARGE

**Policy 1.3.3:** *Developing Additional Users.* The City shall continue to develop additional users for nonpotable water supplies by converting existing users of potable water and private wells.



# CITY OF EDGEWATER

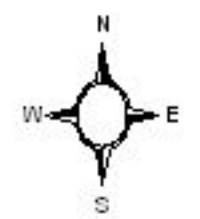


VOLUSIA COUNTY

City of Edgewater

**MAP VI-5**  
**AQUIFER RECHARGE AREAS**  
**IN VOLUSIA COUNTY**

- City Limits
- Roads
- 0-4 Annual Inches
- 4-8 Annual Inches
- 8-12 Annual Inches
- 12-20 Annual Inches
- Discharge Area



0 30000 Feet

\* MAP IS TO BE USED FOR GRAPHIC PURPOSES ONLY.

Revised 10/01/2010





**CITY OF EDGEWATER  
COMPREHENSIVE PLAN  
UTILITIES ELEMENT  
POTABLE WATER SUB-ELEMENT  
GOALS, OBJECTIVES AND POLICIES**

**CHAPTER IV**

**CHAPTER IV - UTILITIES ELEMENT  
POTABLE WATER SUB-ELEMENT  
GOALS, OBJECTIVES AND POLICIES**

**A. GOALS, OBJECTIVES AND POLICIES**

Goals objectives and policies are crucial to the implementation of the *Comprehensive Plan* and each of the *Elements* and *Sub-elements*. They represent important official statements of public policy that will be used to manage the future growth of the City.

Periodically, current City practices and the following *Potable Water Sub-element* goals, policies and objectives will be reviewed for conformity.

**GOAL 1:** The City will provide potable water supply and treatment facilities designed to protect the public health and environment, will cause those facilities to be available concurrent with development and will construct and operate those facilities in an efficient manner.

**Objective 1.1:** *Potable Water Supply and Treatment Capacity.* Ensure that the sufficient potable water supply and treatment capacity exists prior to the issuance of new development approvals. [9J-5.011 (2)(b)4., F.A.C.]

**Policy 1.1.1:** *Average Potable Water Demand Level of Service.* An average potable water demand of 204 gallons per ERU per day is hereby established as the standard level of service for Edgewater’s potable water system. [9J-5.011 (2)(c)2., F.A.C.]

**Policy 1.1.2:** *Determining Capacity Demand.* The established level of service standard of 204 gallons per ERU per day will be used to determine the capacity demand generated by proposed development. [9J-5.011 (2)(c)2., F.A.C.]

**Policy 1.1.3:** *Proposed Improvements and Level of Service Standard.* All proposed improvements to the potable water system, including capacity increase, system expansion, or facility replacement will be consistent with the established level of service standard.

**Policy 1.1.4:** *Concurrency Management System.* Prior to approval of a building permit or its functional equivalent, the City shall determine that there will be adequate water supplies and facilities available no later than the date at which the City anticipates issuing a certificate of occupancy to serve the new development. All development is subject to the City’s Concurrency Management System.

**Policy 1.1.5:** *Inventory of Water Supply Facilities and a Plan for Improvements.* The City shall maintain an ongoing inventory of water supply facilities and a plan for improvements needed to support existing and future



demands. These shall be included in the *Water Supply Facilities Work Plan (WSFWP)*.

**Policy 1.1.6:** *Tracking Current Water Demand and Outstanding Commitments.* The City shall track current water demand and outstanding commitments in order to determine the availability of an adequate water supply for proposed developments.

**Objective 1.2:** *Potable Water Facility Concurrency.* Ensure that all potable water facilities required to support proposed development are available concurrent with such development. [9]-5.011 (2)(b)2. and (2)(b)3., F.A.C.]

**Policy 1.2.1:** *Developers Purchasing Required Potable Water Capacity.* The City will require developers to purchase required potable water capacity prior to obtaining a development permit.

**Policy 1.2.2:** *New Development Requirement and Potable Water Systems.* The City will require each new development to construct the potable water facilities, i.e. transmission and distribution lines, needed to connect to the existing system.

**Policy 1.2.3:** *Adoption of the City's Water Supply Facilities Work Plan.* The City hereby adopts by reference the *Water Supply Facilities Work Plan (WSFWP)* dated April 2009 as prepared by the City of Edgewater (see Attachment A of the *Potable Water Element*). The City will maintain a *WSFWP* for a planning period of not less than ten years. The *WSFWP* addresses issues that pertain to water supply facilities and requirements needed to serve current and future development within the City's water service area. The City shall review and update the *WSFWP* at least every five years. Any changes to occur within the first five years of the *WSFWP* shall be included in the annual *Capital Improvements Plan* update to ensure consistency between the *Potable Water Sub-element* and the *Capital Improvements Element*.

**Policy 1.2.4:** *Restoration DRI Requirements.* The City shall require the Restoration DRI developer to participate in the development of facilities (currently anticipated to be the addition of four Floridan aquifer wells, a storage tank and pump station, raw water transmission lines and additional treatment plant facility for brackish water, an AWS source, to be located at the City's existing water plant) as needed to provide adequate water supply to the future phases of Restoration consistent with the City's concurrency requirements and Consumptive Use Permit. The cost sharing terms and other related details shall be set forth in an enforceable Developer Agreement to be executed prior to the issuance of a building permit that would create water demand exceeding the City's available capacity

**Policy 1.2.5:** *Requirement to Connect to Central Potable Water Systems.* All future development and redevelopment projects shall be required to connect to centralized potable water systems.

**Objective 1.3:** *Facility Operation and Maintenance.* Provide proper operation and maintenance of existing and future potable water system facilities to ensure optimum system performance. [9J]-5.011 (2)(b)1., F.A.C.]

**Policy 1.3.1:** *Operation and Maintenance of the Potable Water System.* The potable water system will be operated and maintained in compliance with applicable local, State and Federal regulations.

**Policy 1.3.2:** *Reporting Potable Water Facility Operating Rules Violations.* The City will promptly report any violations of local, State or Federal potable water facility operating rules to the appropriate agency, and shall take immediate steps to correct any violations.

**Policy 1.3.3:** *Water Treatment Plant Operator Certification.* The City will employ water treatment plant operators with appropriate and current state water treatment plant operator certification.

**Policy 1.3.4:** *Energy and Water Conservation.* The City will continue to calibrate meters, maintain the distribution system, and perform water audits and other maintenance activities as may be determined to be beneficial to energy and water conservation

**GOAL 2:** The City shall plan for the expansion or increase in capacity of the potable water system to meet future needs.

**Objective 2.1:** *Cooperative Planning.* Coordinate with other jurisdictions to avoid duplication of potable water facility construction and operating costs by cooperative planning for service provision to future development.

**Policy 2.1.1:** *Interlocal Agreements and the Provision of Potable Water.* The City will continue to comply with the term of the latest revisions of the interlocal agreement between the City of Edgewater, City of Oak Hill and Volusia County with regard to provision of potable water services to City of Edgewater, City of Oak Hill and Volusia County residents and will continue to coordinate with Volusia County and the City of Oak Hill to update and revise the agreements as needed to ensure its applicability to anticipated future conditions.

**Policy 2.1.2:** *Potable Water System Expansion Requirements.* Priority of expansion of the potable water system shall be:

- a) to protect public health and safety, and/or eliminate serious pollution problems;

- b) to enable full use of existing facilities, by in-fill development in areas of current service availability;
- c) to provide a logical extension of existing facilities and service within the City's service area; and
- d) to provide beneficial and sustainable potable water for new development.

**Objective 2.2:** *Cooperative Planning of Service Providers.* Seek the participation of developers of proposed major developments for cooperative planning of service provisions to future developments.

**Policy 2.2.1:** *Promoting Development Agreements and Concurrency for New Developments.* The City shall promote developer agreements that result in assured utility development programs that will support and establish concurrency for new development within the guidelines of the SJRWMD's *District Water Supply Plan (DWSP)* and the City's *WSFWP*.

**GOAL 3:** The City shall seek to reduce its dependence on Upper Floridan aquifer groundwater as its water supply source for new development.

**Objective 3.1:** *Alternative Water Supply Sources.* Seek alternative water supply sources.

**Policy 3.1.1:** *Developing Alternative Water Sources.* The City will continue coordinating with the SJRWMD in developing alternative water sources pursuant to guidance of the SJRWMD's *DWSP*.

**Policy 3.1.2:** *Processing and Distributing Reclaimed Water.* The City will continue to develop facilities for processing and distribution of reclaimed water.

**Policy 3.1.3:** *Studying Alternative Water Supply Sources.* The City shall study alternative water supply sources as needed to support existing and future demands. These alternative sources shall be included in the *WSFWP*. Additional water supplies required to meet demands not satisfied by traditional groundwater sources will be developed from brackish water sources. Reverse osmosis treatment systems and concentrate disposal facilities will be constructed at the existing water plant site. It is envisioned that up to 2 MGD of brackish water supply and treatment will need to be developed.

**Objective 3.2:** *Reduction of Current Consumption.* Continue to pursue the reduction of current consumption of potable water in the City.

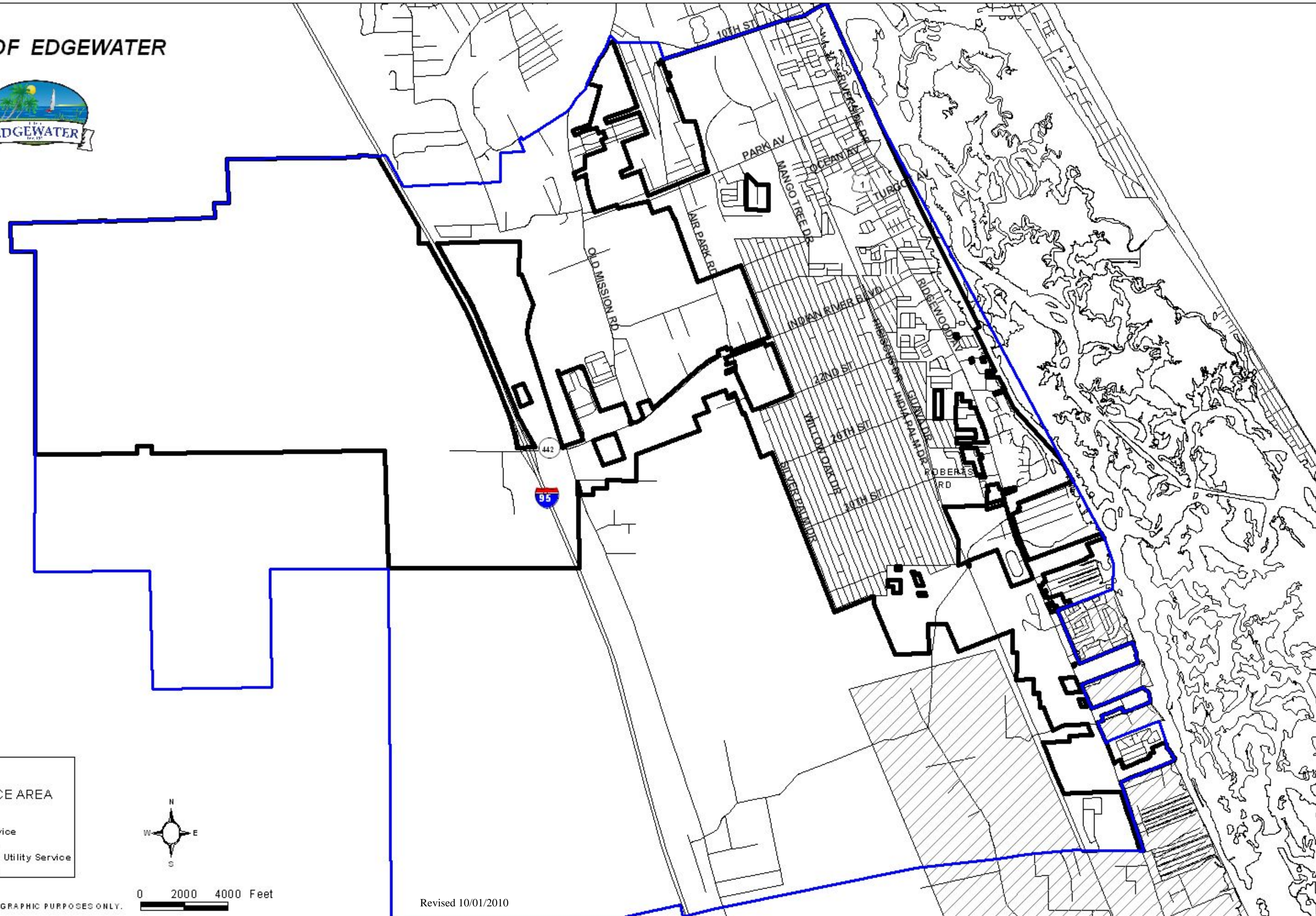
**Policy 3.2.1:** *Irrigation/Water Intensive Regulations.* The City will continue to develop regulations for less irrigation/water intensive landscaping.



- Policy 3.2.2:**     ***Replacing Inefficient Landscapes, Plumbing Devices and Appliances.*** The City will continue to promote programs to replace inefficient landscapes, plumbing devices and appliances.
- Policy 3.2.3:**     ***Promoting Low Impact Development Techniques.*** The City will continue to promote and encourage the use of low impact development (LID) techniques.
- Policy 3.2.4:**     ***Indoor Water Audits, Leak Detection and Irrigation System Audits.*** The City will study the possibility of implementing a program that provides indoor water audits, leak detection and irrigation system audits.

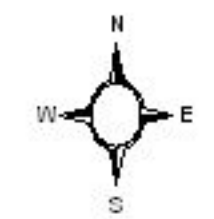


# CITY OF EDGEWATER



MAP 1  
UTILITY SERVICE AREA

- City Limits
- City Utility Service Area Boundary
- Volusia County Utility Service Area Boundary



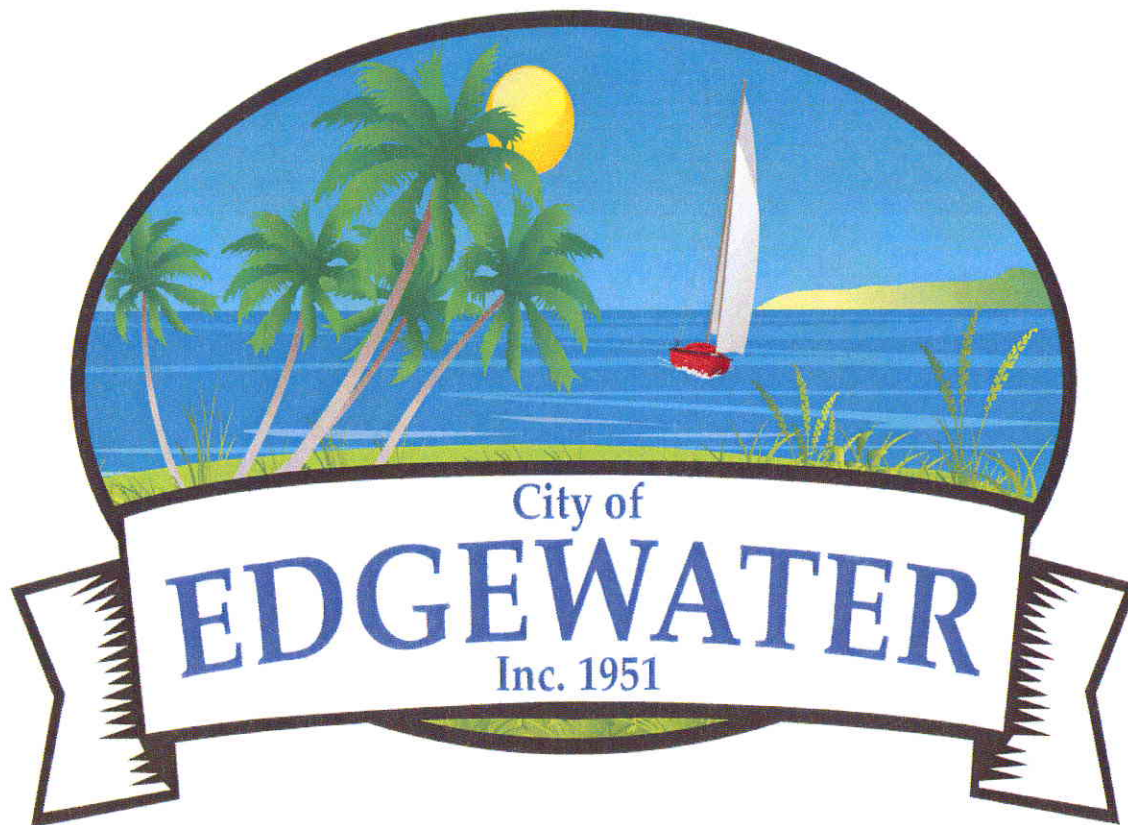
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\* MAP IS TO BE USED FOR GRAPHIC PURPOSES ONLY.

Revised 10/01/2010



CITY OF EDGEWATER, FL



WATER SUPPLY FACILITIES  
WORK PLAN

FY 2008 TO 2018



**CITY OF EDGEWATER  
WATER SUPPLY FACILITIES WORK PLAN  
Fiscal Year 2008 to 2018**

**Introduction**

This Water Supply Facilities Work Plan (Work Plan or FWSWP) is prepared in conformance with Section 163.3184(3)(a) FS and Rule 9J-11.006(1)(a)3 FAC. It is based on the information provided in the Data & Analysis prepared by Quentin Hampton Associates, Inc. relative to water demand projections, the water supply alternatives, the water conservation practices, the reuse practices, and the improvements to facilities that are necessary to meet demands. The Work Plan is the City's plan to meet current water demands and the anticipated growth in demand within its jurisdiction through 2018. The following items are included herein or attached for reference:

- Figure 1 shows the City's utility service area.
- Attachment A - 1999 Interlocal Agreement with Volusia County
- Attachment B – Consumptive Use Permit
- Attachment C – 2007 Tri-Party Agreement (City of Edgewater, City of Oak Hill and Volusia County)
- Attachment D – Data and Analysis as prepared by Quentin L. Hampton Associates

The City of Edgewater owns and operates the Alan R. Thomas Water Treatment Plant (WTP) and related facilities to supply the water needs of the City and a portion of Volusia County. The City of Edgewater provides both wholesale and retail water service. On October 26, 1999, an Agreement was signed to provide wholesale water service to Volusia County. In 2007, a Tri-Party Agreement was executed to provide additional wholesale water service to Volusia County to service areas within the City of Oak Hill. The County owns a distribution system within the southeast quadrant of Volusia County that is dependent upon Edgewater's supply of treated potable water. The areas subject to these agreements are illustrated in Figure 1. The agreements include a transfer of water and establish a rate structure for capacity charges and user fees. The City and County will be updating and revising the agreement to account for future needs.

Magnolia Village is a private provider of potable water within the Edgewater service area. Current use is approximately 50,000 gallons per day (gpd). The area is shown on Figure 1. The owners of Magnolia Village have discussed the possibility of connecting to the City's distribution system, but have not yet decided to do so. The City has cooperated with developers of adjacent subdivisions to ensure the availability of distribution infrastructure when and if Magnolia Village decides to connect, and will continue to do so. The build-out demand of approximately 50,000 gpd associated with Magnolia Village is not included in the City's current projections or CUP.

## **The Potable Water System**

### **Water Treatment Plant**

The City of Edgewater is served by the Alan R. Thomas Water Treatment Facility, which has a rated capacity of 5.0 million gallons per day (mgd). The plant is described as an enhanced lime softening facility. Current demand is less than 50% of plant capacity.

### **High Service Pumping and Storage**

The primary storage and pumping facilities are located at the Alan R. Thomas Water Plant. The plant site includes a 1.0 million gallon reservoir and a site reserved for a future tank of a similar size. The tank is a pre-stressed composite design reinforced concrete structure. It includes a domed roof in order to maintain quality prior to distribution. There are 200,000 gallons of storage in the clear well at the plant and 150,000 gallons in the Kumquat Tower.

The City retains a storage and booster pump station at the old water plant site on Park Avenue. That facility has 600,000 gallons of available storage.

Distribution system pressure is provided by three 200 HP vertical turbine pumps. At the Park Avenue site there are two 100 HP and two 75 HP booster pumps.

### **Water Supply Source**

The City of Edgewater utilizes groundwater from a series of Upper Floridan Aquifer wells as its source of potable water supply. The wells are all located within the City's service area. There are currently 10 wells in two wellfields, 4 wells in the Western Wellfield and 6 wells in the A. R. Thomas Wellfield. The current combined total pumping capacity is 3,300 gallons per minute (gpm) and 4.75 mgd. The firm capacity (largest well out of service) is 2,850 gpm (4.1 mgd). The only other significant potential source of fresh water is the St. Johns River, which is 26 miles away

### **Facility Needs for the Provision of Potable Water**

Over the term of the Work Plan, the City of Edgewater will improve/maintain the existing water production and distribution systems within the service area. The City is also planning for the Restoration DRI project which lies on 5,181 acres of vacant land, annexed in 2005, and is also currently undergoing review within the DRI and Comprehensive Plan Amendment processes. Additionally, the City shall pursue and maintain agreements with Volusia County and the developer of the Restoration DRI for participation in water supply projects pursuant to policies 2.1.1 and 2.2.1 of the Potable Water Element. The projected potable water demands and reclaimed water demand for the City are shown in the following tables:

### Edgewater Potable Water Demand Estimates, (2008 – 2018)

YEAR	Edgewater Primary Service Area	Restoration DRI	Volusia County S.E. Service Area	Total All Areas	CUP Allocation
	(mgd)	(mgd)	(mgd)	(mgd)	(mgd)
2008	1.70	0.00	0.30	2.00	2.39
2009	2.00	0.00	0.30	2.30	2.49
2010	2.05	0.00	0.31	2.40	2.58
2011	2.10	0.10	0.31	2.51	2.66
2012	2.15	0.25	0.32	2.72	2.73
2013	2.20	0.35	0.32	2.87	2.81
2014	2.25	0.45	0.33	3.03	2.89
2015	2.30	0.55	0.33	3.18	2.96
2016	2.35	0.65	0.34	3.34	3.02
2017	2.40	0.75	0.34	3.49	3.07
2018	2.45	0.85	0.35	3.65	3.13

Notes:

(1) 2007 Actual demand was 1.989 mgd

(2) Assumes that occupancy within Restoration commences in 2010

(3) Modification of the CUP allocation will be done if required in 2012 with the 5-Year Compliance Update.

(4) Up to 450,000 gpd may be provided to Volusia County through agreements between the City of Edgewater, Volusia County and the City of Oak Hill.

### Edgewater Reclaimed Water Projections

Year	WWTP Flow (MGS)	Augmentation Capacity (MGD)	Primary Service Area Demand (MGD)	Restoration D.R.I. Demand (MGD)	*Volusia County S.E. (MGS)	Total Demand (MGS)
2008	1.2	1.0	1.21	0	0	1.21
2009	1.33	1.0	1.26	0	0	1.26
2010	1.40	1.0	1.33	0	0	1.33
2011	1.56	1.0	1.39	.31	0	1.70
2012	1.73	1.0	1.45	.41	.20	2.06
2013	1.90	1.0	1.52	.51	.25	2.28
2014	2.07	1.0	1.59	.61	.30	2.50
2015	2.23	1.0	1.64	.71	.35	2.70
2016	2.40	1.0	1.71	.81	.40	2.92
2017	2.56	1.0	1.77	.91	.45	3.13
2018	2.65	1.0	1.83	1.01	.50	3.34

\*Note: Reuse Supply from Volusia County S.E. Regional WWTP



In addition, the City has started planning on alternative water supplies for future demand beyond the term of this Work Plan. The City will coordinate with the Restoration developer in seeking and developing water conservation and AWS activities as follows:

- Promoting existing consumers to incorporate water saving devices or water efficient equipment into their homes
- Participation in infrastructure projects to route reclaimed water to new residential and commercial users and to reconnect existing historical users
- Participation in studies to find and reduce inefficient and wasteful uses of both potable and reclaimed water resources to allow for reduced impacts to the aquifer
- Participation in providing additional surface water supplements to the reclaimed water system to increase system dependability and thereby increase the number of users that can be served
- AWS source(s) as may be needed to fulfill any additional water needs of Restoration
- Additional water supplies required to meet demands not satisfied by traditional groundwater sources will be developed from brackish water sources. Reverse osmosis treatment systems and concentrate disposal facilities will be constructed at the existing water plant site. It is envisioned that up to 2 MGD of brackish water supply and treatment will need to be developed.
- Use of water saving devices, non-potable water sources and conservation measures throughout Restoration to be affirmed through the DRI process.

Water Treatment Plant:

The 5 MGD City of Edgewater Water Plant will not need significant capital expansion improvements in the next 10 years. Anticipated work at the treatment plant includes rehabilitation and replacement (R&R) of existing process equipment, pumps, electrical components and media. The City has budgeted approximately \$300,000 in the FY '08/'09 Capital Improvements Plan (C.I.P.) to construct the necessary R&R work and process upgrades at the WTP.

The City recognizes the likelihood of the Restoration DRI proceeding to approval. Currently under DRI and CPA consideration is the proposal for 8,500 residential units and 3.2 million sq. ft. of retail/commercial/office use. The additional wells, as currently proposed, can physically provide adequate supply for Phase 1 of the DRI. The City will apply for a modification to the CUP to add approximately 1 MGD of groundwater withdrawal to accommodate Restoration upon approval of the proposed CPA and finalization of the development program within the DRI process. The application shall consider the need for additional wells or replacement/relocation of active wells should that be required to provide additional flow without adverse impacts to the aquifer.

The City will coordinate with the Restoration developer and the St Johns River Water Management District (SJRWMD) to develop an assured plan for modifications to the water plant that may use brackish groundwater to provide the additional potable water needs.

Restoration will use alternative water supplies from reuse wastewater and stormwater for irrigation as discussed below. The City and Restoration will enter into an enforceable, executed agreement assuring the timely delivery of additional water supply facilities to support the development and conform to the City's concurrency criteria.

#### Water Supply Wells:

The projected growth of the City requires the installation of new wells to meet increased demand. The proposed additional well facilities as per the approved CUP are included in two improvements projects that are part of the City's Capital Improvements Plan:

1) Wells #17-20

Four new 12-inch diameter water supply wells, access roadways, electrical service and raw water transmission in the A.R. Thomas Wellfield are proposed. The City owns the land.

2) Wells #21-24

Four (4) new 12-inch diameter water supply wells, raw water piping, electric service, telemetry and instrumentation are proposed. Developer of Restoration D.R.I will provide well sites and all above-referenced improvements including paved access to each.

Modification of the CUP allocation will be done if required in 2012 with the 5-Year Compliance Update. Projected demand in 2017 exceeds CUP allocation of 3.50 MGD and is to be addressed with the 2012 Compliance Update.

#### Remote storage tank and pump station projects:

Two remote storage tank and pump station projects are included in the City's 5 year plan.

1) S.E. Service Area Storage Tank and Pump Station

A 1.0 MG storage tank and pump station is proposed for construction to serve new development along the US-1 corridor in the S.E. service area.

2) Restoration Storage Tank and Pump Station

A 1.0 MG storage tank and pump station is proposed for construction to serve the Restoration D.R.I.

#### Reclaimed Water Facilities

The reclaimed water system is a complex collection of structures, pumps, pipes, and valves serving approximately 3,000+/- customers. Typical daily use ranges between 0.8 and 1.7 million gallons (MGD).

The major structural components of the system include three (3) reinforced concrete ground storage tanks that are available to store reclaimed water and water that fails to meet the "public access" standard identified in F.A.C. Chapter 62-610. Reject water can be stored in a dedicated 1.0 MG structure and a dual use 2.25 MG structure. The larger tank can be used for either reject water or water in compliance with the "public access" standard. This dual

use structure was included in the wastewater plant permit. The reclaimed system utilizes a dedicated 2.25 MG structure and the above referenced dual use 2.25 MG tank. Thus during normal operation, the City can store up to 4.5 MG of treated effluent. The availability of storage allows the City to bank water on days of lower demand (rain days) and thus further reduce surface water discharge.

The 21 acre borrow pit adjacent to the WWTP may be used to augment the supply of reclaimed water, via introduction of stormwater to the treatment plant for filtration and disinfection.

System pressurization is derived from seven high service pumps including:

- Two (2) 15-hp pumps (275 gpm),
- Three (3) 60-hp pumps (1,000 gpm), and
- Two (2) 100-hp pumps (1,700 gpm).

This combination of pumps gives the City a delivery rate ranging up to 3,600 gpm (5.2 mgd) while maintaining a pressure level of 70 psi at the plant. At a lower plant residual pressure of 55 psi, an instantaneous flow of 5,000 gpm can be achieved.

The Southeast Volusia Reuse Storage Tank and Pump Station project will enable beneficial recovery of approximately 0.5 MGD of reclaimed water from the Southeast Volusia Regional Wastewater Treatment Plant. This will reduce potable demands by approximately the same amount. The estimated project cost is \$5,000,000. The project is scheduled for construction in FY 2009/2010. Impact fees and SRF loans will fund the project.

### **Facility Needs for the Provision of Reuse or Other Non-Potable Water Supply**

Reclaimed water service to Restoration D.R.I. will be on a wholesale basis. The developer will bear the cost of the design and construction of reuse lines required to service the project unless the City requires that such reuse lines required to service the project be oversized to accommodate uses outside the project, in which case, the City will pay the cost associated with such oversizing. The developer and successors (e.g. HOA) will own and maintain on-site reuse storage, pumping and distribution facilities. On-site facilities will include ponds, pumps and distribution piping. Integrated stormwater/reclaimed water ponds will be used by the developer to satisfy non-potable demands.

Capital projects necessary to serve Restoration and the Volusia County Southeast Service Area include wastewater treatment capacity and reclaimed water storage, pumping and transmission facilities. A capital improvements schedule is included herein. Three projects are proposed to meet these needs and are included in the City's 5-year plan:

1. Water Reclamation Facility Expansion/Addition  
Construction of a 2.5 MGD wastewater plant expansion or new facilities within Restoration.



Estimated Construction Cost = \$15 Million

2. Western Reclaimed Water Transmission

25,000 LF, 18" diameter reclaimed water transmission main from the WWTP to Restoration is required to convey reuse to the site and/or effluent from the D.R.I.  
Estimated Cost = \$3.85 Million

3. Reclaimed Water Interconnection to Southeast Volusia County (SJRWMD Water Supply Development Project #26, DWSP-2005)

Estimated Cost = \$5.35 Million

Reclaimed water transmission mains, storage and pumping facilities are necessary to provide effluent disposal capacity from the County's wastewater plant and irrigation supply to new developments. Design of the project will occur in 2009-2010 and construction is anticipated for 2010-2011.

4. Wastewater Treatment Plant Rehabilitation and Replacement

Estimated Cost = \$6 Million

5. Western Storage Tank and Pump Station

Construction of a 1.0 MG storage tank and pump station is proposed to serve the new D.R.I.

Estimated Cost = \$130,000

The City will pursue grants, developer funding and SRF low interest loans for alternative water supply (AWS) development and to fund reclaimed water expansion programs. 20% cost share participation is available for reclaimed water initiatives. The City intends to pursue funding for eligible projects under this program.

**Other Water Management Activities**

Over the term of the Work Plan, the City of Edgewater will maintain the following water supply source protections:

**Conservation Practices**

The City will continue its program to reduce per capita consumption through conservation measures to provide capacity to serve additional customers. The City's water conservation practices include the following:

- Building code requirements for low water volume fixtures in new construction
- Continuation of City program and participation in the Water Authority of Volusia's (WAV) program for public outreach and education
- Continuation of an active program to encourage the use of low volume toilets

- Meter calibration program for master meters
- Maintenance of the distribution system
- Performing water audits to identify system losses
- Landscape water conservation regulations that provide landscape and irrigation standards
- Adoption of regulations that require installation of water-saving plumbing devices
- Consideration of regulations that override green lawn deed restrictions
- Implementation of incentive programs to replace inefficient landscapes, plumbing devices, and appliances
- Implementation of a program that provides indoor water audits and leak detection and irrigation system audits
- Promoting and encouraging the use of low impact development (LID) techniques.
- Continue to implement and promote the City's current Water Conservation Rate Structure Ordinance.

The 2.5 MGD Water Reclamation Facility Expansion/Addition and Western Reclaimed Water Transmission projects will enable virtually 100% recovery of treated effluent. The estimated construction cost of both endeavors is \$16.5 million and is scheduled for construction between the fiscal years of 2010/2011 and 2012/2013.

### **Reclaimed Water Practices**

The City will continue its program to reduce potable groundwater demand by effectively using reclaimed water for non-potable uses. The City of Edgewater has operated a very successful reclaimed water system and utilizes more than 90% of the available effluent. As a result of the City's reuse effort, the City has achieved virtual total reuse and conserves ground water through its water reclamation program. During the planning period, the City will implement the reclaimed water system interconnection to Southeast Volusia County reuse projects for non-potable water supply selected by Edgewater in response to the District notice subsequent to approval of DWSP 2005. Policies addressing the following items are included within the Comprehensive Plan:

- Require installation of reuse supply lines
- Require connection of new development or substantial redevelopment to a reuse system, to supply uses that do not require potable water
- Use reclaimed water for irrigation and other non-potable needs in public areas owned by the City.

The City will maintain or enact the following reuse practices:

- Maintain the City's practices of using reclaimed water for irrigation
- Maintain the requirement that all new development connect to reclaimed water for irrigation purpose where available.

### **Water Supply Source Protection Practices**

Over the term of the Work Plan, the City will maintain the following water supply source protections:

- Maintain the requirements to protect the surficial aquifer recharge areas
- Design surface water management systems to control stormwater runoff to maximize groundwater recharge
- Maintain the City's requirement on deep aquifer water conservation
- Maintain the City's requirements in the City's Land Development Code for the protection of the aquifer recharge areas and wellfields
- Maintain the requirement that mining activities, resource extraction, junkyards and outdoor storage of hazardous materials and wastes be prohibited in areas that serve to recharge the aquifers
- Require agriculture activities to use best management principles and practices to reduce pesticide and fertilizer run-off.

### **Intergovernmental Coordination Practices**

Over the term of the Work Plan, the City will maintain, enhance or establish agreements with other water suppliers and users:

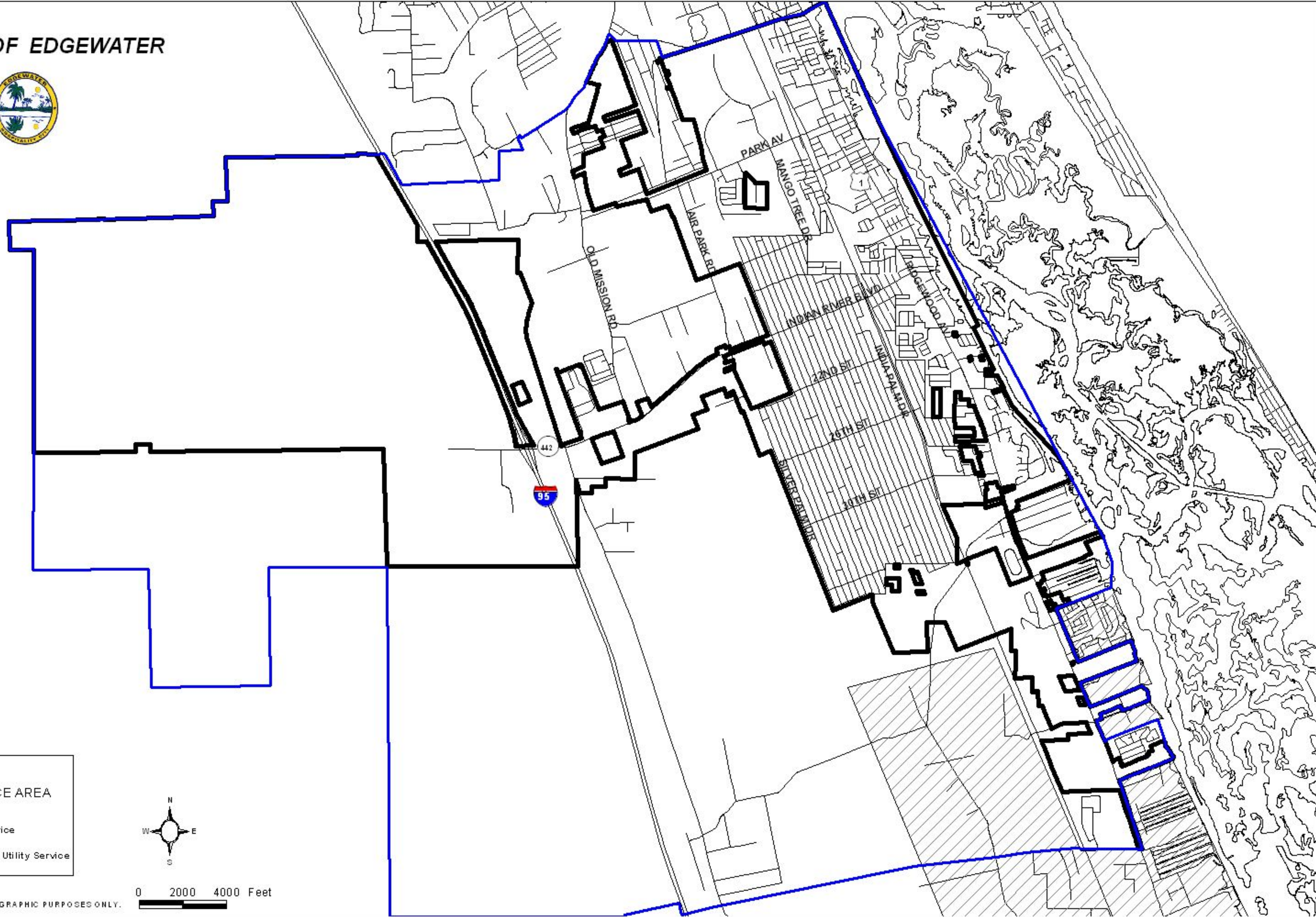
- The City remains a paying member of and will continue to work with WAV on other alternative water supply facilities.
- The City will maintain agreements with Volusia County and the City of Oak Hill to coordinate water use withdrawals for City and County supply needs per Policy 2.1.1 of the Potable Water Element.



# Figure 1

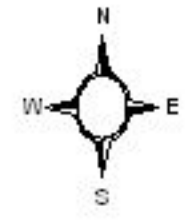


# CITY OF EDGEWATER



MAP IV  
UTILITY SERVICE AREA

- City Limits
- City Utility Service Area Boundary
- Volusia County Utility Service Area Boundary



0 2000 4000 Feet

Revised 06/09  
\* MAP IS TO BE USED FOR GRAPHIC PURPOSES ONLY.



# **Attachment “A”**



**INTERLOCAL WATER and WASTEWATER  
AGREEMENT**

**THIS INTERLOCAL AGREEMENT** is made this 2nd day of September, 1999, by and between the CITY OF EDGEWATER, FLORIDA, a municipal corporation, hereinafter referred to as "Edgewater", and the VOLUSIA COUNTY, FLORIDA, a charter county, hereinafter referred to as "County".

**RECITALS**

**WHEREAS**, Edgewater, presently owns and operates a potable water supply, treatment and distribution system and a wastewater treatment, collection and disposal system within Southeast Volusia County, Florida, for the purpose of furnishing potable water and wastewater services to its customers; and

**WHEREAS**, County presently owns and operates a water supply and distribution system within Southeast Volusia County, Florida, for the purpose of furnishing potable water service to its customers; and

**WHEREAS**, County presently is constructing a new .6 MGD regional wastewater treatment, collection and disposal system for the purpose of providing wastewater treatment service to its customers; and

**WHEREAS**, Edgewater is authorized by Florida law to operate a potable water and wastewater system outside of Edgewater's corporate limits; and

**WHEREAS**, County is authorized by Florida law to operate a potable water and wastewater system within Volusia County; and

**WHEREAS**, the parties entered into an interlocal agreement dated October 3, 1994, which established utility service areas for each jurisdiction, which service areas are unchanged by the subject agreement, and

**WHEREAS**, the parties previously entered into an agreement, dated May 30, 1996, for the purpose of providing potable water service south of Edgewater along US 1 by and between Edgewater and County in anticipation of a future long-term interconnection between the two water systems; and

**WHEREAS**, the parties wish to supersede the May 30, 1996, agreement with this agreement; and

**WHEREAS**, County has a need for additional potable water and Edgewater is willing to meet this need in accordance with the terms of this Agreement.

**WHEREAS**, Edgewater has a need for long-term additional wastewater treatment and disposal and County is willing to meet this need in accordance with the terms of this Agreement.

**WHEREAS**, Edgewater and County agree the most cost-effective method for water and wastewater service to Southeast Volusia County will be a regional approach of Edgewater providing wholesale water service to the County and the County providing wholesale wastewater service to Edgewater.

**NOW, THEREFORE**, in consideration of the mutual promises herein contained, it is agreed as follows:

1. **Incorporation of Recitals.** The foregoing recitals are true and accurate and are incorporated herein by reference.

2. **Defined Terms.** Unless otherwise provided for in this Interlocal Agreement, Capitalized Words and terms shall have the following meanings:

2.1 "Anniversary Date" means each annual anniversary date of the first day of the Term.

2.2 "Cumulative Daily Average" means the cumulative daily average of water supplied or wastewater treated at any particular date during the Term of this agreement. Pursuant to paragraph 14, this figure is calculated at each Anniversary Date for the preceding 12 months.

2.3 "Impact Fee" means the impact fee (capital charge) charged by Edgewater and/or the County as a condition precedent to connection to the Edgewater and/or County Water System or Wastewater System, as amended from time to time.

2.4 "MGD" means a unit of measurement equal to a million gallons per day.

2.5 "Notice Date" represents a potentially recurring date where either party would notify other party, pursuant to paragraphs 11 and 12 of this agreement, that their Cumulative Daily Average exceeded the Reserved Water or Wastewater Capacity or, if applicable, the Revised Reserved Water or Wastewater Capacity.

2.6 "Permit" shall mean any licenses, permits, zoning changes, zoning variance or other approvals from any government or government agency, whether federal, state, regional or local, necessary or convenient to the acquisition, construction, transfer, operation or expansion of the water distribution facilities or wastewater collection or transmission facilities, including but not limited to any general use permits, temporary use permits, individual use permits or transfer of permits issued by the St. Johns River Water Management District, the Department of Environmental Protection, the United States Army Corps of Engineers and all successor agencies.

2.7 "Potable Water" means water supplied by the Edgewater Water Works System which is intended to be fit for human consumption and which complies with the Department of Environmental Protection regulations, Section 62-555 as well as all state and local regulations pertaining to public drinking water systems.

2.8 "Prior Agreement" means the previous agreement dated May 30, 1996, between Edgewater and County for the purpose of providing potable water to the unincorporated area south of Edgewater.

2.9 "Reserved Capacity" means water or wastewater capacity for which impact fees have been paid or compensated.



2.10 "Term" means that period which commences upon approval of the agreement by the Edgewater City Council and the Volusia County Council, and ends on the later of (i) the twentieth (20th) anniversary thereof, or (ii) if County exercises its option to extend pursuant to paragraph 18 of this agreement, then the period shall continue in perpetuity, unless sooner terminated in accordance with the provisions of this agreement.

3. **Representations of Edgewater.** Edgewater makes the following representations to County:

3.1 Edgewater is duly organized and in good standing under the laws of the State of Florida, and is duly qualified and authorized to carry on the governmental functions and operations set forth in this agreement.

3.2 Edgewater has the power, authority and legal right to enter into and perform the obligations set forth in this agreement, and the execution, delivery and performance hereof by Edgewater: (1) has been duly authorized by the City Council of the City of Edgewater; (2) does not constitute a default under, or result in the creation of any line, charge, encumbrance, or security interest upon the assets of Edgewater, except as otherwise provided herein.

4. **Representations of County.** County makes the following representations to Edgewater:

4.1 County is duly organized and in good standing under the laws of the State of Florida, and is duly qualified and authorized to carry on the governmental functions and operations set forth in this agreement.

4.2 County has the power, authority and legal right to enter into and perform the obligations set forth in this agreement, and the execution, delivery and performance hereof by County: (1) has been duly authorized by the County Council of Volusia County; (2) does not constitute a default under, or result in the creation of any line, charge, encumbrance, or security interest upon the

assets of County, except as otherwise provided herein.

5. **Statutory Authority.** This agreement shall be considered an Interlocal Agreement pursuant to Chapter 163.01, Florida Statutes. A true and correct copy of this agreement shall be filed with the Clerk of the Circuit Court in Volusia County.

6. **Supply of Water.** Edgewater agrees to supply and make available to County, upon commencement of the Term and payment to Edgewater of the required Impact Fee, 250,000 gallons (.25 MGD) of Reserved Water Capacity (Average Annual Demand) during the Term of this agreement. County agrees to obtain Reserved Water Capacity up to .25 MGD capacity at a rate of four dollars (\$4.00) per gallon. Edgewater and County agree the parties will exchange water capacity for wastewater capacity based on the per gallon charge. Notwithstanding the above, County agrees to purchase Reserved Capacity of no less than 75,000 gallons of water capacity within 6 months of the effective date of this agreement. Reserved Capacity of not less than 175,000 gallons will be provided to the County through an exchange of water for wastewater capacity. The parties recognize that the daily and monthly water consumption may vary. County shall be billed based on the actual consumption on a monthly basis.

7. **Water Rates.** The rate to be charged for the purchase of Potable Water supplied to County by Edgewater shall be two dollars and seventy-five cents (\$2.75) per one thousand (1,000) gallons. Edgewater may adjust the rate to be charged. Notice of rate adjustment shall be provided by July 15 for enactment on the following October 1. The level of any rate adjustment shall not exceed 5% per year for any period since the prior adjustment.

8. **Treatment of Wastewater.** County agrees to supply and make available to Edgewater, upon commencement of the term and payment to County of the required impact fee, up to .20 MGD of wastewater capacity to Edgewater during the term of this agreement. Edgewater agrees to a rate of four dollars and fifty cents (\$4.50) per gallon for Reserved Capacity. County and



Edgewater agree the parties will exchange wastewater capacity for water capacity based on the per gallon charge Reserved Capacity of not less than 155,555 gallons will be provided to Edgewater through an exchange for water capacity and Edgewater will direct average daily flows not less than 140,000 gallons to the County wastewater treatment facility at such time as the County regional wastewater treatment facility commences operation. The County will provide Edgewater with 6 months notice of the anticipated commencement date. The parties agree that the daily and monthly wastewater demand may vary. Edgewater shall be billed on a monthly basis based on actual consumption but not less than the amount of its Reserved Capacity.

9. **Wastewater Rates.** The rates to be charged for wastewater treatment and disposal supplied to Edgewater by County shall be two dollars (\$2.00) per one thousand (1,000) gallons of wastewater. County may adjust the rates to be charged. Notice of rate adjustment shall be provided by July 15 for enactment on the following October 1. The level of any rate adjustment shall not exceed 5% on an annualized basis.

10. **Audit of Water Consumption.** On or after the occurrence of each Anniversary Date, Edgewater may audit County's consumption of water under this agreement by calculating the Cumulative Daily Average as of the most recent Anniversary Date. If the Cumulative Daily Average so computed exceeds the Reserved Water Capacity, then Edgewater shall provide County with notice to that effect. Edgewater may elect, at its discretion, one of the following options on or after the Notice Date:

10.1 Edgewater may provide no additional water capacity.

10.2 Edgewater may elect to increase the Reserved Water Capacity to at a minimum equal the Cumulative Daily Average so computed, and the increased amount shall become the Revised Reserved Water Capacity and County shall pay for Reserved Water Capacity at a rate of four dollars (\$4.00) per gallon.



11. **Audit of Wastewater Demand.** On or after the occurrence of each anniversary date, County may audit Edgewater's wastewater demand under this agreement by calculating the Cumulative Daily Average as of the most recent Anniversary Date. If the Cumulative Daily Average so computed exceeds the Reserved Wastewater Capacity then County shall provide Edgewater with notice to that effect and County may elect, at its discretion, one of the following options on or after the Notice Date:

11.1 County may provide no additional wastewater capacity.

11.2 County may elect to increase the Reserved Wastewater Capacity to at a minimum equal the Cumulative Daily Average so computed, and the increased amount shall become the Revised Reserved Wastewater Capacity and Edgewater shall pay for additional reserved wastewater capacity at a rate of four dollars and fifty cents (\$4.50) per gallon.

12. **Ownership and Maintenance.** Edgewater shall retain ownership and maintenance responsibilities for that portion of the water system north of the interconnection and for the master meter for water sold to the County. County shall retain ownership and maintenance responsibilities for that portion of the water system south of the interconnection and for the master meter for wastewater flows sent to the County. The wastewater master meter will be located adjacent to the Hacienda del Rio community. County shall retain ownership and general maintenance responsibility for the customer meters and associated piping, however, Edgewater and the County shall have mutual unlimited access to the master meters, all meter readings and test records. Edgewater specifically agrees to maintain the potable water meters in good working order and accuracy in accordance with applicable AWWA standards so as to accurately measure any water transferred between the two systems.

13. **Duration.** The duration of this agreement for purposes of the sale and purchase of water service by County and the sale and purchase of wastewater service by Edgewater, shall be the

Term of the agreement as provided in Section 2.12. Notwithstanding any provision to the contrary, Edgewater or County upon written notice of not less than 36 months in advance may terminate this agreement.

13.1 Termination of the agreement shall not effect ownership of Reserved Capacity. Reserved Capacity may be returned to the service provider based on agreement between the parties.

13.2 Termination of service provision shall not effect the receipt of service under the terms of this agreement.

14. **Option to Extend Term.** Edgewater and the County shall have the option to extend the Term of this agreement in perpetuity. In order to exercise this option, both parties must (i) agree and acknowledge in writing their intention to exercise that option no later than the seventeenth (17<sup>th</sup>) Anniversary Date, (ii) pay the Impact Fee required by this agreement, and (iii) not be in default of any provision of this agreement.

15. **Service Standards.** Edgewater and County shall operate and maintain their respective water supply, water treatment and distribution systems and render efficient service in accordance with the regulations of this agreement and the Florida Department of Environmental Protection, or any other governmental agency having jurisdiction thereof. Edgewater and County shall operate and maintain their respective wastewater treatment, collection and disposal systems and render efficient service in accordance with the regulations of the agreement and the Florida Department of Environmental Protection, or any other governmental agency having jurisdiction.

16. **No Contest of Permit Application.** Edgewater and/or County shall not contest, oppose, impede or interfere with any Permit application filed by Edgewater and/or County.

17. **Indemnification.**

17.1 Edgewater agrees that they will indemnify and hold harmless County to the extent permitted by law, from any and all liability, claims, damages, expenses, proceedings and causes



of action of any kind and/or nature, including reasonable attorney's fees, arising out of or caused by the negligence or intentional misconduct of Edgewater, including its employees and agents, in connection with the management, control, use, operation, maintenance or repair of Edgewater's Water and Wastewater System, provided, however, nothing herein shall be construed as a waiver of sovereign immunity or other limitations imposed by Florida Statutes Section 768.28.

17.2 County agrees that it will indemnify and hold harmless Edgewater to the extent permitted by law, from any and all liability, claims, damages, expenses, proceedings and causes of action of any kind and/or nature, including reasonable attorney's fees, arising out of or caused by the negligence or intentional misconduct of County, including its employees and agents, in connection with the management, control, use, operation, maintenance or repair of County's Water and Wastewater System, provided, however, nothing herein shall be construed as a waiver of sovereign immunity or other limitations imposed by Florida Statutes Section 768.28.

18. **Notices.** All notices required pursuant to this agreement shall be in writing, and shall be delivered to the parties by United States Mail, postage prepaid, as follows"

**Lawrence W. Arrington**  
County Manager  
County of Volusia  
123 W. Indiana Avenue  
DeLand, Florida 32720

**Kenneth R. Hooper**  
City Manager  
City of Edgewater  
102 N. Riverside Drive  
Edgewater, Florida 32132

19. **Severability.** If any section, subsection, sentence, clause, phrase or portion of this agreement is for any reason held invalid or unconstitutional by any court of competent jurisdiction, such portion shall be deemed a separate, distinct and independent provision of such holding, and such holding shall not affect the validity of the remaining portions hereof.



20. **Attorney's Fees.** In the event of any litigation arising out of this agreement, the prevailing party shall be entitled to an award of its reasonable attorney's fees and court costs incurred in such action.

21. **Entirety.** This agreement represents the entire understanding of the parties hereto. Any amendments shall be in writing and signed by both parties.

22. **Applicable Law.** The laws of the State of Florida shall govern the validity, interpretation, construction and performance of this agreement. Venue for any suit involving this agreement shall be in Volusia County, Florida.

23. **Waiver.** Unless otherwise specifically provided by the terms to this agreement, no delay or failure to exercise a right resulting from any breach of this agreement shall impair such right or shall be construed to be a waiver thereof, but such right may be exercised from time to time and as often as may be deemed expedient. Any waiver shall be in writing and signed by the party granting such waiver. If any representation, warranty or covenant contained in this agreement is breached by any party and thereunder waived by the other party, such waiver shall be limited to the particular breach so waived and shall not be deemed to waive, wither expressly or impliedly, any other breach of this agreement.


24. **Reservation of Capacity.** This agreement shall not be construed to give rise to nor shall there be reservation of water capacity or wastewater capacity over and above the Reserved water and/or wastewater capacity for which all Impact Fees due and payable under this agreement have been fully paid or for any period existing beyond the Term of this agreement.

25. **Termination of Agreement.** In the event this agreement is terminated pursuant to any provision of this agreement, or at the end of the Term, both parties shall take all steps that are reasonably necessary to insure no further use of the other party's water service and/or wastewater service is made.

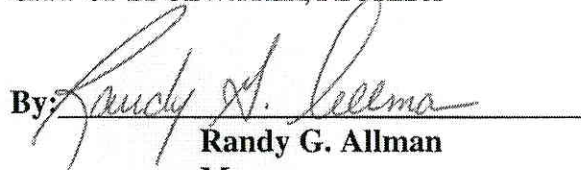
26. **Effective Date.** This agreement shall be effective upon approval by the governing bodies of Edgewater and the County and shall supersede the agreement for wholesale water services dated May 30, 1996.

IN WITNESS WHEREOF, the parties have executed this Agreement on the dates set forth below.

ATTEST:

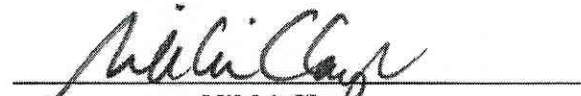
  
Susan J. Wadsworth, C.M.C.  
City Clerk

CITY COUNCIL OF THE  
CITY OF EDGEWATER, FLORIDA

By:   
Randy G. Allman  
Mayor

Dated: 9-2-99

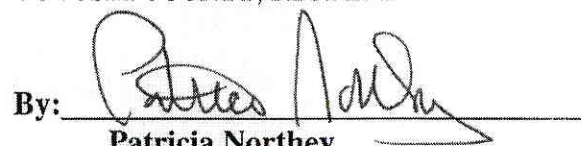
APPROVED FOR FORM & CORRECTNESS:

  
Nikki Clayton  
City Attorney

ATTEST:

  
Larry Arrington  
County Manager

COUNTY COUNCIL  
VOLUSIA COUNTY, FLORIDA

By:   
Patricia Northey  
Chairman

Dated: 26 OCT 99

**WHEREAS**, all water, wastewater rates and capital changes are consistent with the existing Interlocal Water and Wastewater Agreement.

**NOW, THEREFORE**, in consideration of the mutual promises herein contained, it is agreed as follows:

1. **Incorporation of Recitals:** The foregoing recitals in the Interlocal Water and Wastewater Agreement (September 2, 1999) and this Amendment Number 1 are true and accurate and adopted herein by reference.
  
2. **Representation of Edgewater:** Edgewater makes the following representations to County:
  - 2.1 Edgewater agrees to budget and appropriate up to \$403,367 for construction of the wastewater interconnection.
  - 2.2 Edgewater agrees to budget and appropriate up to \$37,210 for design, permitting and construction phase services for the wastewater interconnection.
  - 2.3 Edgewater agrees to pay approved invoices for construction, design, permitting and construction phase services as billed by County. Payment will be made within forty-five (45) days of receipt of a valid invoice from County.
  
3. **Representation of County:** County makes the following representations to Edgewater:
  - 3.1 The County agrees to administer the construction, design, permitting and construction phase services consistent with the existing contract conditions by and between County, AKA Services, Inc. and Marshall Provost, Inc.




3.2 The County will review requests for partial payment for the wastewater interconnection consistent with the terms and conditions of contracts by and between County, AK Services, Inc. and Marshall Provost, Inc.

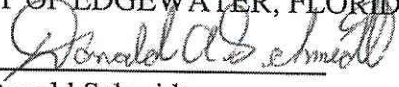
3.3. County will invoice Edgewater for payment of construction, design, permitting, and construction phase services consistent with this amendment.

4. **Effective Date:** This Amendment shall be effective upon approval by the governing bodies of Edgewater and County.

**IN WITNESS WHEREOF**, the parties have executed this Agreement on the dates set forth below.

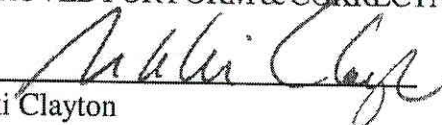
ATTEST:

  
Susan Wadsworth  
City Clerk


CITY COUNCIL OF THE  
CITY OF EDGEWATER, FLORIDA  
By:   
Donald Schmidt  
Mayor

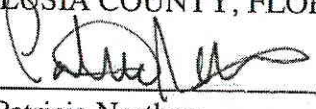
Dated: 12/22/99

APPROVED FOR FORM & CORRECTNESS:

  
Nikki Clayton  
City Attorney

ATTEST:

  
Larry Arrington  
County Manager

COUNTY COUNCIL  
VOLUSIA COUNTY, FLORIDA  
By:   
Patricia Northey  
Chairman

Dated: 3 Jan 00

**INTERLOCAL WATER and WASTEWATER  
AGREEMENT**

THIS INTERLOCAL AGREEMENT is made this 2nd day of September, 1999, by and between the CITY OF EDGEWATER, FLORIDA, a municipal corporation, hereinafter referred to as "Edgewater", and the VOLUSIA COUNTY, FLORIDA, a charter county, hereinafter referred to as "County".

**RECITALS**

**WHEREAS**, Edgewater, presently owns and operates a potable water supply, treatment and distribution system and a wastewater treatment, collection and disposal system within Southeast Volusia County, Florida, for the purpose of furnishing potable water and wastewater services to its customers; and

**WHEREAS**, County presently owns and operates a water supply and distribution system within Southeast Volusia County, Florida, for the purpose of furnishing potable water service to its customers; and

**WHEREAS**, County presently is constructing a new .6 MGD regional wastewater treatment, collection and disposal system for the purpose of providing wastewater treatment service to its customers; and

**WHEREAS**, Edgewater is authorized by Florida law to operate a potable water and wastewater system outside of Edgewater's corporate limits; and

**WHEREAS**, County is authorized by Florida law to operate a potable water and wastewater system within Volusia County; and

**WHEREAS**, the parties entered into an interlocal agreement dated October 3, 1994, which established utility service areas for each jurisdiction, which service areas are unchanged by the subject agreement, and

**WHEREAS**, the parties previously entered into an agreement, dated May 30, 1996, for the purpose of providing potable water service south of Edgewater along US 1 by and between Edgewater and County in anticipation of a future long-term interconnection between the two water systems; and

**WHEREAS**, the parties wish to supersede the May 30, 1996, agreement with this agreement; and

**WHEREAS**, County has a need for additional potable water and Edgewater is willing to meet this need in accordance with the terms of this Agreement.

**WHEREAS**, Edgewater has a need for long-term additional wastewater treatment and disposal and County is willing to meet this need in accordance with the terms of this Agreement.

**WHEREAS**, Edgewater and County agree the most cost-effective method for water and wastewater service to Southeast Volusia County will be a regional approach of Edgewater providing wholesale water service to the County and the County providing wholesale wastewater service to Edgewater.

**NOW, THEREFORE**, in consideration of the mutual promises herein contained, it is agreed as follows:

1. **Incorporation of Recitals.** The foregoing recitals are true and accurate and are incorporated herein by reference.

2. **Defined Terms.** Unless otherwise provided for in this Interlocal Agreement, Capitalized Words and terms shall have the following meanings:

2.1 "Anniversary Date" means each annual anniversary date of the first day of the Term.

2.2 "Cumulative Daily Average" means the cumulative daily average of water supplied or wastewater treated at any particular date during the Term of this agreement. Pursuant to paragraph 14, this figure is calculated at each Anniversary Date for the preceding 12 months.



2.3 "Impact Fee" means the impact fee (capital charge) charged by Edgewater and/or the County as a condition precedent to connection to the Edgewater and/or County Water System or Wastewater System, as amended from time to time.

2.4 "MGL" means a unit of measurement equal to a million gallons per day.

2.5 "Notice Date" represents a potentially recurring date where either party would notify other party, pursuant to paragraphs 11 and 12 of this agreement, that their Cumulative Daily Average exceeded the Reserved Water or Wastewater Capacity or, if applicable, the Revised Reserved Water or Wastewater Capacity.

2.6 "Permit" shall mean any licenses, permits, zoning changes, zoning variance or other approvals from any government or government agency, whether federal, state, regional or local, necessary or convenient to the acquisition, construction, transfer, operation or expansion of the water distribution facilities or wastewater collection or transmission facilities, including but not limited to any general use permits, temporary use permits, individual use permits or transfer of permits issued by the St. Johns River Water Management District, the Department of Environmental Protection, the United States Army Corps of Engineers and all successor agencies.

2.7 "Potable Water" means water supplied by the Edgewater Water Works System which is intended to be fit for human consumption and which complies with the Department of Environmental Protection regulations, Section 62-555 as well as all state and local regulations pertaining to public drinking water systems.

2.8 "Prior Agreement" means the previous agreement dated May 30, 1996, between Edgewater and County for the purpose of providing potable water to the unincorporated area south of Edgewater.

2.9 "Reserved Capacity" means water or wastewater capacity for which impact fees have been paid or compensated.

2.10 "Term" means that period which commences upon approval of the agreement by the Edgewater City Council and the Volusia County Council, and ends on the later of (i) the twentieth (20th) anniversary thereof, or (ii) if County exercises its option to extend pursuant to paragraph 18 of this agreement, then the period shall continue in perpetuity, unless sooner terminated in accordance with the provisions of this agreement.

3. **Representations of Edgewater.** Edgewater makes the following representations to County:

3.1 Edgewater is duly organized and in good standing under the laws of the State of Florida, and is duly qualified and authorized to carry on the governmental functions and operations set forth in this agreement.

3.2 Edgewater has the power, authority and legal right to enter into and perform the obligations set forth in this agreement, and the execution, delivery and performance hereof by Edgewater: (1) has been duly authorized by the City Council of the City of Edgewater; (2) does not constitute a default under, or result in the creation of any line, charge, encumbrance, or security interest upon the assets of Edgewater, except as otherwise provided herein.

4. **Representations of County.** County makes the following representations to Edgewater:

4.1 County is duly organized and in good standing under the laws of the State of Florida, and is duly qualified and authorized to carry on the governmental functions and operations set forth in this agreement.

4.2 County has the power, authority and legal right to enter into and perform the obligations set forth in this agreement, and the execution, delivery and performance hereof by County: (1) has been duly authorized by the County Council of Volusia County; (2) does not constitute a default under, or result in the creation of any line, charge, encumbrance, or security interest upon the



assets of County, except as otherwise provided herein.

5. **Statutory Authority.** This agreement shall be considered an Interlocal Agreement pursuant to Chapter 163.01, Florida Statutes. A true and correct copy of this agreement shall be filed with the Clerk of the Circuit Court in Volusia County.

6. **Supply of Water.** Edgewater agrees to supply and make available to County, upon commencement of the Term and payment to Edgewater of the required Impact Fee, 250,000 gallons (.25 MGD) of Reserved Water Capacity (Average Annual Demand) during the Term of this agreement. County agrees to obtain Reserved Water Capacity up to .25 MGD capacity at a rate of four dollars (\$4.00) per gallon. Edgewater and County agree the parties will exchange water capacity for wastewater capacity based on the per gallon charge. Notwithstanding the above, County agrees to purchase Reserved Capacity of no less than 75,000 gallons of water capacity within 6 months of the effective date of this agreement. Reserved Capacity of not less than 175,000 gallons will be provided to the County through an exchange of water for wastewater capacity. The parties recognize that the daily and monthly water consumption may vary. County shall be billed based on the actual consumption on a monthly basis.

7. **Water Rates.** The rate to be charged for the purchase of Potable Water supplied to County by Edgewater shall be two dollars and seventy-five cents (\$2.75) per one thousand (1,000) gallons. Edgewater may adjust the rate to be charged. Notice of rate adjustment shall be provided by July 15 for enactment on the following October 1. The level of any rate adjustment shall not exceed 5% per year for any period since the prior adjustment.

8. **Treatment of Wastewater.** County agrees to supply and make available to Edgewater, upon commencement of the term and payment to County of the required impact fee, up to .20 MGD of wastewater capacity to Edgewater during the term of this agreement. Edgewater agrees to a rate of four dollars and fifty cents (\$4.50) per gallon for Reserved Capacity. County and



Edgewater agree the parties will exchange wastewater capacity for water capacity based on the per gallon charge Reserved Capacity of not less than 155,555 gallons will be provided to Edgewater through an exchange for water capacity and Edgewater will direct average daily flows not less than 140,000 gallons to the County wastewater treatment facility at such time as the County regional wastewater treatment facility commences operation. The County will provide Edgewater with 6 months notice of the anticipated commencement date. The parties agree that the daily and monthly wastewater demand may vary. Edgewater shall be billed on a monthly basis based on actual consumption but not less than the amount of its Reserved Capacity.

9. **Wastewater Rates.** The rates to be charged for wastewater treatment and disposal supplied to Edgewater by County shall be two dollars (\$2.00) per one thousand (1,000) gallons of wastewater. County may adjust the rates to be charged. Notice of rate adjustment shall be provided by July 15 for enactment on the following October 1. The level of any rate adjustment shall not exceed 5% on an annualized basis.

10. **Audit of Water Consumption.** On or after the occurrence of each Anniversary Date, Edgewater may audit County's consumption of water under this agreement by calculating the Cumulative Daily Average as of the most recent Anniversary Date. If the Cumulative Daily Average so computed exceeds the Reserved Water Capacity, then Edgewater shall provide County with notice to that effect. Edgewater may elect, at its discretion, one of the following options on or after the Notice Date:

10.1 Edgewater may provide no additional water capacity.

10.2 Edgewater may elect to increase the Reserved Water Capacity to at a minimum equal the Cumulative Daily Average so computed, and the increased amount shall become the Revised Reserved Water Capacity and County shall pay for Reserved Water Capacity at a rate of four dollars (\$4.00) per gallon.

11. **Audit of Wastewater Demand.** On or after the occurrence of each anniversary date, County may audit Edgewater's wastewater demand under this agreement by calculating the Cumulative Daily Average as of the most recent Anniversary Date. If the Cumulative Daily Average so computed exceeds the Reserved Wastewater Capacity then County shall provide Edgewater with notice to that effect and County may elect, at its discretion, one of the following options on or after the Notice Date:

11.1 County may provide no additional wastewater capacity.

11.2 County may elect to increase the Reserved Wastewater Capacity to at a minimum equal the Cumulative Daily Average so computed, and the increased amount shall become the Revised Reserved Wastewater Capacity and Edgewater shall pay for additional reserved wastewater capacity at a rate of four dollars and fifty cents (\$4.50) per gallon.

12. **Ownership and Maintenance.** Edgewater shall retain ownership and maintenance responsibilities for that portion of the water system north of the interconnection and for the master meter for water sold to the County. County shall retain ownership and maintenance responsibilities for that portion of the water system south of the interconnection and for the master meter for wastewater flows sent to the County. The wastewater master meter will be located adjacent to the Hacienda del Rio community. County shall retain ownership and general maintenance responsibility for the customer meters and associated piping, however, Edgewater and the County shall have mutual unlimited access to the master meters, all meter readings and test records. Edgewater specifically agrees to maintain the potable water meters in good working order and accuracy in accordance with applicable AWWA standards so as to accurately measure any water transferred between the two systems.

13. **Duration.** The duration of this agreement for purposes of the sale and purchase of water service by County and the sale and purchase of wastewater service by Edgewater, shall be the



Term of the agreement as provided in Section 2.12. Notwithstanding any provision to the contrary, Edgewater or County upon written notice of not less than 36 months in advance may terminate this agreement.

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13.2 Termination of service provision shall not effect the receipt of service under the terms of this agreement.

14. **Option to Extend Term.** Edgewater and the County shall have the option to extend the Term of this agreement in perpetuity. In order to exercise this option, both parties must (i) agree and acknowledge in writing their intention to exercise that option no later than the seventeenth (17<sup>th</sup>) Anniversary Date, (ii) pay the Impact Fee required by this agreement, and (iii) not be in default of any provision of this agreement.

15. **Service Standards.** Edgewater and County shall operate and maintain their respective water supply, water treatment and distribution systems and render efficient service in accordance with the regulations of this agreement and the Florida Department of Environmental Protection, or any other governmental agency having jurisdiction thereof. Edgewater and County shall operate and maintain their respective wastewater treatment, collection and disposal systems and render efficient service in accordance with the regulations of the agreement and the Florida Department of Environmental Protection, or any other governmental agency having jurisdiction.

16. **No Contest of Permit Application.** Edgewater and/or County shall not contest, oppose, impede or interfere with any Permit application filed by Edgewater and/or County.

17. **Indemnification.**

17.1 Edgewater agrees that they will indemnify and hold harmless County to the extent permitted by law, from any and all liability, claims, damages, expenses, proceedings and causes



of action of any kind and/or nature, including reasonable attorney's fees, arising out of or caused by the negligence or intentional misconduct of Edgewater, including its employees and agents, in connection with the management, control, use, operation, maintenance or repair of Edgewater's Water and Wastewater System, provided, however, nothing herein shall be construed as a waiver of sovereign immunity or other limitations imposed by Florida Statutes Section 768.28.

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18. **Notices**. All notices required pursuant to this agreement shall be in writing, and shall be delivered to the parties by United States Mail, postage prepaid, as follows"

**Lawrence W. Arrington**  
County Manager  
County of Volusia  
123 W. Indiana Avenue  
DeLand, Florida 32720

**Kenneth R. Hooper**  
City Manager  
City of Edgewater  
102 N. Riverside Drive  
Edgewater, Florida 32132

19. **Severability**. If any section, subsection, sentence, clause, phase or portion of this agreement is for any reason held invalid or unconstitutional by any court of competent jurisdiction, such portion shall be deemed a separate, distinct and independent provision of such holding, and such holding shall not affect the validity of the remaining portions hereof.

20. **Attorney's Fees.** In the event of any litigation arising out of this agreement, the prevailing party shall be entitled to an award of its reasonable attorney's fees and court costs incurred in such action.

21. **Entirety.** This agreement represents the entire understanding of the parties hereto. Any amendments shall be in writing and signed by both parties.

22. **Applicable Law.** The laws of the State of Florida shall govern the validity, interpretation, construction and performance of this agreement. Venue for any suit involving this agreement shall be in Volusia County, Florida.

23. **Waiver.** Unless otherwise specifically provided by the terms to this agreement, no delay or failure to exercise a right resulting from any breach of this agreement shall impair such right or shall be construed to be a waiver thereof, but such right may be exercised from time to time and as often as may be deemed expedient. Any waiver shall be in writing and signed by the party granting such waiver. If any representation, warranty or covenant contained in this agreement is breached by any party and thereunder waived by the other party, such waiver shall be limited to the particular breach so waived and shall not be deemed to waiver, wither expressly or impliedly, any other breach of this agreement.


24. **Reservation of Capacity.** This agreement shall not be construed to give rise to nor shall there be reservation of water capacity or wastewater capacity over and above the Reserved water and/or wastewater capacity for which all Impact Fees due and payable under this agreement have been fully paid or for any period existing beyond the Term of this agreement.

25. **Termination of Agreement.** In the event this agreement is terminated pursuant to any provision of this agreement, or at the end of the Term, both parties shall take all steps that are reasonably necessary to insure no further use of the other party's water service and/or wastewater service is made.

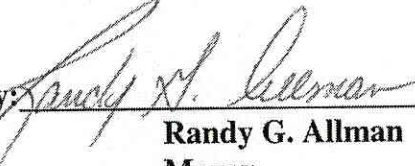
26. **Effective Date.** This agreement shall be effective upon approval by the governing bodies of Edgewater and the County and shall supersede the agreement for wholesale water services dated May 30, 1996.

IN WITNESS WHEREOF, the parties have executed this Agreement on the dates set forth below.

ATTEST:

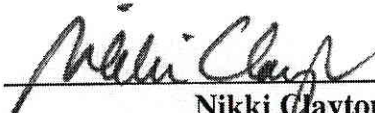
  
\_\_\_\_\_  
Susan J. Wadsworth, C.M.C.  
City Clerk

CITY COUNCIL OF THE  
CITY OF EDGEWATER, FLORIDA

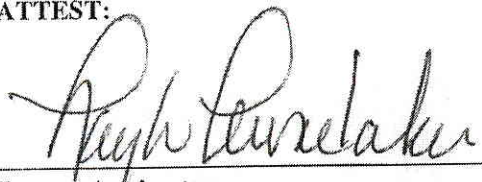
By:   
\_\_\_\_\_  
Randy G. Allman  
Mayor

Dated: 9-2-99

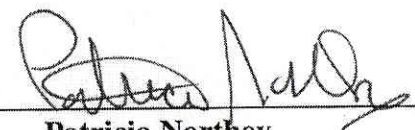
APPROVED FOR FORM & CORRECTNESS:

  
\_\_\_\_\_  
Nikki Clayton  
City Attorney

ATTEST:

  
\_\_\_\_\_  
Larry Arrington  
County Manager

COUNTY COUNCIL  
VOLUSIA COUNTY, FLORIDA

By:   
\_\_\_\_\_  
Patricia Northey  
Chairman

Dated: 26 OCT 95



# **Attachment “B”**



# St. Johns River

## Water Management District

Kirby B. Green III, Executive Director • David W. Fisk, Assistant Executive Director

4049 Reid Street • P.O. Box 1429 • Palatka, FL 32178-1429 • (386) 329-4500  
On the Internet at [www.sjrwmd.com](http://www.sjrwmd.com).

December 11, 2007

City of Edgewater  
Terry Wadsworth  
104 N. Riverside Drive  
Edgewater, FL 32132

**SUBJECT:** Consumptive Use Permit Number 9157  
City of Edgewater

Dear Sir/Madam:

Enclosed is your permit as authorized by the St. Johns River Water Management District on December 11, 2007.

Please be advised that the period of time within which a third party may request an administrative hearing on this permit may not have expired by the date of issuance. A potential petitioner has twenty-six (26) days from the date on which the actual notice is deposited in the mail, or twenty-one (21) days from publication of this notice when actual notice is not provided, within which to file a petition for an administrative hearing pursuant to Sections 120.569 and 120.57, Florida Statutes. Receipt of such a petition by the District may result in this permit becoming null and void.

Permit issuance does not relieve you from the responsibility of obtaining permits from any federal, state and/or local agencies asserting concurrent jurisdiction over this work.

The enclosed permit is a legal document and should be kept with your other important records. Please read the permit and conditions carefully since the referenced conditions may require submittal of additional information. All information submitted as compliance with permit conditions must be submitted to the nearest District Service Center and should include the above referenced permit number.

Sincerely,

Gloria Lewis, Director  
Division of Regulatory Information Management

Enclosures: Permit, Conditions for Issuance, Compliance Forms, Map, Well Tags

cc: District Permit File

**Agent:** Quentin L Hampton Associates  
PO Box 290247  
Port Orange, FL 32129

### GOVERNING BOARD

David G. Graham, CHAIRMAN  
JACKSONVILLE  
Michael Eitel  
ORLANDO

Susan N. Hughes, VICE CHAIRMAN  
PONTE VIEIRA  
Hersey "Hanky" Huffman  
ENTERPRISE

Ann T. Moore, SECRETARY  
BUNNELL  
Arlo N. Jumper  
FORT MCCOY

W. Leonard Wood, TREASURER  
FERNANDINA BEACH  
William W. Kerr  
MELBOURNE BEACH

Duane L. Ottensmeyer  
JACKSONVILLE

cc: Bob P  
QLH-B0



# St. Johns River Water Management District

Kirby B. Green III, Executive Director • David W. Fisk, Assistant Executive Director

4049 Reid Street • P.O. Box 1429 • Palatka, FL 32178-1429 • (386) 329-4500  
On the Internet at [www.sjrwmd.com](http://www.sjrwmd.com).

January 7, 2008

City of Edgewater  
Terry Wadsworth  
104 N. Riverside Drive  
Edgewater, FL 32132

Subject: Consumptive Use Permit Number 9157  
City of Edgewater

Dear Sir/Madam:

Please find enclosed a corrected set of Conditions "Exhibit A" for the above referenced permit. The conditions were incorrect in that the conditions 23 - 26 should have been 23, 23 a., 23 b., 23 c. All subsequent conditions have been renumbered accordingly.

If you have any questions, please do not hesitate to contact this office.

Sincerely,

Rosie Parker, Regulatory Information Management Specialist III  
Division of Regulatory Information Management

Enclosure

RP:s

**GOVERNING BOARD**

David G. Graham, CHAIRMAN JACKSONVILLE	Susan N. Hughes, VICE CHAIRMAN PONTE VEDRA	Ann T. Moore, SECRETARY BUNNELL	W. Leonard Wood, TREASURER FERMANDINA BEACH
Michelle Ertel ORLANDO	Hershey "Herky" Huffman ENTERPRISE	Arlan N. Jumper FORT McCOY	William W. Kerr MELBOURNE BEACH
			Duane L. Otensmoe JACKSONVILLE



**PERMIT NO. 9157****DATE ISSUED: December 11, 2007****PROJECT NAME: City of Edgewater****A PERMIT AUTHORIZING:**

The District authorizes, as limited by the attached permit conditions, the use of up to 1,277.50 million gallons per year (3.50 million gallons per day average) of groundwater from the Floridan aquifer to meet the public supply needs of a projected population of 38,379 in 2027 and up to 365.00 million gallons per year (1.00 million gallons per day average) of surface / stormwater to supplement the reclaimed water distribution system.

**LOCATION:**

Site: City of Edgewater  
Volusia County

Sections:	31	Townships:	17 South	Ranges:	34 East
	5, 6, 7		18 South		34 East

**ISSUED TO:**

City of Edgewater  
Terry Wadsworth  
04 N. Riverside Drive  
Edgewater, FL 32132

Permittee agrees to hold and save the St. Johns River Water Management District and its successors harmless from any and all damages, claims, or liabilities which may arise from permit issuance. Said application, including all maps and specifications attached thereto, is by reference made a part hereof.

This permit does not convey to permittee any property rights nor any rights of privileges other than those specified herein, nor relieve the permittee from complying with any law, regulation or requirement affecting the rights of other bodies or agencies. All structures and works installed by permittee hereunder shall remain the property of the permittee.


This permit may be revoked, modified or transferred at any time pursuant to the appropriate provisions of Chapter 373, Florida Statutes and 40C-1, Florida Administrative Code.

**PERMIT IS CONDITIONED UPON:**


See conditions on attached "Exhibit A", dated December 11, 2007

**AUTHORIZED BY:** St. Johns River Water Management District  
Department of Resource Management

By: \_\_\_\_\_

  
Harold A. Wilkening III  
Director

By: \_\_\_\_\_

  
Kirby B. Green, III  
Executive Director

**"EXHIBIT A"**  
**CONDITIONS FOR ISSUANCE OF PERMIT NUMBER 9157**  
**CITY OF EDGEWATER**  
**DATED DECEMBER 11, 2007**

1. District Authorized staff, upon proper identification, will have permission to enter, inspect and observe permitted and related facilities in order to determine compliance with the approved plans, specifications and conditions of this permit.
2. Nothing in this permit should be construed to limit the authority of the St. Johns River Water Management District to declare a water shortage and issue orders pursuant to Section 373.175, Florida Statutes, or to formulate a plan for implementation during periods of water shortage, pursuant to Section 373.246, Florida Statutes. In the event a water shortage, is declared by the District Governing Board, the permittee must adhere to the water shortage restriction as specified by the District, even though the specified water shortage restrictions may be inconsistent with the terms and conditions of this permit.
3. Prior to the construction, modification, or abandonment of a well, the permittee must obtain a Water Well Construction Permit from the St. Johns River Water Management District, or the appropriate local government pursuant to Chapter 40C-3, Florida Administrative Code. Construction, modification, or abandonment of a well will require modification of the consumptive use permit when such construction, modification or abandonment is other than that specified and described on the consumptive use permit application form.
4. Leaking or inoperative well casings, valves, or controls must be repaired or replaced as required to eliminate the leak or make the system fully operational.
5. The District must be notified, in writing, within 30 days of any sale, conveyance, or other transfer of a well or facility from which the permitted consumptive use is made or within 30 days of any transfer of ownership or control of the real property at which the permitted consumptive use is located. All transfers of ownership or transfers of permits are subject to the provisions of section 40C-1.612, Florida Administrative Code.
6. A District-issued identification tag shall be prominently displayed at each withdrawal site by permanently affixing such tag to the pump, headgate, valve or other withdrawal facility as provided by Section 40C-2.401, Florida Administrative Code. Permittee shall notify the District in the event that a replacement tag is needed.
7. If the permittee does not serve a new projected demand located within the service area upon which the annual allocation was calculated, the annual allocation will be subject to modification.
8. Legal uses of water existing at the time of the permit application may not be interfered with by the consumptive use. If unanticipated interference occurs, the District may revoke the permit in whole or in part to curtail or abate the interference unless the permittee mitigates for the interference. In those cases where other permit holders are identified by the District as also contributing to the interference, the permittee may choose to mitigate in a cooperative effort with the other permittees. The permittee must submit a mitigation plan to the District for approval prior to implementing such mitigation.
9. Off-site uses existing at the time of permit application may not be significantly adversely impacted as a result of the consumptive use. If unanticipated significant adverse impacts occur, the District shall revoke the permit in whole or in part to curtail or abate the adverse impacts, unless the impacts can be mitigated by the permittee.



10. The permittee must ensure that all service connections are metered.
11. All submittals made to demonstrate compliance with this permit must include the CUP number 9157 plainly labeled on the submittal.
12. This permit will expire December 11, 2027.
13. The combined maximum annual withdrawal of groundwater from the Floridan aquifer from the A.R. Thomas, Western, and Northwest wellfields for potable water supply must not exceed:

839.65 million gallons (2.30 million gallons per day average) in 2007,  
873.75 million gallons (2.39 million gallons per day average) in 2008,  
907.86 million gallons (2.49 million gallons per day average) in 2009,  
941.96 million gallons (2.58 million gallons per day average) in 2010,  
969.90 million gallons (2.66 million gallons per day average) in 2011,  
997.84 million gallons (2.73 million gallons per day average) in 2012,  
1,025.78 million gallons (2.81 million gallons per day average) in 2013,  
1,053.72 million gallons (2.89 million gallons per day average) in 2014,  
1,081.66 million gallons (2.96 million gallons per day average) in 2015,  
1,101.49 million gallons (3.02 million gallons per day average) in 2016,  
1,121.32 million gallons (3.07 million gallons per day average) in 2017,  
1,141.15 million gallons (3.13 million gallons per day average) in 2018,  
1,160.98 million gallons (3.18 million gallons per day average) in 2019,  
1,180.81 million gallons (3.24 million gallons per day average) in 2020,  
1,198.35 million gallons (3.28 million gallons per day average) in 2021,  
1,215.89 million gallons (3.33 million gallons per day average) in 2022,  
1,233.43 million gallons (3.38 million gallons per day average) in 2023,  
1,250.97 million gallons (3.43 million gallons per day average) in 2024,  
1,268.51 million gallons (3.48 million gallons per day average) in 2025,  
1,277.50 million gallons (3.50 million gallons per day average) in 2026, and 2027.

If, in any year, the actual volume of water withdrawn by the permittee equals 95 percent or more of the amount of water allocated for use by this permit, then the permittee shall submit a report to the District that explains why the withdrawal of water by the permittee equals 95 percent or more of the amount allocated for in this permit. The report shall evaluate the effect of the following on the volume of water withdrawn by the permittee:

- a. Climatic shortfalls (drought);
- b. Greater than anticipated growth in the permittee's service area;
- c. Inefficient usage within the service area; and
- d. Other factors that account for the withdrawal volume equaling 95 percent or more of the allocation.

The report must include a breakdown of the population currently being served by the permittee, an updated projection of anticipated population that will be served for the following year, an evaluation as to whether the permittee anticipates whether it will be able to meet the water needs of the revised projected population without violating the allocations set forth in this permit, and a corrective action plan setting forth actions that the permittee intends to take if the evaluation indicates that allocations will be exceeded during the following year. The report must be submitted to the District by February 15<sup>th</sup> of the year following the year wherein the permittee-experienced withdrawals of water that equals 95 percent or more of the amount of water allocated for use by this permit.

14. Maximum annual groundwater withdrawals from the Floridan aquifer at each wellfield must not, unless as noted below, exceed:



A.R. Thomas	611.4 million gallons
Western	382.2 million gallons
Northwest	283.6 million gallons

The permittee may exceed the individual wellfield allocation for a particular wellfield, provided the water use does not exceed the total permitted allocation and any shift in withdrawals does not contribute to interference with existing legal uses, or cause or contribute to significant saline water intrusion or adverse impacts to adjacent land uses. If the permittee exceeds this amount at any wellfield during the permit duration, a report must be submitted to the District, by February 1 of the year following the exceedance, documenting that the withdrawals have not contributed to interference with existing legal uses, or caused or contributed to significant saline water intrusion or adverse impacts to adjacent land uses.

15. The maximum annual surface / stormwater withdrawals (District ID 104973) for augmentation of the reclaimed water distribution system must not exceed 365.00 million gallons.
16. Eastern wellfield wells 1, 2, 4, and 5 (District IDs 17612, 17613, 17615, and 17616, respectively) are to remain inactive or be abandoned. Well 3 (District ID 17614) shall be modified to facilitate monitoring of the Floridan aquifer as described in the Saltwater Intrusion Monitoring Program.
17. Total withdrawals from wells 6 -15, and 17 - 24 (District IDs 17617, 17618, 17628, 17619, 17621, 17622, 17623, 17624, 17625, 17626, 35638, 38564, 38565, 38566, 38567, 38568, 38569, and 137852, respectively) and the reclaimed augmentation pump (District ID 109473) as listed on the application(s), must be recorded continuously, totaled monthly, and reported to the District at least every six months from the initiation of the monitoring using district Form No. EN-50. The reporting dates each year will be as follows for the duration of the permit:

<u>Reporting Period</u>	<u>Report Due</u>
January – June	July 31
July – December	January 31

18. All existing and proposed wells 6 -15, and 17 - 24 (District IDs 17617, 17618, 17628, 17619, 17621, 17622, 17623, 17624, 17625, 17626, 35638, 38564, 38565, 38566, 38567, 38568, 38569, and 137852, respectively) and the reclaimed augmentation pump (District ID 109473) are, or prior to withdrawals must be, equipped with totalizing flow meters. These meters must maintain 95% accuracy, be verifiable and be installed according to the manufacturer's specifications.
19. The permittee must maintain all meters. In case of failure or breakdown of any meter, the District must be notified in writing within 5 days of its discovery. A defective meter must be repaired or replaced within 30 days of its discovery.
20. The permittee must have all flow meters checked for accuracy at least once every 3 years within 30 days of the anniversary date of permit issuance, and recalibrated if the difference between the actual flow and the meter reading is greater than 5%. District Form No. EN-51 must be submitted to the District within 10 days of the inspection/calibration.
21. All available lower quality sources of water, including reclaimed water and storm water, must be distributed for use or be used by the Permittee in place of higher quality water sources when deemed feasible pursuant to District rules and applicable state law.
22. In the event that an alternative water supply (including surface water, stormwater, or seawater) becomes available for use, the permittee shall use the alternative water supply instead of groundwater unless they demonstrate that it is not economically, environmentally or



technologically feasible to do so.

23. The Permittee must collect and have water quality samples analyzed for the following constituents for the months and wells listed below:

(a) The Permittee must collect and have analyzed a water quality sample from production wells 6, 15, and well 23 (District IDs 17617, 17626, and 38569) in May & October of each year for the permit duration. Each sample must be analyzed for the following:

Field temperature	Sodium
Field pH	Sulfate
Bicarbonate	Total Iron
Calcium	Total Alkalinity
Carbonate	Total Dissolved Solids
Chloride	Total Hardness (by calculation)
Magnesium	Specific Conductance
Potassium	

(b) The Permittee must collect and have analyzed a water quality sample monthly for chlorides from each production well for the permit duration.

(c) The permittee must collect and have analyzed a water sample from Floridan aquifer wells 17, 21, 22, 23, and 24 (District IDs 35638, 38567, 38568, 38569, and 137852) upon completion of the well. The sample must be analyzed for the following:

Field temperature	Sodium
Field pH	Sulfate
Bicarbonate	Total Iron
Calcium	Total Alkalinity
Carbonate	Total Dissolved Solids
Chloride	Total Hardness (by calculation)
Magnesium	Specific Conductance
Potassium	Strontium

Sample Collection, Quality Assurance and Reporting requirements for the samples described in (a), (b), and (c) above must be conducted as follows:

#### Sample Collection:

Samples must be collected in accordance with the Florida Department of Environmental Protection's (FDEP) standard operating procedures (SOP), DEP-SOP-001/01, DEP Quality Assurance Rule, 62-160, F.A.C.

Prior to sample collection a minimum of 3-5 casing volumes must be removed from each well. The well must be purged in accordance with DEP-SOP-001/01 and well purging must be documented using the Groundwater Sampling Log form found in the referenced FDEP SOP. Samples must be stored on ice immediately after collection, and remain on ice until received by the laboratory. It is recommended that sample duplicates be taken to allow for laboratory errors or data loss and these samples be stored by the laboratory for a minimum of 60 days to ensure backup sample availability should re-analyses be required.

#### Quality Assurance:

All water quality analyses must be performed by a laboratory certified by the Florida Department of Health (FDOH) and the National Environmental Laboratory Accreditation Conference (NELAC). All laboratory analyses must be by methods for which the laboratory has FDOH certification. All laboratory analyses must be completed within EPA holding times.

If the data is lost or a laboratory error occurs and the EPA holding time for the analysis has expired, the Permittee must resample the well within 15 days of notification from the laboratory that a loss or laboratory error has occurred.

With the exception of pH, laboratory analyses utilizing selective ion electrodes are not acceptable due to the inadequate sensitivity of these methods. Analyses utilizing test kits typically used for field screening (e.g., Hach and LaMotte) are also not acceptable for the same reason.

All major ion analyses must be checked for anion-cation balance and should balance within 10%. If the anion-cation balance does not balance within 10%, the permittee must review the data and include in the report submitted to the District a discussion of the cause or explanation of the imbalance.

**Reports:**

A report must be submitted to the District within 30 days of receipt of data analysis from the laboratory to include:

- a) Well sampling log
- b) Chain of custody forms
- c) Data report in approved format

All data must be submitted to the District in a District approved electronic format consistent with PDOH and NELAC laboratory reporting requirements.

24. If water quality data collected by the permittee or the District indicate that significant saline water intrusion is occurring in any of the permitted wells as a result of the withdrawals authorized by this permit, the permittee must submit a plan for District approval to abate the impact caused by the saline water intrusion. The plan must contain a schedule for implementation of corrective action, which may include modification of the well construction, well rehabilitation and reduction in well withdrawal rates or other measures identified by the permittee to abate the impact. The permittee must implement the District-approved plan pursuant to the schedule set forth in the plan.
25. Water level monitoring must be initiated by June 11, 2008. The permittee must conduct hydrologic and photo monitoring at each of the eight(8) wetland areas listed below and characterized in the Revised Wetland Impact Assessment received by the District on December 6, 2006:

- MS-1, (Sec 4, T. 18 S., R. 34 E.);
- MS-2, (Sec 8, T. 18 S., R. 34 E.);
- MS-3, (Sec 6, T. 18 S., R. 34 E.);
- MS-4, (Sec 6, T. 18 S., R. 34 E.);
- MS-5, (Sec 1, T. 18 S., R. 33 E.);
- MS-6, (Sec 3, T. 18 S., R. 33 E.);
- MS-7, (Sec 32, T. 18 S., R. 33 E.);
- MS-8, (Sec 1, T. 18 S., R. 33 E.).

The permittee must install shallow monitoring wells at each of the above-listed wetland sites. The wells must be located near the upland/wetland interface. The monitoring well design and specific locations must be approved in writing by the District staff before the wells are installed. The monitoring wells must be installed by a licensed water well contractor (as required in subsection 373.336 (1)(b), F.S.), and all monitoring devices shall be surveyed to NAVD (1988) to an accuracy of +/- 0.01 foot.



If another agency or utility is monitoring the same water body, then the same monitoring equipment/data can, upon written approval by SJRWMD, be used with the owner's consent. A staff gauge may substitute for a shallow monitoring well if District staff determine that the substitution would be capable of capturing a complete range of water fluctuation.

26. Transect locations where vegetation and soils are to be sampled must be approved by the District for each wetland monitoring site by June 11, 2008. Each transect shall be 150 feet in length, and located such that 50 feet of the adjacent upland is included, and oriented towards the wetland center and perpendicular to the wetland edge. The monitoring well should be located on the transect (if possible). If the adjacent upland consists of placed fill, then the transect may be limited to 120 feet in length, such that 20 feet of the adjacent upland is included. The following information must be recorded for each transect:
- a) A permanent photo station must be monumented on the transect near the monitoring well for annual photographs.
  - b) Soil surface elevations must be recorded to an accuracy of +/- 0.1 foot at 5-foot intervals and wherever there is a change in plant community.
  - c) Other environmental features such as the upland/wetland interface, current water level, cypress buttress inflection points (up to 3 individuals), lower extent of lichen lines or upper extent of moss collars, watermarks, and the lower edge of the saw palmetto (*Serenoa repens*) fringe must be surveyed, if present.
  - d) Plant communities must be described, including a listing of all vascular plant species, by plant community, present within 10 feet of one side of the transect line, their relative abundance, and the diameter at breast height (d.b.h.) of any woody plants greater than 1" d.b.h.
  - e) A description of soil color, texture, and hydric soil indicators must be made in the top 24 inches of soil at 25 foot intervals along the transect described above for a total of 7 stations. If the soil survey depicts the soils as open water, then the soil description will occur out to a water depth of 3 feet, and depth to sediment surface and depth of organic substrate will be recorded for the remaining intervals.
27. Rainfall from a rain gauge in the vicinity of the monitoring wells must be recorded weekly, on the same day as the water level recordings. Locations of rain gauges shall be submitted to the District by June 11, 2008 for written approval. The same rain gauge may be used for more than one monitoring site if the sites are located within a ten-mile radius.
28. A Baseline Monitoring Site Report must be submitted to the District by December 11, 2008. The report must include the following information for each monitoring site (as applicable): a) a diagram of the elevations, plant communities, and hydric soils located along the transect, b) a summary of the soils data collected, c) a summary of the vegetation data collected, d) a map showing the location of the rain gauge(s), and e) information regarding the installation of the monitoring wells, including a well completion report, latitude/longitude coordinates of the well, well location on a map, and a brief site description.
29. Monitoring data must be submitted electronically as spreadsheets on January 31<sup>st</sup> and July 31<sup>st</sup> of each year, in a District approved computer accessible format. Data submittal will start on July 31<sup>st</sup>, 2008. The following information must be recorded by the permittee for each wetland monitoring site: water level (weekly without data loggers or daily with data loggers), inches of rainfall (weekly), and pumping volume (weekly by well). Water level data must be reported as elevation above sea level (NAVD). The Permittee must contact the District for specific details on how to submit the computer accessible information. These data must also



be submitted as a legible paper copy (two copies).

30. On March 31<sup>st</sup>, starting in 2009, the permittee must submit an annual report summarizing the monitoring efforts and comparing all of the wetland monitoring data recorded for the last calendar year and previous years. The report must include panoramic photographs taken in September at the established photo stations, and graphs summarizing the rainfall, pumping volume, and monitoring data. The elevation of the upland/wetland interface must be indicated on the graphs. In addition, the report will include a brief analysis of any data trends.
31. If the permittee is unable to obtain or maintain legal access to any of the monitoring sites referenced above, the permittee must notify SJRWMD in writing within 15 days of concluding that access to any specific site is not possible. Within 45 days of this notification, the permittee must submit an alternative site to modify the monitoring network. Within six months of SJRWMD approval of the monitoring network modification, the permittee must implement the approved change(s).
32. A staff gauge must be maintained in the reclaimed augmentation lake and a continuously monitoring pressure transducer must be maintained in Piezometer No. P2. The staff gauge must be recorded daily. Water levels in Piezometer No. P2 must be recorded continuously. Withdrawals from the borrow pit must be terminated when the depth to water drops to a level greater than 15 feet below land surface. Water level data for both the borrow pit and Piezometer No. P2 must be submitted semi-annually to the District with the water use reports. This data must be presented graphically with indication as to when withdrawals occurred. Special care must be made if withdrawals were terminated because of low water levels in Piezometer No. P2.
33. The permittee must monitor levels and water quality of the Floridan aquifer as described below and in the Saline Water Intrusion Monitoring Program (SWIMP) for the permit duration. The SWIMP is detailed in the Saline Water Intrusion Environmental Monitoring Plan submitted to the District, dated November 20, 2006, with the revised locations and details specified in the Technical Memo from Connect Consulting, Inc., dated October 10, 2007. The monitoring wells include Floridan aquifer MW1 (dual zone monitoring well) (District IDs 137853 and 144350) located at the A.R. Thomas Wellfield and Floridan aquifer MW2 (formerly well No. 3) (District ID 17614). In accordance with these documents the permittee must complete and implement the following in addition to the monitoring requirements outlined in the SWIMP:
  - a) MW1 and MW2 must be completed and monitoring begun at least 60 days prior to any of the proposed new wells being used.
  - b) The permittee must have the top of casing and well pad elevations on each monitoring well surveyed in reference to feet NGVD. Surveyed location and elevation must be submitted to the District within 30 days of completion of monitoring well construction.
  - c) The permittee must submit the recorded water level and water quality data to the District semi-annually with the water use submittals.
  - d) The permittee must submit a report bi-annually on April 1, beginning in 2009, containing a trend analysis and future water quality projection as described in the SWIMP.
34. The City must implement the wellfield management plan as described in the Water Plant Operations Manual T.O.C. # 009a, dated October 10, 2007. Any revisions or changes to the plan should be submitted to the District for review within 30 days. Within six months of completion of any of the proposed new wells, the City must update this wellfield management plan to incorporate the new well(s) and submit to the District for review.



35. Prior to the construction of well 23 (District ID 38569), the Permittee must submit a proposed aquifer test plan for District review and approval to be conducted in accordance with the Aquifer Testing Guidelines outlined in the Consumptive Use Permit Applicant's Handbook.
36. The Permittee's consumptive use shall not adversely impact wetlands, lakes, and spring flows or cause or contribute to a violation of minimum flows and levels adopted in Chapter 40C-8, F.A.C., except as authorized by an SJRWMD-approved minimum flow or level (MFL) recovery strategy. If unanticipated significant adverse impacts occur, the SJRWMD shall revoke the permit in whole or in part to curtail or abate the adverse impacts, unless the impacts can be mitigated by the Permittee.
37. All irrigation systems owned and operated by the Permittee must be equipped with rain sensor(s) and/or soil moisture monitoring device(s). The rain sensor(s) and/or controller(s) must be maintained and operational, pursuant to the manufacturer's specifications for permit duration.
38. The permittee shall not irrigate landscape more than two days a week except as provided for in section 40C-2.042, Florida Administrative Code.
39. Landscape irrigation is prohibited between the hours of 10:00 a.m. and 4:00 p.m., except as follows:
  - a) Irrigation using a micro-irrigation system is allowed anytime.
  - b) The use of reclaimed water for irrigation is allowed anytime.
  - c) Irrigation of new landscape is allowed any time of day for the initial 30-day period provided that the irrigation is limited to the amount necessary for landscape establishment.
  - d) Watering in of chemicals, including insecticides, pesticides, fertilizers, fungicides, and herbicides when required by law, the manufacturer, or best management practices is allowed anytime within 24 hours of application.
  - e) Irrigation systems may be operated anytime for maintenance and repair purposes not to exceed ten minutes per hour per zone.
  - f) Irrigation using a hand-held hose equipped with an automatic shut-off nozzle is allowed anytime.
  - g) Discharge of water from a water-to-air conditioning unit or other water dependent cooling system is not limited.
40. The Permittee must submit, to the District, a compliance report pursuant to subsection 373.236(4), Florida Statutes, by December 11<sup>th</sup> in the years 2012, 2017, and 2022. The report shall contain sufficient information to demonstrate that the Permittee's use of water continues, for the remaining duration of the permit, to meet the conditions for permit issuance set forth in the District rules that existed at the time the permit was issued for 20 years by the District. In providing such assurance, the compliance report must, at a minimum:
  - a) meet the submittal requirements of section 4.2 of the District's Applicant's Handbook: Consumptive Uses of Water, February 15, 2006;
  - b) include documentation verifying that the source is capable of supplying the needs authorized by this permit without causing harm to water resources;
  - c) include documentation verifying that use of water is efficient and that the Permittee is implementing all feasible water conservation measures;
  - d) document that significant water quality degradation is not occurring; and
  - e) include information documenting that the projected allocation is needed.



# **Attachment “C”**

Utility Service Area Agreement By and Between  
The City of Oak Hill, Florida,  
The City of Edgewater, Florida and  
The County of Volusia, Florida

**Whereas**, the County of Volusia ("County") is a Florida home rule charter county and has all powers of local self-government not inconsistent with general law; and the City of Oak Hill ("Oak Hill") and the City of Edgewater ("Edgewater"), both are Florida municipal corporations; and

**Whereas**, the Local Government Comprehensive Planning and Land Development Regulation Act, Chapter 163, Florida Statutes, and Rule Chapter 9J-5, Florida Administrative Code, provide requirements and guidelines regarding land use planning, establishment of "levels of service", capital improvement programming for infrastructure requirements, intergovernmental coordination and mutual cooperation, and concurrency of infrastructure provisions with development approvals; and

**Whereas**, the City of Edgewater, the City of Oak Hill, and the County recognize the desirability and the need to provide water and wastewater service within Volusia County, Florida, in a manner which is both economical and based on sound engineering principles and consistent with local, state, and federal regulations, and which promotes conservation of local natural resources; and

**Whereas**, the parties agree the duplication of water and wastewater service facilities is undesirable and may result in needless and wasteful expenditures and wasted resources; and

**Whereas**, Volusia County currently owns and operates a wastewater collection, treatment and disposal facility located in unincorporated Volusia County, northwest of the Oak Hill City limits, for the purpose of providing wastewater treatment service to its customers, including wholesale wastewater service to the City of Edgewater.

**Whereas**, the City of Edgewater currently owns and operates a potable water treatment, supply, and distribution system, located within the city limits of Edgewater, for the purpose of providing potable water service to its customers, including wholesale water service to the County.

**Whereas**, the City of Oak Hill currently does not own or operate water treatment supply and distribution or wastewater collection, treatment and disposal systems to serve customers within the Oak Hill corporate limits; and

**Whereas**, Oak Hill has expressed a desire that the County, on a retail basis, provide for water, wastewater, (and reclaimed water, when available) utility services within Oak Hill's corporate limits; and

**Whereas**, the County agrees to provide water, wastewater, (and reclaimed water, when available) services, on a retail basis, to new development within the Oak Hill corporate limits, under the terms of this agreement;

**Whereas**, Edgewater agrees to supply and make available to the County, on a wholesale basis, water capacity sufficient to meet the demand of the aforementioned development within the Oak Hill corporate limits under provisions of the existing wholesale agreement between the City of Edgewater and the County, dated the 2<sup>nd</sup> day of September, 1999, and titled "Interlocal Water and Wastewater Agreement;

**Whereas**, the parties make and enter into this Agreement for the purposes of accomplishing the goals and objectives stated hereinabove;

**Now, therefore**, in consideration of mutual understandings and covenants set forth herein and pursuant to 125.01 Florida Statutes, County, Edgewater and Oak Hill agree as follows:

1. The foregoing recitations are true, correct and incorporated herein by specific reference.
2. Incorporated herein by specific reference, and attached hereto is a map, being Exhibit 1, comprising the intended water and wastewater service areas of southeast Volusia County, which may in the future be amended as hereinafter set forth. Those areas outlined in bold in Exhibit 1 shall be excluded from the above described service area and the water consumption from said areas shall not be allocated against the reserve capacity set forth in this Agreement.
3. The map attached hereto as Exhibit 1 involves, in the public interest, the results of studies, negotiations, engineering evaluations or analysis, and examination by the respective parties as to the best and most economical means for the provision of water, wastewater and reclaimed water services in the service area.
4. The City of Edgewater hereby agrees to reserve 0.2 MGD capacity to be used exclusively in the southeast Volusia County service area as reflected in Exhibit 1. This reserve capacity can only be adjusted by the unanimous written agreement of all parties to the Agreement.

Nothing in this Agreement shall alter the terms of the Interlocal Water and Wastewater Agreement between the City of Edgewater and the County of Volusia, dated September-2, 1999 and amended from time to time.

5. Potable water and/or wastewater services by the County to Oak Hill may be provided using one or more of the following methods:



- a. Off-site water and/or wastewater main lines may be extended by a utility service agreement (USA) between the County and an individual developer or property owner. The developer or property owner will size water and/or wastewater main lines and pumping stations to provide service to the developer's property, however, the County reserves the right to increase size in accordance with the County's master plan. All amounts expended by the developer, over and above the developer's requirement, as determined by the Utilities Engineer, will be reimbursed by the County to the developer in accordance with terms of the USA through impact fee credits appropriate to the developer's property. Installation of local distribution and collection systems will be the sole responsibility of the developer or property owner.
  - b. The County on its own initiative, may install water and wastewater main lines; local distribution and collection systems, and will be entitled to recover its costs of such installations through the charge of appropriate connection fees and/or costs based on hydraulic share to new customers connecting to such lines.
  - c. Volusia County may, upon the request of Oak Hill or affected property owners, provide financing through a special assessment, municipal service or benefit district, for water, wastewater, and reclaimed main lines, and local distribution and collection systems. The County will manage design and installation for any system improvements undertaken through this provision. A special assessment, municipal service or benefit district to provide water, sewer and reclaim may be available to existing residential properties in a specific geographical area if 51% of those residents approve the proposed improvements. Even if approved, the Volusia County Council has the discretion to decide whether to create a special assessment district. Existing commercial property connections will be determined on a case-by-case basis.
6. All water and wastewater main lines and local distribution and collection system improvements constructed under Number 4 above, and within Oak Hill shall meet the same design standards and level of service standards enforced by the County within unincorporated service areas.
7. The County is responsible for maintenance of the potable water, wastewater, and reclaimed water lines once all lines have been installed and accepted by the County for the provision of such services.

8. Volusia County agrees to charge utility customers within Oak Hill incorporated boundaries the same rate charged to customers located in the unincorporated portion of the service area, with the exception that should Oak Hill require a utility service fee, the fee will be added to the County's rate and passed on to the utility customer,
9. In execution of this agreement, the County will abide by the rights-of-way use regulations of Oak Hill. Oak Hill agrees that it will not unreasonably interfere with or withhold consent for the County's use of rights-of-way, express or implied easements, or the exercise of any other possessory interest that is not in use or which may become necessary to effectuate the intent hereof.
10. Oak Hill will not impose any conditions related to the installation or provision of service in the incorporated area which is not allowed by law or regulations of the City applicable within its municipal limits at the time an application for service is made.
11. For all City of Oak Hill Development Orders for which a Concurrency Certificate of Capacity must be executed and where the proposed development is within the City of Oak Hill as depicted on Exhibit No. 1, a "Determination of Capacity" form will be submitted to the County for review and completion. The County shall make a determination of available capacity in accordance with the provisions of Article XIV of the Volusia County Land Development Code, Ordinance 88-3, as amended. In reviewing projects for capacity availability and reservation, all projects shall be considered on a "first come, first serve" basis, regardless of whether such projects are within the Oak Hill incorporated or the unincorporated service area. The County will, within thirty (30) days of receipt, execute and return all "determination of capacity" forms to Oak Hill.
12. At some point-in-time, no earlier than ten (10) years from the date of execution of this agreement, should Oak Hill wish to acquire the utility infrastructure within the incorporated area, the County and the City of Oak Hill agree to negotiate in good faith the transfer of such utility infrastructure under a separate Agreement. The transfer fee to be paid to the County shall be established by an independent appraiser, agreed to by the City and County, such value to be limited to the actual costs previously incurred by the County in creation of said utility infrastructure. Such transfer will be in accordance with all applicable laws, City and County rules and regulations, and respective bond covenants.
13. The parties hereto agree that any time after the execution hereof, they will, upon the request of the other, execute and deliver such other documents



and further assurances as may be reasonably required by such other party in order to carry out the intention of this Agreement.

14. Failure to insist upon strict compliance of any of the terms, covenants or conditions hereof shall not be deemed a waiver of such terms, covenants or conditions, nor shall any waiver or relinquishment of any right or power hereunder at any time(s) be deemed a waiver of relinquishment of such right or power at any other time(s).
15. This writing embodies the entire agreement and understanding between the parties hereto, and there are no other agreements or understandings, oral or written, with reference to the subject matter hereof that are not merged herein and superseded hereby. No alteration, change or modification of the terms of this Agreement shall be valid unless made in writing and signed by the parties hereto.
16. It is agreed by and among the parties hereto that all words, terms and conditions contained herein are to be read in concert, each with the other, and that a provision contained under one heading may be construed equally applicable under another in the interpretation of this Agreement.
17. All notices, demands or other communications given hereunder shall be in writing and shall be deemed to have been duly affected on the first business day after mailing by U.S., registered or certified mail, return receipt requested, postage prepaid, addressed as follows:

**As to Volusia County:**

County Manager  
Volusia County  
123 W. Indiana Avenue  
DeLand, FL 32720-4612

**With a Copy to:**

County Attorney  
Volusia County  
123 W. Indiana Avenue  
DeLand, FL 32720-4612

**As to the City of Oak Hill:**

Mayor  
City of Oak Hill  
234 S. U.S. Hwy #1  
Oak Hill, FL 32759

City Attorney

**As to the City of Edgewater:**

City Manager  
City of Edgewater  
P.O. Box 100

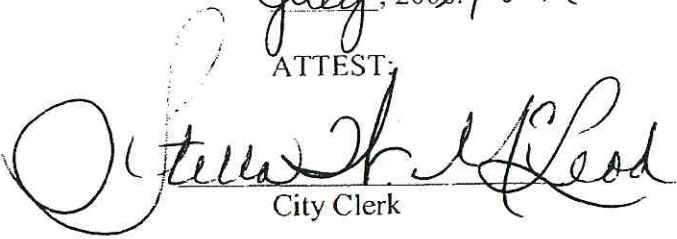
City Attorney  
City of Edgewater  
P.O. Box 100



- 18. The County and City of Oak Hill and the City of Edgewater each participated in the drafting of this Agreement. In the event that any term of this Agreement shall be interpreted by a court of competent jurisdiction, the Agreement may not be construed more or less favorably on behalf of each party hereto on the ground that such party was or was not the drafter of this Agreement.
- 19. In connection with any litigation, including appellate proceedings arising out of the terms of this Agreement, the prevailing party shall be entitled to attorneys' fees and costs.
- 20. All terms of this Agreement, including all covenants, representations, and warranties contained and made herein, shall survive the execution hereof.
- 21. It is expressly agreed that nothing contained herein is intended to waive the rights or limits of sovereign immunity of either party, said rights and limits being hereby expressly retained.
- 22. This agreement may be amended from time to time by mutual consent of the parties. Either party may propose an amendment to this Agreement. All amendments shall be in writing. No amendment shall be effective until approved by all parties to this Agreement

**IN WITNESS WHEREOF**, the parties hereto have caused this Agreement to be executed by their duly authorized representatives as of this 3rd day of July, 2006. 7 PM

ATTEST:

  
 \_\_\_\_\_  
 City Clerk

CITY OF OAK HILL, FL

BY:   
 \_\_\_\_\_  
 Mayor

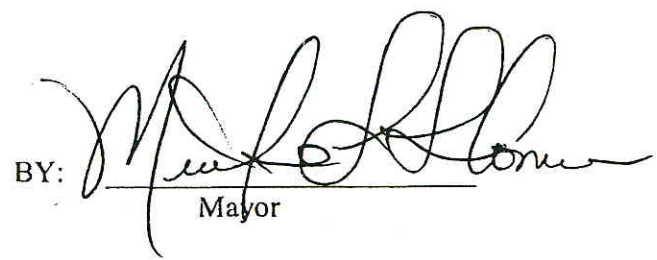
Approved as to Form and Legality:

  
 \_\_\_\_\_  
 Oak Hill City Attorney

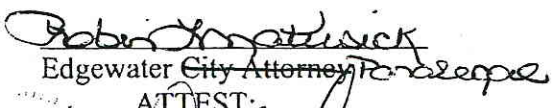
ATTEST:

CITY OF EDGEWATER, FL

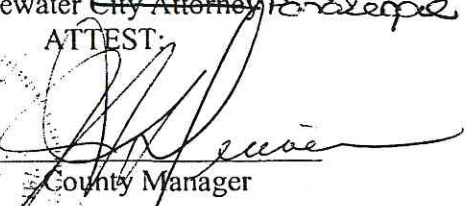
  
City Manager

BY:   
Mayor

Approved as to Form and Legality:

  
Edgewater City Attorney

ATTEST:

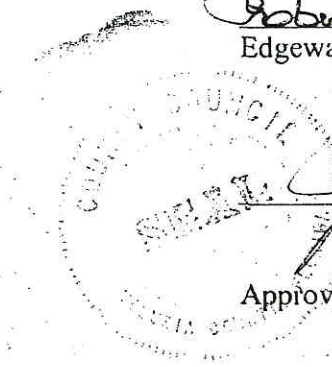
  
County Manager

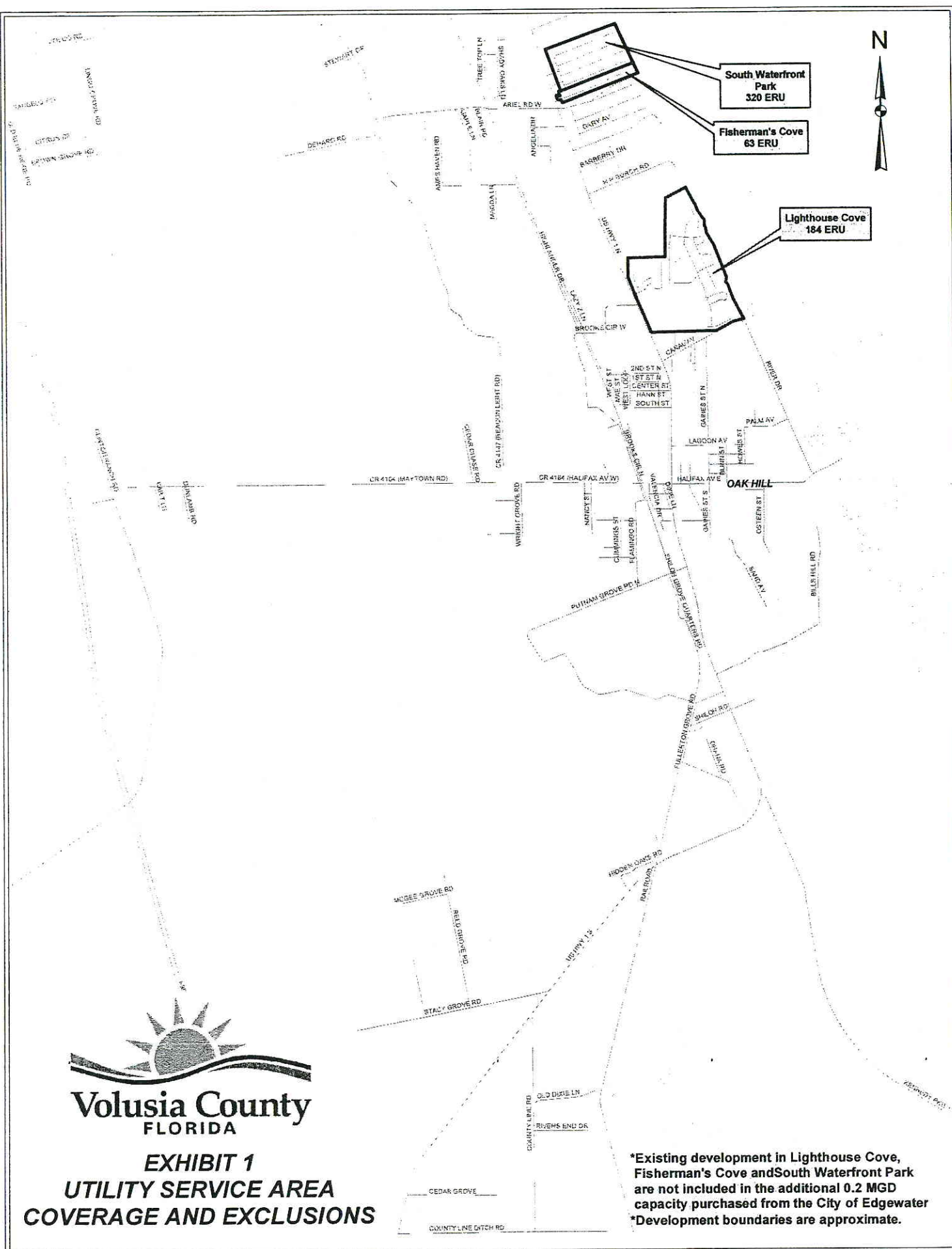
VOLUSIA COUNTY, FL

BY:   
Council Chair

Approved as to Form and Legality:

  
Assistant County Attorney





**Volusia County**  
FLORIDA

**EXHIBIT 1**  
**UTILITY SERVICE AREA**  
**COVERAGE AND EXCLUSIONS**

\*Existing development in Lighthouse Cove, Fisherman's Cove and South Waterfront Park are not included in the additional 0.2 MGD capacity purchased from the City of Edgewater  
\*Development boundaries are approximate.



# Attachment “D”

# CITY OF EDGEWATER



## WATER SUPPLY WORK PLAN DATA AND ANALYSIS

Prepared By:  
QUENTIN L. HAMPTON ASSOCIATES  
-Consulting Engineers-  
December 2008

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# Section I

## Utility Service Area and Planning Period

### A. Service Area Description

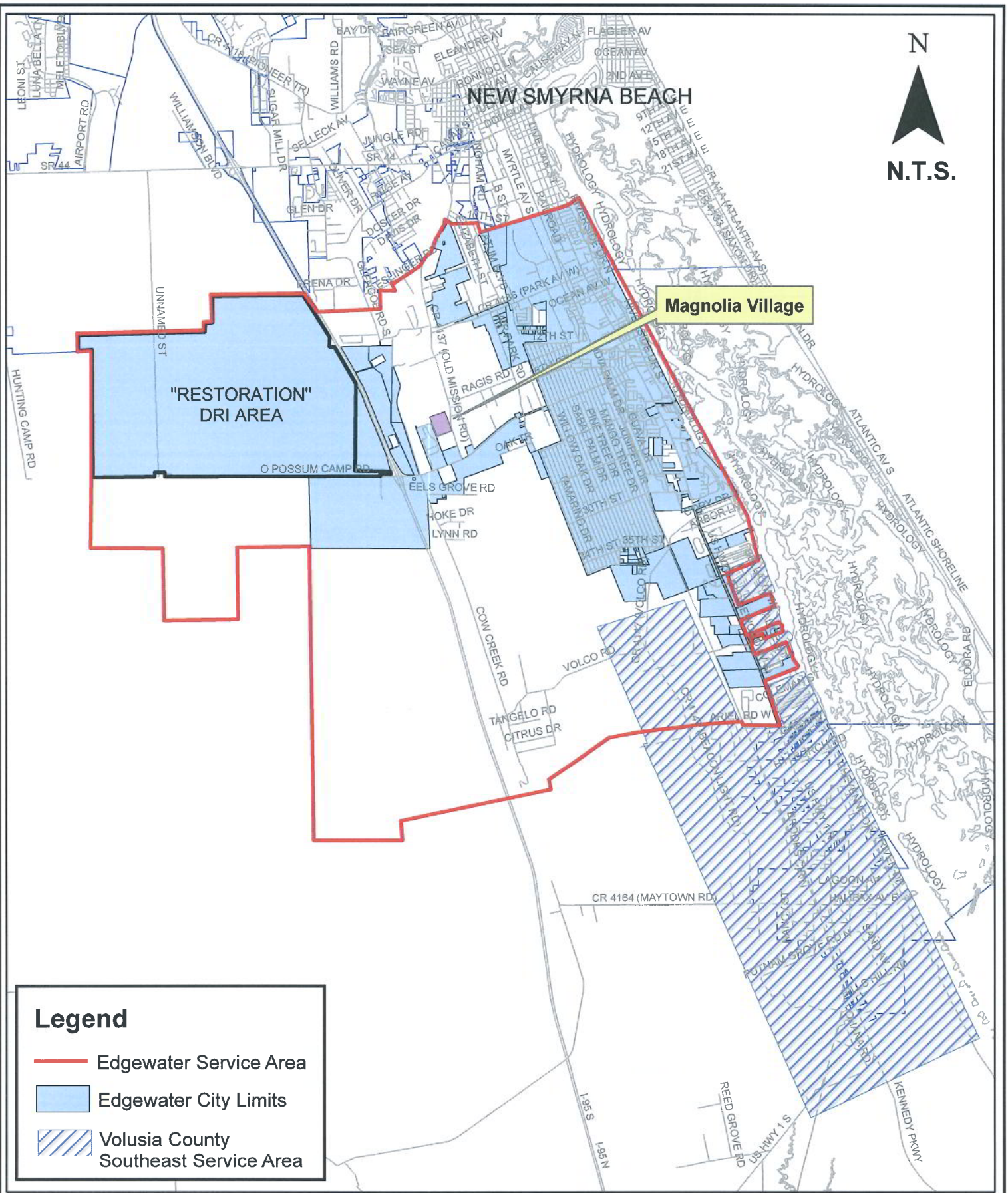
#### (1) Description of Service Area With Map

The City of Edgewater is located in the southeastern part of Volusia County just south of New Smyrna Beach and north of Oak Hill. The City is characterized as a typical coastal community providing central water, wastewater, and reclaimed water service to residential, commercial, and light industrial areas of the City. The current utility service area has a population of approximately 24,899 (2007). The water, wastewater, and reclaimed water service areas are identified on the enclosed map.

A Utility Service Area Map illustrating Edgewater's municipal boundary and service area is included as **Figure 1-1**. The limits shown are consistent with the City's comprehensive plan and consumptive use permit (C.U.P).

No significant service area boundary changes are expected for the duration of this Water Supply Work Plan. The planning period for the work plan is 10 years, ending in 2017. Population and flow projections are illustrated through 2025. The City's current consumptive use permit (C.U.P.) is valid through 2027.

A certain portion of residents in the service area continue to be served by wells and septic tanks. Data provided by SJRWMD indicates that approximately 2,300 people in the service were 'unserved' in 2005. The majority of these are individual properties with 1-5 acre lots. No specific plans are in place to serve these residents. One potential exception is Magnolia Village, it is shown on Figure #1-1.



**Legend**

- Edgewater Service Area
- Edgewater City Limits
- Volusia County Southeast Service Area

QUENTIN L. HAMPTON ASSOCIATES, INC.  
 CONSULTING ENGINEERS  
 FLORIDA CERTIFICATE OF AUTHORIZATION NUMBER: 626  
 FAX: 386.761.3977  
 P.O. DRAWER 290247 PORT ORANGE, FL 32129-0247  
 PHONE: 386.761.6810

**CITY OF EDGEWATER  
 WATER SUPPLY FACILITIES  
 WORK PLAN**

**FIGURE 1-1  
 UTILITY SERVICE  
 AREA MAP**



The mobile home park contains 200 units and approximately 400 residents. The park operates a private water system and does not intend to connect to the City, at this time. The City has cooperated with developer's of adjacent parcels to insure that hydraulic capacity and infrastructure is in place to serve Magnolia Village if they decided to connect at a later date. Demand associated with connection of Magnolia Village is not included in current projections.

**(2) Current Flow/Population Served/Per Capita Usage**

Table 1-1 exhibits the average day, peak day, and average flow per day during the past ten (10) years for the City of Edgewater Service Area. Data was obtained from the Monthly Operation Reports (MORs) of the City's Water Plant.

**Table 1-1  
Average and Peak Raw Water Flows  
City of Edgewater Service Area**

<b>Year</b>	<b>Average Daily Flow (MGD)</b>	<b>Peak Day (MGD)</b>
1997	1.55	2.25
1998	1.68	2.24
1999	1.74	2.27
2000	1.91	2.54
2001	1.92	2.49
2002	1.96	2.36
2003	1.87	2.26
2004	1.98	2.40
2005	1.99	2.61
2006	2.12	2.97

The peak day during 2006 occurred in the month of May. Thus over a ten-year period, the annual average daily flow increased by 38% and the flow for the peak

day increased by 32%. Flows have increased an average of 3.8%/year for the past ten (10) years.

Historically, population in the Edgewater utility service area has exhibited steady growth. Development trends in the area remain strong and population is expected to increase throughout the planning period. A decline in the rate of population increase is expected to occur in the primary service area as the area approaches build-out. Historical population increases in the utility service area since 1997 are detailed below in table 1-2.

**Table 1-2  
Edgewater Utility Service Area  
Historical Population (1997-2006)**

<b>Year</b>	<b>Population</b>
1997	17,186
1998	17,612
1999	18,037
2000	18,462
2001	19,217
2002	19,972
2003	20,727
2004	21,482
*2005	22,237
2006	23,978

\* Source: GIS Associates, 2006

Using the previous data, we are able to calculate the per capita raw water usage in gallons per capita per day (GCD) for the Edgewater Service Area (Table 1-3) for the past 10 years.

**Table 1-3  
City of Edgewater Service Area  
Gallons per Capita per Day**

<b>Year</b>	<b>Average Daily Flow (MGD)</b>	<b>Service Area Population</b>	<b>GCD (GAL)</b>
1997	1.55	17,186	90
1998	1.68	17,612	95
1999	1.74	18,037	96
2000	1.91	18,462	103
2001	1.92	19,217	100
2002	1.96	19,972	98
2003	1.87	20,727	90
2004	1.98	21,482	92
2005	1.99	22,237	89
2006	2.12	23,978	89
<b>10 Year Average</b>			<b>94</b>
<b>Average Last 5 Years</b>			<b>92</b>

### **(3) Unincorporated Service Areas and Wholesale Agreements**

The City of Edgewater provides both wholesale and retail water service. On October 26, 1999, an Agreement was signed to provide wholesale water service to Volusia County. The County owns a distribution system within the southeast quadrant that is dependent upon Edgewater's supply of treated potable water. Areas subject to this agreement are illustrated on Figure #1-1. The Agreement includes a transfer of up to 270,000 gallons per day and establishes a rate structure for capacity charges and user fees. Significant developments served in



the unincorporated area include Hacienda del Rio, Boston Whaler, Waterfront Park, South Waterfront Park, Fisherman's Cove, and Lighthouse Cove. Current demand is approximately 300,000 GPD, annual avg. daily flow (AADF).

In addition, Magnolia Village is a private provider of potable water within the Edgewater service area. They currently use approximately 50,000 gallons per day. The area is shown on Figure #1-1. The owners of Magnolia Village have discussed the possibility of connecting to the City's distribution system, but have decided not to. The City has cooperated with developers of adjacent subdivisions to insure the availability of distribution infrastructure when/if Magnolia Village decides to connect.

Demand associated with serving Magnolia Village is not included in the current projections. If the status of this area changes, the City will adjust its projections accordingly.

## **Section II**

### **Existing and Alternative Water Sources**

#### **A. Historic Dependence on Ground Water for Public Use**

##### **(1) Hydrogeologic Setting**

The City of Edgewater utilizes groundwater from the Floridan Aquifer as its source of potable water supply. The only other significant source of fresh water is the St. Johns River, which is 26 miles away.

##### **Geology**

Regional geologic data collected by various sources indicates that the water plant and wellfield areas are underlain by unconsolidated Pleistocene and Holocene deposits consisting of fine to medium quartz sands, clayey sand and localized shell beds. Surficial deposits are underlain by sediments of Pliocene to late Miocene age consisting of sand, shells and calcareous clay.

Underlying these unconsolidated deposits is the Ocala limestone formation which is composed of cream to white fossiliferous limestone. Its thickness is generally less than 100 feet. Beneath the Ocala limestone is the Avon Park limestone of late-middle Eocene Age. It consists of layers of dark brown dolomite separated by layers of chalky limestone. The formation thickness is estimated at approximately 300 feet (Wyrick, 1960). Production wells at the Thomas and Western sites are open holes from approximately 110 feet to 250 feet below grade, and are withdrawing from the Ocala and Avon Park limestone.

## Hydrogeology

A thin clay layer serves as an intermediate confining unit which hydraulically separates the potentiometric heads of the Upper Floridan Aquifer (UFA) from the surficial aquifer system (Phelps, 1990). The potentiometric surface represents the water surface elevation in the aquifer, in an unconfined condition. Based on data obtained annually by St. Johns River Water Management District, typical potentiometric water surface elevations of the UFA in the vicinity of the wellfields ranges from 0 to 10 feet NGVD.

Ground surface elevations at the wellfields and corresponding water table/surficial aquifer elevations are approximately 30 feet NGVD. As a result of the net downward gradient between the surficial aquifer and UFA, and leakance through the confining layer, the terrace and ridge areas provide some recharge to the UFA. Recharge rates are estimated at 8 or 9 inches per year (Phelps, 1990).

The source of water for the surficial aquifer is primarily local rainfall. Water is stored in the pore space of the soils. Water exists in the surficial aquifer via downward leakance, horizontal flow to drainage ways and evapotranspiration. The volume available for withdrawal from the Volusia Floridan Aquifer is dependent upon the surficial system. Any discussion of the surficial aquifer in the Edgewater service area should point out the positive aspects of the Miocene Age clay. This clay helps assure the water quality of the municipal supply. The ion exchange potential of the material forms a protective barrier to the downward migration of pollutants. Nevertheless, improper waste disposal must be isolated from the surficial aquifer.

It should be noted that the confining layer exhibits leakance and as such, promotes recharge. This characteristic is valuable as it renews water supplies withdrawn for consumption; however, leakance creates a hydraulic connection from the Surficial Aquifer to the UFA. If contamination of the surficial aquifer occurs, it is possible to compromise the City's water supply.



## **(2) Ground Water Quality**

The Floridan aquifer occurs throughout Volusia County within the limestones and dolomitic limestones of middle to late Eocene age. It provides most of the public water supply for the County. The Floridan aquifer is subdivided into an upper and lower part. The Upper Floridan aquifer generally consists of fresh water and is separated from the Lower Floridan aquifer by a hard, dense dolomite layer and chalky, low permeable limestone. Water quality below these strata, in the Lower Floridan aquifer is generally brackish.

Water quality in the Upper Floridan aquifer is generally good, with some areas of concern. Over-pumping and wells constructed too deep would tend to degrade the water quality over time with respect to chlorides and sulfates. Table 2-1 illustrates the range of water quality that could be expected from Upper Floridan aquifer wells, as well as water quality results from City of Edgewater wells.

Water quality varies across portions of the County. Generally, water quality is best in the northwest quadrant and deteriorates approaching the St. Johns to the west and the Atlantic Ocean to the east. Lime softening is practiced in Edgewater to reduce hardness.

**Table 2-1  
Water Quality  
Upper Floridan Aquifer**

Constituent	Range	Average Edgewater Values
Chloride (mg/l)	32 – 95	55
Iron (mg/l)	0.02 – 0.26	.07-.09
Total Hardness (mg/l)	212 – 340	320
Calcium Hardness (mg/l)	84 – 136	310
Sulfate (mg/l)	0 – 3	.05
Soluble Sulfide (mg/l)	<0.01 – 0.15	N/A
Hydrogen Sulfide (mg/l)	<0.01 – 0.02	N/A
Bicarbonate Hardness (mg/l)	225 – 360	310
Noncarbonate Hardness (mg/l)	0 – 18	N/A
Total Dissolved Solids (mg/l)	329 – 496	440
Specific Conductivity (pmhos/cm)	580 – 795	674
PH	7.3 – 7.4	7.1

### **(3) Recharge**

The Floridan Aquifer in Volusia County has been designated a sole source aquifer by the USEPA. The limits of the sole source aquifer roughly equate to the boundaries of the County. Therefore it is replenished only by rainfall which falls within its borders. The main recharge area is the DeLand Ridge in the western section of the County. The Rima Ridge in eastern Volusia County also provides some recharge to the Floridan Aquifer. The rate of recharge is dependent upon 1) difference in head between the surficial aquifer and the Floridan Aquifer and 2) the presence and continuity of confining clay layers between the aquifers.

## **B. Regional Water Supply Planning Implications for Future Ground Water Usage**

### **(1) Alternative Sources**

#### **Deficit Projections**

Currently, SJRWMD has not officially identified groundwater deficits associated with future aquifer withdrawals from the Edgewater wellfields through 2025; However, a draft document entitled “Implementation Strategy For Achieving The Minimum Flow Regime for Blue Spring and Other Water Resource Constraints in Volusia County, Florida” identifies potential 2025 deficits. Potential deficits range from 0.3 to 1.3 MGD for different scenarios, based upon district modeling results. This does not currently affect the City’s ability to meet projected demands through the 10 – year study period.

The City of Edgewater was issued a Consumptive Use Permit (CUP) in 2007. SJRWMD has the legislative authority to limit CUP allocations for individual permit holders based upon cumulative groundwater withdrawals, and their potential effect upon spring flows. Therefore, future regional groundwater deficits could be assigned countywide, but not on a utility by utility basis. In the event that this occurs, Edgewater should be prepared to meet future demands utilizing alternative sources as detailed below.

#### **Alternative Water Supply Sources and Options**

At the time of this writing, the City of Edgewater has existing firm raw water supply capacity (largest well out of service) to meet peak day flows of 4.1 MGD and treatment capacity of 5.0 MGD. Assuming an availability factor of 2.0, well capacity meets ADF demands of 2.0 MGD. The availability factor is used to provide rotational capacity and avoid operating wells more than 12 hrs/day. Current and projected demands exceed 2.0 MGD. As such, the City of



Edgewater has the need for new Floridan Aquifer wells. The recently issued C.U.P. approved construction of 8 new Floridan Aquifer wells.

The City is a member of the Water Authority of Volusia (WAV). The WAV interlocal agreement was re-written, the role of WAV as a regional water supplier limited. This plan assumes that WAV will be, primarily, a planning agency.

The WAV prepared a 'Master Facilities Plan' which was accepted by the members. Recommendations set forth in the plan indicated that a combination of techniques should be implemented to meet additional water requirements. Fresh groundwater will remain the dominant source of water supply, especially in eastern Volusia County. Alternative water sources identified in the Plan are:

- Surface Water from the St Johns River
- Artificial Recharge and Regional Aquifer Management Plan (RAMP) projects
- Brackish Groundwater
- Demand Reduction Strategies

Under the revised interlocal agreement, WAV members may implement alternative water supply projects independently, or as separate sub-groups. In fact, many of the RAMP projects have been built; others are in the planning or design stage. Descriptions of alternative water supply strategies are detailed below. Detailed review and analysis of each source is outside the scope of the report; however, a brief description is included for reference purposes.

Within this 10-year planning period, Edgewater will satisfy its water supply needs as an independent entity. The City will continue to rely on fresh groundwater to satisfy this need for potable supplies, reclaimed water and stormwater will continue to be used for non-potable and irrigations uses.

(a) Surface Water, (St. Johns River)

As previously indicated, proposed Blue Spring MFL Legislation will impact all Volusia County utility providers withdrawing groundwater from the UFA. The primary reason for wide-ranging impacts has to do with cumulative effects of groundwater pumping. As such, utility providers in western Volusia County will ultimately rely on a surface water plant withdrawing water from the St. Johns River. The future surface water plant may ultimately supply the majority of potable water consumed in western Volusia County, approximately 20 – 30 MGD by 2025.

Cumulative groundwater withdrawals from the UFA reduce the potentiometric surface elevation in the aquifer and consequently reduce flow in Blue Spring. Under the current Consumptive Use Permitting (CUP) process, water providers must model the cumulative impacts of not only their groundwater withdrawals, but also the anticipated withdrawals of others. In virtually every circumstance, cumulative withdrawals serve to limit CUP groundwater allocations.

A potential mechanism for reducing the effects of cumulative withdrawals is by reducing the quantity of groundwater withdrawn in the vicinity of Blue Spring. Doing so increases the volume of groundwater that can be withdrawn by utilities in other portions of the County. Therefore, a surface water plant immediately addresses the most urgent water supply need faced by residents throughout Volusia County.

It is probable that a group consisting of west Volusia utility providers will take the lead role in constructing a surface water plant on the St. John's River. The Edgewater water system may never directly receive water from the facility; however, the City will still derive a benefit from the water it produces due to a net reduction in groundwater withdrawals from the Floridan Aquifer.

(b) Brackish Groundwater

Brackish groundwater may be withdrawn from the Lower Floridan Aquifer (LFA) without affecting the Upper Floridan Aquifer (UFA). The LFA is hydraulically separated from the UFA by a hard, dense dolomite and layers of chalky, low permeable limestone, which act as a confining layer. The water quality in the LFA ranges from 5,000 to 10,000 Total Dissolved Solids (TDS). Wells completed into this zone, which occurs at >500 feet below land surface in the Edgewater area could be used to blend with waters from either UFA or the Surficial Aquifer.

Wells completed into the LFA would not be limited by well yield, since this zone is typically highly transmissive. But, water quality will require alternative treatment techniques. The water could be treated using membrane processes or blended with water from the UFA. If used for “blend wells”, the amount of water from this source would be limited by an acceptable blend ratio to maintain a safe concentration level below the Drinking Water Standard for Chlorides and Sulfates of 250 mg/l. This blend ratio would depend on whether the finished water is used for drinking or irrigation. For finished potable water, the blend product would need to be between 150 and 200 mg/l.

The brackish waters of the LFA could also be treated using membrane treatment technology to produce high quality drinking water or lower quality irrigation water. The primary problem in developing a water supply using brackish water membrane treatment is concentrate disposal. The preferred concentrate disposal method is deep well injection. This method has been used in both southeast and southwest Florida; however, the occurrence of an injection zone has not yet been proven in Volusia County. A viable injection zone must be highly transmissive. Other disposal alternatives include discharge to saline waters, discharge to a publicly owned treatment works (POTW), and blending with reclaimed water. All of these disposal methods have their limitations and permitting hurdles. The State of Florida Department of Environmental Protection (FDEP) may allow a surface water discharge from a small membrane water treatment plant, or a discharge to a POTW may be allowed depending on the



ultimate disposal and/or quality of the blended discharge waters from that Wastewater Treatment Plant (WWTP).

Potential deficits which may be faced by Edgewater after 2017 are relatively low, 1 – 2 MGD. Utilizing R/O technology to treat groundwater from the LFA may be a cost effective option. Groundwater quality is more consistent than brackish surface water. Transmission, pre-treatment and filtration costs are also less than for surface water. Further study is required to determine potential service availability.

The City will participate with other regular utility providers to evaluate the potential for further utilizing brackish groundwater from the LFA.

(c) Artificial Recharge and RAMP Projects

RAMP development is on-going. The Phase I Report was completed in 2002. The Phase II Report was completed in February 2004.

The basin with the largest impact upon the Edgewater water source is the Deep Creek Basin (168 square miles). The basin was included in the Regional Aquifer Management Plan Phase II. The technical memorandum prepared for V.W.A. was titled “Part B Surface Water Control of County Canal and Ditch Systems”. The concept of this RAMP program was to evaluate whether structural water level controls would reduce runoff discharged to surface water increase recharge and enhance wetland hydroperiods. RAMP is proposed as a method to increase the available supply of groundwater.

Deep Creek Watershed lies west of Edgewater. The watershed area is approximately 168 square miles and the direction of flow is generally north to south. Elevations range from a high of 75 feet NGVD to a low of 10 feet NGVD. The slope is generally gradual due to the length of the watershed.

There are four major watercourses in the basin – Cow Creek, Deep Creek, Lake Ashby Canal, and Sandy Drain. Cow Creek runs southwest commencing in the southern portion of the Spruce Creek Swamp and discharges to Deep Creek. Deep Creek collects flow from Akins Bay Slough and Marsh Swamp, and then runs in a southeasterly direction to the confluence with Lake Ashby Canal and south to the St. John's River. The majority of the basin is comprised of wetlands. The primary exceptions are cross-county roadways and some bordering sand ridges. Three soil units are present, the Pomona-Wauchula unit, the Daytona-Satellite-Cassia unit, and the Samsula-Terra-Ceia-Tomoka units. These units yield a composite hydrologic soil group classification as follows: 6 percent Group A, 15 percent Group C, and 80 percent Group D. The depth of the water table is generally at or near the surface in the wetland areas and one to two feet below ground throughout the rest of the watershed.

Soils in the basin are primarily type 'D' and minimally conducive to recharge. Most of the property within the Deep Creek Watershed is zoned rural and wetland/conservation. A review of published data indicates that approximately 60% of the property in the basin is wetland/conservation and only 4% is zoned residential or commercial. From a future land use perspective, the area is favorable for continued low to moderate rate recharge to the Volusia Floridan aquifer.

Another project identified in the Phase I technical memorandum which could affect Edgewater was the Rima Ridge RAMP. The project involved re-directing excess reclaimed water, towards reservoirs/recharge basins. The concept is that properly sited reservoirs and recharge basins will induce additional recharge to the surficial and Floridan Aquifer Systems. The source of water used to fill the basins was reclaimed wastewater.

The Rima Ridge RAMP (R<sup>3</sup>) project involves the East Volusia communities of Edgewater, New Smyrna Beach, Port Orange, Daytona Beach, Holly Hill and Ormond Beach.

The primary project elements are as follows:

1. Interconnect the existing reclaimed water distribution systems.
2. Construct three reservoirs/recharge basins in areas conducive to natural recharge.
3. Re-direct excess reclaimed water from individual utilities to the proposed reservoirs for storage, aquifer recharge, and reclaimed water augmentation.

The project eliminates up to 13 MGD of wastewater effluent currently discharged to the Halifax River and the Indian River Lagoon. All effluent is beneficially reused via one of the previously referenced techniques. The quantity of water directed to recharge is a function of on-site geology. The quantity used to augment reclaimed water supplies is determined by system demand. Water not recharged or reused will be directed to on-site treatment wetlands and used to re-establish the natural hydroperiod of wetlands which may be affected by wellfield pumpage. The anticipated additional recharge should allow increased groundwater withdrawals from the Rima Ridge area wellfields.

Three primary considerations will affect potential reservoir locations for the Rima Ridge RAMP.

1. Proximity with respect to zones conducive to recharge, i.e. the Rima Ridge.
2. Proximity to existing wellfields.
3. Property ownership and control.
4. Proximity to reclaimed water sources.

The first consideration, recharge potential, is an over-riding concern. Locating each of the reservoirs within favorable recharge areas is essential. A large



portion of eastern Volusia County provides for little recharge to the Floridan Aquifer, as such, the Rima Ridge area is one of the few areas where significant recharge may occur.

The second consideration, proximity to existing wellfields, is important because potential deficit reduction is more easily accomplished by introducing additional water in the immediate areas where deficits are predicted. It is not surprising that the greatest deficits of concern are predicted to occur in the wetland areas surrounding existing wellfields. Similarly, it is logical to augment water supplies in the same areas.

The third consideration, property ownership and control, requires little discussion. Facilities proposed under this program involve large areas, hundreds of acres. Acquisition of large tracts of contiguous property is a difficult, expensive and time consuming process. Given that no cost estimates, site plans, environmental assessments, permit applications, funding requests or design plans may be prepared without a site, it is important that proposed sites be under public control. This does not preclude other sites from being considered for future projects, but all sites evaluated for the R3 project should be under public control if this program is to be implemented in the near future.

The fourth consideration, proximity to reclaimed water sources, is important in evaluating the capital costs of transmission main construction. The interconnection of reclaimed water lines between the Cities should alleviate much of this concern. Edgewater and Volusia County are moving forward with an interconnect project.

It should also be noted that projects identified by RAMP have an excellent chance of being funded by Water Management District grants. Port Orange, Ormond Beach and DeLand all received grant funds for RAMP projects. Edgewater continues to participate in W.A.V. and is open to the concept of joint participation in future ramp projects.

(d) Conservation, Reclaimed, and Demand Reduction Strategies

Existing WAV and member utility conservation programs, such as low flow showerheads and toilets, rain sensors for lawn irrigation, and education programs, would stay in effect. The use of reclaimed water to supplement and/or replace fresh water used for irrigation purposes has been aggressively pursued by the City of Edgewater. These programs are anticipated to minimize additional demand increases.

Conservation is an important element of The City's Water Supply Plan. An aggressive program to reduce per capita consumption can extend the ability of the utility system to serve additional customers. The City's water conservation practices, include the following:

- The building code requires low water volume fixtures in new construction.
- Will continue to conduct its own program and participate in WAV's public outreach and education program.
- The City has an active program to encourage the use of low volume toilets
- Meter calibration program for master meters
- Maintain distribution system
- Water audits are performed to identify system losses
- Adoption of landscape water conservation regulations that provide landscape and irrigation standards
- Adoption of regulations that require installation of water-saving plumbing devices
- Adoption of regulations that override green lawn deed restrictions
- Implementation of incentive programs to replace inefficient landscapes, plumbing devices, and appliances
- Implementation of a program that provides indoor water audits and leak detection and irrigation system audits
- Promote and encourage the use of low impact development techniques.

Water use inside the home can be reduced by the use of low volume fixtures. The building code requires them on new construction. Older homes can be encouraged to retrofit their fixtures through incentive programs. Incentive programs have been used and a 15% reduction in water consumption has been observed in retrofit units. An active program to encourage the use of low volume toilets is available in the City of Edgewater.

The City is providing reclaimed water from the Wastewater Treatment Plant to approximately 3,000 homes. That represents a good start towards the conservation objective. Historically, Edgewater has reclaimed 90% of plant flow and stormwater augmented volume. The use of reclaimed water for residential lawn irrigation has been well accepted by consumers. The Edgewater reclaimed water program is currently evaluating reclaimed supplements that would allow the City to further reduce surface water discharge. This subject is addressed in greater detail in section 3(c). The City implements the following reclaimed water policies:

- Require installation of reuse supply lines
- Require connection of new development or substantial redevelopment to a reuse system, to supply uses that do not require potable water
- Use reclaimed water for irrigation and other non-potable needs in public areas owned by the local government

The City has a meter calibration program for master meters. The City's water distribution crew is responsible for main repairs. This crew identifies areas needing rehabilitation and the phased replacement of older systems is an ongoing effort. Finally, water audits are performed to identify system losses. The most recent water audit resulted in unexplained losses that were much lower than those typical of similar sized communities.



## Section III

### Water and Reclaimed Water Systems

#### A. Existing Water System

##### (1) Water Supply and Production Areas

The City of Edgewater utilizes groundwater from a series of Upper Floridan Aquifer wells as its source of potable water supply. The wells are all within the City's service area. Present and projected growth of the area has required the installation of new wells to meet increased demand.

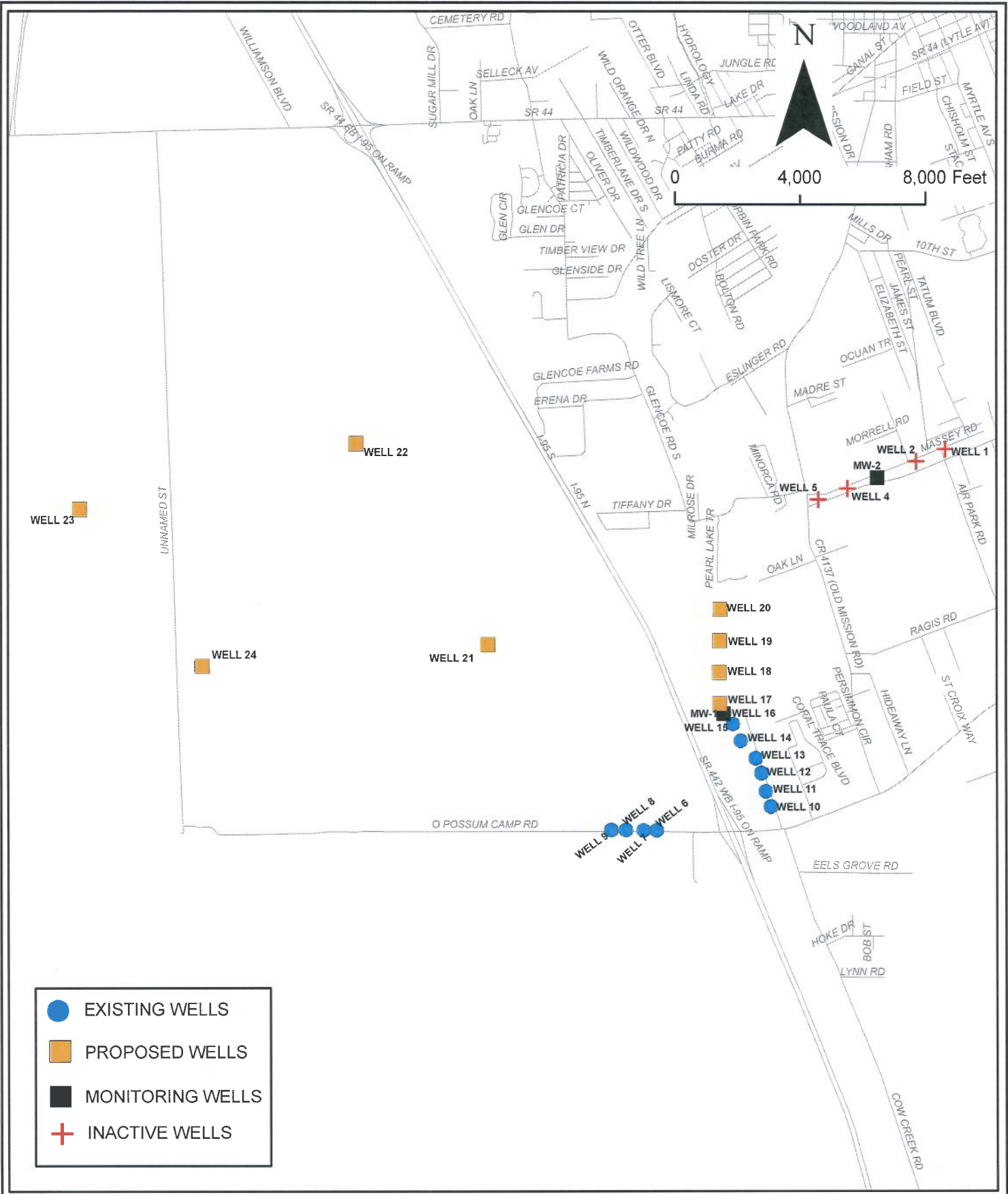
##### (2) Existing Wells and Capacities

In 1957 the City's first supply well was constructed adjacent to the former Park Avenue elevated tank. The groundwater was treated via ion exchange and distributed to City customers.

Like all of the other east Volusia utility providers, Edgewater started moving west in its search for acceptable groundwater sources. During 1982, wells were installed along Park Avenue west of Air Park Road.

A major shift west occurred during 1986 with the construction of wells #6, #7, #8 and #9 west of Interstate 95. A raw water main was routed to the water plant on Park Avenue.

During 1991, the water plant was relocated and a new wellfield was developed at the water plant property. This includes wells #10 - #15. A tabular listing of each existing and proposed well with its casing size, depth, capacity, and drill date is included in Table 3-1. Well locations are shown in **Figure 3-1**.



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**City of Edgewater**  
**Water Supply Facilities**  
**Work Plan**

**FIGURE 3-1**  
**WELL LOCATIONS**

File: EW31-1 well locations.mxd

**Table 3-1  
Summary of Groundwater Sources**

Utility Well ID	Wellfield	CAS Dia	CAS Depth	TOT Depth	OPHR Day	Pump Capacity (GPM)	Date Drilled
6	Western	10	106	250	6	450	1986
7	Western	10	108	250	6	450	1986
8	Western	10	102	250	6	450	1986
9	Western	10	103	250	6	450	1986
10	AR Thomas WF	12	103	200	8	250	1991
11	AR Thomas WF	12	102	200	8	250	1991
12	AR Thomas WF	12	107	200	8	250	1991
13	AR Thomas WF	12	108	200	8	250	1991
14	AR Thomas WF	12	107	200	8	250	1991
15	AR Thomas WF	12	97	200	8	250	1991
16	AR Thomas WF	12	100	200	abandoned		1991
17	AR Thomas WF	12	110	200	6	250	Proposed
18	AR Thomas WF	12	110	200	6	250	Proposed
19	AR Thomas WF	12	110	200	6	250	Proposed
20	AR Thomas WF	12	110	250	6	250	Proposed
21	Western	12	110	250	6	400	Proposed
22	Western	12	110	250	6	400	Proposed
23	Western	12	110	250	6	400	Proposed
24	Western	12	110	250	6	400	Proposed

Total Capacity = 5,900 GPM (8.50 MGD)  
Firm Capacity = 5,400 GPM (7.85 MGD)  
(Largest well out of service)



All of Volusia County is dependent upon groundwater. The public and private utilities within Volusia County have approximately 282 active wells that are used to withdraw potable water supplies. Edgewater represents approximately 3.5% of the well count and 3.3% of the volume withdrawn.

The City's current firm yield, capacity with the largest well out of service, is 4.1 MGD. Current capacity exceeds average day demand by a factor of 2, allowing for wells to be rotated with 50% of the wells on at one time, approximately 12 hours/day or less. In order to maintain average well operating times at 12 hours/day, or less, a capacity factor of 2.0 to 2.5 is necessary. Four (4) new wells #17-20, are proposed in FY '08-'09. Wells #21-24 will be constructed with Restoration D.R.I in FY 12/13. Upon completion of all wells authorized for construction under the current C.U.P., the firm capacity will be 7.85 MGD, sufficient to meet demand throughout the 10 year planning period.

Water quality and well levels within the wellfields have remained consistent over the past ten years. The City withdraws approximately 50% of its raw water from each of its wellfields. Judicious management of the resource has enabled the City to supply its customers with a reliable source of high quality groundwater. The City will continue to rely upon fresh groundwater from the Floridan Aquifer for potable demands through the 10-year planning period.

## **B. Treatment/Distribution/Storage Facilities**

### **(1) Existing Treatment Processes**

The Alan R. Thomas Water Treatment Facility has a rated capacity of 5.0 MGD. The plant is described as an enhanced lime softening facility. Current demand is less than 50% of plant capacity.

Water enters the treatment process through a tray aeration structure. The raw water releases hydrogen sulfide during this process stage. After aeration, water flows by gravity to the reactor basins. Polymer and lime are added to the water.

The lime reacts with dissolved carbonate and hardness is precipitated out of the treated water. Softened water has a high pH. This parameter is reduced by recarbonation. Recarbonation is followed by filtration and disinfection. The plant has produced water of excellent quality. The plant has sufficient reserve capacity to meet system needs.

Lime sludge is removed from the reactor basin by valves controlled by automatic timers. This wasting occurs throughout the day in response to the needs of the softening process. As water production increases so will the volume of waste lime sludge. The City recently constructed a gravity thickener to concentrate the waste sludge. The City has established an arrangement with Baker Transport to haul thickened sludge. Lime sludge is pumped to a truck on an as needed basis.

## **(2) High Service Pumping and Storage**

The primary storage and pumping facilities are located at the Alan R. Thomas Water Plant. The plant site includes a 1.0 million gallon reservoir and a site reserved for a future tank of a similar size. The tank is a prestressed composite design reinforced concrete structure. It includes a domed roof in order to maintain quality prior to distribution. There is 200,000 gallons of storage in the clear well at the plant and 150,000 gallons in the Kumquat Tower.

The City retains a storage and booster pump station at the old water plant site on Park Avenue. That facility has 600,000 gallons of available storage.

Distribution system pressure is provided by three 200 HP split case centrifugal pumps. At the Park Avenue site there are two 100 HP and two 75 HP booster pumps.

## **C. Reclaimed Water Facilities**

The City of Edgewater has aggressively pursued a reclaimed water program for over 10 years. The benefits of the City's program include: 1) reduction of outfall to the Indian River and 2) reduction of potable water usage for irrigation.

The City's Wastewater Treatment Facility currently operates under the FDEP Operating Permit No. FL0021431. The City of Edgewater WWTP has two (2) separate effluent criteria related to the outfall utilized. The operating permit was issued in July 2007. The permitted capacity of the plant is 2.75 MGD (AADF). The surface water outfall has a permitted discharge capacity of 0.83 MGD (AADF).

The reclaimed water system is a complex collection of structures, pumps, pipes, and valves serving approximately 3,000+/- customers. Typical daily use ranges between 0.8 and 1.7 million MGD.

The major structural components of the system include three (3) reinforced concrete ground storage tanks that are available to store reclaimed water and water that fails to meet the "public access" standard identified in F.A.C. Chapter 62-610. Reject water can be stored in a dedicated 1.0 MG structure and a dual use 2.25 MG structure. The larger tank can be used for either reject water or water in compliance with the "public access" standard. This dual use structure was included in the plant permit. The reclaimed system utilizes a dedicated 2.25 MG structure and the above referenced dual use 2.25 MG tank. Thus during normal operation, the City can store up to 4.5 MG of treated effluent. The availability of storage allows the City to bank water on days of lower demand (rain days) and thus further reduce surface water discharge.

The 21 acre borrow pit adjacent to the WWTP may be used to augment the supply of reclaimed water, via introduction to the treatment plant for filtration and disinfection.



System pressurization is derived from seven high service pumps. The City has two (2) 15-hp pumps (275 gpm), three (3) 60-hp pumps (1,000 gpm), and two (2) 100-hp pumps (1,700 gpm). This combination of pumps gives the City a delivery rate ranging between 0 and 3,600 gpm (5.2 MGD) while maintaining a pressure level of 70 psi at the plant. At lower pressure (55 psi) an instantaneous flow of 5,000 gpm can be achieved.

## Section IV

### Water Use and Capital Needs

#### A. Historic Water Use

In section I of this report we summarized historical water use in terms of total flow and per capita usage. In 2006, an approximate population of 23,978 used an average of 2.2 MGD. The per capita demand over the past 5 years is approximately 92 GPCD. In 2007 annual average demand decreased to 1.99 MGD.

Table 4-1 summarizes historical potable water demand from 2001-2007. It illustrates historical groundwater pumpage, finished water distribution and metered flow.

**Table 4-1  
Edgewater Service Area  
Historical Flows and Account Summary**

<b>Year</b>	<b>Avg. Pumped Flow</b>	<b>Avg. Finished Water Flow</b>	<b>Avg. Metered Flow</b>	<b>Total Water Accounts</b>	<b>Avg. Flow Per ERU</b>
	(MGD)	(MGD)	(MGD)	(MGD)	(GPD/ERU)
2001	1.92	1.78	1.58	8,558	225
2002	1.96	1.77	1.58	8,928	220
2003	1.87	1.71	1.63	9,581	195
2004	1.98	1.79	1.78	9,898	200
2005	1.99	1.75	1.73	10,170	196
2006	2.12	1.90	1.80	10,421	203
2007	1.99	1.90	1.76	10,449	190
<b>Average</b>	<b>1.98</b>	<b>1.80</b>	<b>1.69</b>	<b>9,715</b>	<b>204</b>

The historical flows include pumped and metered flow to Volusia County's Southeast Service Area. The City has a wholesale service agreement for bulk sale of water in this area. In 2007 the average daily flow sold was 297,000 GPD. A tabular listing of projected demands in the S.E. services area is included under tale #4-3, herein.

The City and County are currently negotiating an amended interlocal agreement which addresses water, wastewater and reclaimed water service in the S. E. service area. The concept is for the City to provide retail water and wastewater service to all customers north of Ariel Rd. Water will be sold to the County, on a wholesale basis, for all customers south of Ariel Rd. Details regarding the agreement are still being negotiated. Reclaimed water is addressed in Section IV E.

The net effect of the agreement will be a reduction of the County service area and an increase in the City's area. Actual demand will not be affected by the agreement. Projected demands within the referenced area were included in the City's current C.U.P. A breakout of estimated demand is included in Table 4-3.

## **B. Demand Analysis and Projections**

### **(1) Current CUP Status**

The primary constraint limiting the City's groundwater withdrawals is defined in Edgewater's Consumptive Use Permit (CUP) issued by the St. Johns River Water Management District. The City received its CUP# 9157 issued on December 11, 2007 and expires on December 11, 2027. Governing Board approval was received December 12, 2007. It has a 20 year duration. Allocations approved in the CUP application are as follows:

**Table 4-2**  
**City of Edgewater CUP**  
**Permitted Annual and Maximum Groundwater Withdrawal Limits**

<b>Year</b>	<b>Permitted Annual Average Withdrawal (MGD)</b>	<b>Permitted Maximum Daily Withdrawal (MGD)</b>
2006	2.21	3.32
2007	2.30	3.45
2008	2.39	3.59
2009	2.49	3.74
2010	2.58	3.87
2011	2.66	3.99
2012	2.73	4.10
2013	2.81	4.22
2014	2.89	4.34
2015	2.96	4.44
2016	3.02	4.53
2017	3.07	4.61
2018	3.13	4.70
2019	3.18	4.77
2020	3.24	4.86
2021	3.28	4.92
2022	3.33	5.00
2023	3.38	5.01
2024	3.43	5.15
2025	3.48	5.22



It should be noted that the City's originally requested C.U.P. allocation request was rejected by SJRWMD. After a 4-year review and negotiation period, the City agreed to accept SJRWMD's population and demand projections. They are included herein as Table #4-2 A.

Table 4-2A

SJRWMD Population and Flow Projections for City of Edgewater

	Year	Last 2003 Pop	Units (2003 WSA + 2005 Diff)	Pop Per Unit	Revised Pop	Hist GPC (gpd)	New GPC (gpd)	Avg GPC (gpd)	GPU (gpd)	Pumped ADF (mgd)
<b>Estimates</b>	2001	18,896.64	8,142.00	2.46	20,029	95.98			236.11	1.922
	2002	19,330.88	8,506.00	2.46	20,925	93.73			230.58	1.961
	2003	19,765.12	9,152.00	2.46	22,514	83.05			204.30	1.870
	2004	20,199.36	9,469.00	2.46	23,294	84.79			208.58	1.975
	2005	20,633.60	9,747.00	2.46	23,978	83.18			204.63	1.995
<b>Projections</b>	2006	21,426.82	10,121.70	2.46	24,899	88.15	101.37	88.64	218.04	2.207
	2007	22,220.04	10,496.41	2.46	25,821	88.15	101.37	89.09	219.16	2.300
	2008	23,013.26	10,871.11	2.46	26,743	88.15	101.37	89.51	220.20	2.394
	2009	23,806.48	11,245.82	2.46	27,665	88.15	101.37	89.91	221.17	2.487
	2010	24,599.69	11,620.52	2.46	28,586	88.15	101.37	90.28	222.08	2.581
	2011	25,249.50	11,927.48	2.46	29,342	88.15	101.37	90.56	222.79	2.657
	2012	25,899.30	12,234.44	2.46	30,097	88.15	101.37	90.83	223.45	2.734
	2013	26,549.10	12,541.39	2.46	30,852	88.15	101.37	91.09	224.09	2.810
	2014	27,198.90	12,848.35	2.46	31,607	88.15	101.37	91.34	224.69	2.887
	2015	27,848.70	13,155.31	2.46	32,362	88.15	101.37	91.57	225.27	2.963
	2016	28,309.94	13,373.19	2.46	32,898	88.15	101.37	91.73	225.66	3.018
	2017	28,771.17	13,591.06	2.46	33,434	88.15	101.37	91.89	226.04	3.072
	2018	29,232.40	13,808.94	2.46	33,970	88.15	101.37	92.04	226.41	3.126
	2019	29,693.63	14,026.82	2.46	34,506	88.15	101.37	92.18	226.76	3.181
	2020	30,154.87	14,244.70	2.46	35,042	88.15	101.37	92.32	227.11	3.235
	2021	30,562.81	14,437.41	2.46	35,516	88.15	101.37	92.44	227.41	3.283
	2022	30,970.76	14,630.12	2.46	35,990	88.15	101.37	92.56	227.70	3.331
	2023	31,378.71	14,822.83	2.46	36,464	88.15	101.37	92.67	227.98	3.379
	2024	31,786.66	15,015.54	2.46	36,938	88.15	101.37	92.79	228.25	3.427
	2025	32,194.61	15,208.25	2.46	37,412	88.15	101.37	92.89	228.52	<b>3.475</b>

SJRWMD's population projections, and associated potable water demand projections, through 2015 reflect an average increase of approximately 2.6% per year. This is less than historical growth patterns and is suppose to reflect growth throughout the service area, including wholesale areas and the area encompassing Restoration D.R.I. It is unknown what percentage of the total growth is assigned to each. The SJRWMD projections underestimate future demand in Restoration.

The proposed Restoration D.R.I. is illustrated on Figure #1-1; it occupies the majority of all land in the City's service area west of I-95 and north of SR #442. A separate discussion of the area, and its potential impact upon the City's water supply strategies, is included in the work plan.

## **(2) Restoration D.R.I.**

Restoration D.R.I. is a major development proposed for construction west of I-95 and north of SR # 442. The development encompasses 5,181 acres and may ultimately contain up to 8,500 dwelling units and approximately 3.2 million square feet of retail and commercial office space. The D.R.I. application is currently being evaluated by the Department of Community Affairs (DCA) and Volusia County Growth Management Commission (VGMC).

The City of Edgewater will provide water and wastewater service to the proposed development. Reclaimed water will be provided on a wholesale basis and the Restoration Homeowner's Association (HOA) will manage public access reuse distribution within the D.R.I.

The City's water plant capacity is 5 MGD and current firm production capacity is 4.1 MGD. Firm production capacity will be 5.54 MGD by 2010 after construction of 4 new wells. The developer has identified a 7 year build-out period for Phase I (2007-2013); however, the D.R.I. is still under review and initial customer

demand is not anticipated until 2010. Therefore, build-out of Phase I is not expected until the end of 2016, or beginning of 2017. This timeline corresponds to the 10 year planning period of the work plan. A table detailing projected potable demand through 2017 has been prepared. It identifies current and projected potable demands including those associated with both Restoration and Volusia County's S.E. service area. Table #4-3, below, includes build-out of Restoration, Phase I, at 3,692 equivalent dwelling units. Per capita demand is 92 GPCD and occupancy is 2.27persons per dwelling unit. This corresponds with historical demand of 204 GPD/D.U. as set forth previously.

**Table 4-3**  
**Edgewater Potable Water Demand Estimates, (2008 – 2018)**

<b>YEAR</b>	<b>Edgewater Primary Service Area</b>	<b>Restoration DRI</b>	<b>Volusia County S.E. Service Area</b>	<b>Total All Areas</b>	<b>CUP Allocation</b>
	(mgd)	(mgd)	(mgd)	(mgd)	(mgd)
2008	1.70	0.00	0.30	2.00	2.39
2009	2.00	0.00	0.30	2.30	2.49
2010	2.05	0.00	0.31	2.40	2.58
2011	2.10	0.10	0.31	2.51	2.66
2012	2.15	0.25	0.32	2.72	2.73
2013	2.20	0.35	0.32	2.87	2.81
2014	2.25	0.45	0.33	3.03	2.89
2015	2.30	0.55	0.33	3.18	2.96
2016	2.35	0.65	0.34	3.34	3.02
2017	2.40	0.75	0.34	3.49	3.07
2018	2.45	0.85	0.35	3.65	3.13

Notes:

- (1) 2007 Actual demand was 1.989 mgd
- (2) Assumes that occupancy within Restoration commences in 2010
- (3) Modification of Interim CUP allocation may be required in2012



## C. Source Needs Assessment

Currently, SJRWMD has not established groundwater deficits for Edgewater associated with future aquifer withdrawals proposed. Implementation of proposed MFL rules has the potential to change regional deficit projections; however, the City was issued a 20 year CUP in December 2007.

SJRWMD has the legislative authority to limit Consumptive Use Permit allocations for individual permit holders based upon cumulative groundwater withdrawals, and their potential effect upon wetlands and surface waters. Therefore, future regional groundwater deficits may be assigned and usage restricted. In the event that this occurs, Edgewater should be prepared to meet future demands utilizing traditional and alternative sources as detailed below.

### a) Groundwater

The City's primary water source through the 10 year planning period is ground water. At the time of this writing, the City of Edgewater has existing firm raw water supply capacity to meet peak day flows of 4.1 MGD. Assuming an availability factor of 2.0, Edgewater has an immediate need for additional wells. The City wholly owns property near both the Western and A.R. Thomas wellfields.

The current CUP application includes approval for eight new wells. Four (4) wells, #17-20, are proposed for construction in FY '08-'09. Design and permitting for these wells is nearly complete. Funds for construction are included in the current C.I.P. The estimated cost for the project is \$1.2 million.

The estimated withdrawal capacity of wells #17-20 is 250 GPM, total capacity is approximately 1,000 GPM (1.44 MGD). Upon completion of this project, total raw

water supply capacity will be 5.54 MGD; the proposed wells will provide sufficient raw water supply and rotational capacity through 2012.

An additional four wells, #21-24, are proposed for construction within the proposed Restoration D.R.I. The development may contain up to 8,500 E.R.U.'s and occupies approximately 5,200 acres. The developer will dedicate four (4) well sites, each with an estimated capacity of 300-400 GPM. A total withdrawal capacity of 1,400-1,600 GPM (2 MGD – 2.3 MGD) is proposed from the 4 sites. Construction of the new wells is scheduled in FY 12/13 and is included in the 5-year C.I.P.

Upon completion of the new wells, firm supply capacity will be 7.85 MGD. This is adequate to supply projected average and real demand through 2017.

Fresh groundwater will continue to be the dominant raw water source for Edgewater's potable supply through 2017. If MFL limitations create deficit conditions, the City intends to pursue brackish groundwater as an alternative supply.

b) Conservation, Reclaimed, and Demand Reduction Strategies

Existing WAV and member utility conservation programs, such as low-flow showerheads and toilets, rain sensors for lawn irrigation, and education programs, will stay in effect. The use of reclaimed water to supplement and/or replace fresh water used for irrigation purposes has been aggressively pursued by the City of Edgewater. These programs have helped reduce demand increases and allowed the utility to maintain extremely low per capita consumptive rates. The City continues to expand its reuse program; details regarding reclaimed reuse are addressed in section 3(e).

## **D. Facility Work Plan Capital Needs**

### **1. Rehabilitation and Replacement**

With the 5 MGD Water Treatment Plant, the City of Edgewater will not need significant capital expansion improvements in the next 10 years. Anticipated work at the treatment plant is limited to rehabilitation and replacement (R&R) of existing process equipment, pumps, electrical components and media. The City has budgeted approximately \$800,000 in FY08/09 C.I.P. to construct necessary R&R work and process upgrades at the WTP.

### **2. Raw Water Supply**

The City's current C.U.P. application, currently under review, includes a total of eight (8) new wells. The wells will increase production capacity to 7.8 MGD. Four (4) of the 8 wells, #17-20, are included in the C.I.P. for construction in FY 2008/2009. The estimated construction cost is \$1.2 million. The additional 4 wells, #21-24, are sited in Restoration D.R.I. Construction of these wells will occur in FY 12/13 and will cost \$2.3 million. Raw water transmission and finished water distribution needed to serve the D.R.I. will be constructed by the developer.

A list of raw water supply projects to be funded and constructed by the City and/or developers has been prepared and is described below:

#### **a) Wells #17-20**

Four (4) new 12" water supply wells, access roadways, electrical service and raw water transmission in the A.R. Thomas Wellfield.

Estimated cost = \$1.2 million

b) **Wells #21-24**

Four (4) new 12" diameter water supply wells, raw water piping, electric service, telemetry and instrumentation. Well sites and paved access to each provided by developer of Restoration D.R.I.

Estimated cost = \$2.3 million

### **3. Potable Water Storage, Pumping and Distribution**

The majority of potable water distribution components needed to serve future customers will be provided and installed by developers. Exceptions relate to remote storage and pumping. In many cases, remote storage and pumping is required to satisfy peak demand and fire flow requirements. Remote storage and pumping also provides for redundancy in the event of service interruptions at the WTP or water main beaks in the distribution system. Two remote storage tank and pump stations projects are proposed.

a) **S.E. Service Area Storage Tank and Pump Station**

A 1.0 MG storage tank and pump station is proposed for construction to serve new development along the US-1 corridor in the S.E. service area.

Estimated Cost = \$2.0 million

b) **Western Storage Tank and Pump Station**

A 1.0 MG storage tank and pump station is proposed for construction to serve the new D.R.I.

Estimated Cost = \$130,000



## **E. Reclaimed Water System**

There are three (3) elements of potential customer growth for the reclaimed water system. They include infill of served subdivisions, future subdivisions, and future retrofits of older areas of the City. The City has the potential to use all of its available supply serving reclaimed water to irrigation customers, in existing served subdivisions and new developments. No retrofit programs are necessary.

The City currently utilizes >90% of its available effluent. Augmentation is required during peak demand periods. The area served by existing reuse distribution system supplemented by the demand from the future developer-installed systems, will fully utilize annual average daily flow. The City does not need to incur the expense of retrofits to achieve its goals regarding surface water discharge.

Future expansion of the reclaimed water system is limited to the following areas:

- 1) Developer Installed Irrigation Systems
- 2) Volusia County S.E. Service Area
- 3) Restoration D.R.I.

A tabular listing of existing and proposed reclaimed water sources and demands has been prepared, and is included below as Table #4-4:

**Table #4-4  
City of Edgewater  
Reclaimed Water Projections**

<b>Year</b>	<b>WWTP Flow (MGS)</b>	<b>Augmentation Capacity (MGD)</b>	<b>Primary Service Area Demand (MGD)</b>	<b>Restoration D.R.I. Demand (MGD)</b>	<b>*Volusia County S.E. (MGS)</b>	<b>Total Demand (MGS)</b>
2008	1.2	1.0	1.21	0	0	1.21
2009	1.33	1.0	1.26	0	0	1.26
2010	1.40	1.0	1.33	0	0	1.33
2011	1.56	1.0	1.39	.31	0	1.70
2012	1.73	1.0	1.45	.41	.20	2.06
2013	1.90	1.0	1.52	.51	.25	2.28
2014	2.07	1.0	1.59	.61	.30	2.50
2015	2.23	1.0	1.64	.71	.35	2.70
2016	2.40	1.0	1.71	.81	.40	2.92
2017	2.56	1.0	1.77	.91	.45	3.13
2018	2.65	1.0	1.83	1.01	.50	3.34

\*Note: Reuse Supply from Volusia County S.E. Regional WWTP

Reclaimed water service to Restoration D.R.I. will be on a wholesale basis. The City and developer will participate in construction of transmission facilities from the WWTP to the site. The developer and H.O.A. will own and maintain on-site reuse storage, pumping and distribution facilities. On-site facilities will include ponds, pumps and distribution piping. Integrated stormwater/reclaimed water ponds will be used by the developer to satisfy non-potable demands.

Additional wastewater treatment / reclaimed water production capacity required to serve Restoration will be sited at the existing WWTP or at a remote facility constructed within the D.R.I. Both options are currently being evaluated. Sufficient treatment and reclaimed water capacity is available through 2016.

Capital projects necessary to serve Restoration and the S.E. service area include wastewater treatment capacity and reclaimed water storage, pumping and transmission facilities. The three (3) projects are identified as follows:

1) **Water Reclamation Facility Expansion/Addition**

Construction of a 2.5 MGD waste water plant expansion or new facilities within Restoration.

Estimated Construction Cost = \$15 Million

2) **Western Reclaimed Water Transmission**

25,000 LF, 18" diameter reclaimed water transmission main from the WWTP to Restoration is required to convey reuse to the site and/or effluent from the D.R.I.

Estimated Construction Cost = \$3.5 million

3) **Volusia County S.E. Service Area Interconnect**

Reclaimed water transmission mains, storage and pumping facilities are necessary to provide effluent disposal capacity from the County's waste water plant and irrigation supply to new developments.

Estimated Construction Cost = \$5million

## **V. Funding Sources and Project List**

### **A. Funding**

The City of Edgewater can utilize several revenue sources to meet system maintenance and upgrade requirements. The revenue sources include the following:

1. Retail user charges
2. Wholesale user charges
3. Service charges
4. Interest income
5. Hydrant rental
6. Reclaimed water user charge
7. Connection fees
8. Development fees
9. Low interest loans
10. Grants

Revenue sources for items 1-6 have been tracked over a long period and can be reliably projected through the next three (5) fiscal years. The retail user charge is the primary revenue source that must be adjusted to meet the revenue required by the utility.

The City's Water and Sewer Operating Budget for FY'07-'08 is approximately \$9.8 million. The FY '07-'08 budget includes CIP funds for design and permitting the four (4) new wells in the A. R. Thomas wellfield.

New facilities identified herein will be funded primary through: development fees, low interest loans and grants. The City is currently evaluating its development fees to insure compatibility with anticipated expenses. Edgewater is also



preparing an 'FDEP Facility Plan' for review and approval by the FDEP's Bureau of Facility Funding.

The 'Facility Plan' will allow the City to pursue low interest loan financing for wastewater and reclaimed water system improvements. User charge revenues from the expanded system will serve to repay loans.

The City will pursue grants for alternative water supply (AWS) development to fund reclaimed water expansion programs. 20% cost share participation is available for reclaimed water initiatives. The City intends to pursue funding for eligible projects under this program.

The City's capital projects list is included as Table #5-1. It identifies the schedule, cost and funding source.

**Table 5-1  
City of Edgewater  
Utilities  
Capital Improvements Schedule  
September 2008**

**WATER SYSTEM PROJECTS**

#	PROJECT AREA	FUNDING SOURCE	FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13
1	Water Plant Upgrades (Stairways, Aerators, & Painting)	User Charges	\$340,000	\$800,000	\$0	\$0	\$0
2	ART Water Supply Wells # 17-20	Impact Fees Loan	\$1,210,931	\$0	\$0	\$0	\$0
3	S.E. Service Area Storage Tank and Pump Station	User Charges	\$101,400	\$2,000,000	\$0	\$0	\$0
4	Western Storage Tank and Pump Station	Developer	\$0	\$130,000	\$0	\$0	\$0
5	Wells 21-24	SRF Developer	\$0	\$0	\$0	\$0	\$2,300,000
<b>Subtotal Potable Water:</b>			<b>\$1,652,331</b>	<b>\$2,930,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$2,300,000</b>

**WASTEWATER AND RECLAIMED WATER PROJECTS**

#	PROJECT AREA	FUNDING SOURCE	FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13
6	WWTP Rehabilitation and Replacement	SRF Developer	\$0	\$3,000,000	\$3,000,000	\$0	\$0
7	Western Reclaimed Water Main Extension	SRF Developer	\$0	\$350,000	\$3,500,000	\$0	\$0
8	2.5 MGD Wastewater Plant	SRF Developer	\$0	\$0	\$1,000,000	\$7,500,000	\$6,500,000
9	SE Reclaimed Water Storage Tank and Pump Station	SRF Impact Fees	\$0	\$350,000	\$5,000,000	\$0	\$0
<b>Subtotal WW and Reclaimed Water</b>			<b>\$0</b>	<b>\$3,700,000</b>	<b>\$12,500,000</b>	<b>\$7,500,000</b>	<b>\$6,500,000</b>



**CITY OF EDGEWATER**  
**COMPREHENSIVE PLAN**  
**UTILITIES ELEMENT**  
**SANITARY SEWER SUB-ELEMENT**  
**GOALS, OBJECTIVES AND POLICIES**

**CHAPTER IV**

## CHAPTER IV- UTILITIES ELEMENT SANITARY SEWER SUB-ELEMENT GOALS, OBJECTIVES AND POLICIES

### A. GOALS, OBJECTIVES AND POLICIES

Goals, objectives and policies are crucial to the implementation of the *Comprehensive Plan* and each of the elements and sub-elements. They represent important official statements of public policy that will be used to manage the future growth of the City.

Periodically, current City practices and the following *Sanitary Sewer Sub-element* Goals, Policies and Objectives will be reviewed for conformity.

**GOAL 1:** The City will provide wastewater treatment facilities designed to protect public health and the environment, will cause those facilities to be available concurrent with development and will construct and operate those facilities in an efficient manner.

**Objective 1.1:** *Wastewater Treatment Capacity.* Ensure that sufficient wastewater treatment capacity exists prior to the issuance of new development approvals. [9J-5.011 (2)(b)3., F.A.C.]

**Policy 1.1.1:** *Average Wastewater Flow Level of Service.* An average wastewater flow of 204 gallons per equivalent residential unit (ERU) per day is hereby established as the standard level of service for the City of Edgewater's wastewater treatment facility. [9J-5.011 (2)(c)2., F.A.C.]

**Policy 1.1.2:** *Level of Service and Determining the Capacity Demand.* The established level of service standards of 204 gallons per ERU per day will be used to determine the capacity demand generated by proposed development.

**Policy 1.1.3:** *Proposed Improvements to the Wastewater System.* All proposed improvements to the wastewater system, including capacity increase, system expansion, or facility replacement will be consistent with the established level of service standard.

**Objective 1.2:** *Wastewater Facilities Concurrency.* Ensure that all wastewater facilities required to support proposed development are available concurrent with such development. [9J-5.011 (2)(b)3., F.A.C.]

**Policy 1.2.1:** *Developers Purchasing Required Wastewater Capacity.* The City will require developers to purchase required wastewater capacity prior to obtaining a development permit. [9J-5.011 (2)(c)1., F.A.C.]



SANITARY SEWER

**Policy 1.2.2:** *New Development and Wastewater Collection Facilities.* The City will require each new development to construct wastewater collection facilities and lift stations as needed to connect to the existing system. [9J-5.011 (2)(c)1., F.A.C.]

**Policy 1.2.3:** *New Development and Irrigation Distribution Systems.* The City will require each new development or substantial redevelopment project to construct an irrigation water distribution system and whenever feasible to connect to the City's existing reclaim water supply system. However, the City may accept an alternative supply for reclaim water augmentation and alternative irrigation water subject to review and approval by the City, including private systems.

**Objective 1.3:** *Wastewater Facilities Operation and Maintenance.* Provide proper operation and maintenance of existing and future wastewater system facilities to ensure optimum system performance. [9J-5.011 (2)(b)2., F.A.C.]

**Policy 1.3.1:** *Operation and Maintenance of Wastewater Treatment Facility Systems.* The wastewater treatment facility system will be operated and maintained in compliance with applicable local, State and Federal regulations.

**Policy 1.3.2:** *Reporting Violations of Wastewater Facility Operating Rules.* The City will promptly report any violations of local, State or Federal wastewater facility operating rules to the appropriate agency, and shall take immediate steps to correct any violations.

**Policy 1.3.3:** *Wastewater Treatment Plant Operator Certification.* The City will employ wastewater treatment plant operators with appropriate and current state wastewater treatment plant operator certification.

**Policy 1.3.4:** *Maintaining the Wastewater Treatment Plant.* The City will maintain the wastewater treatment plant to ensure production of unrestricted public access quality effluent, consistent with FDEP criteria for use as reclaimed water for irrigation and to continue to obtain effective recovery of reclaimed water from sewage.

**GOAL 2:** The City shall plan for the expansion or increase in capacity of the wastewater system to meet future needs.

**Objective 2.1:** *Increasing Wastewater Facilities Capacity.* Plan for the expansion or increase in capacity of the wastewater system to meet future needs. [9J-5.011 (2)(b)2., F.A.C.]

**Policy 2.1.1:** *Coordination with Volusia County.* The City will continue its efforts to coordinate with Volusia County to utilize available capacity in the County's south plant to serve customers within the City's service area.

SANITARY SEWER

**Policy 2.1.2:** *Interlocal Agreement and Provision of Wastewater Treatment Services.* The City will comply with the terms of the latest revision of the interlocal agreement between the City of Edgewater and Volusia County with regard to provision of wastewater treatment service to City and County residents.

**Policy 2.1.3:** *Expansion of the Wastewater System Priorities.* Priority of the expansion of the wastewater system shall be:

- to existing areas which present an immediate threat to public health or safety;
- to in-fill development in areas of current service availability;
- to areas providing a logical extension of existing facilities and service; and
- to promote the production and distribution of reclaimed water as an alternative to Upper Floridian aquifer water being utilized for uses not requiring potable water as irrigation. [9]-5.011 (2)(c)1., F.A.C.]

**Objective 2.2:** *Providing Reclaimed Water Service.* Provide reclaimed water service to customers in the Southeast Service Area and establish a beneficial reuse of effluent from the Volusia County Southeast Regional Treatment Plant pursuant to the St. Johns River Water Management District (SJWMD) *Water Supply Plan*.

**Policy 2.2.1:** *Monitoring Development Activity within Subject Area.* The City will monitor development activity within the subject area and establish a target for delivery of the project commensurate with available users. Construction is currently anticipated to occur in FY 2010/2011, subject to demand.

**Policy 2.2.2:** *Interconnect Projects and the 5-year CIP.* The City will include the interconnect projects within the *5-year Capital Improvements Program* and address it within the *Water Supply Facilities Work Plan (WSFWP)*.

**Policy 2.2.3:** *Volusia County Southeast Service Area Interconnect Project.* The City will complete the design plans for the Volusia County Southeast Service Area Interconnect project that are currently in progress.

**Policy 2.2.4:** *Funding for the Interconnect Project.* The City will pursue cooperative funding for the Interconnect project through the SB444 program.

**GOAL 3:** The City will continue to optimize the use of reclaimed water and to operate its reclaimed water system efficiently in order to maximize effective use of reclaimed water to reduce demands on groundwater resources and to provide an alternative to using potable water for purposes not requiring potable water, such as irrigation.

**Objective 3.1:** *Reclaimed Water Disposal.* Maximize reclaimed water disposal capacity, make use of available augmentation sources when feasible and encourage careful use of reclaimed water by its customers. [9J-5.011 (2)(b)3., F.A.C.]

**Policy 3.1.1:** *Expansion of the Reclaimed Water System Priorities.* Priority of the expansion of the reclaimed water system shall be:

- to new development in areas recently annexed by the City; then
- to existing, non-connected residences and businesses in areas of current service availability; then
- to in-fill development in areas of current service availability; then
- to areas providing a logical extension of existing facilities and service. [9J-5.011 (2)(c)1., F.A.C.]

**Policy 3.1.2:** *Augmentation Sites and Sources.* The City will work closely with the SJRWMD to develop the existing permitted augmentation site, and to identify and permit additional supply augmentation sites and sources.

**Policy 3.1.3:** *Reclaimed Water and Encouraging Conscientious Use of Reclaimed Water.* The City will continue its effective recovery of 90% of wastewater to reclaimed water and encourage conscientious use of reclaimed water. Elements of the program may include:

- public education through printed media, the City's web site and other means;
- a series of fines for non-compliance; and
- implementation of metered rates, including tiered rates, if required, to reduce wasteful use.

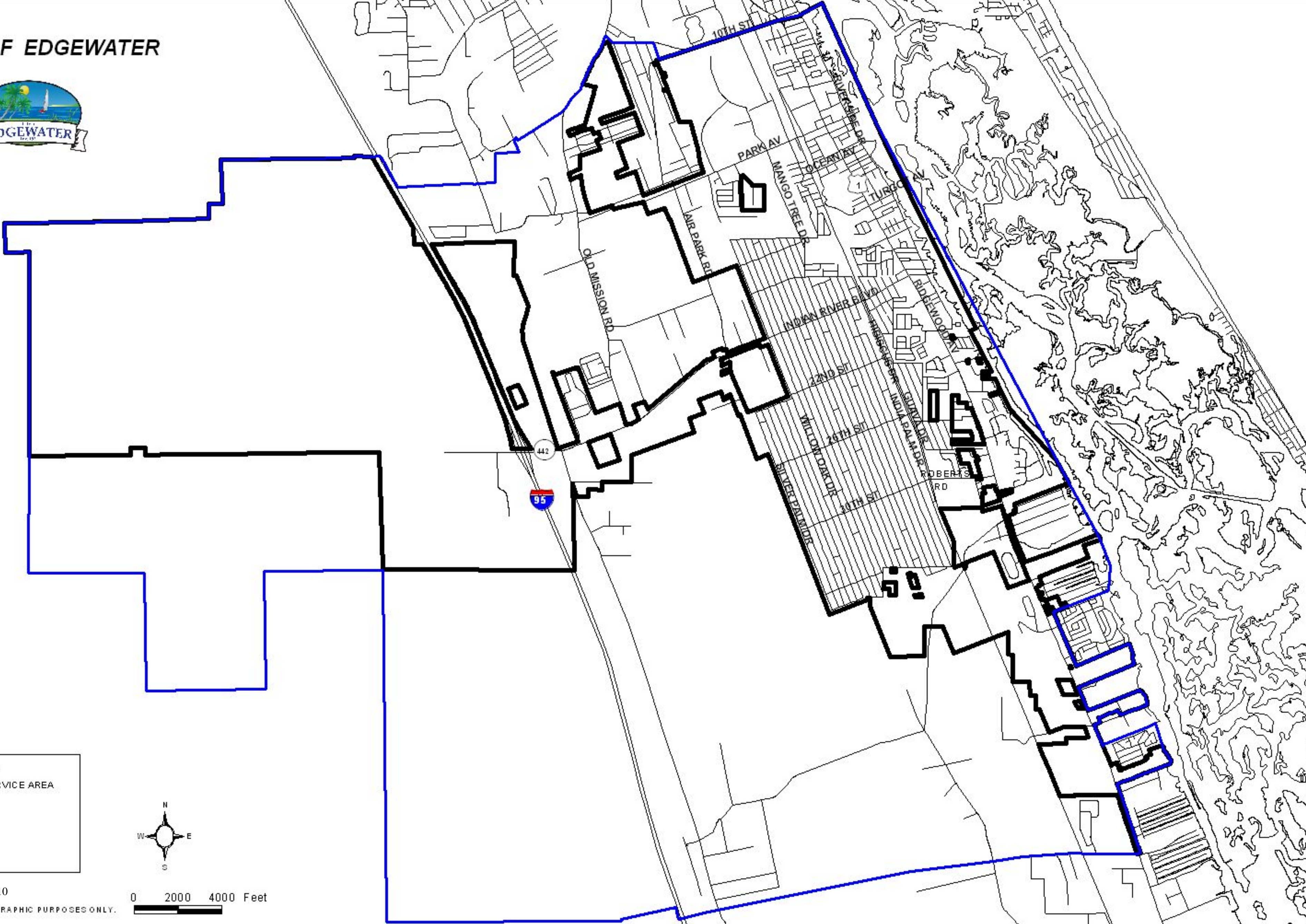
**Policy 3.1.4:** *New Development and Substantial Redevelopment Requirement for Reclaimed Water Distribution Systems.* The City will require new development and substantial redevelopment projects to install reclaimed water distribution systems and whenever feasible to connect to the City's irrigation water supply system. All such newly installed systems shall be required to provide for future installation of individual meters.

**Objective 3.2:** *Innovative Alternative Irrigation Water Supply Systems.* Promote and consider proposals for innovative alternative irrigation water supply systems that are consistent with the City's objectives of not using potable water for irrigation and reducing irrigation water quantities in general.

**Policy 3.2.1:** *Promoting Reuse of Stormwater.* The City will work with developers to promote reuse of stormwater from stormwater management areas on the developing property as an irrigation water source and supplement to reclaimed water.

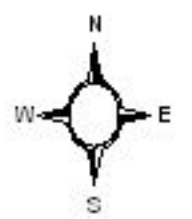


# CITY OF EDGEWATER



**MAP 1**  
WASTEWATER SERVICE AREA

- City Limits
- Roads
- Service Area



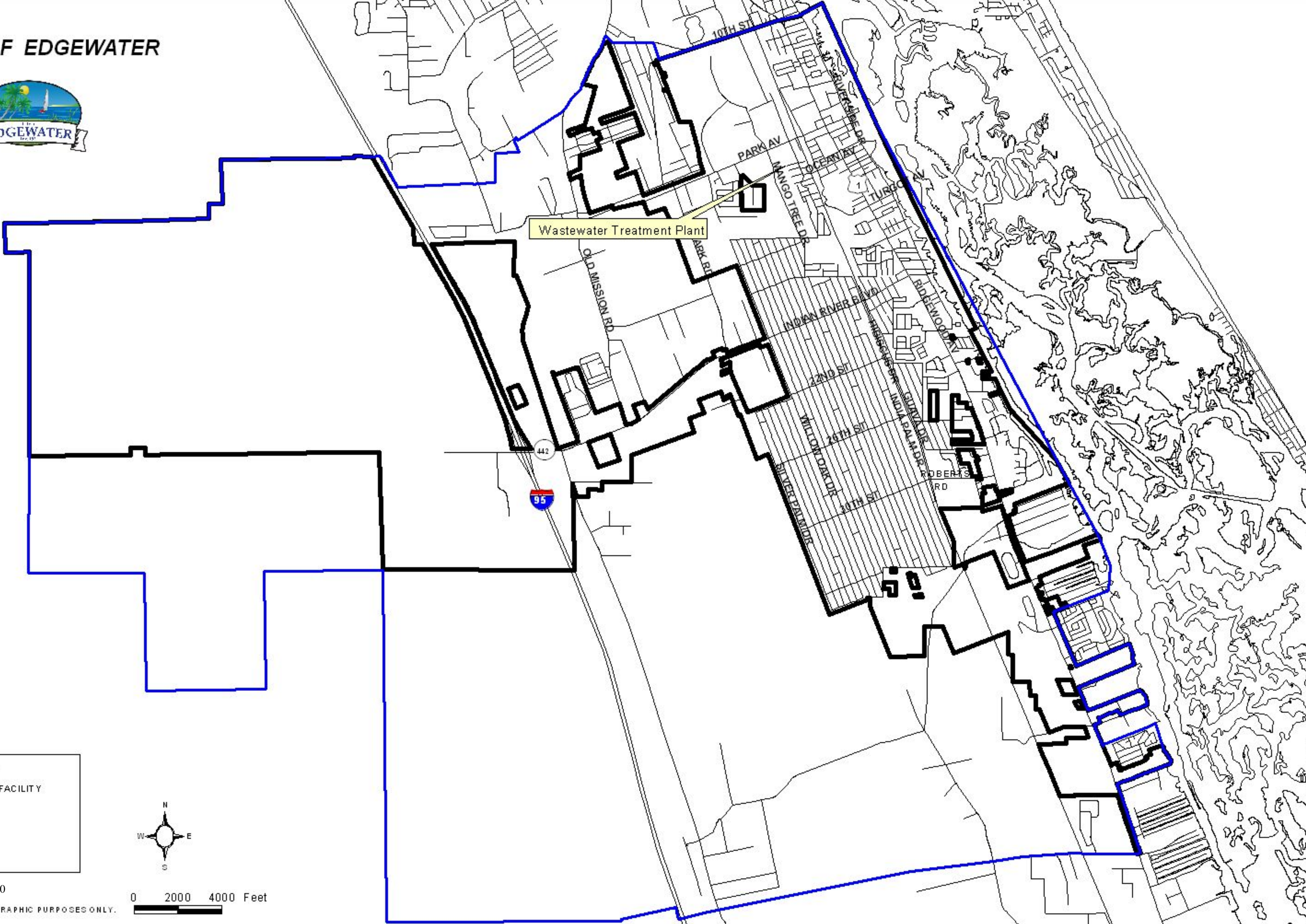
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Revised 10/01/2010

\* MAP IS TO BE USED FOR GRAPHIC PURPOSES ONLY.



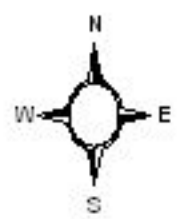
# CITY OF EDGEWATER



Wastewater Treatment Plant

**MAP 2**  
**WASTEWATER FACILITY**

- City Limits
- Roads
- Service Area



0 2000 4000 Feet

Revised 10/01/2010  
\* MAP IS TO BE USED FOR GRAPHIC PURPOSES ONLY.





**CITY OF EDGEWATER  
COMPREHENSIVE PLAN  
UTILITIES ELEMENT  
SOLID WASTE SUB-ELEMENT  
GOALS, OBJECTIVES AND POLICIES**

**CHAPTER IV**

**CHAPTER IV- UTILITIES ELEMENT  
SOLID WASTE SUB-ELEMENT  
GOALS, OBJECTIVES AND POLICIES**

**A. GOALS, OBJECTIVES AND POLICIES**

**GOAL 1:** To protect the public health, safety and welfare by ensuring that the collection of solid waste be properly managed, including a means of providing for future growth.

**Objective 1.1:** *Solid Waste and Recycling Services.* Continue to provide solid waste and recycling services in an efficient and effective manner.

**Policy 1.1.1:** *Maintaining Services and Future Equipment Needs.* Maintain current services and continue to provide for future equipment needs. Keep up with industry's best practices with regard to the collection system routes and resource recovery. Continue the City's capital improvements program to identify needs for solid waste facilities and equipment. [9J-5.011 (2)(c)1., F.A.C.]

**Policy 1.1.2:** *Monitoring Solid Waste and Recycling Services.* Monitor solid waste and recycling services provided by private contractors to ensure proper service delivery.

**Policy 1.1.3:** *Funding Solid Waste Services.* Fund solid waste services with user fees and State and Federal grants, if available.

**Objective 1.2:** *Per Generation Rates.* Ensure that provisions are made for growth and either maintain or reduce the current per generation rates.

**Policy 1.2.1:** *Ensuring Capacity in Landfill to Accommodate New Development.* The City shall coordinate with Volusia County to ensure that adequate capacity is available in the County landfill to accommodate new development before development permits are issued.

**Policy 1.2.2:** *Solid Waste Level of Service Standard.* The level of service standard for solid waste shall be 2.5 pounds per capita per day. This includes household garbage and yard waste. [9J-5.011 (2)(c)2., F.A.C.]

**GOAL 2:** To protect the public health, safety and welfare by promoting safe, lawful and environmentally-sound methods of disposing of hazardous waste.

**Objective 2.1:** *Safety Factors.* Cooperate with the County to monitor the generation rates and disposal methods of hazardous waste by industrial and commercial establishments and residents within the City to ensure safety factors.

SOLID WASTE

**Policy 2.1.1:**        *Disposal of Hazardous Waste Materials.* The City shall enforce County, State and Federal regulations regarding disposal of hazardous waste materials.

**Objective 2.2:**        *Disposal Methods.* Cooperate with the County to monitor the generation rates and disposal methods of hazardous waste by industrial and commercial establishments and residents within the City to ensure environmentally-sound disposal methods are being utilized.

**Policy 2.2.1:**        *Disposal of Hazardous Waste Materials.* The City shall enforce County, State and Federal regulations regarding disposal of hazardous waste materials.

**GOAL 3:** Reduce solid waste generation rates by increasing the amount of recycling materials collected.

**Objective 3.1:**        *Recycling.* Promote recycling to residential and commercial customers.

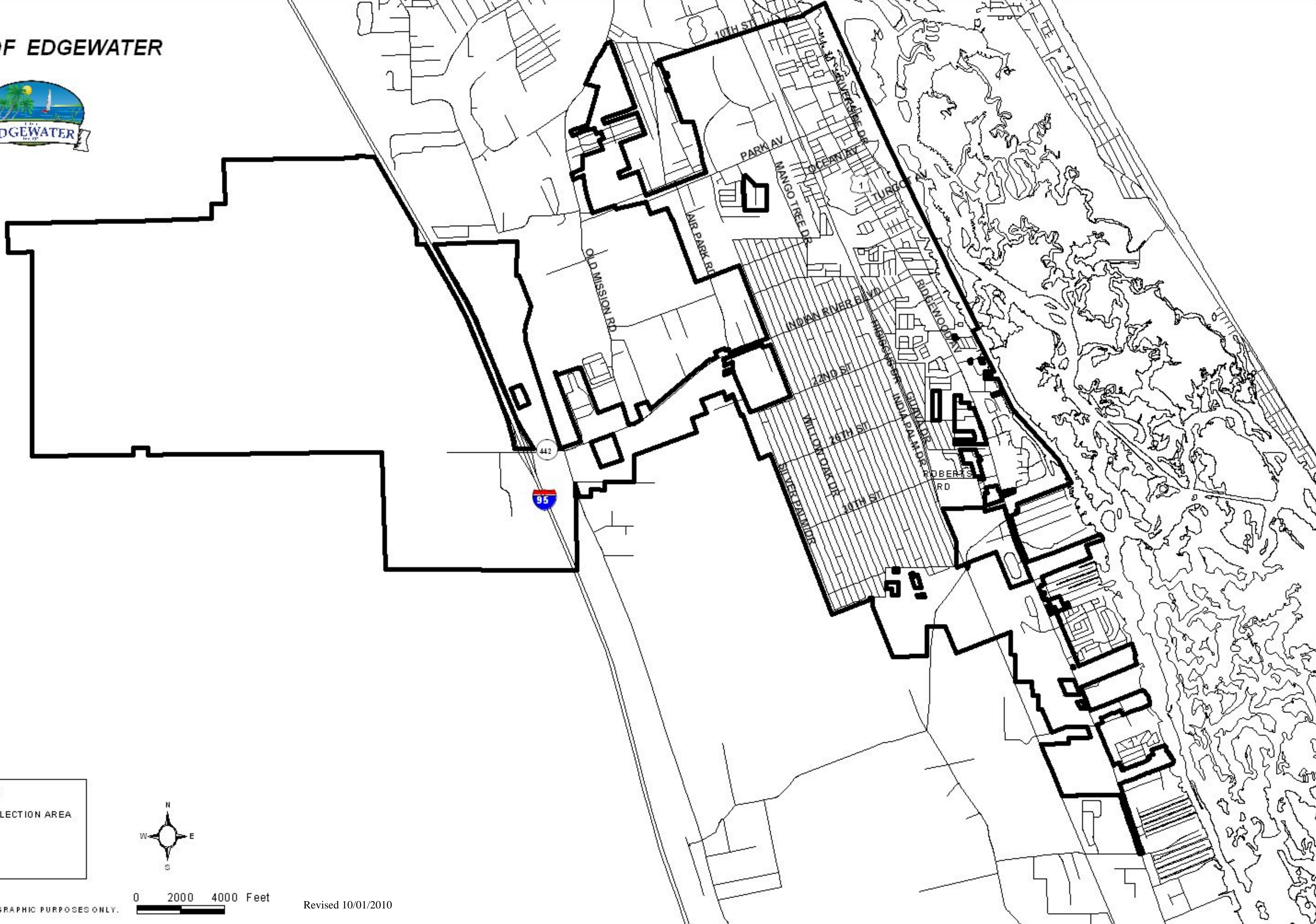
**Policy 3.1.1:**        *Distributing Educational Materials.* Distribute educational materials and develop other means to reach the customers with this message.

**Policy 3.1.2:**        *Recycling Collection.* Monitor recycling collection to determine average per capita per day collected. Identify residential areas of the City that have low recycling figures. Target those areas for additional educational and promotional materials. [9J-5.011 (2)(c)1., F.A.C.]

**Policy 3.1.3:**        *Developing Promotional Materials.* Take advantage of any funds available through County, State or Federal grants to develop promotional materials for recycling.

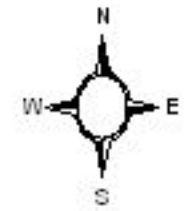


# CITY OF EDGEWATER



MAP 1  
SOLID WASTE COLLECTION AREA

City Limits  
 Roads



0 2000 4000 Feet

\* MAP IS TO BE USED FOR GRAPHIC PURPOSES ONLY.

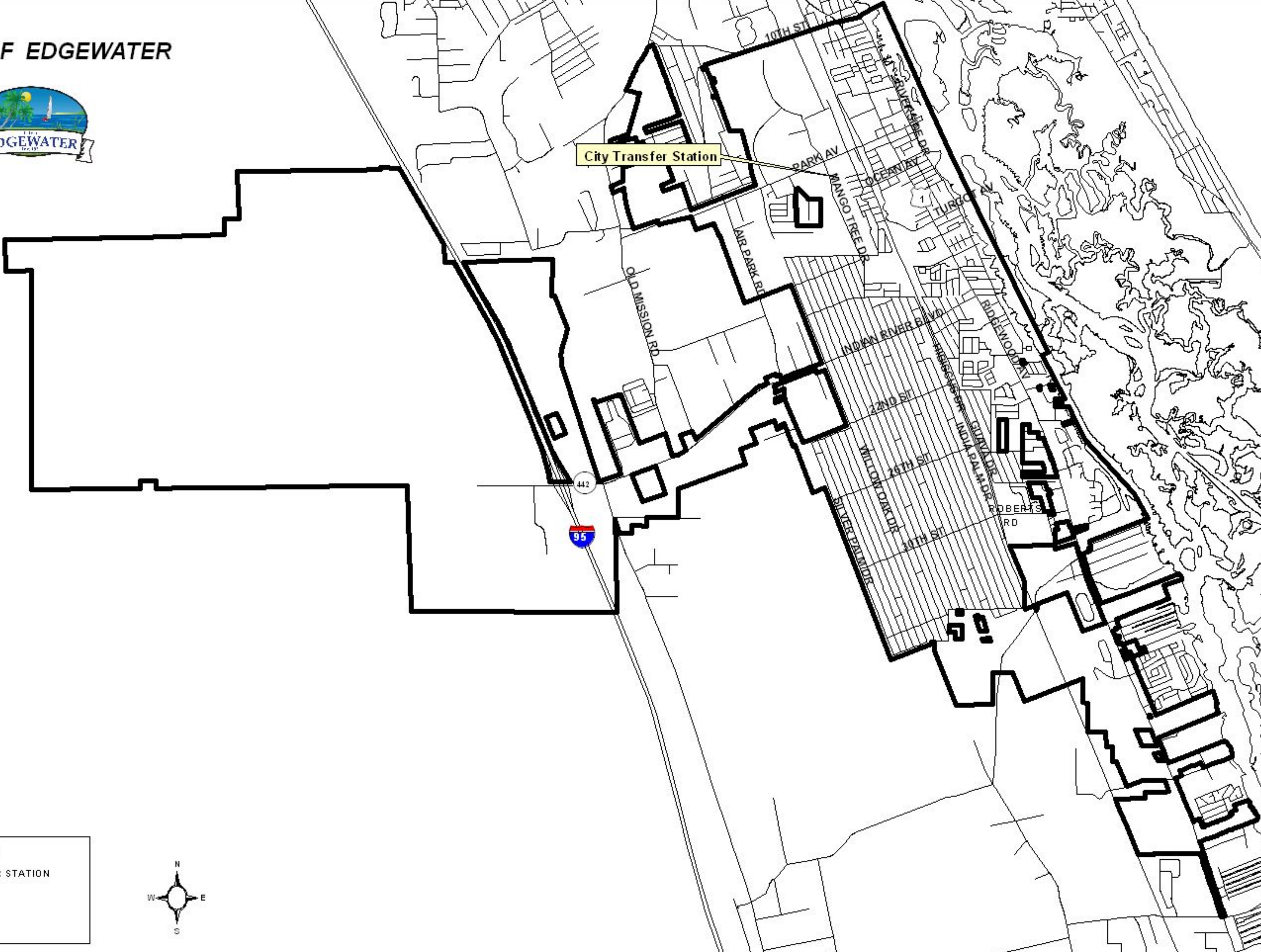
Revised 10/01/2010



# CITY OF EDGEWATER



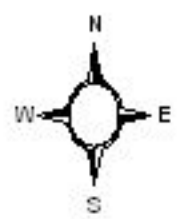
City Transfer Station



MAP 2  
CITY TRANSFER STATION

City Limits

Roads



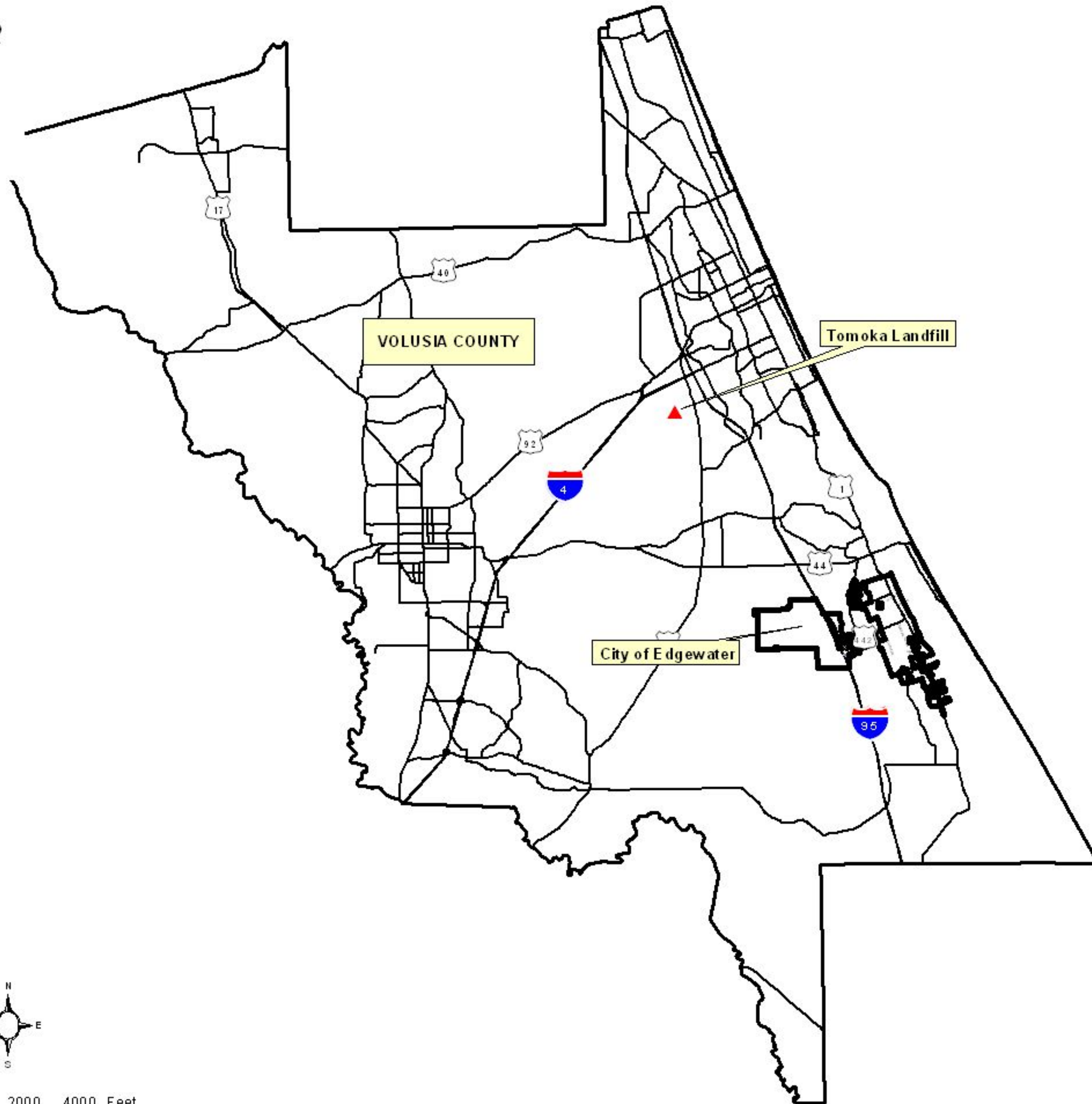
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Revised 10/01/2010

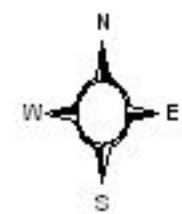


# CITY OF EDGEWATER



MAP 3  
TOMOKA LANDFILL

 City Limits  
 Roads



0 2000 4000 Feet



Revised 10/01/2010

\* MAP IS TO BE USED FOR GRAPHIC PURPOSES ONLY.



**CITY OF EDGEWATER  
COMPREHENSIVE PLAN  
UTILITIES ELEMENT  
STORMWATER SUB-ELEMENT  
GOALS, OBJECTIVES AND POLICIES**

**CHAPTER IV**



## CHAPTER IV - UTILITIES ELEMENT STORMWATER SUB-ELEMENT GOALS, OBJECTIVES AND POLICIES

### A. GOALS, OBJECTIVES AND POLICIES

Goals, objectives and policies are crucial to the implementation of the *Comprehensive Plan* and each of the elements and sub-elements. They represent important official statements of public policy that will be used to manage the future growth of the City.

Periodically, current City practices and the following stormwater management sub-element goals, objectives and policies will be reviewed for conformity.

**GOAL 1:** The City will provide a stormwater management system designed to protect the public health and environment, and will construct and operate that system in an efficient manner.

**Objective 1.1:** *Design Storm.* Evaluate the existing drainage system to determine future needs through the 25 year frequency, 24 hour duration storm event and implement improvements to the stormwater management system based on the design storm data. [9J-5.011 (2)(b)1. and (2)(b)2., F.A.C.]

**Policy 1.1.1:** *Stormwater Management System Level of Service Standards.* The following Level of Service standards are hereby established for the City's stormwater management system.

Level A – No significant street flooding

Level B – No major residential yard flooding

Level C – No significant structure flooding

Level D – No limitation on flooding [9J-5.011 (2)(c)2., F.A.C.]

**Policy 1.1.2:** *New Development and LOS Standards.* The City will require proposed new developments to provide evidence to show that LOS ratings in stormwater conveyances serving the new development will not be degraded to an LOS lower than currently exists as a result of the new development's construction and stormwater runoff contribution. [9J-5.011 (2)(c)1., F.A.C.]

**Policy 1.1.3:** *Meeting Stormwater Management Requirements and Development Permits.* The City will rigorously enforce its subdivision regulations and stormwater management ordinances, and will require all new development to show that all applicable State and Federal stormwater management requirements have been met prior to issuing a development permit. [9J-5.011 (2)(c)1., F.A.C.]

STORMWATER

**Objective 1.2:** *Concurrency.* Ensure that all new developments include adequate stormwater management facilities to limit post-development runoff to pre-development rates and quantities for the 25 year, 24 hour design storm, and that such facilities are available concurrent with the development. [9J-5.011 (2)(b)1. and (2)(b)2., F.A.C.]

**Policy 1.2.1:** *Submitting Plans and Specifications for Stormwater Management.* The City will require developers to submit plans and specifications for stormwater management facilities to the City's engineer for review and approval prior to obtaining a development permit. [9J-5.011 (2)(c)1., F.A.C.]

**Policy 1.2.2:** *Protection of Upstream and Downstream Property Owners.* The City will require each new development to construct the stormwater management facilities required to provide adequate protection of upstream and downstream property owners. [9J-5.011 (2)(c)1., F.A.C.]

**Objective 1.3:** *Facility Operation and Maintenance.* Provide proper operation and maintenance of existing and future stormwater management system facilities to ensure optimum system performance. [9J-5.011 (2)(b)3., F.A.C.]

**Policy 1.3.1:** *Stormwater Management System Operation and Maintenance.* The stormwater management system will be operated and maintained in compliance with applicable local, State, and Federal regulations.

**Policy 1.3.2:** *Reporting Violations of Stormwater Facility Operating Rules.* The City will promptly report any violations of local, State, or Federal stormwater facility operating rules to the appropriate agency, and shall take immediate steps to correct any violations.

**GOAL 2:** The City shall plan for the orderly expansion or increase in capacity of the stormwater management system to meet future needs.

**Objective 2.1:** *Intergovernmental Coordination.* Coordinate with other jurisdictions to avoid duplication of stormwater management facility construction and operating costs by cooperative planning for service provision to future development.

**Policy 2.1.1:** *Coordination of a Joint Plan and the Gabordy Canal.* The City will continue to work with the City of New Smyrna Beach and with Volusia County toward a joint plan for the efficient utilization of the Gabordy Canal.

**Policy 2.1.2:** *Stormwater Management System Improvement Priorities.* Priority of improvements to the stormwater management system shall be:

- to protect public health and safety, or eliminate serious pollution problems;

- to enable full use of the existing system, by proper maintenance practices to maximize system capacity; and
- to provide a logical expansion of the stormwater management system within the City. [9J-5.011 (2)(c)1., F.A.C.]

**GOAL 3:** The City shall plan for alternative uses of stormwater runoff.

**Objective 3.1:** *Reuse of Stored Stormwater Runoff.* Promote and consider proposals for reuse of stored stormwater runoff as a supplementary water supply for non-potable uses.

**Policy 3.1.1:** *Promoting Reuse of Stormwater and Working with Developers.* The City will work with developers to promote reuse of stormwater from stormwater management areas on developing properties as an irrigation water source and supplement to reclaimed water.

**Policy 3.1.2:** *Promoting Reuse of Stormwater and Working with Existing Developments.* The City will work with existing developments to promote reuse of stormwater from stormwater management areas as an irrigation water source and supplement to reclaimed water.



**CITY OF EDGEWATER**

**COMPREHENSIVE PLAN**

**COASTAL MANAGEMENT ELEMENT**

**GOALS, OBJECTIVES AND POLICIES**

**CHAPTER V**



## CHAPTER V COASTAL MANAGEMENT ELEMENT GOALS, OBJECTIVES AND POLICIES

### A. GOALS, OBJECTIVES AND POLICIES

**GOAL 1: *COASTAL RESOURCES.*** Conserve, protect and manage the coastal resources of the City of Edgewater including the wetland and upland ecosystem so as to maintain and enhance native habitats, floral and faunal species diversity, water quality and natural surface water characteristics.

**Objective 1.1: *Habitat Preservation.*** Utilize development regulations and other management programs in conjunction with the County to ensure the long term protection and enhancement of selected natural upland and wetland habitats and water quality. The primary means of accomplishing this objective will be through the retention of interconnected hydrological systems where the wetlands and uplands function as a productive unit resembling the original landscape. [9J-5.012 (3)(b)1., F.A.C.]

**Policy 1.1.1: *Management Plans and Standards.*** The City will coordinate with the County's Environmental and Natural Resources Advisory Committee and the Volusia County Environmental Management Department to maintain, update and implement management plans and standards that protect and conserve natural systems within the City.

**Policy 1.1.2: *Conservation Overlay Maintenance and Hydrological Corridors.*** The City will maintain a Conservation Overlay area on the *Future Land Use Map* (FLUM) that identifies hydrological corridors in the City that require special review and potential conservation designations.

**Policy 1.1.3: *Conservation Overlay Coordination and County Designated Environmental Corridors.*** The City will continue to coordinate the Conservation Overlay designation with the County's designated environmental corridors to ensure the natural systems remain intact after annexation. [9J-5.012 (3)(c)1., F.A.C.]

**Policy 1.1.4: *Critical Wetland and Upland Habitats and Connecting Corridors.*** Areas of critical wetland and native upland habitats that are not connected to corridors that exhibit resource values shall be evaluated for inclusion as conservation or recreation areas within future development plans. Secondary linkage to nearby corridors, by any artificial means, shall be considered and encouraged. Construction of new corridors, or restoration of existing disturbed corridors, shall be considered as a form of mitigation where appropriate. [9J-5.012 (3)(c)1., F.A.C.]

- Policy 1.1.5:** *Minimizing Long-term and Cumulative Impacts.* The City will continue to enforce the conservation, management, and development performance standards and criteria within the Land Development Code which will minimize long-term and cumulative impacts on coastal habitat by requiring site specific analysis during the review process.
- Policy 1.1.6:** *Habitat Mitigation Standards.* The City will coordinate with the St. Johns River Water Management District regarding standards for habitat mitigation. These standards will identify situations where mitigation may be acceptable (e.g., non-forested wetland or mangrove swamp creation), unacceptable (e.g., certain endangered species habitat such as an eagles nest), or problematic (e.g., experimental or unproven). In all cases, the proposed mitigation plan must be designed and the project monitored by a qualified professional. The mitigation plan should include the following:
- a statement of mitigation goals and objectives.
  - watershed and adjacent habitat evaluation.
  - geohydrological analysis for review by the St. Johns River Water Management District.
  - detailed construction plans, planting materials and maintenance schedules.
  - a long term management plan for created habitat in the watershed in which it is located (inappropriate future land uses surrounding the created or enhanced habitat may alter the habitat's character or eliminate it completely).
  - the removal or control of exotic or nuisance vegetation.
  - quantifiable monitoring methodology to evaluate the degree of success obtained.
  - proper contracted supervision by a qualified expert.
  - a detailed budget and cost estimates.
  - the entity responsible for undertaking maintenance and a long-term management plan with available funding required to ensure future success. [9J-5.012 (3)(c)3., F.A.C.]
- Policy 1.1.7:** *Habitat Mitigation Plans, Programs or Activities.* For all habitat mitigation plans, programs, or activities, the City shall require quantifiable, realistic goals; maintain direct supervision through the construction and monitoring process; and, if problems or failures result, be able to enforce permit conditions. [9J-5.012 (3)(c)3., F.A.C.]
- Policy 1.1.8:** *Development in Habitat Areas and Impact to Listed Species.* Development in habitat areas listed by the State of Florida and U.S. Fish and Wildlife Service as Endangered, Threatened or Species of Special Concern shall not adversely impact the listed species.

- Policy 1.1.9:** *Development Proposals and Submitting a Mitigation Plan.* Development proposals which propose to alter wetlands, or which cannot preserve the required portion of native vegetation on the site shall submit a mitigation plan (may include creation of new habitat of the same type destroyed, restoration of previous disturbances, and purchase of similar habitat for preservation). [9J-5.012 (3)(c)3., F.A.C.]
- Policy 1.1.10:** *Maintaining Tree Protection Regulations.* Maintain tree protection regulations to prohibit the removal of native vegetation, including mangroves, without a permit.
- Policy 1.1.11:** *Development Adjacent to Estuarine and Riverine Shoreline Areas.* Development adjacent to estuarine and riverine shoreline areas shall maintain a habitat buffer zone to protect or conserve the canopy, understory and ground cover of native upland vegetation and wetlands. [9J-5.012 (3)(c)1., F.A.C.]

**Objective 1.2:** *Shoreline Protection.* Maintain regulatory programs designed to enhance and protect the natural functions of the estuarine shoreline. [9J-5.012 (3)(b)2., F.A.C.]

- Policy 1.2.1:** *Hardening of the Estuarine Shoreline.* Hardening of the estuarine shoreline shall be allowed only when erosion is causing a significant threat to life or property. When hardening of the shoreline is approved, stabilization methods other than vertical seawalls and bulkheads shall be used. [9J-5.012 (3)(c)1., F.A.C.]
- Policy 1.2.2:** *Impervious Surface and the Mean High Water Line.* No more than 30% impervious surface shall be allowed within 100 feet of the mean high water line. [9J-5.012 (3)(c)1., F.A.C.]
- Policy 1.2.3:** *Shoreline Protection Buffer.* A shoreline protection buffer shall be maintained for a distance extending 50-feet laterally upland from the mean high water line within the buffer zone and 25-feet from wetland vegetation, except that reasonable access shall be permitted. [9J-5.012 (3)(c)1., F.A.C.]
- Policy 1.2.4:** *Identifying Critical Habitats and the Estuarine Shoreline.* The City will identify critical habitats along the estuary shoreline on the FLUM in the Conservation Overlay area.

**GOAL 2: LAND USE.** To conserve, protect and restore coastal resources by managing growth and land uses to prevent damage or destruction of those resources.

**Objective 2.1:** *Coastal Land Uses.* Continue to enforce land use regulations that provide for the location, extent and distribution of land uses consistent with the protection of coastal resources. [9J-5.012 (3)(b)1., F.A.C.]

- Policy 2.1.1:**     ***Proposed Land Uses and Impact on Coastal Resources.*** Proposed land uses which may have significant adverse impact on coastal resources shall be appropriately regulated to mitigate such impacts. [9]-5.012 (3)(c)1., F.A.C.]
- Policy 2.1.2:**     ***Environmental Impact Assessment.*** An environmental impact assessment shall be prepared and reviewed for land uses proposed in potential critical habitat areas.
- Policy 2.1.3:**     ***Protection of Natural Resource, Environmental, Ecological and Critical Wildlife Habitat Areas.*** Designated natural resource areas, significant environmental or ecological features, critical wildlife habitat, environmental system corridors or conservation areas shall be protected through a variety of mechanisms including buffer zones, restoration, limiting density and intensity, conservation easements, acquisition, density transfers, transfer of development rights (TDR's), purchase of development rights or land exchanges. [9]-5.012 (3)(c)1., F.A.C.]
- Policy 2.1.4:**     ***Requirement of Ecology Survey and Proposed Waterfront or Water-dependent Uses.*** To limit the cumulative impacts of development on remaining coastal marine resources and wildlife habitats, an ecological survey shall be required for all proposed waterfront or water-dependent uses. [9]-5.012 (3)(c)1., F.A.C.]

**Objective 2.2:**     ***Coastal Resource Protection.*** Continue to enforce performance standards for appropriate densities, intensities, buffer zones, resource protection, and location of development adjacent to aquatic and natural preserves, wildlife refuges, and environmental system corridors to protect the natural character, scenic values and public benefit of these areas. [9]-5.012 (3)(b)1. and (3)(b)2., F.A.C.]

- Policy 2.2.1:**     ***Permitting Inconsistent or Incompatible Land Use Amendments or Rezonings.*** The City shall not allow land use amendments or rezonings which would be inconsistent or incompatible with the protection or conservation of coastal resources.
- Policy 2.2.2:**     ***Innovative or Alternative Techniques to Protect Coastal Resources.*** Utilize innovative or alternative techniques to protect coastal resources. Such techniques could include Conservation Overlay areas, buffer zones, restoration, conservation easements, quality development programs, acquisition, density transfers, transfer of development rights, or land exchanges. [9]-5.012 (3)(c)1., F.A.C.]
- Policy 2.2.3:**     ***Developing Consistent Standards, Criteria and Land Development Regulations.*** Cooperate and coordinate with local governments, State



agencies, and special districts in developing consistent standards, criteria, and land development regulations for protection of coastal resources.

**Policy 2.2.4:** *Permitting New Point Sources and the Indian River Lagoon.* No new point sources shall be permitted to discharge into the Indian River Lagoon. [9J-5.012 (3)(c)1., F.A.C.]

**Policy 2.2.5:** *Manatee Habitat Areas, Marinas and Boating Speed Limits.* In order to protect manatees, marinas shall not be built in designated manatee habitat areas. Boating speed limits shall be coordinated with the County in manatee-designated areas. [9J-5.012 (3)(c)1., F.A.C.]

**Objective 2.3:** *Priorities for Shoreline Water Dependent Uses.* Ensure that priorities for shoreline land use shall be given to water-dependent uses over water-related land uses and shall be based on the type of water-dependent use, adjacent land use, water quality, impact on critical habitat, and impact on coastal resources.

**Policy 2.3.1:** *Resource Management Plan for the Indian River Shoreline.* The City shall continue to work with Volusia County to develop a Resource Management Plan for the Indian River shoreline. Upon adoption of the Plan, the City shall adopt the goals, objectives and policies that reflect the Plan. [9J-5.012 (3)(c)15., F.A.C.]

**Policy 2.3.2:** *Developing Performance Standards for Water Dependent Uses.* The City will coordinate with the resource management plans of other agencies, such as aquatic preserve management plans or Surface Water Improvement Management (SWIM) plans in developing performance standards for water dependent uses. [9J-5.012 (3)(c)15., F.A.C.]

**Policy 2.3.3:** *Performance Criteria and the Resource Management Plan.* By December 2014, any performance criteria identified in the Resource Management Plan for shoreline uses will be adopted into the Land Development Code.

**GOAL 3: WATER QUALITY.** To protect, enhance and improve the quality of the estuarine environment.

**Objective 3.1:** *Estuarine Quality.* Coordinate and maintain records of estuarine water quality sampling through the Volusia County monitoring program to measure changes in water quality.

**Policy 3.1.1:** *Corrective Action.* The City will review the County's data and coordinate to determine where corrective action is needed. Corrective action shall be coordinated with SJRWMD and FDEP.

- Policy 3.1.2:** *Point Source Discharge Permits.* Annually, the City and the Department of Environmental Protection shall review and update all point source discharge permits, checking for accuracy and compliance.
- Policy 3.1.3:** *Non-point Source Discharge Permits.* Annually, the City and the SJRWMD shall review and update all non-point source discharge permits, checking for accuracy and completeness.
- Policy 3.1.4:** *Point and Non-point Source Discharges and Facilities.* Provide the County with SJRWMD and FDEP data that includes point and non-point source discharges and facilities, which are identified as potential water quality problems annually.
- Policy 3.1.5:** *Coastal Planning Areas and Septic Tanks.* The City will continue to prioritize Coastal Planning Areas that are currently using septic tanks to be incorporated into public sewage treatment systems. Criteria to be used in the ranking systems shall include:
- areas known or suspected to be negatively impacting surface or groundwater quality;
  - soil type;
  - water table level;
  - proximity to Aquatic Preserves and Outstanding Florida Waters;
  - proximity to open shellfish harvesting areas;
  - proximity to other water bodies;
  - density of septic tank systems; and
  - proximity to existing or planned public wastewater treatment systems.
- Policy 3.1.6:** *Future Placement of Septic Tanks.* The City will not allow the future placement of septic systems in those areas identified as unsuitable for septic tank use. The City will continue to coordinate with the Volusia County Department of Health regarding septic tank permits. [9J-5.012 (3)(c)1., F.A.C.]
- Policy 3.1.7:** *Sewage Treatment Plants and Level of Treatment.* As additional sewage treatment plants are constructed and/or existing plants are expanded within the City, a concerted effort and commitment shall be made to utilize the highest level of treatment possible.
- Policy 3.1.8:** *Alternative Methods of Effluent Disposal.* The City will continue to use alternative methods of effluent disposal such as re-use and land

spreading/spray irrigation to reduce nutrient loadings in the rivers and estuaries.

- Policy 3.1.9:** *Maintaining Best Management Practices.* Maintain best management practices in the City's Land Development Regulations that limit the amount of sediment reaching all surface waters. These practices shall be used in agriculture, silviculture, construction, dredge and fill operations, and stormwater management systems. The City shall also continue to require erosion and sediment control provisions as part of the development review process. [9J-5.012 (3)(c)1., F.A.C.]
- Policy 3.1.10:** *Construction of Future Stormwater Systems.* The construction of future stormwater management systems and the redesign of existing systems shall consider the timing of discharge of fresh water to the estuary, the hydroperiod of the wetlands, as well as the potential loadings. Storm water systems should be designed to gradually release water via sheet flow through natural or constructed wetlands.
- Policy 3.1.11:** *Estuarine Pollution and Controlling Surface Water Runoff.* Utilize the City's most recent *Master Stormwater Management Plan* to address estuarine pollution and control surface water runoff.
- Policy 3.1.12:** *Preparation of Management Plans, Water Quality Studies and Sampling Programs.* The preparation of management plans, water quality studies and sampling programs will be coordinated with the County, the SJRWMD and the FDEP. [9J-5.012 (3)(c)15., F.A.C.]
- Policy 3.1.13:** *Canal Water Quality Monitoring Results.* The City will continue to implement its *Quality Assurance Plan* and submit canal water quality monitoring results to the SJRWMD.
- Policy 3.1.14:** *Improving and Enhancing Water Quality and Estuarine Conditions.* The City shall continue its commitment to improve and enhance water quality and estuarine conditions through intergovernmental cooperation by a variety of mechanisms such as:
- participation in ad-hoc or other special technical advisory committees.
  - exchange of data and information among and between the County and adjacent municipalities.
  - presentations and discussions with the Volusia Council of Governments.
  - updating data in cooperation with FDEP and SJRWMD.
  - notification of proposed programs, development regulations or activities that address water quality.

- continue participation in the SWIM program.
- implement the policies or recommendations of the *Mosquito Lagoon Aquatic Preserve Management Plan*.
- participation and assistance in maintaining and expanding the water quality sampling and monitoring program. [9J-5.012 (3)(c)15., F.A.C.]

**GOAL 4: COASTAL HAZARDS.** Lessen the impact of a destructive storm on human life, property, public facilities and natural resources. The City shall also restrict public expenditure in areas subject to destruction by natural disaster.

**Objective 4.1:** *Evacuation of Population.* Maintain the clearance time for the evacuation of the population in six (6) hours based on a level-of-service standard "D", as defined in the *Transportation Element*, during the time of hurricane in any category storm. [9J-5.012 (3)(b)7., F.A.C.]

**Policy 4.1.1:** *Land Use Plan Amendments and Increasing Clearance Times.* Land use plan amendments shall not increase the clearance time for evacuation of the population above six (6) hours. The Level-of-Service "D" is established for the purpose of calculating the capacity of road facilities to clear evacuees within the hurricane evacuation time. [9J-5.012 (3)(c)4., F.A.C.]

**Policy 4.1.2:** *Assessing Impact of New Development and Clearance Times.* The City shall assess the impact of all new development on the hurricane evacuation network to ensure it will not increase clearance time for evacuation of the population above six (6) hours. [9J-5.012 (3)(c)4., F.A.C.]

**Policy 4.1.3:** *Adequate Roadway Capacity and Evacuation of Residents.* The City shall coordinate with the County and FDOT to ensure adequate roadway capacity to facilitate the evacuation of residents. [9J-5.012 (3)(c)4., F.A.C.]

**Policy 4.1.4:** *Minimizing Impact of Flooding and Storm Surge and Evacuation Routes.* Future development and roadway improvements shall be designed to minimize the impact of flooding and storm damage on evacuation route facilities. [9J-5.012 (3)(c)4., F.A.C.]

**Policy 4.1.5:** *Design of Evacuation Routes.* Evacuation routes shall be designated in such a way as to distribute traffic demand to provide optimum utilization of available roadway facilities. [9J-5.012 (3)(c)4., F.A.C.]

**Policy 4.1.6:** *Comprehensive Emergency Management Plan.* The City shall maintain and update its "*Comprehensive Emergency Management Plan*" in coordination with the County's "*Comprehensive Emergency Management Plan*"



to ensure the orderly evacuation of the population. [9J-5.012 (3)(c)4., F.A.C.]

**Policy 4.1.7:** *Peacetime Emergency Plan and Evacuation Plan.* The City shall coordinate a Peacetime Emergency Plan and evacuation plan with the applicable Federal, State and Regional agencies and other local municipalities. This coordination will be accomplished by membership, cooperation and regular attendance at meetings held by the Volusia County Office of Civil Preparedness Advisory Board. This Board represents the lead agency for disaster planning within the County. [9J-5.012 (3)(c)3., F.A.C.]

**Objective 4.2:** *Shelter for Population.* Designate hurricane evacuation shelters to protect the population in the event of a hurricane, in cooperation with the American Red Cross and Volusia County.

**Policy 4.2.1:** *Hurricane Emergency Shelters.* The City shall coordinate with Volusia County to ensure that there are hurricane emergency shelter facilities available in the County to accommodate at least 23% of the City's population, based upon a standard of 40-square feet of shelter space per person.

**Policy 4.2.2:** *Location of New Hurricane Emergency Shelter Facilities.* New hurricane emergency shelter facilities shall not be located in the Hurricane Vulnerability Zone.

**Objective 4.3:** *Mitigation of Property Damage.* Ensure that development in the coastal high hazard area and hurricane vulnerability zone minimizes danger to life and property.

**Policy 4.3.1:** *Public Facilities in the Coastal High Hazard Area.* Prior to the development of public facilities in the Coastal High Hazard Area, it shall be determined that there are no other feasible sites within the City outside of that area. [9J-5.012 (3)(c)3., F.A.C.]

**Policy 4.3.2:** *Public Facilities in the Coastal High Hazard Area and Building Requirements.* If constructed or redeveloped, all public facilities in the coastal high hazard area shall be required to meet strict building code regulations for hurricane wind design and flood control to ensure minimum damages during storm events.

**Policy 4.3.3:** *Development in the Hurricane Vulnerability Zone.* All development in the Hurricane Vulnerability Zone shall be consistent with the federal flood hazard requirements.

**Policy 4.3.4:**     ***Participation in the National Flood Insurance Program.*** The City shall continue to participate in the National Flood Insurance Program (NFIP).

**Objective 4.4:**     ***Post Disaster Redevelopment.*** Maintain a *Comprehensive Emergency Management Plan* to ensure that the most effective practices are utilized to provide safety and relief to citizens during and after a natural disaster. [9J-5.012 (3)(b)8., F.A.C.]

**Policy 4.4.1:**     ***Comprehensive Emergency Management Plan Requirements.*** The *Comprehensive Emergency Management Plan* shall include: an evacuation plan; disaster assistance; public information; damage assessment procedures; and recovery activities. [9J-5.012 (3)(c)5., F.A.C.]

**Policy 4.4.2:**     ***Comprehensive Emergency Management Plan Priorities.*** The *Comprehensive Emergency Management Plan* shall maintain priorities for repairing, replacing, modifying or relocating public facilities. [9J-5.012 (3)(c)5., F.A.C.]

**Policy 4.4.3:**     ***Comprehensive Emergency Management Plan Procedures.*** The *Comprehensive Emergency Management Plan* procedures will be consistent with the County's evacuation and recovery procedures. [9J-5.012 (3)(c)5., F.A.C.]

**Policy 4.4.4:**     ***Build-back Policies.*** The City shall enforce the build-back policies contained in its *Comprehensive Emergency Management Plan* after a hurricane. [9J-5.012 (3)(c)5., F.A.C.]

**Policy 4.4.5:**     ***Public Infrastructure and the Coastal High Hazard Area.*** Public infrastructure receiving damage of more than fifty percent (50%) of its value that is not necessary to support adopted levels of service shall be relocated away from the Coastal High Hazard Area. [9J-5.012 (3)(c)5., F.A.C.]

**Policy 4.4.6:**     ***Rebuilding Existing Residential Units and Disasters.*** Existing residential units destroyed in a disaster may be rebuilt to the same density (limited to the pre-disaster number of units and square footage). [9J-5.012 (3)(c)5., F.A.C.]

**Objective 4.5:**     ***Coastal High Hazard Area.*** Limit development in the Coastal High Hazard Area and direct population concentrations away from this area. [9J-5.012 (3)(b)6., F.A.C.]

**Policy 4.5.1:**     ***Defining the Coastal High Hazard Area.*** The coastal high-hazard area is hereby defined as the area below the elevation of the Category 1 storm surge line as established by a Sea, Lake and Overland Surges from Hurricanes (SLOSH) computerized storm surge model. [9J-5.012 (3)(c)7., F.A.C.]

- Policy 4.5.2:** *New Public facilities and Coastal High Hazard Areas.* No new public facilities shall be located in the Coastal High Hazard Areas other than those necessary to support the levels of service identified in the *Capital Improvement Element* and for overriding health and safety reasons. [9J-5.012 (3)(c)7., F.A.C.]
- Policy 4.5.3:** *Identifying Redevelopment Areas in the Coastal High Hazard Area.* By December 2014, the City shall identify areas in the Coastal High Hazard Area needing redevelopment, including eliminating unsafe conditions and inappropriate uses as opportunities arise. [9J-5.012 (3)(c)6., F.A.C.]
- Policy 4.5.4:** *Coastal High Hazard Area and Clearance Times.* Land use amendments for areas within the Coastal High Hazard Area shall not increase the clearance time for evacuation above six (6) hours.
- Policy 4.5.5:** *Permitted Densities and the Coastal High Hazard Area.* No future land use amendments shall be approved within the Coastal High Hazard Area which will increase the previously permitted density.

**GOAL 5: PUBLIC ACCESS.** Provide, maintain and improve public access to the sovereign lands of the coastal management areas through the provisions of coastal access facilities, fishing piers, boat ramps and marinas.

**Objective 5.1:** *Public Shoreline Access Facilities.* Provide and maintain physical public access to the shoreline of the Indian River, consistent with the City's population. [9J-5.012 (3)(b)9., F.A.C.]

- Policy 5.1.1:** *Physical Public Access Facilities.* Wherever feasible, the City shall ensure that all physical public access facilities to the shoreline shall be accessible by a public road with adequate public parking. [9J-5.012 (3)(c)10., F.A.C.]
- Policy 5.1.2:** *New Pedestrian Access.* The priority for new pedestrian access shall be pedestrian walkovers or other alternatives that do not cause environmental degradation.
- Policy 5.1.3:** *Public Access to the River.* The City shall prohibit the vacation of public rights-of-way that provide or could provide public access to the river. [9J-5.012 (3)(c)10., F.A.C.]
- Policy 5.1.4:** *Rehabilitation and Redevelopment of Public Access Facilities.* The City shall pursue rehabilitation or redevelopment of any public access facilities that indicate deterioration or negative impacts to natural resources. [9J-5.012 (3)(c)10., F.A.C.]

**Policy 5.1.5:** *Public Access Facilities Consistency Requirements.* The City shall ensure that the public access facilities are consistent with the requirements of the *Coastal Zone Protection Act of 1985*. [9J-5.012 (3)(c)10., F.A.C.]

**Objective 5.2:** *Fishing Piers.* Coordinate with Volusia County to ensure that adequate allocation of fishing piers is provided to meet the demands of the current population. [9J-5.012 (3)(b)11., F.A.C.]

**Policy 5.2.1:** *Fishing Pier Provision.* The City shall provide 0.0181-linear feet of fishing pier for each resident of the Coastal Planning Area (181 linear feet/10,000 persons) consistent with Volusia County.

**Objective 5.3:** *Boat Ramps.* Provide an adequate number of boat ramps to meet the needs of the existing population. [9J-5.012 (3)(b)11., F.A.C.]

**Policy 5.3.1:** *Boat Ramp Provision.* The City shall provide 0.0002 of boat ramp lane for each resident (1 ramp lane for every 7,500 residents) consistent with Volusia County.

**Policy 5.3.2:** *Future Boat Ramp Lanes.* To the greatest extent possible, future boat ramp lanes shall be built as part of a Regional boat launching facility.

**Objective 5.4:** *Marina Slips.* Provide the private sector with the ability to accommodate the projected demand of additional boats slips in marinas.

**Policy 5.4.1:** *Marinas.* Marinas shall be encouraged to include both wet slip and dry slip capacity.

**Policy 5.4.2:** *New Slips and the Expansion of Existing Marinas.* Priority for new slips will be given to the expansion of existing marinas.

**Objective 5.5:** *Scenic Routes.* Establish scenic routes and roadways consistent with the County's *Scenic Roadway Element*, to preserve the natural beauty and vistas of the Coastal Planning Area. [9J-5.012 (3)(b)2., F.A.C.]

**Policy 5.5.1:** *Riverside Drive Scenic Roadway.* Riverside Drive shall remain designated as a scenic roadway because of its significant aesthetic value.

**Policy 5.5.2:** *Riverside Drive as a Conservation Overlay.* A Conservation Overlay will be indicated on the FLUM along Riverside Drive to protect the scenic quality.

**GOAL 6: PUBLIC SERVICES AND FACILITIES.** Public services and facilities in the Coastal Planning Area shall be adequate and available to serve both current and future residents.



**Objective 6.1:**        *Infrastructure Coordination.* Ensure through the Land Development Code that the provisions of roads, potable water, sanitary sewer, drainage, solid waste and recreation facilities and services required to maintain the adopted level-of-service standards throughout the Coastal Planning Area shall be consistent and phased with the level of development proposed in the *Future Land Use Element*. [9J-5.012 (3)(b)11., F.A.C.]

**Policy 6.1.1:**        *Development or Redevelopment within the Coastal Areas.* Development or redevelopment within the coastal areas shall have public services and facilities available concurrent with the impacts of development. [9J-5.012 (3)(c)13., F.A.C.]

**Policy 6.1.2:**        *Limiting Public Expenditures in the Coastal High Hazard Area.* The City shall limit public expenditures in the coastal high hazard area to the restoration or enhancement of natural resources and the improvement of public parks and historic related facilities obtained from the City's Historic Resources Survey or the Florida Master Site File upon adoption of this *Plan*. [9J-5.012 (3)(c)11., F.A.C.]

**Objective 6.2:**        *Concurrency.* Ensure through the Land Development Code, development review process, concurrency management system and capital improvements schedule that adopted level-of-service standards are sufficient and provided for the existing and projected Coastal Planning Area population.

**Policy 6.2.1:**        *New Development and Redevelopment and the Adopted Level of Service Standards.* New development and redevelopment projects within the Coastal Planning Area shall be consistent with the adopted Level of Service Standards established in this *Comprehensive Plan*. [9J-5.012 (3)(c)13., F.A.C.]

**Objective 6.3:**        *Potable Water.* Ensure through the City's development review process, concurrency management system and capital improvements schedule that there are sufficient water resources to provide potable water to meet the needs of the Coastal Planning Area population.

**Policy 6.3.1:**        *Future Development and Potable water System Hook Up Requirement.* Require future development to hook up to centralized potable water systems.

**Policy 6.3.2:**        *Planning for Facilities and the Demand of Growth and Development.* Plan for facilities including, but not limited to, potable water storage, treatment, and distribution facilities needed to meet the demand of projected growth and development and include them in the City's *Water Supply Facilities Work Plan (WSFWP)*.

**Policy 6.3.3:**        *Maintaining Interlocal Agreements and Potable Water.* Maintain interlocal agreements with the County and adjacent local governments to

identify future potable water service areas and modify the *WSFWP* when needed to accommodate added users.

- Policy 6.3.4:** *Wellfield Protection Standards.* The City shall continue to maintain and update wellfield protection standards in the City's Land Development Code pursuant to FDEP regulations.
- Policy 6.3.5:** *Locating Future Wellfields and Saltwater Intrusion.* Locate future wellfields away from the shoreline to protect against saltwater intrusion.
- Policy 6.3.6:** *Potable Water Withdrawal.* Potable water withdrawal shall be pumped at an appropriate volume and rate to avoid saltwater intrusion and decreased aquifer levels.
- Policy 6.3.7:** *Water Transmission Facilities.* Continue efforts to assess and upgrade water transmission facilities in areas experiencing low pressure conditions to ensure that an adequate water supply will exist during maximum daily demand periods to meet future growth.

**Objective 6.4:** *Sanitary Sewer.* Provide sufficient sanitary sewer treatment capacity, effluent reuse and disposal methods to meet the demand projected by growth and development consistent with adopted water quality standards and the *WSFWP*.

- Policy 6.4.1:** *Future Development Connection Requirement and Wastewater Facilities and Reclaimed Water.* Require future development to connect to the public wastewater treatment system and reclaimed water distribution systems, if available. [9J-5.012 (3)(c)13., F.A.C.]
- Policy 6.4.2:** *New Development or Substantial Redevelopment and Reclaimed Water Distribution System.* The City will require each new development or substantial redevelopment project to construct reclaimed water distribution system and whenever feasible to connect to the City's existing irrigation water supply system. However, the City may accept an alternative supply for irrigation water subject to review and approval by the City, including private systems. [9J-5.012 (3)(c)13., F.A.C.]
- Policy 6.4.3:** *Existing and Future Wastewater Treatment Facilities and Water Quality Standards.* The City shall continue to require existing and future wastewater treatment facilities to meet or exceed adopted FDEP water quality standards.
- Policy 6.4.4:** *Maintaining Interlocal Agreements and Future Wastewater Service.* Maintain interlocal agreements with the County and adjacent local governments to identify future wastewater service areas.

**Policy 6.4.5:**     ***Consistency of Wastewater Treatment Level-of-Service.*** The level-of-service for the provision of wastewater treatment in the coastal area shall be consistent with the *Sanitary Sewer Sub-Element* of this *Comprehensive Plan*.

**Policy 6.4.6:**     ***Hazardous Waste Evaluation.*** In cooperation with the County, a hazardous waste evaluation shall be undertaken for all known active and inactive solid waste disposal facilities and dump sites to determine possible contamination of ground and surface waters.

**Policy 6.4.7:**     ***Public Services and Facilities and Concurrency.*** The City shall continue to make public services and facilities available concurrent with the impacts of development. In cases of phased development, the City shall determine when public facilities and services are necessary to maintain concurrency. [9J-5.012 (3)(c)13., F.A.C.]

**Objective 6.5:**     ***Stormwater Management.*** Will implement its *Stormwater Master Plan* and coordinate stormwater management systems with Volusia County to prevent degradation of coastal resources.

**Policy 6.5.1:**     ***Untreated Direct Discharge of Stormwater Runoff.*** For new development, the City shall prohibit the untreated direct discharge of stormwater runoff into Class II Waters.

**Policy 6.5.2:**     ***Discharge from Stormwater Facilities and Water Quality Standards.*** Discharge from stormwater facilities shall not result in violation of adopted water quality standards.

**Policy 6.5.3:**     ***Design of Stormwater Management Systems.*** Stormwater management systems shall be designed to remove oil and suspended solids prior to discharge.

**Objective 6.6:**     ***Public Buildings.*** Ensure through capital improvement planning and site selection that public buildings meet the needs of population growth and are located, if possible, outside of areas susceptible to damage from storms or flooding.

**Policy 6.6.1:**     ***Identifying Future School Sites in the Coastal Planning Area.*** Cooperate with the Volusia County School Board in identifying future sites for school facilities within the Coastal Planning Area.

**Policy 6.6.2:**     ***Locating Future School Facilities.*** Locate future school facilities outside of areas susceptible to hurricane storm damage or areas prone to flooding.

**Policy 6.6.3:**     ***Design of Future School Facilities.*** Future school facilities should be designed to be utilized as emergency and evacuation shelters. The City

shall work with the Red Cross and the Volusia County School District in the identification and designation of school facilities as hurricane evacuation and emergency shelters.

**Policy 6.6.4:** *Law Enforcement and Law Enforcement Facilities.* Provide for fire and law enforcement facilities commensurate with population growth and development in the Coastal Planning Area.

**Policy 6.6.5:** *Locating New Fire and Law Enforcement Facilities.* Locate new fire and law enforcement facilities outside of the areas susceptible to hurricane storm damage or flooding where feasible. Continue to update procedures as part of the *Peacetime Emergency Plan* for emergency fire and police protection and response. [9J-5.012 (3)(c)3., F.A.C.]

**Policy 6.6.6:** *Comprehensive Emergency Management Plan.* Continue to update procedures as part of the *Comprehensive Emergency Management Plan* for emergency fire and police protection and response.

**GOAL 7: INTERGOVERNMENTAL COORDINATION.** Foster and encourage intergovernmental coordination in the Coastal Planning Area between Volusia County, the City of Edgewater, adjacent Local governments, Regional, State and Federal government entities.

**Objective 7.1:** *Volusia County Coordination.* Coordinate with Volusia County to maintain area-wide standards to protect coastal resources.

**Policy 7.1.1:** *Consistent Development Standards.* Ensure consistency between development standards adopted by Volusia County and the City.

**Policy 7.1.2:** *Identification and Protection of the Environmental System Corridors.* The City shall coordinate with Volusia County in the identification and protection of the environmental systems corridors to ensure the viability and continuation of the system.

**Policy 7.1.3:** *Florida Land Use Cover and Forms Classification System.* The City shall cooperate with Volusia County in maintaining and updating the Florida Land Use Cover and Forms Classification System maps and database.

**Policy 7.1.4:** *Participating in Basin-wide Stormwater Management Programs and Studies.* The City shall coordinate and cooperate with Volusia County, FDEP, SJRWMD and ECFRPC by participating in basin-wide stormwater management programs and studies.

**Objective 7.2:** *Land Use.* Utilize Volusia County's *Coastal Management Element* land use plan as a guide in deciding issues of land use and zoning, the extension and provision of urban services,

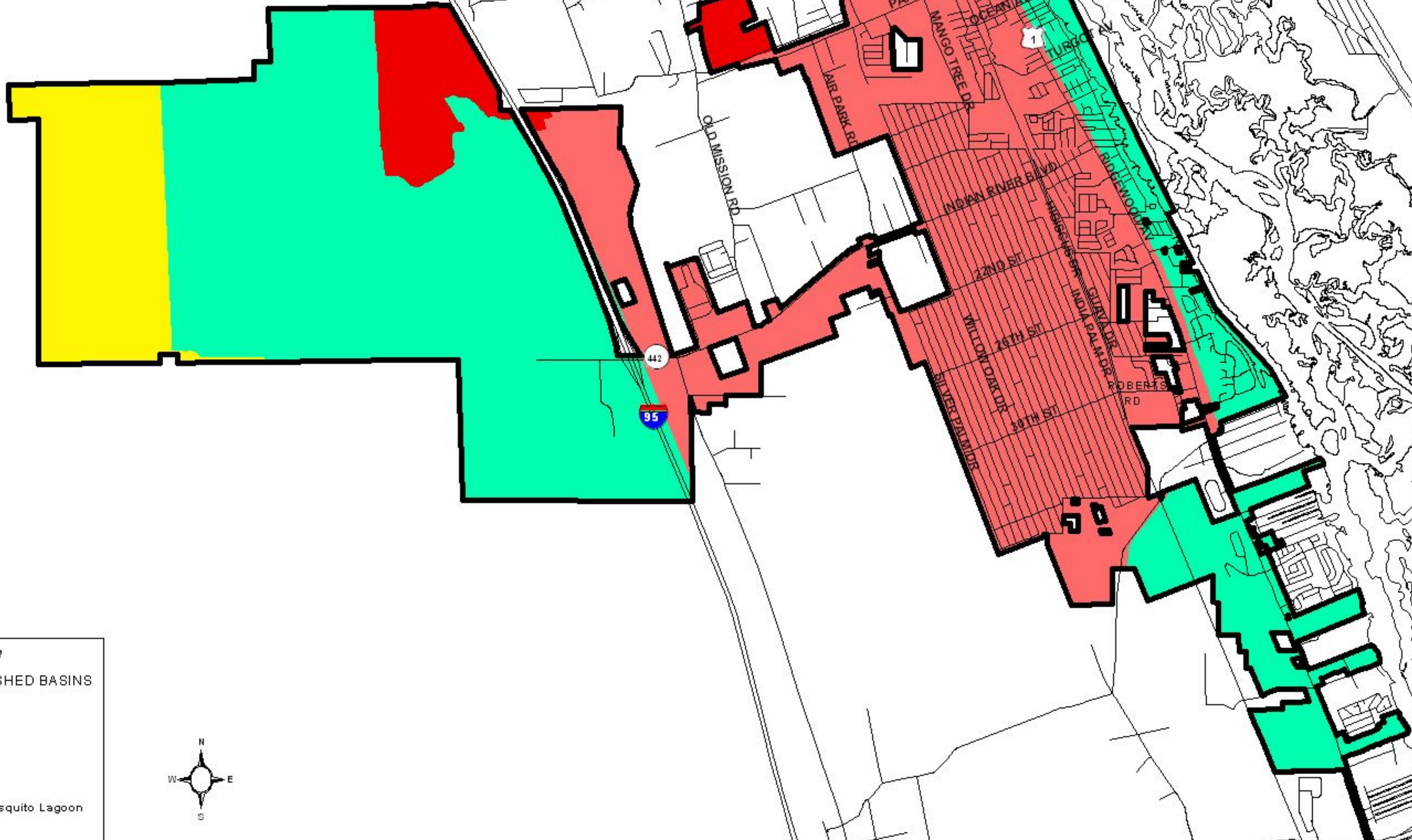


annexation, and the general location of environmental systems corridors in the Coastal Management Area.

- Policy 7.2.1:**        *Impacts on Coastal Resources in Adjacent Local Governments.* Applications for land use amendments, zoning, and development shall consider the impacts on coastal resources in adjacent local governments.
- Policy 7.2.2:**        *Extension and Provision of Urban Services and Facilities.* The extension and provision of urban services and facilities and the identification of future annexation areas shall be accomplished through the adoption of inter-local agreements or any other sufficient means as prescribed by law.
- Policy 7.2.3:**        *Maintaining and Updating Land Use Information by Watershed.* The City shall cooperate with the County in maintaining and updating land use information by watershed.

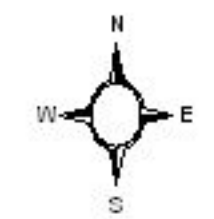


# CITY OF EDGEWATER



**MAP V-1**  
**PRIMARY WATERSHED BASINS**

- City Limits
- Roads
- Watersheds
  - Deep Creek
  - Edgewater
  - Indian River/Mosquito Lagoon
  - Turnbull



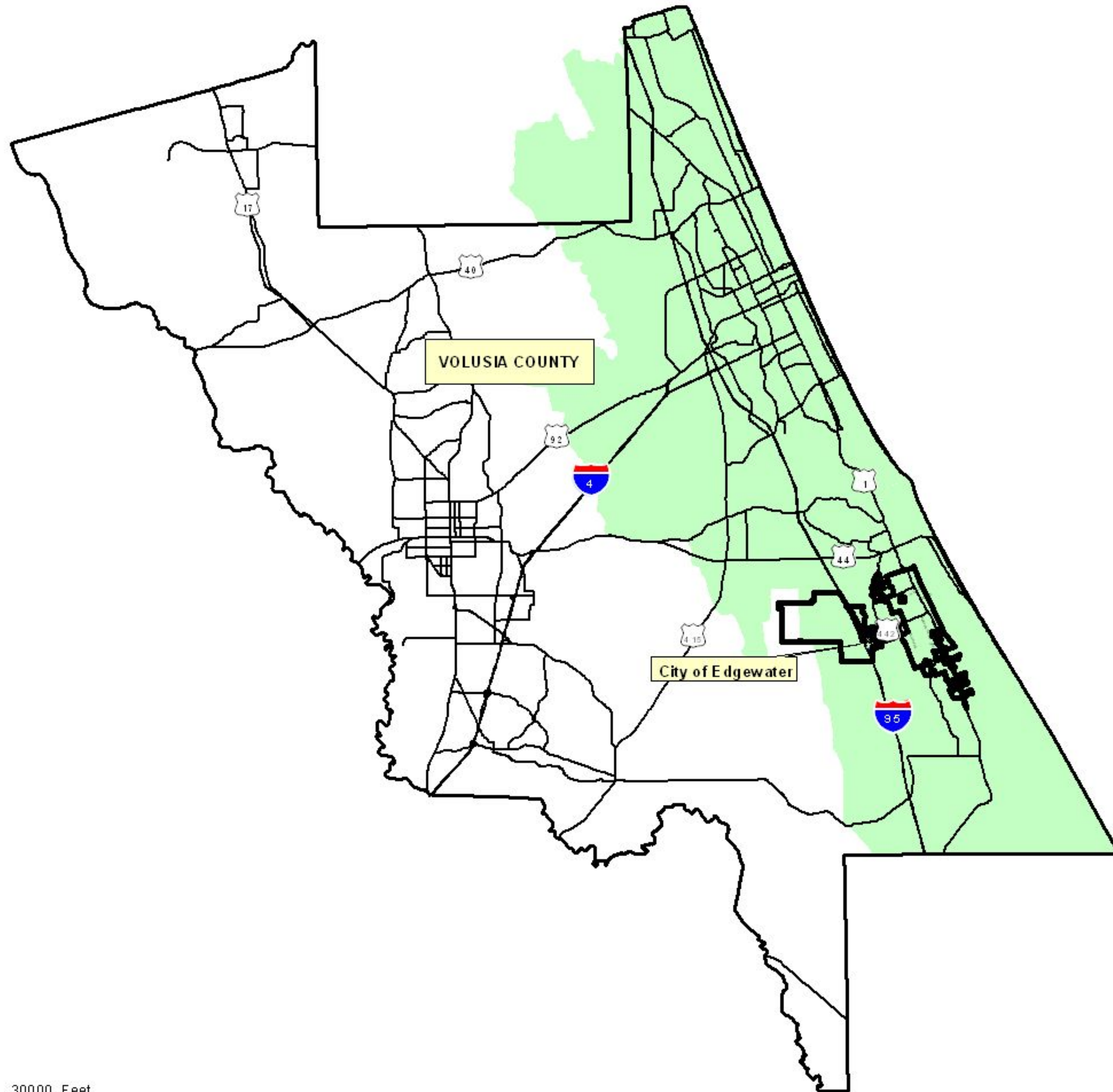
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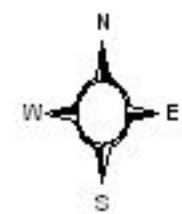


# CITY OF EDGEWATER



MAP V-2  
COASTAL PLANNING  
AREA BOUNDARY

- City Limits
- Roads
- Coastal Planning Area



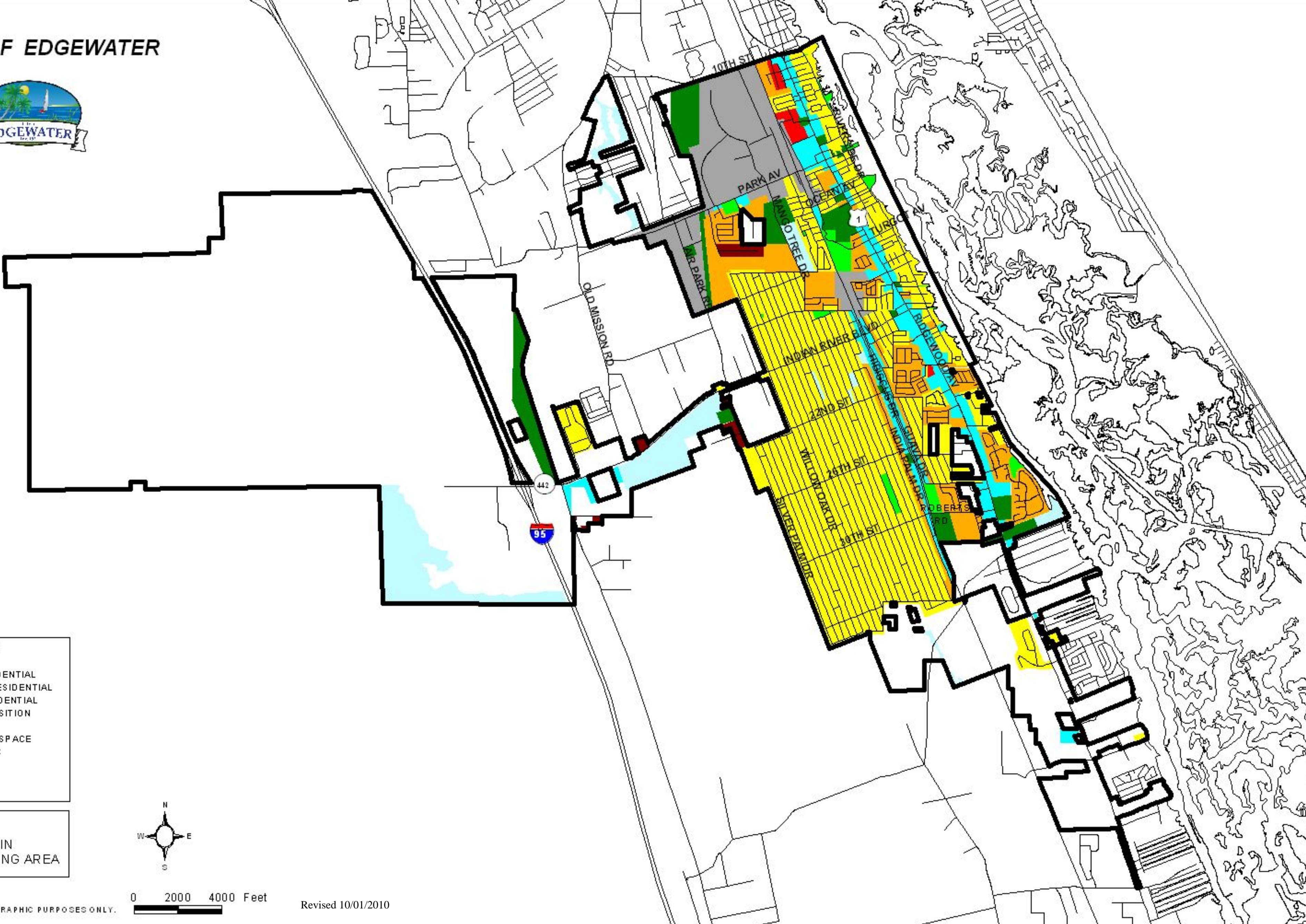
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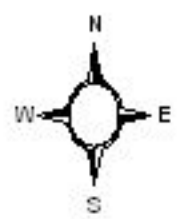


# CITY OF EDGEWATER



LEGEND	
	CITY LIMITS
	LOW DENSITY RESIDENTIAL
	MEDIUM DENSITY RESIDENTIAL
	HIGH DENSITY RESIDENTIAL
	LOW DENSITY TRANSITION
	INDUSTRIAL
	RECREATION/OPEN SPACE
	PUBLIC/SEMI-PUBLIC
	COMMERCIAL
	CONSERVATION
	VACANT

MAP V-3  
LAND USES IN  
COASTAL PLANNING AREA



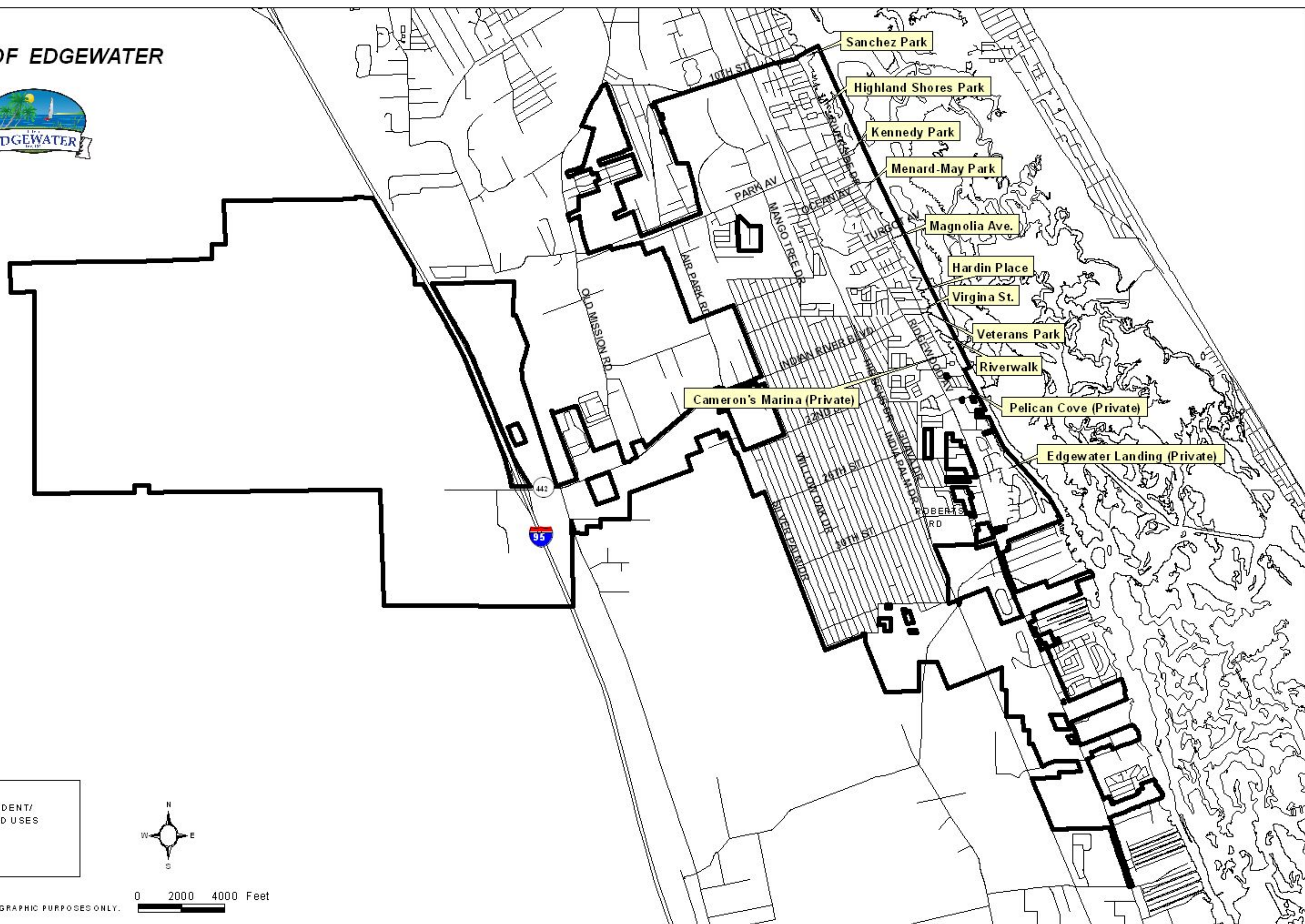
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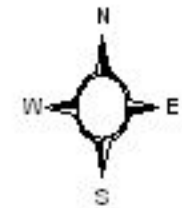


# CITY OF EDGEWATER



MAP V-4  
WATER DEPENDENT/  
WATER RELATED USES

City Limits  
 Roads



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# CITY OF EDGEWATER

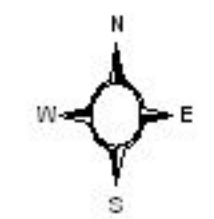


**LEGEND**

ABANDONED FIELDS	MANGROVE
ATLANTIC WHITE CEDAR	MELALEUCA
BAY SWAMP	MIXED RANGELAND
BEACHES	MIXED WETLAND HARDWOODS
BEECH-MAGNOLIA	NON-VEGETATED WETLAND
BOTTOMLAND SWAMP	OPEN WATER
CABBAGE PALM HAMMOCK	OTHER PINE/SPECIAL
COASTAL DUNE SERIES	PALMETTO PRAIRIES
COASTAL SCRUB	PINE FLATWOOD
CYPRESS SWAMP	PINE/MESIC OAK
CYPRESS/PINE/CABBAGE PALM	PINE/XERIC OAK
DISTURBED LANDS	RED CEDAR
ESTUARINE MARSH	SAND PINE
FRESHWATER MARSH	SCRUB OAK
GENERALIZED AGRICULTURE	SHRUB/DISTURBED WETLANDS
HARDWOOD/CONIFER MIX	TEMPERATE HAMMOCKS
INLAND POND	TREE PLANTATION
LARCH OAK HAMMOCK	WAX MYRTLE/WILLOW
LIVE OAK HAMMOCK	WET PRAIRIE
LONGLEAF PINE/SANDHILL	WETLAND CONIFEROUS FOREST
	XERIC OAK

MAP V-5  
GENERAL VEG ETATIVE COVER

City Limits  
Roads

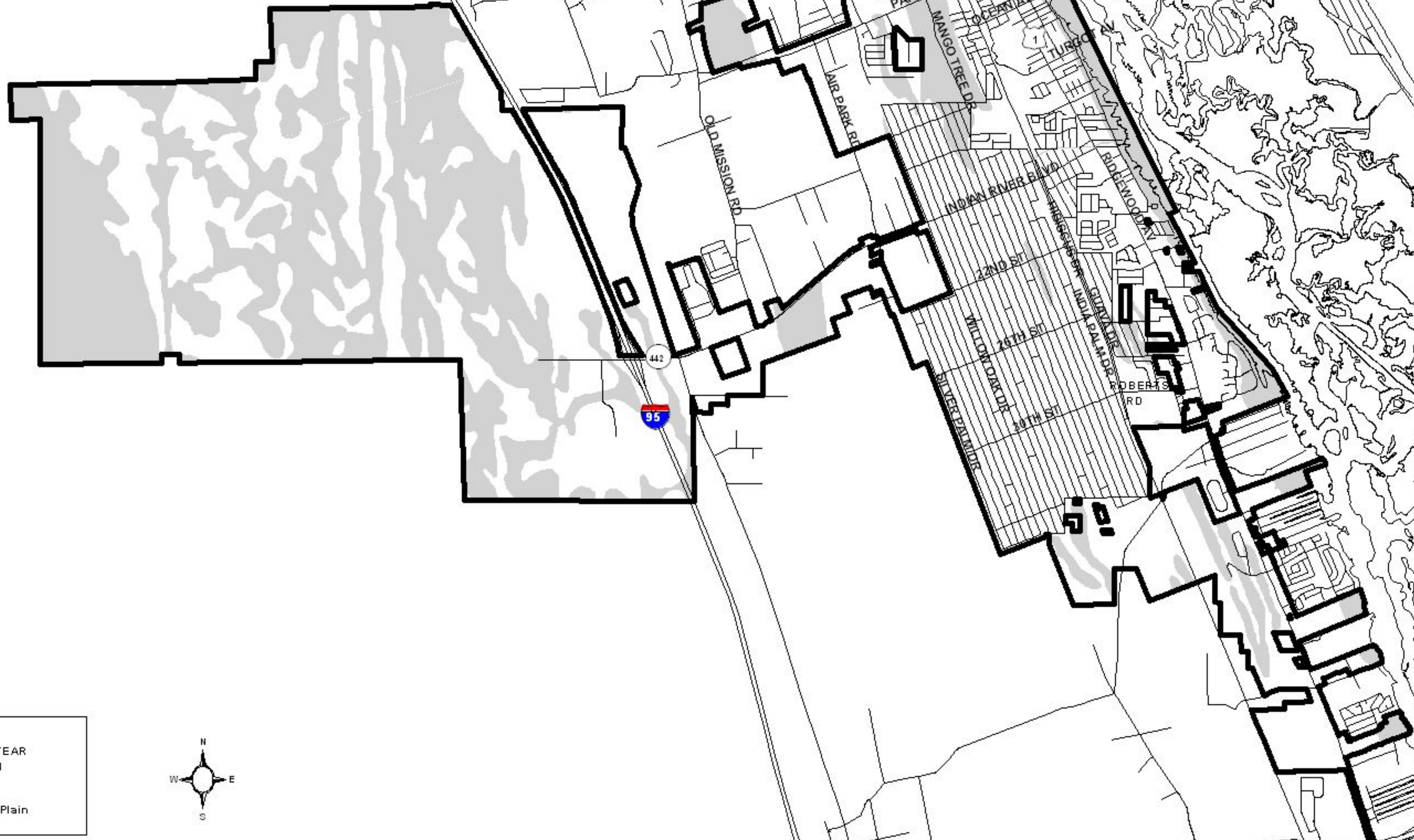


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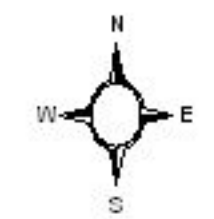
# CITY OF EDGEWATER



MAP V-6  
COASTAL 100-YEAR  
FLOODPLAIN

 City Limits

 100 Year Flood Plain



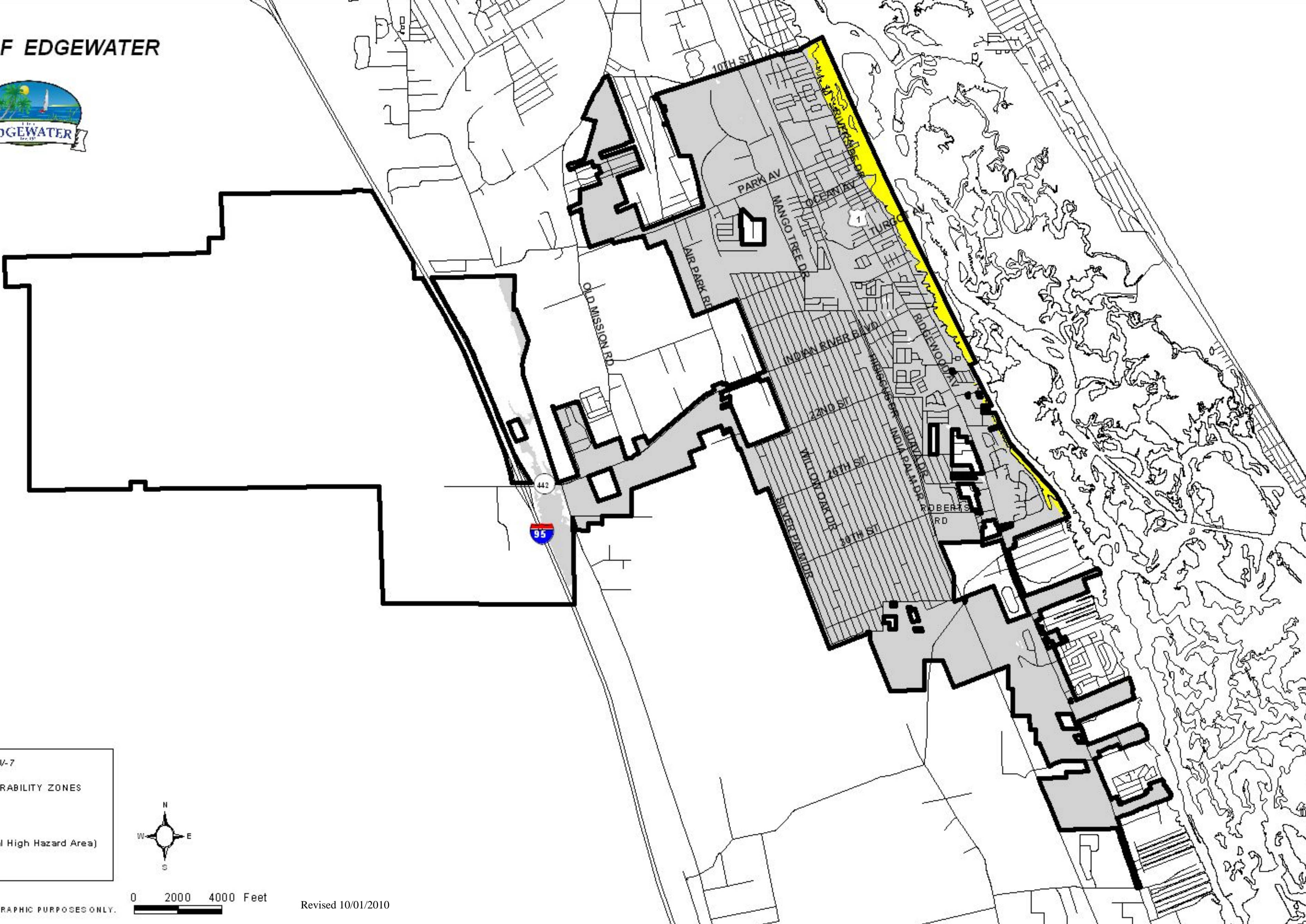
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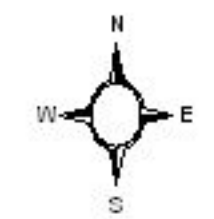


# CITY OF EDGEWATER



MAP V-7  
HURRICANE VULNERABILITY ZONES

- City Limits
- Roads
- Threat A (Coastal High Hazard Area)
- Threat B



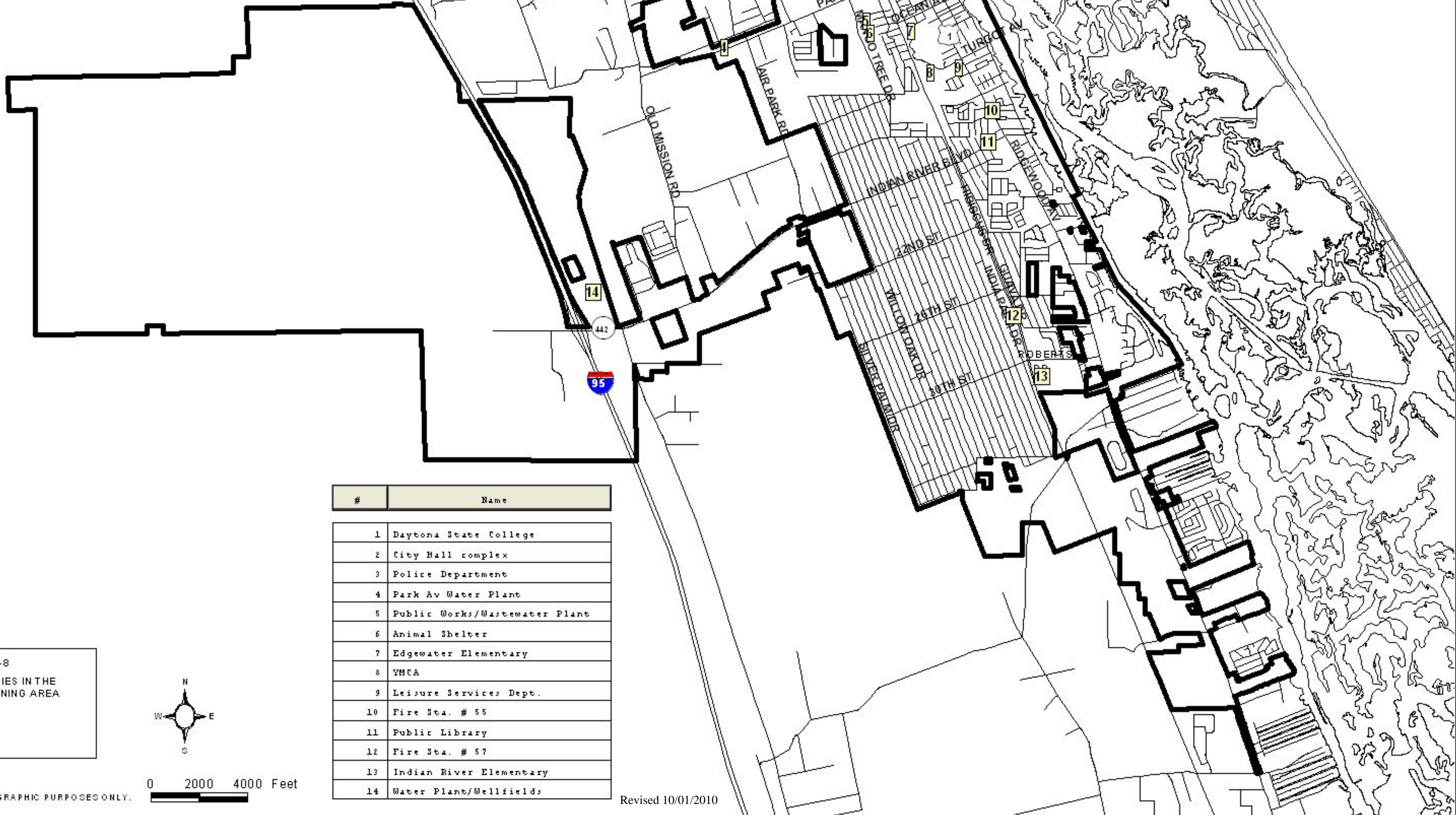
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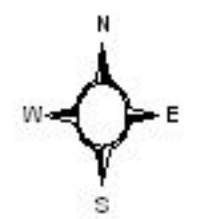
# CITY OF EDGEWATER



#	Name
1	Daytona State College
2	City Hall complex
3	Police Department
4	Park Av Water Plant
5	Public Works/Wastewater Plant
6	Animal Shelter
7	Edgewater Elementary
8	YMCA
9	Leisure Services Dept.
10	Fire Sta. # 55
11	Public Library
12	Fire Sta. # 57
13	Indian River Elementary
14	Water Plant/Wellfields

MAP V-8  
PUBLIC FACILITIES IN THE  
COASTAL PLANNING AREA

City Limits  
 Roads



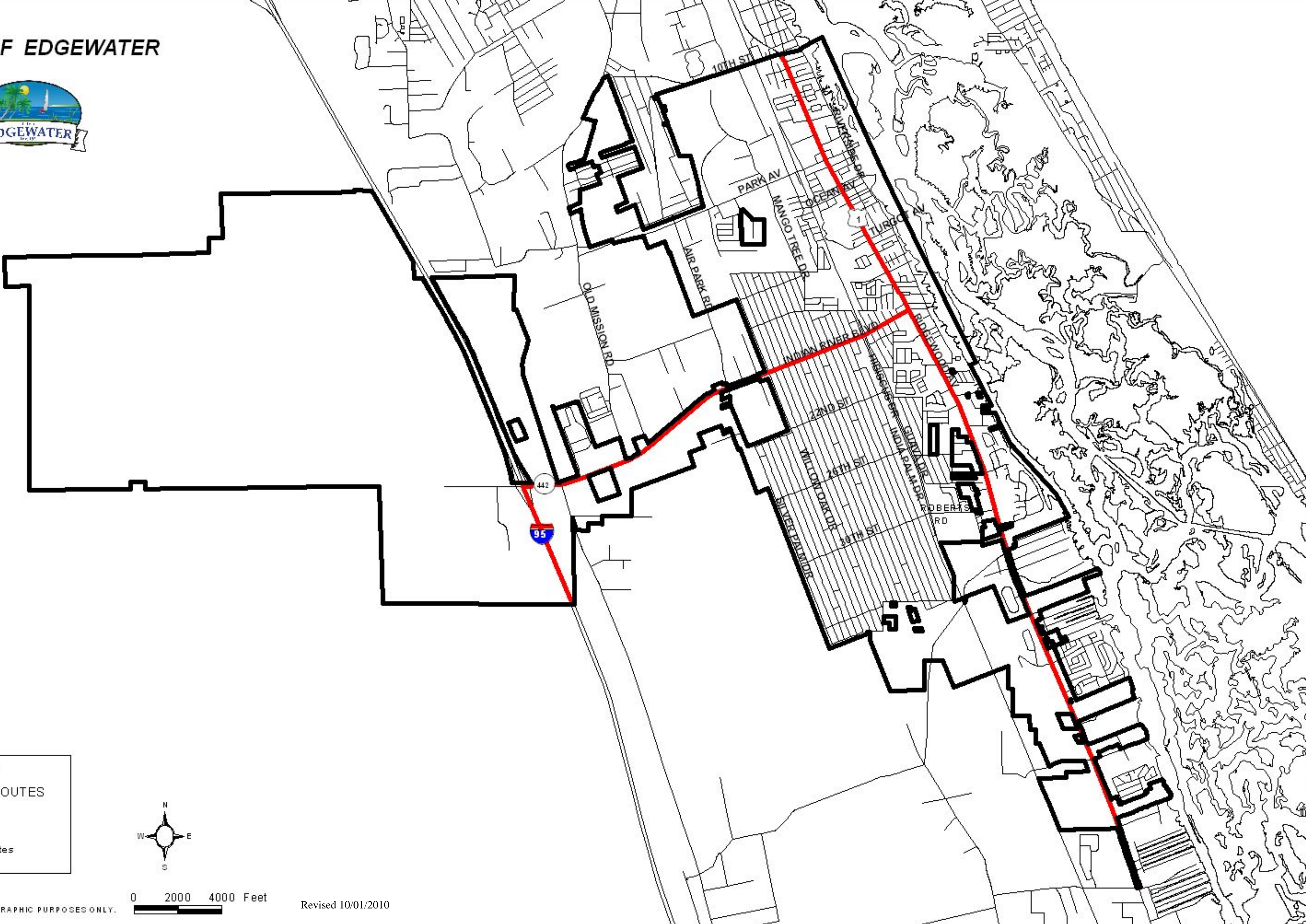
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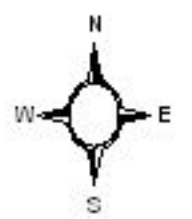


# CITY OF EDGEWATER



MAP V-9  
EVACUATION ROUTES

- City Limits
- Roads
- Evacuation Routes



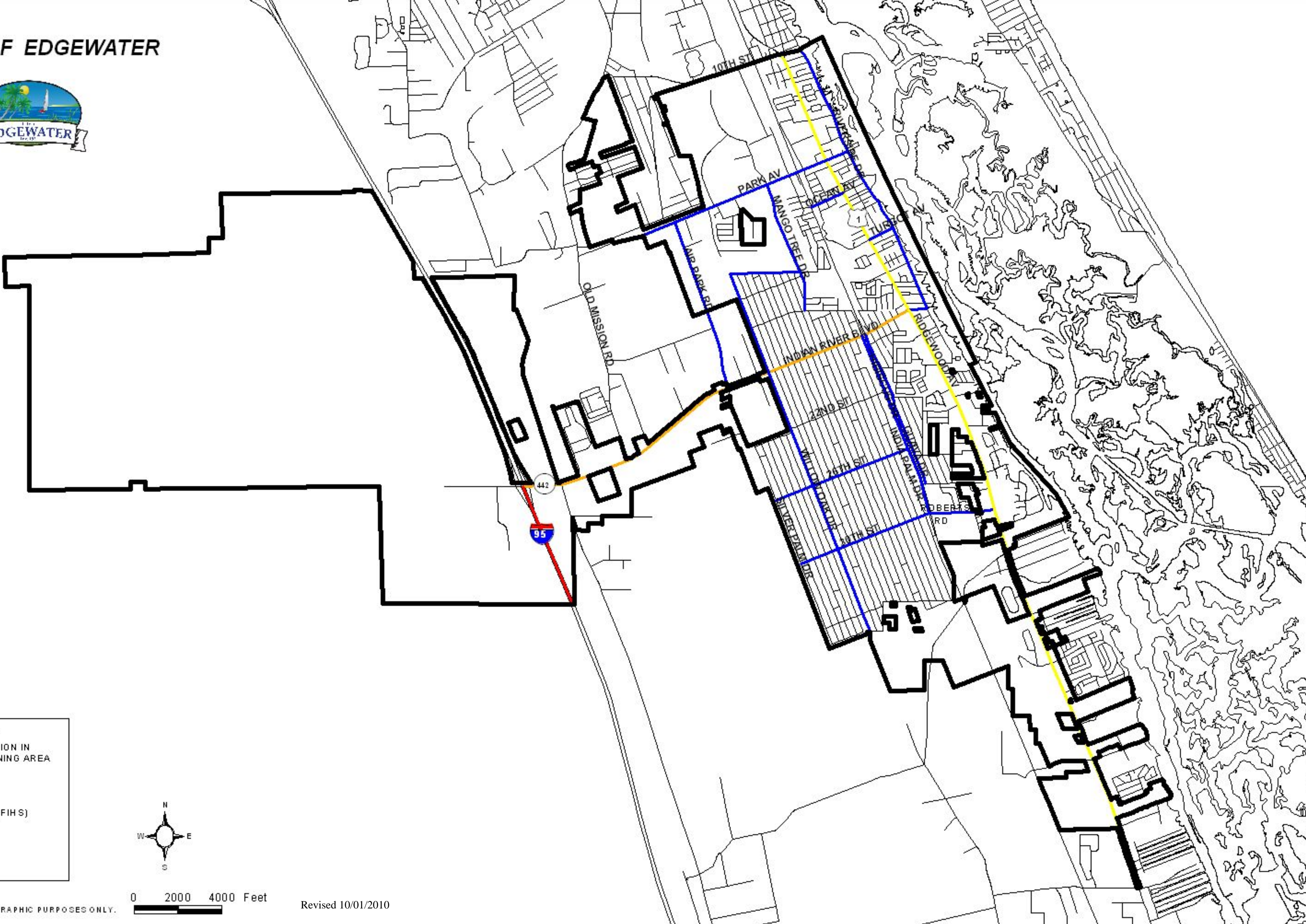
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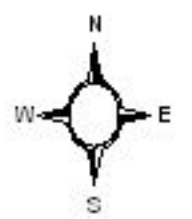


# CITY OF EDGEWATER



MAP V-10  
TRAFFIC CIRCULATION IN  
THE COASTAL PLANNING AREA

- City Limits
- Roads
- Limited Access (FIHS)
- Arterial I
- Arterial II
- Collector



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\* MAP IS TO BE USED FOR GRAPHIC PURPOSES ONLY.

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**CITY OF EDGEWATER**

**COMPREHENSIVE PLAN**

**CONSERVATION ELEMENT**

**GOALS, OBJECTIVES AND POLICIES**

**CHAPTER VI**

**CHAPTER VI  
CONSERVATION ELEMENT  
GOALS, OBJECTIVES AND POLICIES**

**A. GOALS, OBJECTIVES AND POLICIES**

**GOAL 1:** To conserve, protect, enhance and responsibly manage the environmental resources of the City, in order to maintain or improve their ecological, economic, aesthetic and recreational values.

**Objective 1.1:** *Water Resources.* Conserve, appropriately use and protect the quality and quantity of the City's surface and groundwater resources. [9J-5.013 (2)(b)2., F.A.C.]

**Policy 1.1.1:** *Wellfield Protection Areas.* The City shall continue to enforce wellfield protection regulations around municipal wellfield sites pursuant to FDEP regulation and the Volusia County Wellhead Protection Ordinance. [9J-5.013 (2)(c)1., F.A.C.]

**Policy 1.1.2:** *Connecting to Wastewater Reuse System.* The City will continue encouraging residents to connect to the wastewater reuse system to utilize as much available reclaimed water as possible.

**Policy 1.1.3:** *Native Species and Xeriscape Technology.* The City shall continue to encourage the use of native species and xeriscape technology.

**Policy 1.1.4:** *Potable Water Supply Contamination.* The City shall ensure a potable water supply that is protected from contamination and of the highest quality available by continuing to utilize adequate water treatment which meets, at a minimum, all Federal and State drinking water criteria (Chapter 17-22, F.A.C.) and through the maintenance of distribution systems. [9J-5.013 (2)(c)6., F.A.C.]

**Policy 1.1.5:** *Collection and Disposal of Hazardous Wastes.* The City will support any State efforts to collect and dispose of small quantities of hazardous wastes through such programs as the Amnesty Days Program. [9J-5.013 (2)(c)10., F.A.C.]

**Policy 1.1.6:** *Water Conservation Practices.* The City will continue its program to reduce per capita consumption through conservation measures to provide capacity to serve additional customers. The City's water conservation practices include the following: [9J-5.013 (2)(c)1., F.A.C.]

- Building code requirements for low water volume fixtures in new construction;

- Continuation of City program and participation in the Water Authority of Volusia's (WAV) program for public outreach and education;
- Continuation of an active program to encourage the use of low volume toilets;
- Meter calibration program for master meters;
- Maintenance of the distribution system;
- Performing water audits to identify system losses;
- Landscape water conservation regulations that provide landscape and irrigation standards;
- Adoption of regulations that require installation of water-saving plumbing devices;
- Consideration of regulations that override green lawn deed restrictions;
- Implementation of incentive programs to replace inefficient landscapes, plumbing devices, and appliances;
- Implementation of a program that provides indoor water audits and leak detection and irrigation system audits;
- Promoting and encouraging the use of low impact development (LID) techniques; and
- Continue to implement and promote the City's current *Water Conservation Rate Structure Ordinance*.

**Policy 1.1.7:** *Emergency Water Conservation Program.* The City shall utilize its emergency water conservation program should a water shortage develop as well as determine possible alternative water sources; enforcement shall be implemented in tandem with the St. Johns River Water Management District (SJRWMD). In coordination with Volusia County and the SJRWMD the City shall maintain minimum standards for water conservation during normal times. [9]-5.013 (2)(c)4., F.A.C.]

**Policy 1.1.8:** *Promoting Low Impact Development Techniques.* The City shall promote the use of LID techniques which mimic a site's pre-development and hydrologic condition. These techniques will address infiltration, attenuation, and treatment needs of each specific site. LID works with nature to manage stormwater as close to its source as possible, with an emphasis on cost-effective strategies at the lot level and employs principles such as preserving and recreating natural landscape features, minimizing effective imperviousness to create functional and appealing site drainage that treat stormwater as a resource rather than a waste product. LID practices include, but are not limited to, bioretention facilities, rain gardens, vegetated rooftops, grass swales, rain barrels, permeable pavements or the replication of predevelopment hydrology. By implementing these principles and practices, water can be managed in a way that reduces the impact of



built areas and promotes the natural movement of water within an ecosystem or watershed.

**Policy 1.1.9:** *Promoting Green Building Techniques.* The City shall promote “green building” techniques that reduce and ultimately eliminate the impacts of buildings on the environment and human health, take advantage of renewable resources, and reduce rainwater run-off to protect minerals, soils and vegetation.

**Policy 1.1.10:** *Water Supply Facilities Work Plan.* Edgewater’s *Water Supply Facilities Work Plan (WSFWP)* shall assess existing and projected water sources and needs for at least a 10-year planning period and consider the *Regional Water Supply Plan* of the SJRWMD. The *WSFWP* will also identify traditional and alternative water supply sources, including water conservation efforts, which the City may use to reduce or satisfy existing and projected water demands.

**Policy 1.1.11:** *Water Conservation and WSFWP.* The City will continue to implement the water conservation efforts identified in the WSFWP. These efforts will include concentrating on outreach and education as well as irrigation system modifications and indoor plumbing retrofits.

**Objective 1.2:** *Indian River/Mosquito Lagoon.* The City shall not degrade the environmental quality of the Indian River/Mosquito Lagoon estuary. [9J-5.013 (2)(b)2. and (2)(b)4., F.A.C.]

**Policy 1.2.1:** *Enforcing Stormwater Management and Shoreline Protection Ordinances.* The City shall continue to enforce its existing stormwater management and shoreline protection ordinances.

**Policy 1.2.2:** *Reducing Excess Runoff and Potential Pollutants.* The City shall continue to implement the public education program on the use of proper fertilization, pesticide and herbicide application to landscaping (especially for shoreline property owners) to reduce excess runoff of these potential pollutants.

**Policy 1.2.3:** *Protection of Rare, Endangered, Threatened Wildlife and Species of Special Concern.* The City shall continue to require, as part of the Development Review Process, that prior to development approval, proposed development will be required to coordinate with all appropriate agencies and comply with the U.S. Fish and Wildlife Service and the Florida Fish and Wildlife Conservation Commission rules as well as other applicable Federal and State laws regarding protection of rare, endangered and threatened wildlife. [9J-5.013 (2)(c)5., F.A.C.]

**Policy 1.2.4:** *Septic Tank Leachate.* The City will continue to encourage and coordinate efforts by the FDEP and Volusia County to vigorously monitor the health and environmental risks associated with septic tank leachate.

- Policy 1.2.5:** *Compliance with Effluent Standards.* The City will ensure that its wastewater treatment plant and collection facilities are in good repair and will continue to monitor its wastewater treatment plant effluent to ensure compliance with effluent standards set by the State.
- Policy 1.2.6:** *Indian River/Mosquito Lagoon Protection.* The City shall encourage and participate in intergovernmental management efforts to protect, enhance and improve the quality of the Indian River/Mosquito Lagoon.
- Policy 1.2.7:** *Preserving Natural Scenic Views.* The City shall continue to enforce regulations within the Land Development Code to provide, enhance and preserve natural scenic views of the estuary and its waters. [9J-5.013 (2)(c)6., F.A.C.]
- Policy 1.2.8:** *Mangrove and Spoil Islands and the Indian River/Mosquito Lagoon.* The City shall support designation of the mangrove and spoil islands located within the Indian River/Mosquito Lagoon estuary as conservation areas, with development prohibited on these islands. [9J-5.013 (2)(c)3. and (2)(c)6., F.A.C.]
- Objective 1.3:** *Protection of Environmentally Sensitive Areas.* Protect and manage all ecological communities, fisheries, and wildlife especially rare, endangered, threatened species and species of special concern. [9J-5.013 (2)(b)3., F.A.C.]
- Policy 1.3.1:** *Preserving the Turnbull Hammock.* The City shall cooperate with adjoining jurisdictions and the SJRWMD to preserve the portion of the environmentally sensitive Turnbull Hammock immediately adjacent to the western City limit through coordination with the County's land acquisition program.
- Policy 1.3.2:** *Threatened, Endangered, and Rare Species.* The City shall assist in the application of and compliance with all State and Federal regulations, which pertain to threatened, endangered, and rare species. [9J-5.013 (2)(c)5., F.A.C.]
- Policy 1.3.3:** *Adverse Impact to any Endangered or Rare Species.* The City shall consult with the Florida Fish and Wildlife Conservation Commission prior to the issuance of a development approval that would result in an adverse impact to any endangered or rare species. [9J-5.013 (2)(c)5., F.A.C.]
- Policy 1.3.4:** *Protecting Endangered and Rare Species and Environmentally Sensitive Lands.* The City shall continue to protect endangered and rare species and environmentally sensitive lands through the implementation of its Sensitive Habitat Area regulations within the Land Development Code primarily by restrictions in development orders, as well as other measures. [9J-5.013 (2)(c)5., F.A.C.]

- Policy 1.3.5:** *Regulating Boating Impacts on the Indian River.* The City shall regulate boating impacts on the Indian River pursuant to Phase II, the Boat Facility Siting component of the *Manatee Protection Plan* for Volusia County as adopted by the City on August 1, 2005. [9J-5.013 (2)(c)5., F.A.C.]
- Policy 1.3.6:** *Motorized Boat Slips.* The City shall implement the “slip aggregation” option referenced in the Volusia County *Manatee Protection Plan*. The aggregated number of motorized boat slips to be constructed within the City is 418 and is based upon data and research contained in the *Manatee Protection Plan* for Volusia County.
- Policy 1.3.7:** *Motorized Boat Slip and Single family Residential Lots.* Single-Family residential lots with Indian River frontage shall not be denied their riparian rights to construct a minimum of two (2) motorized boat slips per lot.
- Policy 1.3.8:** *Multi-slip Facilities and Aggregation of Slips.* The City shall encourage shared, multi-slip facilities and aggregation of slips during development and redevelopment, including single-family lots of record.
- Policy 1.3.9:** *Marina Development/Redevelopment and the Manatee Protection Plan.* Any marina development/redevelopment shall be consistent with the *Manatee Protection Plan* for Volusia County.
- Policy 1.3.10:** *Manatee Protection.* The City shall monitor the protection policies pursuant to the *Manatee Protection Plan* for Volusia County. [9J-5.013 (2)(c)5., F.A.C.]
- Policy 1.3.11:** *Development in Habitat Areas.* Development in habitat areas listed by the State of Florida and the U.S. Fish and Wildlife Service as Endangered, Threatened or Species of Special Concern shall not adversely impact the listed species. The City’s Land Development Code shall also encourage secondary linkage to nearby wildlife corridors, even if by any approved artificial means; construction of new corridors should be considered as a form of mitigation where appropriate. [9J-5.013 (2)(c)5., F.A.C.]
- Policy 1.3.12:** *Environmental Impact Study Requirement.* The City’s Land Development Code shall require an environmental impact study to be submitted and reviewed prior to the issuance of a development order for areas that contain listed species or native wetlands as identified by this *Element*, and for any area within the Conservation Overlay District. The study shall be used to determine compliance with this Objective. The study must address the methodology used. [9J-5.013 (2)(c)5., F.A.C.]
- Policy 1.3.13:** *Maintaining Existing Natural Reservations.* The City will cooperate with the State of Florida and the Federal Government to maintain the existing natural reservations in the State-owned preservation areas identified in the *Recreation and Open Space Element* of this *Plan*. [9J-5.013 (2)(c)7., F.A.C.]



**Policy 1.3.14:**     ***Management of Unique Vegetative Communities.*** The management of unique vegetative communities that cross Edgewater’s borders will be coordinated with adjacent local governments including, but not limited to, Volusia County, the Florida Department of Environmental Protection, the Florida Fish and Wildlife Conservation Commission, the City of New Smyrna Beach and the City of Oak Hill when boundaries warrant. Coordination activities may include, but not necessarily be limited to, interlocal agreements, public meetings, staff interaction, written notifications, and joint committees. [9J-5.013 (2)(c)8., F.A.C.]

**Objective 1.4:**     ***100-Year Floodplain Protection.*** Protect the natural function and values of the 100-year floodplain. [9J-5.013 (2)(b)3., F.A.C.]

**Policy 1.4.1:**     ***Implementing Floodplain Management Regulations.*** The City shall continue to implement its floodplain management regulations contained within the Land Development Code. [9J-5.013 (2)(c)6., F.A.C.]

**Policy 1.4.2:**     ***100-year Floodplain and Priority of Conservation Areas.*** The 100-year floodplain shall be given high priority in the selection of conservation areas within the City and for public acquisition of lands for conservation and recreational purposes.

**Objective 1.5:**     ***Air Quality.*** Maintain and enhance air quality. [9J-5.013 (2)(b)1., F.A.C.]

**Policy 1.5.1:**     ***New Commercial and Mixed-use Development and Bicycle Storage Facilities.*** By December 2014, the City shall determine whether or not to amend the Land Development Code to require new commercial and mixed-use development to install bicycle storage facilities.

**Policy 1.5.2:**     ***Enforcing the Tree Protection Ordinance.*** The City shall continue to enforce its tree protection ordinance to maintain natural vegetative filters for air pollution. [9J-5.013 (2)(c)3., F.A.C.]

**Policy 1.5.3:**     ***Minimizing Blowing Dust and Construction Sites.*** The City shall maintain in its Land Development Code requirements that construction sites use techniques to minimize blowing dust.

**Policy 1.5.4:**     ***Automobile Emission Pollution.*** The City shall continue to reduce the potential for automobile emission pollution by:

- A. Requiring vegetative buffer strips, walls and/or berms between roadways and new developments;
- B. Establishing additional bikepaths/walkways so as to promote the reduction in use of automobiles; and
- C. Promote planned unit development or mixed use type of land use, where feasible.

**Policy 1.5.5:**        ***Open Burning.*** The City shall discourage open burning due to its adverse impacts on air quality.

**Policy 1.5.6:**        ***Alternative Energy Resources.*** The City shall encourage the use of alternative energy resources that do not degrade air quality.

**Objective 1.6:**        ***Natural Functions of Wetlands.*** Protect and conserve the natural functions of wetlands and direct incompatible uses away from wetland areas. [9J-5.013 (2)(b)2., F.A.C.]

**Policy 1.6.1:**        ***Protecting the Natural Function of Wetlands.*** The City will continue to protect the natural functions of wetlands through the Conservation Overlay on the *Future Land Use Map* (FLUM) and the Conservation Land Use Category, as defined in the *Future Land Use Element*.(FLUE) [9J-5.013 (2)(c)3. and (2)(c)6., F.A.C.]

**Policy 1.6.2:**        ***Upland Buffer Requirement.*** A minimum 25-foot upland buffer will be required from the wetland boundaries in the City. [9J-5.013 (2)(c)3., F.A.C.]

**Policy 1.6.3:**        ***Dedication of Conservation Easements.*** Wetlands and respective buffer areas must be dedicated to the City via a conservation easement. [9J-5.013 (2)(c)3., F.A.C.]

**Policy 1.6.4:**        ***Incorporating Isolated Wetlands into Development Projects.*** Existing isolated wetlands may be incorporated into development projects provided the wetlands remain undisturbed and their natural functions are not impaired. [9J-5.013 (2)(c)3. and (2)(c)6., F.A.C.]

**Policy 1.6.5:**        ***Wetlands Mitigation Measures.*** If direct impact upon wetlands by incompatible uses cannot be avoided, the following mitigations measures are applicable:

- Mitigation will be allowed based upon no net loss of wetlands functions.
- Comply with the wetland protection standards of Federal, State, Regional and County agencies.
- Minimize impacts through innovative design layouts.
- Compensate for the impact by enhancing other degraded wetlands on-site, restore natural functions of other wetlands on-site, create new wetlands on-site, preserve significant upland areas, or off-site mitigation.
- A Wetland Alteration Permit must be obtained from the City unless Federal, State or County permits eliminate the need to obtain one from the City, as determined by the City.

- Mitigation through restoration of degraded wetlands on-site or preservation of significant upland areas on-site will be encouraged rather than wetland creation. [9]-5.013 (2)(c)3., F.A.C.]

**Policy 1.6.6:** ***Incorporating Stormwater Management Systems as Detention Facilities.*** The City shall encourage the incorporation of natural drainage ways and isolated forested wetlands into stormwater management systems as detention facilities, to avoid the filling and excavation of wetlands. [9]-5.013 (2)(c)3. and (2)(c)6., F.A.C.]

**Objective 1.7:** ***Hazardous Waste Management.*** Will continue to reduce its levels of hazardous wastes in accordance with the provisions stipulated by the State's *Solid Waste Management Act* and will coordinate these activities on a City, County and regionwide basis.

**Policy 1.7.1:** ***Treatment and Disposal of Hazardous Wastes.*** The City will continue to coordinate with the Volusia County Department of Solid Waste and the Volusia County Pollution Prevention Program concerning the proper storage, recycling, collection and disposal of hazardous wastes. [9]-5.013 (2)(c)10., F.A.C.]

**Policy 1.7.2:** ***Educating the Public and Hazardous Wastes.*** The City shall educate the general public in the planning area about hazardous waste through the use of mail outs in utility bills and public participation programs.

**Policy 1.7.3:** ***Hazardous Waste Generators.*** Require all hazardous waste generators within the City limits to participate in recycling and waste disposal programs. [9]-5.013 (2)(c)10., F.A.C.]

**Objective 1.8:** ***Inventory of Natural Resources.*** Inventory, and classify, natural resources (including sinkholes, wetlands and floodplains) as properties are annexed to the City.

**Policy 1.8.1:** ***Natural and Man-made Retention Ponds.*** The City will identify natural and man-made retention ponds for possible use as urban ecological nature preserves, passive parks or open spaces.

**Policy 1.8.2:** ***Conservation Lands and Volusia County.*** In cases where land has been designated on the County's FLUM (series) as Conservation, the City will continue to apply development restrictions as the properties are annexed to the City. [9]-5.013 (2)(c)3. and (2)(c)9., F.A.C.]

**Policy 1.8.3:** ***Native Vegetative Communities and Conservation Land Use Designation.*** The City shall designate on the FLUM as Conservation any native vegetative communities that are identified or annexed into the City limits; and shall classify them as "environmentally sensitive lands". Development shall be restricted and minimum setback criteria established and enforced. [9]-5.013 (2)(c)9., F.A.C.]



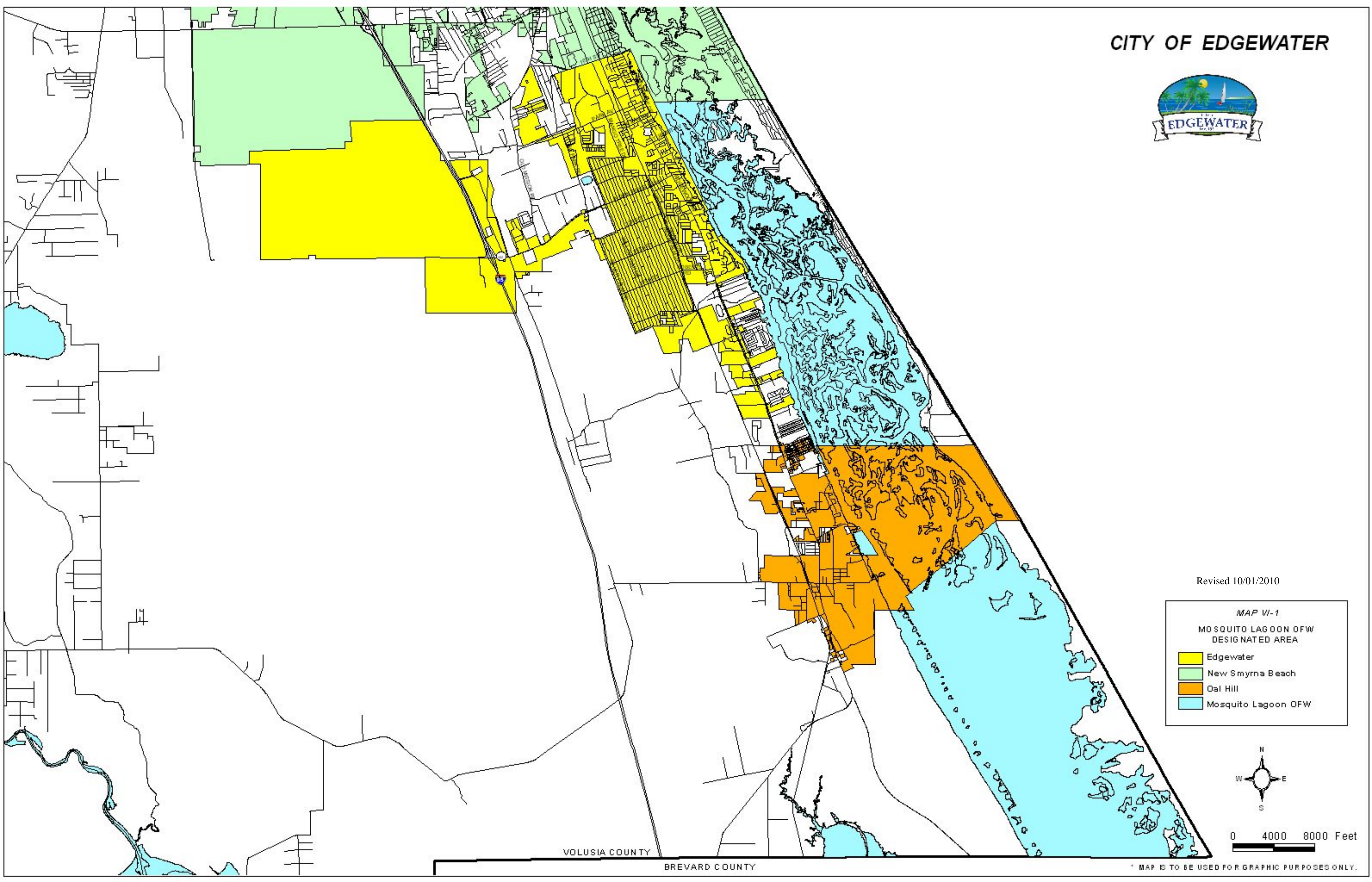
**Objective 1.9:**        *Reducing Energy Requirements.* Enhancing conservation and efficiency measures to reduce energy requirements shall be practiced. [9J-5.013(2)(b)(5), F.A.C.]

**Policy 1.9.1:**        *Energy Conservation Measures.* The City shall conduct energy audits, monitor energy use and implement cost-effective energy conservation measures in all public buildings. [Chapter 163.3177(6)(d), F.S.]

**Policy 1.9.2:**        *Promote the Use of Energy Saving.* The City shall continue to reduce levels of all air-conditioning, heating and lighting systems during non-business hours, and promote the use of energy saving features in all government buildings. [Chapter 163.3177(6)(d), F.S.]

**Policy 1.9.3:**        *Energy Efficient Construction and Operation.* Local codes and ordinances shall be reviewed and revised by December 2014 to prevent handicapping of implementation of energy efficient construction and operation. [Chapter 163.3177(6)(d), F.S.]

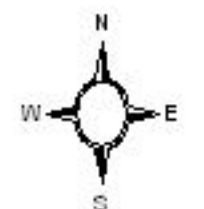




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**MAP W-1**  
MOSQUITO LAGOON OFW  
DESIGNATED AREA

- Edgewater
- New Smyrna Beach
- Oal Hill
- Mosquito Lagoon OFW



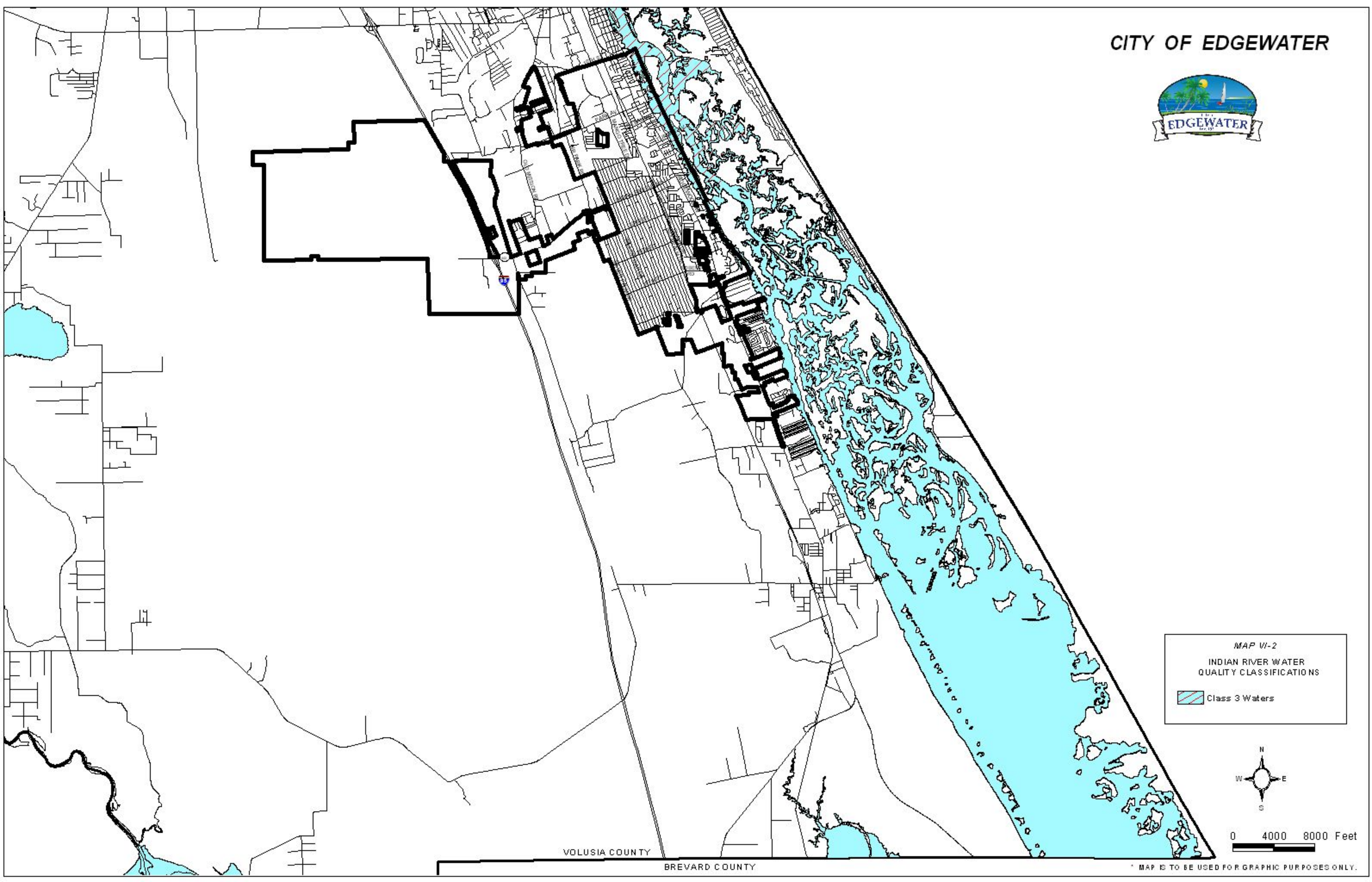
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VOLUSIA COUNTY

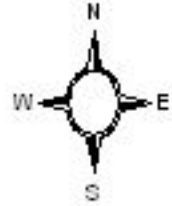
BREVARD COUNTY

\* MAP IS TO BE USED FOR GRAPHIC PURPOSES ONLY.





MAP W-2  
INDIAN RIVER WATER  
QUALITY CLASSIFICATIONS  
Class 3 Waters



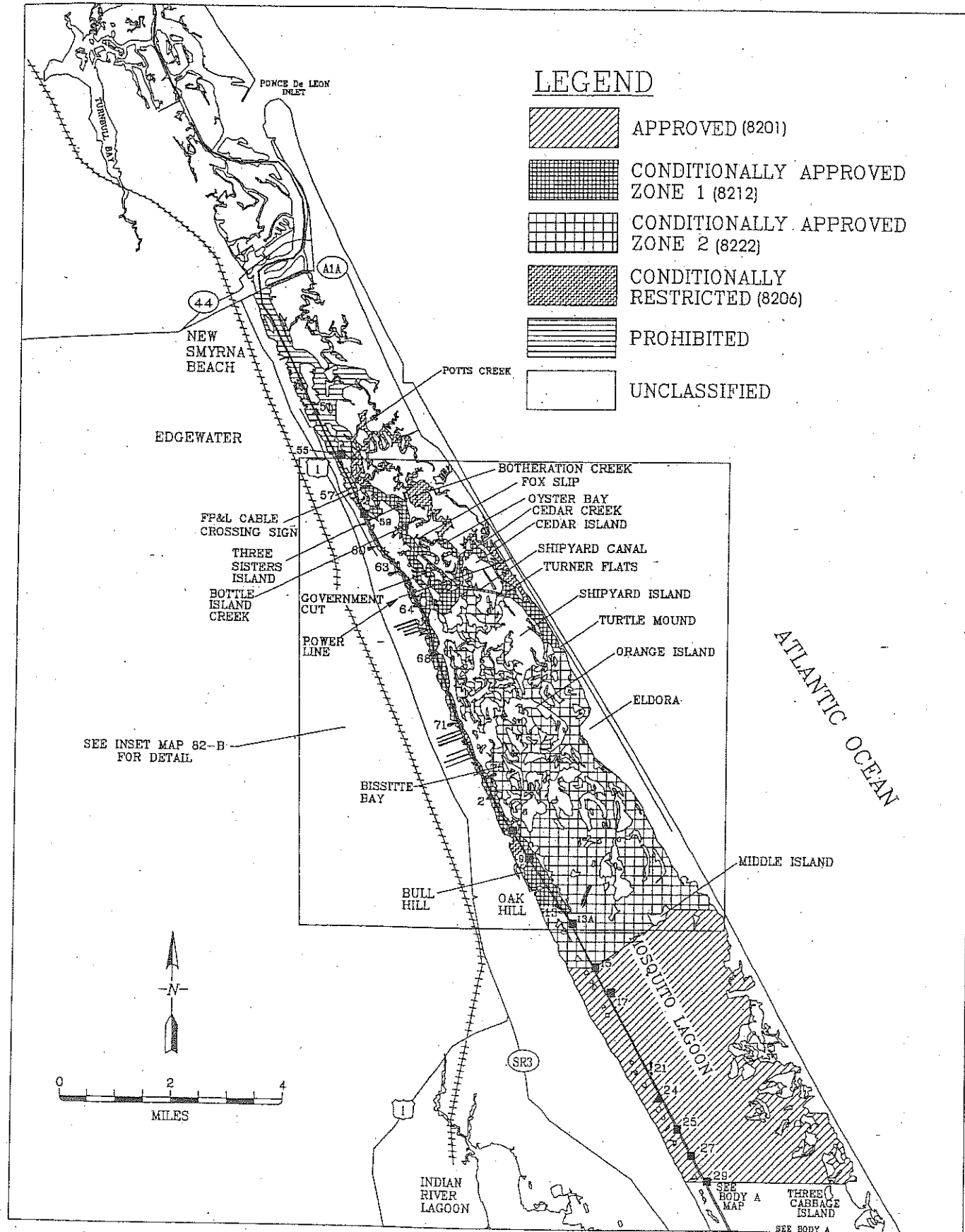
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VOLUSIA COUNTY BREVARD COUNTY

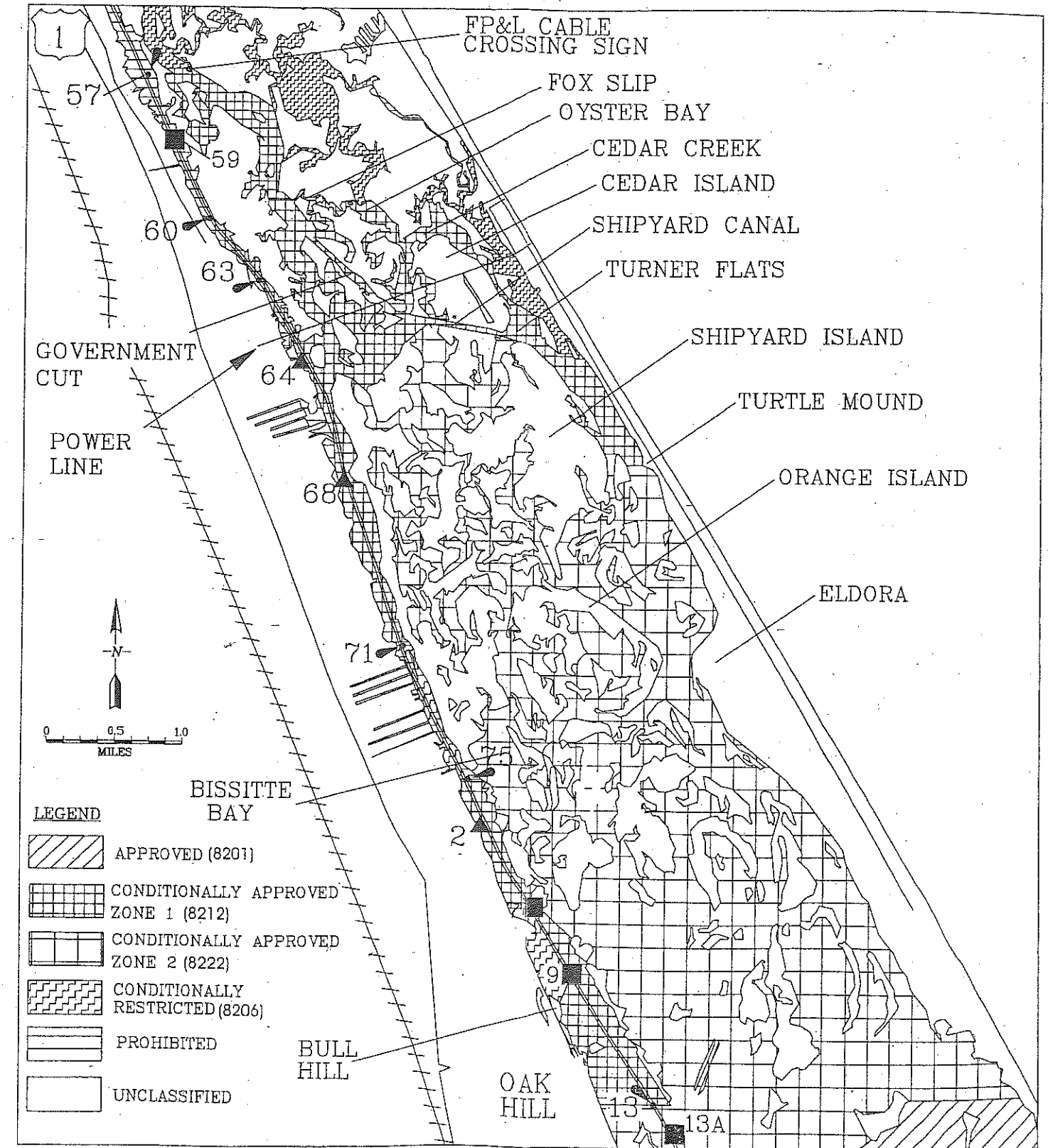
\* MAP IS TO BE USED FOR GRAPHIC PURPOSES ONLY.



SHELLFISH HARVESTING AREA CLASSIFICATION MAP #82A (Effective: August 9, 2000)  
 South Volusia (#82) Shellfish Harvesting Area in Volusia County



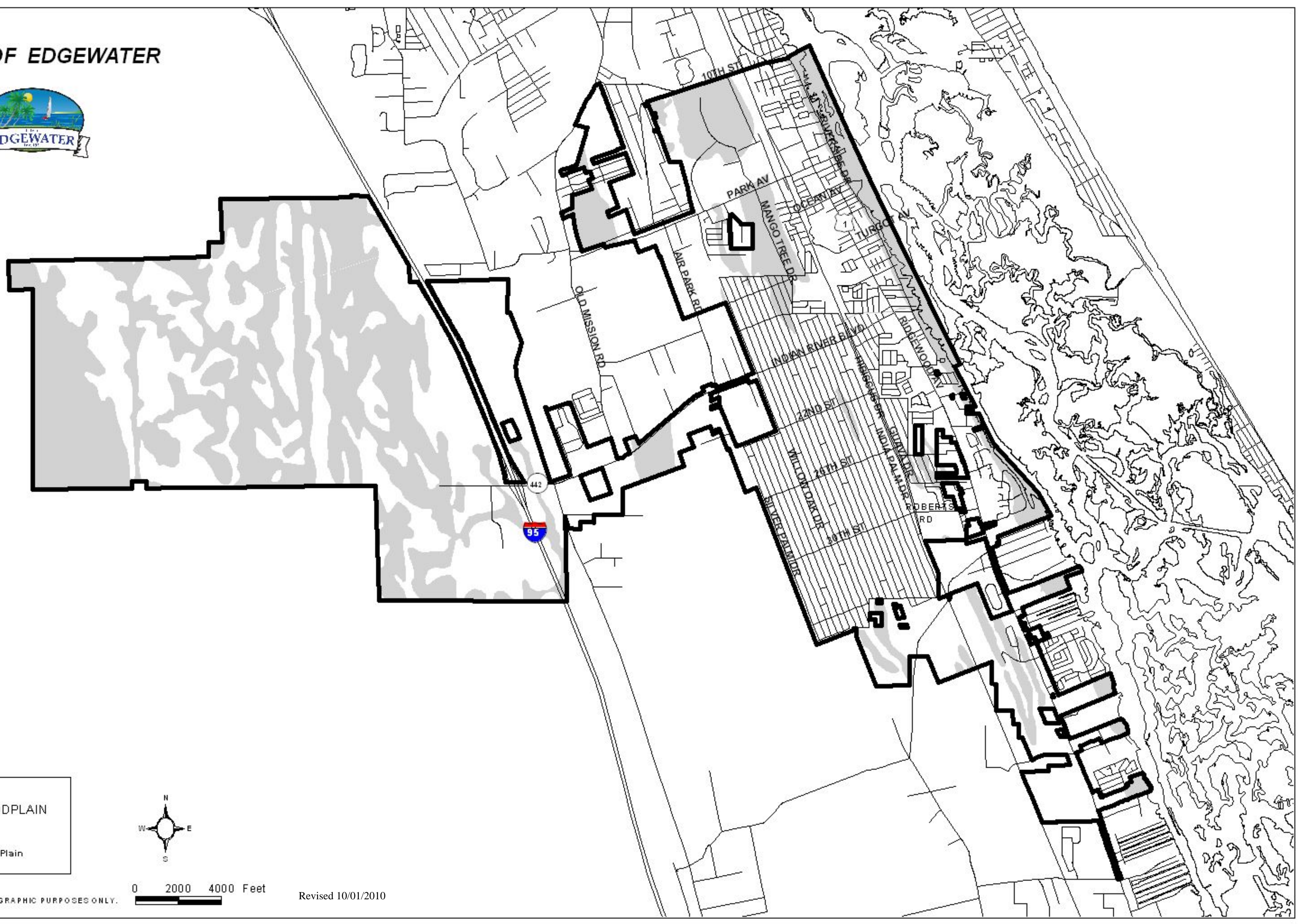
SHELLFISH HARVESTING AREA CLASSIFICATION MAP #82B (Effective: August 9, 2000)  
 South Volusia (#82) Shellfish Harvesting Area in Volusia County  
 Inset of Map 82A





MAP VI-3  
 SHELLFISH HARVESTING CLASSIFICATIONS

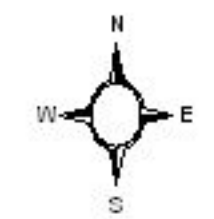


# CITY OF EDGEWATER



MAP VI-4  
100-YEAR FLOODPLAIN

-  City Limits
-  100 Year Flood Plain



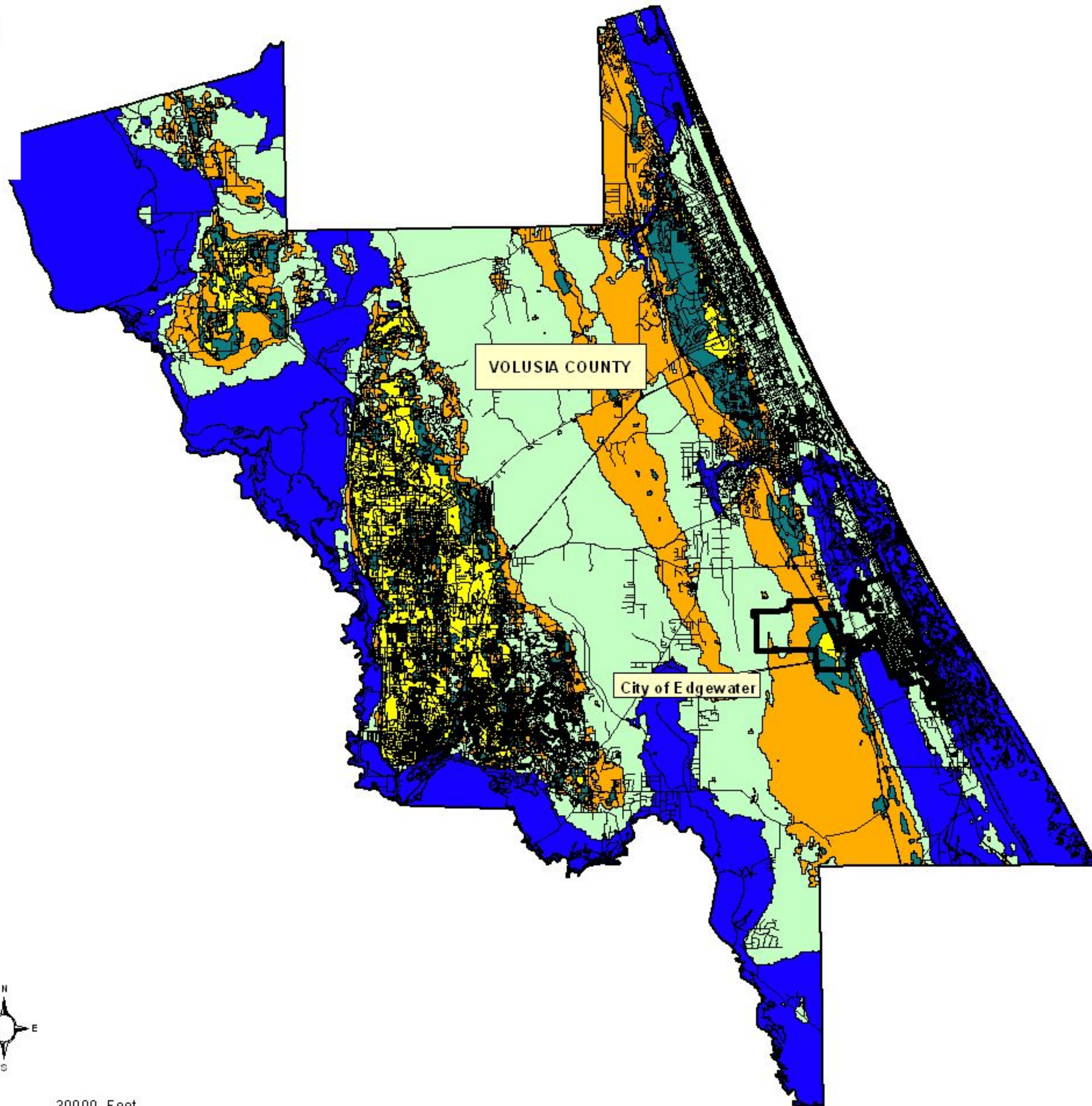
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# CITY OF EDGEWATER








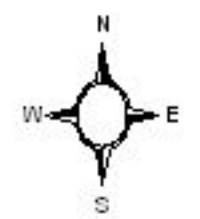
VOLUSIA COUNTY

City of Edgewater

**MAP VI-5**  
**AQUIFER RECHARGE AREAS**  
**IN VOLUSIA COUNTY**

 City Limits  
 Roads

 0-4 Annual Inches  
 4-8 Annual Inches  
 8-12 Annual Inches  
 12-20 Annual Inches  
 Discharge Area



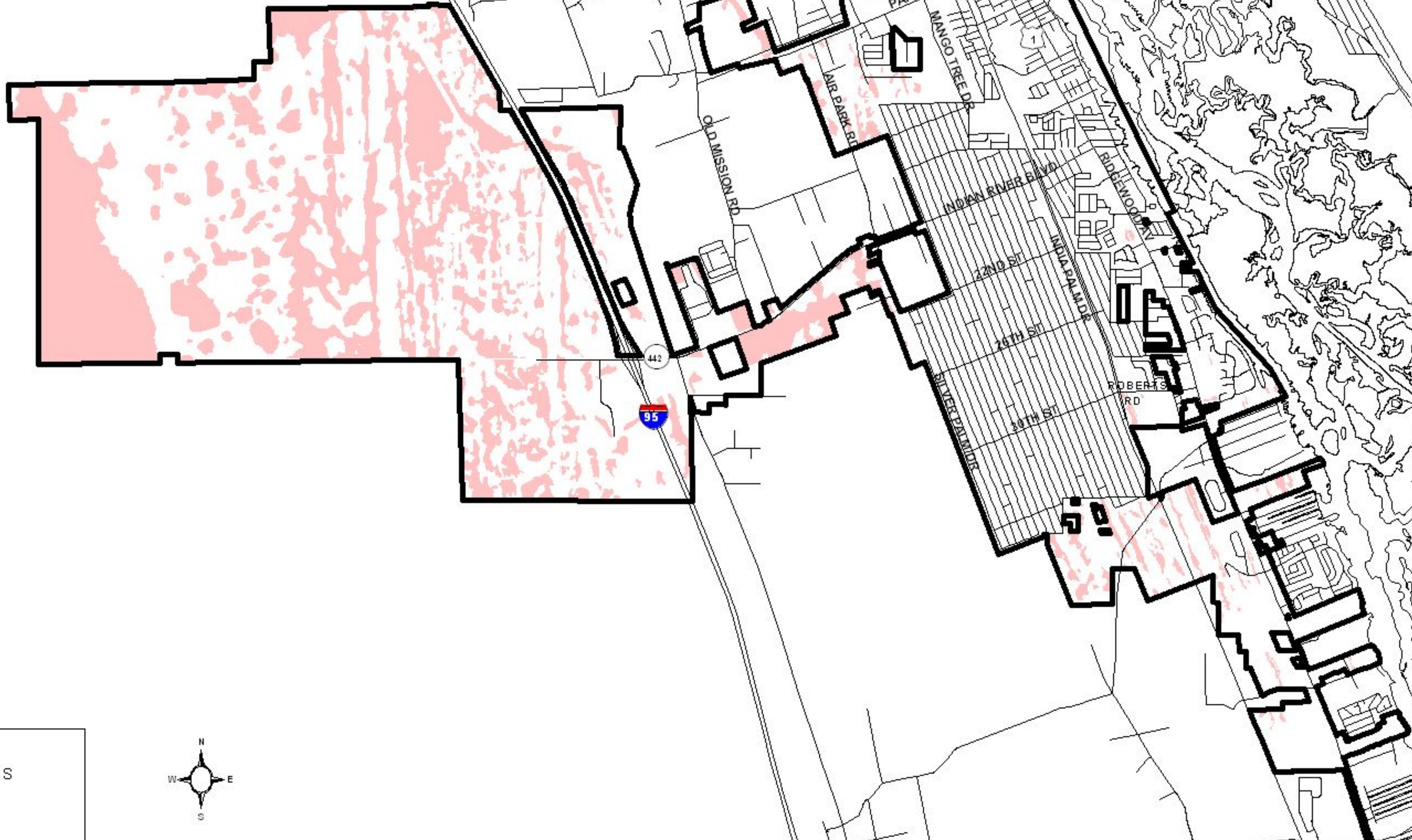
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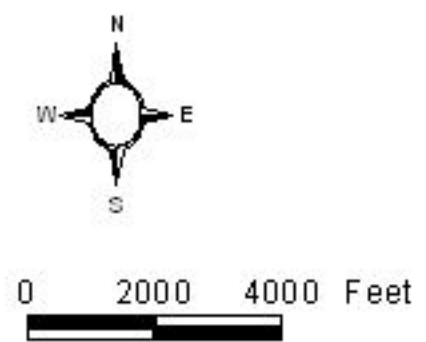


# CITY OF EDGEWATER



MAP VI-6  
WETLANDS

- City Limits
- Wetlands





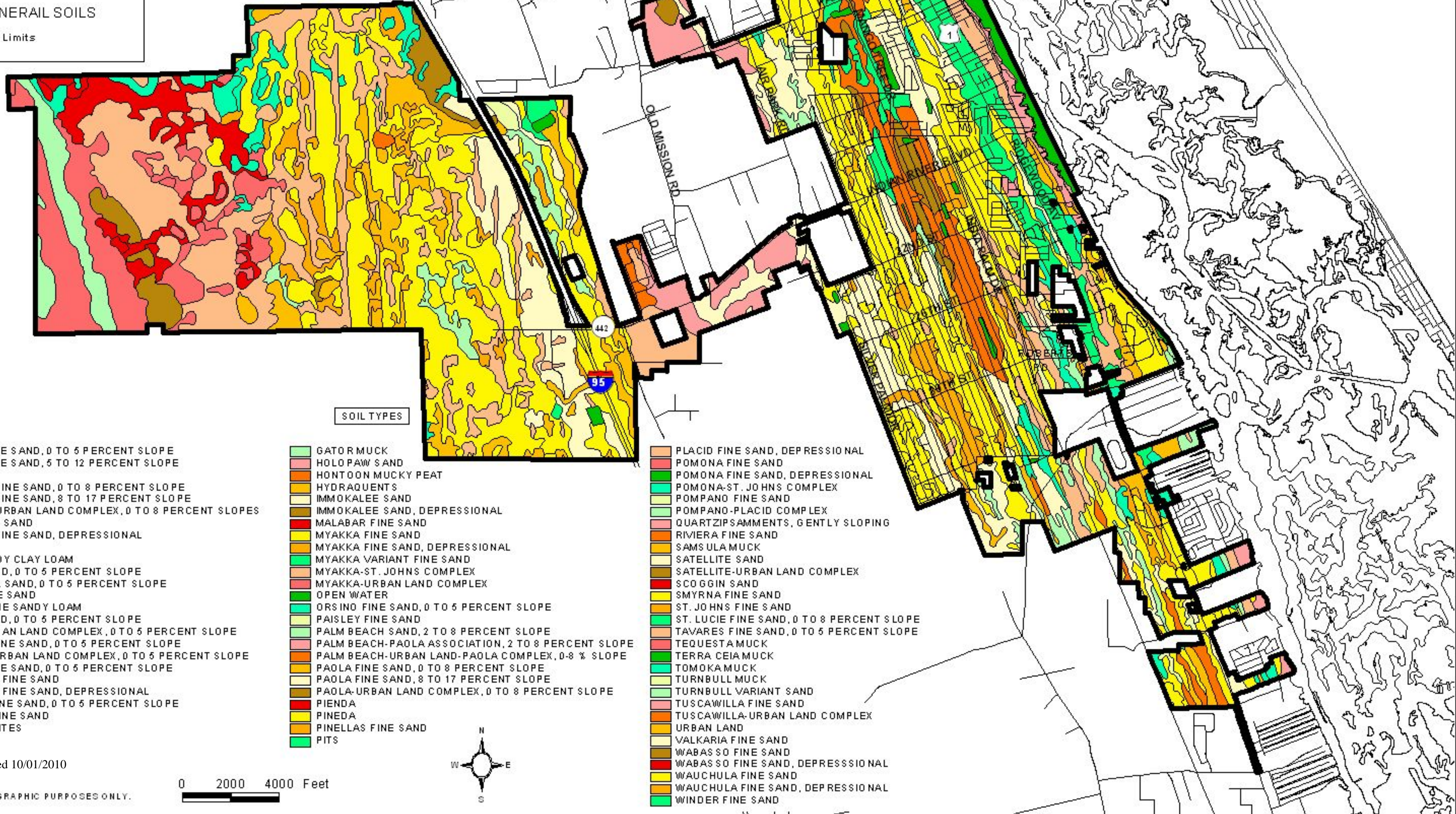
# CITY OF EDGEWATER



MAP VI-7

## GENERAL SOILS

City Limits



### SOIL TYPES

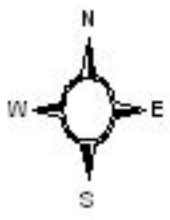
- APOPKA FINE SAND, 0 TO 5 PERCENT SLOPE
- APOPKA FINE SAND, 5 TO 12 PERCENT SLOPE
- ARENTS
- ASTATULA FINE SAND, 0 TO 8 PERCENT SLOPE
- ASTATULA FINE SAND, 8 TO 17 PERCENT SLOPE
- ASTATULA-URBAN LAND COMPLEX, 0 TO 8 PERCENT SLOPES
- ASTOR FINE SAND
- BASINGER FINE SAND, DEPRESSIONAL
- BEACHES
- BLUFF SANDY CLAY LOAM
- BULOW SAND, 0 TO 5 PERCENT SLOPE
- CANAVERAL SAND, 0 TO 5 PERCENT SLOPE
- CASSIA FINE SAND
- CHOBEE FINE SANDY LOAM
- COCOA SAND, 0 TO 5 PERCENT SLOPE
- COCOA-URBAN LAND COMPLEX, 0 TO 5 PERCENT SLOPE
- DAYTONA FINE SAND, 0 TO 5 PERCENT SLOPE
- DAYTONA-URBAN LAND COMPLEX, 0 TO 5 PERCENT SLOPE
- DELAND FINE SAND, 0 TO 5 PERCENT SLOPE
- EAU GALLIE FINE SAND
- EAU GALLIE FINE SAND, DEPRESSIONAL
- ELECTRA FINE SAND, 0 TO 5 PERCENT SLOPE
- FARMTON FINE SAND
- FLUVAQUENTES

- GATOR MUCK
- HOLOPAW SAND
- HONTOON MUCKY PEAT
- HYDRAQUENTS
- IMMOKALEE SAND
- IMMOKALEE SAND, DEPRESSIONAL
- MALABAR FINE SAND
- MYAKKA FINE SAND
- MYAKKA FINE SAND, DEPRESSIONAL
- MYAKKA VARIANT FINE SAND
- MYAKKA-ST. JOHNS COMPLEX
- MYAKKA-URBAN LAND COMPLEX
- OPEN WATER
- ORSIND FINE SAND, 0 TO 5 PERCENT SLOPE
- PAISLEY FINE SAND
- PALM BEACH SAND, 2 TO 8 PERCENT SLOPE
- PALM BEACH-PAOLA ASSOCIATION, 2 TO 8 PERCENT SLOPE
- PALM BEACH-URBAN LAND-PAOLA COMPLEX, 0-8 % SLOPE
- PAOLA FINE SAND, 0 TO 8 PERCENT SLOPE
- PAOLA FINE SAND, 8 TO 17 PERCENT SLOPE
- PAOLA-URBAN LAND COMPLEX, 0 TO 8 PERCENT SLOPE
- PIENDA
- PINEDA
- PINELLAS FINE SAND
- PITS

- PLACID FINE SAND, DEPRESSIONAL
- POMONA FINE SAND
- POMONA FINE SAND, DEPRESSIONAL
- POMONA-ST. JOHNS COMPLEX
- POMPANO FINE SAND
- POMPANO-PLACID COMPLEX
- QUARTZIPSAMMENTS, GENTLY SLOPING
- RIVIERA FINE SAND
- SAMS ULA MUCK
- SATELLITE SAND
- SATELLITE-URBAN LAND COMPLEX
- SCOGGIN SAND
- SMYRNA FINE SAND
- ST. JOHNS FINE SAND
- ST. LUCIE FINE SAND, 0 TO 8 PERCENT SLOPE
- TAVARES FINE SAND, 0 TO 5 PERCENT SLOPE
- TEQUESTAMUCK
- TERRA CEIA MUCK
- TOMOKA MUCK
- TURNBULL MUCK
- TURNBULL VARIANT SAND
- TUSCAWILLA FINE SAND
- TUSCAWILLA-URBAN LAND COMPLEX
- URBAN LAND
- VALKARIA FINE SAND
- WABASSO FINE SAND
- WABASSO FINE SAND, DEPRESSIONAL
- WAUCHULA FINE SAND
- WAUCHULA FINE SAND, DEPRESSIONAL
- WINDER FINE SAND

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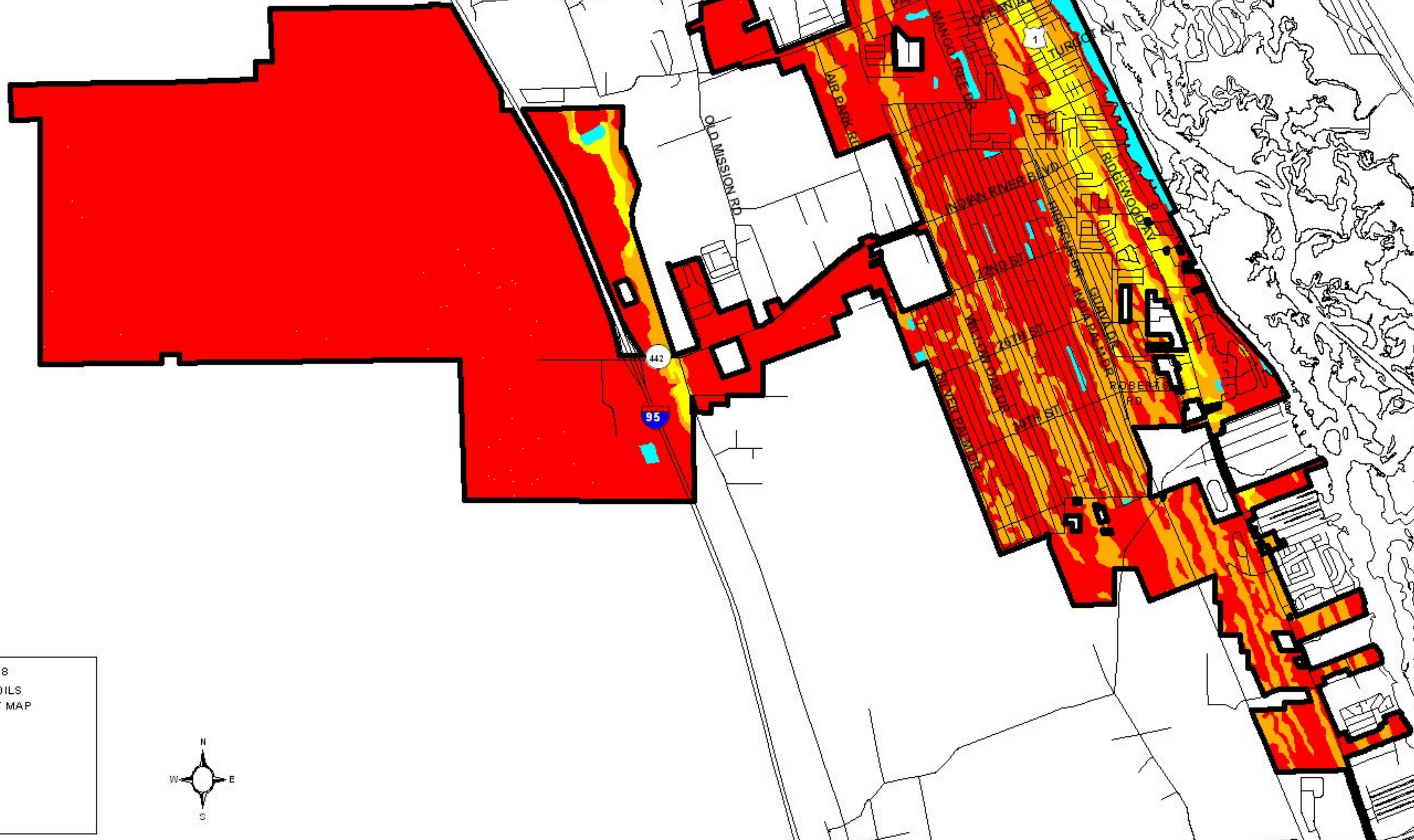
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\* MAP IS TO BE USED FOR GRAPHIC PURPOSES ONLY.

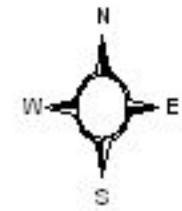


# CITY OF EDGEWATER



MAP VI-8  
SEPTIC SOILS  
SUITABILITY MAP

- City Limits
- Water
- High
- Moderate
- Low



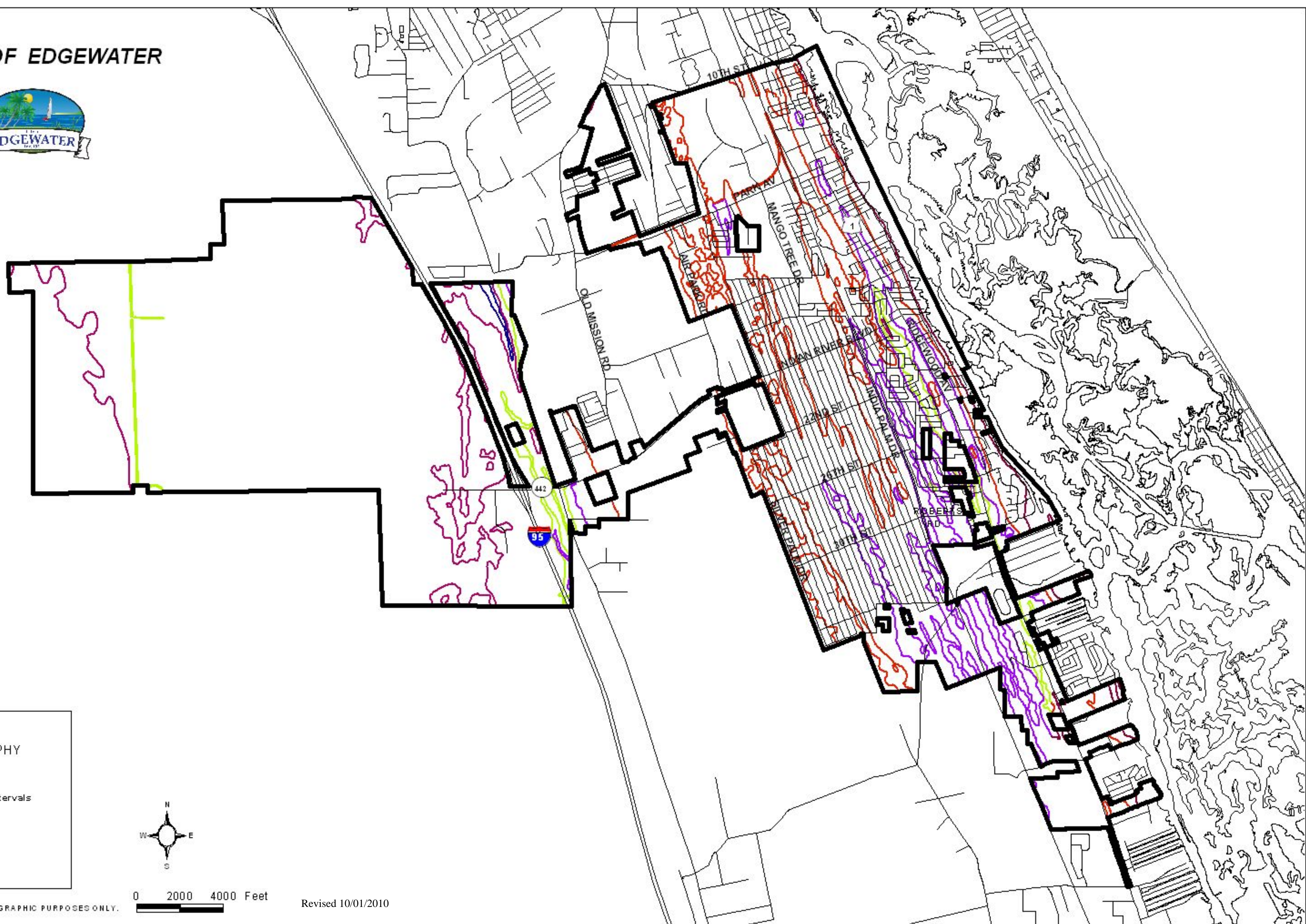
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# CITY OF EDGEWATER

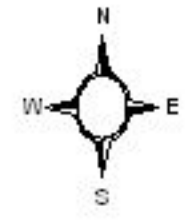


MAP VI-9  
TOPOGRAPHY

City Limits

Five Foot Elevation Intervals

- 5
- 10
- 15
- 20
- 25
- 30



0 2000 4000 Feet

\* MAP IS TO BE USED FOR GRAPHIC PURPOSES ONLY.

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**CITY OF EDGEWATER**

**COMPREHENSIVE PLAN**

**RECREATION AND OPEN SPACE ELEMENT**

**GOALS, OBJECTIVES AND POLICIES**

**CHAPTER VII**

**CHAPTER VII  
 RECREATION AND OPEN SPACE ELEMENT  
 GOAL, OBJECTIVES AND POLICIES**

**A. GOALS, OBJECTIVES AND POLICIES**

**GOAL 1:** Provide sufficient recreational parks, facilities and open space areas to meet the needs of the community and its visitors that satisfies the health, safety and welfare of all. This includes all groups such as handicapped, elderly and pre-school age children.

**Objective 1.1:** *Level of Service.* Ensure adequate lands are provided for public parks and recreational facilities, the City shall utilize level-of-service (LOS) standards and other criteria specific to population, park size and location.

**Policy 1.1.1:** *Parks Level of Service Standard.* The LOS standard for parks within Edgewater shall be as follows:

- Overall Parkland: Five acres per 1,000 residents. This standard includes both passive open space and developed park areas.

**Policy 1.1.2:** *Location and Need for Parks.* The City shall utilize the following criteria for determining the location and need for parklands:

- Regional Park – Large resource based area that serves two or more communities or counties and is usually located within a thirty (30) to sixty (60)-minute driving distance of the residents they serve. Suggested park size is 250 acres minimum, or 20 acres per 1,000 population served.
- Community Park - A facility designed to serve the needs of more than one neighborhood. This facility type shall serve a minimum of 8,000 City residents and is located no greater than three (3) miles from those residents. The suggested minimum size of any new community parks is five (5) acres.
- Neighborhood Park - A facility that serves an entire neighborhood or area with a minimum of 2,000 city residents and is located no greater than three- quarters (3/4) of a mile from those residents. The suggested minimum size of a neighborhood park is two (2) acres.

**Policy 1.1.3:** *Recreational Facilities Population Guidelines.* The City shall utilize the following standards as a guide for recreation facilities:

Facility	Standard per 1,000 Population
Activities Center	1/ 15,000
Baseball/Softball	1/ 4,000



Basketball Courts	1/ 5,000
Bicycle/Pedestrian Path	1 mile/4,000
Boat Ramps	1/ 4,700
Bocci Ball	1/ 10,000
Community Center	1/ 30,000
Fitness Trails	1/14,000
Gymnasium	N/A
Multi-purpose/Soccer	1/ 4,000
Racquetball/Handball	1/ 4,000
Shuffleboard	1/ 1,500
Tennis Courts	1/ 3,500
Volleyball	1/ 5,000

**Objective 1.2:**        *Population Needs.* Provide a system of parks and recreation facilities meeting the needs of the population by 2030.

**Policy 1.2.1:**        *Preserving and Maintaining Existing Park and Recreation Facilities.* Preserve and maintain existing parks and recreation facilities through the use of adequate operating budgets and proper management techniques.

**Policy 1.2.2:**        *Meeting the Adopted Level of Service Standard.* The City will meet the adopted LOS standard for recreational facilities of 5 acres of parks per 1,000 residents.

**Objective 1.3:**        *Protection of Open Spaces.* Protect existing City lands designated as open space from incompatible land uses and pursue acquisition of additional needed open space based on level-of-service standards.

**Policy 1.3.1:**        *Protecting Designated Open Spaces.* The City shall continue to enforce the standards established in the Land Development Code regarding the protection of designated open spaces. These standards shall be used to review proposed development in and adjacent to designated open space areas.

**Policy 1.3.2:**        *Acquiring Open Space and the Indian River.* The City shall continue to acquire a minimum of 1 acre of open space area located on the Indian River and list this project on the table of proposed open space acquisitions.

**Objective 1.4:**        *Multi-modal Facilities.* Ensure all public recreation facilities shall have operational automobile, bicycle and pedestrian access facilities.

**Policy 1.4.1:**        *Evaluating Needed Parking Spaces and Bicycle Racks.* By December 2014, the City shall evaluate the amount of parking spaces

needed at parks, where feasible, and bicycle racks needed at all recreational sites to determine the number of facilities needed to support the existing needs and future (2030) population. This inventory shall be updated annually so developers of projects near recreational facilities are presented with opportunities to help the City provide these facilities.

**Policy 1.4.2:** *Design of New Public Parks and Facilities.* New public parks and facilities shall be designed and constructed with access-ways which are compatible with the character and quality of natural resources found on site.

**Policy 1.4.3:** *Maintaining and Updating the Bicycle/Pedestrian Master Plan.* The City shall continue to maintain and update the City's *Bicycle/Pedestrian Master Plan* for the entire City. At a minimum, this *Plan* shall identify the existing and proposed pedestrian and bicycle resources in the City. The City shall coordinate with the City of New Smyrna Beach, the City of Oak Hill and Volusia County to identify potential trailheads and destinations and provide a prioritized list of future improvements.

**Objective 1.5:** *Facility Accessibility.* Ensure all new public parks and recreational facilities shall be developed to provide full accessibility to the handicapped, elderly and youth.

**Policy 1.5.1:** *Handicap Parking Spaces and New Parks and Recreational Facilities.* The City shall provide handicapped parking spaces pursuant to the requirements provided in the Land Development Code and barrier-free access to all new public parks and recreation facilities that will contain parking.

**Policy 1.5.2:** *Design of Public Recreation Facilities.* All public recreation facilities shall be designed as barrier-free as possible to accommodate accessibility by the elderly and handicapped.

**Policy 1.5.3:** *Rights-of-way or Easements and Access to Parks.* The City shall acquire and develop rights-of-way or easements for access to parks and facilities which are determined to be needed.

**Policy 1.5.4:** *Design of Pedestrian Access Ways.* Pedestrian access ways, to the maximum extent possible, shall be designed to accommodate people with disabilities.

**Objective 1.6:** *Public Waterways Accessibility.* Increase the accessibility to public waterways, particularly the Indian River.

**Policy 1.6.1:** *Securing Access Points to the Intracoastal Waterway.* The City shall attempt to secure additional access points along the Intracoastal

Waterway through the most economical methods; grants, impact fees and general revenues.

**Policy 1.6.2:** *Access Points to the Indian River.* Access points to the Indian River shall be featured on the *Open Space Parks Map* of this *Element* to ensure the protection of these areas.

**Policy 1.6.3:** *Purchasing of Land for Water Access.* The City shall coordinate with the City of New Smyrna Beach and/or Oak Hill to coordinate the purchasing of land for water access.

**Policy 1.6.4:** *Purchasing Property between Riverside Drive and U.S. 1.* By December 2014, the City shall coordinate efforts to purchase property between Riverside Drive and U.S. 1 to increase downtown parking so that the residents and visitors of Edgewater can further access the Indian River.

**Policy 1.6.5:** *Informing the Public and Available Parking Areas and Access Points.* The City shall continue to inform the public of the available parking areas and access points with items such as maps and signs to increase the accessibility of the Indian River.

**Objective 1.7:** *New Facility Safety.* Ensure new public parks and recreational facilities shall be developed to include safety provisions to reduce the risk of injury by accident.

**Policy 1.7.1:** *Installation of Lighting, Rails, Fences and Information Signage.* Lighting, rails, fences and information signage shall be installed at all new public parks and recreation facilities as needed.

**Policy 1.7.2:** *Design of New Public Parks and Recreation Facilities.* All new parks and recreation facilities shall be designed so that children's play areas are at least 100 ft. from vehicular access points or are separated by a fence.

**Objective 1.8:** *Intergovernmental and Private Organizations Coordination.* Coordinate and improve efforts with all levels of government, public agencies and the private sector to provide recreational opportunities.

**Policy 1.8.1:** *Golf Course Facilities.* The City shall coordinate with any developers of a golf course within the City limits to provide golf facilities to the public.

**Policy 1.8.2:** *Providing Parks.* By December 2014, the City shall amend its Land Development Code to require all new residential subdivisions to provide parks based on the recommended guidelines established in Policy 1.1.4 of this *Element* for each park and the projected population and size of the proposed development.



- Policy 1.8.3:**        *Maintaining Interlocal Relationships and Agreements.* Maintain existing relationships and interlocal agreements between the City of Edgewater Leisure Services, Volusia County School Board, Volusia County Recreation Department, and the New Smyrna Beach Recreation Department.
- Policy 1.8.4:**        *Public Input on Parks and Recreation Issues.* Continue to utilize public input on parks and recreation issues and help coordinate public and private efforts to provide recreational opportunities through the City of Edgewater Parks and Recreation Advisory Board.
- Policy 1.8.5:**        *Acquiring Additional Land and the Turnbull Hammock Area.* The City shall support efforts of the SJRWMD and other agencies to acquire additional lands within the Turnbull Hammock area.
- Policy 1.8.6:**        *Incentives for Developers Providing Recreational Facilities.* The City shall research and provide incentives for developers to provide recreation facilities for their projects such as in-lieu-of fees, and direct site transfers where applicable.

**Objective 1.9:**        *Maintaining Open Space.* Maintain a sufficient amount of open space to provide a harmonious balance between the requirements of continuing urbanization and spatial needs of an increasing population as identified in this *Element* through the year 2030.

- Policy 1.9.1:**        *Maintaining Land Development Regulations and Recreational Facilities.* Consistent with the time frames delineated by Chapter 163, Florida Statutes, the City shall continue to provide Land Development Regulations that provide specific open space standards and definitions, and address parameters of tree protection, landscape and signage in relationship to utilization of such open space.
- Policy 1.9.2:**        *Open Space and Impervious Surface Ratio.* The City shall continue to utilize specific open space and impervious surface ratio criteria as part of its development review process.
- Policy 1.9.3:**        *Encouraging Planned Unit Development Type Projects.* The City shall encourage the use of Planned Unit Development type projects to promote the use of open space as buffers between various land uses.
- Policy 1.9.4:**        *Funding Programs.* The City staff will continually investigate and utilize State and Federal funding programs to enhance and expand recreation and open space facilities.
- Policy 1.9.5:**        *Open Space and Neighborhood and Vest Pocket/Tot Lot Parks.* The City shall utilize the concept and use of open space as part of the

satellite system of neighborhood and vest pocket/tot lot parks, i.e. an improved and equipped play area for small children.

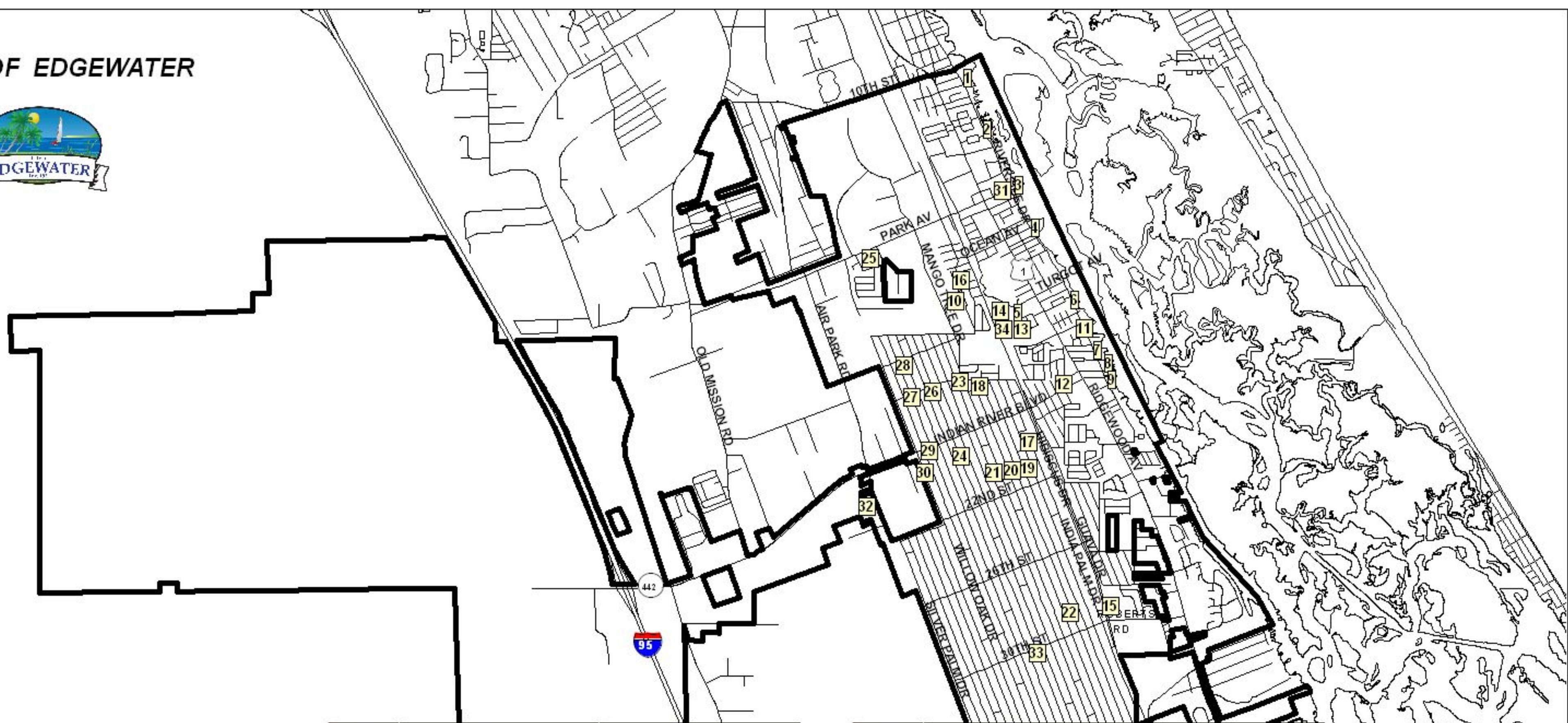
**Objective 1.10:** *Access Management Plan.* Adopt an access management plan to provide policy, plans and regulations regarding the existing, proposed public access points, docks and boat slips along the Indian River by December 2014.

**Policy 1.10.1:** *Access Management Plan Requirements.* The access management plan shall include, at minimum:

- guidelines for vehicular on-site circulation systems, docking slips, fishing piers and boat ramps;
- incentives for developers that donate land along the Indian River to enhance the public access;
- strategies for the City to acquire various grants for purchasing land along the Indian River;
- the existing and proposed locations of public access points; and
- strategies to promote and educate the public regarding the existing and proposed public access points.



# CITY OF EDGEWATER

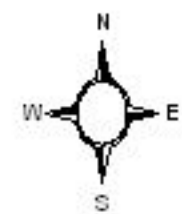


ID	Name	Type
1	Sanchez Park	Mini Park
2	Highlands Park	Neighborhood
3	Kennedy Park	Community
4	Menard-May Park	Community
5	Hawks Park	Community
6	Riverside Dr/Magnolia Av	Mini Park
7	Hardin Place Park	Mini Park
8	Virginia St	Mini Park
9	Veterans Park	Neighborhood
10	Mango Tree Lake	Mini Park
11	Riverwalk	Ped access/Park Connector
12	Public Library	None
13	Shangri-La	Mini Park
14	Edgewater Ballfields	Community
15	Whistle Stop Park	Community
16	Lake & Alice Park	Mini Park
17	19th St & India Palm Dr	Neighborhood

ID	Name	Type
18	Duck Lake Park	Neighborhood
19	21st St/Kumquat Dr	Neighborhood
20	21st St/Lime Tree Dr	Neighborhood
21	21st St/Mango Tree Dr	Neighborhood
22	29th St/Lime Tree Dr	Community
23	15th St/Mango Tree Dr	Mini Park
24	19th St/Queen Palm Dr	Neighborhood
25	Rotary Park	Community
26	15th St/Royal Palm Dr	Mini Park
27	15th St/Travelers Palm Dr	Mini Park
28	Umbrella Tree Park	Mini Park
29	SR 442/Victory Palm Dr	Mini Park
30	21st St/Willow Oak Dr	None
31	Edgewater Community Center	None
32	Landfill	None
33	30th St	Ped access/Park Connector
34	YMCA	None

MAP VII-1  
LOCATION OF EXISTING PUBLICLY OWNED RECREATION FACILITIES

City Limits  
 Roads



0 2000 4000 Feet

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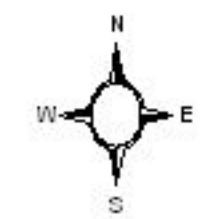


# CITY OF EDGEWATER



MAP VII-2  
PARK SERVICE AREAS

- City Limits
- Roads
- Mini Park
- Neighborhood
- Community
- Mini-Park Service Area
- Neighborhood Park Service Area
- Community Park Service Area



0 2000 4000 Feet

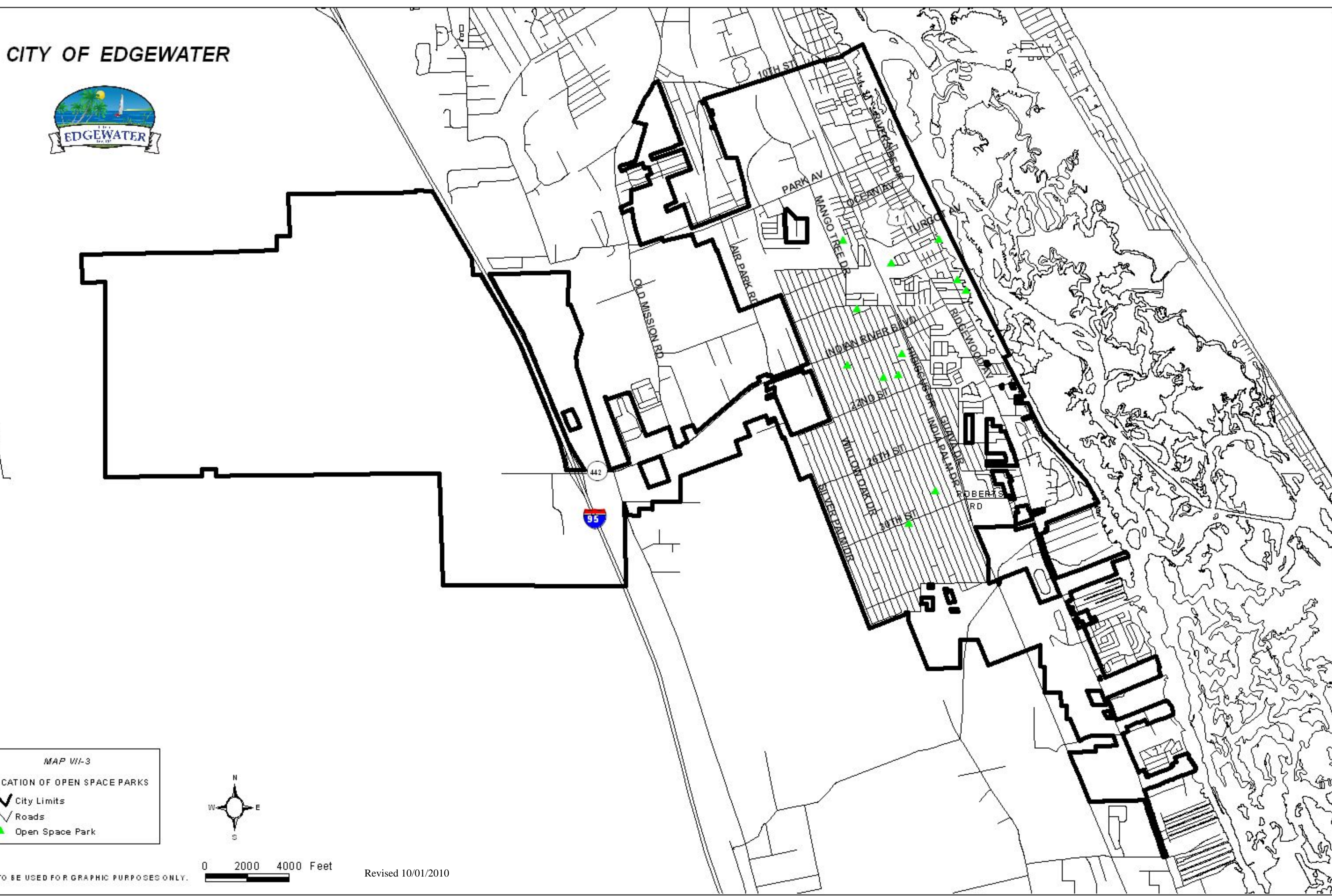
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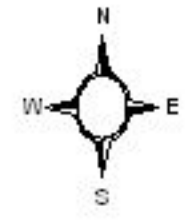


# CITY OF EDGEWATER



MAP VI-3  
LOCATION OF OPEN SPACE PARKS

- City Limits
- Roads
- Open Space Park



0 2000 4000 Feet

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Revised 10/01/2010





**CITY OF EDGEWATER**

**COMPREHENSIVE PLAN**

**INTERGOVERNMENTAL COORDINATION ELEMENT**

**GOALS, OBJECTIVES AND POLICIES**

**CHAPTER VIII**



**CHAPTER VIII  
INTERGOVERNMENTAL COORDINATION ELEMENT  
GOALS, OBJECTIVES AND POLICIES**

**A. GOALS, OBJECTIVES AND POLICIES**

**GOAL 1:** Promote coordination and cooperation between The City of Edgewater and those agencies and parties which have an interest in the future and growth of the area through increased awareness of the plans, interests and concerns of all parties.

**Objective 1.1:** *Volusia County and Volusia County School Board Coordination.* Shall continue to coordinate with Volusia County and the Volusia County School Board on matters involving planning for services, facilities, adjacent land uses and the area's natural resources. [9]-5.015 (3)(b)1., F.A.C.]

**Policy 1.1.1:** *Planning for Adjacent Areas.* The City will continue efforts to enter into an interlocal agreement with Volusia County within 12 months of the effective date of this amendment regarding the planning for areas adjacent to and surrounding the City of Edgewater, including a future joint planning area, future annexation boundaries, urban service boundaries and a matrix of compatible County and City land uses. [9]-5.015 (3)(c)1. and (3)(c)5., F.A.C.]

**Policy 1.1.2:** *Coordination with Volusia County and Impacts of Development.* The City will coordinate with Volusia County and the Volusia Growth Management Commission regarding the impacts of development in Edgewater on adjacent local governments. [9]-5.015 (3)(c)1. and (3)(c)5., F.A.C.]

**Policy 1.1.3:** *Level of Service Issues and Capital Improvement Needs.* Provide for on-going coordination with Volusia County, the Volusia County TPO and FDOT relative to level of service issues and capital improvement needs for areas within and adjacent to Edgewater. [9]-5.015 (3)(c)3., F.A.C.]

**Policy 1.1.4:** *Locating Future School Sites.* The City shall coordinate with the Volusia County School Board in locating future school sites during the development process. This coordination will be achieved through the policies regarding school siting criteria found in the *Future Land Use Element*. [9]-5.015 (3)(c)1., F.A.C.]

**Policy 1.1.5:** *Existing Playground Facilities and Coordination with the School Board.* The City shall maintain its existing interlocal agreement with the Volusia County School Board regarding the use of existing playground

facilities and future facilities at Indian River Elementary. [9J-5.015 (3)(c)1., F.A.C.]

**Policy 1.1.6:** *Collocating Community Facilities.* The City shall coordinate with the Volusia County School Board when locating new schools in an attempt to collocate community facilities such as parks, libraries and community centers. [9J-5.015 (3)(c)1., F.A.C.]

**Policy 1.1.7:** *Protection of Natural Resources.* The City shall continue implementing the interlocal agreement with Volusia County regarding the protection of natural resources, especially the Turnbull Hammock Area in the western part of the City.

**Policy 1.1.8:** *Defining Recharge Areas.* The City will actively support and join County and State efforts to define recharge areas and to control the type and intensity of development in these areas so that the City's groundwater resources are protected.

**Policy 1.1.9:** *Monitoring Water Quality in the Estuary.* The City will cooperate on County and State efforts to monitor water quality in the estuary. [9J-5.015 (3)(c)6., F.A.C.]

**Policy 1.1.10:** *Protecting the Quality of Indian River/ Mosquito Lagoon.* The City shall encourage and participate in intergovernmental management efforts to protect the quality of the Indian River/Mosquito Lagoon. [9J-5.015 (3)(c)6., F.A.C.]

**Objective 1.2:** *Coordination of Planning Activities.* Provide for on-going coordination of all planning activities mandated by the various elements of the City's *Comprehensive Plan* with the plans of appropriate agencies and commissions. [9J-5.015 (3)(b)1., F.A.C.]

**Policy 1.2.1:** *Acquiring Additional Land and the Turnbull Hammock Area.* The City shall coordinate with and support the activities of the SJRWMD in pursuing opportunities to acquire additional lands within the environmentally sensitive Turnbull Hammock Area through coordination with the County's land acquisition program.

**Policy 1.2.2:** *Rare, Endangered, Threatened Species and Species of Special Concern.* During the development review process, the City shall assist in the application of and compliance with State and Federal regulations pertaining to endangered and rare species. [9J-5.015 (3)(c)1., F.A.C.]

**Policy 1.2.3:** *Development Adverse Impact to Rare or Endangered Species.* The City shall consult with the Florida Fish and Wildlife Conservation Commission prior to the issuance of a development approval which

would adversely impact rare or endangered species. [9J-5.015 (3)(c)1., F.A.C.]

**Policy 1.2.4:** *Monitoring Air Quality.* The City will participate in the State’s and County’s efforts to monitor air quality in the Edgewater area.

**Policy 1.2.5:** *Conflict Resolution Management.* If and when conflicts of purpose among jurisdictions cannot be resolved locally, seek mediation assistance from the East Central Florida Regional Planning Council and/or Volusia County Growth Management Commission. This Policy shall also pertain to the resolution of conflicts involving dredge spoils disposal sites. [9J-5.015 (3)(c)2., F.A.C.]

**Policy 1.2.6:** *Providing Services and Information.* Provide services and information as needed to any requesting agency to further intergovernmental coordination. [9J-5.015 (3)(c)3., F.A.C.]

**Objective 1.3:** *Proposed Development Impacts.* Continue to coordinate with Volusia County and FDOT in reviewing the impacts of proposed developments. [9J-5.015 (3)(b)2., F.A.C.]

**Policy 1.3.1:** *Drainage System Coordination.* Provide for on-going coordination with Volusia County and the Volusia County Growth Management Commission during the development review process to reduce potential negative impacts in areas of the County that may affect the City’s drainage system. [9J-5.015 (3)(c)1., F.A.C.]

**Policy 1.3.2:** *Impacts of Development on the LOS and FDOT Roadways.* On an annual basis, the City shall evaluate the extent of coordination efforts with FDOT and Volusia County regarding the impacts of development on the LOS of County and FDOT roadways. [9J-5.015 (3)(c)1., F.A.C.]

**Policy 1.3.3:** *Controlling Access Points and Connections.* The City shall coordinate with FDOT to control the connections and access points along all segments of U.S. 1 per their respective access classifications, consistent with the guidelines established by the FDOT in Rule 14-97 “State Highway System Access Management Classification and Standards”. [9J-5.015 (3)(c)1., F.A.C.]

**Objective 1.4:** *Intergovernmental Coordination.* Work closely with the City of New Smyrna Beach and other governmental agencies to identify areas of common interest and to establish coordination between their plans for the provision of services and those of the City. [9J-5.015 (3)(b)1. and (3)(b)3., F.A.C.]

**Policy 1.4.1:** *Providing Information on Growth and Development Activities.* The City shall continue to provide information on growth and development activities inside the City which may have implications on the facilities and



operations of the government entities involved. [9]-5.015 (3)(c)3. and (3)(c)7., F.A.C.]

**Policy 1.4.2:** *Providing Land Use Data to the City of New Smyrna Beach.* On a continuing basis, the City shall provide to the City of New Smyrna Beach and/or the City of Oak Hill copies of all development applications requiring City Council approval that involve property adjacent to New Smyrna Beach and/or Oak Hill in order to obtain comments. [9]-5.015 (3)(c)3. and (3)(c)7., F.A.C.]

**Policy 1.4.3:** *Requesting Local Governments to Review Concurrency and Land Use Issues.* The City shall request that adjacent local governments provide the same coordination established in Policies 1.4.1 and 1.4.2 to review concurrency and land use issues with existing comprehensive plans. [9]-5.015 (3)(c)7., F.A.C.]

**Objective 1.5:** *SJRWMD's Water Supply Facility Work Plan.* Work closely with the SJRWMD to update *Water Supply Facility Work Plans* and *Comprehensive Plan* amendments as required.

**Policy 1.5.1:** *Coordination with SJRWMD's and Volusia County and Future Water Supply Needs.* The SJRWMD District *Water Supply Plan (DWSP)* addresses the current and future water use, alternative water source projects, and other related issues in order to meet the future water supply needs. The City's *Water Supply Facilities Work Plan (WSFWP)* coordinates with the 2005 *DWSP* with respect to Project # 26 the Volusia County Southeast Service Area Interconnect project. The City will continue to coordinate with the District and Volusia County regarding that project. The City will update its *WSFWP* and *Comprehensive Plan* as appropriate.

**Policy 1.5.2:** *Maintaining the City's Water Supply Facilities Work Plan.* The City will maintain a *Water Supply Facilities Work Plan (WSFWP)* for a planning period of not less than ten years. The *WSFWP* addresses issues that pertain to water supply facilities and requirements needed to serve current and future development within the City's water service area. The City shall review and update the *WSFWP* at least every five years. Any changes to occur within the first five years of the *WSFWP* shall be included in the annual *Capital Improvements Plan* update.

**Policy 1.5.3:** *Updating the City's Water Supply Facilities Work Plan.* The City will maintain a *WSFWP* that is coordinated with the SJRWMD's *DWSP* by updating the *Work Plan* and related *Comprehensive Plan* policies within 18 months of an update to the SJRWMD's *District Water Supply Plan (DWSP)* that affects the City.

**Policy 1.5.4:**     ***Participating in the Development of SJRWMD’s District Water Supply Plan.*** The City will participate in the development of updates to SJRWMD’s *DWSP* and other water supply development-related initiatives facilitated by SJRWMD that affect the City.

**Policy 1.5.5:**     ***Developing Alternative Water Sources.*** The City will continue its involvement in County-wide water conservation coordination and evaluating and participating in developing alternative water sources pursuant to guidance of the SJRWMD’s *DWSP*.

**Objective 1.6:**     ***Joint-Planning Areas.*** Coordinate with Volusia County, the Volusia Council of Governments, the Volusia Growth Management Commission and any other jurisdiction as appropriate to establish a more comprehensive and integrated annexation process.

**Objective 1.7:**     ***Campus Master Plans.*** Recognize a campus master plan prepared pursuant to Section 240.155, Florida Statutes, when such plan includes areas within the City or within the City’s Utility Service Area and coordinate with any University or College regarding the provisions of any campus master development agreement.

**Policy 1.7.1:**     ***Procedures for a Campus Master Plan.*** For applicable campus master plans prepared pursuant to Section 240.155, Florida Statutes, the City shall meet with the University or College to establish procedures to recognize a campus master plan and to coordinate regarding the provisions of the campus master development agreement. [9]-5.015 (3)(c)10., F.A.C.]

**Objective 1.8:**     ***Siting Facilities of Countywide Significance.*** Coordinate with Volusia County regarding the siting of facilities with countywide significance, including locally unwanted land uses.

**Policy 1.8.1:**     ***Description of Facilities of Countywide Significance and Locally Unwanted Land Uses.*** Facilities of countywide significance include but are not limited to: hospitals, major school facilities and governmental complexes. Locally unwanted land uses include but are not limited to: uses that produce enough traffic, noise, smoke, odor, dust, fumes or vibrations to have an effect on the health and general welfare of the citizens of Edgewater.

**Policy 1.8.2:**     ***The Siting of Facilities of Countywide Significance and Locally Unwanted Land Uses.*** The City shall provide the County notice and opportunity to comment on the siting of facilities of countywide significance, including locally unwanted land uses. The City shall provide an opportunity for the comments to be addressed in the siting process. [9]-5.015 (3)(c)13., F.A.C.]

**Objective 1.9:**        *School Board Collaborative Planning.* Coordinate with the Volusia County School Board for collaborative planning purposes, including public school concurrency procedures. [9J-5.015 (3)(b)6., F.A.C.]

**Policy 1.9.1:**        *School Board Interlocal Agreement.* Review annually the interlocal agreement with the School District of Volusia County to ensure inclusion of:

- coordination of public school facilities element;
- review of population projection figures;
- corroboration on public school facilities siting,
- infrastructure and safety needs of schools;
- adoption of level of service standards;
- review and comment of the public school capital facilities program;
- definition of the geographic application of school concurrency; the use of schools by the public, including use as emergency shelters; and
- for outlining public school concurrency requirements for future development. [9J-5.015(3)(c)12. and (3)(c)14., F.A.C.]

**Policy 1.9.2:**        *Identifying Deficient Levels of Service and Public School Facilities.* The City shall coordinate with the School District of Volusia County to identify deficient Levels of Services for public school facilities, and to mitigate for those deficiencies through the development process when applicable. [9J-5.015(3)(c)12. and (3)(c)14., F.A.C.]

**Policy 1.9.3:**        *Participating in Regularly Scheduled Meetings.* The City shall participate in regularly scheduled joint meetings with all participants identified in the Interlocal Agreement for Coordinated Land Use and Public School Facility Planning. [9J-5.015(3)(c)12. and (3)(c)14., F.A.C.]

**Objective 1.10:**        *Population Projections.* Coordinate population projections with Volusia County, Volusia County School Board, Volusia County Transportation Planning Organization, and other units of local government providing public facilities and services but not having regulatory authority over the use of land.

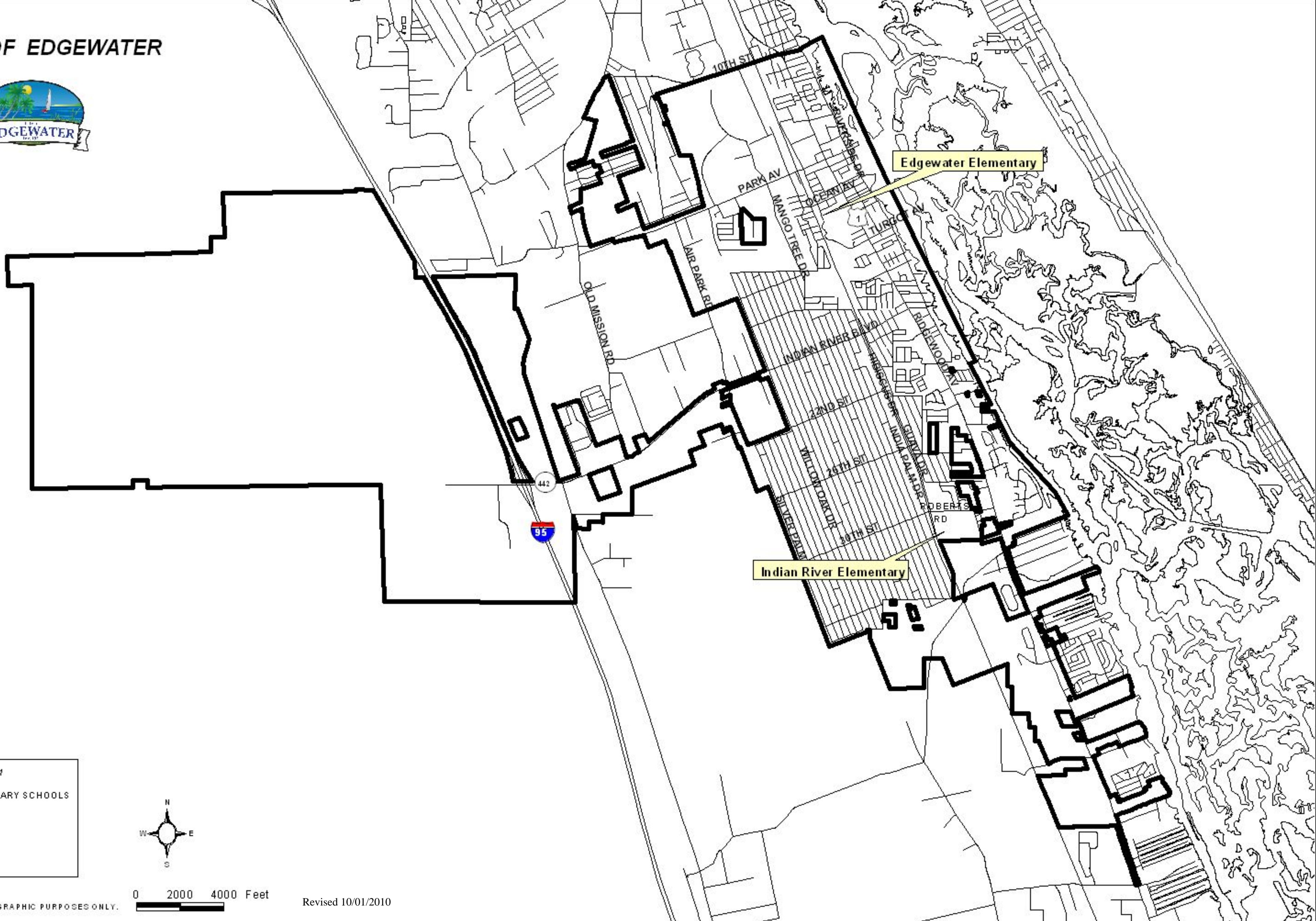
**Policy 1.10.1:**        *School Board Coordination and Population Projections.* The City shall meet annually or as needed with the Volusia County School Board to discuss population projections used in the City's *Comprehensive Plan* in order to allow the School Board to consider City growth and development projections and the City to consider School Board enrollment projections. The population projections shall address but not be limited to the location, timing and amount of school students. [9J-5.015 (3)(c)11., F.A.C.]



**Policy 1.10.2:**     ***Volusia County TPO Coordination and Population Projections.*** The City shall meet annually or as needed with the Volusia County Transportation Planning Organization to discuss population projections and consider expected growth shown in the City's *Comprehensive Plan*. [9]-5.015 (3)(c)11., F.A.C.]

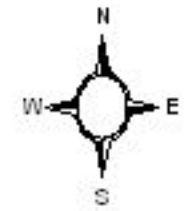


# CITY OF EDGEWATER



MAP VIII-1  
LOCATION OF ELEMENTARY SCHOOLS

- City Limits
- Roads
- Schools



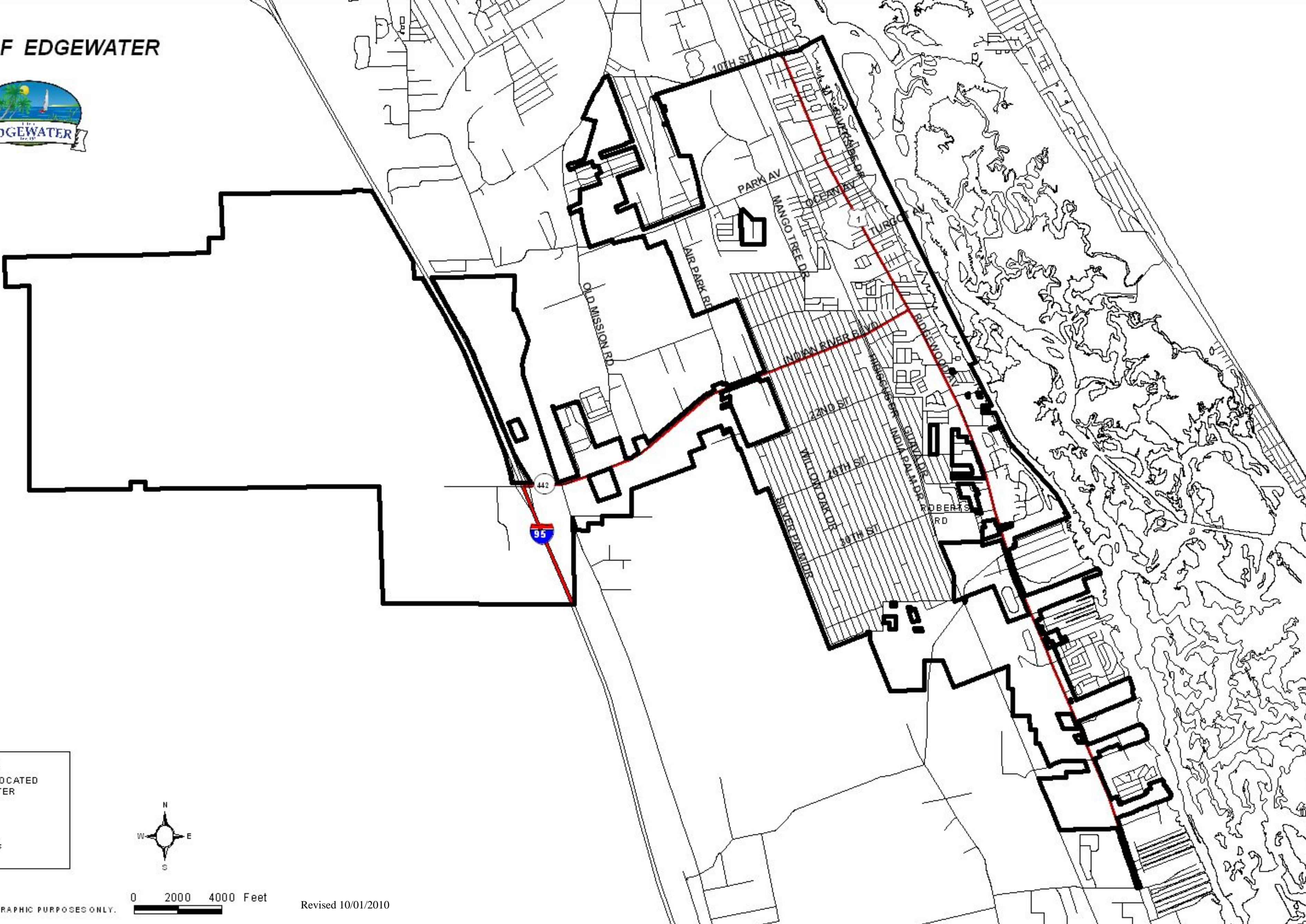
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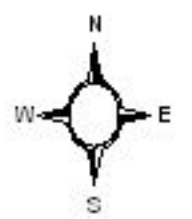


# CITY OF EDGEWATER



MAP VIII-2  
FDOT ROADWAYS LOCATED  
WITHIN EDGEWATER

- City Limits
- Roads
- FDOT Roadways



0 2000 4000 Feet

\* MAP IS TO BE USED FOR GRAPHIC PURPOSES ONLY.

Revised 10/01/2010





**CITY OF EDGEWATER**

**COMPREHENSIVE PLAN**

**CAPITAL IMPROVEMENTS ELEMENT**

**CHAPTER IX**

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## CHAPTER IX CAPITAL IMPROVEMENTS ELEMENT

### A. INTRODUCTION

The purpose of the *Capital Improvements Element (CIE)* is to evaluate the need for public facilities as identified in other *Elements* of this Plan. In addition, the *Capital Improvements Element* will present an analysis of the fiscal capability of the City to fund needed public facilities, recommend financial policies to guide the funding of those identified improvements, and to schedule the funding and construction of improvements in a manner necessary to ensure that capital improvements are provided when required.

Needed capital improvements are those which are necessary to meet the adopted level of service (LOS) standards identified in other *Elements* of this *Plan*. The City's public facilities which require identification and funding are:

- *Transportation Element* – Roadways which are under the jurisdiction of the City, and those roadways which the City wishes to aid in funding improvements.
- *Sanitary Sewer Sub-Element* – Sanitary sewer treatment and effluent disposal facilities necessary to serve the existing and future population of the City. In addition, recommendations for capital improvements and policies to ensure adequate sanitary sewer collection facilities.
- *Solid Waste-Sub Element* – Solid waste disposal facilities to service the City's existing and future population, coordination with Volusia County to ensure those facilities are available when needed and recommendations for adequate solid waste collection methods.
- *Stormwater Sub-Element* – Drainage systems necessary to meet recommended LOS standards for stormwater quality and conveyance and coordination with Volusia County for improvements to systems in basins which serve the City but are outside its jurisdiction.
- *Potable Water Sub Element* – Potable water treatment facilities necessary to service the existing and future population of the City. In addition, recommendations for capital improvements and policies to ensure adequate potable water delivery facilities.
- *Recreation/Open Space Element* – Recreation facilities and land areas necessary to meet the recommended LOS standards.

The *Capital Improvements Element* will also present methods to ensure “concurrency” as defined and required in Chapter 163 F.S. The *Element* will also present methods to monitor the “Concurrency Management System” as defined and required in Chapter 163 F.S.

**B. CAPITAL IMPROVEMENTS INVENTORY**

**1. Needs Derived from Other Elements**

The analysis documented in the preceding comprehensive plan elements have identified facility improvements needed to meet the existing service deficiencies and those needed to meet the demands of future growth.

The geographic service areas and locations were identified for major public education and public health system components. System components whose service areas include the City are identified in the list in Table 1. The public education system is operated by the Volusia County School Board, and the public health systems are operated by the Volusia County Health Department.

The Volusia County School Board presently bases its needs assessments on the findings of the Educational Plant Survey, prepared every five years by the State Department of Education in accordance with Florida Statutes. The last survey was completed in March 2012. The results of this survey indicate no need for new schools in the near future due to the decline in student enrollment. Indian River Elementary School completed an eleven (11) classroom addition at its location in 2011. The remaining educational facilities were noted as being in excellent or good condition and were adequately served by roadways, sanitary sewer, solid waste, stormwater drainage, potable water and recreation facilities.

The State Department of Children and Families (DCF) determines the need for new health care facilities with a formula based on occupancy rates, historic use by age group and population projections by age group. Although Edgewater currently has no full-service hospitals, there is Bert Fish Medical Center located just outside the corporate City limits that serves the Edgewater area. Based on growth forecasts a hospital will not be needed before 2030. Halifax Hospice operates a 12-bed patient care facility located at 4140 S. Ridgewood Avenue in Edgewater.

Individual capital improvement needs identified in this *Element* are, for the most part, those improvements, which cost \$25,000 or more and are generally non-recurring purchase items. The capital improvements identified in the other elements of this *Comprehensive Plan* are listed with a brief description in Table 1 along with their estimated costs and projected year of expenditure. The improvements are listed by type of service, related to the various elements of the *Comprehensive Plan*. The *Capital Improvements Element* addresses capital improvements needed to ensure adopted level of service standards are achieved and maintained for a 5 year period. Therefore, Table 1 lists improvements identified for the years 2014-2018. Funding sources for these capital improvements are listed in Table 11. Table 2 identifies the Volusia County School District *Five-Year Work Program* which must be referenced within in City's *CIE* per the *Public Schools Facility Element*.



**Table 1: City of Edgewater Capital Improvement Schedule Fiscal Years Ending 2014-2018**

Project	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	Total
<b>ENVIRONMENTAL SERVICES:</b>						
2.5 MGD Wastewater Treatment Plant			\$7,500,000	\$6,500,000		\$14,000,000
SE Service Area Reclaimed Improvements			\$5,000,000			\$5,000,000
Wells 21-24 and raw water mains			\$2,300,000	\$2,300,000		\$4,600,000
Lime Slaker Replacements	\$300,000					\$300,000
Unspecified Water				\$200,000	\$200,000	\$400,000
Unspecified Sewer				\$200,000	\$200,000	\$400,000
Unspecified Reclaimed				\$50,000	\$50,000	\$100,000
Unspecified Stormwater					\$225,000	\$225,000
MIEX Pretreatment Improvement at ARTWTP				\$3,000,000	\$3,000,000	\$6,000,000
Hart Ave. Design and Grant Application	\$300,000					\$300,000
Lamont Street & Riverside Drive CIP Project		\$250,000				\$250,000
East Palm Way & Riverside Drive CIP Project			\$250,000			\$250,000
East Turgot Avenue & Riverside Drive CIP Project				\$225,000		\$225,000
Juniper Dr. Culvert Replacement	\$97,824					\$97,824
26 <sup>th</sup> St. Culvert Replacement	\$105,086					\$105,086
Monson & Riverview Dr.	\$336,650					\$336,650
Public Works Complex Design/Acquisition/Construction	\$120,000	\$1,080,000	\$250,000	\$500,000	\$750,000	\$2,700,000
10 <sup>th</sup> Street Water Line	\$25,000					\$25,000
Hart Ave. Water Line Improvements	\$100,000					\$100,000
Sludge Loading Area Roofover	\$40,000					\$40,000
Chemical Feed Pumps	\$32,500					\$32,500
Lift Station Telemetry	\$25,000					\$25,000
Future Year Expenditure (Figures Are Cumulative)	\$830,000	\$450,000				\$1,280,000

**CITY OF EDGEWATER  
COMPREHENSIVE PLAN**

**CHAPTER IX  
CAPITAL IMPROVEMENTS ELEMENT**

Project	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	Total
<b>Environmental Services Totals</b>	<b>\$2,312,060</b>	<b>\$1,780,000</b>	<b>\$15,300,000</b>	<b>\$12,975,000</b>	<b>\$4,425,000</b>	<b>\$36,792,060</b>
<b>LEISURE SERVICES:</b>						
Hawks Park Improvements	\$57,000	\$74,000	\$73,000	\$72,000	\$71,000	\$347,000
Rotary Park Expansion	\$153,978					\$153,978
Kennedy Park Seawall	\$35,000					\$35,000
Current Year Unreserved		\$100	\$100	\$100	\$100	\$400
<b>Leisure Services Totals</b>	<b>\$245,978</b>	<b>\$74,100</b>	<b>\$73,100</b>	<b>\$72,100</b>	<b>\$71,100</b>	<b>\$536,378</b>
<b>PUBLIC WORKS:</b>						
Road Repaving	\$240,441	\$500,000	\$500,000	\$500,000	\$500,000	\$2,240,441
Signalize SR442 @ I-95				\$287,546		\$287,546
Indian River Blvd. Extension (approx. 1 mile)				\$4,604,160		\$4,604,160
US 1 Sidewalk Construction	\$250,000	\$949,777				\$1,199,777
Flagler Avenue Sidewalk Construction	\$37,000					\$37,000
Old County and Turgot Sidewalks	\$87,182					\$87,182
Park Ave./Old Mission Road Intersection	\$60,000					\$60,000
<b>Public Works Totals</b>	<b>\$674,623</b>	<b>\$1,449,777</b>	<b>\$500,000</b>	<b>\$5,391,706</b>	<b>\$500,000</b>	<b>\$8,516,106</b>
<b>Total</b>	<b>\$3,232,661</b>	<b>\$3,303,877</b>	<b>\$15,873,100</b>	<b>\$18,438,806</b>	<b>\$4,996,100</b>	<b>\$45,844,544</b>

Source: City of Edgewater Planning Division, 2013

Table 2: 2014-2018 Volusia County School District Five-Year Work Program

Project Type	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018
Major Renovations-Elementary (to be determined)					\$15,000,000
Deland Area Elm-Addition-For Growth				\$500,000	\$2,500,000
<b>Total New Construction</b>	-	-	-	<b>\$500,000</b>	<b>\$17,500,000</b>
Portables - Lease	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
Portables- Moves and Compliance	250,000	250,000	250,000	250,000	\$250,000
Various Schools-Minor Projects	\$2,100,000	\$2,100,000	\$2,100,000	\$2,100,000	\$2,100,000
Various Facilities-Facilities Review Projects	\$2,300,000	\$2,500,000	\$2,500,000	\$2,500,000	\$2,500,000
<b>Total Major Projects at Existing Schools/ Facilities</b>	<b>\$4,750,000</b>	<b>\$4,950,000</b>	<b>\$4,950,000</b>	<b>\$4,950,000</b>	<b>\$4,950,000</b>
Facilities Management – Various Projects	1,000,000	1,000,000	1,000,000	1,000,000	\$1,000,000
Network, EDP & Communications Equipment	\$3,000,000	\$3,000,000	\$3,000,000	\$3,000,000	\$3,000,000
Various Schools & Departments Furniture & Equipment	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000
Transportation Dept – Bus Replacement	4,116,030	3,125,000	3,125,000	3,125,000	\$3,125,000
Transfers – Debt Service	\$51,267,082	\$51,273,646	\$51,270,871	\$30,669,295	\$23,802,365
Transfers-General Fund	\$12,950,000	\$10,507,250	\$8,007,250	\$5,507,250	\$3,007,250



Project Type	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018
Total Transfers	\$64,217,082	61,780,896	59,278,121	36,176,545	\$26,809,615
Totals	\$77,583,112	\$74,355,896	\$71,853,121	\$49,251,545	\$56,884,615

Source: Volusia County School District, 5-Year Work Program Adopted 09/10/13.

Each capital improvement project is described briefly in Table 1. In addition, the reason the project is identified and estimated total project cost is provided. For ease of review, the projects have been grouped by facility type. As indicated, capital improvement projects have been identified for general, public safety, sanitary sewer, potable water, stormwater, parks and recreation, and transportation facilities.

It should be noted that the capital improvement projects contained in Table 1 are not inclusive of all the anticipated capital expenditures by the City during the planning period. Table 1 is limited only to those major components identified by the preceding elements of the City’s *Comprehensive Plan (CP)* in order to analyze development impacts and trends at a level of detail which is both manageable and fairly accurate.

The cost estimates for the capital improvements indicated in this *Element* were developed using standard engineering practice regarding construction costs, in conjunction with information derived from actual construction costs of similar projects, certified bid documents on similar projects and engineering cost estimates conducted on similar projects.

**2. Existing Financial Resources**

The first step in planning capital improvements, as well as arranging the necessary financing through the budgeting process, is to inventory the major sources of funding available to the City. The revenue sources listed below comprises a working inventory for which the City’s ability to fund the needed capital improvements will be assessed. It is important to note that the list below includes all of the major financial resources available to the City and is not limited to the funds which will be used for the capital improvement projects identified in the *5-year Schedule of Improvements* included in this *Element*. These currently utilized financial resources comprise, in part, the revenue sources which will be used to fund the identified capital improvements projects.

**3. Local Revenue Sources**

a. Property Taxes (Ad Valorem)

Property taxes are normally based on a millage rate (i.e. one mill equates to \$1 per \$1000 of assessed value, or .1%), which is then applied to the taxable value of all real property, as well as all other tangible personal property. The revenue from ad valorem taxes may be used to fund both operating costs and capital projects, unless prohibited by local policies. Provisions at the State level exist for raising the millage rate above the 10-mill

cap set by local referendum for debt service or provision of municipal-type services within the City.

b. Public Utility or User Charges

The revenue from these charges is generated primarily as a result of the rates charged to City residents of utilization of City-owned utilities such as water, sewer, stormwater and solid waste removal/disposal. Revenue from these operations include user fees, miscellaneous customer service charges and interest income.

c. Other taxes, fees, and charges

This category of revenue source includes special assessments, various administrative fees and other charges for using services or facilities owned and operated by the City. Some examples of these charges are public document sales, property appraisal fees, fines and forfeitures, permit and license fees, City fund interest income, City property sale income, rental income and all private contributions (real estate, gifts, donations, etc) to the City.

d. Franchise Fees

The City currently charges a franchise fee (based on the applicable gross revenues charged) for utility services, which are provided by private companies within the City.

e. Public Service or Utility Tax

A municipality may levy a tax on the purchase of electricity, metered or bottled gas, water, cable television and telecommunication services. The tax may be levied upon only the purchases within the municipality and may not exceed ten (10) percent of the applicable payments received by the seller of the taxable item from the purchaser of the purchase of such service.

f. Special Source of Revenue

Additional funding mechanisms are sometimes required due to the availability of existing revenue sources and/or the project priorities assigned by the City Council. The options available to the City regarding alternate sources of revenue for funding capital improvement projects are listed below.

- 1) System Development of Impact fees. Fees which are charged in advance of new development to pay for infrastructure needs, but not operating costs, resulting directly from the new development. The fees must be equitably allocated to the specific group(s) which directly benefit from the capital improvements. In

addition, the assessment levied must fairly reflect the true cost of the capital improvements.

g. Special Assessment

Similar to impact fees, special assessments are charged to residents, agencies or areas which directly benefit from the provision of a new service or facility by the City. For example, the construction of a gravity sewer system for an existing neighborhood may be financed through a special assessment to the neighborhood's individual homeowners rather than through a revenue fund of the City. The requirement that all of the City's residents fund the new sewer system through a City revenue source is not considered equitable.

h. Borrowing

Occasionally, many local governments are required to resort to borrowing funds to pay for capital improvements due to their extremely high cost. Usually, either long-term or short-term financing is used to provide these funds. The short-term financing option is normally handled by local banks and is used to raise the required revenue for periods of one to five years. The more customary method is to authorize long-term bond issues, which range in length from five to thirty years.

Listed below are several types of bond issues available to the City.

- 1) **General Obligation Bonds.** These are bonds which are backed by the full faith and credit of the local government, and are required to be approved by a voter referendum. Since these bonds are secured by the taxing power of government, they generally offer lower interest rates than other bonds. The revenues collected from ad valorem taxes on real estate, as well as other sources of revenue are used to service the government's debt. General obligation bonds should be used to fund capital improvements which benefit the whole City rather than specific areas or groups of citizens.
- 2) **Revenue Bonds.** The revenue obtained from the issuance of these bonds is normally used to finance publicly owned facilities such as water treatment and wastewater treatment facilities. The charges collected from the users of the facilities are used directly to retire the bond obligations. This basically allows the capital project to be self-supporting. It should be noted that the interest rates generally tend to be higher than those of general obligation bonds. The issuance of the bonds may be approved by the City Council without a voter referendum.
- 3) **Industrial Revenue Bonds.** This type of bond, though issued by a local government, is actually assumed by companies or industries that use these



funds to construct facilities. The low interest rates associated with this type of bond (due to their tax exempt status) makes it particularly attractive to industry. The advantages to the local government are that the private sector is responsible for the retirement of the debt and that the new employment opportunities are created in the community.

#### 4. State Sources

The City depends on annual disbursements from the State government to supplement its revenue sources. The revenue sources discussed above represent those funds generated by City levies which may be collected and disbursed at the local level. The revenue sources discussed in this section represent those funds which are: (1) generated locally, but collected and later reimbursed to the City by the State; (2) adopted as a local option tax or license fee, collected and reimbursed by the State; or (3) shared by the State in the form of grants to the local government, but originate from State general revenues. The amounts available from these sources may vary widely from year to year depending on legislative actions.

##### a. Revenue Sharing Trust Fund

This component of revenue consists of 1.075 percent of sales and use tax collections, 12.5 percent of the State alternative fuel use decal fee collections, and the remainder from the one-cent municipal fuel tax. The sales and use tax collections were substituted for the cigarette tax revenues that previously were used for this fund by the Florida Legislature. The municipal fuel tax funds are restricted for transportation related expenditures.

##### b. Other Shared Revenue

This category of revenue sources includes several major financial resources which, like the Revenue Sharing Trust Fund, are shared between City, County and State agencies.

The following taxes and licensing fees generate a large portion of the total annual revenue for the City's General Fund.

- 1) Sales Tax – The current sales tax in the State is 6%, and is levied on retail sales, and such things as commercial rentals, admission fees to entertainment facilities, and motor vehicle sales. The collection is returned to the Cities and Counties in accordance with specific formulae. The variables of the formulae, in the case of cities, include the population of the municipality, as well as the total and unincorporated population of the County.

##### c. Mobile Home Licenses

Mobile Home licenses currently range from \$31.60 to \$86.60, depending on what time length is established in the rate structure. Each City shares in the allocation of the

revenues from this source based on the number of units located in the City. The City in turn shares a portion of the revenue with the local school board. This has proven to be a relatively stable revenue source over time.

d. Local Option Taxes

Currently, there are four (4) possible sources of revenue available to the City within this category. All of the funds are generated locally, but the funds are collected and disbursed by the Florida Department of Revenue. The City currently shares in only one (1) of these revenue sources.

e. Alcoholic Beverage License

The Division of Alcoholic Beverages and Tobacco for the State of Florida administers the issuance of licenses associated with the sale and/or consumption of alcoholic beverages. The State collects in excess of \$37 million annually from this fee. Of this amount, a portion is returned to counties and municipalities as a State shared revenue.

f. Other Sources of Shared Revenues.

The City also receives other shared revenues from both the County and other government agencies. These revenues include the Motor Fuel Tax Rebate, the Federal Excise Tax, and the County Business Tax Receipt fees.

### C. FEDERAL AND STATE GRANTS AND LOANS

The system by which Federal general revenue sharing was formerly provided (U.S. State and Local *Fiscal Assistance Act of 1972*) has been substantially modified. The Federal funds are now available through allocations to the state agencies which administer and monitor block grants or disbursed by federal agencies as block grants directly to state and local agencies, as well as other eligible organizations and individuals. The purpose of the block grants program is to allow recipients greater freedom in the actual funds, though the funds must still be used for projects in specific categories. Since these funds require the competitive applications be submitted in order to receive an allocation, the grant monies are usually non-recurring and cannot accurately be projected for annual budgeting purposes.

A partial list of available Federal grant sources is shown in Figure 1. Other grants and loans are administered at the State level, with State Executive Departments acting as “pass-through agencies” for federally funded projects. The Community Development Block Grant (CDBG) is an example of a federally funded grant project. The U.S. Department of Housing and Urban Development administers this program and allocates 70% of its CDBG funds to “entitlement communities”, or the larger urban areas. These communities must apply for grants for financing specific projects from a list of eligible activities outlined in Title I statutes. These projects include infrastructure improvements, housing projects and commercial revitalization. The remaining 30% of the grant funds are allocated to State pass-through agencies such as the Department of Economic

Opportunity (DEO) in the State of Florida. DEO administers these grants for the same types of projects mentioned previously, but restricts their availability to small cities and counties.

In addition to block grants, there are several direct loan programs available at the Federal level, but their applicability to capital projects is extremely limited. State loans however, are usually available to finance capital projects such as land acquisition for low-income housing. DEO administers loans and grants for these projects to eligible governments through its Bureau of Housing.



Figure 1: Federal Grant Agencies and Program Titles

AGENCY	TITLE
Department of Commerce	Public Works and Development Facilities Support for Planning Organizations Public Works Impact Projects Public Telecommunications Facilities Construction and Planning
Department of Children & Families	Community Health Concerns
Department of Housing and Urban Development	Housing Development Grants Community Development Block Grant/Entitlement Community Development Block Grant/Small Cities Program
Department of Interior	Outdoor Recreation: Acquisition, Development and Planning Urban Park and Recreation and Recovery Program
Department of Transportation	Urban Mass Transportation Capital Improvement Grants Urban Mass Transportation Technical Studies Grant
Environmental Protection Agency	State Revolving Loan Fund (DFR) Program Comprehensive Estuarine Management

SOURCE: “Catalog of Federal Domestic Assistance”, Government Printing office, Washington, D.C.

## D. LOCAL POLICIES AND PRACTICES

To guide the location and timing of land development, local policies and practices are used, particularly in support of the goals, objectives and policies of the *Future Land Use Element*. Obviously, State agencies and water management districts which provide public facilities within the City's jurisdiction may influence these policies and practices. One such influence was found to be generated by the Florida Department of Transportation (FDOT) *5-year Transportation Plan*. This influence stemmed from the fact that several roadways within the City's jurisdiction are part of the state highway system, and therefore are largely the financial responsibility of the FDOT. Plans for the improvement of some of these roadways may be included in the before mentioned *5-year Transportation Plan*. However, there are other such roadways not included in the *Plan*. Either scenario affects the capacity of the roadways, which in turn affects the level and intensity of development, as well as the degree of financial commitment for which the City must plan.

In the absence of improvement plans by FDOT, special provisions may be made when the City desires improvement of a State road to maintain local levels of service standards. These provisions may include the City expending funds for roadway improvements or providing FDOT with the funds, either of which may be collected through an impact fee.

In this section, many of the local practices and policies used by the City are described in terms of their general concept and the circumstances surrounding their use. The policies and practices both used in the past and currently in use are identified. Policies and practices not in use which have the potential for being used by the City are discussed in a later section of the *CIE*.

### 1. LOS Standards

LOS standards indicate the degree of service provided, or proposed to be provided by public facilities based on their operational characteristics. Basically, the LOS indicates the capacity per unit of demand for each public facility. Therefore, the LOS is a summary of the existing or desired public facility conditions. These LOS standards are to be established for the specific purpose of issuing permits or development orders to ensure that adequate capacity is available and will be maintained in public facilities for future development.

LOS standards can affect both the timing and location of development by encouraging development of those areas which have public facilities with excess capacity. In addition, development is not allowed unless the needed facilities and services are available. This development and provision of services usually occur in a phased sequence over a period of time. The City has adopted formal LOS standards with the completion of their *CIP*. Therefore, the LOS standards as outlined in the various elements of the *CIP* have been listed below.

Sanitary Sewer:	204 gallons per equivalent residential unit per day
Solid Waste:	2.5 pounds per capita per day
Stormwater:	Level A – No significant street flooding Level B – No major residential yard flooding Level C – No significant structure flooding Level D – No limitation on flooding (Based on 25-year/24-hour storm event)
Potable Water:	204 gallons per equivalent residential unit per day
Collector Roadways:	LOS D for peak hour volumes
Arterial Roadways:	LOS D for peak hour volumes
Limited Access Road:	LOS B

Guidelines for Recreational Facilities:

<u>Facility</u>	<u>Unit of Measure</u>
Parkland	5 acres/1,000 persons
Baseball/Softball	1 field/4,000 persons
Basketball Court	1 court/5,000 persons
Tennis Court	1 court/3,500 persons
Handball/Racquetball Court	1 court/4,000 persons
Community Center	1 facility/30,000 persons
Multi-Purpose/Soccer	1 field/4,000 persons
Shuffle Board Court	1 court/1,500 persons
Bocci Ball Court	1 court/10,000 persons
Volley Ball Court	1 court/5,000 persons
Boat Ramps	1 ramp/4,700 persons
Bike/Pedestrian Trail	1 mile/4,000 persons
Fitness Trails	1/14,000 persons
Activities Center	1/15,000 persons
Gymnasium	N/A

**2. Capital Improvements Program (CIP)**

A *Capital Improvements Program* is a plan for capital expenditures to be incurred each year over a fixed period of years to meet anticipated facility improvements and needs. The *CIP* identifies each capital project or other capital expenditures anticipated by the City, as well as presenting estimates of the resources needed to finance the project.

The *CIP* is designed to be consistent with the *CIE* of the local *CP* because it reflects the goals, objectives and policies of the *Element* and its implementation strategy, including the 5-



*year Schedule of Improvements.* In addition, the *CIP* is not restricted to only those public facilities addressed in the *CP*, as is the *CIE*.

The first year of a *CIP* becomes the annual capital budget with longer range capital expenditures identified for the 5-year program. The capital budget encompasses enacting appropriations for those capital projects delineated for the first year of the *CIP*. The *CIP*, similar to *CIE*, is reviewed on an annual basis.

### 3. Impact Fees

Impact fees are imposed by many local governments on new developments to offset the costs of new public facilities necessitated by the development. Local government may use this strategy as one method of implementing the *CIE*. Chapter 163, F.S. includes impact fees as an innovative technique that may be integrated into the land development regulations.

Impact fee development is a logical outgrowth of the *CIE* preparation. A rational basis for developing an impact fee ordinance comes from the assessment of the local government's capital improvement needs and its capability to provide for those needs which is required by Chapter 163 F.S.

Infill development location and timing may be affected and controlled through the use of impact fees. This is because infill development usually occurs in those areas having capital facilities with excess capacity. If the local government chooses not to recover the costs of capital facilities in underutilized service areas, infill development may be encouraged by the absence of impact fees on developments proposed within those areas.

### 4. Utility Service Areas

The delineation of utility service areas within a comprehensive plan or *CIP* may be used to describe areas where local governments intend to provide public facilities and services. When used in conjunction with a *CIE* and *CIP*, utility service areas can be used as a tool to coordinate the timing of public facilities and service provision within areas planned for development.

Additionally, the following benefits may be the result of using utility service areas:

- a) Encourage efficient and orderly growth patterns;
- b) Preserve agricultural and environmentally sensitive areas; and
- c) Support control on facility extensions

## 5. User Charges and Connection Fees

User charges are designed to recover the costs of public facilities or services from those who benefit from them. Many areas of local government employ the use of user charges. Monthly sewer charges paying for the operation and maintenance of wastewater facilities as well as retiring debt service on revenue bonds is a good example of user charge usage. This technique may also be applied to transportation, potable water, solid waste, recreation and parking facilities and services.

These charges may be designed to vary, depending on the quantity and location of the services rendered, in order to affect the pace and pattern of development. In other words, the greater the distance from the service area, the higher the user charge.

## 6. Concurrency Management System

This controls the timing and location of development by conditioning new development approvals on evidence that sufficient facilities and services are present or will be provided in order to maintain adopted LOS standards. Therefore, development approval becomes contingent on the ability of local governments to provide facilities and services, and furthermore, may require the development itself to furnish the facilities and services in order to maintain the adopted LOS standards. Additional benefits associated with a Concurrency Management System are as follows:

- a) Supports the consistency of the *CIE* with the *Future Land Use Element*;
- b) Provides for the orderly expansion of public facilities;
- c) Stabilizes capital improvement expenditures and taxing structures for capital improvements; and
- d) Reduces the possibility of damage to the environment from the use of overburdened facilities.

Typically, the Concurrency Management System interacts with the development approval process by requiring that all zoning, subdivision or planned unit development (PUD) approval be granted only upon demonstrated compliance with the system. The building permit stage is another level at which a Concurrency Management System may function. In this context, the Concurrency Management System may control development in areas that are already approved, but not as yet built on, such as pre-platted lands.

## 7. Mandatory Dedication or Fees in Lieu Of

The City may require, as a condition to plat approval, that subdivision developers dedicate a portion of the land within the development to be used for public purposes such as roads, parks and schools. Dedication may be made to the governing body, or to a private group such as a homeowners association.

When a subdivision is of such small scale or topographic conditions that a land dedication cannot reasonably be required, the City may require that the subdivider pay a fee in lieu of dedication which is equivalent to the amount of land that otherwise would have been dedicated by the developer. The fee may be deposited into a separate account for use in the future towards the provision of such facilities.

As a result of the public facility provision, the adjacent area benefiting from the initiative would likely become more attractive to development. Therefore, the acquired service potential may be used to encourage growth in desired areas.

## **8. Moratoria**

A moratorium, or stop-gap ordinance, is used to temporarily halt or freeze development in an area for a specified period of time on an emergency basis. The ordinance may be imposed on certificate of uses, building permits, development approvals, or governmental services such as potable water connections or wastewater system extensions and/or connections. The moratorium normally is imposed for a “reasonable time” to allow the necessary planning activities to take place pending comprehensive plan preparation, adoption or amendment. The State of Florida’s legal system has found development moratoria to be a valid measure of last resort in the protection of local public health, safety and welfare when adopted in accordance with applicable procedures. Some other considerations in adopting a moratorium include:

- a) Determining legal status of existing permit applications and approvals to determine the extent of “vested rights” for those developments approved prior to ordinance adoption;
- b) Specifying the geographic extent of the moratorium (whether it will be City wide, or limited to specific hazard areas with existing service insufficiencies); and
- c) Specifying the time frame and conditions under which the moratorium will be imposed.

## **E. FINANCIAL ANALYSIS**

### **1. Fiscal Assessment**

In this section, an examination is made of the City’s ability to fund the capital improvements listed in Table 1. The purpose of the examination is to determine whether sufficient revenue will be available using the existing budgeting framework utilized by the City to fund the required improvements at the time when they are needed.

The assessment process estimates future revenue receipts which the City will use to fund capital improvements, then balances these revenues against the anticipated capital improvement expenditures. Using this process, it becomes possible to quantify annual revenue surpluses and shortfalls, thereby providing a basis for examining opportunities for



financing the required capital improvements. The examination of these opportunities is included in the next portion of this section, entitled “Summary and Recommendations”.

In addition to the direct cost for capital improvements, this section will review the fiscal impacts of the capital improvements identified in the other *CP* elements upon the actual operation of the City departments responsible for facility management. This will include costs for additional personnel and routing operation/maintenance activities. It should be noted that this assessment includes only those items planned for in other *CP* elements.

a. Accounting System

The accounting system employed by the City records financial transactions in individual accounts called “funds”. Records for each fund provide a complete accounting of fund assets, liabilities, reserves, equities, revenues and expenditures. The following is a brief description of the funds which the City has established for capital improvement financing.

**GENERAL FUND:** The General Fund is the basic operating fund of the City. It accounts for all revenues and expenditures used to finance the traditional services associated with a municipal government which are not accounted for in other funds. These services include police and fire protection, civil defense, emergency rescue services, street services, parks and recreation, building safety, general administration and any other activity for which a specific special fund has not been created.

**ENTERPRISE FUND:** Enterprise Funds are established to account for the financing of self-supporting municipal activities which render services on a user charge basis to the general public. In the City, the water and sewer utilities, refuse collection, and stormwater operations are operated as enterprise activities.

The significant characteristic of an Enterprise Fund is that the accounting system makes it possible to determine whether the activity is operated at a profit or loss. All reports of Enterprise Funds are self-contained. In this way, creditors, legislators, and the general public can evaluate the performance of the municipal enterprise on the same basis as investor-owned enterprise in the same industry.

b. Projected Revenues

The City’s tax base is projected to increase for 2014, assuming a 3.00% rate of growth starting in 2015 for the adjusted taxable value of property (including new construction), as indicated below. The City’s assessment ratio is projected to remain stable at 95%.

**Table 3: Adjusted Taxable Income Projections**

Tax Base	2014	2015	2016	2017	2018
Adjusted taxable income	\$616,083,636	\$634,566,14	\$653,603,129	\$673,211,223	\$693,407,560

SOURCE: City of Edgewater Finance Dept.

Ad valorem tax yields were projected assuming the fiscal year 2014 rate of millage and the average annual increase (3.00%) in adjusted taxable value over the next five years. It should be noted that the five-year average rate for millage amounts to a rate of 6.876 per \$1,000 of taxable property value.

**Table 4: Ad Valorem Tax Yield Projections**

Tax Base	2014	2015	2016	2017	2018
Ad Valorem Tax Yield	\$4,236,191	\$4,363,277	\$4,494,175	\$4,629,000	\$4,767,870

SOURCE: City of Edgewater Finance Dept. Assume a collection of 95% of the total ad valorem tax billings.

Table 5 indicates the revenues expected to be available to the City to finance the expenditures and capital improvements for the years 2014-2018. Revenue projections are based on past trends and anticipated changes in funding sources. These amounts are represented in 2014 dollars.

**Table 5: Revenue Projections Affecting Capital Improvements**

	2014	2015	2016	2017	2018
FUND					
General Fund					
Ad Valorem	\$4,236,191	\$4,494,175	\$4,629,000	\$4,767,870	\$4,910,906
Franchise Fees	\$1,133,000	\$1,166,990	\$1,202,000	\$1,238,060	\$1,262,821
State Shared State Shared Revenues	\$1,785,743	\$1,839,315	\$1,894,495	\$1,951,330	\$1,990,356

<b>Subtotal:</b>	<b>\$7,154,934</b>	<b>\$7,500,480</b>	<b>\$7,725,495</b>	<b>\$7,957,260</b>	<b>\$8,164,083</b>
Enterprise Funds					
Wastewater	\$3,672,246	\$3,782,413	\$3,895,885	\$4,012,762	\$4,093,017
Refuse	\$3,563,197	\$3,670,093	\$3,780,196	\$3,893,602	\$3,971,474
Water	\$3,563,197	\$3,670,093	\$3,780,196	\$3,893,602	\$3,971,474
Stormwater	\$1,464,763	\$1,508,706	\$1,553,967	\$1,600,586	\$1,632,598
Net Bond Proceeds	\$0	\$0	\$0	\$0	\$0
<b>Subtotal</b>	<b>\$12,263,403</b>	<b>\$12,631,305</b>	<b>\$13,010,244</b>	<b>\$13,400,552</b>	<b>\$13,668,563</b>
<b>Total Revenues</b>	<b>\$19,418,337</b>	<b>\$20,131,785</b>	<b>\$20,735,739</b>	<b>\$21,357,812</b>	<b>\$21,832,646</b>

The Enterprise Fund projected revenues for each account include anticipated income from user charges, connection fees, impact fees, assessment receipts and customer service charges. The revenue projections for wastewater and water user charges and connection fees are based on current individual fee amounts (average monthly charge and connection fees) and projected total service connections. Solid waste user charge revenue projections are based on current average monthly charges also.

The amount shown for net bond proceeds represents the use of bond proceeds which are anticipated to be issued for major capital projects. The amounts shown reflect the year when the proceeds are estimated to be encumbered for the project and not the use of the proceeds deposited in the construction fund for financing the project.

c. Projected Expenditures

The projected expenditures have been separated into three categories for the purpose of this assessment: (i) scheduled capital improvement project expenditures; (ii) capital improvement



debt service expenditures; and (iii) operating cost expenditures. The first category of expenditure represents the direct cost of those capital improvements expected to be incurred annually, those identified by the other CP elements, and those identified by the *City's Capital Improvements Program* (in addition to the CIP projects already identified by the other CP elements). Table 6 lists these projected expenditures by Fund for 2014-2018.

**Table 6: Expenditure Projections for Scheduled Capital Improvements**

	2014	2015	2016	2017	2018
<b>FUND</b>					
<b>General Fund</b>					
Annual Capital Expenditures	\$720,601	\$574,100	\$573,100	\$5,463,806	\$571,100
<b>Enterprise Funds</b>					
Annual Capital Expenses					
Water/Sewer	\$522,500	\$14,800,000	\$8,800,000	\$3,450,000	\$3,450,000
Public Works	\$950,000	\$1,080,000	\$250,000	\$500,000	\$750,000
Stormwater	\$839,560	\$250,000	\$250,000	\$225,000	\$225,000
<b>Total Expenses</b>	<b>\$3,032,661</b>	<b>\$16,704,100</b>	<b>\$9,873,100</b>	<b>\$9,638,806</b>	<b>\$4,996,100</b>

The second category includes the projected expenditures required to meet debt service requirements for outstanding bond issues, as well as planned future bond issues included in the revenue projects in Table 6. The future debt issues are anticipated by the City to provide

monies to fund the reclaimed water improvements as well as various general improvements. In addition to long-term indebtedness, the City utilizes short-term borrowing for minor capital expenditures. Table 7 lists the projected debt service expenditures by Fund.

**Table 7: Debt Service Expenditure Projections**

	2014	2015	2016	2017	2018
<b>FUND</b>					
<b>General Fund</b>	\$448,092	\$117,791	\$119,570	\$126,410	\$93,073
Enterprise Funds					
Wastewater					
State SRF Loan 2012		\$360,128	\$360,128	\$360,128	\$360,128
Water					
SunTrust JCI 2005					
SunTrust JCI 2013	\$493,000	\$533,000	\$576,000	\$622,000	\$657,000
Wells Fargo Series 2009 #42	\$635,000	\$655,000	\$626,429	\$626,429	\$626,429
BB&T SRF Refinance 2012	\$657,000	\$671,000	\$686,000	\$701,000	\$716,000

The debt service to fund the enterprise component of the *CIP* program consists entirely of revenue bonds and special assessment bonds. Based on the opinion of the City Council, this debt does not come under the current charter provisions of the City. With respect to the general debt associated with the General Fund, the current charter requires that the City not incur additional debt of more than .75% of the net taxable ad valorem property value during any forward moving five (5) year period unless such debt was approved by a referendum of eligible voters in a general election. Based on the current Charter provisions, the estimated debt service capacity assuming assessed valuation rates is as follows:

Value for 2013	\$946,835,690
Charter Limitation at .75%	\$5,450,977

The final category of expenditures contains the annual operating costs for providing the necessary facility improvements and services to the City's customers. These operating costs consist of the recurring expenses associated with the normal operation of capital facilities

such as supplies, maintenance, personnel and utility costs associated with the assessed capital improvement needs. The operating costs have been assigned to the first year in which they are expected to be incurred based on the schedule of improvement contained in Table 6. Table 8 presents the annual operating expenditure of the City for years 2014-2018.

**Table 8: Annual Operating Expenditures**

<b>FUND</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
General Fund	\$12,330,565	\$12,700,482	\$13,081,496	\$13,473,940	\$13,743,419
Enterprise Fund					
Water/ Wastewater	\$8,478,321	\$8,732,671	\$8,994,651	\$9,264,491	\$9,449,781
Public Works	\$3,282,846	\$3,381,331	\$3,482,771	\$3,587,254	\$3,658,999
Stormwater	\$1,464,763	\$1,508,706	\$1,553,967	\$1,600,586	\$1,632,598

In order to assess the City's capability to fund the necessary capital improvement expenditures, a determination of revenue sufficiency must be made. This capability is shown by finding the difference between the projected annual revenues and expenditures for each fund the City uses to finance the capital improvements. The assessment results are shown in Table 9.



Table 9: Fiscal Assessment No. 1

FUND	2013	2014	2015	2016	2017	2018
REVENUES	\$12,207,802	\$12,330,565	\$12,700,482	\$13,081,496	\$13,473,941	\$13,743,420
EXPENDITURES	\$12,207,802	\$12,330,565	\$12,700,482	\$13,081,496	\$13,473,941	\$13,743,420
BALANCE	-	-	-	-	-	-
<b>WATER/WASTEWATER</b>						
REVENUES	\$8,207,400	\$8,478,321	\$8,732,671	\$8,994,651	\$9,264,491	\$9,449,781
EXPENSES	\$8,207,400	\$8,478,321	\$8,732,671	\$8,994,651	\$9,264,491	\$9,449,781
BALANCE	-	-	-	-	-	-
<b>PUBLIC WORKS</b>						
REVENUES	\$3,012,390	\$3,282,846	\$3,381,331	\$3,482,771	\$3,587,254	\$3,658,999
EXPENSES	\$3,012,390	\$3,282,846	\$3,381,331	\$3,482,771	\$3,587,254	\$3,658,999
BALANCE	-	-	-	-	-	-
<b>STORMWATER</b>						
REVENUES	\$1,655,030	\$1,464,763	\$1,508,706	\$1,553,967	\$1,600,586	\$1,632,598
EXPENSES	\$1,655,030	\$1,464,763	\$1,508,706	\$1,553,967	\$1,600,586	\$1,632,598
BALANCE	-	-	-	-	-	-

Included in Table 9 are the projected revenues (as previously listed in Table 5) and expenditures (consisting of the sum of the cost and expenditures shown in Tables 6, 7 and

8). Improvement costs for transportation and recreation have been included in the General Fund, improvement costs for wastewater, water and solid waste are included in the Enterprise Fund, and stormwater improvement costs have been included in the Stormwater Fund. The balance of each fund indicates the difference between the projected revenues and expenditures. Revenue shortfalls for a given year are indicated by a negative balance.

The City uses revenues from both the General and Enterprise Funds to meet annual operating expenses. The General Fund is primarily used for transportation and recreation/park operating services, while the Enterprise Fund is used for the operating costs associated with the Public Works and Utilities Departments.

Supplemental funding is provided by the fees collected by the various departments from the persons directly receiving the service.

The City-wide millage rate and the Enterprise Fund user charges are reviewed periodically by the City as part of its budgeting process. Adjustments are made in order to ensure that sufficient funds are available to meet expected expenses, including a reserve for contingency funds. In anticipation of future increases in operating costs, the City may desire to adjust the millage rate and/or user charges upward by small increments over a period of several years. This will initially provide additional operating reserves, which can later be used to offset operating expense increases as they occur and allow the City to moderate annual charges in the millage rates and user charges. The anticipated increases in ad valorem tax revenues for 2014-2018 are featured below in Table 10.

**Table 10: Anticipated Increase in Ad Valorem Tax Revenue Projections**

<b>Tax Base</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
Result of one-half mill increase over and above current Ad-Valorem	\$4,236,191	\$4,550,992	\$4,559,951	\$4,696,750	\$4,720,640

d. Summary and Recommendations

Within this section, the projected revenue shortfalls as indicated in Table 9 are identified. Various methods of overcoming these revenue shortfalls are examined herein, and recommendations developed as to the most appropriate methods of balancing the revenue and expenditure streams for the City’s funds. These balanced revenue/expenditure streams are shown in Table 9 and indicate the achievement of an economically feasible comprehensive plan.

**General Fund:** As shown in Table 9, the General Fund is projected to have a balanced budget during 2014-2018.

**Enterprise Fund:** The Enterprise Fund is projected to have a balanced budget during 2014-2018.

The balancing of the projected revenue and expenditure streams within the Enterprise Fund will be accomplished by the following funding strategy changes:

STORMWATER:

1. Apply for various grants from State agencies to assist with various projects;
2. Obtain short term financing via low interest loans; and
3. Carry forward any unexpected funds as revenue.

In the event that some of the proposed sources are not attained, the following alternative strategies will be pursued;

1. Additional deferral of projects to later years;
2. Procurement of additional revenue bonds instead of funding projects on a “pay-as-you-go” basis;
3. Procurement of additional grant funding;
4. Procurement of a state revolving fund loan; and
5. Increase user fees for municipal services.

Improved planning and coordination will be initiated among the City’s utility departments in order to ensure that public facility and service provision is optimal for cost effectiveness. For example, department representatives will work together to encourage the provision of public facilities and services concurrently (where feasible), in order to limit the negative impacts of separate installation (i.e. construct water/sewer services prior to paving/stormwater improvements).

Also, other entities which share facilities with the City (such as FDOT and Volusia County) sharing the use of the U.S. 1 within the City limit(s) will be coordinated with regarding improvements to their shared facilities.



**F. GOALS, OBJECTIVES, AND POLICIES**

The City shall undertake all actions necessary to ensure that needed public facilities and services are provided to all residents within the City's jurisdiction in a manner which maximizes the use of existing facilities, promotes orderly compact urban growth and protects the City's investments in its existing facilities.

**GOAL 1:** Capital improvements will be provided to correct existing deficiencies, to accommodate projected future growth, and to replace obsolete or worn-out facilities, as indicated in the *5-year Schedule of Improvements* delineated in this *Element*.

**Objective 1.1:** *Reserving Funds for Needed Future Capital Facilities.* Ensure that a *Five-Year Capital Improvements Program* (CIP) shall be incorporated into the Annual Budget in order to reserve funds for needed future capital facilities.

**Policy 1.1.1:** *Preparation of the Five-year Capital Improvement Program.* The City's Finance Director shall prepare the *Five-Year CIP* on an annual basis as part of the City's Annual Budget; it shall address all capital needs of the City.

**Policy 1.1.2:** *Municipal Department Heads and the CIE Annual Update.* As a part of the annual update process for the *Capital Improvements Element*, municipal department heads shall provide input to the City Manager and Finance Director regarding capital improvement needs and the adequacy of existing and planned funding sources.

**Policy 1.1.3:** *Multi-year Funding Strategy and New Funding Resources.* As a part of the annual update process for the *Capital Improvements Element* the City shall focus on a multi-year funding strategy to identify new funding resources.

**Objective 1.2:** *Capital Improvements Classification.* Shall include all projects identified in the *CIP* which are determined to be of relatively large scale and high cost (\$25,000 or greater) in the *5-year Schedule of Improvements* as capital improvement projects; all other capital improvements shall be included in the *5-year Capital Improvements Program* and annual capital budget.

**Policy 1.2.1:** *Debt Service and Operating Expenditures.* The City shall, for accounting purposes, include this *Element* in conjunction with Debt Service and Operating expenditures.

**Policy 1.2.2:** *Scheduling and Funding Capital Improvements.* The City shall, as a matter of priority, schedule and fund all capital improvements identified by the *5-year Schedule of Improvements*.

**Policy 1.2.3:** *Reviewing the Water Supply Facilities Work Plan (WSFWP).* The City shall continue to adopt a CIP and annual budget as a part of its budgeting process. The City will review the CIP annually together with the *WSFWP* to include the water related projects identified for the first five years of the *WSFWP*. The program shall be “financially feasible” as defined in Florida Statutes.

**Policy 1.2.4:** *Capital Improvement Projects and Priority Ranking Guidelines.* The proposed capital improvement projects shall be evaluated and ranked in order of priority according to the following guidelines:

- the project is needed to protect public health and safety, to fulfill the City’s legal commitment to provide facilities and services, to reduce waste of water resources, to reduce waste of water resources or to preserve or achieve full use of the existing facilities;
- the project promotes the City’s development of alternative water supplies, corrects water supply deficiencies or otherwise results in a reduction in future dependence on Upper Floridian aquifer water sources to support future growth of the City.
- the project increases the efficiency of use of the existing facilities, prevents or reduces future improvement costs, provides service to developed areas lacking full service or promotes infill development;
- the project represents a logical extension of facilities and services within a designated utility service area;
- the project implements the policies of this *Comprehensive Plan* as they pertain to the concurrency requirements; and
- the project is financially feasible.

**Objective 1.3:** *Proportionate Share.* Ensure the proportionate share of facility improvements which are necessitated by future development in order to maintain adopted LOS standards shall be borne by those directly benefiting from the improvements.

**Policy 1.3.1:** *Implementing Impact Fee Programs.* The City shall continue to implement its impact fee programs as conditions to providing utility services to new developments.

**Policy 1.3.2:** *Transportation Impact Fee Ordinance.* The City shall continue to implement its Transportation Impact Fee Ordinance.

**Policy 1.3.3:** *Future Development and Proportionate Costs.* Future development will bear a proportionate cost of all capital improvements necessary to maintain LOS standards adequately.

**Policy 1.3.4:** *Private Contributions and the Five-Year Schedule of Capital Improvements.* The City shall rely upon private contributions as a funding source within the *Five-year Schedule of Capital Improvements* only when the obligation to fund a specific capital improvement is addressed in an enforceable development agreement or development order. The City shall not be responsible for funding capital improvements that are the obligation of the developer. If the developer fails to meet any capital improvement commitment that is programmed in the *Five-year Schedule of Capital Improvements*, a plan amendment to delete the capital improvement from the *Schedule* shall be required.

**Policy 1.3.5:** *New Development and Impact Fees.* All new development, which has a direct or indirect impact on roads, schools, parks, potable water, or sewer, shall continue to be subject to impact fees collected and/or administered by the City. Monies collected as impact fees shall be spent to benefit the City's infrastructure.

**Objective 1.4:** *Managing Financial Resources.* Will manage its financial resources to ensure the provision of needed capital improvements for previously issued development orders for future development and redevelopment.

**Policy 1.4.1:** *Issuance of Development Orders or Permits and Concurrency.* The City will not issue development orders or permits unless public facilities (which meet the adopted LOS standards) needed to support development or redevelopment are available, or will be available concurrently with the impacts of the development.

**Policy 1.4.2:** *Maximum Ratio of Outstanding Indebtedness.* The maximum ratio of outstanding indebtedness (for providing capital improvements) to the property tax base shall be limited by the City to no greater than .75%.

**Policy 1.4.3:** *Adoption of the Capital Improvements Program.* The City shall continue to adopt a *5-year Capital Improvements Program* and annual budget as a part of its budgeting process.

**Policy 1.4.4:** *Funding to Finance Capital Improvements.* The City will continue to apply for water, wastewater, solid waste and other available grants on an annual basis to obtain funding to finance the provision of capital improvements.



- Policy 1.4.5:**      *Limitation on the use of Revenue Bonds.* The limitation on the use of revenue bonds as a percent of total debt shall follow applicable Florida statutes and acceptable financial practices.
- Policy 1.4.6:**      *Maximum Ratio of Total Debt Service.* The maximum ratio of total debt service to total revenue shall follow applicable Florida statutes and acceptable financial practices.
- Policy 1.4.7:**      *Maximum Ratio of Outstanding Capital Indebtedness to Property Tax Base.* The maximum ratio of outstanding capital indebtedness to property tax base shall follow applicable Florida statutes and acceptable financial practices.
- Policy 1.4.8:**      *Reviewing all Sources of Revenue and the Annual Budget Process.* Before the annual budget process is initiated, the City shall review all sources of revenue not previously utilized as revenue and shall act to obtain and receive revenue from these potential sources where a benefit to the City can be predicted.
- Policy 1.4.9:**      *Complying with State Law and the Management of Debt.* The City shall comply with all State of Florida law regarding the management of debt.

**Objective 1.5:**      *Issuance of Development Orders and Permits.* Shall base all decisions regarding the issuance of development orders and permits on the coordination of the development requirements included in this *CP*, its land development regulations and ordinances, and the availability of public facilities needed to support such development at the time it is needed.

**Policy 1.5.1:**      *LOS Standards.* The City shall use the following LOS standards in reviewing the impacts of new development and redevelopment upon public facility provision in the City or in the City’s Utility Service Area:

Sanitary Sewer:	204 gallons per equivalent residential unit per day
Solid Waste:	2.5 pounds per capita per day
Stormwater	Level A – No significant street flooding Level B – No major residential yard flooding Level C – No significant structure flooding Level D – No limitation on flooding (Based on 25-year/24-hour storm event)
Potable Water:	204 gallons per equivalent residential unit per day
Collector Roadways:	LOS D for peak hour volumes
Arterial Roadways:	LOS D for peak hour volumes
Limited Access Road:	LOS B

Guidelines for Recreational Facilities:

<u>Facility</u>	<u>Unit of Measure</u>
Parkland	5 acres/ 1,000 persons
Baseball/Softball	1 field/4,000 persons
Basketball Court	1 court/5,000 persons
Tennis Court	1 court/3,500 persons
Handball/Racquetball Court	1 court/4,000 persons
Community Center	1 facility/30,000 persons
Multi-Purpose/Soccer	1 field/4,000 persons
Shuffle Board Court	1 court/1,500 persons
Bocci Ball Court	1 court/10,000 persons
Volley Ball Court	1 court/5,000 persons
Boat Ramps	1 ramp/4,700 persons
Bike/Pedestrian Trail	1 mile/4,000 persons
Fitness Trails	1/14,000 persons
Activities Center	1/15,000 persons
Gymnasium	N/A

**Policy 1.5.2:** *New Development, Redevelopment or Comprehensive Plan Amendments Guidelines.* The City shall evaluate all proposed CP amendments and requests for new development or redevelopment according to the following guidelines as to whether the proposed action would:

- contribute to a condition of public hazard as described in the *Utilities Sub-elements*;
- exacerbate any existing condition of public facility capacity deficits as described in the *Utilities Sub-elements*, the *Transportation Element* and the *Recreation and Open Space Element*;
- generate public facility demands that may be accommodated by capacity increases planned in the *5-year Schedule of Improvements*;
- conform to future land uses as shown on the *Future Land Use Map (FLUM)* of the *Future Land Use Element (FLUE)*, and utility service areas as described in the *Utilities Sub-elements*;
- if public facilities are developer-provided, accommodate public facility demands based on adopted LOS standards;

- if public facilities are provided, in part or whole, by the City, demonstrate financial feasibility, subject to this element;
- represent a logical extension of facilities and service from the City to the urban fringe, or is compatible with the plans of the State agencies or the St. Johns River Florida Water Management District (SJRWMD) ; and
- determination of future capital improvement needs shall be based on anticipated future growth or redevelopment patterns and whether a particular improvement advances the goals, policies and objectives of the *Comprehensive Plan*.

**Policy 1.5.3:** *Land Use Development Orders and Concurrency.* Land use development orders shall be granted only when facilities functioning at the adopted LOS exist, or will be available, concurrent with occupancy or use of such developed land with respect to sewer, water and stormwater, and within three years for recreation and transportation.

**Policy 1.5.4:** *Public and Private Capital Facilities and LOS Provision.* The City shall require all public and private capital facilities to operate and provide service at the LOS adopted in this *Comprehensive Plan* for existing, previously issued development orders and future permitted development.

**Policy 1.5.5:** *Public Facilities and Services and Concurrency.* The City shall continue to make public services and facilities available concurrent with the impacts of development. In cases of phased development, the City shall determine when public facilities and services are necessary to maintain concurrency.

**Objective 1.6:** *Coastal High Hazard Area.* By December 2014, shall review its Land Development Code to evaluate limiting the size and density of developments in the coastal high-hazard area, as defined by the *Coastal Management Element*.

**Policy 1.6.1:** *Constructing Public Facilities and the Coastal High Hazard Area.* The City will not construct public facilities east of U.S. 1 unless no other feasible sites are available outside the coastal high-hazard area. Where it becomes necessary to construct public facilities in the coastal high-hazard area, the design of the facilities will incorporate flood proofing and additional structural support in order to ensure minimum damage from storms and hurricanes.

**Policy 1.6.2:** *Limiting Public Expenditures and the Coastal High Hazard Area.* The City will limit public expenditures that subsidize development in



coastal high-hazard areas except for the restoration and enhancement of natural resources.

**Objective 1.7:** *Adoption of Local Government and External Agency Plans.* Adopt all applicable outside local government and external agency plans necessary to maintain and provide for LOS.

**Policy 1.7.1:** *Meeting School Capacity and Student Demands.* The City hereby adopts by reference the Volusia County School District's *Facilities 5-Year Work Program* to meet anticipated school capacity and student demands projected by the County and municipalities based on the adopted LOS standards for public schools.

**Policy 1.7.2:** *Meeting Demand of State Transportation Facilities.* The City hereby adopts by reference the Florida Department of Transportation's *5-Year Work Program* to meet anticipated demand through improvement of State transportation facilities within the jurisdiction.

**Policy 1.7.3:** *Meeting Water Supply Demand and Needs.* The City hereby adopts by reference the St. Johns River Water Management District's (SJRWMD) *Water Supply Plan 2005* to meet anticipated water supply and demand needs within the jurisdiction.

**GOAL 2:** Provide for a financially feasible public school facilities program.

**Objective 2.1:** *Level of Service Standards.* Shall ensure that the capacity of schools is sufficient to support residential subdivisions and site plans at the adopted LOS standard. This LOS standard shall be consistent with the LOS standard adopted in the interlocal agreement entered into by the School Board and the local governments within Volusia County.

**Policy 2.1.1:** *Applying LOS Standards.* The LOS standard adopted by the City shall be applied consistently by all local governments within Volusia County and by the School Board district-wide to all schools of the same type.

**Policy 2.1.2:** *Florida Inventory of School House LOS Standards.* Consistent with the interlocal agreement, the uniform, district-wide LOS standards are set as follows using FISH (Florida Inventory of School House) capacity based on the traditional school calendar

- Elementary Schools: 115% of permanent FISH capacity for the concurrency service area;
- K- 8 Schools: 115% of permanent FISH capacity for the concurrency service area;

- Middle Schools: 115% of permanent FISH capacity for the concurrency service area;
- High Schools: 120% of permanent FISH capacity for the concurrency service area; and
- Special Purpose Schools: 100% of permanent FISH capacity.

**Objective 2.2:** *School Capital Facilities Planning.* Shall cooperate with the School Board to ensure existing deficiencies and future needs are addressed consistent with adopted LOS standards for public schools.

**Policy 2.2.1:** *Reviewing the School Board's Annual Work Program.* The City shall review the School Board's annual work program to verify that it is financially feasible and will maintain the LOS standards by the end of the five-year period.

**Policy 2.2.2:** *Future Development Proportionate Costs and Public Schools.* The City shall coordinate with the School Board and adopt development conditions to ensure that future development pays a proportionate share of the costs of capital facility capacity needed to accommodate new development and to assist in maintaining the adopted LOS standards via impact fees and other legally available and appropriate methods.

**GOAL 3:** Establish a redevelopment plan and research the possibility of creating a Community Redevelopment Area in the City.

**Objective 3.1:** *Redevelopment Plan and Community Redevelopment Area.* Amend the *Capital Improvements Element* to include in the annual budget process funds to develop a redevelopment plan or conduct a feasibility study on creating a Community Redevelopment Area (CRA).

**Policy 3.1.1:** *Feasibility of Implementing a Redevelopment Plan.* The City shall review the feasibility of implementing a Redevelopment Plan through funds established in the *Capital Improvements Program*. The Plan shall include at minimum, the establishment of architectural standards, community appearance standards, or both, for residential and non-residential properties within the redevelopment areas; and recommendations for the potential revision or amendment of provisions of the City's Land Development Code.

**Policy 3.1.2:** *Feasibility of Implementing a Community Redevelopment Area.* The City shall review feasibility of implementing a CRA through funds established in the *Capital Improvements Program*. The CRA Plan shall include at minimum, recommendations for the creation of districts or

zones within the boundaries of the City's CRA, the establishment of architectural standards, community appearance standards, or both, for residential and non-residential properties within the CRA; and recommendations for the potential revision or amendment of provisions of the City's *Land Development Code*.

**Policy 3.1.3:** *Creating a Redevelopment Advisory Board.* The City shall create an advisory board to provide guidance on projects and plans established in the Redevelopment Plan or CRA Plan upon adoption of the plans established in Policies 3.1.1 and 3.1.2 of this *Element*.

**Policy 3.1.4:** *Seeking Innovative Financial Strategies.* The City shall seek innovative financial strategies such as Tax Increment Financing (TIF) to fund redevelopment projects within the City.

**Policy 3.1.5:** *Establishing Incentives to Developers of Infill and Redevelopment Projects.* The City shall establish incentives, such as density bonuses, expedited permitting, reduction in impact fees, reducing or eliminating parking requirements, providing tax incentives, or creating an area-wide stormwater facility to minimize onsite detention and retention infrastructure, to developers of infill and redevelopment projects within the proposed areas established in Policies 3.1.1 and 3.1.2 of this *Element*.

## CAPITAL IMPROVEMENTS PROGRAM IMPLEMENTATION

### CAPITAL IMPROVEMENTS SCHEDULE (5-YEAR)

As shown in Table 11, the *Five (5) Year Schedule of Improvements* is the mechanism by which the City can effectively stage the timing, location, projected cost and revenue sources for the capital improvements derived from all the *CP* elements, in support of the *Future Land Use Element*. This *5-Year Schedule of Improvements* has been used to document the “economic feasibility” of the City's *CP*, based upon the preceding sections of this *Element* entitled “Capital Improvements Inventory”, “Financial Analysis”, and “Goals, Objectives, and Policies”.



**LONG TERM TRANSPORTATION IMPROVEMENTS**

Table 12 describes transportation improvements that the City anticipates may be necessary within a ten (10) year time frame.

**Table 11: City of Edgewater Five Year Schedule of Improvements Fiscal Years Ending 2014-2018**

Project*	Schedule	Cost	Revenue Source	LOS	Non-LOS
<b>LEISURE SERVICES:</b>					
Hawks Park Improvements	2014-2018	\$347,000	General Fund		N
Rotary Park Expansion	2014	\$153,978	General Fund		N
Kennedy Park Seawall	2014	\$35,000	General Fund		N
Current Year Unreserved	2014-2018	\$400	General Fund		N
<b>ENVIRONMENTAL SERVICES:</b>					
2.5 MGD Wastewater Treatment Plant	2015-2016	\$14,000,000	SRF & Developer	N	
SE Service Area Reclaimed Improvements	2015	\$5,000,000	SRF & Impact Fees	N	
Wells 21-24 and raw water mains	2015-2016	\$4,600,000	Developer	N	
Lamont St. and Riverside Dr. CIP Project	2015	\$250,000	Capital Fund	N	
East Palm Way & Riverside Dr. CIP Project	2016	\$250,000	Capital Fund	N	
E. Turgot Ave. & Riverside Dr. CIP Project	2017	\$225,000	Capital Fund	N	
Lime Slaker Replacements	2014	\$300,000	Capital Fund	R	
Hart Ave. Design & Grant Application	2013-2014	\$300,000	Capital Fund		N
Unspecified Water	2017-2018	\$400,000	Capital Fund	TBD	
Unspecified Sewer	2017-2018	\$400,000	Capital Fund	TBD	
Unspecified Reclaimed	2017-2018	\$100,000	Capital Fund	TBD	
Unspecified Stormwater	2018	\$225,000	Capital Fund	TBD	
Land Acquisition for new Public Works Site	2015	\$1,080,000	Capital Fund	N	

Project*	Schedule	Cost	Revenue Source	LOS	Non-LOS
MIEX Pretreatment Improvement at ARTWTP	2017-2018	\$6,000,000	Capital Fund		N
Future Year Expenditure	2014-2018	\$1,580,000	Capital Fund		
Juniper Dr. Culvert Replacement	2014	\$97,824	Capital Fund	R	
26 <sup>th</sup> St. Culvert Replacement	2014	\$105,086	Capital Fund	R	
Monson & Riverview Drive	2014	\$336,650	Capital Fund		N
Public Works Complex Design/Construction	2014	\$120,000	Capital Fund		N
10 <sup>th</sup> Street Water Line	2014	\$25,000	Capital Fund		N
Hart Ave. Water Line Improvements	2014	\$100,000	Capital Fund	R	
Sludge Loading Area Roofover	2014	\$40,000	Capital Fund		N
Chemical Feed Pumps	2014	\$32,500	Capital Fund	N	
Lift Station Telemetry	2014	\$25,000	Capital Fund		N
<b>PUBLIC WORKS:</b>					
Road Repaving	2014-2018	\$2,240,441	General Fund	R	
Signalize SR 442 @ I-95 SB Ramp	2017	\$287,546	Developer		N
Indian River Blvd. Extension (approx. 1 mile)	2017	\$4,604,160	Developer	N	
US 1 Sidewalk Construction	2014	\$50,000	LAP Funds	N	
Flagler Avenue Sidewalk Construction	2014	\$37,000	LAP Funds	N	
Old County and Turgot Sidewalks	2014	\$87,182	General Fund	N	
Park Ave./Old Mission Rd. Intersection	2014	\$60,000	General Fund	N	
LEGEND: R-REPLACEMENT, N- NEW, E- EXPANDED					
* Projects in Fiscal Years 2015-2018 are currently unfunded.					

**Table 12: Long Term (10 year) Transportation Improvements**

Williamson Blvd. Extension (four lanes)
Indian River Blvd. Extension (four lanes)
Signalize S.R. 442 at I-95 southbound ramps
Signalize S.R. 442 at I-95 northbound ramps
S.R. 442 at I-95 lane additions
Future Transit Corridor (Williamson Blvd. extension)
U.S. 1 widening (six lanes between S.R. 442 and Riverside Dr.)

## PROGRAM MONITORING AND EVALUATION

The role of monitoring and evaluation is vital to the effectiveness of any planning program and particularly to the *CIE*. This is largely because the City's revenue and expenditure streams are subject to fluctuations in the market and the economy. It is the behavior of these streams which will be used to predict fiscal trends in order to maintain the City's adopted LOS standards for public facilities. Therefore, the *CIE* requires a continuous program for monitoring and evaluation, pursuant to Chapter 163, F.S., this *Element* will be reviewed on an annual basis to ensure that required fiscal resources are available to provide public facilities as necessary to support the adopted LOS standards.

The annual review will be the responsibility of the local planning agency, and the City Finance Director and City Manager will serve as advisory members at all formal deliberations related to capital improvement monitoring and evaluation. The local planning agency's finding and recommendations will be presented to the City Council at a public meeting. The City Council will direct staff to take any actions deemed appropriate based on the findings and recommendations of the local planning agency.

The review will include the following considerations, plus an examination of these considerations in order to determine their continued appropriateness:

- Any corrections, updates, modifications concerning costs; revenue sources; acceptance of facilities pursuant to dedications which are consistent with the element; or the date of construction of any facility enumerated in this *Element*;
- The *CIE*'s consistency with the *CP Elements* and its support of the *FLUE*,
- The City's ability to provide public facilities and services within the utility service area in order to determine any need for boundary modification or adjustment;
- The priority assignment of existing public facility deficiencies;
- The City's progress in meeting those needs determined to be existing deficiencies;
- The criteria used to evaluate capital improvement projects in order to ensure that projects are being ranked in their appropriate order of priority;
- The City's effectiveness in maintaining its adopted LOS standards;
- The City's effectiveness in reviewing the impacts of plans and programs of State agencies and water management districts that provide public facilities within the City's jurisdiction;
- The effectiveness of impact fees for assessing new development a pro rata share of the improvement costs which they generate;
- The impacts of special districts and any regional facility and service provision upon the City's ability to maintain its adopted LOS standards;
- The ratio of outstanding indebtedness to the property tax base;
- Efforts made to secure grants and/or private funds, whenever available to finance the provision of capital improvements;
- The transfer of any unexpected account balances;



- The criteria used to evaluate proposed plan amendments and request for new development or redevelopment; and
- Capital improvements needed for the latter part of the planning period, for inclusion in the *5-Year Schedule of Improvements*.

In addition to the annual *Capital Improvements Element* review mentioned above, each request for a development order will be reviewed by a Technical Review Committee, as designated by the City Manager, and other appropriate personnel for the purpose of establishing whether the various adopted LOS standards will be adversely impacted if development is allowed to proceed. No development order will be issued if it is determined that the public facilities needed to maintain the adopted LOS standards will not be available concurrently with the impact of the development. Further, issuance of development orders will be delayed until the correction of existing system deficiencies which are required to increase the LOS provided to the adopted standard are complete.



**CITY OF EDGEWATER**

**COMPREHENSIVE PLAN**

**CAPITAL IMPROVEMENTS ELEMENT  
CONCURRENCY MANAGEMENT SYSTEM  
SUB-ELEMENT**

**CHAPTER IX**

**CHAPTER IX  
CAPITAL IMPROVEMENTS ELEMENT  
CONCURRENCY MANAGEMENT SUB-ELEMENT**

**A. PUBLIC FACILITIES, CAPACITIES AND LEVEL-OF-SERVICE (LOS)  
INVENTORY FOR CONCURRENCY MANAGEMENT**

The following inventories shall be maintained by the City to be used for the concurrency assessment of new development.

**1. Transportation:**

- Design capacity of different roadway types.
- The existing LOS measured by the p.m. peak hour directional trips.
- The status of service degradation of those roads classified as backlogged based on the methodology described in the *Transportation Element* of this *CP*.
- The adopted LOS standards for all roadway types.
- The existing capacities or deficiencies of the roadway network.
- The improvements to be made to the roadway network in the current fiscal year by the City, Volusia County, the Florida Department of Transportation, or other public agency and the impact of such improvements on the existing capacities or deficiencies.

**2. Sanitary Sewer:**

- The capacity of the wastewater treatment facilities.
- The existing LOS standards measured by the average number of gallons per day/per unit based on the average flow experienced at the treatment plant and the total number of equivalent residential units within the service area.
- The adopted LOS standards for average daily flow per equivalent residential unit.
- The existing deficiencies of the system.



- The reserve capacities.
3. **Potable Water:**
- The design capacity of potable water treatment facilities.
  - The existing LOS measured by the average number of gallons per day per unit based on the average flows experienced and the total number of equivalent residential units within the service area.
  - The existing potable water storage capabilities of the water system.
  - The adopted LOS standards for the potable water facility components.
  - The existing capacities or deficiencies of the system.
  - The reserved capacities.
4. **Solid Waste Disposal:**
- The design capacity of solid waste disposal facilities.
  - The existing LOS.
  - The adopted LOS standard for solid waste.
  - The projected capacities or deficiencies.
5. **Stormwater Drainage:**
- The existing LOS measured by storm event as determined by the City and its Consulting Engineers.
  - The adopted LOS standard for stormwater drainage quantity and quality.
6. **Recreation and Open Space:**
- The existing acreage of parkland and the existing number of recreation facilities as outlined in the *Recreation and Open Space Element* of this CP.
  - The existing LOS measured by the number of acres of parks available per 1,000 residents of the City based on an inventory of parks in the City and the population of the City.

- The existing LOS guidelines for recreation facilities measured by the adopted standard based on an inventory of the facilities in the City and the population of the City.
- The adopted LOS standards for park acreage and guidelines for individual recreation facilities as outlined in the *Recreation and Open Space Element* of this CP.
- The projected capacities or deficiencies.

**7. Public Schools:**

- The existing LOS standard for public schools measured by the Volusia County School Board.
- The projected student enrollment, capital improvements, and estimated revenues measured by the Volusia County School Board.

**B. CONCURRENCY ASSESSMENT**

The Development Services Department is responsible for determining concurrency for all applications for development, redevelopment and subdivision plats. When reviewing applications for such developments, the Department performs a Concurrency Assessment to ensure that public facilities are or will be available concurrent with the impacts of the proposed development. The assessment includes a basis for the establishment of existing conditions and the capacity of existing public facilities to service new development.

The Department shall identify:

- The ability of existing facilities to accommodate the proposed development at the adopted LOS standards;
- Any existing facility deficiencies that will need to be corrected prior to the completion of the proposed development;
- The facility(s) improvements or additions that will be needed to accommodate the impacts of the proposed development at the adopted level(s) of service created by the proposed development;
- The date such facility(s) improvements or additions will need to be completed to be concurrent with the impacts on such facility(s) created by the proposed development; and
- A recommendation or approval or denial with any applicable conditions or the timing and location of needed improvements.

Prior to the issuance of a development order for a proposed new development, the City Council and/or the Development Services Department determines:

- The impacts created by the proposed development;

- Whether the public facilities covered under the Concurrency Management System will be available concurrent with the impacts of new development at the adopted LOS;
- Those facility(s) improvements or additions that are required to ensure the findings of concurrency; and
- The entity responsible for the design and installation of all required facility(s) improvements or additions.

**1. Sanitary Sewer, Solid Waste, Stormwater and Potable Water Facilities**

- a) A development order is issued subject to the condition that at the time of the issuance of a Certificate of Occupancy, or its functional equivalent, the necessary facilities and services are in place and available to service the new development; or
- b) At the time the development order is issued, the necessary facilities are guaranteed in an enforceable development agreement.
- c) An agreement or development order, issued pursuant to Chapter 380, F.S., to be in place and available to serve the new development at the time of the issuance of a Certificate of Occupancy.
- d) For potable water, prior to approval of a building permit or its functional equivalent, the City shall determine that there will be adequate water supplies and facilities available no later than the date at which the City anticipates issuing a Certificate of Occupancy to serve the new development.

**2. Parks and Recreation Facilities**

- a) At the time the development order is issued, the necessary facilities are in place, or actual construction has commenced; or
- b) A development order is issued subject to the condition that at the time of the issuance of a Certificate of Occupancy, the acreage for the necessary facilities to serve the new development is dedicated, or acquired by the City, or funds in the amount of the developer's fair share are committed; or
- c) A development order is issued subject to the conditions that the necessary facilities needed to serve the new development are scheduled to be in place, or under actual construction, not more than one (1) year after the issuance of a Certificate of Occupancy, as provided in the City's *Capital Improvement Element*; or
- d) At the time the development order is issued, the necessary facilities are the subject of a binding executed agreement which requires the necessary facilities and services to serve the new development to be in place or under



**CONCURRENCY MANAGEMENT SUB-ELEMENT**

actual construction no more than one (1) year after issuance of a Certificate of Occupancy; or

- e) At the time the development order is issued, the necessary facilities are guaranteed in an enforceable development agreement under actual construction not more than one (1) year after issuance of a Certificate of Occupancy.

**3. Transportation Facilities**

- a) At the time a development order is issued, the necessary facilities and services are in place or under construction; or
- b) A development order is issued subject to the conditions that the necessary facilities and services needed to serve the new development are scheduled to be in place or under actual construction not more than three (3) years after the issuance of a Certificate of Occupancy or its functional equivalent, as provided in the adopted City's *Five Year Schedule of Capital Improvements*. The *Schedule of Capital Improvements* may include transportation projects included in the first three (3) years of the most current adopted Florida Department of Transportation *Five Year Work Program*. The *Capital Improvement Element* must include the following policies:
  - i. The estimated date of actual project construction commencement and the estimated completion date;
  - ii. A provision that a plan amendment is required to eliminate, defer or delay construction of any local road facility which is needed to maintain the adopted LOS standard and which is listed in the first three (3) years of the *Five Year Schedule of Improvements* in the *Capital Improvements Element*.
- c) At the time a development order is issued, the necessary facilities are the subject of a binding executed agreement which requires the necessary facilities to serve the new development to be in place or under actual construction no more than three (3) years after the issuance of a Certificate of Occupancy; or
- d) At the time a development order is issued, the necessary facilities and services are guaranteed an enforceable development agreement or an agreement or development order is issued pursuant to Chapter 380, F.S.; and will be in place or under actual construction not more than three (3) years after issuance of a Certificate of Occupancy.

The adopted LOS standards (see Table CM-I) are the minimum acceptable standards with which all proposed new development shall comply. The Concurrency Management portion

of this *Element* does not preclude the Planning and Zoning Board or the City Council from imposing other conditions of approval, including improvements and additions to the facilities covered under this system beyond the minimum necessary to achieve concurrency.

#### 4. School Facilities

For school facilities, the following standards will satisfy the concurrency requirement:

- a) For district-wide concurrency service areas:
  1. At the time the residential development order or permit is issued, the necessary facilities and services are in place or under construction; or
  2. A residential development order or permit is issued subject to the conditions that the necessary facilities and services needed to serve the new development are scheduled to be in place or under construction not more than 3 years after permit issuance as provided in the adopted public school facilities program.
- b) For less than district-wide concurrency service areas: If public school concurrency is applied on less than a district-wide basis in the form of concurrency service areas, a residential development order or permit shall be issued only if the needed capacity for the particular service area is available in one or more contiguous service areas and school capacity is available district-wide as defined in Section 163.3180 F.S.

### C. GENERAL RULES FOR CONCURRENCY ASSESSMENT

#### 1. Existing Deficiencies

No development may be approved which will impact a facility which is currently deficient unless the facility is required to be improved in the current fiscal year pursuant to a previous development order or permit. Any needed improvements shall be completed prior to the projected impacts of the proposed development.

#### 2. Approved Impacts

The impacts of new development shall be assessed against the existing conditions and the projected impacts from approved but un-built development. These two items together shall be considered the existing conditions for all public facilities for the impact assessment of all proposed development.

#### 3. Phasing

Development that is proposed to be phased may also phase the improvement of facilities provided the concurrency requirements for each facility are met.

**4. Time Specific Approval**

All development approvals shall have a time period specified in the development order or permit in which development must commence. The time period may involve two or more phases but the timing of each phase shall be specified in the development order or permit.

Any required improvements shall also require a time period for construction and completion. Should development or facilities improvements fail to begin or be completed in accordance with the development order or permit, all outstanding approvals of the development shall expire. Amendments to time schedules shall be permitted but must be approved by the body granting the original approval.

**5. Additional Information**

The Development Services Department may require additional information from applicant or other City Departments in order for an accurate assessment to be conducted. Such additional information requests shall be reasonable and be provided in writing to the applicant or appropriate Department.

Should the Development Services Department require a special study (such as traffic counts on a road that is not regularly monitored), the applicant shall provide such information. Review and approval of proposed development may be postponed for a reasonable time period in order that more information may be gathered on a facility. Proposed development may be denied approval, for failure of the applicant to provide adequate information on the projected impacts created by the development.

**6. Transportation**

The City's *Land Development Code* provides development thresholds at which traffic studies will be required. Required studies shall use the most recent Institute of Traffic Engineers (ITE) Manual to calculate the number of trips generated by the proposed development. The study shall then show the distribution of the projected trips, determine existing condition and project the LOS of impacted roads.

Prior to the issuance of a Certificate of Occupancy, all facility improvements necessary to accommodate the impacts of that portion of the development receiving a Certificate of Occupancy shall be in place. Completed improvements may be required prior to the issuance of a building permit if deemed necessary for public safety purposes.

**7. Sanitary Sewer**

The City's *Land Development Code* provides sanitary sewer use standards for residential and non-residential development based on equivalent residential units. The City may require commercial and industrial developments to provide a description and estimate of water use



needs for any commercial or industrial processes which create wastewater that will be discharged into the City's system.

Prior to the issuance of a Certificate of Occupancy, all facility improvements necessary to accommodate the impacts of that portion of the development receiving a Certificate of Occupancy shall be in place, as required by the Development Order.

#### **8. Potable Water**

The City's *Land Development Code* provides potable water use standards for residential and non-residential development based on equivalent residential units. The City may require commercial and industrial developments to provide a description and estimate of water use needs for any commercial or industrial processes involving potable water.

Prior to the issuance of a Certificate of Occupancy, all facility improvements necessary to accommodate the impacts of that portion of the development receiving a Certificate of Occupancy shall be in place, as required by the Development Order.

Prior to approval of a building permit or its functional equivalent, the City shall determine that there will be adequate water supplies and facilities available no later than the date at which the City anticipates issuing a certificate of occupancy to serve the new development. All development is subject to the City's Concurrency Management System.

#### **9. Solid Waste**

The City's *Land Development Code* provides solid waste standards for control and operation for residential, commercial and industrial developments. Developments which are potential hazardous waste generators will be responsible for coordinating with Volusia County for disposal of such waste.

Prior to the issuance of a Certificate of Occupancy, all facility improvements necessary to accommodate the impacts of that portion of the development receiving a Certificate of Occupancy shall be in place.

#### **10. Stormwater Drainage**

All developments shall prepare a drainage plan based on the Stormwater regulations which incorporate the LOS design storm. Such plans shall be approved by the City's Engineer prior to the approval of the development.

Prior to the issuance of a building permit, all facility improvements necessary to accommodate the impacts of that portion of the development receiving the building permit shall be approved and all improvements shall be completed prior to the issuance of a Certificate of Occupancy.

**11. Recreation**

The City's *Land Development Code* requires recreation impact fees for residential construction and/or land conveyance for new subdivisions. Commercial and industrial developments shall not be assessed as having an impact on recreational facilities. However, the City reserves the right to require the provision of recreational facilities as part of Planned Unit Developments.

D. GOALS, OBJECTIVES, AND POLICIES

**GOAL 1:** The City shall undertake necessary action to economically and efficiently provide needed public facilities and services to all residents within its jurisdiction in a manner which protects investments in existing facilities, maximizes the use of existing facilities and promotes orderly compact urban growth.

**Objective 1.1:** *Capital Improvements Provision.* Will be provided to correct existing deficiencies, to accommodate anticipated future growth and to replace outdated and obsolete facilities, as indicated in the *Schedule of Improvements* of this *Element*.

**Policy 1.1.1:** *Criteria for Capital Improvement Projects.* The City shall include all projects identified in the other *Elements* of this *CP* determined to be of relatively large scale in cost (\$25,000 or greater) as Capital Improvement Projects and are included within the *Schedule of Improvements* portion of this *Element*.

**Policy 1.1.2:** *Debt Service and Operating Expenditures.* The City shall, for accounting purposes, also include into this *Element* Debt Service and Operating expenditures.

**Policy 1.1.3:** *Prioritizing, Scheduling, and Funding Capital Improvements.* The City shall, as a matter of priority, schedule and fund all capital improvement projects in the City's annual *Capital Improvement Program* which are designed to correct existing deficiencies as listed in the various other *Elements* of this *CP*.

**Policy 1.1.4:** *Renewal and Replacement of Capital Facilities.* The City will continue its current program of providing for renewal and replacement of capital facilities as outlined in the various *Elements* of this *CP*.

**Policy 1.1.5:** *Capital Improvements Coordinating Committee.* A Capital Improvements Coordinating Committee shall be created composed of the Technical Review Committee members as designated by the City Manager to evaluate and rank, on an annual basis, in order of priority, the projects proposed to be included in the *Schedule of Improvements*.

**Policy 1.1.6:** *Evaluation and ranking of Capital Improvement Projects.* Proposed City Capital Improvement Projects shall be evaluated and ranked in order of priority according to the following criteria:

- Whether the project is needed to protect the public health and safety, to fulfill the City's legal commitment to provide facilities and services, or to preserve or achieve full use of those facilities already in place;



- Whether the project increases efficiency of use of existing facilities, prevents or reduces future improvement costs, provides services to develop areas lacking full service or promotes in-fill development;
- Whether the project represents a logical extension of facilities and services within the designated Utility Service Area Boundary, and is coordinated with the plans of County and/or State agencies that provide facilities within the City;
- Whether the project implements the policies of this *CP* as they pertain to the concurrency requirements; and
- Whether the project is financially feasible.

**Objective 1.2:** *Proportionate Cost of Future Development.* Ensure future development will bear a proportionate cost of facility improvements necessitated by the development in order to maintain the adopted LOS standards.

**Policy 1.2.1:** *Collecting Impact Fees.* The City will continue to collect impact fees from development projects to pay for the provision of transportation, water, sewer and recreation facilities required by those projects.

**Policy 1.2.2:** *Considering Other Impact Fees.* The City shall continue the use of other impact fees, such as for public safety services.

**Policy 1.2.3:** *New Development and Donating Fair Share of Rights-of-ways.* All new development shall be required to donate or reserve their fair share of right-of-way adjacent to major roadways prior to the issuance of a final development order.

**Objective 1.3:** *Managing Financial Resources.* Will manage its financial resources to ensure the provision of needed capital improvements for previously issued development orders and for future development and redevelopment. This objective shall be achieved through the implementation of the following policies:

**Policy 1.3.1:** *Maximum Ratio of Outstanding Indebtedness.* In providing capital improvements, the City shall limit the maximum ratio of outstanding indebtedness to no greater than .75% of the property tax base.

**Policy 1.3.2:** *Annually Adopting the Capital Improvement Program.* The City shall continue to adopt a *Capital Improvement Program* and an operating budget on a yearly basis as part of this budgeting process.

**Policy 1.3.3:** *Financing the Provision of Capital Improvements.* The City shall continue to apply for and secure grants or private funds whenever

available to finance the provision of capital improvements and other City improvement projects.

**Policy 1.3.4:** *Issuance of Certificates of Occupancy.* The City will provide for all public facilities needed to service development for which Development Orders were previously issued prior to the issuance of Certificates of Occupancy.

**Policy 1.3.5:** *Allocating the Costs of New Public Facilities.* The City shall allocate the costs of new public facilities on the basis of the benefits received by the existing and future residents.

**GOAL 2:** Maintain a Concurrency Management System to ensure public facilities and services to support development are available concurrent with the impact of development.

**Objective 2.1:** *Concurrency Management System.* Will continue to utilize a Concurrency Management System so that decisions regarding the issuance of development orders and permits will be based upon coordination of the development requirements included in this CP, the Land Development Regulations, and the availability of necessary facilities to support such development.

**Policy 2.1.1:** *LOS Standards and Reviewing the Impacts of Developments.* The City shall use the LOS standards (found in Table CM-I) in reviewing the impacts of new development and/or redevelopment upon public facilities and services.

Table CM-I: Level of Service Standards

Facility	Standard
Sanitary Sewer	204 gallons/ERU/day
Solid Waste	2.5lbs/capita/day
Potable Water Water quality: Meet State and Federal Drinking Water Standards	204 gallons/ERU/day
Stormwater	25 year/24 hr storm
Traffic Circulation	
Limited Access Roads	B, or as otherwise prescribed by FDOT
Arterial	D
Collectors	D
Guideline for Recreational Facilities	LOS/Person
Parkland	5 acres/1,000 persons
Baseball/Softball	1 Field/4,000 persons
Basketball Court	1 court/5,000 persons
Tennis Court	1 court/3,500 persons
Handball/Racquetball Court	1 court/4,000 persons
Community Center	1 facility/30,000 persons
Multi-Purpose/Soccer	1 field/4,000 persons
Shuffle Board Court	1 court/1,500 persons
Bocci Ball Court	1 court/10,000 persons
Volley Ball Court	1 court/5,000 persons
Boat Ramps	1 ramp/4,700 persons
Bike/Pedestrian Trail	1 mile/4,000 persons
Fitness Trails	1 mile/14,000 persons
Activities Center	1/15,000 persons
Gymnasium	N/A
Public Schools	
Elementary Schools	115% of permanent FISH capacity for the concurrency service area.
K- 8 Schools	115% of permanent FISH capacity for the concurrency service area.
Middle Schools	115% of permanent FISH capacity for the concurrency service area
High Schools	120% of permanent FISH capacity for the concurrency service area
Special Purpose Schools	100% of permanent FISH capacity.

ERU-Equivalent Residential Units

FISH – Florida Inventory of School House



- Policy 2.1.2:** *Ensuring Adequate Water Supplies and Facilities and Concurrency.* Prior to approval of a building permit or its functional equivalent, the City shall determine that there will be adequate water supplies and facilities available no later than the date at which the City anticipates issuing a certificate of occupancy to serve the new development. All development is subject to the City's Concurrency Management system.
- Policy 2.1.3:** *Tracking Water Demands and Outstanding Commitments.* The City shall track current water demand and outstanding commitments in order to determine the availability of an adequate water supply for proposed developments.
- Policy 2.1.4:** *Concurrency Requirements.* Provisions in the *CP* that ensure public facilities and service standards will be met to satisfy the Concurrency requirements are listed below:
- The necessary facilities and services are in place at the time a development permit is issued; or
  - A development permit is issued subject to the condition that the necessary facilities and services will be in place when the impacts of the development occur; or
  - The necessary facilities are under construction at the time a permit is issued; or
  - The necessary facilities and services are guaranteed in an enforceable development agreement. The agreement must guarantee that the necessary facilities and services will be in place when the impacts of the development occur; or
  - At the time the development permit is issued, the necessary facilities and services are the subject of a binding executed contract which provides for the commencement of the actual construction of the required facilities or the provision of services within one (1) year of the issuance of the applicable development permit.
  - The necessary facilities and services are guaranteed in an enforceable development agreement which required the commencement of the actual construction of the facilities or the provision of services within one (1) year of the issuance of the applicable development permit.

CONCURRENCY MANAGEMENT SUB-ELEMENT

Policy 2.1.5: *Evaluation Guidelines for New Development or Redevelopment.*

Proposed *CP* amendments and requests for new development or redevelopment shall be evaluated according to the following guidelines as to whether the proposed action would:

- be consistent with the *Utilities Element* and the *Coastal Management Element* and not contribute to a condition of public hazard.
- be consistent with the *Transportation Element*, *Utilities Element* and *Recreation and Open Space Element* and not intensify any existing public facility capacity deficits not envisioned within this *CP*.
- generate public facility demands that may be accomplished by planned capacity increases.
- conform to future land uses as shown on the *FLUM* of the *FLUE*.
- accommodate public facility demands based upon LOS standards by provision of facilities by the developer or by the City consistent with this *Element*.
- be consistent with the County, State and Regional agencies and water management district's facilities plans.



**CITY OF EDGEWATER**

**COMPREHENSIVE PLAN**

**PUBLIC SCHOOL FACILITIES ELEMENT**

**GOALS, OBJECTIVES AND POLICIES**

**CHAPTER X**

**CHAPTER X  
PUBLIC SCHOOLS FACILITIES ELEMENT  
GOALS, OBJECTIVES AND POLICIES**

**A. GOALS, OBJECTIVES AND POLICIES**

**GOAL 1:**

Collaborate and coordinate with the School Board of Volusia County to provide and maintain a public education system which meets the needs of Volusia County's current and future population.

**OBJECTIVE 1.1: *Coordination and Consistency.*** The City shall implement and maintain mechanisms designed to coordinate with the School Board to provide consistency between local government comprehensive plans and public school facilities and programs.

**Policy 1.1.1: *Growth and Development Trends, General Population and Student Projections Coordination.*** Pursuant to the procedures and requirements of the adopted interlocal agreement, the City shall coordinate with the School Board on growth and development trends, general population and student projections to ensure that the plans of the School Board and City are based on consistent data.

**Policy 1.1.2: *School Concurrency Report.*** At the time of transmittal of the *Public Schools Facilities Element*, the City shall develop a report of projects not subject to school concurrency and submit the report to the School Board within thirty (30) days of transmittal. The report shall include the type, number and location of residential units that have received subdivision or site plan approval and provide a projected annual rate of growth for such projects.

**Policy 1.1.3: *Providing School Board with Agendas and Staff Reports.*** The City shall provide the representative of the School Board with copies of all meeting agendas and staff reports.

**OBJECTIVE 1.2: *School Facility Siting and Availability.*** The City shall coordinate with the School Board on the planning and siting of new public schools and ancillary facilities to ensure school facilities are coordinated with necessary services and infrastructure and are compatible and consistent with the comprehensive plan.

**Policy 1.2.1: *Consistent Land Use Categories and Policies.*** The City shall coordinate with the School Board to assure that proposed public school facility sites are consistent with the applicable land use categories and policies of the comprehensive plan. Schools shall be permitted in all future land use classifications except for industrial land use classifications and environmentally restricted land use classifications.



- Policy 1.2.2: *Future School Sites and Ancillary Facilities.*** Coordination of the location, acquisition, phasing and development of future school sites and ancillary facilities shall be accomplished through the procedures adopted in the interlocal agreement.
- Policy 1.2.3: *Onsite and Off-site Improvements.*** The City and School Board will jointly determine the need for and timing of on-site and off-site improvements necessary to support each new school or the proposed renovation, expansion or closure of an existing school. If deemed necessary, the parties may enter into a written agreement as to the timing, location and party or parties responsible for constructing, operating and maintaining the required improvements.
- Policy 1.2.4: *Land Bank Sites.*** The City shall encourage the School Board to land bank sites for future use as school facilities. The City shall coordinate with the School Board on the acquisition and use of land banked sites in the same manner as established for other sites in order to ensure adequate infrastructure is planned and constructed in advance of school construction.
- Policy 1.2.5: *Incompatible Land Uses.*** The City shall protect schools and land banked school sites from the adverse impact of incompatible land uses by providing the School District with the opportunity to participate in the review process for all proposed development adjacent to schools.
- Policy 1.2.6: *Capital Improvements Plans and Programs.*** In developing capital improvements plans and programs for public services, the City shall consider required infrastructure to service existing and proposed schools and any land banked school sites.

**OBJECTIVE 1.3 *Enhance Community Design.*** The City shall enhance community and neighborhood design through effective school facility design and siting standards and encourage the siting of school facilities in order to serve as community focal points and are compatible with surrounding land uses.

- Policy 1.3.1: *Expansion and Rehabilitation of Existing Schools.*** The City shall coordinate with the School Board on opportunities for the expansion and rehabilitation of existing schools so as to support neighborhoods and redevelopment.
- Policy 1.3.2: *Collaboration on the Siting of Public Facilities.*** The City shall collaborate with the School Board on the siting of public facilities such as parks, libraries and community centers near existing or planned public schools, to the extent feasible.
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**Policy 1.3.3:** *Co-location and Sharing of Public Facilities.* The City shall look for opportunities to co-locate and share the use of public facilities when preparing updates to the *Comprehensive Plan's Schedule of Capital Improvements* and when planning and designing new or renovating existing community facilities. Co-located facilities shall be governed by a written agreement between the School Board and the City specifying operating procedures and maintenance and operating responsibilities.

**Policy 1.3.4:** *Reducing Hazardous Walking Conditions.* The City shall reduce hazardous walking conditions consistent with Florida's safe ways to school program. In conjunction with the School Board, the City shall implement the following strategies:

1. New developments adjacent to schools shall be required to provide a right-of-way and direct safe access path for pedestrian travel to existing and planned schools and shall connect to the neighborhood's pedestrian network.
2. New development and redevelopment within two miles of a school shall be required to provide sidewalks within or adjacent to the property for the corridor that directly serves the school or qualifies as an acceptable designated walk or bicycle route to the school.
3. In order to ensure continuous pedestrian access to public schools, the City shall consider infill sidewalk and bicycle projects connecting networks serving schools as part of the annual capital budget process. Priority shall be given to hazardous walking conditions pursuant to Section 1006.23, Florida Statutes.
4. The City shall coordinate with the Metropolitan Planning Organization to maximize the funding from the Florida Department of Transportation and other sources that may be devoted to improving pedestrian networks serving schools.

**Policy 1.3.5:** *Coordination with Volusia County Emergency Services.* The City and School Board shall coordinate with Volusia County Emergency Services on efforts to build new school facilities, and facility rehabilitation and expansion, to be designed to serve as and provide emergency shelters as required by Section 1013.372, Florida Statutes.

**OBJECTIVE 1.4:** *Coordinate Comprehensive Plan Amendments and Development Orders with School Capacity.* Manage the timing of new development to coordinate with adequate school capacity as determined by the Volusia County School District.

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- Policy 1.4.1:** *Availability of Adequate School Capacity.* The City shall take into consideration the School Board comments and findings on the availability of adequate school capacity in the evaluation of comprehensive plan amendments and other land use decisions including but not limited to developments of regional impact. School Board review shall follow the policies and procedures set forth in the interlocal agreement.
- Policy 1.4.2:** *Coordination with the Future Land Use Map.* Amendments to the *Future Land Use Map* shall be coordinated with the School Board and the Public School Facilities Planning Maps.
- Policy 1.4.3:** *Approving Proposed Land Uses.* Where capacity will not be available to serve students from the property seeking a land use change or other land use determination that increases residential density, the City shall not approve the proposed land use change until such time as the School Board can find that adequate public schools can be timely planned and constructed to serve the student population or that the applicant has provided adequate mitigation to offset the inadequacies in anticipated school capacity.
- Policy 1.4.4:** *Meeting Annually with the School District.* The City of Edgewater shall meet at least annually with representatives from the School District and the other local governments in Volusia County to review the *Public School Facilities Element* including enrollment projects. The timing and content of these meetings shall be done according to the requirements and procedures set forth in the adopted interlocal agreement.

**GOAL 2:      *IMPLEMENT PUBLIC SCHOOL CONCURRENCY***

The City shall assure the future availability of public school facilities to serve new development consistent with the adopted level of service standards. This goal will be accomplished recognizing the School District's statutory and constitutional responsibility to provide a uniform system of free and adequate public schools and the City's authority for land use, including the authority to approve or deny comprehensive plan amendments, re-zonings or other development orders that generate students and impact the public school system. The City shall operate and maintain in a timely and efficient manner adequate public facilities for both existing and future populations consistent with the available financial resources.

**OBJECTIVE 2.1: *Level of Service Standards.*** The City through coordinated planning with the School District and implementation of its concurrency management system shall ensure that the capacity of schools is sufficient to support residential subdivisions and site plans at the adopted level of service standard within the period covered by the *Five-year Schedule of Capital Improvements*. These standards and the concurrency management system shall be consistent with the interlocal agreement approved by the School Board and the local governments in Volusia County.

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**Policy 2.1.1:** *Applying Level of Service Standards.* The level of service standards for schools shall be applied consistently by all the local governments in Volusia County and by the School Board district-wide to all schools of the same type.

**Policy 2.1.2:** *Adopted District-wide Level of Service Standards.* Consistent with the interlocal agreement, the uniform district-wide level-of-service standards are set as follows using FISH capacity based on the traditional school calendar:

1. Elementary Schools: 115% of permanent FISH capacity for the concurrency service area.
2. K-8 Schools: 115% of permanent FISH capacity for the concurrency service area.
3. Middle Schools: 115% of permanent FISH capacity for the concurrency service area.
4. High Schools: 120% of permanent FISH capacity for the concurrency service area.
5. Special Purpose Schools: 100% of permanent FISH capacity.

**Policy 2.1.3:** *Level of Service Standards for Specific Schools.* The following schools shall achieve the adopted level of service no later than the identified date. The level of service presented in the following table is the tiered level of service that shall apply to that school unit the dated noted in the table.

School	LOS	DATE
Orange City Elementary	117%	July 1, 2012
Horizon Elementary	158%	July 1, 2012
Freedom Elementary	126%	July 1, 2012
Osceola Elementary	117%	July 1, 2012
Ortona Elementary	150%	July 1, 2012
Ormond Beach Elementary	116%	July 1, 2012
Southwestern Middle	120%	July 1, 2013
New Smyrna Beach Middle	122%	July 1, 2014

(Note: This policy designates a tiered LOS for those schools that exceed the desired levels at the end of the five- year capital improvements program.)



**Policy 2.1.4: *Constrained Schools.*** The following schools shall be considered constrained schools at the designated LOS due to the inability to add capacity at the site and the nature of the communities they serve. Concurrency will be reviewed in the adjacent concurrency service areas and requests to increase residential densities in the constrained concurrency service areas will need to be accompanied by a plan to address school capacity.

School	LOS
Burns-Oak Hill Elementary	115%
Coronado Elementary	115%
Samsula Elementary	165%

Source: Volusia County Interlocal Agreement

**Policy 2.1.5: *Short-term Changes in Enrollment Unrelated to New Development Approvals.*** The City and School Board recognize and agree that short-term changes in enrollment unrelated to new development approvals can and do occur, and that students enrolling in their assigned school will be accepted consistent with the School District’s constitutional obligations regardless of the utilization levels at the assigned school.

**Policy 2.1.6: *Amending the Level of Service Standards.*** If there is a consensus to amend any level of service, the amendment shall be accomplished by execution of an amendment to the interlocal agreement by all parties and the adoption of amendments to each local government’s comprehensive plan. The amended level of service shall not be effective until all plan amendments are effective and the amended interlocal agreement is fully executed. No level of service standard shall be amended without showing that the amended level of service standard is financially feasible and can be achieved and maintained within the five years of the capital facilities plan.

**OBJECTIVE 2.2: *School Concurrency Service Areas.*** The City shall establish School Concurrency Service Areas as the area within which an evaluation is made of whether adequate school capacity is available based on the adopted level of service standard. Maps of the School Concurrency Service Areas are adopted in the Volusia County Interlocal Agreement for Public School Facilities Planning.

**Policy 2.2.1: *Elementary Schools Concurrency Service Area.*** The concurrency service area for elementary schools shall be the elementary school attendance boundary as represented on the map series “Public School Facilities Element Elementary School Concurrency Service Areas” adopted as part of the Volusia County Comprehensive Plan and which is incorporated herein by reference.

- Policy 2.2.2:** *Middle Schools Concurrency Service Area.* The concurrency service area for middle schools shall be the middle school attendance boundary as represented on the map series “Public School Facilities Element Middle School Concurrency Service Areas” adopted as part of the Volusia County Comprehensive Plan and which is incorporated herein by reference.
- Policy 2.2.3:** *K-8 Schools Concurrency Service Area.* The concurrency service area for K-8 schools shall be the attendance boundary as represented on the map series “Public School Facilities Element K-8 Concurrency Service Areas” adopted as part of the Volusia County Comprehensive Plan and which is incorporated herein by reference. (Note: no K-8 schools have been established at this time.)
- Policy 2.2.4** *High Schools Concurrency Service Area.* The concurrency service area for high schools shall be as represented on the map series “Public School Facilities Element High School Concurrency Service Areas” adopted as part of the Volusia County Comprehensive Plan and which is incorporated herein by reference.
- Policy 2.2.5:** *Special Use Schools Concurrency Service Area.* The concurrency service area for special use schools shall be district wide.
- Policy 2.2.6:** *Concurrency Service Area Maps.* The concurrency service area maps designate three areas where school capacity is not anticipated for the planning period.
- Policy 2.2.7:** *Amendments to Concurrency Service Areas.* Amendments to the School Concurrency Service Areas shall be completed according to the procedures specified in the Volusia County Interlocal Agreement for School Facilities Planning. Amendments to concurrency service areas shall consider the following criteria:
1. Adopted level of service standards shall not exceed the level of service standard within the initial five-year planning period; and
  2. The utilization of school capacity is maximized to the greatest extent possible taking into account transportation costs, court approved desegregation plans, proximity to schools, ethnic and socio-economic diversity, subdivisions and neighborhoods, demographic changes, future land development patterns, crossing guard availability and other relevant factors.

**Policy 2.2.8** *Central Concurrency Service Areas.* Within the central concurrency service areas all current and future students shall be assigned to schools designated for them as part of the School District's normal school assignment procedures. Requests for development orders for new development consistent with the future land use designations and existing residential zoning densities shall be evaluated for concurrency based on the assigned school and that school's concurrency service area. If adequate capacity is not available in the assigned concurrency service area, the proposed development shall be evaluated in comparison to the concurrency service areas adjacent to the assigned concurrency service area, subject to the limitations of Policy 2.3.7. The School District shall maintain a listing of assigned and adjacent concurrency service areas for each central school concurrency service area.

**Policy 2.2.9:** *Developing Properties within the Central School Concurrency Service Areas.* Requests to develop properties within the central school concurrency service areas at residential densities and intensities greater than the current land use or zoning designations shall be done via a comprehensive plan amendment consistent with the Volusia County Charter provision 206 regarding school planning. The comprehensive plan amendment shall demonstrate how school capacity will be met consistent with the terms of the First Amendment to the Interlocal Agreement for Public School Facility Planning effective July 2007 and Section 206 of the Volusia County Charter. If the project area is to be annexed by a municipality, the comprehensive plan amendment shall include an amendment of the central concurrency service area boundary by Volusia County to exclude the subject parcel.

**OBJECTIVE 2.3: *Process for School Concurrency Implementation.*** In coordination with the School Board the City will establish a process for implementation of school concurrency which includes applicability and capacity determination, availability standards and school capacity methods. The City shall manage the timing of residential subdivision approvals and site plans to ensure adequate school capacity is available consistent with the adopted level of service standards for public schools.

**Policy 2.3.1:** *School Concurrency and Residential Development.* School concurrency applies to residential development not otherwise exempt as specified by Policy 2.3.3.

**Policy 2.3.2:** *Residential Development Orders.* Development orders may be issued for residential development where:

1. Adequate school capacity, as determined by the School Board, exists or will be under construction for each level of school in the affected

concurrency service area within three years after the issuance of the development order allowing the residential development.

2. Adequate school facilities, as determined by the School Board, are available within an adjacent concurrency service area subject to the limitations of Policy 2.3.7. Where capacity from an adjacent concurrency service area or areas is utilized, the impacts of development shall be shifted to that area. If capacity exists in more than one concurrency service area or school within a concurrency service area, the School District shall determine where the impacts of development shall be allocated based on the School District policies for student assignment.
3. The developer executes a legally binding commitment with the School Board and City to provide mitigation proportionate to the demand for public school facilities to be created by the actual development of the property as provided by Objective 2.4 and its supporting policies.

**Policy 2.3.3:**     ***Residential Development Exempt from School Concurrency.*** The following residential development shall be considered exempt from the school concurrency requirements:

1. Single family lots of record existing as such at the time School Concurrency implementing ordinance is adopted which otherwise would be entitled to build, shall be exempt from School Concurrency requirements.
2. Any residential development or any other development with a residential component that received approval of a Final Development Order or Functional Equivalent or is otherwise vested prior to the implementation date of school concurrency is considered vested for that component which was previously approved for construction and shall not be considered as proposed new residential development for purposes of school concurrency.
3. Amendments to residential development approvals which do not increase the number of students generated by the development based on the student generation rates for each school type.
4. Age restricted developments that are subject to deed restrictions prohibiting the permanent occupancy by a resident under the age of fifty-five. Such deed restrictions must be recorded and be irrevocable for a period of at least thirty years.



5. Group quarters that do not generate students including residential facilities such as jails, prisons, hospitals, bed and breakfast, hotels and motels, temporary emergency shelters for the homeless, adult halfway houses, firehouse dorms, college dorms exclusive of married student housing and religious non-youth facilities.

**Policy 2.3.4:** *School Concurrency and Single Family Lots and/or Subdivisions.* The creation of subdivisions and/or single family lots equal to or less than ten units shall be subject to school concurrency as part of an annual concurrency management review. The City shall report such projects to the School Board as part of the annual planning coordination process established by the interlocal agreement and these units shall be included by the School Board in planning student allocations by school.

**Policy 2.3.5:** *Adoption of School Concurrency Ordinance.* By February 1, 2008 the City shall adopt a school concurrency ordinance which establishes the application procedures and process for evaluating school capacity and making concurrency determinations consistent with the provisions of the interlocal agreement.

**Policy 2.3.6:** *Concurrency Review.* The School Board shall conduct a concurrency review that includes findings and recommendations of whether there is adequate capacity to accommodate proposed development for each type of school within the affected concurrency service area consistent with the adopted level of service. The School Board may issue a certificate of school concurrency if sufficient capacity exists for the proposed development or the School Board may set forth conditions required to satisfy the requirements of school concurrency including proportionate share mitigation.

**Policy 2.3.7:** *Concurrency Evaluation and Application for Development Approval.* If the adopted level of service standard cannot be met within a particular concurrency service area as applied to an application for development order and if the needed capacity is available in one or more contiguous concurrency service areas, then this capacity shall be applied to the concurrency evaluation of the application for development approval subject to the following limitations:

1. Areas established for diversity at schools shall not be considered contiguous.
2. Concurrency service areas generating excessive transportation costs shall not be considered contiguous. Excessive transportation costs are defined as transporting students requiring a transport time of fifty minutes one way as determined by School District transportation routing staff.

3. Concurrency service areas shall not be considered contiguous when the concurrency service areas are separated by a natural or man-made barrier such as a river, water body or interstate highway that requires indirect transport of students through a third concurrency service area.
4. When capacity in an adjacent concurrency service area is allocated to a development application, assignment of the students to the school with available capacity may be accomplished by applying any of the techniques used to establish school attendance zones including modification of existing attendance zone boundaries or creation of island zones.
5. Student transportation not in conformance with the conditions established in items 1 through 4 above shall be permitted to allow student assignments based on specific educational programming options; to comply with State and Federal mandatory transfer opportunities; or for other transfer opportunities that School Board shall deem appropriate for the specific circumstances of an individual student.

**Policy 2.3.8:** *Meeting Current and Future Demand.* If the adopted level of service cannot be met within a particular concurrency service area the School Board may apply one or more of the following techniques to maximize use of available capacity and provide for adequate numbers of student stations to meet current and future demand:

1. Construct new school facilities;
2. Construct additions to current facilities;
3. Adjust program assignments to schools with available capacity;
4. Modify attendance boundaries to assign students to schools with available capacity; or
5. Eliminate variances to overcrowded facilities that are not otherwise restricted by State or Federal requirements.

**OBJECTIVE 2.4: *Proportionate Share Mitigation.*** The City shall provide for mitigation alternatives that are financially feasible and will achieve and maintain the adopted level of service standard consistent with the School Board's adopted financially feasible work program.

**Policy 2.4.1: *Proportionate Share Mitigation.*** In the event that sufficient school capacity is not available in the affected concurrency service area, the

developer shall have the option to propose proportionate share mitigation to address the impacts of the proposed development.

- Policy 2.4.2: *Mitigation and Permanent Capacity Improvement.*** Mitigation shall be directed toward a permanent capacity improvement identified in the School Board's financially feasible work program, which satisfies the demands created by the proposed development consistent with the adopted level of service standards.
- Policy 2.4.3: *Mitigation and the School Board's Work Program.*** Mitigation shall be directed to projects on the School Board's financially feasible work program that the School Board agrees will satisfy the demand created by the proposed development approval and shall be assured by a legally binding development agreement between the School Board, the City and the applicant which shall be executed prior to the City issuance of the subdivision or site plan approval. If the School Board agrees to the mitigation, the School Board shall commit in the agreement to placing the improvement required for mitigation in its work plan.
- Policy 2.4.4: *Applicant's Total Proportionate Share Obligation.*** The applicant's total proportionate share obligation shall be based on multiplying the number of needed student stations generated from the proposed project times the School Board's current cost per student station plus land cost for each type of school. The applicant's proportionate share mitigation obligation shall be credited toward any impact fee or exaction fee imposed by local ordinance for the same need on a dollar for dollar basis. (For example, if the proportionate share mitigation provides only for land, the credit is applied only against that portion of the impact fee or other exaction devoted to land costs.)
- Policy 2.4.5: *Student Generation Rates.*** The student generation rates used to determine the impact of a particular development shall be the student generation rates adopted in the most recent school impact fee study.
- Policy 2.4.6: *Costs per Student.*** The cost per student station shall be the most recent actual costs per student station, and capitalization costs if applicable, paid by the School Board for the equivalent school facility.
- Policy 2.4.7: *Mitigation Options Guidelines.*** Mitigation options must consider the School Board's educational delivery methods and requirements and the State Requirements for Educational Facilities and may include, but not be limited to, the following:

1. Donation of buildings for use as a primary or alternative learning facility;
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2. Renovation of existing buildings for use as learning facilities;
3. Funding dedicated to, or construction of permanent student stations or core capacity;
4. For schools contained in the School Board's adopted five-year capital facilities work program, upon agreement with the School Board, the applicant may build the school in advance of the time set forth in the five-year work program;
5. Dedication of a school site as approved by the School Board;
6. Up front lump sum payment of school impact fees;
7. Up front payment of interest and other costs of borrowing;
8. Payment of off-site infrastructure expenses including but not limited to roads, water and/or sewer improvements;
9. Payment of transportation costs associated with the movement of students as a result of overcapacity school;
10. Funding assistance with acquisition of school site;
11. Phasing of construction or delay of construction in order to timely plan for the availability of school capacity;
12. Establishment of an educational facilities benefit district; and
13. Establishment of educational facilities mitigation banks

**OBJECTIVE 2.5: *Capital Facilities Planning.*** The City shall ensure existing deficiencies and future needs are addressed consistent with the adopted level of service standards for schools.

**Policy 2.5.1: *Locating School Sites.*** In accordance with the adopted interlocal agreement the City shall collaborate with the School Board in locating required school sites as identified in the School Board's five, ten and twenty year capital facilities plan.

**Policy 2.5.2: *Future Development and Proportionate Share of Costs.*** The City shall ensure that future development pays a proportionate share of the costs of capital facilities capacity needed to accommodate new development and to

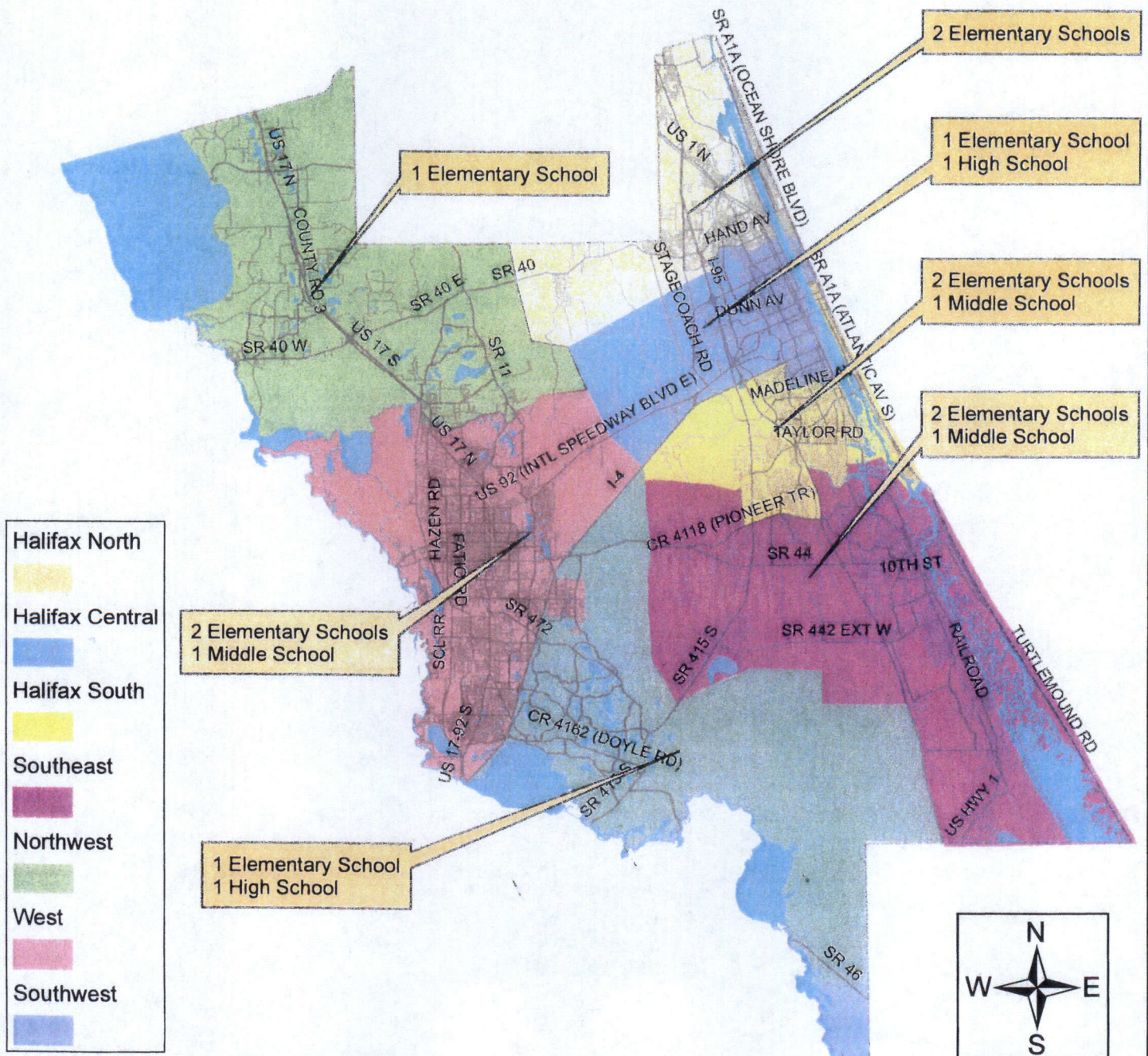
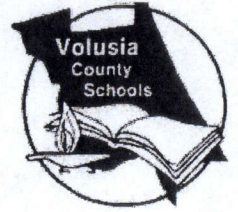


assist in maintaining the adopted level of service standards via impact fees and other legally available and appropriate methods.

**Policy 2.5.3:** *Adoption of School Board's Five-year Work Program.* The City adopts by reference the School Board's Five-year Work Program approved annually each September as part of the overall School District budget. The City shall review the annual work program to verify that it is financially feasible and will maintain the level of service standards by the end of the five-year period.

# MAP X-1

## 2011-2025 Long Range Planned Public School Facilities By School Planning Areas



- Halifax North
- Halifax Central
- Halifax South
- Southeast
- Northwest
- West
- Southwest

0 17,500 35,000 70,000 105,000 140,000 Feet

