

**Agenda Item Request**  
**Stuart Local Planning Agency/Planning Advisory Board**

**Meeting date:** July 10, 2008

**Prepared by:** T. O'Neil

**Title of item:** Proposed amendments to the City's Comprehensive Plan and Land Development Code (LDC) pertaining to environmental protection standards.

**Background:**

With the aim of strengthening current environmental protection standards, the City Commission has called for selected amendments to the "Conservation Element" of the City's Comprehensive Plan and Chapter 5 "Resource Protection" of the Land Development Code. An initial draft ordinance was prepared in February 2008 and posted on the City's website for review and comment. In light of comments received, a revised draft was prepared and redistributed. The City Commission reviewed this second draft in May and directed that the matter be forwarded to the LPA for public hearing. So that the LPA can see changes made over time, the initial draft (Tab #2) is color coded with original amendments shown in red text and subsequent amendments shown in blue.

The attached draft ordinance (Tab # 6), the document's third iteration and the subject of tonight's hearing, seeks to encapsulate Commission concerns, public comment, technical advice from the City's environmental consulting engineer, as well as guidance from the City Attorney. A summary of the ordinance's major changes (Tab # 5) has been prepared and is suggested as a guide for the LPA's deliberations. Finally, also included with this agenda item are a series of proposed comprehensive plan amendments designed to generate additional points should the City again seek to compete in the Florida Communities Trust (FCT) land acquisition grant program<sup>1</sup>.

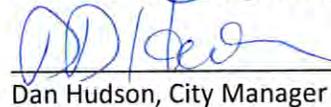
**Attached Documents:**

- Prior agenda item cover sheets (Tab #1)
- Original draft ordinance and amendments, includes summary and review letter (Tab # 2)
- Minutes of the May 19, 2008 City Commission meeting (Tab # 3)
- Letters and e-mails from interested parties, list of contacts (Tab # 4)
- Proposed Environmental Code Revisions: Summary and Comparison of Selected Provisions (Tab # 5)
- Draft Ordinance (Tab # 6)
- Vacant Parcel and Watershed Maps (Tab #7)
- Low Impact Design Practices: Integrating Wetlands & Enhancing Stormwater Basins (Tab # 8)
- FCT-based plan amendments (Tab # 9)

**Recommended action:** (1) Receive public comments, (2) review and discuss proposed amendments, and (3) forward the item to the City Commission with recommended changes, if any.

  
\_\_\_\_\_  
Paul Nicoletti, Acting Dev. Director/City Attorney

Date: 6-22-08

  
\_\_\_\_\_  
Dan Hudson, City Manager

Date: 6/27/08

<sup>1</sup> In the late 1990's, several properties in the Haney Creek watershed preserve were purchased by the City under this program.

Agenda Item Request  
Stuart City Commission

DRAFT

Meeting date: Not yet scheduled

Prepared by: T. O'Neil

Title of item: (1) Proposed amendments to the City's Comprehensive Plan and Land Development Code (LDC) pertaining to environmental protection standards and (2) Resolution Number 22-08 declaring said amendments to be "Zoning in Progress" pursuant to Sec. 1.02.04 of the City's LDC.

Background:

With an eye toward adopting more stringent standards and limiting off-site wetland and upland mitigation activities to within the City limits, the City Commission has called for a reassessment of existing environmental policies contained in the City's Comprehensive Plan and LDC. The attached draft ordinance depicts new and ~~deleted~~ language, as well as an explanation for each change. The City's environmental consulting firm, Miller Legg, has reviewed the proposed edits and finds that the draft language produces the intended results, is generally equivalent to other jurisdictions and does not conflict with regional, state or federal regulatory requirements. If the Commission wishes to give force to the proposed changes during their consideration, a zoning in progress resolution accompanies this agenda item. Finally, in tandem with this exercise, new language is also being proposed which makes the City more competitive should it again seek to purchase environmentally sensitive land through the Department of Community Affairs' Florida Communities Trust (FCT) grant program. (Note: Significant portions of the City's Haney Creek and Poppelton Creel Preserve Projects were purchased under this program).

Attached documents:

- Draft ordinance amending the "Conservation Element" of the City's Comprehensive Plan and Chapter 5 "Resource Protection Standards" and Chapter 10 "Hardship Relief" of the City's LDC.
- Review comments from Miller Legg
- Resolution Number 22-08 declaring zoning in progress
- Proposed "FCT-based" Comprehensive Plan Amendments

Recommended actions: (1) Discussion of proposed ordinance and FCT-based Comprehensive Plan amendments, (2) authorization to schedule the proposed ordinance and FCT-based Comprehensive Plan amendments before the Local Planning Agency and (3) consideration of Zoning in Progress Resolution Number 22-08.

\_\_\_\_\_  
Kevin Freeman, City Development Director

Date: \_\_\_\_\_

\_\_\_\_\_  
Paul Nicoletti, City Attorney

Date: \_\_\_\_\_

\_\_\_\_\_  
Dan Hudson, City Manager

Date: \_\_\_\_\_

7

**Agenda Item Request  
Stuart City Commission**

**Meeting date:** May 19, 2008

**Prepared by:** T. O'Neil

**Title of item:** Discussion item: (1) Proposed amendments to the City's Comprehensive Plan and Land Development Code (LDC) pertaining to environmental protection standards and (2) draft Resolution Number 22-08 declaring said amendments to be "Zoning in Progress" pursuant to Sec. 1.02.04 of the City's LDC.

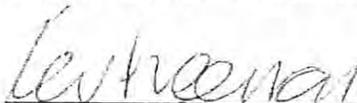
**Background:**

At the Commission's direction, provisions of the "Conservation" element of the City's Comprehensive Plan and "Chapter 5 Resource Protection Standards" of the Land Development Code (LDC) have been reexamined with an eye toward strengthening current policies. Also proposed are several comprehensive plan amendments designed to generate points should the City again seek to compete in the Florida Communities Trust (FCT) land acquisition grant program. In February, the attached draft agenda item was posted on the City's website and distributed to Commissioners. Nearly one hundred individuals and firms with development interests were informed of the proposed amendments by letter, e-mail or both. Written comments were received from the law firm of Gunster Yoakley, Lucido & Associates, Land Planners, the Wallace Automotive Group and Mr. Michael Stetson. The Martin County Chamber of Commerce Local Government Affairs Committee received a presentation of the item on April 30, 2008. As a result of comments and questions, the attached ordinance now includes a handful of alternate provisions that seek to clarify and temper earlier language which may have overreached in certain instances. Changes proposed in the initial draft are highlighted in yellow. Alternate language is highlighted in blue.

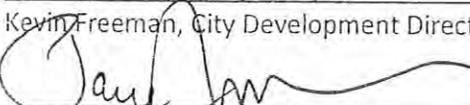
**Attached documents:**

- Draft agenda item
- Map of undeveloped parcels likely to be impacted by environmental standards
- Written comments
- List of contacted individuals and firms

**Recommended action:** Discussion of proposed ordinance, including FCT-based comprehensive plan amendments, (2) authorization to schedule proposed ordinance before the Local Planning Agency and (3) consideration of "zoning in progress" Resolution Number 22-08.

  
\_\_\_\_\_  
Kevin Freeman, City Development Director

Date: May<sup>14</sup> 2008

  
\_\_\_\_\_  
Paul Nicoletti, City Attorney

Date: 5-14-08

  
\_\_\_\_\_  
Dan Hudson, City Manager

Date: 5/14/08

**PROPOSED ENVIRONMENTAL CODE REVISIONS: COMPARISON OF SELECTED CITY OF STUART  
AND MARTIN COUNTY STANDARDS**

	A. Current (City)	B. Initial Amendment (City)	C. Revised Amendment (City)	D. Current (Martin County) <sup>1</sup>
1.	City plays no role in determining wetlands or other environmentally sensitive lands or mitigation thereof. Defers to state and federal agencies.	City may play a role in determining wetlands or other environmentally sensitive lands, as well as mitigation standards.	City may play a role in determining wetlands or other environmentally sensitive lands, as well as mitigation standards but shall do so in light of the same criteria used by state and federal agencies.	The County follows the state unified wetlands delineation methodology. However, notwithstanding the fact that wetland mitigation is permitted by the SFWMD, the County permits mitigation only in very narrowly defined circumstances involving access to lots of record, roadways, public facilities, etc. All wetland alteration allowed under these waivers and exceptions shall be sufficiently mitigated to ensure that there is no net loss of functions or the spatial extent of wetlands in Martin County. Note that the County requires no net spatial loss, therefore mitigation that provides improved wetland function (i.e., "lift") is not sufficient, a like acreage must be created on site or purchased.
2.	Allows wetland and upland mitigation outside the City limits.	Limits wetland and upland mitigation to within the City limits.	(No change) Limits wetland and upland mitigation to within the City limits.	County permits wetland impacts only in very narrowly defined circumstances. Wetland mitigation must occur in the County. Upland mitigation via: <ul style="list-style-type: none"> <li>a. Purchase similar upland native habitat communities outright within the same planning area; if not available, then purchase in Martin County.</li> <li>b. Create an equal amount of similar required native upland habitat adjacent to other areas of preserved native habitat on or off site.</li> </ul>
3.	Allows on-site density and intensity transfer from environmentally sensitive lands to non-environmentally sensitive lands. (Number of transferred units capped at no more than 150% of the density permitted on developable portion of site).	Eliminates on-site density and intensity transfer from environmentally sensitive lands to non-environmentally sensitive lands.	Allows on-site density transfer (not intensity transfer) from environmentally sensitive lands to non-environmentally sensitive lands if an additional 1/10 <sup>th</sup> of an acre of upland buffer or preserve area is provided for each transferred unit. (Number of transferred units capped at no more than 150% of the density permitted on developable portion of site).	County permits on-site density transfers capped at 50%. Intensity transfers are not permitted. The County does not require additional upland buffer or preserve area for transferred units.

<sup>1</sup> Summary of County standards was prepared with the assistance of the County's Principal Planner, Harry King and Senior Planner, Darryl DeLeeuw.

	A. Current (City)	B. Initial Amendment (City)	C. Revised Amendment (City)	D. Current (Martin County) <sup>1</sup>
4.	Allows on-site mitigation of native preserve areas without regard to parcel size.	Limits on-site mitigation of native preserve areas to parcels of 5-acres or less.	Allows on-site mitigation without regard to parcel size, but requires habitat efficacy study.	Rarely permitted, applicant must demonstrate to BCC "preclusion of reasonable use." Mitigation must occur in same "planning area."
5.	Allows off-site mitigation of native preserve areas without regard to parcel size.	Limits off-site mitigation of native preserve areas to parcels of 5-acres or less.	Allows off-site mitigation without regard to parcel size, but requires habitat efficacy study.	Rarely permitted, applicant must demonstrate to BCC "preclusion of reasonable use." Mitigation must occur in same "planning area."
6.	Wetland buffer areas may be counted toward any open space requirements, however, wetlands themselves shall not count toward open space requirements.	Not more than 50 percent of Wetland buffer areas and wetlands themselves may be counted toward any open space requirements of this Plan.	(No change from current language) Wetland buffer areas may be counted toward any open space requirements, however, wetlands themselves shall not count toward open space requirements.	County credits wetlands and natural bodies of water as open space as follows:  Residential – 50% Non-Res. MF/Office – 40% Limited Com. – 30% Gen. Com/Ind. – 20%



March 3, 2008

*Via email to [toneil@ci.stuart.fl.us](mailto:toneil@ci.stuart.fl.us)*

Terry O'Neil  
City of Stuart  
121 SW Flagler Avenue  
Stuart, FL 34994-2172

**RE: City of Stuart Environmental Code Review  
Miller Legg Proposal No. 08-P0185**

Dear Mr. O'Neil:

The purpose of this letter is to provide comments on our review of the proposed revisions to the City of Stuart Comprehensive Plan and Section 5.03.00 and 5.04.00 of the Land Development Regulations (LDR) City of Stuart, Florida (Ordinance No. 1998-2004). The underlined text represents suggested new wording.

***Comments on Changes to Comprehensive Plan***

**Objective A5. Policy A5.1** – Update FGFWFC to Florida Fish and Wildlife Conservation Commission (FFWCC).

**Objective A5. Policy A5.3** -

- Could be interpreted (even though it is in the Natural Systems Objective section) that only native species are allowed for site development.
- The second sentence and the fourth sentence through the remainder of the paragraph are more appropriately placed in the LDR, not in the Comprehensive Plan. Recommend the following change to this policy:

"For natural areas that are proposed to remain on a site, all nuisance and invasive exotic vegetation (e.g. Brazilian pepper, Australian pine, and melaleuca) shall be removed and replaced with native plant species adapted to existing soil and climatic conditions. Planting of nuisance and invasive exotic vegetation shall be prohibited."

**Objective A5. Policy A5.5** – Recommend the following addition to the Explanation: "...and are routinely used by the City and other agencies to protect wetlands and other environmentally sensitive lands"

**Objective A5 Policy A5.5 (A)** – Correction of grammatical errors: " It is the policy of the City to avoid or minimize damage to wetlands; to direct development to lands that are not environmentally sensitive; to encourage ~~that~~ activities not dependent upon a wetland location be located on upland sites; to allow wetland losses only where all practicable measures have been applied; to reduce those losses that are unavoidable and in the public interest; to allow for limited mitigation; to promote compact urban development and discourage urban sprawl by allowing wetland impacts in excess of minimum requirements

**IMPROVING COMMUNITIES. CREATING ENVIRONMENTS.**

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under certain limited conditions; to encourage wetlands mitigation within the watershed containing the lost wetlands; to protect and enhance the environmental qualities of watershed basins; and to provide for the protection of wetlands under the City's land development regulations to be adopted and implemented consistent with F.S. § 163.3202."

**Objective A5 Policy A5.5 (A)(iv)** – Recommend the following change: "...In order to properly identify and delineate wetlands, the City may rely on the delineation of wetlands approved by the SFWMD or FDEP, but may require a separate delineation based on an independent environmental assessment ~~if so~~ performed by or required by the City."

**Objective A5 Policy A5.6 (C)** – Recommend the following reorganization of the existing paragraph:

"If the SFWMD indicates that a wetland (or a portion thereof) is severely degraded and has minimal restoration potential and that beneficial mitigation of other wetlands would be achieved as a result of mitigation that allows some development in this degraded wetland (or portion thereof), and the City concurs with this indication, then the underlying land use category shall apply. Mitigation shall be permitted in order of priority:

- 1) on-site mitigation
- 2) mitigation within the same watershed basin within the City limits
- 3) mitigation within the City of Stuart.

Off-site mitigation of wetlands or uplands shall not be permitted outside the City limits."

***Comments on Changes to Land Development Regulations Section 5.03.00***

**Section 5.03.02 (B)(4)(d)** – Suggest revising this to allow mitigation in the context of a PUD rather than a consolidated site plan that implements a compact urban development form.

**Section 5.03.02 (C)(4)** – Increasing the construction setback to 10 feet seems excessive. The intent of the upland buffer is to protect wetland functions. The intent of the construction setback is to protect the upland buffer. Generally, a 2-5 foot setback is sufficient. To further protect or prevent impacts to the upland buffer, Section 5.03.02.C.4 could have an addition to require erection of temporary fencing to delineate the construction setback and require remediation of any impacts to the upland buffer if they occur.

**Section 5.03.04 (C)** – Suggest the following change to the first sentence: "If the State of Florida, the U.S. Army Corps of Engineers, or the City determines that a wetland, or a portion thereof may be mitigated, that mitigation may proceed according to the following geographic priorities:

- 1) on-site mitigation
- 2) mitigation within the same watershed basin within the City limits
- 3) mitigation within the City of Stuart.

**Section 5.04.01** – Suggest the following change to the 2<sup>nd</sup> sentence: "...exclusive of wetlands that are so verified by the State of Florida or the City exists as..."

**Section 5.04.02 (C)(5)(b)** – Suggest leaving the payment option as an alternative now that this refers only to sites of 5 acres or less.

Both the *Comprehensive Plan* and the *LDR*: should globally update all references to FGFWFC to FFWCC.

Overall, the proposed changes as provided fulfill the City of Stuart's intent of increasing protection of environmentally-sensitive lands. These changes are not inconsistent with state or federal regulations, and are not out of line with what some other counties or municipalities have proposed or currently have in their land development codes.

If you have any questions or require anything else, don't hesitate to call me.

Sincerely,



Mark E. Brandenburg, C.E., P.W.S.  
Associate, Environmental

MB/mch

\\Pbo-main\data\Department\Environmental\PBO\City of Stuart\Stuart Code Review Comments Ltr 3-3-08.doc

Return to:

City Attorney's Office  
City of Stuart  
121 SW Flagler Street  
Stuart, FL 34994

DRAFT

BEFORE THE CITY COMMISSION  
CITY OF STUART, FLORIDA

ORDINANCE NUMBER \_\_\_\_\_

AN ORDINANCE OF THE CITY COMMISSION OF THE CITY OF STUART, FLORIDA AMENDING THE "CONSERVATION" ELEMENT OF THE CITY'S COMPREHENSIVE PLAN AND CHAPTER 5 "RESOURCE PROTECTION STANDARDS" AND CHAPTER 10 "HARDSHIP RELIEF" OF THE CITY'S LAND DEVELOPMENT CODE, STRENGTHENING LANGUAGE REGARDING THE REMOVAL OF EXOTIC VEGETATIVE SPECIES; PROVIDING THAT THE CITY MAY REQUIRE MITIGATION ACTIVITIES IN ADDITION TO THOSE REQUIRED BY REGIONAL, STATE OR FEDERAL AGENCIES; PROVIDING THAT THE CITY MAY DESIGNATE ENVIRONMENTALLY SENSITIVE LANDS AND WETLANDS; ADDING CONSERVATION EASEMENTS AS A PREFERRED MECHANISM FOR PROTECTING ENVIRONMENTALLY SENSITIVE LANDS; DELETING PROVISIONS WHICH ALLOW FOR THE ON-SITE TRANSFER OF DENSITY AND RESIDENTIAL INTENSITY FROM ENVIRONMENTALLY SENSITIVE LANDS; DELETING LANGUAGE THAT ALLOWS FOR ADDITIONAL UPLAND PRESERVE AREA BEYOND THE CITY'S REQUIREMENTS TO BE USED FOR MITIGATION CREDITS; PROVIDING THAT WETLANDS AND WETLAND BUFFERS SHALL NOT BE COUNTED TOWARD OPEN SPACE REQUIREMENTS; STRENGTHENING WETLAND BUFFER STANDARDS; LIMITING ENVIRONMENTAL MITIGATION ACTIVITIES TO WITHIN THE CITY LIMITS; FURTHER LIMITING THE CIRCUMSTANCES UNDER WHICH WETLANDS MAY BE IMPACTED; PROVIDING FOR "GREENWAY" STANDARDS FOR PARCELS OF 5 OR MORE ACRES IN SIZE; LIMITING THE OPTION OF OFF-SITE RELOCATION OF NATIVE VEGETATION PRESERVES TO SITES OF 5 ACRES OR LESS; REVISING PROVISIONS WHICH ALLOW FOR CASH PAYMENTS INTO THE CITY'S ENVIRONMENTAL TRUST FUND IN LIEU OF PROVIDING NATIVE VEGETATION PRESERVES; REPEALING ALL ORDINANCES IN CONFLICT HEREWITH; PROVIDING A SEVERABILITY CLAUSE; PROVIDING AN EFFECTIVE DATE; PROVIDING FOR ACCEPTANCE BY THE APPLICANT; AND PROVIDING FOR DIRECTIONS TO THE CITY CLERK.

\* \* \* \* \*

WHEREAS, the Stuart City Commission desires to amend the "Conservation" Element of the City's Comprehensive Plan and Chapter 5 "Resource Protection Standards" and Chapter 10 "Hardship Relief" of the City's Land Development Code in order to strengthening its environmental protection standards and limit off-site wetland and upland mitigation activities to within the City limits and;

WHEREAS, the Stuart City Commission ordains that such changes are necessary to conserve, protect and effectively manage the natural resources of the City of Stuart to ensure the highest environmental quality possible.

WHEREAS, the City Commission has held properly noticed public hearings at regularly scheduled City Commission meetings to consider the proposed amendments to the City's Comprehensive Plan and land Development Code;

NOW THEREFORE, BE IT ORDAINED BY THE CITY COMMISSION OF THE CITY OF STUART, FLORIDA THAT:

SECTION 1: The foregoing recitals are true and adopted as findings of fact and conclusions of law.

SECTION 2: The "Conservation" Element of the City's Comprehensive Plan and Chapter 5 "Resource Protection Standards" and Chapter 10 "Hardship Relief" of the City's Land Development Code are hereby amended in accordance with Exhibits A and B attached.

SECTION 3: All ordinances or parts of ordinances in conflict with this ordinance or any part thereof are hereby repealed to the extent of such conflict.

SECTION 3: If any provision of this ordinance or the application thereof to any person or circumstance is held invalid, the invalidity shall not affect other provisions or applications which can be given effect without the invalid provision or application, and to this end the provisions of this ordinance are declared severable.

SECTION 4: This ordinance shall become effective upon second reading.

SECTION 5: Upon complete execution of this Ordinance, the City Clerk is directed to record a Certified Copy of the same in the Public Records of Martin County, Florida.

PASSED on first reading the \_\_\_\_\_ day of \_\_\_\_\_, 2008.

Commissioner \_\_\_\_\_ offered the foregoing ordinance and moved its adoption. The motion was seconded by Commissioner \_\_\_\_\_ and upon being put to a roll call vote, the vote was as follows:

JEFFREY KRAUSKOPF , MAYOR  
MIKE MORTELL, VICE MAYOR  
JAMES CHRISTIE, COMMISSIONER  
MARY HUTCHINSON, COMMISSIONER  
CAROL WAXLER, COMMISSIONER

YES	NO	ABSENT

ADOPTED on second and final reading this \_\_\_\_\_ DAY of \_\_\_\_\_, 2008.

ATTEST:

\_\_\_\_\_  
CHERYL WHITE  
CITY CLERK

\_\_\_\_\_  
JEFFREY KRAUSKOPF  
MAYOR

APPROVED AS TO FORM  
AND CORRECTNESS:

\_\_\_\_\_  
PAUL J. NICOLETTI  
CITY ATTORNEY

**"EXHIBIT A"**  
**AMENDMENTS TO THE "CONSERVATION" ELEMENT**  
**OF THE CITY OF STUART COMPREHENSIVE PLAN**

**GOAL STATEMENT A**

Conserve, protect and effectively manage the natural resources of the City of Stuart to ensure the highest environmental quality possible.

**Objective A1. Surface water quality.**

The City shall protect the quality of all surface waters within the City Limits and the City's watershed basins, especially the St. Lucie Estuary.

To meet this objective, the City will adopt land development regulations, specific performance standards for regulating land use, public access, marina siting and activities, shoreline alteration and seawalls, dredging and filling activity, and provide treatment of storm water runoff and mangrove protection. The City shall have completed a drainage master plan which will address point and non-point sources of storm water pollution. The City will participate with other agencies having resource management plans upon adoption of this plan, and throughout the planning time frame.

The following policies support this objective:

*Policy A1.1.* The City shall ensure effective enforcement and monitoring of storm water ordinances.

*Policy A1.2.* The City shall arrange for the removal or retrofitting of existing storm water outfalls to the St. Lucie Estuary and its tributaries during redevelopment activities, where appropriate and consistent with State, Federal, and regional rules and guidelines.

*Policy A1.3.* The City shall coordinate with appropriate agencies that are implementing the Indian River Lagoon Aquatic Preserve Protection Plan, the Hutchinson Island Resource Management Plan, the North Fork of the St. Lucie River Aquatic Preserve Protection Plan, the Surface Water Improvement River Management Plan (SWIM) for the Indian River Lagoon, and other such resource management plans and programs as require the involvement of the City.

*Policy A1.4.* The City shall solicit the South Florida Water Management District (SFWMD) and the Army Corps of Engineers to exercise more careful control of the locks and canals by doing the following:

1. Set performance standards for amounts of water and silt which can be released from the locks and canal control structures.
2. Prior to opening of locks, drain them with surface water and clean debris collection from the locks.
3. Support the development of a "downtown" regional attenuation facility within the CRA.
4. Encourage the implementation of the Indian River Lagoon Restoration Plan and early implementation of water preserve areas and storm water treatment areas.

*Policy A1.5.* Because the City of Stuart is located at the convergence point of two rivers, the City shall monitor SWIM and other related water quality improvement programs initiated by SFWMD.

*Policy A1.6.* Specific SFWMD programs shall be identified for Stuart and should be fully implemented.

*Policy A1.7.* The City shall analyze and evaluate the City's maintenance program to clean Stuart's rivers, creeks, and other water bodies.

*Policy A1.8.* The City shall coordinate with SFWMD and other agencies to initiate and complete programs to clean-up water bodies in Stuart and explore measures to address/reduce non-point source pollution (i.e., baffle boxes, weir systems).

*Policy A1.9.* The City shall coordinate with governmental bodies to analyze and maintain programs that affect Stuart's rivers, creeks, etc.

*Policy A1.10.* The City shall implement the Watershed Protection Program which includes capital improvements and regulatory mechanisms to protect and improve the environmental features of watershed basins which include any portion of the City limits. These watershed basins are delineated on the City Watersheds Map and include:

- Anchorage Basin.
- Coral Gardens Basin.
- Crescent Basin.
- Crooked Creek Basin.
- Downtown Basin.
- East Airport Basin.
- Fork Road Basin.
- Frazier Creek Basin.
- Haney Creek Basin.
- Hildabrad Basin.
- Krueger Creek.
- Landfill Basin.
- North Airport Basin.
- North Point CRA Basin.
- Poppleton Creek Basin.
- Rio Basin.
- South Fork Basin.
- Warner Creek Basin.
- Willoughby Basin.
- Woods Point Basin.

*Policy A1.11.* The City shall establish a comprehensive program to eradicate invasive exotic trees and vegetation.

*Policy A1.12.* The City shall encourage participation and representation from City residents for the St. Lucie River Initiative and other State/local initiatives.

*Policy A1.13.* The City shall identify and map any areas identified by City staff as having a significant incidence of failed or failing septic system by 2005 and determine potential areas and costs for sewer system expansion. (Ord. No. 1893-02, § 1, 1-27-2003)

**Objective A2. Groundwater quality and quantity.**

The quality and quantity of the City of Stuart's groundwater shall not be degraded. Storm water management requirements and a well field protection ordinance shall be enforced. Additional well protection mechanisms, such as water withdrawal schedules and conservation measures, shall be implemented as part of a total groundwater protection program by 1998.

The following policies support this objective:

*Policy A2.1.* The City shall, in cooperation with the Department of Environmental Protection, the South Florida Water Management District, and the U.S Geological Survey, continue to monitor groundwater quality and quantity.

*Policy A2.2.* Present and future potable water well field locations shall be identified and protected to assure that water resources are not negatively impacted by development, excessive drawdown or saltwater intrusion through development, and implementation of a well field protection program. This program will contain at a minimum, a well field protection ordinance and water withdrawal schedules that preserve the quality and quantity of groundwater resources.

*Policy A2.3.* Existing and future potable water wells and well fields shall be protected from contamination by EPA/DEP regulated materials (i.e., hazardous and toxic materials). Protection shall consist of a program, including an ordinance, which establishes requirements for the use, handling, storage, production, and disposal of hazardous and toxic materials. Well field protection programs, including appropriate ordinances, shall be developed and implemented which address, as a minimum, prohibitions, structural containment safeguards, monitoring emergency reporting and clean up, personnel training, inventory, and financial responsibility.

*Policy A2.4.* The City shall promote land and water management techniques in conjunction with energy conservation measures which will protect water quality, enhance water supplies and minimize potable water demands through the following:

1. Encourage use of drought-tolerant, native vegetation in landscaping by providing an approved list to homeowners and developers seeking building permits.
2. Participate in water conservation programs of the South Florida Water Management District and enforce mandated no-watering policies within the City.
3. ~~Encourage~~ **Require** the removal of exotic and invasive vegetation upon development or redevelopment.

***Explanation:***

***Change intended to strengthen this policy and provide for consistency with provisions elsewhere in this element that state, "Upon development of the site, the developer shall be required to remove exotic vegetation and replace with native vegetation suitable to the soil condition."***

4. The land development regulations shall enforce State law requiring low volume plumbing fixtures for new construction.
5. Develop a potable water leak detection and maintenance program.
6. Installation of weirs in drainage ditches to increase groundwater table elevations to the extent feasible considering flood protection and septic tank drain field performance requirements.

*Policy A2.5.* No activity shall be permitted which would adversely affect the quantity or quality of recharge entering the City's aquifers or within the City's watershed basins. Consistent with the intent of this policy:

1. Post-development runoff volumes shall not exceed pre-development runoff volumes for a storm event of three-day duration and 25-year return frequency for parcels greater than one acre. The same criteria shall apply for a storm event of three-day duration and ten-year return frequency for parcels less than one acre.
2. To the maximum extent consistent with the requirements of flood control, storm water management systems shall be designed to maximize retention capability.

3. Storm water management systems shall be designed to maximize the quality of water being recharged as well as that being discharged off-site.
4. Wherever suitable soils exist, encourage percolation of storm water into the groundwater table through dry retention areas, pervious pavement, and other such methods supported by sound engineering practices.
5. Require new development to address off-site watershed issues related to greenways protection, wetlands, and water quality impacts due to on-site storm water management designs.

**Objective A3. Water conservation.**

Conserve potable and non-potable water resources towards the goal of maintaining average daily per capita consumption of potable water at 110 GPD through limitations on or use of potable water for non-potable needs and reducing the leakage rate of the potable water system to 15 percent.

The following policies support this objective:

*Policy A3.1.* Water conservation programs shall be developed and implemented. These programs shall include, as a minimum, the following components:

1. The lowest acceptable water quality appropriate for the application quality shall be used to meet non-potable water demands.
2. Treated wastewater effluent shall be used for irrigation purposes wherever economically feasible.
3. Use of water-saving devices, irrigation systems, and plumbing fixtures, such as toilet tank dams, adjustable shower heads and drip irrigation, shall be required for all new construction. Retrofitting of existing systems shall be encouraged.
4. A leak detection and maintenance program for the City water system shall be developed and implemented.

*Policy A3.2.* During drought emergencies, implementation of South Florida Water Management District water shortage plans shall be enforced.

*Policy A3.3.* The City shall cooperate with the South Florida Water Management District to conduct water conservation programs.

**Objective A4. Floodplain protection.**

The City shall protect the natural functions of the 100-year floodplain.

The following policies support this objective:

*Policy A4.1.* The City has adopted and will continue to implement a mangrove protection ordinance.

*Policy A4.2.* New development shall preserve a buffer zone of 25 feet from the mean high water line of native vegetation which falls within the existing 25-foot setback area along waterways. This may be reduced to ten feet in the CRA to promote infill, redevelopment, and reduce blight.

*Policy A4.3.* The City shall assure that all development within the delineated 100-year flood zone abides by Federal flood hazard insurance regulations which limit the type and magnitude of alterations to the natural system that can be made.

*Policy A4.4.* The City shall promote programs to minimize flood insurance costs where feasible to its residents.

**Objective A5. Natural systems.**

Preserve and protect the functions and values of natural areas of vital concern to the environment of the City. Natural areas of vital concern to the City include the St. Lucie estuary, wetlands, coastal wetlands and shorelines, living marine resources (sea grass beds, fisheries, and mangroves), native upland vegetative communities, and wildlife habitats, especially endangered species habitat.

The City acknowledges that in most instances designations of environmentally sensitive lands will be made by state and federal agencies and that the City may not impose lesser environmental protection standards than required by these jurisdictions, however, noting that determinations may vary from agency to agency, and even within the same agency, the City, based on independent, professionally prepared evidence, may make its own environmental determinations and apply environmental protection standards that are equal to or greater than those of other agencies. In making its own determination of Environmentally Sensitive Lands, the City shall follow Chapter 62-340 F.A.C. for wetlands. Upland sites may be considered environmentally sensitive if listed species are present onsite. Listed Species are defined as any animal categorized by the Florida Fish and Wildlife Conservation Commission as endangered, threatened, or of special concern pursuant to Florida Administrative Code Rules 39-27.003, 39-27.004, and 39-27.005; or any plant or animal categorized by the United States Fish and Wildlife Service as endangered or threatened pursuant to 50 CFR 17.11-12.

***Explanation for new language:***

***Provides for guidelines under which the City will exercise its regulatory discretion.***

The following policies support this objective:

*Policy A5.1.* Environmentally sensitive lands are those land areas that warrant the greatest degree of protection from development impacts. Environmentally sensitive lands are designated to be viable and functioning wetlands as determined by the SFWMD, Army Corps of Engineers or the City of Stuart and native upland vegetative communities that provide wildlife habitat necessary for the survival of Listed Species as determined by the FGFWFC, Florida Fish & Wildlife Conservation Commission (FFWCC) and/or U.S. Fish and Wildlife Service (USFWS).

***Explanation:***

***Allows the City to designate wetlands independently of the SFWMD.***

***Agency name has changed.***

*Policy A5.2.* Protection and management of wetland and deepwater habitats shall be in a manner consistent with implementation of the Treasure Coast Regional Comprehensive Policy Plan, the North Fork of the St. Lucie River and Indian River Lagoon Aquatic Preserve Management Plans, the St. Lucie Estuary Management Plan (SLEMP), and any other appropriate resource management plan that applies to resources within the City limits.

*Policy A5.3.* For natural areas that are proposed to be retained on site, all nuisance and invasive exotic vegetation (e.g., Brazilian pepper, Australian pine, and melaleuca) shall be removed ~~where feasible and appropriate~~ and replaced with native plant species adapted to existing soil and climatic conditions. Removal shall be in such a

manner that avoids seed dispersal by any such species. Planting of pest exotic vegetation shall be prohibited. On privately owned lands, implementation shall occur at the time of development or redevelopment. On publicly owned lands, implementation shall occur at the time of development or as soon as possible. It should be noted that private environmental groups may voluntarily implement this work as an organizational project. In all cases, implementation shall be consistent with the overall objective of protecting the functions and values of native habitats.

**Explanation:**

***Strengthens this policy and provides for consistency with provisions elsewhere in this element that state, "Upon development of the site, the developer shall be required to remove exotic vegetation and replace with native vegetation suitable to the soil condition."***

*Policy A5.4.* The City shall compile a list of native species to be available for reference by residents and developers. This list shall be based upon native plant species guidelines commonly applied by the Treasure Coast Regional Planning Council, South Florida Water Management District, and Florida Department of Agriculture and Consumer Services.

*Policy A5.5.* Wetlands shall be protected and conserved by restricting direct and indirect development impacts according to Policies A5.5, A5.6, Conservation land use designations, conservation easements, open space requirements and other goals, objectives and policies of this plan.

**Explanation:**

***Conservation easements are routinely used by the City and other agencies to protect wetland and other environmentally sensitive lands.***

**A. General.**

i. It is the policy of the City to avoid or minimize damage to wetlands; to direct development to lands that are not environmentally sensitive; to encourage ~~that~~ activities not dependent upon a wetland location be located at upland sites; to allow wetland losses only where all practical practicable measures have been applied; to reduce those losses that are unavoidable and in the public interest; to allow for limited mitigation; to promote compact urban development and discourage urban sprawl by allowing wetland impacts in excess of minimum requirements under certain limited conditions; to encourage wetlands mitigation within the watershed containing the ~~lost~~ impacted wetlands; to protect and enhance the environmental qualities of watershed basins; and to provide for the protection of wetlands under the City's land development regulations to be adopted and implemented consistent with F.S. § 163.3202.

**Explanation:**

***Edited for clarity.***

ii. All development shall, at a minimum, comply with wetland protection requirements of all Federal, State and regional agencies having regulatory authority. This plan provides supplemental conservation and protection measures for wetlands pursuant to the direction of F.S. ch. 163, pt. II [F.S. § 163.2511 et seq.], and F.A.C. ch. 9J-5. ~~Provisions in this Plan shall neither duplicate nor conflict with other agency regulations.~~

***Explanation:***

***Allows the City to apply wetland protection standards in excess of or in addition to standards required by other regulatory agencies.***

iii. Land use planning and site design shall support development patterns that avoid or minimize the impact of development on wetlands.

~~iv. In order to properly identify and delineate wetlands, the City shall rely on the delineation of wetlands by the SFWMD or FDEP.~~

iv. In order to properly identify and delineate wetlands, the City may rely on the delineation of wetlands approved by the SFWMD, FDEP and the Army Corps of Engineers, but may also require a separate delineation based on an independent environmental assessment performed by or required by the City and following the methods described in section 62.340 of the Florida Administrative Code.

***Explanation:***

***Change allows the City to designate wetlands in addition to those designated by the SFWMD, Army Corps and FDEP.***

***Explanation for alternative language:***

***Specifies the standards under which the City will exercise its regulatory discretion.***

v. In no instance shall these wetland policies be construed to allow development that is otherwise prohibited by the Comprehensive Plan.

***B. Land use.***

i. Existing uses in wetlands may continue, but shall not be expanded unless they are specifically allowed or exempted. Silviculture in wetlands shall be consistent with "Silviculture Best Management Practices" published by the Florida Department of Agriculture as it existed on July 1, 1998.

ii. Walking trails or elevated wooden "cat walks" designed to minimize disturbance to the wetland system shall be allowed to provide limited access for purposes of passive recreation or access to other portions of the site or adjacent waters which are otherwise inaccessible.

iii. New development shall not be allowed in wetlands, i.e., development shall occur outside of the wetland (including its upland buffer as specified in C below) except as indicated in v and vi below, or in the exceptions listed

in Policy A5.6. When one or more contiguous lots or parcels of record under common ownership or control as of the date of adoption of this Comprehensive Plan are evaluated under these exceptions, the lots or parcels shall be aggregated and evaluated as a single lot or parcel.

~~iv. New development shall be clustered located on upland portions of a development site, which are not otherwise environmentally sensitive lands. Development densities/intensities may be transferred out of the wetland area on a one-for-one basis. However, the development density/intensity of the developable portion of the site shall not exceed 150 percent of the maximum density/intensity otherwise allowed for the non-environmentally sensitive portion of the site.~~

**Explanation:**

*The deleted language serves no purpose in preserving environmentally sensitive lands that are otherwise off limits to development, but rather provides for a greater intensity of development without a corresponding environmental benefit.*

*Note: Net density is computed by dividing the total number of units to be constructed by the net residential acreage of the parcel. The net residential acreage of a parcel shall be the acreage devoted to residential buildings and accessory structures less all bodies of water including wet retention areas, the dedicated public open space, all easements dedicated to a governmental body for public use, all public and private road rights-of-way, and protected environmentally sensitive areas.*

v. Development densities may be transferred out of the wetland area on a one-for-one basis. However, the development density of the developable portion of the site shall not exceed 150 percent of the maximum density otherwise allowed for the non-environmentally sensitive portion of the site. For each transferred residential unit an additional one-tenth of an acre of on site, non-environmentally sensitive land shall be preserved as upland buffer or native preserve.

**Explanation for alternate language:**

*Eliminating the transfer provision altogether may be excessive. By requiring an additional tenth of an acre for each transferred unit, the provision now generates a measurable environmental benefit and creates a true "clustering" dynamic.*

v. If new development cannot be clustered outside of the wetland protection area, the uses specified under F.A.C. 40E-4.051 in effect as of July 1, 1998, are allowed, except for any new or expanded agriculture, silviculture, floriculture and horticulture.

vi. If new development cannot be clustered outside of the wetland protection area the uses specified under F.A.C. 40E-400.417--40E-400.500 in effect as of July 1, 1998, are allowed except that new or expanded silviculture operations are not allowed. Additionally, single family homes must be constructed on pilings or stemwalls to minimize the area of isolated wetlands filled for the residence and associated improvements and the dwelling unit must be connected to central water and sewer whenever available.

C. *Buffers.*

- i. Upland buffers are considered an integral component of a functioning wetland and shall be afforded the same types and levels of protection as the wetland itself. Buffers shall be a minimum width of 50 feet beyond the perimeter of the wetland. Buffers shall not be developed, cleared or landscaped in any fashion that would decrease their effectiveness in supporting wetland functions. Upland buffers may not be used for wetlands destruction/mitigation credit in the City of Stuart.
- ii. The City shall require that upland buffers be extended beyond 50 feet if necessary to connect isolated wetlands with other protected wetlands existing within 200 feet. Greenways will be created when possible. This policy shall apply to protected wetlands within 200 feet on adjacent parcels regardless of ownership.

**D. Mitigation.** The purpose of mitigation is to offset environmental impacts. Mitigation activities approved by a Federal, State or regional agency are supported by the City. However, these mitigation activities do not exempt development activities from the requirements of this plan. The issuance of a permit by any other agency, with or without mitigation, does not exempt the development from the requirements of this plan. Development in wetlands must be consistent with this plan to proceed. ~~The City shall not require mitigation activities not required by other Federal, State or regional agencies.~~ Upland buffers and preserve areas otherwise required by the City in a development may not also be used for wetlands destruction/mitigation credit in the City of Stuart. ~~Additional upland preserve area beyond the City's requirements may be used for mitigation credit in the City of Stuart so long as it is within the same watershed basin.~~

***Explanation:***

***The first deleted sentence permits the City to require enhanced or different wetland mitigation standards in addition to those required by federal, state or regional agencies.***

***Second deleted sentence not needed, see amendments to Policy A5.6 C.***

**E. Implementation.**

- i. The City shall maintain a generalized wetlands map as part of this Plan.
- ii. The city shall maintain a generalized watershed basin map and program as part of this plan.
- iii. The City shall consider designating known wetland areas as Conservation on the Future Land Use Map to further enhance their recognition and protection.
- iv. If the City has any reason to believe that wetlands exist on a proposed development site, the landowner/developer shall be required to provide to the City a site map showing the formal determination of the extent of surface waters and wetlands by the SFWMD. Additionally, this map must show the delineation of the upland buffer. If there is a reason to believe that wetland buffers may crossover from wetlands on adjacent sites or that on-site wetlands or uplands are integral to off-site watershed protection, those wetlands and associated buffers must also be evaluated. The City shall petition the SFWMD for a formal determination of proximate wetlands on adjacent sites if needed to determine what development is allowed on site.
- v. Any development site plan must show:
  - a. A description (including maps) of all water bodies, watercourses, wetlands and associated buffers on-site and immediately adjacent to the site and within the watershed;

- b. A description (including maps) of any other environmentally sensitive land on the site; and
- c. A detailed plan that shows all proposed development that may directly or indirectly impact the wetlands, including any proposed disturbance of the wetland and wetland buffers as well as any other environmentally sensitive lands on the site.
- vi. The City shall require a wetland special use permit for any development that proposes to impact wetlands. The permit shall be implemented in the City's land development regulations. The permit criteria shall require compliance with Conservation Element Policies A5.5 and A5.6.
- vii. The developer shall ensure that site development activities do not degrade on-site or adjacent surface waters or wetlands. Wetlands shall not be used as primary sediment traps during development or for storm water retention beyond historic hydrologic regime after development. No grading, cutting or filling shall be commenced until erosion and sedimentation control devices have been installed between the disturbed area and the wetlands.
- viii. The developer shall ensure that site development activities do not degrade or negatively impact the watershed basin in which the site is located.
- ix. ~~Not more than 50 percent of Wetland buffer areas and wetlands themselves may be counted toward any open space requirements of this Plan. however, wetlands themselves shall not count toward open space requirements.~~

***Explanation:***

***Intended to limit the intensity of development on developable portions of the site.***

ix. Wetland buffer areas may be counted toward any open space requirements of this Plan, however, wetlands themselves shall not count toward open space requirements.

***Explanation for alternate language:***

***Proposed language may be too restrictive. Staff suggests leaving the existing language in place.***

- x. Wetlands and their associated buffers may be designated conservation easements unless part of a homestead.
- xi. The City shall evaluate the status of wetlands in the City to determine the effectiveness of these policies at the time of each Evaluation and Appraisal Report.
- xii. Upon development of a site, the developer shall be required to remove exotic vegetation and replace with native vegetation suitable to the soil conditions.
- xiii. Where not precluded by existing site improvements, constructed wetlands and storm water devices shall be located in such a manner to provide additional buffering for existing wetlands or to create and enhance interconnections between wetlands and natural areas.

Policy A5.6. Exceptions to Policy A5.5 above:

A. Isolated wetlands:

i. Development may incorporate isolated wetlands into storm water management systems, provided that the storm water runoff is treated prior to entering any wetland system, so that the wetland is used for nutrient and volume attenuation. The City shall encourage designs which maintain the existing natural wetlands community, except where permitting agencies agree that the imposition of conditions which favor a different plant community is more desirable for the purpose of providing habitat, improving water quality or enhancing other wetland values.

ii. The City shall request that the SFWMD, FGFWFC or a professional biologist to comment and render an opinion as to whether the wetland has significant wildlife values based on the following factors:

a. The extent to which the isolated wetland acts in concert with the broader regional landscape to provide both food web support and habitat for wildlife;

b. The potential cumulative impacts to isolated wetland wildlife functions at a regional level;

c. Individual wetland features that are important to wildlife;

d. Whether the isolated wetland is used by endangered or threatened species or species of special concern; and

e. The degree to which adjacent existing or planned development will affect the use of the wetland by wildlife; and

f. The extent to which the wetland presents unique hydrology and vegetation compared to other isolated wetlands within the City.

If the biological evaluation indicates that the isolated wetland has significant and sustainable wildlife values, or unique hydrology and/or vegetation, the wetland shall be afforded the same level of protection as all other wetlands. However, if the report indicates no significant and sustainable values, then the underlying land use category may be applied. This does not preclude the application of any regulatory requirements of other Federal, State or regional agencies.

~~B. Buffer widths may be adjusted downward to a minimum of 25 feet or the buffer width may be allowed to average 50 feet on a case by case basis if the following conditions are present:~~

~~i. The developable portion of existing lots of record as of the date of adoption of this policy does not have sufficient size or dimensions to allow for a reasonable economic use of the property based on the designated land use category. In this instance, the remaining buffer shall be enhanced to minimize development impacts.~~

~~ii. The proposed development shall provide mitigation for reduction in standard by enhancing the functioning value of the wetland buffer area.~~

**Explanation:**

**Standards elsewhere in this element mandate an average wetland buffer width of 50 feet and 75 feet respectively, depending on the quality of the wetland. Eliminating these lesser (alternative) standards is intended to strengthen the City's requirements for wetland protection.**

~~C. If the SFWMD indicates that a wetland (or a portion thereof) is severely degraded and has minimal restoration potential and that beneficial mitigation of other wetlands would be achieved as a result of mitigation that allows some development in this degraded wetland (or portion thereof) then the underlying land use category shall apply. Mitigation shall be permitted with the first priority being mitigation on-site, the second priority being mitigation within the City limits, the third priority being mitigation within Martin County, the fourth priority being mitigation within the TCRPC district, and the fifth priority being mitigation outside the TCRPC district.~~

C. If the SFWMD indicates that a wetland (or a portion thereof) is severely degraded and has minimal restoration potential and that beneficial mitigation of other wetlands would be achieved as a result of mitigation that allows some development in this degraded wetland (or portion thereof), and the City concurs with this indication, then the underlying land use category shall apply. Mitigation shall be permitted in order of priority:

- 1) on-site mitigation
- 2) mitigation within the same watershed basin within the City limits
- 3) mitigation within the City of Stuart.

Off-site mitigation of wetlands or uplands shall not be permitted outside the City limits.

**Explanation:**

**The Commission has given direction that off-site mitigation not be allowed outside the City limits.**

D. Road crossings shall be allowed if absolutely necessary to access developable portions of the site or if shown to be in the overriding public interest, such as necessary collector or arterial road linkage. When allowed, road crossings shall occur at the narrowest point and be elevated on a bridge structure or above a culvert and designed so that water flow and wildlife movement are uninterrupted.

E. Public infrastructure may be located in wetlands if there is no other possible location available.

F. Future Land Use Element Policy A7.6 is applicable to the enforcement of all wetland conservation and protection policies.

*Policy A5.7.* The City shall protect the natural resources associated with recreation facilities, open space and natural reservations identified in the Recreation and Open Space Element through land development regulations providing performance standards for development of natural resources, and through ensuring through the site plan review process that existing open space and natural reservations are not changed to more intensive uses that would degrade natural resources.

*Policy A5.8.* The City shall protect native vegetative communities by requiring that existing native vegetation constituting up to 25 percent of a development site be preserved. Land clearing activities require a permit that demonstrates the protection of native vegetative communities consistent with Policy A5.8 and A5.9.

*Policy A5.9.* Environmentally sensitive lands containing native vegetative communities that provide wildlife habitat necessary for the survival of listed species as determined by the FGFWFC shall be protected and conserved. The Strategic Habitat Conservation Area Map indicates potential locations of such native vegetative communities. Development proposed in these areas must be surveyed to determine existing conditions. If the site contains native vegetative communities that provide wildlife habitat necessary for the survival of listed species as determined by the FGFWFC, the following shall be required:

- a. Cluster development away from the habitats of listed species.
- b. Avoid the fragmentation of contiguous ecological community associations which extend over adjacent parcels.
- c. Allow the transfer of development rights to other parcels in the City if otherwise consistent with this plan.

**Objective A6. Wildlife protection.**

Endangered, threatened and species of special concern shall be identified through the site plan process. Protection and enhancement of these wildlife populations within the City and in surrounding environs shall be through such provisions as adequate buffering, cluster development and density bonuses for developers that set aside land for wildlife habitat.

The following policies support this objective:

*Policy A6.1.* All endangered and threatened plant and animal populations shall be protected. Of special concern, are all species listed as endangered, threatened, of special concern or rare by the Federal government, the State of Florida or the Florida Committee on Rare and Endangered Plants and Animals.

*Policy A6.2.* Sites proposed for development activities within the known range of endangered or threatened species shall be surveyed at the request of local officials by qualified government ecologists prior to approval of or commencement of such activities to determine whether or not endangered or threatened plant and animal populations occur, and the potential impact of the proposed development. This request will originate within the City's site plan review process. If qualified government ecologists are not available for survey, the developer will obtain a City-approved professional consultant at the developer's expense.

*Policy A6.3.* The City shall maintain its status as a bird sanctuary and develop a program to encourage residents to provide additional backyard habitat to enhance non-game wildlife populations within the City.

*Policy A6.4:* As noted in the Martin County Manatee Protection Plan, the City shall coordinate with Martin County and state and federal agencies regarding the following issues:

- a. Implementation of speed zones as appropriate in the St. Lucie River.
- b. Monitoring of manatee mortality by collisions with watercraft in county waterways.
- c. Sea grass restoration to enhance estuarine natural resources, improve water quality, and provide additional foraging habitat for manatees.
- d. Participation on the Martin County Manatee Protection Advisory Committee as appropriate.

**Objective A7. Air quality.**

The City of Stuart shall continue to meet or surpass all national ambient air quality standards, as set by the U.S. Environmental Protection Agency.

The following policies support this objective:

*Policy A7.1.* Transportation plan development and project reviews shall consider provisions for bicycle lanes, sidewalks, car pooling, mass transit and other transportation methods which reduce air polluting emissions.

*Policy A7.2.* Construction practices such as seeding, wetting and mulching which minimize airborne dust and particulate emission generated by construction activities shall be undertaken within 30 days of completion of clearing work. Clearing of specific building sites shall not commence without the necessary permit as required under the City's revised land development regulations.

*Policy A7.3.* All buildings scheduled for renovation or demolition shall be required to receive a Florida Department of Environmental Protection (FDEP) permit and shall be surveyed for the presence of asbestos. Asbestos shall be removed prior to demolition. Any asbestos removal shall be performed by a contractor licensed under the Florida Department of Professional Regulation. Any buildings scheduled for demolition shall apply for a permit from the Department of Environmental Protection.

*Policy A7.4.* Landscape efforts and ordinances shall consider the use of landscape material, including trees, to mitigate localized air quality problems. Consistent with this policy, the City shall undertake efforts to promote large-scale tree planting programs.

*Policy A7.5.* Compliance of future development with all appropriate air quality standards shall be assured.

**Objective A8. Soil and shoreline erosion prevention.**

The City shall conserve soil resources by reducing the rate of soil erosion resulting from land development and other activities.

The following policies support this objective:

*Policy A8.1.* The City shall consider topographic, hydrologic and vegetative cover factors in the site plan review process of proposed developments. Removal of native vegetation within the buffer zone as defined in Policy A4.2 and on stream banks and on slopes of greater than 3:1 shall be prohibited.

*Policy A8.2.* Sloping revetments, interlocking bricks and similar designs to reduce the effects of bottom scouring by more effectively dissipating wave forces shall be used in all shoreline construction.

*Policy A8.3.* Replanting of sea grasses shall be encouraged during redevelopment of coastal areas. Upon determination that existing environmental conditions can support an appropriate species of sea grasses, the City shall seek funding and manpower from public and private organizations, including use of citizen volunteer projects in areas identified as having potential for reestablishment.

*Policy A8.4.* The City shall cooperate with the Martin County Soil and Water Conservation District and the U.S. Soil Conservation Service to monitor soil erosion rates and develop programs to minimize soil erosion.

*Policy A8.5.* The City shall prohibit the use of off-road vehicles in all areas other than those that are explicitly permitted.

**Objective A9. Hazardous waste.**

The City shall develop a hazardous waste management program for the inventory, storage, recycling, collection and disposal of hazardous waste.

The following policies support this objective:

*Policy A9.1.* In order to protect the City's natural resources, the City shall manage the generation, handling or storage of hazardous waste as follows: For new development, the City shall consider the impacts of potential hazardous wastes during the site plan review process. For existing development, the City shall require notification of hazardous waste generation, handling or storage as part of the occupational license application procedure. Such development will be permitted by the City only after the applicant provides an emergency response plan addressing accidents involving hazardous waste, and mitigation strategies to protect local natural resources.

*Policy A9.2.* The City shall cooperate with the County in developing and implementing an emergency hazardous waste response program.

*Policy A9.3.* The City shall negotiate with at least two automobile service stations in the City to accept waste motor oil and lead acid batteries for recycling.

*Policy A9.4.* The City shall cooperate with Martin County in sponsoring Amnesty Days to collect household hazardous waste for proper disposal.

**Objective A10. [Landscaping and maintenance of open spaces.]**

The City shall assure that open spaces are preserved and maintained in properly landscaped and litter free condition.

The following policies support this objective:

*Policy A10.1.* Public lands shall be landscaped and maintained in keeping with the standards, specifications and intent of the City landscaping requirements of the Land Development Regulations.

*Policy A10.2.* The City Public Works and Code Enforcement Departments shall be instructed to give greater emphasis to the fullest possible enforcement of both City and State ordinances pertaining to the landscaping of private and commercial properties and pertaining to littering.

*Policy A10.3.* Existing City ordinances shall be reviewed in respect to their ability to fulfill Policies A10.1 and A10.2 and, as may be required, new ordinances shall be written and passed to assure the fulfillment of Objective A10. It shall be the purpose of such new legislation to assure that landscape requirements apply equally and totally to all defined Open Spaces and are enforced within reasonable time limits.

*Policy A10.4.* Techniques for funding Open Space landscaping and maintenance shall be investigated. The City shall earmark local tax revenues for the landscaping and litter-free maintenance of open spaces and/or investigate user fees, impact fees, and volunteer programs as may be needed.

EXHIBIT B  
AMENDMENTS TO CHAPTER 5  
"RESOURCE PROTECTION STANDARDS" AND CHAPTER 10 "HARDSHIP RELIEF"  
OF THE CITY OF STUART LAND DEVELOPMENT CODE

**5.00.00 IN GENERAL**

The intent of this chapter is to protect and manage wetlands, environmentally sensitive lands, historic and specimen trees, mangroves and the shoreline within the city to implement the goals, objectives and policies of the comprehensive plan of the city.

The regulations of this chapter apply to all public and private lands within the city. Pursuant to Chapter XI of this Code, a permit shall be required for any development or other site activity that alters, impacts or removes environmentally sensitive lands, wetlands or trees within the city. Any violation of this chapter shall constitute a municipal ordinance violation and may be prosecuted before the code enforcement board of the city as provided in section 5.06.00 below.

These regulations will be applied to proposed development site plans or proposed plat plans submitted to the city to all site activity that occurs on or after February 14, 2000.

**5.01.00 DEFINITIONS**

As used in this chapter, the following terms have the following meanings.

*Department* means the Florida Department of Environmental Protection.

*District* means the South Florida Water Management District.

*Greenway* means a corridor of native vegetation managed for conservation purposes with a minimum average width of 100 feet and at no point a width of less than 50 feet.

*Listed species* means those species of plants or animals listed as threatened, endangered, or species of special concern by the State of Florida in Chapter 39, Florida Administrative Code, or F.S. ch. 581, as either may be amended from time to time.

*Native vegetation* means vegetation comprised of those species of vegetation that were present in Florida at the time of European contact including threshold wetlands. Any species introduced to Florida thereafter is non-native vegetation. Descriptions of typical areas of native vegetation are described in the latest version of "26 Ecological Communities of Florida" published by the Florida Chapter of the Soil and Water Conservation Society.

*Native vegetation preserve area* means that portion of a property in which no development activity is permitted including threshold wetlands, upland buffers, greenways, and habitat of listed species or areas of native vegetation.

*Native uplands* are those upland areas that consist of vegetation in which 50 percent or more of the vegetative cover is native vegetation.

*Non-native uplands* are those upland areas that are either devoid of vegetation or consist of vegetation of which less than 50 percent is native vegetation.

*Non-native vegetation* means any vegetation that is not native vegetation.

*Outstanding resource wetland* means a wetland that is naturally connected to the St. Lucie River, or to Poppleton Creek, Frazier Creek, Haney Creek, Krueger Creek and Willoughby Creek, or to the tributaries thereto. To be an outstanding resource wetland, the connection must be natural and not man-made.

*Preserve area* means that portion of a property in which no development activity is permitted including wetlands, upland buffers, greenways, and habitat of listed species or areas of native vegetation.

*State of Florida* includes the Department of Environmental Protection and the South Florida Water Management District.

*Threshold wetland* means a wetland that is less than one-half acre or is not otherwise regulated by the State of Florida. A threshold wetland is considered to be native vegetation.

*Upland buffer* means an area of undisturbed or appropriately managed vegetation surrounding a wetland that will minimize disturbances to the wetland during and after development.

*Verified wetland delineation* means a determination of the extent of wetlands within a site that has been verified in writing by the State of Florida.

*Wetland* means an area that is inundated or saturated by surface water or ground water at a frequency and a duration sufficient to support, and under normal circumstances does support, a prevalence of vegetation typically adapted for life in saturated soils and is verified to be a "wetland" by the State of Florida as defined at Chapter 62-340.200(19) of the Florida Administrative Code, as amended from time to time.

*Wetland delineation* means the process by which wetlands are mapped and located within a project site.

*Wetland mitigation* means the creation of wetland values and functions to offset direct and indirect development impacts to existing wetlands resulting from a proposed project.

*Watershed* means that area that has been identified in studies or adopted plans to drain into the St. Lucie River or its tributaries being Poppleton Creek, Frazier Creek, Haney Creek, Willoughby Creek and Krueger Creek.

#### **5.02.00 ENVIRONMENTAL ASSESSMENT REPORT FOR SITES WITH WETLANDS OF GREATER THAN ONE ACRE**

For properties with wetlands and for properties of greater than one acre, an application for site plan approval or plat approval shall include an environmental assessment report relating to the subject property. The report shall include the information listed below:

A. *Site description.* A description of the site location and acreage, including adjacent streets and roads, Township, Section, Range and street address, if any, shall be included. A site location map at a scale sufficient to show the site and its relationship to the city municipal boundary shall be provided.

B. *Vegetative description.* A description of the vegetation on the site and each separate type of upland vegetation or land cover and each type of wetland vegetation cover shall be mapped and described in accordance with the Florida Land Use, Cover, and Forms Classification System. The map shall include total acreage calculations of each vegetative type shown on the map. A recent aerial photograph of the subject property to correspond to the map shall be included.

C. *Wetland delineation.*

1. A copy of a wetland delineation map according to the State of Florida shall be submitted to the city development department. If the delineation of wetlands is not complete at the time of review, a map depicting the approximate location and types of wetlands shall be submitted for planning purposes. Issuance of a development

permit will not occur until a verified wetland determination is completed and development plans revised accordingly.

2. For those sites where wetlands have been determined to be present, a separate determination of the existence of outstanding resource wetlands shall be provided. This determination shall meet the criteria for an outstanding resource wetland provided in this chapter. A separate map of outstanding resource wetlands shall be included.

*D. Wildlife evaluation.*

1. A description of the wildlife actually observed or expected on the site based on observed habitat shall be included. Habitat indicators such as tracks, burrows, nests, and live sightings should be documented for species listed by Florida Fish and Wildlife Conservation Commission and the U.S. Fish and Wildlife Service as endangered, threatened or of special concern.

2. The field reconnaissance and identification efforts and methods including transects, random observation, and reference documents used in the wildlife evaluation shall be described. Copies of correspondence with the commission and service shall be provided. In instances where the presence of listed species is actually observed or expected based on habitat, the city development director may require documentation of coordination with the Florida Fish and Wildlife Conservation Commission and the U.S. Fish and Wildlife Service to consider the application complete.

*E. Preserve area and upland buffer evaluation.* A calculation of the preserve area and upland buffer requirements for the project as set forth in this chapter shall be included. This evaluation must include a summary of total site area, acreage of wetlands, acreage of native upland and of non-native upland. A map depicting each area type, as well as locations of wildlife observations from the wildlife evaluation, shall be provided.

### 5.03.00 WETLANDS

The wetlands subject to the provisions of this chapter are those that have been "verified" by the State of Florida [or the City of Stuart](#).

***Explanation:***

***Allows the City to designate wetlands independently of the SFWMD.***

#### Sec. 5.03.01. Wetland verification and illustration.

GRAPHIC LINK: [Click here for graphic](#)

Wetland verification for the purposes of protection under this chapter shall, [at a minimum](#), be consistent with F.S. § 373.421, and with Chapter 62-340, Florida Administrative Code. A wetland, with the required upland buffer and construction setback area, is depicted above as a "jurisdictional wetland boundary" in Figure 1. Surrounding the wetland is the required "upland buffer" and the "construction setback."

***Explanation:***

***Allows the City to designate wetlands that may not be so designated by the state or other agencies.***

**Sec. 5.03.02. Wetland protection standards.**

A. *Introduction.* To preserve and protect wetlands, the city advocates a development pattern that avoids or minimizes damage to wetlands and directs development to lands that are not environmentally sensitive. The city encourages activities not dependent upon a wetland location be located at upland sites. To promote compact urban development and discourage urban sprawl, the city allows wetland impacts under certain conditions and only where all practical measures to avoid wetlands have been applied.

B. *Impacts to wetlands prohibited.* Except as otherwise provided herein, any impact upon a wetland, whether directly or indirectly caused, is prohibited. An impact upon a wetland is damage to a wetland caused by any means.

An impact to a wetland is prohibited unless the mitigation requirements of this chapter and each of the following criteria 1. through and including 6. are satisfied.

1. If wetlands exist on the development site, the developer shall meet with the city development director to discuss preliminary site design prior to the submittal of a permit application to the State of Florida. The applicant shall provide copies of all State of Florida permit information and related correspondence to the city development department.

2. The requirements for elimination and reduction of impacts to wetlands in accordance with Rule 40E-1, Florida Administrative Code, Basis of Review for Environmental Resource Permit Applications Section 4.2.1., as amended from time to time, shall be met. Evidence thereof shall include a South Florida Water Management District staff report with a recommendation of approval from the district. A permit from district shall precede any direct impact to a wetland.

3. The requirements for avoidance and minimization of direct impacts to wetlands in accordance with the federal Clean Water Act, as amended from time to time, shall be met. Evidence thereof shall include a permit or letter of intent to issue a permit from the Army Corps of Engineers. A final permit from the corps shall precede any direct impact to a wetland.

4. In those instances where wetland delineation was not conducted using the post-1994 accepted practice for doing so and no permit was required from the State of Florida, impact to a wetland is prohibited unless the mitigation requirements of this chapter, ~~and~~ at least one of the following conditions exists **and the proposed impact is being made in the context of a Planned Unit Development (PUD) Agreement.**

a. The proposed impact is necessary to accommodate roads, utilities, and other infrastructure that cannot otherwise be reasonably provided without the impact.

b. More than 75 percent of the vegetation within the wetland to be impacted is non-native vegetation.

c. A larger upland preserve areas with significantly higher ecological values not required for preservation by this chapter will be preserved elsewhere on the site.

~~d. The proposed impact is necessary to accommodate a consolidated site plan that implements a compact urban development form.~~

***Explanation:***

***The above changes are intended to narrow the circumstances under which wetlands may be impacted and allows the City Commission to consider proposed impacts on a case-by-case basis.***

5. Unless otherwise approved by the city commission, new onsite sewage disposal systems must be located not less than 75 feet from wetlands for lots created after January 1, 1972 and not less than 50 feet from wetlands for lots created prior to 1972.

6. No wetland impacts shall be permitted on sites where no development activity is proposed.

C. *Upland buffer requirements for verified wetlands.* To protect wetlands, upland buffers around wetlands shall be provided and preserved around each wetland or portion thereof on the property.

1. The minimum average width of an upland buffer shall be 50 feet and at no point shall its width be less than 25 feet. The minimum average width of an upland buffer around an outstanding resource wetland shall be 75 feet and at no point be less than 50 feet. ~~Where a width of less than the minimum average width is proposed at any point, the omitted upland buffer area shall be replaced with additional upland buffer elsewhere around the subject wetland on an area ratio of two to one.~~

***Explanation:***

***This chapter mandates an average wetland buffer width of 50 feet and 75 feet respectively, depending on the quality of the wetland. The deleted language is intended to strengthen the City's requirements for wetland protection.***

2. Except as otherwise provided in this chapter, the native vegetation within an upland buffer shall not be disturbed by development activity.

3. Any portion of ~~an~~ a **required** upland buffer not comprised of native vegetation shall be planted with native vegetation ~~such that the minimum average width of the upland buffer is 50 feet and its minimum width is 25 feet.~~

***Explanation:***

***Language deleted to provide consistency with item 1. above..***

a. Planting shall include all vegetation types that are consistent with the native uplands in the vicinity, including canopy, understory and ground cover.

b. The non-native vegetation in the upland buffer planted area shall be removed.

c. Planting shall be installed according to a planting plan prepared by an environmental professional consistent with the latest version of "26 Ecological Communities of Florida" published by the Florida Chapter of the Soil and Water Conservation Society and approved by the city development director.

~~d. Planting beyond 25 feet of the wetland boundary is not required provided an area of native vegetation contiguous to the boundary of the upland buffer and of equal or greater size is included with the upland buffer and preserved as such.~~

**Explanation:**

**Deleted language conflicts with minimum 50 foot and 75 foot width standards and mandatory buffer planting requirements.**

4. An upland buffer shall be protected by a construction setback of five feet from the upland buffer boundary. Within this setback area, no earthwork, construction or placement of structures shall be permitted.

D. Greenways between wetlands on development sites of greater than ~~ten~~ five acres.

**Explanation:**

**Change intended to promote greenway linkages on smaller parcels.**

1. The provisions of this subsection apply to developments of greater than ~~ten~~ five acres.

**Explanation:**

**Restatement of change above.**

2. The upland buffer around wetlands shall be extended to provide a greenway connection between wetlands that are separated by 200 feet or less of native upland habitat. A greenway will be located entirely on the development site and may be required in relation to a wetland on adjacent property.

3. The area of a greenway is included in the required preserve area.

4. The location of greenways between wetlands both on the development site and on property adjacent to the development site is illustrated in Figure 2 below.

**GRAPHIC LINK:** [Click here for graphic](#)

5. Up to ten percent of the required parking that would otherwise be located in a greenway may, if approved by the city development director, either be waived or provided on stabilized grass or similar pervious parking surface.

6. A greenway may be crossed to accommodate roads, utilities or other infrastructure that cannot, as determined by the city development director, be reasonably located elsewhere. The crossing shall be designed to maintain

hydrologic and wildlife connections through appropriate structures such as culverts and to otherwise minimize impact upon the greenway.

**Sec. 5.03.03. Watershed area incentive.**

~~The watershed areas of Poppleton Creek, Frazier Creek, Haney Creek, Krueger Creek and Willoughby Creek have unique environmental value. An incentive is provided for enhanced protection these watershed areas.~~

~~A. *Reduced wetlands buffer incentive.* Properties within the watershed areas may contain wetlands. The upland buffer of an outstanding resource wetlands is a minimum average width of 75 feet and for other wetlands a minimum average width of 50 feet. These upland buffer minimum average widths may be reduced to 50 feet and 25 feet respectively provided the omitted upland buffer area is replaced with additional upland buffer elsewhere around the subject wetland on an area ratio of one to one and upon a determination by the city development director that one or more of the following criteria for watershed protection are met.~~

~~B. *Watershed protection criteria.*~~

~~1. The proposal to reduce the upland buffer must provide a significant benefit to the watershed as determined by the city development director and evidenced by one or more of the following:~~

~~a. Water quality improvements;~~

~~b. Water quantity and timing improvements; and~~

~~c. Native vegetation or wildlife habitat enhancement.~~

~~2. The proposal must comply with any existing management plans adopted by the city for the specific watershed.~~

***Explanation:***

***Reduced buffer standards are not consistent with proposed changes made elsewhere in this section. Proposed enhancements envisioned in this section may be made in the context of a PUD agreement.***

**Sec. 5.03.04. Wetland mitigation.**

In the event an applicant proposes an impact upon a wetland, the applicant shall also propose mitigation to offset the effects of such impact in compliance with the mitigation requirements established by the State of Florida, Army Corps of Engineers and the City. ~~These agencies have established methodologies not duplicated herein for mitigation for wetland impacts that are included in their respective regulatory programs.~~

***Explanation:***

***Allows the City to require mitigation independently of other agencies.***

A. *South Florida water management district requirements.* Prior to site plan approval, compliance of proposed mitigation with applicable regulations of the State of Florida and the Army Corps of Engineers shall be provided to

the city. Evidence of compliance shall include a staff report of the State of Florida inclusive of a recommendation of approval. A permit from the State of Florida shall precede any impact to a wetland.

B. *Clean Water Act requirements.* The proposed mitigation shall comply in all respects with Section 404 of the Clean Water Act as amended from time to time. Evidence that this criterion has been met shall consist of a permit or letter of intent to issue a permit from the Army Corps of Engineers. A final permit from the corps is required before any wetland impacts occur.

C. *Wetland mitigation priorities.* If the State of Florida, or other agency determines that a wetland, or a portion thereof may be mitigated, and the City concurs, that mitigation may proceed according to the following geographic priorities:

1. The first priority shall be mitigation on-site.
2. The second priority shall be mitigation within the city, within the same watershed.
3. The third priority shall be mitigation within the City Martin County.
- ~~4. The fourth priority shall be mitigation within the Treasure Coast Regional Planning Council district.~~
- ~~5. The fifth priority shall be mitigation outside the Treasure Coast Regional Planning Council district.~~

***Explanation:***

***The Commission has given direction that off-site mitigation not be allowed outside the City limits.***

D. *Other requirements.* In those instances where wetland delineation was not conducted using the post-1994 accepted practice for doing so and no permit was required from the State of Florida, impact to a wetland shall be permitted only if the mitigation requirements below are met.

1. The proposed mitigation will replace the wetland functions and associated values lost as a result of the impact as determined in accordance with the South Florida Water Management District Wetland Rapid Assessment Procedure.
2. Any crossings of wetlands for access or infrastructure will provide continued hydrologic and wildlife connections through culverts or other appropriate structural means.
3. The applicant has a sufficient perpetual property interest to ensure completion and perpetual preservation of the mitigation area.
4. The applicant has provided a long-term monitoring and maintenance plan that will ensure the success of the mitigation according to the maintenance plan.
5. The applicant provides financial assurance such as a bond or letter of credit to ensure completion, monitoring and maintenance of the mitigation.

**5.04.00 ENVIRONMENTALLY SENSITIVE LANDS**

No site clearing of any public or private lands within the city shall be permitted without approval by the city. Proposed development site plans and plat applications for sites of greater than one acre shall include a native vegetation preserve area for the preservation of upland areas in functional habitat units.

**Sec. 5.04.01. Requirements for sites of greater than one acre.**

For sites where less than 25 percent of the development site, exclusive of wetlands that are verified to be a "wetland" by the State of Florida, Army Corps of Engineers or the City, exists as native vegetative areas, all native vegetative areas shall be preserved. For sites where greater than 25 percent of the development site, exclusive of wetlands that are so verified by the State of Florida, Army Corps of Engineers or the City exists as native vegetative areas, not less than 25 percent of the development site shall be preserved as a native vegetative area. This area can consist of the upland buffers, greenways, native uplands, wetland areas of less than one-half acre and not verified to be a "wetland" by the State of Florida, Army Corps of Engineers or the City, habitat of listed species, and habitat of wildlife.

***Explanation:***

***Allows the City to designate wetlands independently of other agencies***

**Sec. 5.04.02. Identification of native vegetation preserve area for sites of greater than one acre.**

The preserve area shall be set aside in accordance with the following priorities:

**A. Native vegetation preserve area priority criteria.**

1. On development sites where upland buffers for wetlands ~~is~~ **are** required, the first priority for the identification of the native vegetation preserve area shall include the areas of upland buffers and greenways, if any, and then areas of native vegetation.

***Explanation:***

***Grammatical correction.***

2. After the location of the upland buffers for wetlands, the balance of the native vegetation preserve area shall be areas of existing native habitat of the listed species. Necessary permits from the U.S. Fish and Wildlife Service and the Florida Fresh Water Conservation Commission may require a larger native vegetation preserve area and in such event those permit requirements shall apply.

3. In the event, given the foregoing criteria, the entire native vegetation preserve area has not been provided for, the balance of the native vegetation preserve area shall be located with reference to the following:

a. Areas for integration and maintenance of environmental systems; and

b. Protection of ecotones and diverse habitat types, including the interface of wetlands, uplands and various upland types; and

c. Preservation of wetlands that are isolated from other wetlands or upland systems and not connected to native habitat.

4. For sites with no native vegetation, the landscaping requirements of this Code shall be met with native vegetation, however, the side and rear landscape strip shall be 25 feet in depth and planted with native vegetation. The location and type shall be determined by the presence or absence of native vegetation on adjacent property.

B. *Native vegetation preserve area on-site relocation option.* Excluding native vegetation included within areas of listed species habitat and upland buffers, **for sites of five acres or less**, the applicant may propose a relocation or replanting of native vegetation that would otherwise be preserved. Such relocation and replanting shall include all vegetation types that are consistent with the native uplands on the site and in the vicinity, including canopy, understory and ground cover, and shall be installed according to a planting plan prepared by an environmental professional.

***Explanation:***

***Smaller developments result in smaller preserve areas, which in turn have a diminishing value as habitat. Limiting on-site relocation to parcels of five acres or less is intended to safeguard the habitat value of larger preserve areas on larger sites.***

B. *Native vegetation preserve area on-site relocation option.* Excluding native vegetation included within areas of listed species habitat and upland buffers the applicant may propose relocation or replanting of native vegetation that would otherwise be preserved, providing such a proposal shall be accompanied by a professional study attesting to the biological efficacy of the relocated preserve area in terms value as habitat. Such relocation and replanting shall include all vegetation types that are consistent with the native uplands on site and in the vicinity, including canopy, understory and ground cover, and shall be installed according to a planting plan prepared by an environmental professional.

Suggested on-site relocation criteria:

- Relocation allows for establishment of native upland habitat contiguous to existing native habitat thus creating larger contiguous tracts of habitat providing greater native habitat function and connectivity with clear benefits for Listed Species.
- Relocation of native upland habitat provides clear synergistic benefits to on-site wetlands that are to be preserved, enhanced, or created.
- The on-site preserve area community should be the same type as the off-site community to be impacted. An Environmental Assessment should be conducted by a qualified environmental professional (i.e. Certified Ecologist, Certified Environmental Professional, Professional Wetland Scientist, or other recognized certification) for the on-site areas that
  - a. describes the community type using the Florida Land Use, Cover and form Classification System (FLUCCS). Include FLUCCs codes for land use in the surrounding vicinity; This should include an aerial map with FLUCCS overlay.

- b. provides an inventory of the dominant vegetation;
- c. indicates the approximate percent cover of exotic vegetation and type;
- d. lists protected floral and faunal species that could occur and that were observed;
- e. describes the land use in the surrounding vicinity in relation to the proposed preserve area;
- f. restoration potential, if applicable; and,
- g. manageability and size of the proposed preserve area

***Explanation for alternate language:***

***Upon review of the actual size of existing parcels that would be subject to the new provision, the "5-acres-or-smaller" limitation may be impractical. Instead, a decision to allow on-site relocation will be made in the light of a biological study attesting to new preserve area's efficacy as habitat.***

C. *Native vegetation preserve area off-site relocation option.* **For sites of five acres or less,** the preserve area may be provided off-site if the following conditions are met:

***Explanation:***

***Same principle as above.***

C. Native vegetation preserve area off-site relocation option. The preserve area may be provided off-site, providing such a proposal is accompanied by a professional study attesting to the biological efficacy of the relocated preserve area in terms value as habitat, and providing the following conditions are met:

Suggested off-site relocation criteria:

- The off-site preserve area community should be the same type as the on-site community to be impacted and should be of the same or greater quality. An Environmental Assessment should be conducted by a qualified environmental professional (i.e. Certified Ecologist, Certified Environmental Professional, Professional Wetland Scientist, or other recognized certification) for both the on-site and off-site areas that
  - a. describes the community type using the Florida Land Use, Cover and form Classification System (FLUCCS). Include FLUCCs codes for land use in the surrounding vicinity; This should include an aerial map with FLUCCS overlay.

- b. provides an inventory of the dominant vegetation;
- c. indicates the approximate percent cover of exotic vegetation and type;
- d. lists protected floral and faunal species that could occur and that were observed;
- e. describes the land use in the surrounding vicinity in relation to the proposed preserve area;
- f. restoration potential, if applicable; and,
- g. manageability and size of the proposed preserve area

***Explanation for alternative language:***

***Again, tying a decision to allow the relocation of preserve areas to biological efficacy, rather than to an acreage threshold, may be a more practical alternative.***

1. The native vegetation that would otherwise be preserved on the development site is not the habitat of listed species.
2. The required upland buffers are provided.
3. The development site is proposed for non-residential uses or mixed-use.
4. The location of the off-site preserve area is within the City limits, approved by the city and consistent with adopted environmental management plans.

***Explanation:***

***The Commission has given direction that off-site mitigation not be allowed outside the City limits.***

5. The preserve area is provided according to ~~one of~~ the following ~~options~~:
5. The preserve area is provided according to one of the following options:

**Explanation for alternative language:**

**Correction of earlier proposed language. Clause needs to provide for one or the other option.**

a. ~~Provision of~~ ~~Not~~ less than two acres of off-site preserve area shall be provided for every one acre of on-site native vegetation preserve. ~~area not provided~~ ~~said~~ off-site preserve area shall be being of a superior habitat quality, ~~or~~ or

**Explanation:**

**Clarification.**

b. Payment to the city of an amount that is ~~150~~ 200 percent of the appraised value of the entire development site that is prorated to apply to the native vegetation preserve area acreage not provided for deposit into a city environmental trust fund for storm water quality improvements, and for the acquisition, enhancement and maintenance of environmentally sensitive lands, and for environmental education.

**Explanation:**

**Change intended to enhance the transaction's environmental benefit to the City. ~~Again, applies to parcels of 5 acres or less.~~**

**Sec. 5.04.03. Monitoring and maintenance of preserve areas for sites of greater than one acre.**

In order to ensure that the wetland and upland preserve areas remain a native vegetative area and a functional habitat for wildlife, these areas must be monitored and maintained in their native form. This requirement shall be met both during construction of approved projects as well as throughout the existence of the project and its associated preserve areas.

A. *Preserve area protection plan during construction.* The application for site plan approval for a site of greater than one acre shall include a preserve area protection plan the provisions of which shall be implemented prior to construction to prevent encroachment and negative effects upon required preserve areas. The plan shall include the following:

1. A barricade plan shall indicate the locations and types of barricades that will be employed to prevent encroachment of construction activities into the preserve areas.
2. An erosion and turbidity control plan shall indicate the locations and types of erosion control that will be employed to prevent runoff of turbid water into the preserve areas.
3. A schedule for the inspection and maintenance of barricades and erosion controls prior to and during the construction period shall be provided.

4. A signage and information plan depicting locations and text for signs designating preserve areas shall indicate that the signs will be placed at an interval of one per lot with perimeter bordering preserve or buffer areas or every 100 feet for perimeter areas that do not include lots.

5. The preserve areas signs shall include the following statement:

"PRESERVE AREA -

NO DUMPING -

NO TRIMMING - NO MOWING."

B. *Preserve area vegetative requirements.* As a condition of site plan or plat approval for a site of greater than one acre, the proposed development project shall meet the following criteria for preserve areas.

1. All nuisance and non-native vegetation shall be eradicated within all wetlands and upland preserve areas except as specified below. Non-native vegetation includes all species on the Exotic Pest Plant Council list as amended from time to time. Nuisance vegetation includes cattail, primrose willow and other species designated as nuisance or undesirable by the South Florida Water Management District.

2. Eradication shall consist of the most ecologically sound combination of mechanical removal, manual removal and herbicide treatment. All vegetative debris generated by the eradication must be disposed of outside the wetland or preserve area.

3. A limited amount of non-native vegetation may be allowed to remain as a visual and noise buffer as determined by the city development director on a particular site.

C. *Preserve area maintenance.* For sites that are greater than one acre, the application for site plan or plat approval shall include a preserve area maintenance plan.

1. The preserve area maintenance plan shall include the following.

a. Provision shall be made for annual monitoring of the vegetative cover in the preserve area for the five years after completion of the project.

b. The vegetative cover data shall be collected in accordance with generally accepted scientific methods, including any occurrence of non-native vegetation or nuisance vegetation. Data shall be documented on a summary monitoring sheet.

c. Monitoring reports shall include the quantitative vegetation cover data from designated monitoring locations within the preserve area. The vegetative coverage data shall be measured as absolute coverage within an area of approximately 2,500 square feet at each monitoring station.

d. The vegetation shall be measured in percent coverage of the canopy and understory layer and ground cover. The total percent cover should not exceed 100 percent, and each species documented will be reported in both common and Latin names.

e. The coverage shall be measured by visual observation in each of four quadrants from the fixed monitoring point. Observations extend approximately 50 feet from the observer in each direction thus covering approximately 2,500 square feet at each station. The data from each quadrant observation is combined to calculate the vegetative coverage. Station locations are to be permanently marked to ensure consistency in data collection.

f. At least one panoramic photo shall be collected from each of the established monitoring stations to provide documentation of vegetative coverage.

g. The monitoring report shall include recommendations for maintenance, if necessary.

h. Provision shall be made for continued eradication of nuisance and non-native vegetation that may occur in the preserve area and for long-term habitat management to maintain the type and quality of habitat originally intended for the project.

i. Provision shall be made for financial assurance for not less than five years that monitoring and maintenance of the preserve area will be conducted per the plan.

2. The preserve area maintenance plan and provisions shall be included in the deeds and covenants which run with the property.

3. A preserve area maintenance plan compliance analysis report shall be filed annually with the city for each of the first five years following completion of the project. The report shall detail compliance with the plan, and shall include an update of the specific monitoring criteria as listed above and a description of the effort needed to comply with the plan on an annual basis.

4. Prior to issuance of a certificate of occupancy for any portion of the development, the developer shall execute a contract with the city whereby the developer and successors in interest to the developer are bound to comply with the plan. Said contract shall be recorded in the public records of Martin County, Florida and shall specifically provide for injunctive relief and specific performance and shall indicate any intended third party beneficiaries.

5. Violation of a plan shall constitute a violation of this Code enforceable through Code Enforcement proceedings as well as other available legal and equitable remedies provided by law.

**Sec. 5.04.04. Activities presumed to have an insignificant adverse affect on protected areas.**

1. Certain activities are presumed to have an insignificant adverse affect on the beneficial functions of protected areas established in section 5.03.03 B. Notwithstanding the prohibition in section 5.03.04 A., the following activities may be undertaken.

a. Scenic, historic, wildlife, or scientific preserves.

b. Minor maintenance or emergency repair to existing structures or improved areas.

c. Establishment of the Stuart Riverwalk.

**5.05.00 TREES**

**Sec. 5.05.01. Definitions.**

As used in this chapter, the following terms have the following meanings:

*DBH* means the diameter of a tree trunk at 4.5 feet above ground level.

*Historic tree* means a tree as defined in Chapter XII of this Code that has been identified by the city commission to have special historic significance or that has achieved at least 50 percent of the DBH of the Florida champion of the species as identified in "Big Trees - The Florida Register" published by the Florida Native Plant Society, 1997, as amended, excluding exempt trees as identified in section 6.06.00, Landscaping, of this Code.

*Specimen tree* means a Slash Pine which has achieved a DBH of ten inches or any other tree as defined in Chapter XII of this Code which has achieved a DBH of 4.5 inches which is listed on the City of Stuart Tree List in this Code or has achieved the lesser of a DBH of ten inches or at least 25 percent of the DBH of the Florida Champion of the species as identified in "Big Trees - The Florida Register" published by the Florida Native Plant Society, 1997, as amended, excluding all exempt trees as identified in 6.06.00 Landscaping of this Code.

*Tree location map* means a current aerial photograph not more than three years old with a minimum scale of one inch = 200 feet that indicates the trunk location of all specimen and historic trees plotted with the common or scientific name and DBH of all such trees.

*Tree survey* means a survey consisting of field flagging and identification of all historic and specimen trees within the proposed development area of a project. The tree locations shall be tied into a boundary survey of the site. Tree locations in a preserve area and wetland, and any other area that will not be filled or affected by the proposed construction, are not required to be surveyed.

**Sec. 5.05.02. Tree survey requirements for sites of greater than one acre.**

A. *Tree protection information.* The following requirements regarding tree protection shall apply to all applications for site plan approval for sites greater than one acre.

1. A tree location map shall be filed with the application for site plan approval. The map shall indicate the approximate locations of all historic trees and all specimen trees on the site. These trees are listed below.
2. Each tree so mapped shall be designated on the tree location map by size in diameter at 4.5 feet above the ground and type. The tree location map shall depict the proposed building and construction areas within the proposed project and how those areas affect the mapped trees.
3. In the event trees subject to protection in this section will be removed or otherwise impacted directly, or will be filled at the base or otherwise impacted indirectly, a tree survey shall be prepared.

B. *Protected tree species and criteria.*

1. Specimen trees are:
  - a. Unless otherwise noted, all trees on the city tree list which have reached a DBH of not less than 4.5 inches;
  - b. Slash pine trees which have reached a DBH of not less than ten inches;
  - c. All trees on the city flowering tree list which have achieved a DBH of not less than six inches; and
  - d. Any other tree that has achieved a DBH of not less than ten inches or 25 percent of the DBH of the Florida Champion of the species as identified in "Big Trees - The Florida Register" published by the Florida Native Plant Society, 1997, as amended.
2. Historic trees are those that have achieved 50 percent or more of the DBH of the Florida Champion of the species.
3. The city tree list follows:

CITY OF STUART TREE LIST

TABLE INSET:

American Holly	(Ilex opaca)
Bald Cypress	(Taxodium distichum)
Banyan Tree	(Ficus benghalensis)
Dahoon Holly	(Ilex cassine)
Gumbo Limbo	(Bursera simaruba)
Hickory	(Carya ashei)
Laurel Oak	(Quercus laurifolia)
Live Oak	(Quercus virginiana)
Loblolly Bay	(Gordonia lasianthus)
Mahogany	(Swietenia mahogani)
Red Bay	(Persea borbonia)
Red Maple	(Acer rubrum)
Sand Pine	(Pinus clausa)
Slash Pine	(Pinus elliottii var. densa)
Southern Magnolia	(Magnolia grandiflora)
Southern Red Cedar	(Juniperus silicicola)
Strangler Fig	(Ficus aurea)
Sweet Bay	(Magnolia virginia)
Sweet Gum	(Liquidambar styraciflua)
Sycamore	(Plantanum occidentalis)

4. The city flowering tree list follows:

CITY OF STUART FLOWERING TREE LIST

TABLE INSET:

Glaucous Cassia 1	(Cassia surattensis)
Weeping Bottlebrush 1	(Callistemon viminalis)
Lemon Bottlebrush 1	(Callistemon lanceolata)
Golden Rain Tree 1	(Koelreuteria formosana)
Queens Crepe Myrtle 1	(Lagerstromia speciosa)
Paradise Tree	(Simaruba glauca)
Silver Trumpet 1	(Tabebuia caraiba)
Pink Tab or Trumpet Tree 1	(Tabebuia heterophylla)
Jerusalem Thorn 1	(Parkinsonia aculeata)
Princess Flower Tree 1	(Tibouchina grandiflora )
Hong Kong Orchid 1	(Bauhinia blakeana)

1 NOTE: It is recognized that these plant materials are not considered native vegetation materials and do not count towards the native vegetation requirements of this Code.

**Sec. 5.05.03. Tree replacement and protection requirements.**

A. *Historic trees and specimen trees.* Historic trees and specimen trees located within that portion of a development site to be developed shall be protected in accordance with the following criteria. No historic or specimen trees shall be removed without a tree removal permit pursuant to Chapter XI of this Code.

1. *Specimen trees.* All practical measures shall be taken to leave specimen trees in place and preserved within development sites.

a. Specimen trees within parking areas shall be preserved with tree wells or other appropriate measures, if practical. Any parking space requirement that would require the removal of a specimen tree may be waived by the city development director if no fewer than 90 percent of the required parking spaces will be provided. Otherwise, specimen trees shall be relocated within the project site.

b. Specimen trees within building envelopes or for which there is no practical alternative for preservation shall be relocated within the project site.

c. Specimen trees, excluding Slash Pine trees, for which relocation is not possible or is not expected to be successful, shall be replaced with like species within the project site. Replacement trees shall have a combined DBH of 2.5 times the DBH of the trees replaced. The minimum size for replacement trees is 4.5 inches DBH. Determination of replacement trees shall be calculated in accordance with Table 1 below.

d. Specimen trees, specifically and only Slash Pines, for which relocation is not possible or is not expected to be successful, shall be replaced with like species within the project site. Replacement trees shall have a combined DBH of 1.5 times the DBH of the trees replaced. The minimum size for replacement trees is 2.5 inches DBH. Replacement of this variety shall be calculated in accordance with Table 1 below.

e. When not feasible to replant with like species of Slash Pine, replacement trees may be substituted with the following palm trees on a 1:1 ratio:

- Alexander Palm
- Coconut Palm
- Chinese Fan Palm
- Date Palm
- Majesty Palm
- Royal Palm
- Christmas Palm
- Washington Palm

For every one foot of clear trunk of palm tree exceeding minimum palm tree size per the landscape code, credit will be given for one inch of replacement.

f. Additional preservation of native habitat may be substituted for the tree replacement requirements of this section as approved by the city development director. Such preservation is additional to requirements for wetlands and preserve areas and shall include sufficient native trees to meet the DBH replacement requirements in paragraph c. above.

g. Credit towards tree replacement requirements shall be provided for required landscaping only if all required trees are planted at a minimum DBH of 4.5 inches and all required palms are planted at a minimum of 14 feet clear trunk. If required trees or palms, as proposed for a development site in accordance with the landscape code of

these Stuart Land Development Regulations, are planted at minimum landscape code requirements, then no credit is obtainable.

h. As determined by the city development director, monies may be contributed as part of tree replacement requirements. This tree replacement mitigation, through payment into the city tree replacement fund, shall only provide for a 50 percent mitigation of the required number of trees to be replaced. The city development director shall coordinate the recovery and disbursement of said funds in accordance with the general provisions of this chapter.

i. Relocated trees that do not survive at least two years shall, in turn, be replaced. A mechanism for financial assurance that relocated and replacement trees will meet survival criteria shall be provided.

Table 1  
Proposed Formulas for Tree Replacement and Contribution into City Tree Fund

TABLE INSET:

Tree Replacement Formula--Slash Pine:														
Total # inches to remove	×	1.5	=	Total # to be replaced	/	Minimum size to replace 2.5"	=	Total # trees to plant	×	50% mitigation to pay into city tree fund	×	175% of plant finder wholesale	=	Total \$ amount to pay into city tree fund
Tree Replacement Formula--All trees less Slash Pine:														
Total # inches to remove	×	2.5	=	Total # to be replaced	/	Minimum size to replace 4.5"	=	Total # trees to plant	×	50% mitigation to pay into city tree fund	×	175% of plant finder wholesale	=	Total \$ amount to pay into city tree fund

2. *Historic trees.* All historic trees located within a proposed development site shall be preserved.

a. A site plan proposal shall indicate the preservation of all historic trees in all areas of a development site, including parking areas and open space. The site plan shall indicate protective measures to ensure the preservation and longevity of all historic trees, such as tree wells, construction barricades or fencing, or relocation.

b. Any parking space requirement or building envelope which would require the removal of a historic tree may be waived by the city development director if no fewer than 90 percent of the required parking spaces are provided

c. In the event no practical alternative exists to locating structures on the site so as to accommodate a historic tree, the applicant for development may submit for major site plan approval or planned unit development (PUD) to consider the removal and replacement of the historic tree. The city commission shall be guided by a consideration of the environmental as well as economic value of the historic tree to be replaced in deciding the appropriate means and manner of its removal and replacement.

**Sec. 5.05.04. Protection during development.**

A. *Generally.*

1. To assure the health and survival of protected trees that are not to be removed, the developer shall avoid the following kinds of tree injuries during all development activities:

- a. Mechanical injuries to roots, trunk, and branches;
- b. Injuries by chemical poisoning;
- c. Injuries by grade changes;
- d. Injuries by excavations, fill and;
- e. Injuries by paving.

2. At a minimum, the protective measures described below shall be taken where appropriate to the development activity. Additional reasonable requirements may be necessary and shall be taken to preserve the health of protected trees in particular circumstances.

B. *Avoiding mechanical injuries.*

1. Prior to any land preparation or other development activities a protective barrier easily visible to equipment operators shall be placed around all protected trees so as to encompass the entire tree protection zone.

2. No attachment, wires (other than supportive wires), signs or permits may be fastened to any protected tree.

3. No equipment, construction materials or debris of any kind shall be placed within the protective barrier.

4. Landscaping activities within the bounds of the protective barrier (before and after it is removed) shall be accomplished with light machinery or manual labor. Grubbing and similar activities are prohibited. Grubbing, i.e. clearing of existing vegetation or similar activities is prohibited within the protective barrier except for removal of prohibited species. The only activity permitted within protective barriers shall be supplemental landscaping. Supplemental landscape plant material shall be of similar cultural classification as existing vegetation. Temporary irrigation shall be permitted on an as-needed basis until plant establishment.

5. In lieu of constructing the barriers required above, the developer may physically designate large areas containing protected trees where no land preparation or other development activities of any kind will occur. The area shall be designated by placing stakes a maximum of 25 feet apart and tying ribbon, plastic tape or rope from stake to stake along the outside perimeter of the area. This perimeter line shall be beyond the tree protection zone of any protected trees growing within the area.

6. Required protective barriers and perimeter lines shall remain in place until all construction activity, except landscaping within the protected area, is terminated.

C. *Avoiding injuries due to chemical poisoning.*

1. No fuel, paint, solvent, oil, thinner, asphalt, cement, grout or any other construction chemical or other material or tools of any kind shall be stored, or allowed in any manner to enter, within a required protective barrier or perimeter line.

2. No equipment shall be cleaned within a required protective barrier or perimeter line.

D. *Avoiding injuries due to excavations.*

1. Water, sewer, and other utility lines should be routed around the tree protection zones of protected trees.
2. If a line cannot reasonably be routed around the tree protection zone, the line shall be tunneled beneath the area within the zone. The tunnel shall be offset to one side of the trunk to prevent damage to the main tap roots.

**Sec. 5.05.05. Emergencies.**

In the case of emergencies such as hurricanes, windstorms, floods, freezes or other disasters or hazards, the requirements of this section may be waived by the city manager or his/her designee upon a finding that such waiver is necessary so that public or private work to restore order in the community will not be impeded.

**Sec. 5.05.06. Public right-of-way.**

No trees shall be removed from the public right-of-way except under the direction of the city development director and the parks and recreation director. No tree shall be planted in the public right-of-way without authorization from the city.

**Sec. 5.05.07. Clearance of vegetation over streets and sidewalks.**

Trees and shrubbery shall be trimmed by the city and/or authorized agencies so that there shall be a clear space of eight feet over all sidewalks and ten feet over all streets within the city.

**Sec. 5.05.08. City tree replacement fund.**

A. *Establishment of the city tree replacement fund.* The city tree replacement fund is created in association with the city department of financial services for the purpose of accepting and disbursing payments made to the city as part of tree replacement mitigation and other monies deposited from penalties for tree removal, illegal grading, or illegal clearing. These monies shall be placed in an account and shall be used for the sole purpose of funding tree planting and replacement on public property within the city.

B. *Term of existence.* The city tree replacement fund account shall be self-perpetuating from year to year unless specifically terminated by the city commission.

C. *Purpose.* Funds received shall be utilized for acquiring and planting, trees for public purposes within the city. Acquired trees shall be suitable to the site conditions and listed within the city tree list. Public lands selected for plantings shall be publicly owned or managed lands in public right-of-way.

D. *Source of funds.* Fund monies may consist of the following:

1. All monies collected pursuant to the penalties outlined in section 5.07.00, section 11.03.04, and section 11.03.09 of this Code.
2. All monies collected as part of tree replacement mitigation allowances.

E. *Fund administration.*

1. Funds shall be expended, utilized and disbursed only for the purposes designated herein.
2. The fund shall be a separate set of self-balancing accounts established and maintained by the City of Stuart.
3. Funds shall be managed in accordance with the city's Code of Ordinances as they relate to financial matters.

4. Monies obtained pursuant to this section may be accepted on behalf of the City of Stuart by the city development director or their designee, and upon receipt shall be delivered to the City of Stuart Department of Administrative Services, which shall cause the same to be credited to the trust.

#### **5.06.00 MANGROVE AND SHORELINE PROTECTION**

##### **Sec. 5.06.01. Introduction and resource management approach.**

The function and value of shoreline and mangrove areas have been recognized by the Florida Department of Environmental Protection through its "Mangrove Trimming Rule." This section is intended to permit the city to monitor shoreline and mangrove protection within the city.

##### **Sec. 5.06.02. Shoreline protection zone delineation.**

A. *Definition.* As used in this chapter, the term "shoreline protection zone" means the land adjacent to the shoreline, including the shoreline, of the St. Lucie River and Poppleton Creek, Frazier Creek, Haney Creek, Krueger Creek and Willoughby Creek. Except as otherwise provided, no development shall be permitted within the shoreline protection zone.

B. *Construction limited.*

1. An application for site plan approval that includes a portion of the St. Lucie River and Poppleton Creek, Frazier Creek, Haney Creek, Krueger Creek and Willoughby Creek shall include a delineation of the shoreline protection zone. The zone shall be established by survey.

2. Outside the community redevelopment area, the shoreline protection zone for any water body shall be 25 feet from the mean high water line.

3. Within the community redevelopment area, the shoreline protection zone for any water body shall be ten feet from the mean high water line.

4. The following types of development shall be permitted:

i. Docks, marinas or interpretative walks permitted by the State of Florida;

ii. Storm water retention areas;

iii. Landscaping;

iv. Bulkheads and seawalls which function to protect existing development and are located landward of riverine wetlands and their ecotones;

v. Riprap; and

vi. Unpaved, stabilized parking.

5. Any construction activity proposed within the Zone shall have a valid permit from the South Florida Water Management District or the Florida Department of Environmental Protection.

##### **Sec. 5.06.03. Mangrove protection.**

The Florida Mangrove Trimming and Preservation Act applies to lands within the city. The city will monitor mangrove alteration projects. Prior to initiating any mangrove trimming or alteration within the city limits, landowners shall provide the city development department with a copy of an approved mangrove trimming permit or mangrove alteration permit from the Florida Department of Environmental Protection.

**Sec. 5.06.04. Prohibited ongoing activities.**

The following standards apply to post-development activities taking place within any protected area.

*A. Handling and storage of fuel, hazardous and toxic substances, and wastes.*

1. Developments where fuel or hazardous or toxic substances or wastes will be generated, handled, stored, transferred, or sold shall employ the best available facilities and procedures for the prevention, containment, recovery, and mitigation of spillage of fuel and hazardous or toxic substances or wastes. Facilities and procedures shall be designed to prevent substances or wastes from entering the water or soil, and employ adequate means for prompt and effective clean-up and spills that do occur.
2. No toxic or hazardous wastes or substances shall be stored in outdoor containers.
3. Storage or disposal of all types of wastes or substances is prohibited on shorelines.

*B. Prohibited uses.* The long-term storage of equipment or materials, and the disposal of wastes shall be prohibited.

*C. Fertilizers, herbicides, or pesticides.*

1. Fertilizers, herbicides, or pesticides shall not be applied in a protected area except for projects conducted under the authority of F.S. §§ 373.451--373.4595, the Surface Water Improvement and Management Act, and governmentally authorized mosquito control programs.
2. Fertilizers, pesticides, and herbicides shall be applied sparingly and at appropriate rates and time intervals.

*D. Spray vehicles.* Vehicles used for mixing or spraying chemicals are prohibited from withdrawing water directly from waters in protected areas.

*E. Pump-out, holding, and treatment facilities for wastes from mobile sources.* Sewage, solid waste, and petroleum waste generated by vessels or vehicles on the site shall be properly collected and disposed of.

**5.06.05 FLOODPLAINS**

**Sec. 5.06.06. General provisions.**

*A. Interpretation generally.* In the interpretation and application of this chapter all provisions shall be:

1. Considered as minimum requirements;
2. Liberally construed in favor of the governing body; and
3. Deemed neither to limit nor repeal any other powers granted under state statutes.

*B. Compliance required.* No structure or land shall hereafter be located, extended, converted, or structurally altered without full compliance with the terms of this chapter and other applicable regulations.

C. *Effect on other restrictions and regulations.* This chapter is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this chapter and another ordinance conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

D. *Warning and disclaimer of liability.* The degree of flood protection required by this chapter is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes. This chapter does not imply that land outside the areas of special flood hazard or uses permitted within such areas will be free from flooding or flood damages. This chapter shall not create liability on the part of the city or by any officer or employee thereof for any flood damages. This chapter shall not create liability on the part of the city or by any officer or employee thereof for any flood damages that result from reliance on this chapter or any administrative decision lawfully made hereunder.

E. *Lands to which chapter applies.* This chapter shall apply to all areas of special flood hazard within the jurisdiction of the city.

F. *Basis for establishing areas of special flood hazard.* The areas of special flood hazard identified by the Federal Insurance Administration in its Flood Hazard Boundary Map (FHBM), #120165 0001 C, dated August 15, 1978, and any revisions thereto, are adopted by reference and declared to be a part of this chapter; or the areas of special flood hazard identified by the Federal Insurance Administration through a scientific and engineering report entitled "The Flood Insurance Study for the City of Stuart, Florida", dated February, 1978, with accompanying Flood Insurance Rate Maps and Flood Boundary and Floodway Maps and any revisions thereto are hereby adopted by reference and declared to be a part of this chapter.

#### 5.07.00 PENALTIES FOR VIOLATIONS

Each violation of the provisions of this chapter that involves more than 1,500 square feet of land shall be deemed a separate violation.

The Stuart Code Enforcement Board may determine in a proper case that a violation of any provision of this chapter may be irreparable or irreversible in nature pursuant to F.S. ch. 162. Accordingly, said board shall have the authority to impose a fine of up to \$7,500.00 for each violation found.

#### 5.08.00 RESOURCE PROTECTION REGULATIONS ADOPTED BY REFERENCE

##### Sec. 5.08.01. Martin County Well field Protection Ordinance.

The Martin County Interim Well field Protection Ordinance (#354, October 25, 1988), or subsequent amendments thereto, is hereby adopted by reference as part of this Code. Copies of this document shall be made available to the public at the office of the city clerk.

#### TREE REPLACEMENT LIST - CITY OF STUART

The following species list shall serve as a guideline to those individuals replacing/planting trees subject to section \_\_\_\_\_ of this Code.

TABLE INSET:

Common Name	Botanical Name
Black Olive (F)	Bucida buceras
Coconut Palm (F)	Cocos nucifera

Crepe Myrtle (I)	Lagerstroemia indica
Ficus (F)	Ficus spp.
Geiger Tree (F)	Cordia sebestena
Gumbo Limbo (F)	Bursera simaruba
Italian Cypress	Cupressus sempervirens
Live Oak	Quercus Virginiana
Mahogany	Swietenia mahogani
Mexican Washington Palm	Washingtonia robusta
Paradise Tree (F)	Simarouba glauca
Queen Palm	Arecastrum romanzoffianum
Royal Palm (F)	Roystonea elata
Royal Poinciana (F)	Delonix regia
Sabal Palm	Sabal palmetto
Tabebuia (F)	Tabebuia spp.
Tropical Almond (F)	Terminalia catappa
Magnolia	Magnolia grandiflora
Bottle Brush (I)	Callistemon rigidus
Laurel Oak	Quercus laurifolia
Carrotwood	Cupaniopsis anacardiopsis
Wax Myrtle	Myrica cerifera
Dahoon Holly	Ilex cassine
Palatka Holly	Ilex attenuata
Red Maple	Acer rubrum
Drake Elm	Ulmus parvifolia "Drake"
Red Cedar	Juniperus silicicola
Paurotis Palm	Acoelorrhaphe wrightii
Hackberry	Celtus laevigata
Sycamore	Plantanus occidentalis
Slash Pine	Pinus elliottii Var "Densa"

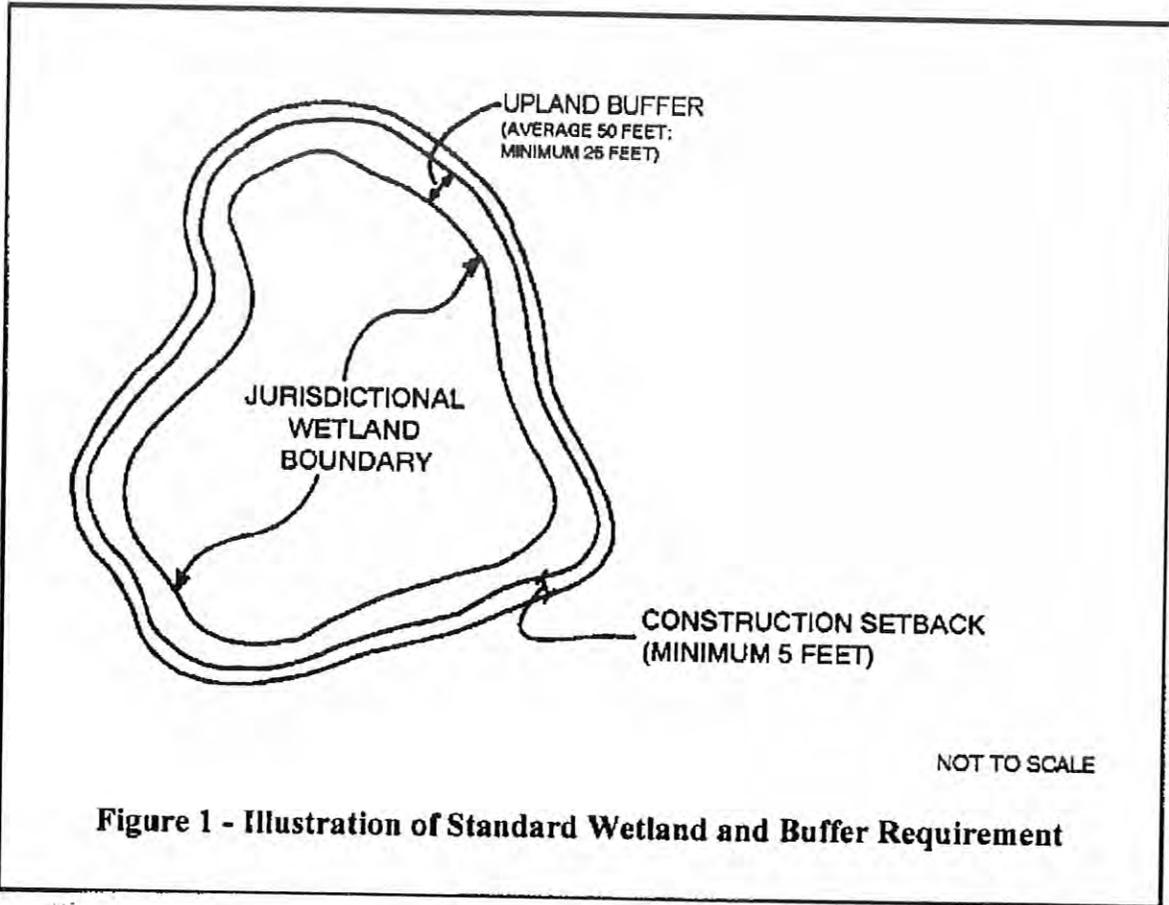
F = Susceptible to Freeze

I = Susceptible to Insects/Pests

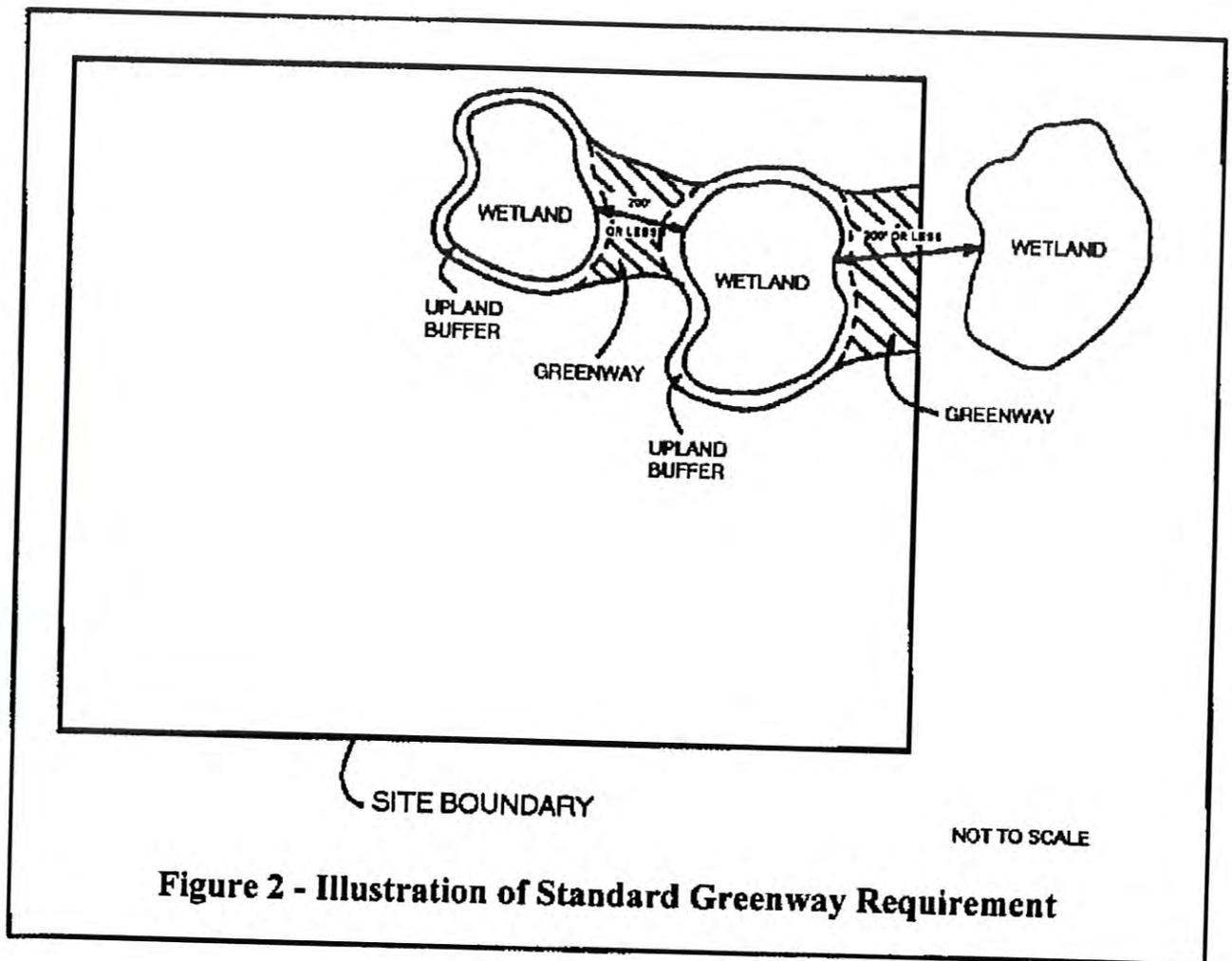
STUART COMPREHENSIVE PLAN ENDANGERED AND THREATENED SPECIES POTENTIALLY FOUND WITHIN THE CITY OF STUART

TABLE INSET:

<i>Mammals:</i>	
Manatee	State Endangered
<i>Birds:</i>	
Red Cockaded Woodpecker	Federal and State Threatened
Scrub Jay	Federal and State Threatened
Florida Sandhill Crane	State Threatened Not Listed Federal
Southern Bald Eagle	State Threatened Federal Endangered
Wood Stork	State and Federal Endangered
Peregrine Falcon	State Endangered Federal Threatened
<i>Reptiles:</i>	
Loggerhead Turtle	State and Federal Threatened
Green Turtle	State and Federal Endangered
Leatherback Turtle	State and Federal Endangered
Eastern Indigo Snake	State and Federal Threatened



**Figure 1 - Illustration of Standard Wetland and Buffer Requirement**



**Figure 2 - Illustration of Standard Greenway Requirement**

Deleted language from Chapter 10 "Hardship Relief"

**10.03.00 CLUSTERING OF DEVELOPMENT**

**Sec. 10.03.01. Generally.**

~~Pursuant to section 5.03.04, development activities shall be limited to uses and activities that are presumed to have an insignificant adverse effect on an environmentally sensitive area. The density or intensity of a use that would have been allowed on a site designated as an environmentally sensitive area, in the absence of the application of this Code, may be used by clustering the development in areas within the project site that are not environmentally sensitive. New development may be clustered on upland portions of a development site, which are not otherwise environmentally sensitive lands. Development densities and intensities may be transferred out of the environmentally sensitive area on a one-for-one basis, provided however, the development density and intensity in the non-environmentally sensitive portion of the site shall not exceed 150 percent of the maximum density and intensity otherwise allowed for the non-environmentally sensitive portion.~~

~~Sec. 10.03.02. Clustering.~~

~~Development on parcels containing an environmentally sensitive area may be clustered on non-sensitive portions of the site by concentrating the number of units or the amount of square footage allowed for the entire site under the otherwise applicable land use designations on those non-environmentally sensitive portions of the site, provided however, the density or intensity of the site shall not exceed 150 percent of the density or intensity allowed in section 2.01.01 of this Code for the non-environmentally sensitive portion of the site.~~

**Explanation: Consistency with proposed changes to the Comprehensive plan and Chapter 5 of the LDC.**

10.03.00 CLUSTERING OF DEVELOPMENT

Sec. 10.03.01. Generally.

Pursuant to section 5.03.04, development activities shall be limited to uses and activities that are presumed to have an insignificant adverse effect on an environmentally sensitive area. The density or intensity of a use that would have been allowed on a site designated as an environmentally sensitive area, in the absence of the application of this Code, may be used by clustering the development in areas within the project site that are not environmentally sensitive. New development may be clustered on upland portions of a development site, which are not otherwise environmentally sensitive lands. Development densities ~~and intensities~~ may be transferred out of the environmentally sensitive area on a one-for-one basis, provided however, the development density and intensity in the non-environmentally sensitive portion of the site shall not exceed 150 percent of the maximum density and intensity otherwise allowed for the non-environmentally sensitive portion, provided that for each transferred residential unit an additional tenth of an acre of non-environmentally sensitive shall be preserved as upland buffer or native preserve.

Sec. 10.03.02. Clustering.

Development on parcels containing an environmentally sensitive area may be clustered on non-sensitive portions of the site by concentrating the number of units ~~or the amount of square footage allowed~~ for the entire site under the otherwise applicable land use designations on those non-environmentally sensitive portions of the site, provided however, the density or intensity of the site shall not exceed 150 percent of the density or intensity allowed in section 2.01.01 of this Code for the non-environmentally sensitive portion of the site, provided that for each transferred residential unit an additional tenth of an acre of non-environmentally sensitive shall be preserved as upland buffer or native preserve.

**Explanation: Consistency with proposed changes to the Comprehensive Plan and Chapter 5 of the LDC.**

Valerie Jones pulled this item because she wanted the record to show that the City is in violation of certain grants. City Manager Hudson said the City will abide by the grant requirements. After discussion of Item 5, the Board approved this item 5-0.

**4. RESOLUTION 60-08 Authorization to apply for two (2) Alternative Water Supply Grants to the South Florida Water Management District in the amount of \$2,000,000.00 and if successful authorize the Mayor and City Clerk to execute each grant subject to review and approval of the City Attorney.**

**5. RESOLUTION 61-08 Authorization to extend the term of a temporary use agreement to allow for the City boat slips at Shepard Park to remain in place until a Sovereignty Submerged Lands Lease or Butler Act Claim is processed between the Florida Department of Environmental Protection (FDEP) and the City of Stuart originally adopted by Resolution 25-07 at the February 12, 2007 City Commission Meeting.**

Valerie Jones also pulled this item because she felt there was no indication the temporary use is legal and this is a violation of the FIND grant. Mortell said we need a legal opinion if this is a violation of the Grant. City Attorney Nicoletti said the TUA (Temporary Use Agreement) allows us to do this. Waxler asked if Nicoletti had discussed this issue with Jones. He said no, this is the first he had heard on the TUA. Jones shouted out "that is not true". Waxler asked the City Attorney to sit down with Jones and discuss the issues. Christie moved to approve Items 3 and 5 conditioned on the City Attorney confirming that this is not in violation. Mortell seconded the motion. FIND Commissioner Gail Byrd said as a result of questions raised by Jones, FIND investigated and found no intent to misuse grant funds. Byrd also noted that Shepard Park was not discussed but the facilities there have been improved. The vote was called and Christie's motion passed 5-0.

**END OF CONSENT CALENDAR**

**COMMISSION ACTION**

**6. RESOLUTION 59-08 Authorization to adopt a schedule of fees and charges for Utilities, under Chapter 82, of the City Code.**

Hudson said this resolution "pretty much" implements all of the things the Board asked for at the workshop. Mortell recollected that the Board "tentatively approved break down rates" and he thought they had created a "scale effect". When he addressed incentives for using less than 8,000 gallons of water per month, staff said they could show a breakdown in dollars and cents and establish a "life line scale of under 4,000 gallons". Staff added that the rate structure is a monthly base charge and then for every gallon used. Mortell felt over 50% of the users are using under 5,000 gallons and there is no real incentive to save. Staff said the structure being used is widespread throughout Florida and the intent is trying to discourage outdoor use. An analysis on 4,000 gallons would have to be done and staff can come back with this. Mortell wanted one more tier. Hutchinson agreed. Staff said we talked about interpretation, referred to seasonal residents, and said we need to allow for variances in household size. Mortell would like the resolution "tweaked to penalize the guys at the top and to give incentives to the guys at the bottom". Noting the difference between small water users and big water users, Waxler agreed she would also like another tier. Staff said the conservation effort is to get people to change their water usage. Christie supported the idea of another tier to give people an incentive to use less water. Staff said SFWMD wants us to charge the big users more to get them to change their ways.

Mortell made a motion to have this brought back with an additional tier. Christie seconded. Stuart resident Bernie Malone suggested a 10% discount be given if water usage is less than last year. Staff will come back with this item the end of June. Hudson asked the Board if the issue of the "availability fee" is satisfactory. Hutchinson wants to see a breakdown on the charges. Staff said an agreement with the County should be executed by September.

**DISCUSSION & DELIBERATION**

**7. Discuss proposed amendments to the City's Comprehensive Plan and Land Development Code (LDC) pertaining to environmental protection standards and (2) draft resolution Number 22-08 declaring said amendments to be "Zoning in Progress" pursuant to Sec. 1.02.04 of the City's LDC.**

Terry O'Neil addressed the background of this item stating the Board had directed that provisions of the Conservation Element of the City's Comp Plan and Chapter 5 of the LDRs be strengthened. Also proposed were several Comp Plan amendments designed to generate points should the City again seek to compete in the Florida Communities Trust

(FCT) land acquisition grant program. In February a draft agenda item was posted on the City's website and nearly 100 individuals and firms with development interests were informed of the proposed amendments. Written comments were received from the law firm of Gunster Yoakley, Lucido & Associates, the Wallace Automotive Group, and Michael Stetson. As a result of comments and questions, the ordinance now includes a handful of alternative provisions that seek to clarify and temper earlier language which may have overreached in certain instances. For purposes of discussion, O'Neil pointed out a 2-page comparison of selected Stuart and Martin County standards. (A copy of this comparison has been forwarded to most of the Government Reporter's subscribers but if you have not received it please let me know) The comparison charted four columns indicating Column A - current City regulations; Column B - the initial City amendment; Column C - the revised City amendment; and Column D - the current Martin County regulations. Also included in the packet was a map showing the five remaining vacant parcels subject to the revised changes.

After synopsising the initial and revised amendments O'Neil indicated the City's role in wetland mitigation noting that staff feels the changes are reasonable and the City remains more liberal than the County. Mortell said everyone needs to understand the impact will be on approximately five sites in the City.

#### Public Comment

**Dana Small** of DSL Environmental Services in Port St. Lucie asked if the City is planning on hiring the necessary staff to review these requirements. O'Neil said no. This does not necessarily mean the City will make that delineation but will allow the City to make a study using the same standards as State agencies. Small asked which agency will oversee environmentally sensitive lands. O'Neil said that includes wetland, upland buffers and species habitat. Small asked if mitigation would be required in the City. O'Neil said the intent is to mitigate on site and adjacent parcels may be considered. Small also questioned water sheds and habitat study.

**Debra Duvall**, speaking on behalf of the Economic Council, said the Council shares the City's commitment to the environment but asked that this item be work shopped and no decision made tonight.

**Mark Mathes** of Lucido & Associates asked for clarification that the City has the authority to agree or disagree with upland and wetland standards. He said the City has control of upland habitat but the wetland issue is new to the City and would require an "immense" increase in staff. Requiring all mitigation in the City would be very difficult and the use of State regulations would be acceptable. Mathes said the City has been very successful in preserving habitat and he would not want the City to move in the direction of the County that requires preservation of "every little mud hole". He closed his comments with appreciation of O'Neil's efforts in keeping all interested parties informed.

**Linda Hake** thanked the Board for getting the word out to the community. Her firm has a number of clients concerned about the proposed changes, many who had annexed into the City in the '90s. Tonight Hake was representing the Bainbridge Company that has a proposed project at Marketplace on US 1 and would have a problem with off-site upland mitigation. After explaining the problem she asked the Board to look at the issue. Hake then addressed wetland mitigation and said there is no wetland banking available and the Board is taking away the opportunity of off site mitigation. She also wanted clarification on "zoning in progress regulations". Hudson said staff is not recommending that issue tonight.

**Toby Overdorf** commented on wetland mitigation banking and said the Federal rule's first choice is to go into wetland mitigation banks. He quoted Florida code on mitigation banks, delineation and "delegatory authority" and asked if the City will have staff capable of doing the requirements.

**Mike Stetson** said he is a third generation Floridian and staunch supporter of environmental protection. He said many properties came into the City because its policy was to follow the SFWMD rules. He addressed the issues raised by Hake and "respectfully" requested a public workshop because this issue has "far reaching impact to property owners and perhaps to the City".

O'Neil addressed Hake comments and said the new draft has an "either/or clause".

Hutchinson said "maleucas and pepper trees are the developers' best friends" and exotics were allowed to come in because the properties were neglected. She would like people to see what is in the best interest of the community and not just one piece of land and she felt the City is headed in the right direction. In response to her question on set backs from the water line in the CRA exception, O'Neil said the CRA feature creates walkways. Hutchinson said she had other comments and asked the Mayor how he wanted to handle the discussion. Krauskopf said he wanted to work off of the 2-page comparison chart and was comfortable with everything in Column C - revised City amendment. When the Mayor asked about comments made by Overdorf, O'Neil said staff had worked with Miller Legg who reviewed the proposed revisions and said they were not inconsistent with State or Federal regulations. Krauskopf said it might be simpler to say no mitigation what so ever and select the Martin County alternative. Hudson said the two issues overlapped and Overdorf was saying it would be an expensive situation if the City took over delineation.

When Hutchinson questioned Overdorf on the mitigation bank issue, he said there are three mitigation banks in the City's service area but they are not in the City limits. Hutchinson asked Overdorf to provide the map of mitigation banks and he agreed to do so. Mortell said this is an interesting discussion and agreed with Mathes on the issue of preserving systems of habitat. He said he would favor Column C as suggested by Krauskopf but added that we need to figure out tweaks to put it together. After reiterating that there are only five sites on the map of remaining vacant parcels subject to regulation under these revisions, Mortell recommended moving forward with Column C.

Waxler said she would refrain from voting on this because she has a potential conflict of interest working with Avonlea, but she did recommend a workshop. Hutchinson said she did not see "average citizens" on the list of people who had been notified. Mortell said the LPA meeting would be the workshop. Christie said the revisions might seem more stringent to a developer but staff is trying to provide compromise language. He thinks a workshop would be in order. Krauskopf addressed earlier comments he had made concerning using natural landscape instead of "moon scape" in retention areas and hoped the Hampton Inn would have an environmental area at build out. Christie wants to be sure we are not in conflict with other agencies. O'Neil said staff will look at the issues. Hutchinson made a motion to move forward to the LPA the items under Column C. Mortell seconded. Hudson and Nicoletti will address the issues raised by Overdorf. The vote was called and the motion passed 4-0 with Waxler abstaining.

## 8. Discuss the Proposed Stuart - Martin County Fire Rescue Consolidation

City Manager Hudson reviewed the preliminary discussion for the proposed consolidation and gave a brief history going back to a 1992 report which is probably out of date now due to changes in population but is still influential in consolidation. He said there was a time when Martin County Fire Rescue was not a single MSTU and now the County has contracts with Sewalls Point, Jupiter Island and Ocean Breeze Park. Tax reform has caused the City to look at ways to save money so we requested a formal proposal from Martin County to provide service to the City. The agenda packet contained three approaches on how to handle the issue.

1 – Aggressively pursue and develop a counter proposal

2 – Cautiously pursue and do due diligence study

3 – Not pursue at all but ultimately as the City moves forward we will need to address a strategy of "service delivery".

Hudson recommended the City proceed cautiously and ask due diligence questions which have not been thoroughly addressed. He said the governance questions are disconcerting and suggested inviting the Martin County Taxpayers Association to do an independent review of the proposal. Mortell's biggest concern was that the Britt Road station and Station 23 in South Stuart are being proposed to be closed and not a single Martin County Commissioner has spoken publicly in favor of this consolidation.

### Public Comment

**Dave Jackson** speaking for the firefighters union voiced support of consolidation for safety issues. He said it would increase the LOS for citizens and offer more protection for fire fighters and the economic impact would be beneficial to the residents of Stuart.

**Helen McBride**, a long time City resident, said she chose to live in the City because of the benefits it offered. She noted that the City had just built a new Emergency Services/Police facility and said she did not trust the County Commissioners because they are always "belittling the City". She said the City will still pay for fire protection and wanted to know what it is going to cost City residents.

**Doug Killane**, a 27 year resident of the City, has 13 years of service with City Fire Rescue and wants to maintain and improve the LOS. He was concerned how we are going to reduce the costs as the County claims and said the burden of proof is on the City Commission.

Krauskopf said this has been going on for 25 years and he can understand the frustration on a faster time frame. He supported option 2 (cautiously pursue) and is willing to explore this but the County sent "the sauce but no meat".

Consolidation is worthy of pursuing but he is not in a hurry to make a mistake and he hoped the County is not doing this for political reasons. He also hoped the discussions would go on in "back rooms" and not in the media.

Christie has always said police, fire and recreation are the heart and soul of the City and it is important that they continue to exist. There is a need to be concerned with the safety issue but when you hear some stations are going to be closed it does not sit well. He also wants the City to "address the money problems" and ask what the real savings are. He does not want to give up the City's autonomy for something over which we have no control. Although Christie said he would support option 2 to proceed with caution, he did not think the current proposal is the best we can get and was also concerned that there was no "exit" clause in case the City wanted out of the consolidation.

Mortell noted the County election and said he would be surprised if this would get a majority vote. He felt the City is "being played" and wants the County Commissioners to present the interlocal. He could not figure out how the County could be so "ultraistic" and save the City so much money and wants to hear from all five County Commissioners. He is willing to cautiously pursue the issue but wants to see a County agenda item on this issue.

Hutchinson did not want a short term savings with long term costs and said if the County is serious for saving money, she wants to be sure all entities involved are playing the same game. She said there are times when the County does not think the City is part of the County, and she does not want to sign off on a deal that is not in the best interest of the City. She is looking for a long term solution.

Waxler moved to approve the City Manager's recommendation for option 2. Mortell said he would not agree to propose an interlocal but would second the motion if the it states the County Commissioners agree. The vote was called and the motion passed 5-0.



GunsterYoakley  
ATTORNEYS AT LAW

Writer's Direct Dial Number: (772) 223-2240  
Writer's E-Mail Address: lhake@gunster.com

April 7, 2008

US MAIL

---

Terry O'Neil  
Planning Consultant  
City of Stuart  
121 SW Flagler Avenue  
Stuart, FL 34994

Re: Proposed Ordinance amending environmental protection standards

Dear Terry:

Thank you, to you and Paul Nicoletti, for meeting with me regarding the proposed amendments the City's environmental protection standards. As you know we have some concerns regarding their impact on the ability to use property within the City in an economically feasible manner. The following are our preliminary comments on the proposed revisions:

The Land Development Code

1.) We represent the owners of the Marketplace project on US1, which was the subject of an application to the City for a mixed use project, which is now being revised due to the downturn in the residential market. The owners of this property purchased 20.6 acres of upland property in north Stuart to provide off-site preservation, in lieu of preserving 10 acres of native habitat on its US1 development site. This proposed relocation met the standards of the language contained in sections 5.04.02.B and 5.04.02.C. of the City's Land Development Code, and also meets the proposed new language that would limit off-site preservation to property within the City limits. Most importantly, the relocation satisfied the City's requirement that the off-site preservation be of a "superior habitat". The proposed off-site 20 acre preserve, which is otherwise developable for residential use, is composed of high quality pine and xeric oak habitat located next to regional conservation lands and other preserved lands under public management in the Haney Creek watershed. This property provides greenway connections which create a large scale, high quality, and diverse habitat for wildlife.

The proposed Ordinance completely eliminates the ability to re-locate preserve areas off-site if the development site is more than 5 acres. While the reasoning is that larger projects have larger preserve areas with greater habitat value, this is clearly a good example of how the proposed Ordinance would forfeit 20 acres of superior habitat for 10 acres on US 1 that are isolated from other regional habitat and unsustainable in their location.

Of additional concern, is the proposed language requiring the payment of 200% of the value of the land that would have been preserved on-site *in addition* to providing 2 to 1 acres of off-site preservation. This replaces a current provision *allowing* the payment of 150% of the value as an *alternative* to off-site preservation. Requiring both 2 to 1 preservation and payment of twice the value of the property will make off-site preservation impossible.

We believe that the City's standards which already require off-site habitat to be twice as large, and of superior value, coupled with the newly proposed language limiting relocation to the City limits, are adequate and fair to safeguard the habitat values of the City's upland preserve areas. The additional provisions are over-reaching, and act to prohibit a viable option for preserving habitat in a meaningful way.

2.) The amendment to Section 4.03.04 of the Land Development Code proposes wetland mitigation standards to be imposed by the City in addition to those required by the State of Florida and the Army Corps of Engineers. These mitigation standards do not appear to be set forth in the Ordinance. What additional mitigation standards are being proposed?

3.) The deletion of the entire Section 10.03.00, Clustering of Development, indicates that no further transfer of density from either upland preserve areas or wetlands will be permitted in the City. This is a significant departure from the City's standards, that currently allow protection of these sensitive lands without penalty to the landowner. This will reduce the marketable value of properties in the City, and could open the City to the possibility of future Bert Harris Act claims.

#### The Comprehensive Plan

4.) The proposed change to Policy A.5.5.E.ix of the Conservation Element reduces the open space credit for wetlands and wetland buffers to 50%. This proposal seems onerous - if wetlands and buffers are required to be preserved for the public benefit, why would they not, at a minimum, count as open space? This policy is inconsistent with the policy in A.5.5.B.iv. which provides that new development shall be located on upland portions of the development site which are not otherwise environmentally sensitive lands. After imposing requirements to preserve the environmentally sensitive lands, the remaining buildable property should not be burdened with satisfying the open space requirement. Both this requirement and the elimination of density transfers seem more in the nature of density restrictions than the protection of environmental resources. We respectfully encourage the City to address density more directly in the zoning code, rather than in the environmental protection standards.

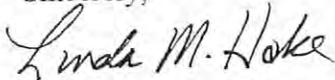
5.) The amendment to Objective 5, Natural Systems, of the Conservation Element, provides for the designation of viable and functioning wetlands by the City, as well as the SFWMD and the Army Corps Of Engineers. Martin County struggled with designating wetlands for many years, with considerable controversy over the lack of in-house or hired expertise to

Terry O'Neil  
April 7, 2008  
Page 3

make wetland determinations. Over a decade ago, the County changed its regulations to defer to the State and Federal agencies in determining the existence and extent of viable and functional wetlands. The County still governs the treatment of wetlands once they are designated, but the designation of the wetland is left to those organizations with far greater expertise in the classification of wetlands. This has resulted in more consistent, and ecologically supported, classification of wetlands and has eliminated controversy. We recommend that the City maintain its current regulations for designation of wetlands, and work with the State and Federal environmental specialists in cases where their determination is called into question.

We thank you for the opportunity to comment on the proposed Ordinance and encourage the City to adopt regulations that will enhance the protection of natural resources without detriment to property values in the City.

Sincerely,



Linda M. Hake

LMH

Cc: Dan Hudson, City Manager  
Paul Nicoletti, City Attorney

# Wallace

April 24, 2008

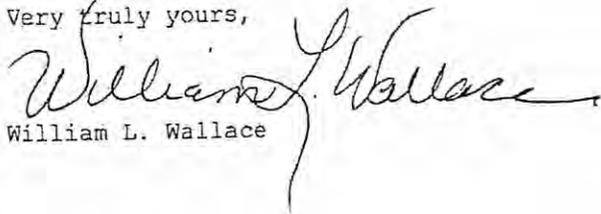
Dan Hudson  
Paul Nicolette  
City Commissioners

To all concerned:

We have recently heard about the proposed legislation dealing with wetland property. In our case, at strong urging from the city, agreed to annex our property on Federal Highway from the County into the City to accommodate the shopping center development that Lowe's occupies today. There was no benefit to us to annex into the City other than to cooperate and meet the state requirements for zoning changes. We were sure when we agreed to annex that our development rights would never be compromised.

For all these years we have paid increased property taxes and are now faced with unnecessary regulation. We strongly object to the proposed legislation and question the legality as it deals with our annexation agreement and equally question the logic of why the city would want to get involved in environmental regulation when there are already layers and layers of bureaucracy dealing with that issue.

Very truly yours,



William L. Wallace



LINCOLN MERCURY

VOLVO



MAZDA



HYUNDAI



NISSAN

CHRYSLER

Jeep

PONTIAC



**WALLACE AUTOMOTIVE GROUP**

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Terry O

Lucido & Associates

Land Planning / Landscape Architecture

April 28, 2008

Dan Hudson, City Manager  
City of Stuart  
121 SW Flagler St.  
Stuart, FL 34994

**RE: PROPOSED AMENDMENTS TO THE ENVIRONMENTAL POLICIES OF THE  
COMPREHENSIVE PLAN AND LAND DEVELOPMENT REGULATIONS**

Dear Mr. Hudson:

Please accept the attached comments regarding the proposed Comprehensive Plan amendment related to the City's environmental policies and related amendments to the Land Development Code. We have a number of concerns with the proposed changes which are summarized below and are more fully addressed on the attached exhibit.

As these changes are far reaching, reflecting a major departure from current policy, we respectfully request that a workshop presenting these considerations be conducted with the effected property owners and that extensive consideration by the Local Planning Agency be completed prior to any action by the City Commission.

The following summary attempts to highlight the concerns we have on the subject changes. The proposed changes effectively remove many long standing options available to property owners in the City, and contrary to the intended purpose, eliminate valuable tools for the City of Stuart in achieving important environmental preservation goals.

#### Data & Analysis

Many changes are directly intended to reduce the allowable development intensity on a site or indirectly have the same effect. No data and analysis has been presented indicating that approved development has been overly intense and unsustainable by the City or otherwise damage environmentally sensitive areas. Likewise, no data and analysis has been presented indicating the amount of remaining environmentally sensitive lands within the City that may benefit from these policy changes. Finally, no data and analysis has been presented to demonstrate the ability of the proposed changes to effectively be implemented.

#### Impact to Property Rights

The proposed changes have a number of direct impacts on the property rights of landowners within the City of Stuart. Some are objectively known while others are unknown given the vague language contained within the proposed changes. The most straight forward impact on property rights is the limitation on the use of mandated environmental preservation areas toward

Dan Hudson, City Manager  
April ??, 2008  
Page 2 of 2

open space requirements. Meanwhile, the impact of the elimination of off-site preservation options is impossible to determine given the limited data supporting these changes.

#### Vague or Missing Criteria

Many of the proposed changes are vague and have no objective implementing criteria. For example, the proposal allows the City to designate wetlands yet does not define an objective methodology for such determination. In addition, the proposal allows the City to define mitigation requirements but again provides no objective measures to define the mitigation criteria. Vague and/or missing criteria do not serve the public's interest and will only lead to conflict and litigation to define such measures.

#### Duplicative Government Efforts

Requiring the City to perform identical functions as are already provided by other levels of government is inefficient and wrought with potential for conflict. However, if the City wishes to require greater protection or mitigation measures for wetlands, this is their prerogative. These measures, though, should be objectively set forth.

#### Reduced Incentives for Environmental Preservation

On top of the many vague and legally contestable provisions within the proposal, the changes will also reduce the City's ability to actually meet their environmental goals. The City will end up with similar controls as Martin County where preservation of environmental systems is replaced by preservation of non-connected, limited value, costly pockets of marginal habitat.

In closing, we appreciate the opportunity to comment on the proposed changes and trust our comments will be duly considered.

Respectfully,



Mark D. Mathes, AICP  
Planning Director

Encl.

April 5, 2008

## Comments on City of Stuart Proposed Changes to Environmental Policies

### Changes to the Conservation Element

Page 5

Policy A5.1 – Allows the City to designate wetlands independent of SFWMD and ACOE  
There is no scientific basis for the City to take on the responsibility of wetland determination. The SFWMD and ACOE have sound tested methodologies to ensure that wetlands are properly identified. This change creates duplicative governmental processes thereby increasing the cost of development in the City. It also leads to the potential for abuse as no objective criteria are established within the Comprehensive Plan defining a wetland. Without such definition, property owners are at the subjective will of unelected regulators. This policy should remain unchanged or at a minimum an objective definition of a wetland should be placed in the appropriate location of the Comprehensive Plan. Finally, no data and analysis has been presented reflecting failures in the current method of wetland delineation. I believe state law would also mandate that such actions of a local government be allowed only with the finding that adequate and competent staff are available to implement this task. In today's budget constrained environment, adding an entire new responsibility on the City may not be in the best interest of the public.

Page 7

Policy A5.5.A.iv – Allows the City to designate wetlands independent of SFWMD and ACOE  
Similar change to that proposed in Policy A5.1. See comment above.

Policy A5.5.B.iv – Provides a density bonus for clustering development out of wetlands  
The justification for this change claims that the existing bonus serves no purpose since such lands are otherwise off limits to development. On the contrary, the existing language is an incentive for property owners to preserve existing wetlands by offering a density bonus of 50%. When viable economic returns are not feasible with the preservation of all on-site wetlands, wetland impacts may occur. The existing policy provides an additional tool to obtain the economic return while preserving on-site wetlands. The corresponding environmental benefit is the preservation of more on-site wetlands. This policy is essentially a bonus to the normal net density calculation of maximum allowable units. The problem is that this policy has never been implemented by the City and therefore has not had a fair measure to determine its value in achieving greater wetland preservation. The existing policy also omits an intensity bonus for nonresidential developments providing for greater on-site wetland preservation. Instead of eliminating this bonus, the policy should be fully supported by the City and expanded to provide a bonus for nonresidential properties as well. In addition, no data and analysis was presented demonstrating how this policy could have assisted in achieving greater wetland preservation if it was truly implemented by the City.

April 28, 2008

## Comments on City of Stuart Proposed Changes to Environmental Policies

Page 9

Policy A5.5.E.ix – Limits amount of wetlands and wetland buffers counted toward open space  
The justification simply states that the proposed change is to reduce the allowable development intensity of a project. In other words, this proposed change serves no other purpose than to reduce the development rights available to property owners within the City of Stuart. This type of change has far reaching Burt Harris claims which are not identified within the staff report. Furthermore, the change is not supported by supporting data and analysis indicating that existing development is somehow developing at intensities that are not sustainable by the City. The City is not in a building moratorium due to critical public facilities and continues to provide aesthetic developments that far surpass surrounding communities. The City's open space requirements under existing rules are equivalent to or greater than surrounding communities.

Page 11

Policy A5.6.C – Eliminates the ability to mitigate wetlands with credits derived outside the City  
Requiring mitigation within the City of Stuart could effectively eliminate off-site mitigation. There may be insufficient existing native wetlands or upland habitats to meet any substantive portion of mitigation in the future. There is no data and analysis presented to reflect that there are such feasible wetlands and native uplands within the City available for mitigation. The only means by which this policy could be effectively implemented is if mitigation within the City is not linked to the same mitigation used by SFWMD and ACOE. In other words, the City would allow mitigation through SFWMD and ACOE for their permitting needs but require additional mitigation within the City. This mitigation would also have to take the form of more than just preservation such as maintenance of City owned environmental lands, contributions to City environmental programs, etc. In addition, more objective criteria would be needed to fairly implement this compromise. Implementing City required mitigation without objective guidance will lead to uneven applications and thus inequality under the law.

### Changes to Chapter 5 of the LDR

Page 17/18

Section 5.03 – Allows the City to designate wetlands independent of SFWMD and ACOE  
See comment related to Policy A5.1 of the Conservation Element.

Page 20

Section 5.03.02.C.d – Deletes ability to replant buffers using the 50' or 75' average buffer width  
The justification claims the language conflicts with other language requiring minimum buffer widths. On the contrary, the existing code allowing for a replanting of non-native wetland buffers at a 25' or 50' minimum (and 50' or 75' average) is not in conflict with buffer requirements. The existing section clearly calls for the area beyond 25' to be contiguous and of

April 28, 2008

## Comments on City of Stuart Proposed Changes to Environmental Policies

an equal or greater area than the required 50' buffer. The proposal continues to allow average buffer widths via section 5.03.02.C.1 (page 19). Instead of deleting this section, it should be clarified that the average buffer width would still be maintained. To remove this allowance will result in native upland areas cleared for development while non-native replanted areas are preserved instead.

### Section 5.03.02.D and 5.03.02.D.1 – Reduces parcel size for application of Greenways

The reduction in parcel size subject to the greenway requirement will unfairly reserve a greater percentage of a small parcel to preservation if the greenway requirement results in a preservation area larger than what would be normally required or would otherwise create connections of limited value. This type of change also has far reaching Burt Harris claims which are not identified within the staff report. Furthermore, the change is not supported by supporting data and analysis indicating that existing five to ten acre parcels have been developed in fashions that did not provide valuable connections to adjacent wetlands.

Page 21

### Section 5.03.04 – Allows the City to require mitigation independently of other agencies

Similar to the concerns expressed for Section 5.03 and Policy A5.1 of the Conservation Element; the proposed change allows for mitigation established by the City, but no where within the LDR or Comprehensive Plan does it set forth what the mitigation measures shall be. An applicant thus has no ability to gauge the impact this proposed change has on the value of their property. This type of change has far reaching Burt Harris claims which are not identified within the staff report. Furthermore, the change is not supported by supporting data and analysis indicating that existing mitigation measures for approved projects with wetland impacts has been contrary to the public interest.

The only means by which this policy could be effectively implemented is if mitigation within the City is not linked to the same mitigation used by SFWMD and ACOE. In other words, the City would allow mitigation through SFWMD and ACOE for their permitting needs but require additional mitigation within the City. This mitigation would also have to take the form of more than just preservation such as maintenance of City owned environmental lands, contributions to City environmental programs, etc. In addition, more objective criteria would be needed to fairly implement this compromise. Implementing City required mitigation without objective guidance will lead to uneven applications and thus inequality under the law.

### Section 5.03.04.C – Requires wetland mitigation within the City

Requiring mitigation within the City of Stuart effectively eliminates off-site mitigation. There may be insufficient existing native wetlands or upland habitats to meet any substantive portion of mitigation in the future. There is no data and analysis presented to reflect that there are such feasible wetlands and native uplands within the City available for mitigation. The only means by which this policy could be effectively implemented is if mitigation within the City is not linked to the same mitigation used by SFWMD and ACOE. In other words, the City would allow mitigation through SFWMD and ACOE for their permitting needs but require additional

April 28, 2008

## Comments on City of Stuart Proposed Changes to Environmental Policies

mitigation within the City. This mitigation would also have to take the form of more than just preservation such as maintenance of City owned environmental lands, contributions to City environmental programs, etc.

Page 23

### Section 5.04.01 – Allows City to designate wetlands independent of other agencies

See our comment related to Section 5.03.

Page 24

### Section 5.04.02.B and 5.04.02.C – Limits upland relocation to under 5-acre parcels

Limiting the size of parcels that can utilize the on or off-site upland preserve relocation to five acres and under renders this allowance virtually unusable. Parcels of this size do not have the financial return to accomplish the 2:1 replacement required for off-site relocation. Off-site relocation for larger parcels also results in greater preservation on the off-site parcel – a worthy environmental goal. Limiting on-site relocation reduces the ability to achieve environmental goals when such off-site relocation may provide better preservation habitat than preservation in place. Such a change could also have far reaching Burt Harris claims which are not identified within the staff report. Furthermore, the change is not supported by supporting data and analysis indicating that existing preservation plans of approved projects with off-site preserve relocation has been in fashions that are not sustainable by the City or result in poor preservation habitats.

### Section 5.04.02.C.4 – Requires upland relocation within the City

Similar to the concerns for proposed changes to wetland mitigation within the City, requiring upland relocation within the City of Stuart could effectively eliminate this option. There may be insufficient existing native upland habitats to meet any substantive relocation options in the future. There is no data and analysis presented to reflect that there are such feasible native uplands within the City available for relocation.

Page 25

### Section 5.04.02.C.5.b – Increase contribution required for off-site upland relocation

Since the off-site upland preserve relocation option is now limited to parcels of 5 acres or less, the increase in the cost of such off-site relocation to 200% of the appraised prorated value will effectively eliminate this option from consideration.

Page 41

### Section 10.030.00 – Provides a density bonus for clustering development out of wetlands

See response to Policy A5.5.B.iv.



Development Department

# City of Stuart

121 S.W. Flagler Avenue • Stuart • Florida • 34994

Phone: (772) 288-5326

Fax: (772) 288-5388

April 2, 2008

Mike Stetson,

Re: Villagio – Rezoning to CPUD

Dear Mike:

We confirm that the application for Rezoning to a CPUD will proceed, and be revised in accordance with, the LDR's that are adopted and in place at the date of this letter.

Thomas J. Reetz

Senior Project Planner

Phone # 772 600-1284

Email: [treetz@ci.stuart.fl.us](mailto:treetz@ci.stuart.fl.us)

VILLAGIO STUART, LLP  
900 S. Federal Highway, Suite 321  
Stuart, FL 34994  
Phone: (772) 286-2440 Fax: (772) 286-2441

March 10, 2008

Key Freeman  
Director of Development  
City of Stuart  
121 Flagler Street  
Stuart, FL 34994

RE: VILLAGIO - MAJOR AMENDMENT TO PUD

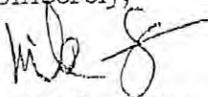
Dear Key:

It has come to my attention that the City of Stuart is considering a new proposed ordinance re mitigation of wetlands and uplands.

The purpose of this letter is to confirm that my application for a Major Amendment to the Villagio Stuart RPUTD submitted to the City on December 21, 2007, with a revision to that application submitted on March 6, 2008, is presently being reviewed under the City's existing mitigation policies and when and if the City adopts a new mitigation policy, my project will be considered to be "in the pipeline" and exempt from the new ordinance.

Thank you very much for your consideration.

Sincerely,



J. Michael Stetson

ck



May 6, 2008

Jeff Krauskopf, Mayor  
City of Stuart  
121 SW Flagler Avenue  
Stuart, FL 34994

Re: Environmental Protection Ordinance

Dear Mayor Krauskopf:

The Economic Council has had the opportunity to review a draft of an environmental ordinance proposed for consideration by the City of Stuart. The stated intent of proposed ordinance language is to enhance environmental protection in the City of Stuart. The Economic Council shares the City's commitment to protection of our environmental and natural resources, however portions of the proposed ordinance cause us to be concerned about potential effects on private property rights and costs to taxpayers, also important parts of our mission. Our understanding of the proposed ordinance is that it:

- ❑ Eliminates the ability to transfer density from any upland or wetland preserve area of the property
- ❑ Reduces the open space credit for wetland and wetland buffers to 50%
- ❑ Provides for the City to determine wetland boundaries, instead of deferring to established state and federal agencies
- ❑ Eliminates the ability to provide off-site preservation for most properties (Unless the property is less than 5 acres)
- ❑ Requires both the purchase of 2 to 1 acres of offsite preservation, plus the payment of 200% of value of property not preserved on site.
- ❑ Denies the use of off- site Regional Mitigation Banks in conflict with Section 373.4135 of Florida Statutes.

Part of the mission of the Economic Council is to help our local government representatives balance the needs of environmental protection with private property rights and a healthy economy. Perhaps it would be appropriate for the City to provide the measurable quantitative losses of natural resources that this ordinance language seeks to prevent so that it can be measured against the potential economic losses that may result.

At a time when economic efficiency is critical, we all must take a measured approach to incurring additional costs that may be duplicative and may not achieve the desired outcome.

Thank you for the opportunity to voice our concerns. We look forward to working with you in adopting regulations that can truly enhance the protection of environmentally sensitive lands without unduly burdening private landowners, taxpayers, and businesses in the City of Stuart. If you have any questions, please feel free to contact me.

Sincerely,

  
Tammy Simoneau

## O'Neil, Terry

---

**From:** Hutchinson, Mary  
**Sent:** Monday, June 02, 2008 7:17 PM  
**To:** O'Neil, Terry  
**Subject:** FW: Stuart Wetlands

Terry,  
Please forward the draft when it is completed.  
Thanks  
Mary

" Under Florida Law, email addresses are public records. If you do not want your email address released in response to a public-records request, do not send electronic email to this entity."

---

**From:** Jimi Rizzolo [mailto:jimirizz@bellsouth.net]  
**Sent:** Mon 6/2/2008 8:46 AM  
**To:** Hutchinson, Mary  
**Subject:** Re: Stuart Wetlands

That would be very nice...thank you.

J. Rizzolo

Hutchinson, Mary wrote:

> J. Rizzolo,  
> Thank you for your concerns. Are you interested in reviewing the  
> proposed ordinance before our meeting?  
> Regards,  
> Mary  
>  
> " Under Florida Law, email addresses are public records. If you do not  
> want your email address released in response to a public-records  
> request, do not send electronic email to this entity."

> -----  
> \*From:\* Jimi Rizzolo [mailto:jimirizz@bellsouth.net]  
> \*Sent:\* Thu 5/29/2008 4:43 PM  
> \*To:\* Krauskopf, Jeffrey; Waxler, Carol; Mortell, Michael; Christie,  
> James; Hudson, Dan; Hutchinson, Mary  
> \*Subject:\* Stuart Wetlands

> Protect our wetlands! Say no to developer opposition!

> J. Rizzolo  
> Martin Co.

>  
> \*Under Florida Law\*, email addresses are public records. If you do not  
> want your email address released in response to a public-records  
> request, do not send electronic email to this entity.

> \*

> -----  
> Sent on: \* 1/6/2008 \*From Sender:\* Hutchinson, Mary \*From Email  
> Address:\* [mhutchinson@ci.stuart.fl.us](mailto:mhutchinson@ci.stuart.fl.us)

O'Neil, Terry

---

**m:** Hutchinson, Mary  
**.at:** Monday, June 02, 2008 7:15 PM  
**To:** O'Neil, Terry  
**Subject:** FW: I am a concerned Stuart Resident with a message for you

Terry,  
Please forward the environmental draft to this resident for review when it is ready.  
Thanks  
Mary

" Under Florida Law, email addresses are public records. If you do not want your email address released in response to a public-records request, do not send electronic email to this entity."

---

**From:** Joyce\_Valley@NCCI.COM [mailto:Joyce\_Valley@NCCI.COM]  
**Sent:** Mon 6/2/2008 8:15 AM  
**To:** Hutchinson, Mary  
**Subject:** RE: I am a concerned Stuart Resident with a message for you

Yes, I would be interested.

Joyce Valley, CPCU, PRC  
Marketing Research Director  
561-893-2064

"Hutchinson,  
Mary"  
<mhutchinson@ci.s  
tuart.fl.us> To  
<Joyce\_Valley@NCCI.COM>  
cc  
06/01/2008 09:04  
PM Subject  
RE: I am a concerned Stuart  
Resident with a message for you

Joyce,  
Thank you for your concerned regarding our proposed changes and taking the time to email us. At times, we usually only get comments for developers regarding these types of issues. We are looking for citizens (non developers) to review the proposed ordinance and to give us your input. Are interested in assisting us?  
Thanks again for your concerns,  
Mary

" Under Florida Law, email addresses are public records. If you do not want

O'Neil, Terry

---

From: jkrauskopf@comcast.net  
Sent: Friday, May 30, 2008 3:56 PM  
To: O'Neil, Terry  
Subject: FW: Stuart Wetlands

----- Forwarded Message: -----

From: [jkrauskopf@comcast.net](mailto:jkrauskopf@comcast.net)  
To: [jkrauskopf@comcast.net](mailto:jkrauskopf@comcast.net)  
Subject: FW: Stuart Wetlands  
Date: Fri, 30 May 2008 15:16:53 +0000

----- Forwarded Message: -----

From: Jimi Rizzolo <[jimirizz@bellsouth.net](mailto:jimirizz@bellsouth.net)>  
To: [Jkrauskopf@ci.stuart.fl.us](mailto:Jkrauskopf@ci.stuart.fl.us), [cwaxler@ci.stuart.fl.us](mailto:cwaxler@ci.stuart.fl.us), [mmortell@ci.stuart.fl.us](mailto:mmortell@ci.stuart.fl.us),  
[jchristie@ci.stuart.fl.us](mailto:jchristie@ci.stuart.fl.us), [dhudson@ci.stuart.fl.us](mailto:dhudson@ci.stuart.fl.us), [mhutchinson@ci.stuart.fl.us](mailto:mhutchinson@ci.stuart.fl.us)  
Subject: Stuart Wetlands  
Date: Thu, 29 May 2008 20:45:45 +0000

Protect our wetlands! Say no to developer opposition!

J. Rizzolo  
Martin Co.

O'Neil, Terry

---

From: jkrauskopf@comcast.net  
Sent: Friday, May 30, 2008 3:57 PM  
To: O'Neil, Terry  
Subject: FW: I am a concerned Stuart Resident with a message for you

----- Forwarded Message: -----

From: Joyce\_Valley@NCCI.COM  
To: Jkrauskopf@ci.stuart.fl.us, mhutchinson@ci.stuart.fl.us, cwaxler@ci.stuart.fl.us,  
mmortell@ci.stuart.fl.us, jchristie@ci.stuart.fl.us, dhudson@ci.stuart.fl.us  
Subject: I am a concerned Stuart Resident with a message for you  
Date: Fri, 30 May 2008 13:43:22 +0000

Please take our residents in mind and place your highest efforts in preserving both Stuart and Martin County Wetlands. We need to work to preserve this. Please act in our interests in this matter

Joyce Valley, CPCU, PRC  
72-341-4110

The information contained in this e-mail message is intended only for the personal and confidential use of the recipient(s) named above. This message may be an attorney-client communication and/or work product and as such is privileged and confidential. If the reader of this message is not the intended recipient or an agent responsible for delivering it to the intended recipient, you are hereby notified that you have received this document in error and that any review, dissemination, distribution, or copying of this message is strictly prohibited. If you have received this communication in error, please notify us immediately by e-mail, and delete the original message.

## O'Neil, Terry

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**From:** jkrauskopf@comcast.net  
**Sent:** Saturday, May 31, 2008 7:14 AM  
**To:** O'Neil, Terry  
**Subject:** FW: Preserve the Wetlands

----- Forwarded Message: -----

**From:** pavallier@aim.com  
**To:** [Jkrauskopf@ci.stuart.fl.us](mailto:Jkrauskopf@ci.stuart.fl.us), [mhutchinson@ci.stuart.fl.us](mailto:mhutchinson@ci.stuart.fl.us), [cwaxler@ci.stuart.fl.us](mailto:cwaxler@ci.stuart.fl.us),  
[mmortell@ci.stuart.fl.us](mailto:mmortell@ci.stuart.fl.us), [jchristie@ci.stuart.fl.us](mailto:jchristie@ci.stuart.fl.us), [dhudson@ci.stuart.fl.us](mailto:dhudson@ci.stuart.fl.us)  
**Subject:** Preserve the Wetlands  
**Date:** Sat, 31 May 2008 06:04:44 +0000

I am interested in preserving wetlands within the city district. I hope you share that interest.

Paul Vallier  
2600 South Kanner Hwy S-1  
Stuart, Fl

---

Stay informed, get connected and more with [AOL](#) on your phone.

**Skip Harvey**

**From:** Tammy Simoneau [tsimon@mceconomy.org]  
**Sent:** Thursday, May 22, 2008 10:38 AM  
**To:** Skip Harvey  
**Subject:** RE: City of Stuart Enviro Guidelines - 5/19 Meeting Result  
**Attachments:** uplandwetland code comparison Stuart city.doc

Skip let me know if you receive this one. Thanks so much! June second is also our governmental affairs committee meeting. Should we try to do a joint meeting?

**From:** Skip Harvey [mailto:skip.harvey@mscwinc.com]  
**Sent:** Thursday, May 22, 2008 10:32 AM  
**To:** Tammy Simoneau  
**Subject:** RE: City of Stuart Enviro Guidelines - 5/19 Meeting Result

Tammy  
 Thanks for the info. However, the spreadsheet did not come through. Please try again. SMC Chamber Local Gov't/Transportation Committee is scheduling meeting to discuss also. Tentatively lunch on June 2. Toby will be there.  
 Skip

**From:** Tammy Simoneau [mailto:tsimon@mceconomy.org]  
**Sent:** Tuesday, May 20, 2008 6:38 PM  
**To:** Tammy Simoneau  
**Cc:** Karen Ladwig  
**Subject:** FW: City of Stuart Enviro Guidelines - 5/19 Meeting Result

**To: Economic Council Environmental and Governmental Affairs Committee members**

**From: Toby Overdorf, Environmental Committee Chairman**

**Subject:** City of Stuart Enviro Guidelines - 5/19 Meeting Result

To All:

Last night the Commissioners of the City of Stuart heard the first reading of the proposed revisions to their Land Development Codes as they pertain to environmental regulations. The City revised the original ordinance proposal on 5-16-08 and that revision was discussed last night. Attached is a small spreadsheet that was supplied by the City that highlights the proposed changes.

The code, as currently proposed, is in direct conflict with the joint Federal rule published 4/10/08 by the EPA and the ACOE (mitigation banking). The proposed ordinance is also in conflict with provisions of FAC 62-340 (delineations), FAC62-342 (mitigation and mitigation banking), and the City was apparently unaware of 62-344 and its provisions for delegation authority of State wetland delineations. To their credit, the commissioners recognized the problems with the proposed ordinance once they were educated.

The result of discussions between the public and the City Commission was a 4-0 vote (Waxler abstaining) to send the ordinance back to LPA for discussion and "workshop" with the attendees of the LPA meeting. I will keep you updated as to the progress of the ordinance. Please feel free to call or email any questions regarding this issue. Please feel free to forward this email to anyone who may have an interest.

Please note, the **new gopher tortoise rules** are in effect regarding entombing and new regulations regarding penning and relocation are coming online shortly. Additionally, as you start to plan new developments, **water quality** (as enforced by EPA) will become a large liability by the time you are online. Please feel free to contact us about either issue.



Right-click here to download pictures. To help protect your privacy, Outlook prevented automatic download of this picture from the Internet.

**Toby Overdorf**  
**President**

Crossroads Environmental Consultants, Inc.  
1251 SW 27th Street, Suite 2  
Palm City, FL 34990

Office: (772) 223-5200  
Mobile: (772) 260-9689  
Fax: (772) 223-5103  
[www.crossroadsenvironmental.com](http://www.crossroadsenvironmental.com)

## O'Neil, Terry

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**From:** Mark Brandenburg [MBrandenburg@millerlegg.com]  
**Sent:** Wednesday, May 21, 2008 9:09 AM  
**To:** O'Neil, Terry  
**Cc:** Nicoletti, Paul  
**Subject:** Stuart Code Revisions  
**Attachments:** Final Compensatory Mitigation Rule\_4-10-08\_FRN.pdf

Terry,

As we discussed this morning, I've attached the Federal Register from April 10, 2008 that was mentioned by Toby Overdorf at the Commission meeting Monday night. Note that the new rule, 40 CFR Part 230, Compensatory Mitigation for Losses of Aquatic Resources, applies only at the Federal level, it does not require local governments to adopt their regulations. So while Toby's statement that the City's proposed changes are in conflict with 40 CFR Part 230 may be accurate, there is not a requirement that the City's codes be in compliance with them.

Let me know if you have any further questions,

*Mark E. Brandenburg, C.E., P.W.S.*  
*Associate, Environmental*

**Miller Legg**

631 South Orlando Avenue, Suite 200  
Winter Park, FL 32789-7122  
Phn: (407) 629-8880 Fax (407) 478-4097  
Cell: (954) 804-2427

Email: [mbrandenburg@millerlegg.com](mailto:mbrandenburg@millerlegg.com)

Website: [www.millerlegg.com](http://www.millerlegg.com)

**Improving Communities. Creating Environments.**

Name	Company	Address	City	EMAIL	PHONE
Ian Burroughs		512 St Lucie Crescent	Stuart, FL 34994		
Arthur Speedy	Montgomery C. Calvert and Assoc.	959 SE Federal Hwy	Stuart, FL 34994		
Jo Demorest	Demorest Construction	57 SE Seminole Street	Stuart, FL 34994		
Bob Raynes	Gunster Yoakley	800 SE Monterey Commons Blvd. #200	Stuart, FL 34996	rraynes@gunster.com	
Brad Dubner		7555 Mandarin Drive	Boca Raton, FL 33433		
Brad Granfield	Granfield & Granfield	3601 SE Ocean Blvd	Stuart, FL 34996		
Brent A. Wood	Garcia Brenner Stromberg	1001 SE Monterey Commons Blvd. #100	Stuart, FL 34996		
Bruce Laraway	Commercial Construction	709 E. 5th St.	Stuart, FL 34994		
Cal Montgomery	Montgomery C. Calvert and Assoc.	959 SE Federal Hwy	Stuart, FL 34994		
Cassy Cummings	Ram Development	3399 PGA Blvd, # 450	Palm Beach Gardens, FL 33410		
Chris Klein		950 Colorado Avenue, #505	Stuart, FL 34994		
Dan Braden	Braden & Braden Architects	417 Coconut Avenue	Stuart, FL 34996	BradenA1A@aol.com	
Dave Satur	Vice Pres. - North Stuart Center	656 Buck Hendry Way	Stuart, FL 34994		463-6660
David Giunta	Prosperity Development	872 S. Colorado Ave.	Stuart, FL 34994		692-8533
Don Raudenbush	General Contractor	P.O. Box 2875	Jupiter, FL 33468		
Donald Komara	Architect	905 E Parkway	Stuart, FL 34996	dkomara@adelphia.net	
Ed Hoon	Hoon & White	701 S. Colorado Ave	Stuart, FL 34994		
Ed Tang	Crech Engineers	203 W Third Street	Stuart, FL 34994		
Ed Weinberg	EW Consultants	2081 SE Ocean Blvd Ste 2B	Stuart, FL 34996		
Ernesto Velasco	Velcon Group, Inc	702 SW Port St Lucie Blvd	Port St Lucie, FL 34952	ernestov@velcongroup.com	879-0477
Frank Wachta, Jr		369 NE Baker Rd.	Stuart, FL 34994	frank@yahoo.com	
Gary Kelly	Kelly & Kelly	119 W. 6th St.	Stuart, FL 34994		
George Kelly	GT Kelly General Contractor	621 SE Central Pkwy	Stuart, FL 34996		
Gustavo Salazar	Velcon Group, Inc	702 SW Port St Lucie Blvd	Port St Lucie, FL 34952	salazarg@msn.com	879-0477
Hank Skokowski	Urban Design Studio	10 Central Parkway, Suite 220	Stuart, FL 34994		
Jack Ahern	Ahern and Assoc. Architects	2233 S Kanner Hwy	Stuart, FL 34994		
Jack Carmody	Gunster Yoakley	800 SE Monterey Commons Blvd. #200	Stuart, FL 34996		
Jeff Bowers	Masterpiece Builders, Inc.	408 Colorado Avenue	Stuart, FL 34994	jbowers@masterpiecebuilders.com	
Jeff Chamberlain	Stuart Land Company	2500 SE Willoughby Blvd.	Stuart, FL 34994		
Jeff Dougherty	Stuart South Group LC	P.O. Box 2970	Stuart, FL 34995	jeffdoug@comcast.net	
Jeff Smith	Conceptual Design Group, Inc	209 W 3rd Street	Stuart, FL 34994	cdginc@bellsouth.net	219-3803
Jim Chapman	Keith & Schnars, PA	900 E Ocean Blvd #340E	Stuart, FL 34994		
Jim Morgan	South Coast Realty	815 SE Colorado Avenue	Stuart, FL 34994		
Joe Capra	Captex Engineering, Inc	301 NW Flagler Avenue	Stuart, FL 34994		
John S. Leighton III	Leighton Construction	124 E. 6th St.	Stuart, FL 34994		
Joseph McCarty	Architect	900 SE Osceola Street	Stuart, FL 34994		
Ken Natoli	Houston Cuzzo Group	2400 S Federal Hwy, Suite 310	Stuart, FL 34994	knatoli@houstoncuzzogroup.com	
Kevin Henderson	Evergreen Engineering	300 N Colorado Avenue, #207	Stuart, FL 34994		
Larry Parr	Landscape Architect	344 SW Winnachee Drive	Stuart, FL 34994		
Leo Repetti	Kimley-Horn and Assoc, Inc	2410 SE Federal Hwy., Suite 600	Stuart, FL 34994	lpla1@bellsouth.net	
Lisa Leonard	Crech Engineers	203 W Third Street	Stuart, FL 34994		
Mark Mathes	Lucido & Associates	701 E. Ocean Blvd.	Stuart, FL 34994	mmathes@lucidodesign.com	
Michael Hermesmeyer	Lindahl, Browning, Ferrari, & Hellstrom	3550 Corporate Parkway	Palm City, FL 34990		
Michael Houston	Houston Cuzzo Group	735 Colorado Ave, Ste 1	Stuart, FL 34994		
Michael Stetson	Stetson Realty	900 S. Federal Hwy., Suite 321	Stuart, FL 34994		
Mike Braid	Downtown Stuart Properties	45 SE Seminole Street	Stuart, FL 34994		
Monica Graziani	Captex Engineering, Inc	301 NW Flagler Avenue	Stuart, FL 34994		
Patrick LaConte	LaConte Engineering, Inc	300-210 Colorado Avenue	Stuart, FL 34994		

Ralph Parks	Ralph H. Parks, Inc	3481 SE Willoughby Blvd. #102	Stuart, FL 34994	ParksR@bellsouth.net	781-1616
Ray Davidson	Lindahl, Browning, Ferrari, & Hellstrom	800 SE Monterey Blvd	Stuart, FL 34996		
Thett Keene	Captac Engineering, Inc	301 NW Flagler Avenue	Stuart, FL 34994		
Rick Creech	Creech Engineers	203 W Third Street	Stuart, FL 34994		
Roxanne Chesser	Lindahl, Browning, Ferrari, & Hellstrom	3550 SW Corporate Pkwy	Palm City, FL 34990		
Scott Montgomery	C. Calvert Montgomery & Assoc.	959 S. Feddral Hwy	Stuart, FL 34994	sharvey@creechinc.com	
Skip Harvey	Creech Engineers	203 W Third Street	Stuart, FL 34994		
Stephen Brown	Surveyor	619 SE 5th Street	Stuart, FL 34994		
Ted Astolfi	Martin County Bus. Dev. Board	2400 SE Federal Hwy	Stuart, FL 34994		
Terence McCarthy	McCarthy, Summers, Bobko	2400 SE Federal Hwy, Ste 400	Stuart, FL 34994		
Thomas Lucido	Lucido & Associates	701 E Ocean Blvd	Stuart, FL 34994		220-0424
William A. Flint III	Landscape Architect	2310 SE Country Club Lane	Stuart, FL 34996		
William Mathers	Mathers Engineering	2431 SE Dixie Hwy	Stuart, FL 34997		
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Niki Norton-Gozdz	Crossroads Architecture, Inc.	1111 SE Federal Hwy., Suite 116	Stuart, FL 34994	niki@crossroadsarchitecture.biz	287-7330
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Tracy Hickler	CDI			tracycdi@bellsouth.net	
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Stacy Fowler	Ram Realty Services	800 SE Monterey Commons Blvd. #200	Stuart, FL 34996	stacyfowler@edc-inc.com	561-282-4635
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Nelo Freijemel					34994
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Mike Ryan		11911 US Hwy. 1 Suite 309	North Palm Beach, FL 33408	ryanlaw@aol.com	561-626-3179
Linda Hake	Gunster Yaokley	800 SE Monterey Commons Blvd. #200	Stuart, FL 34996	lhake@gunster.com	223-2240
Don Dougherty	Centre-Line	509 SW California Ave.	Stuart, FL 34994		
Steven Vitale	Florida Commercial	50 SE Ocean Blvd., Unit 202	Stuart, FL 34994		223-3646
Tom Aydelotte	Colleur & Hearing	729 Colorado Ave.	Jupiter, FL 33458	tom@florida-commercial.net	561-747-6336
Brian Chequis	Finka Realty Group	1934 Commerce Lane, Suite 1	Stuart, FL 34994	bchequis@colleur-hearing.com	286-9990
Christian Finkelberg		335 SE Ocean Blvd.	Stuart, FL 34994	Chris@FinkaRealty.com	
Dave Derrnbacker		541 SW North Carolina Dr.	Stuart, FL 34994		
Frank Amedia		7600 Red Rd., Suite 300	Miami, FL 33143	FrankA@theamadiacompanies.com	786-268-1349
Tobin Overdorf		1251 SW 27th St., Suite 2	Palm City, FL 34990	Toby@crossroadsenvironmental.com	223-5200
Steven Vitale	The Esplanade at Downtown Stuart	50 SE Ocean Blvd., Unit 202	Stuart, FL 34994	sv41969@aol.com	781-1999
Kim Delaney	Treasure Coast Regional Planning Council	301 E. Ocean Blvd.	Stuart, FL 34994		
Bernie Malone	Stuart Main Street	201 SW Flagler Ave.	Stuart, FL 34994		
Charles Andrews	Commercial Property Mgmt.	3766 SE Ocean Blvd.	Stuart, FL 34996		219-0803
Cindy Hall	Capstone Industries	P.O. Box 3193	Okeechobee, FL 34973		340-4713
Luis Castro	Hal Group	18851 NE 29th Ave., Suite 904	Aventura, FL 33180		786-279-7700
Sean Donahue	LBHF Inc.	3550 SW Corporate Pkwy	Palm City, FL 34990		286-3883
Alan Harrih	Regency Centers	6240 W. Indiantown Rd., Suite 6	Jupiter, FL 33458		561-741-4500
Linda Strutt	Linda Strutt Consulting, Inc.	277 Goolsby Blvd.	Deerfield Beach, FL 33442		954-426-4305
Matt Yates	Lucido & Associates	701 E. Ocean Blvd.	Stuart, FL 34994	myates@lucidodesign.com	
Steve Marquart	Captac Engineering, Inc	301 NW Flagler Avenue	Stuart, FL 34994	smarquart@gocaptac.com	
Michael Grzelka	Schafer, Fagen & Assoc.	900 S. Federal Hwy., Suite 301	Stuart, FL 34994	michael@sfcel.com	
Ted Davis	Theodore E. Davis Architect & Assoc.	1851 W. Indiantown Rd., Suite 101	Jupiter, FL 33458		561-744-7798

Baetano Amato  
George Hughes  
Charles Simmons  
Robert & Ruth Flagg  
Betty Ziebell  
Gary & Lisa Stewart

Downtown Stuart Associates

Friends of the Lyric

Gary Greene

AEPD Flagler Inc.

Gordon Proctor & Michael Crook

MDS Property Group LLC

Gary & Sandra Hawken

Stuart Arcade Associates LLC

301 SE Colorado Ave.

301 St. Lucia Ave.

615 Rustic Circle

611 NE Dahoan Terrace

P.O. Box 3059

1486 SW Alligator St.

59 SW Flagler Ave.

51 SW Flagler Ave., Suite 205

1982 SE Federal Hwy.

33 SW Flagler Ave.

3611 Ottawa Lane

1183 NW Spruce Ridge Dr.

P.O. Box 2528

Stuart, FL 34994

Stuart, FL 34997

Stuart, FL 34997

Jensen Beach, FL 34957

Stuart, FL 34995

Palm City, FL 34990

Stuart, FL 34994

Stuart, FL 34994

Stuart, FL 34994

Stuart, FL 34994

Hollywood, FL 33026

Stuart, FL 34994

Palm Beach, FL 33480

**PROPOSED ENVIRONMENTAL CODE REVISIONS: COMPARISON OF SELECTED CITY OF STUART AND MARTIN COUNTY STANDARDS**

	A. Current (City)	B. Proposed Changes, Initial Draft (City)	C. Proposed Changes, Second Draft (City)	D. Proposed Changes, Third Draft (City)	E. Current (Martin County) <sup>1</sup>
1.	City plays no role in determining wetlands or other environmentally sensitive lands or mitigation thereof. Defers to state and federal agencies.	City may play a role in determining wetlands or other environmentally sensitive lands, as well as mitigation standards.	City may play a role in determining wetlands or other environmentally sensitive lands, as well as mitigation standards but shall do so in light of the same criteria used by state and federal agencies.	City continues to defer to state and federal agencies, but requires that before permits from these agencies are sought, applicant must first demonstrate to the City Development Director that a proposed site plan meets environmental impact "avoidance and minimization" standards to the greatest extent practicable.	The County follows the state unified wetlands delineation methodology. However, notwithstanding the fact that wetland mitigation is permitted by the SFWMD, the County permits mitigation only in very narrowly defined circumstances involving access to lots of record, roadways, public facilities, etc. All wetland alteration allowed under these waivers and exceptions shall be sufficiently mitigated to ensure that there is no net loss of functions or the spatial extent of wetlands in Martin County. Note that the County requires no net spatial loss, therefore mitigation that provides improved wetland function (i.e., "lift") is not sufficient, a like acreage must be created on site or purchased.
2.	Allows wetland and upland mitigation outside the City limits.	Limits off-site wetland and upland mitigation to within the City limits.	(No change) Limits off-site wetland and upland mitigation to within the City limits.	Limits off-site wetland and upland mitigation to within watersheds identified in the City's comprehensive plan.	County permits wetland impacts only in very narrowly defined circumstances. Wetland mitigation must occur in the County. Upland mitigation via: <ul style="list-style-type: none"> <li>a. Purchase similar upland native habitat communities outright within the same planning area; if not available, then purchase in Martin County.</li> <li>b. Create an equal amount of similar required native upland habitat adjacent to other areas of preserved native habitat on or off site.</li> </ul>

<sup>1</sup> Summary of County standards was prepared with the assistance of the County's Principal Planner, Harry King and Senior Planner, Darryl DeLeeuw.

A. Current (City)	B. Proposed Changes, Initial Draft (City)	C. Proposed Changes, Second Draft (City)	D. Proposed Changes, Third Draft (City)	E. Current (Martin County) <sup>1</sup>
3. Allows on-site density and intensity transfer from environmentally sensitive lands to non-environmentally sensitive lands. (Number of transferred units capped at no more than 150% of the density permitted on developable portion of site).	Eliminates on-site density and intensity transfer from environmentally sensitive lands to non-environmentally sensitive lands.	Allows on-site density transfer (not intensity transfer) from environmentally sensitive lands to non-environmentally sensitive lands if an additional 1/10 <sup>th</sup> of an acre of upland buffer or preserve area is provided for each transferred unit. (Number of transferred units capped at no more than 150% of the density permitted on developable portion of site).	(No change) Allows on-site density transfer (not intensity transfer) from environmentally sensitive lands to non-environmentally sensitive lands if an additional 1/10 <sup>th</sup> of an acre of upland buffer or preserve area is provided for each transferred unit. (Number of transferred units capped at no more than 150% of the density permitted on developable portion of site).	County permits on-site density transfers capped at 50%. Intensity transfers are not permitted. The County does not require additional upland buffer or preserve area for transferred units.
4. Allows on-site mitigation of native preserve areas without regard to parcel size.	Limits on-site mitigation of native preserve areas to parcels of 5-acres or less.	Allows on-site mitigation without regard to parcel size, but requires habitat efficacy study.	Allows on-site mitigation without regard to parcel size, but requires habitat efficacy study.	Rarely permitted, applicant must demonstrate to BCC "preclusion of reasonable use." Mitigation must occur in same "planning area."
5. Allows off-site mitigation of native preserve areas without regard to parcel size.	Limits off-site mitigation of native preserve areas to parcels of 5-acres or less.	Allows off-site mitigation without regard to parcel size, but requires habitat efficacy study.	Allows off-site mitigation without regard to parcel size, but requires habitat efficacy study.	Rarely permitted, applicant must demonstrate to BCC "preclusion of reasonable use." Mitigation must occur in same "planning area."
6. Wetland buffer areas may be counted toward any open space requirements, however, wetlands themselves shall not count toward open space requirements.	Not more than 50 percent of Wetland buffer areas and wetlands themselves may be counted toward any open space requirements of this Plan.	(No change from current code) Wetland buffer areas may be counted toward any open space requirements, however, wetlands themselves shall not count toward open space requirements.	(No change from current code) Wetland buffer areas may be counted toward any open space requirements, however, wetlands themselves shall not count toward open space requirements.	County credits wetlands and natural bodies of water as open space as follows: Residential – 50% Non-Res. MF/Office – 40% Limited Com. – 30% Gen. Com/Ind. – 20%

	A. Current (City)	B. Proposed Changes, Initial Draft (City)	C. Proposed Changes, Second Draft (City)	D. Proposed Changes, Third Draft (City)	E. Current (Martin County) <sup>1</sup>
7.	Generally requires average wetland buffer widths of 75 feet for superior wetlands and 50 feet for other wetlands, but does allow lesser standards in certain instances.	Requires average wetland buffer widths of 75 feet for superior wetlands and 50 feet for other wetlands, without exceptions.	Requires average wetland buffer widths of 75 feet for superior wetlands and 50 feet for other wetlands, without exceptions.	Requires average wetland buffer widths of 75 feet for superior wetlands and 50 feet for other wetlands, without exceptions.	Not available at time of agenda preparation. Will be provided at meeting.
	Requires 5 foot construction setback from wetland buffers.			Requires 10 foot construction setback from wetland buffers.	Not available at time of agenda preparation. Will be provided at meeting.

Return to:

City Attorney's Office  
City of Stuart  
121 SW Flagler Street  
Stuart, FL 34994

BEFORE THE CITY COMMISSION  
CITY OF STUART, FLORIDA

ORDINANCE NUMBER \_\_\_\_\_

AN ORDINANCE OF THE CITY COMMISSION OF THE CITY OF STUART, FLORIDA AMENDING THE "CONSERVATION" ELEMENT OF THE CITY'S COMPREHENSIVE PLAN, AS WELL AS CHAPTER 7 "RESOURCE PROTECTION" AND CHAPTER 10 "HARDSHIP RELIEF" OF THE CITY'S LAND DEVELOPMENT CODE, AMENDING LANGUAGE TO MANDATE THE REMOVAL OF EXOTIC SPECIES; ADDING CONSERVATION EASEMENTS AS MECHANISM FOR PROTECTING ENVIRONMENTALLY SENSITIVE LANDS; DELETING PROVISIONS ALLOWING ON-SITE INTENSITY TRANSFERS FROM ENVIRONMENTALLY SENSITIVE LANDS; AMENDING PROVISIONS ALLOWING ON-SITE DENSITY TRANSFERS FROM ENVIRONMENTAL LANDS TO REQUIRING AN ADDITIONAL 10<sup>TH</sup> OF AN ACRE OF PRESERVE AREA FOR EACH TRANSFERRED RESIDENTIAL UNIT; MANDATING UNIFORM AVERAGE WETLAND BUFFER WIDTHS OF 75 FEET FOR SUPERIOR WETLANDS AND 50 FEET FOR AVERAGE WETLANDS; LIMITING OFF-SITE WETLAND AND PRESERVE AREA MITIGATION TO WITHIN WATERSHEDS IDENTIFIED IN THE CITY'S COMPREHENSIVE PLAN; ESTABLISHING IMPACT AVOIDANCE AND MINIMIZATION STANDARDS FOR WETLANDS AND OTHER ENVIRONMENTALLY SENSITIVE LANDS; PROVIDING FOR AN INCREASE IN THE REQUIRED CONSTRUCTION SETBACK FROM UPLAND BUFFER AREAS FROM 5 FEET TO 10 FEET; CHANGING THE SIZE OF PARCELS REQUIRED TO PROVIDE GREENWAY LINKAGE FROM TEN ACRES OR MORE TO FIVE ACRES OR MORE; REQUIRING A HABITAT EFFICACY STUDY PRIOR TO ON-SITE AND OFF-SITE RELOCATION OF REQUIRED NATIVE VEGETATIVE PRESERVE AREAS; REPEALING ALL ORDINANCES IN CONFLICT HEREWITH; PROVIDING A SEVERABILITY CLAUSE; PROVIDING AN EFFECTIVE DATE; PROVIDING FOR ACCEPTANCE BY THE APPLICANT; AND PROVIDING FOR DIRECTIONS TO THE CITY CLERK.

\* \* \* \* \*

**WHEREAS**, the Stuart City Commission desires to amend the "Conservation" Element of the City's Comprehensive Plan, as well as Chapter 5 "Resource Protection" and Chapter 10 "Hardship Relief" of the Land Development Code, and

**WHEREAS**, the Stuart City Commission ordains that such a change is necessary to conserve, protect and effectively manage the natural resources of the City of Stuart to ensure the highest environmental quality possible, and

**WHEREAS**, the City Commission has held properly noticed public hearings at regularly scheduled City Commission meetings to consider the proposed amendment to the City's Comprehensive Plan;

**NOW THEREFORE, BE IT ORDAINED BY THE CITY COMMISSION OF THE CITY OF STUART, FLORIDA THAT:**

**SECTION 1:** The foregoing recitals are true and adopted as findings of fact and conclusions of laws.

**SECTION 2:** The "Conservation" Element of the City's Comprehensive Plan and Chapter 5 "Resource Protection" and Chapter 10 "Hardship Relief" of the City's Land Development Code are hereby amended in accordance with Exhibits A and B attached.

SECTION 3: All ordinances or parts of ordinances in conflict with this ordinance, or any part thereof are hereby repealed to the extent of such conflict.

SECTION 3: If any provision of this ordinance or the application thereof to any person or circumstance is held invalid, the invalidity shall not affect other provisions or applications which can be given effect without the invalid provision or application, and to this end the provisions of this ordinance are declared severable.

SECTION 4: This ordinance shall become effective upon second reading.

SECTION 5: Upon complete execution of this Ordinance, the City Clerk is directed to record a Certified Copy of the same in the Public Records of Martin County, Florida.

PASSED on first reading the \_\_\_\_\_ day of \_\_\_\_\_, 2008.

Commissioner \_\_\_\_\_ offered the foregoing ordinance and moved its adoption. The motion was seconded by Commissioner \_\_\_\_\_ and upon being put to a roll call vote, the vote was as follows:

JEFFREY KRAUSKOPF , MAYOR  
MIKE MORTELL, VICE MAYOR  
JAMES CHRISTIE, COMMISSIONER  
MARY HUTCHINSON, COMMISSIONER  
CAROL WAXLER, COMMISSIONER

YES	NO	ABSENT

ADOPTED on second and final reading this \_\_\_\_\_ DAY of \_\_\_\_\_, 2008.

ATTEST:

\_\_\_\_\_  
CHERYL WHITE  
CITY CLERK

\_\_\_\_\_  
JEFFREY KRAUSKOPF  
MAYOR

APPROVED AS TO FORM  
AND CORRECTNESS:

\_\_\_\_\_  
PAUL J. NICOLETTI  
CITY ATTORNEY

**"EXHIBIT A"**  
**AMENDMENTS TO THE "CONSERVATION" ELEMENT**  
**OF THE CITY OF STUART COMPREHENSIVE PLAN**

**GOAL STATEMENT A**

Conserve, protect and effectively manage the natural resources of the City of Stuart to ensure the highest environmental quality possible.

**Objective A1. Surface water quality.**

The City shall protect the quality of all surface waters within the City Limits and the City's watershed basins, especially the St. Lucie Estuary.

To meet this objective, the City will adopt land development regulations, specific performance standards for regulating land use, public access, marina siting and activities, shoreline alteration and seawalls, dredging and filling activity, and provide treatment of storm water runoff and mangrove protection. The City shall have completed a drainage master plan which will address point and non-point sources of storm water pollution. The City will participate with other agencies having resource management plans upon adoption of this plan, and throughout the planning time frame.

The following policies support this objective:

*Policy A1.1.* The City shall ensure effective enforcement and monitoring of storm water ordinances.

*Policy A1.2.* The City shall arrange for the removal or retrofitting of existing storm water outfalls to the St. Lucie Estuary and its tributaries during redevelopment activities, where appropriate and consistent with State, Federal, and regional rules and guidelines.

*Policy A1.3.* The City shall coordinate with appropriate agencies that are implementing the Indian River Lagoon Aquatic Preserve Protection Plan, the Hutchinson Island Resource Management Plan, the North Fork of the St. Lucie River Aquatic Preserve Protection Plan, the Surface Water Improvement River Management Plan (SWIM) for the Indian River Lagoon, and other such resource management plans and programs as require the involvement of the City.

*Policy A1.4.* The City shall solicit the South Florida Water Management District (SFWMD) and the Army Corps of Engineers to exercise more careful control of the locks and canals by doing the following:

1. Set performance standards for amounts of water and silt which can be released from the locks and canal control structures.
2. Prior to opening of locks, drain them with surface water and clean debris collection from the locks.
3. Support the development of a "downtown" regional attenuation facility within the CRA.
4. Encourage the implementation of the Indian River Lagoon Restoration Plan and early implementation of water preserve areas and storm water treatment areas.

*Policy A1.5.* Because the City of Stuart is located at the convergence point of two rivers, the City shall monitor SWIM and other related water quality improvement programs initiated by SFWMD.

*Policy A1.6.* Specific SFWMD programs shall be identified for Stuart and should be fully implemented.

*Policy A1.7.* The City shall analyze and evaluate the City's maintenance program to clean Stuart's rivers, creeks, and other water bodies.

*Policy A1.8.* The City shall coordinate with SFWMD and other agencies to initiate and complete programs to clean-up water bodies in Stuart and explore measures to address/reduce non-point source pollution (i.e., baffle boxes, weir systems).

*Policy A1.9.* The City shall coordinate with governmental bodies to analyze and maintain programs that affect Stuart's rivers, creeks, etc.

*Policy A1.10.* The City shall implement the Watershed Protection Program which includes capital improvements and regulatory mechanisms to protect and improve the environmental features of watershed basins which include any portion of the City limits. These watershed basins are delineated on the City Watersheds Map and include:

- Anchorage Basin.
- Coral Gardens Basin.
- Crescent Basin.
- Crooked Creek Basin.
- Downtown Basin.
- East Airport Basin.
- Fork Road Basin.
- Frazier Creek Basin.
- Haney Creek Basin.
- Hildabrad Basin.
- Krueger Creek.
- Landfill Basin.
- North Airport Basin.
- North Point CRA Basin.
- Poppleton Creek Basin.
- Rio Basin.
- South Fork Basin.
- Warner Creek Basin.
- Willoughby Basin.
- Woods Point Basin.

*Policy A1.11.* The City shall establish a comprehensive program to eradicate invasive exotic trees and vegetation.

*Policy A1.12.* The City shall encourage participation and representation from City residents for the St. Lucie River Initiative and other State/local initiatives.

*Policy A1.13.* The City shall identify and map any areas identified by City staff as having a significant incidence of failed or failing septic system by 2005 and determine potential areas and costs for sewer system expansion. (Ord. No. 1893-02, § 1, 1-27-2003)

**Objective A2. Groundwater quality and quantity.**

The quality and quantity of the City of Stuart's groundwater shall not be degraded. Storm water management requirements and a well field protection ordinance shall be enforced. Additional well protection mechanisms, such as water withdrawal schedules and conservation measures, shall be implemented as part of a total groundwater protection program by 1998.

The following policies support this objective:

*Policy A2.1.* The City shall, in cooperation with the Department of Environmental Protection, the South Florida Water Management District, and the U.S Geological Survey, continue to monitor groundwater quality and quantity.

*Policy A2.2.* Present and future potable water well field locations shall be identified and protected to assure that water resources are not negatively impacted by development, excessive drawdown or saltwater intrusion through development, and implementation of a well field protection program. This program will contain at a minimum, a well field protection ordinance and water withdrawal schedules that preserve the quality and quantity of groundwater resources.

*Policy A2.3.* Existing and future potable water wells and well fields shall be protected from contamination by EPA/DEP regulated materials (i.e., hazardous and toxic materials). Protection shall consist of a program, including an ordinance, which establishes requirements for the use, handling, storage, production, and disposal of hazardous and toxic materials. Well field protection programs, including appropriate ordinances, shall be developed and implemented which address, as a minimum, prohibitions, structural containment safeguards, monitoring emergency reporting and clean up, personnel training, inventory, and financial responsibility.

*Policy A2.4.* The City shall promote land and water management techniques in conjunction with energy conservation measures which will protect water quality, enhance water supplies and minimize potable water demands through the following:

1. Encourage use of drought-tolerant, native vegetation in landscaping by providing an approved list to homeowners and developers seeking building permits.
2. Participate in water conservation programs of the South Florida Water Management District and enforce mandated no-watering policies within the City.
3. ~~Encourage~~ Require the removal of exotic and invasive vegetation upon development or redevelopment.

***Explanation:***

***Change intended to strengthen this policy and provide for consistency with provisions elsewhere in this element that state, "Upon development of the site, the developer shall be required to remove exotic vegetation and replace with native vegetation suitable to the soil condition."***

4. The land development regulations shall enforce State law requiring low volume plumbing fixtures for new construction.
5. Develop a potable water leak detection and maintenance program.
6. Installation of weirs in drainage ditches to increase groundwater table elevations to the extent feasible considering flood protection and septic tank drain field performance requirements.

*Policy A2.5.* No activity shall be permitted which would adversely affect the quantity or quality of recharge entering the City's aquifers or within the City's watershed basins. Consistent with the intent of this policy:

1. Post-development runoff volumes shall not exceed pre-development runoff volumes for a storm event of three-day duration and 25-year return frequency for parcels greater than one acre. The same criteria shall apply for a storm event of three-day duration and ten-year return frequency for parcels less than one acre.
2. To the maximum extent consistent with the requirements of flood control, storm water management systems shall be designed to maximize retention capability.

3. Storm water management systems shall be designed to maximize the quality of water being recharged as well as that being discharged off-site.
4. Wherever suitable soils exist, encourage percolation of storm water into the groundwater table through dry retention areas, pervious pavement, and other such methods supported by sound engineering practices.
5. Require new development to address off-site watershed issues related to greenways protection, wetlands, and water quality impacts due to on-site storm water management designs.

**Objective A3. Water conservation.**

Conserve potable and non-potable water resources towards the goal of maintaining average daily per capita consumption of potable water at 110 GPD through limitations on or use of potable water for non-potable needs and reducing the leakage rate of the potable water system to 15 percent.

The following policies support this objective:

*Policy A3.1.* Water conservation programs shall be developed and implemented. These programs shall include, as a minimum, the following components:

1. The lowest acceptable water quality appropriate for the application quality shall be used to meet non-potable water demands.
2. Treated wastewater effluent shall be used for irrigation purposes wherever economically feasible.
3. Use of water-saving devices, irrigation systems, and plumbing fixtures, such as toilet tank dams, adjustable shower heads and drip irrigation, shall be required for all new construction. Retrofitting of existing systems shall be encouraged.
4. A leak detection and maintenance program for the City water system shall be developed and implemented.

*Policy A3.2.* During drought emergencies, implementation of South Florida Water Management District water shortage plans shall be enforced.

*Policy A3.3.* The City shall cooperate with the South Florida Water Management District to conduct water conservation programs.

**Objective A4. Floodplain protection.**

The City shall protect the natural functions of the 100-year floodplain.

The following policies support this objective:

*Policy A4.1.* The City has adopted and will continue to implement a mangrove protection ordinance.

*Policy A4.2.* New development shall preserve a buffer zone of 25 feet from the mean high water line of native vegetation which falls within the existing 25-foot setback area along waterways. This may be reduced to ten feet in the CRA to promote infill, redevelopment, and reduce blight.

*Policy A4.3.* The City shall assure that all development within the delineated 100-year flood zone abides by Federal flood hazard insurance regulations which limit the type and magnitude of alterations to the natural system that can be made.

*Policy A4.4.* The City shall promote programs to minimize flood insurance costs where feasible to its residents.

**Objective A5. Natural systems.**

Preserve and protect the functions and values of natural areas of vital concern to the environment of the City. Natural areas of vital concern to the City include the St. Lucie estuary, wetlands, coastal wetlands and shorelines, living marine resources (sea grass beds, fisheries, and mangroves), native upland vegetative communities, and wildlife habitats, especially endangered species habitat.

The following policies support this objective:

*Policy A5.1.* Environmentally sensitive lands are those land areas that warrant the greatest degree of protection from development impacts. Environmentally sensitive lands are designated to be viable and functioning wetlands as determined by the SFWMD and native upland vegetative communities that provide wildlife habitat necessary for the survival of Listed Species as determined by the ~~FGFWFC~~, Florida Fish & Wildlife Conservation Commission (FFWCC) and/or U.S. Fish and Wildlife Service (USFWS).

***Explanation:***

***Agency names have changed.***

*Policy A5.2.* Protection and management of wetland and deepwater habitats shall be in a manner consistent with implementation of the Treasure Coast Regional Comprehensive Policy Plan, the North Fork of the St. Lucie River and Indian River Lagoon Aquatic Preserve Management Plans, the St. Lucie Estuary Management Plan (SLEMP), and any other appropriate resource management plan that applies to resources within the City limits.

*Policy A5.3.* For natural areas that are proposed to be retained on site, all nuisance and invasive exotic vegetation (e.g., Brazilian pepper, Australian pine, and melaleuca) shall be removed ~~where feasible and appropriate~~ and replaced with native plant species adapted to existing soil and climatic conditions. Removal shall be in such a manner that avoids seed dispersal by any such species. Planting of pest exotic vegetation shall be prohibited. On privately owned lands, implementation shall occur at the time of development or redevelopment. On publicly owned lands, implementation shall occur at the time of development or as soon as possible. It should be noted that private environmental groups may voluntarily implement this work as an organizational project. In all cases, implementation shall be consistent with the overall objective of protecting the functions and values of native habitats.

***Explanation:***

***Strengthens this policy and provides for consistency with provisions elsewhere in this element that state, "Upon development of the site, the developer shall be required to remove exotic vegetation and replace with native vegetation suitable to the soil condition."***

*Policy A5.4.* The City shall compile a list of native species to be available for reference by residents and developers. This list shall be based upon native plant species guidelines commonly applied by the Treasure Coast Regional Planning Council, South Florida Water Management District, and Florida Department of Agriculture and Consumer Services.

*Policy A5.5.* Wetlands shall be protected and conserved by restricting direct and indirect development impacts according to Policies A5.5, A5.6, Conservation land use designations, conservation easements, open space requirements and other goals, objectives and policies of this plan.

***Explanation:***

***Conservation easements are routinely used by the City and other agencies to protect wetland and other environmentally sensitive lands.***

A. *General.*

i. It is the policy of the City to avoid or minimize damage to wetlands; to direct development to lands that are not environmentally sensitive; to encourage ~~that~~ activities not dependent upon a wetland location be located at upland sites; to allow wetland losses only where all ~~practical~~ practicable measures have been applied; to reduce those losses that are unavoidable and in the public interest; to allow for limited mitigation; to promote compact urban development and discourage urban sprawl by allowing wetland impacts in excess of minimum requirements under certain limited conditions; to encourage wetlands mitigation within the watershed containing the ~~lost~~ impacted wetlands; to protect and enhance the environmental qualities of watershed basins; and to provide for the protection of wetlands under the City's land development regulations to be adopted and implemented consistent with F.S. § 163.3202.

***Explanation:***

***Edited for clarity.***

ii. All development shall, at a minimum, comply with wetland protection requirements of all Federal, State and regional agencies having regulatory authority. This plan provides supplemental conservation and protection measures for wetlands pursuant to the direction of F.S. ch. 163, pt. II [F.S. § 163.2511 et seq.], and F.A.C. ch. 9J-5. ~~Provisions in this Plan shall neither duplicate nor conflict with other agency regulations.~~

***Explanation:***

***Accommodates new "avoidance and minimization" of environmental impact standards which have been added to Chapter 5 of the City's Land Development Code (See Exhibit B, Section 5.02)***

iii. Land use planning and site design shall support development patterns that avoid or minimize the impact of development on wetlands.

iv. In order to properly identify and delineate wetlands, the City shall rely on the delineation of wetlands by the SFWMD or FDEP.

v. In no instance shall these wetland policies be construed to allow development that is otherwise prohibited by the Comprehensive Plan.

B. *Land use.*

i. Existing uses in wetlands may continue, but shall not be expanded unless they are specifically allowed or exempted. Silviculture in wetlands shall be consistent with "Silviculture Best Management Practices" published by the Florida Department of Agriculture as it existed on July 1, 1998.

ii. Walking trails or elevated wooden "cat walks" designed to minimize disturbance to the wetland system shall be allowed to provide limited access for purposes of passive recreation or access to other portions of the site or adjacent waters which are otherwise inaccessible.

iii. New development shall not be allowed in wetlands, i.e., development shall occur outside of the wetland (including its upland buffer as specified in C below) except as indicated in v and vi below, or in the exceptions listed in Policy A5.6. When one or more contiguous lots or parcels of record under common ownership or control as of the date of adoption of this Comprehensive Plan are evaluated under these exceptions, the lots or parcels shall be aggregated and evaluated as a single lot or parcel.

iv. New development shall be ~~clustered~~ located on upland portions of a development site, which are not otherwise environmentally sensitive lands. ~~Development densities/intensities may be transferred out of the wetland area on a one-for-one basis. However, the development density/intensity of the developable portion of the site shall not exceed 150 percent of the maximum density/intensity otherwise allowed for the non-environmentally sensitive portion of the site. Development densities may be transferred out of the wetland area on a one-for-one basis. However, the development density of the developable portion of the site shall not exceed 150 percent of the maximum density otherwise allowed for the non-environmentally sensitive portion of the site. For each transferred residential unit an additional one-tenth of an acre of on site, non-environmentally sensitive land shall be preserved as upland buffer or native preserve.~~

**Explanation:**

*The deleted language serves no purpose in preserving environmentally sensitive lands that are otherwise off limits to development, but rather provides for a greater intensity of development without a corresponding environmental benefit.*

*Note: Net density is computed by dividing the total number of units to be constructed by the net residential acreage of the parcel. The net residential acreage of a parcel shall be the acreage devoted to residential buildings and accessory structures less all bodies of water including wet retention areas, the dedicated public open space, all easements dedicated to a governmental body for public use, all public and private road rights-of way, and protected environmentally sensitive areas.*

*Eliminating the transfer provision altogether may be excessive. By requiring an additional tenth of an acre for each transferred unit, the provision now generates a measurable environmental benefit and creates a true "clustering" dynamic.*

v. If new development cannot be clustered outside of the wetland protection area, the uses specified under F.A.C. 40E-4.051 in effect as of July 1, 1998, are allowed, except for any new or expanded agriculture, silviculture, floriculture and horticulture.

vi. If new development cannot be clustered outside of the wetland protection area the uses specified under F.A.C. 40E-400.417--40E-400.500 in effect as of July 1, 1998, are allowed except that new or expanded silviculture operations are not allowed. Additionally, single family homes must be constructed on pilings or stemwalls to minimize the area of isolated wetlands filled for the residence and associated improvements and the dwelling unit must be connected to central water and sewer whenever available.

C. *Buffers.*

i. Upland buffers are considered an integral component of a functioning wetland and shall be afforded the same types and levels of protection as the wetland itself. Buffers shall be a minimum width of 50 feet beyond the perimeter of the wetland. Buffers shall not be developed, cleared or landscaped in any fashion that would decrease their effectiveness in supporting wetland functions. Upland buffers may not be used for wetlands destruction/mitigation credit in the City of Stuart.

ii. The City shall require that upland buffers be extended beyond 50 feet if necessary to connect isolated wetlands with other protected wetlands existing within 200 feet. Greenways will be created when possible. This policy shall apply to protected wetlands within 200 feet on adjacent parcels regardless of ownership.

D. *Mitigation.* The purpose of mitigation is to offset environmental impacts. Mitigation activities approved by a Federal, State or regional agency are supported by the City. However, these mitigation activities do not exempt development activities from the requirements of this plan. The issuance of a permit by any other agency, with or without mitigation, does not exempt the development from the requirements of this plan. Development in wetlands must be consistent with this plan to proceed. ~~The City shall not require mitigation activities not required by other Federal, State or regional agencies.~~ Upland buffers and preserve areas otherwise required by the City in a development may not also be used for wetlands destruction/mitigation credit in the City of Stuart. Additional upland preserve area beyond the City's requirements may be used for mitigation credit in the City of Stuart so long as it is within the same watershed basin.

***Explanation:***

***Accommodates new "avoidance and minimization" of environmental impact standards which have been added to Chapter 5 of the City's Land Development Code (See Exhibit B, Section 5.02)***

E. *Implementation.*

i. The City shall maintain a generalized wetlands map as part of this Plan.

ii. The City shall maintain a generalized watershed basin map and program as part of this plan.

iii. The City shall consider designating known wetland areas as Conservation on the Future Land Use Map to further enhance their recognition and protection.

iv. If the City has any reason to believe that wetlands exist on a proposed development site, the landowner/developer shall be required to provide to the City a site map showing the formal determination of the extent of surface waters and wetlands by the SFWMD. Additionally, this map must show the delineation of the upland buffer. If there is a reason to believe that wetland buffers may crossover from wetlands on adjacent sites or that on-site wetlands or uplands are integral to off-site watershed protection, those wetlands and associated buffers must also be evaluated. The City shall petition the SFWMD for a formal determination of proximate wetlands on adjacent sites if needed to determine what development is allowed on site.

v. Any development site plan must show:

a. A description (including maps) of all water bodies, watercourses, wetlands and associated buffers on-site and immediately adjacent to the site and within the watershed;

- b. A description (including maps) of any other environmentally sensitive land on the site; and
- c. A detailed plan that shows all proposed development that may directly or indirectly impact the wetlands, including any proposed disturbance of the wetland and wetland buffers as well as any other environmentally sensitive lands on the site.
- vi. The City shall require a wetland special use permit for any development that proposes to impact wetlands. The permit shall be implemented in the City's land development regulations. The permit criteria shall require compliance with Conservation Element Policies A5.5 and A5.6.
- vii. The developer shall ensure that site development activities do not degrade on-site or adjacent surface waters or wetlands. Wetlands shall not be used as primary sediment traps during development or for storm water retention beyond historic hydrologic regime after development. No grading, cutting or filling shall be commenced until erosion and sedimentation control devices have been installed between the disturbed area and the wetlands.
- viii. The developer shall ensure that site development activities do not degrade or negatively impact the watershed basin in which the site is located.
- ix. Wetland buffer areas may be counted toward any open space requirements of this Plan, however, wetlands themselves shall not count toward open space requirements.
- x. Wetlands and their associated buffers may be designated conservation easements unless part of a homestead.
- xi. The City shall evaluate the status of wetlands in the City to determine the effectiveness of these policies at the time of each Evaluation and Appraisal Report.
- xii. Upon development of a site, the developer shall be required to remove exotic vegetation and replace with native vegetation suitable to the soil conditions.
- xiii. Where not precluded by existing site improvements, constructed wetlands and storm water devices shall be located in such a manner to provide additional buffering for existing wetlands or to create and enhance interconnections between wetlands and natural areas.

*Policy A5.6. Exceptions to Policy A5.5 above:*

A. Isolated wetlands:

- i. Development may incorporate isolated wetlands into storm water management systems, provided that the storm water runoff is treated prior to entering any wetland system, so that the wetland is used for nutrient and volume attenuation. The City shall encourage designs which maintain the existing natural wetlands community, except where permitting agencies agree that the imposition of conditions which favor a different plant community is more desirable for the purpose of providing habitat, improving water quality or enhancing other wetland values.
- ii. The City shall request that the SFWMD, FGFWFC or a professional biologist to comment and render an opinion as to whether the wetland has significant wildlife values based on the following factors:
  - a. The extent to which the isolated wetland acts in concert with the broader regional landscape to provide both food web support and habitat for wildlife;
  - b. The potential cumulative impacts to isolated wetland wildlife functions at a regional level;
  - c. Individual wetland features that are important to wildlife;

- d. Whether the isolated wetland is used by endangered or threatened species or species of special concern; and
- e. The degree to which adjacent existing or planned development will affect the use of the wetland by wildlife; and
- f. The extent to which the wetland presents unique hydrology and vegetation compared to other isolated wetlands within the City.

If the biological evaluation indicates that the isolated wetland has significant and sustainable wildlife values, or unique hydrology and/or vegetation, the wetland shall be afforded the same level of protection as all other wetlands. However, if the report indicates no significant and sustainable values, then the underlying land use category may be applied. This does not preclude the application of any regulatory requirements of other Federal, State or regional agencies.

~~B. Buffer widths may be adjusted downward to a minimum of 25 feet or the buffer width may be allowed to average 50 feet on a case by case basis if the following conditions are present:~~

- ~~i. The developable portion of existing lots of record as of the date of adoption of this policy does not have sufficient size or dimensions to allow for a reasonable economic use of the property based on the designated land use category. In this instance, the remaining buffer shall be enhanced to minimize development impacts.~~
- ~~ii. The proposed development shall provide mitigation for reduction in standard by enhancing the functioning value of the wetland buffer area.~~

***Explanation:***

***Standards elsewhere in this element mandate an average wetland buffer width of 50 feet and 75 feet respectively, depending on the quality of the wetland. Eliminating these lesser (alternative) standards is intended to strengthen the City's requirements for wetland protection.***

~~C. If the SFWMD indicates that a wetland (or a portion thereof) is severely degraded and has minimal restoration potential and that beneficial mitigation of other wetlands would be achieved as a result of mitigation that allows some development in this degraded wetland (or portion thereof) then the underlying land use category shall apply. Mitigation shall be permitted with the first priority being mitigation on-site, the second priority being mitigation within the City limits, the third priority being mitigation within Martin County, the fourth priority being mitigation within the TCRPC district, and the fifth priority being mitigation outside the TCRPC district.~~

C. If the SFWMD indicates that a wetland (or a portion thereof) is severely degraded and has minimal restoration potential and that beneficial mitigation of other wetlands would be achieved as a result of mitigation that allows some development in this degraded wetland (or portion thereof), and the City concurs with this indication, then the underlying land use category shall apply. Mitigation shall be permitted in order of priority:

- 1) on-site mitigation
- 2) mitigation within the same watershed basin
- 3) mitigation within a watershed basin identified by this plan.

***Explanation:***

***Change ties the location of off-site mitigation to watershed systems rather than jurisdictional boundaries.***

D. Road crossings shall be allowed if absolutely necessary to access developable portions of the site or if shown to be in the overriding public interest, such as necessary collector or arterial road linkage. When allowed, road crossings shall occur at the narrowest point and be elevated on a bridge structure or above a culvert and designed so that water flow and wildlife movement are uninterrupted.

E. Public infrastructure may be located in wetlands if there is no other possible location available.

F. Future Land Use Element Policy A7.6 is applicable to the enforcement of all wetland conservation and protection policies.

*Policy A5.7.* The City shall protect the natural resources associated with recreation facilities, open space and natural reservations identified in the Recreation and Open Space Element through land development regulations providing performance standards for development of natural resources, and through ensuring through the site plan review process that existing open space and natural reservations are not changed to more intensive uses that would degrade natural resources.

*Policy A5.8.* The City shall protect native vegetative communities by requiring that existing native vegetation constituting up to 25 percent of a development site be preserved. Land clearing activities require a permit that demonstrates the protection of native vegetative communities consistent with Policy A5.8 and A5.9.

*Policy A5.9.* Environmentally sensitive lands containing native vegetative communities that provide wildlife habitat necessary for the survival of listed species as determined by the FGFWFC shall be protected and conserved. The Strategic Habitat Conservation Area Map indicates potential locations of such native vegetative communities. Development proposed in these areas must be surveyed to determine existing conditions. If the site contains native vegetative communities that provide wildlife habitat necessary for the survival of listed species as determined by the FGFWFC, the following shall be required:

- a. Cluster development away from the habitats of listed species.
- b. Avoid the fragmentation of contiguous ecological community associations which extend over adjacent parcels.
- c. Allow the transfer of development rights to other parcels in the City if otherwise consistent with this plan.

**Objective A6. Wildlife protection.**

Endangered, threatened and species of special concern shall be identified through the site plan process. Protection and enhancement of these wildlife populations within the City and in surrounding environs shall be through such provisions as adequate buffering, cluster development and density bonuses for developers that set aside land for wildlife habitat.

The following policies support this objective:

*Policy A6.1.* All endangered and threatened plant and animal populations shall be protected. Of special concern, are all species listed as endangered, threatened, of special concern or rare by the Federal government, the State of Florida or the Florida Committee on Rare and Endangered Plants and Animals.

*Policy A6.2.* Sites proposed for development activities within the known range of endangered or threatened species shall be surveyed at the request of local officials by qualified government ecologists prior to approval of or commencement of such activities to determine whether or not endangered or threatened plant and animal populations occur, and the potential impact of the proposed development. This request will originate within the City's site plan review process. If qualified government ecologists are not available for survey, the developer will obtain a City-approved professional consultant at the developer's expense.

*Policy A6.3.* The City shall maintain its status as a bird sanctuary and develop a program to encourage residents to provide additional backyard habitat to enhance non-game wildlife populations within the City.

*Policy A6.4:* As noted in the Martin County Manatee Protection Plan, the City shall coordinate with Martin County and state and federal agencies regarding the following issues:

- a. Implementation of speed zones as appropriate in the St. Lucie River.
- b. Monitoring of manatee mortality by collisions with watercraft in county waterways.
- c. Sea grass restoration to enhance estuarine natural resources, improve water quality, and provide additional foraging habitat for manatees.
- d. Participation on the Martin County Manatee Protection Advisory Committee as appropriate.

**Objective A7. Air quality.**

The City of Stuart shall continue to meet or surpass all national ambient air quality standards, as set by the U.S. Environmental Protection Agency.

The following policies support this objective:

*Policy A7.1.* Transportation plan development and project reviews shall consider provisions for bicycle lanes, sidewalks, car pooling, mass transit and other transportation methods which reduce air polluting emissions.

*Policy A7.2.* Construction practices such as seeding, wetting and mulching which minimize airborne dust and particulate emission generated by construction activities shall be undertaken within 30 days of completion of clearing work. Clearing of specific building sites shall not commence without the necessary permit as required under the City's revised land development regulations.

*Policy A7.3.* All buildings scheduled for renovation or demolition shall be required to receive a Florida Department of Environmental Protection (FDEP) permit and shall be surveyed for the presence of asbestos. Asbestos shall be removed prior to demolition. Any asbestos removal shall be performed by a contractor licensed under the Florida Department of Professional Regulation. Any buildings scheduled for demolition shall apply for a permit from the Department of Environmental Protection.

*Policy A7.4.* Landscape efforts and ordinances shall consider the use of landscape material, including trees, to mitigate localized air quality problems. Consistent with this policy, the City shall undertake efforts to promote large-scale tree planting programs.

*Policy A7.5.* Compliance of future development with all appropriate air quality standards shall be assured.

**Objective A8. Soil and shoreline erosion prevention.**

The City shall conserve soil resources by reducing the rate of soil erosion resulting from land development and other activities.

The following policies support this objective:

*Policy A8.1.* The City shall consider topographic, hydrologic and vegetative cover factors in the site plan review process of proposed developments. Removal of native vegetation within the buffer zone as defined in Policy A4.2 and on stream banks and on slopes of greater than 3:1 shall be prohibited.

*Policy A8.2.* Sloping revetments, interlocking bricks and similar designs to reduce the effects of bottom scouring by more effectively dissipating wave forces shall be used in all shoreline construction.

*Policy A8.3.* Replanting of sea grasses shall be encouraged during redevelopment of coastal areas. Upon determination that existing environmental conditions can support an appropriate species of sea grasses, the City shall seek funding and manpower from public and private organizations, including use of citizen volunteer projects in areas identified as having potential for reestablishment.

*Policy A8.4.* The City shall cooperate with the Martin County Soil and Water Conservation District and the U.S. Soil Conservation Service to monitor soil erosion rates and develop programs to minimize soil erosion.

*Policy A8.5.* The City shall prohibit the use of off-road vehicles in all areas other than those that are explicitly permitted.

**Objective A9. Hazardous waste.**

The City shall develop a hazardous waste management program for the inventory, storage, recycling, collection and disposal of hazardous waste.

The following policies support this objective:

*Policy A9.1.* In order to protect the City's natural resources, the City shall manage the generation, handling or storage of hazardous waste as follows: For new development, the City shall consider the impacts of potential hazardous wastes during the site plan review process. For existing development, the City shall require notification of hazardous waste generation, handling or storage as part of the occupational license application procedure. Such development will be permitted by the City only after the applicant provides an emergency response plan addressing accidents involving hazardous waste, and mitigation strategies to protect local natural resources.

*Policy A9.2.* The City shall cooperate with the County in developing and implementing an emergency hazardous waste response program.

*Policy A9.3.* The City shall negotiate with at least two automobile service stations in the City to accept waste motor oil and lead acid batteries for recycling.

*Policy A9.4.* The City shall cooperate with Martin County in sponsoring Amnesty Days to collect household hazardous waste for proper disposal.

**Objective A10. [Landscaping and maintenance of open spaces.]**

The City shall assure that open spaces are preserved and maintained in properly landscaped and litter free condition.

The following policies support this objective:

*Policy A10.1.* Public lands shall be landscaped and maintained in keeping with the standards, specifications and intent of the City landscaping requirements of the Land Development Regulations.

*Policy A10.2.* The City Public Works and Code Enforcement Departments shall be instructed to give greater emphasis to the fullest possible enforcement of both City and State ordinances pertaining to the landscaping of private and commercial properties and pertaining to littering.

*Policy A10.3.* Existing City ordinances shall be reviewed in respect to their ability to fulfill Policies A10.1 and A10.2 and, as may be required, new ordinances shall be written and passed to assure the fulfillment of Objective A10. It shall be the purpose of such new legislation to assure that landscape requirements apply equally and totally to all defined Open Spaces and are enforced within reasonable time limits.

*Policy A10.4.* Techniques for funding Open Space landscaping and maintenance shall be investigated. The City shall earmark local tax revenues for the landscaping and litter-free maintenance of open spaces and/or investigate user fees, impact fees, and volunteer programs as may be needed.

EXHIBIT B  
AMENDMENTS TO CHAPTER 5  
"RESOURCE PROTECTION STANDARDS" AND CHAPTER 10 "HARDSHIP RELIEF"  
OF THE CITY OF STUART LAND DEVELOPMENT CODE

5.00.00 IN GENERAL

The intent of this chapter is to protect and manage wetlands, environmentally sensitive lands, historic and specimen trees, mangroves and the shoreline within the city to implement the goals, objectives and policies of the comprehensive plan of the city.

The regulations of this chapter apply to all public and private lands within the city. Pursuant to Chapter XI of this Code, a permit shall be required for any development or other site activity that alters, impacts or removes environmentally sensitive lands, wetlands or trees within the city. Any violation of this chapter shall constitute a municipal ordinance violation and may be prosecuted before the code enforcement board of the city as provided in section 5.06.00 below.

These regulations will be applied to proposed development site plans or proposed plat plans submitted to the city to all site activity that occurs on or after February 14, 2000.

5.01.00 DEFINITIONS

As used in this chapter, the following terms have the following meanings.

Avoidance means not taking or modifying a proposed action or parts of an action so that there is no adverse impact to aquatic or environmentally sensitive areas.

***Explanation:***

***Added in support of new section 5.02 "Avoidance or Minimization of Wetland and other Environmental Impacts"***

*Department* means the Florida Department of Environmental Protection.

*District* means the South Florida Water Management District.

*Greenway* means a corridor of native vegetation managed for conservation purposes with a minimum average width of 100 feet and at no point a width of less than 50 feet.

*Listed species* means those species of plants or animals listed as threatened, endangered, or species of special concern by the State of Florida in Chapter 39, Florida Administrative Code, or F.S. ch. 581, as either may be amended from time to time.

Minimization means lessening impacts by reducing the degree or magnitude of the proposed action and its implementation.

***Explanation:***

***Added in support of new section 5.02 "Avoidance or Minimization of Wetland and other Environmental Impacts"***

*Native vegetation* means vegetation comprised of those species of vegetation that were present in Florida at the time of European contact including threshold wetlands. Any species introduced to Florida thereafter is non-native vegetation. Descriptions of typical areas of native vegetation are described in the latest version of "26 Ecological Communities of Florida" published by the Florida Chapter of the Soil and Water Conservation Society.

*Native vegetation preserve area* means that portion of a property in which no development activity is permitted including threshold wetlands, upland buffers, greenways, and habitat of listed species or areas of native vegetation.

*Native uplands* are those upland areas that consist of vegetation in which 50 percent or more of the vegetative cover is native vegetation.

*Non-native uplands* are those upland areas that are either devoid of vegetation or consist of vegetation of which less than 50 percent is native vegetation.

*Non-native vegetation* means any vegetation that is not native vegetation.

*Outstanding resource wetland* means a wetland that is naturally connected to the St. Lucie River, or to Poppleton Creek, Frazier Creek, Haney Creek, Krueger Creek and Willoughby Creek, or to the tributaries thereto. To be an outstanding resource wetland, the connection must be natural and not man-made.

*Practicable* means available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes. In order to be practicable, an alternative must be both available to the permit applicant and capable of fulfilling the overall project purpose.

***Explanation:***

***Added in support of new section 5.02 "Avoidance or Minimization of Wetland and other Environmental Impacts"***

*Preserve area* means that portion of a property in which no development activity is permitted including wetlands, upland buffers, greenways, and habitat of listed species or areas of native vegetation.

*Reasonably significant means*

*State of Florida* includes the Department of Environmental Protection and the South Florida Water Management District.

*Threshold wetland* means a wetland that is less than one-half acre or is not otherwise regulated by the State of Florida. A threshold wetland is considered to be native vegetation.

*Upland buffer* means an area of undisturbed or appropriately managed vegetation surrounding a wetland that will minimize disturbances to the wetland during and after development.

*Verified wetland delineation* means a determination of the extent of wetlands within a site that has been verified in writing by the State of Florida.

*Wetland* means an area that is inundated or saturated by surface water or ground water at a frequency and a duration sufficient to support, and under normal circumstances does support, a prevalence of vegetation typically adapted for life in saturated soils and is verified to be a "wetland" by the State of Florida as defined at Chapter 62-340.200(19) of the Florida Administrative Code, as amended from time to time.

*Wetland delineation* means the process by which wetlands are mapped and located within a project site.

*Wetland mitigation* means the creation of wetland values and functions to offset direct and indirect development impacts to existing wetlands resulting from a proposed project.

*Watershed* means that area that has been identified in studies or adopted plans to drain into the St. Lucie River or its tributaries being Poppleton Creek, Frazier Creek, Haney Creek, Willoughby Creek and Krueger Creek.

#### 5.02.0 Avoidance or Minimization of Wetland and Other Environmental impacts

- A. Impacts to wetlands and other environmentally sensitive lands shall be avoided or minimized to the greatest extent practicable.

#### 5.02.1 Initial Determination Required

- A. Prior to seeking environmental permits from state and federal agencies, and prior to the issuance of a development permit by the City, an applicant for development approval shall provide evidence to the City Development Director that the following environmental impact avoidance and minimization techniques have been employed to the greatest extent practicable in the preparation of a proposed site plan.
- B. On-Site Avoidance
1. Can another vertical level be added to a building to decrease the overall building footprint?
  2. Can the building footprint be reduced and still achieve the project's purpose and need?
  3. Can a building be repositioned on the parcel to reduce or eliminate environmental impacts?
  4. Can multiple structures be clustered to reduce or eliminate impacts?
  5. Can road or utility alignments be reconfigured?
  6. Can spans and bridges be used instead of culverts?
- C. Site Engineering Changes
1. Can 2:1 side slopes be used instead of gentler slopes?
  2. Can retaining walls be used instead of slopes?
  3. Can grading be minimized by incorporating natural topography?
  4. Can more trees and vegetation be preserved?
  5. Can lot layout be reconfigured?
  6. Can state waters, including wetlands, be concentrated into subdivision "common areas"?
  7. Can the project's stormwater facilities be designed using Low Impact Development (LID) Techniques as described in the University of Florida IFSA Extension publication "LID Practices: Integrating Wetlands & Enhancing Stormwater Basins, copies of which shall be made available by the City Development Department?"
- D. On-Site Minimization
1. Can some of the above listed techniques be used to further minimize impacts?
  2. Can directional drilling be used to install underground utilities instead of excavation and backfill?
  3. Can equipment fitted with low pressure tires or tracks be used?
  4. Can any permanent impacts (e.g. access roads) be converted to temporary impacts?
  5. Can construction staging or stockpiling of materials occur in areas outside of environmentally sensitive lands?

**Explanation:**

*This new section seeks to compel a thorough "local" analysis of whether impacts can be avoided or minimized before the applicant gets into the permitting process with state and federal agencies.*

**5.03.00 ENVIRONMENTAL ASSESSMENT REPORT FOR SITES WITH WETLANDS OF GREATER THAN ONE ACRE**

For properties with wetlands and for properties of greater than one acre, an application for site plan approval or plat approval shall include an environmental assessment report relating to the subject property. The report shall include the information listed below:

A. *Site description.* A description of the site location and acreage, including adjacent streets and roads, Township, Section, Range and street address, if any, shall be included. A site location map at a scale sufficient to show the site and its relationship to the city municipal boundary shall be provided.

B. *Vegetative description.* A description of the vegetation on the site and each separate type of upland vegetation or land cover and each type of wetland vegetation cover shall be mapped and described in accordance with the Florida Land Use, Cover, and Forms Classification System. The map shall include total acreage calculations of each vegetative type shown on the map. A recent aerial photograph of the subject property to correspond to the map shall be included.

C. *Wetland delineation.*

1. A copy of a wetland delineation map according to the State of Florida shall be submitted to the city development department. If the delineation of wetlands is not complete at the time of review, a map depicting the approximate location and types of wetlands shall be submitted for planning purposes. Issuance of a development permit will not occur until a verified wetland determination is completed and development plans revised accordingly.

2. For those sites where wetlands have been determined to be present, a separate determination of the existence of outstanding resource wetlands shall be provided. This determination shall meet the criteria for an outstanding resource wetland provided in this chapter. A separate map of outstanding resource wetlands shall be included.

D. *Wildlife evaluation.*

1. A description of the wildlife actually observed or expected on the site based on observed habitat shall be included. Habitat indicators such as tracks, burrows, nests, and live sightings should be documented for species listed by Florida Fish and Wildlife Conservation Commission and the U.S. Fish and Wildlife Service as endangered, threatened or of special concern.

2. The field reconnaissance and identification efforts and methods including transects, random observation, and reference documents used in the wildlife evaluation shall be described. Copies of correspondence with the commission and service shall be provided. In instances where the presence of listed species is actually observed or expected based on habitat, the city development director may require documentation of coordination with the Florida Fish and Wildlife Conservation Commission and the U.S. Fish and Wildlife Service to consider the application complete.

E. *Preserve area and upland buffer evaluation.* A calculation of the preserve area and upland buffer requirements for the project as set forth in this chapter shall be included. This evaluation must include a summary of total site area, acreage of wetlands, acreage of native upland and of non-native upland. A map depicting each area type, as well as locations of wildlife observations from the wildlife evaluation, shall be provided.

## 5.04.00 WETLANDS

The wetlands subject to the provisions of this chapter are those that have been "verified" by the State of Florida.

### Sec. 5.04.01. Wetland verification and illustration.

**GRAPHIC LINK:** [Click here for graphic](#)

Wetland verification for the purposes of protection under this chapter shall be consistent with F.S. § 373.421, and with Chapter 62-340, Florida Administrative Code. A wetland, with the required upland buffer and construction setback area, is depicted above as a "jurisdictional wetland boundary" in Figure 1. Surrounding the wetland is the required "upland buffer" and the "construction setback."

### Sec. 5.04.02. Wetland protection standards.

A. *Introduction.* To preserve and protect wetlands, the city advocates a development pattern that avoids or minimizes damage to wetlands and directs development to lands that are not environmentally sensitive. The city encourages activities not dependent upon a wetland location be located at upland sites. To promote compact urban development and discourage urban sprawl, the city allows wetland impacts under certain conditions and only where all practical measures to avoid wetlands have been applied.

B. *Impacts to wetlands prohibited.* Except as otherwise provided herein, any impact upon a wetland, whether directly or indirectly caused, is prohibited. An impact upon a wetland is damage to a wetland caused by any means.

An impact to a wetland is prohibited unless the mitigation requirements of this chapter and each of the following criteria 1. through and including 6. are satisfied.

1. If wetlands exist on the development site, the developer shall meet with the city development director to discuss preliminary site design prior to the submittal of a permit application to the State of Florida. The applicant shall provide copies of all State of Florida permit information and related correspondence to the city development department.
2. The requirements for elimination and reduction of impacts to wetlands in accordance with Rule 40E-1, Florida Administrative Code, Basis of Review for Environmental Resource Permit Applications Section 4.2.1., as amended from time to time, shall be met. Evidence thereof shall include a South Florida Water Management District staff report with a recommendation of approval from the district. A permit from district shall precede any direct impact to a wetland.
3. The requirements for avoidance and minimization of direct impacts to wetlands in accordance with the federal Clean Water Act, as amended from time to time, shall be met. Evidence thereof shall include a permit or letter of intent to issue a permit from the Army Corps of Engineers. A final permit from the corps shall precede any direct impact to a wetland.
4. In those instances where wetland delineation was not conducted using the post-1994 accepted practice for doing so and no permit was required from the State of Florida, impact to a wetland is prohibited unless the mitigation requirements of this chapter, and at least one of the following conditions exist. Further, the proposed impact must be made in the context of a Planned Unit Development (PUD) Agreement.
  - a. The proposed impact is necessary to accommodate roads, utilities, and other infrastructure that cannot otherwise be reasonably provided without the impact.

- b. More than 75 percent of the vegetation within the wetland to be impacted is non-native vegetation.
  - c. A larger upland preserve areas with significantly higher ecological values not required for preservation by this chapter will be preserved elsewhere on the site.
  - ~~d. The proposed impact is necessary to accommodate a consolidated site plan that implements a compact urban development form.~~
5. Unless otherwise approved by the city commission, new onsite sewage disposal systems must be located not less than 75 feet from wetlands for lots created after January 1, 1972 and not less than 50 feet from wetlands for lots created prior to 1972.
  6. No wetland impacts shall be permitted on sites where no development activity is proposed.
- C. *Upland buffer requirements for verified wetlands.* To protect wetlands, upland buffers around wetlands shall be provided and preserved around each wetland or portion thereof on the property.
1. The minimum average width of an upland buffer shall be 50 feet and at no point shall its width be less than 25 feet. The minimum average width of an upland buffer around an outstanding resource wetland shall be 75 feet and at no point be less than 50 feet. ~~Where a width of less than the minimum average width is proposed at any point, the omitted upland buffer area shall be replaced with additional upland buffer elsewhere around the subject wetland on an area ratio of two to one.~~

**Explanation:**

*This chapter mandates an average wetland buffer width of 50 feet and 75 feet respectively, depending on the quality of the wetland. The deleted language is intended to strengthen the City's requirements for wetland protection.*

2. Except as otherwise provided in this chapter, the native vegetation within an upland buffer shall not be disturbed by development activity.
3. Any portion of an a required upland buffer not comprised of native vegetation shall be planted with native vegetation ~~such that the minimum average width of the upland buffer is 50 feet and its minimum width is 25 feet.~~

**Explanation:**

*Language deleted to provide consistency with item 1. above..*

- a. Planting shall include all vegetation types that are consistent with the native uplands in the vicinity, including canopy, understory and ground cover.
- b. The non-native vegetation in the upland buffer planted area shall be removed.
- c. Planting shall be installed according to a planting plan prepared by an environmental professional consistent with the latest version of "26 Ecological Communities of Florida" published by the Florida Chapter of the Soil and Water Conservation Society and approved by the city development director.

d. ~~Planting beyond 25 feet of the wetland boundary is not required provided an area of native vegetation contiguous to the boundary of the upland buffer and of equal or greater size is included with the upland buffer and preserved as such.~~

**Explanation:**

***Deleted language conflicts with minimum 50 foot and 75 foot width standards and mandatory buffer planting requirements.***

4. An upland buffer shall be protected by a construction setback of ~~five~~ ten feet from the upland buffer boundary. Within this setback area, no earthwork, construction or placement of structures shall be permitted.

**Explanation:**

***Five foot setback is seen as inadequate in terms of long-term maintenance as well as fire protection.***

D. *Greenways between wetlands on development sites of greater than ~~ten~~ five acres.*

**Explanation:**

***Change intended to promote greenway linkages on smaller parcels.***

1. The provisions of this subsection apply to developments of greater than ~~ten~~ five acres.

**Explanation:**

***Same as above.***

2. The upland buffer around wetlands shall be extended to provide a greenway connection between wetlands that are separated by 200 feet or less of native upland habitat. A greenway will be located entirely on the development site and may be required in relation to a wetland on adjacent property.

3. The area of a greenway is included in the required preserve area.

4. The location of greenways between wetlands both on the development site and on property adjacent to the development site is illustrated in Figure 2 below.

GRAPHIC LINK: [Click here for graphic](#)

5. Up to ten percent of the required parking that would otherwise be located in a greenway may, if approved by the city development director, either be waived or provided on stabilized grass or similar pervious parking surface.
6. A greenway may be crossed to accommodate roads, utilities or other infrastructure that cannot, as determined by the city development director, be reasonably located elsewhere. The crossing shall be designed to maintain hydrologic and wildlife connections through appropriate structures such as culverts and to otherwise minimize impact upon the greenway.

**~~Sec. 5.03.03. Watershed area incentive.~~**

~~The watershed areas of Poppleton Creek, Frazier Creek, Haney Creek, Krueger Creek and Willoughby Creek have unique environmental value. An incentive is provided for enhanced protection these watershed areas.~~

~~A. *Reduced wetlands buffer incentive.* Properties within the watershed areas may contain wetlands. The upland buffer of an outstanding resource wetlands is a minimum average width of 75 feet and for other wetlands a minimum average width of 50 feet. These upland buffer minimum average widths may be reduced to 50 feet and 25 feet respectively provided the omitted upland buffer area is replaced with additional upland buffer elsewhere around the subject wetland on an area ratio of one to one and upon a determination by the city development director that one or more of the following criteria for watershed protection are met.~~

~~B. *Watershed protection criteria.*~~

~~1. The proposal to reduce the upland buffer must provide a significant benefit to the watershed as determined by the city development director and evidenced by one or more of the following:~~

- ~~a. Water quality improvements;~~
- ~~b. Water quantity and timing improvements; and~~
- ~~c. Native vegetation or wildlife habitat enhancement.~~

~~2. The proposal must comply with any existing management plans adopted by the city for the specific watershed.~~

***Explanation:***

***Reduced buffer standards are not consistent with proposed changes made elsewhere in this section. Proposed enhancements envisioned in this section may be made in the context of a PUD agreement.***

**Sec. 5.03.04. Wetland mitigation.**

In the event an applicant proposes an impact upon a wetland, the applicant shall also propose mitigation to offset the effects of such impact in compliance with the mitigation requirements established by the State of Florida and the Army Corps of Engineers. ~~These agencies have established methodologies not duplicated herein for mitigation for wetland impacts that are included in their respective regulatory programs.~~

***Explanation:***

***Language has been struck to allow for compatibility with Section 5.02 "Avoidance or Minimization of Wetland and other Environmental Impacts"***

A. *South Florida water management district requirements.* Prior to site plan approval, compliance of proposed mitigation with applicable regulations of the State of Florida and the Army Corps of Engineers shall be provided to the city. Evidence of compliance shall include a staff report of the State of Florida inclusive of a recommendation of approval. A permit from the State of Florida shall precede any impact to a wetland.

B. *Clean Water Act requirements.* The proposed mitigation shall comply in all respects with Section 404 of the Clean Water Act as amended from time to time. Evidence that this criterion has been met shall consist of a permit or letter of intent to issue a permit from the Army Corps of Engineers. A final permit from the corps is required before any wetland impacts occur.

C. *Wetland mitigation priorities.* If the State of Florida determines that a wetland, or a portion thereof may be mitigated, and the City concurs, that mitigation may proceed according to the following geographic priorities:

1. The first priority shall be mitigation on-site.
2. The second priority shall be mitigation within the ~~city~~ same watershed.
3. The third priority shall be mitigation within ~~Martin County~~ watersheds identified in the Conservation Element of the City's Comprehensive Plan.
4. ~~The fourth priority shall be mitigation within the Treasure Coast Regional Planning Council district.~~
5. ~~The fifth priority shall be mitigation outside the Treasure Coast Regional Planning Council district.~~

***Explanation:***

***Change ties the location of off-site mitigation to watershed systems rather than jurisdictional boundaries.***

D. *Other requirements.* In those instances where wetland delineation was not conducted using the post-1994 accepted practice for doing so and no permit was required from the State of Florida, impact to a wetland shall be permitted only if the mitigation requirements below are met.

1. The proposed mitigation will replace the wetland functions and associated values lost as a result of the impact as determined in accordance with the South Florida Water Management District Wetland Rapid Assessment Procedure.
2. Any crossings of wetlands for access or infrastructure will provide continued hydrologic and wildlife connections through culverts or other appropriate structural means.
3. The applicant has a sufficient perpetual property interest to ensure completion and perpetual preservation of the mitigation area.
4. The applicant has provided a long-term monitoring and maintenance plan that will ensure the success of the mitigation according to the maintenance plan.

5. The applicant provides financial assurance such as a bond or letter of credit to ensure completion, monitoring and maintenance of the mitigation.

#### 5.04.00 ENVIRONMENTALLY SENSITIVE LANDS

No site clearing of any public or private lands within the city shall be permitted without approval by the city. Proposed development site plans and plat applications for sites of greater than one acre shall include a native vegetation preserve area for the preservation of upland areas in functional habitat units.

##### Sec. 5.04.01. Requirements for sites of greater than one acre.

For sites where less than 25 percent of the development site, exclusive of wetlands that are verified to be a "wetland" by the State of Florida exists as native vegetative areas, all native vegetative areas shall be preserved. For sites where greater than 25 percent of the development site, exclusive of wetlands that are so verified by the State of Florida exists as native vegetative areas, not less than 25 percent of the development site shall be preserved as a native vegetative area. This area can consist of the upland buffers, greenways, native uplands, wetland areas of less than one-half acre and not verified to be a "wetland" by the State of Florida, habitat of listed species, and habitat of wildlife.

##### Sec. 5.04.02. Identification of native vegetation preserve area for sites of greater than one acre.

The preserve area shall be set aside in accordance with the following priorities:

###### A. *Native vegetation preserve area priority criteria.*

1. On development sites where upland buffers for wetlands ~~is~~ are required, the first priority for the identification of the native vegetation preserve area shall include the areas of upland buffers and greenways, if any, and then areas of native vegetation.

***Explanation:***

***Grammatical correction.***

2. After the location of the upland buffers for wetlands, the balance of the native vegetation preserve area shall be areas of existing native habitat of the listed species. Necessary permits from the U.S. Fish and Wildlife Service and the Florida Fresh Water Conservation Commission may require a larger native vegetation preserve area and in such event those permit requirements shall apply.

3. In the event, given the foregoing criteria, the entire native vegetation preserve area has not been provided for, the balance of the native vegetation preserve area shall be located with reference to the following:

- a. Areas for integration and maintenance of environmental systems; and
- b. Protection of ecotones and diverse habitat types, including the interface of wetlands, uplands and various upland types; and
- c. Preservation of wetlands that are isolated from other wetlands or upland systems and not connected to native habitat.

4. For sites with no native vegetation, the landscaping requirements of this Code shall be met with native vegetation, however, the side and rear landscape strip shall be 25 feet in depth and planted with native vegetation. The location and type shall be determined by the presence or absence of native vegetation on adjacent property.

B. *Native vegetation preserve area on-site relocation option.* Excluding native vegetation included within areas of listed species habitat and upland buffers, the applicant may propose a relocation or replanting of native vegetation that would otherwise be preserved. Such relocation and replanting shall include all vegetation types that are consistent with the native uplands on the site and in the vicinity, including canopy, understory and ground cover, and shall be installed according to a planting plan prepared by an environmental professional.

B. *Native vegetation preserve area on-site relocation option.* Excluding native vegetation included within areas of listed species habitat and upland buffers the applicant may propose relocation or replanting of native vegetation that would otherwise be preserved, providing such a proposal shall be accompanied by a professional study attesting to the biological efficacy of the relocated preserve area in terms value as habitat. Such relocation and replanting shall include all vegetation types that are consistent with the native uplands on site and in the vicinity, including canopy, understory and ground cover, and shall be installed according to a planting plan prepared by an environmental professional.

On-site relocation criteria:

- Relocation allows for establishment of native upland habitat contiguous to existing native habitat thus creating larger contiguous tracts of habitat providing greater native habitat function and connectivity with clear benefits for Listed Species.
- Relocation of native upland habitat provides clear synergistic benefits to on-site wetlands that are to be preserved, enhanced, or created.
- The on-site preserve area community should be the same type as the off-site community to be impacted. An Environmental Assessment should be conducted by a qualified environmental professional (i.e. Certified Ecologist, Certified Environmental Professional, Professional Wetland Scientist, or other recognized certification) for the on-site areas that
  - a. describes the community type using the Florida Land Use, Cover and form Classification System (FLUCCS). Include FLUCCS codes for land use in the surrounding vicinity; This should include an aerial map with FLUCCS overlay.
  - b. provides an inventory of the dominant vegetation;
  - c. indicates the approximate percent cover of exotic vegetation and type;
  - d. lists protected floral and faunal species that could occur and that were observed;
  - e. describes the land use in the surrounding vicinity in relation to the proposed preserve area;
  - f. restoration potential, if applicable; and,
  - g. manageability and size of the proposed preserve area

**Explanation:**

*New language seeks to establish more rigorous standards for assessment and implementation of on-site relocation proposals.*

C. *Native vegetation preserve area off-site relocation option.* The preserve area may be provided off-site if the following conditions are met:

**Explanation:**

*Same principle as above.*

C. *Native vegetation preserve area off-site relocation option.* The preserve area may be provided off-site, providing such a proposal is accompanied by a professional study attesting to the biological efficacy of the relocated preserve area in terms value as habitat, and providing the following conditions are met:

Off-site relocation criteria:

- The off-site preserve area community should be the same type as the on-site community to be impacted and should be of the same or greater quality. An Environmental Assessment should be conducted by a qualified environmental professional (i.e. Certified Ecologist, Certified Environmental Professional, Professional Wetland Scientist, or other recognized certification) for both the on-site and off-site areas that
  - a. describes the community type using the Florida Land Use, Cover and form Classification System (FLUCCS). Include FLUCCs codes for land use in the surrounding vicinity; This should include an aerial map with FLUCCS overlay.
  - b. provides an inventory of the dominant vegetation;
  - c. indicates the approximate percent cover of exotic vegetation and type;
  - d. lists protected floral and faunal species that could occur and that were observed;
  - e. describes the land use in the surrounding vicinity in relation to the proposed preserve area;
  - f. restoration potential, if applicable; and,
  - g. manageability and size of the proposed preserve area

***Explanation for alternative language:***

***New language seeks to establish more rigorous standards for assessment and implementation of on-site relocation proposals.***

1. The native vegetation that would otherwise be preserved on the development site is not the habitat of listed species.
2. The required upland buffers are provided.
3. The development site is proposed for non-residential uses or mixed-use.
4. The location of the off-site preserve area is approved by the city and consistent with adopted environmental management plans.
5. The preserve area is provided according to one of the following options:
  - a. ~~Provision of~~ Not less than two acres of off-site preserve area shall be provided for every one acre of on-site native vegetation preserve. ~~area not provided~~ Said off-site preserve area shall be ~~being~~ of a superior habitat quality, or

***Explanation:***

***Clarification.***

- b. Payment to the city of an amount that is ~~150~~ 200 percent of the appraised value of the entire development site that is prorated to apply to the native vegetation preserve area acreage not provided for deposit into a city environmental trust fund for storm water quality improvements, and for the acquisition, enhancement and maintenance of environmentally sensitive lands, and for environmental education.

***Explanation:***

***Change intended to enhance the transaction's environmental benefit to the City.***

**Sec. 5.04.03. Monitoring and maintenance of preserve areas for sites of greater than one acre.**

In order to ensure that the wetland and upland preserve areas remain a native vegetative area and a functional habitat for wildlife, these areas must be monitored and maintained in their native form. This requirement shall be met both during construction of approved projects as well as throughout the existence of the project and its associated preserve areas.

A. *Preserve area protection plan during construction.* The application for site plan approval for a site of greater than one acre shall include a preserve area protection plan the provisions of which shall be implemented prior to construction to prevent encroachment and negative effects upon required preserve areas. The plan shall include the following:

1. A barricade plan shall indicate the locations and types of barricades that will be employed to prevent encroachment of construction activities into the preserve areas.
2. An erosion and turbidity control plan shall indicate the locations and types of erosion control that will be employed to prevent runoff of turbid water into the preserve areas.
3. A schedule for the inspection and maintenance of barricades and erosion controls prior to and during the construction period shall be provided.
4. A signage and information plan depicting locations and text for signs designating preserve areas shall indicate that the signs will be placed at an interval of one per lot with perimeter bordering preserve or buffer areas or every 100 feet for perimeter areas that do not include lots.
5. The preserve areas signs shall include the following statement:

"PRESERVE AREA -

NO DUMPING -

NO TRIMMING - NO MOWING."

B. *Preserve area vegetative requirements.* As a condition of site plan or plat approval for a site of greater than one acre, the proposed development project shall meet the following criteria for preserve areas.

1. All nuisance and non-native vegetation shall be eradicated within all wetlands and upland preserve areas except as specified below. Non-native vegetation includes all species on the Exotic Pest Plant Council list as amended from time to time. Nuisance vegetation includes cattail, primrose willow and other species designated as nuisance or undesirable by the South Florida Water Management District.
2. Eradication shall consist of the most ecologically sound combination of mechanical removal, manual removal and herbicide treatment. All vegetative debris generated by the eradication must be disposed of outside the wetland or preserve area.
3. A limited amount of non-native vegetation may be allowed to remain as a visual and noise buffer as determined by the city development director on a particular site.

C. *Preserve area maintenance.* For sites that are greater than one acre, the application for site plan or plat approval shall include a preserve area maintenance plan.

1. The preserve area maintenance plan shall include the following.
  - a. Provision shall be made for annual monitoring of the vegetative cover in the preserve area for the five years after completion of the project.
  - b. The vegetative cover data shall be collected in accordance with generally accepted scientific methods, including any occurrence of non-native vegetation or nuisance vegetation. Data shall be documented on a summary monitoring sheet.

c. Monitoring reports shall include the quantitative vegetation cover data from designated monitoring locations within the preserve area. The vegetative coverage data shall be measured as absolute coverage within an area of approximately 2,500 square feet at each monitoring station.

d. The vegetation shall be measured in percent coverage of the canopy and understory layer and ground cover. The total percent cover should not exceed 100 percent, and each species documented will be reported in both common and Latin names.

e. The coverage shall be measured by visual observation in each of four quadrants from the fixed monitoring point. Observations extend approximately 50 feet from the observer in each direction thus covering approximately 2,500 square feet at each station. The data from each quadrant observation is combined to calculate the vegetative coverage. Station locations are to be permanently marked to ensure consistency in data collection.

f. At least one panoramic photo shall be collected from each of the established monitoring stations to provide documentation of vegetative coverage.

g. The monitoring report shall include recommendations for maintenance, if necessary.

h. Provision shall be made for continued eradication of nuisance and non-native vegetation that may occur in the preserve area and for long-term habitat management to maintain the type and quality of habitat originally intended for the project.

i. Provision shall be made for financial assurance for not less than five years that monitoring and maintenance of the preserve area will be conducted per the plan.

2. The preserve area maintenance plan and provisions shall be included in the deeds and covenants which run with the property.

3. A preserve area maintenance plan compliance analysis report shall be filed annually with the city for each of the first five years following completion of the project. The report shall detail compliance with the plan, and shall include an update of the specific monitoring criteria as listed above and a description of the effort needed to comply with the plan on an annual basis.

4. Prior to issuance of a certificate of occupancy for any portion of the development, the developer shall execute a contract with the city whereby the developer and successors in interest to the developer are bound to comply with the plan. Said contract shall be recorded in the public records of Martin County, Florida and shall specifically provide for injunctive relief and specific performance and shall indicate any intended third party beneficiaries.

5. Violation of a plan shall constitute a violation of this Code enforceable through Code Enforcement proceedings as well as other available legal and equitable remedies provided by law.

#### **Sec. 5.04.04. Activities presumed to have an insignificant adverse affect on protected areas.**

1. Certain activities are presumed to have an insignificant adverse affect on the beneficial functions of protected areas established in section 5.03.03 B. Notwithstanding the prohibition in section 5.03.04 A., the following activities may be undertaken.

a. Scenic, historic, wildlife, or scientific preserves.

b. Minor maintenance or emergency repair to existing structures or improved areas.

c. Establishment of the Stuart Riverwalk.

## 5.05.00 TREES

### Sec. 5.05.01. Definitions.

As used in this chapter, the following terms have the following meanings:

*DBH* means the diameter of a tree trunk at 4.5 feet above ground level.

*Historic tree* means a tree as defined in Chapter XII of this Code that has been identified by the city commission to have special historic significance or that has achieved at least 50 percent of the DBH of the Florida champion of the species as identified in "Big Trees - The Florida Register" published by the Florida Native Plant Society, 1997, as amended, excluding exempt trees as identified in section 6.06.00, Landscaping, of this Code.

*Specimen tree* means a Slash Pine which has achieved a DBH of ten inches or any other tree as defined in Chapter XII of this Code which has achieved a DBH of 4.5 inches which is listed on the City of Stuart Tree List in this Code or has achieved the lesser of a DBH of ten inches or at least 25 percent of the DBH of the Florida Champion of the species as identified in "Big Trees - The Florida Register" published by the Florida Native Plant Society, 1997, as amended, excluding all exempt trees as identified in 6.06.00 Landscaping of this Code.

*Tree location map* means a current aerial photograph not more than three years old with a minimum scale of one inch = 200 feet that indicates the trunk location of all specimen and historic trees plotted with the common or scientific name and DBH of all such trees.

*Tree survey* means a survey consisting of field flagging and identification of all historic and specimen trees within the proposed development area of a project. The tree locations shall be tied into a boundary survey of the site. Tree locations in a preserve area and wetland, and any other area that will not be filled or affected by the proposed construction, are not required to be surveyed.

### Sec. 5.05.02. Tree survey requirements for sites of greater than one acre.

A. *Tree protection information.* The following requirements regarding tree protection shall apply to all applications for site plan approval for sites greater than one acre.

1. A tree location map shall be filed with the application for site plan approval. The map shall indicate the approximate locations of all historic trees and all specimen trees on the site. These trees are listed below.
2. Each tree so mapped shall be designated on the tree location map by size in diameter at 4.5 feet above the ground and type. The tree location map shall depict the proposed building and construction areas within the proposed project and how those areas affect the mapped trees.
3. In the event trees subject to protection in this section will be removed or otherwise impacted directly, or will be filled at the base or otherwise impacted indirectly, a tree survey shall be prepared.

B. *Protected tree species and criteria.*

1. Specimen trees are:
  - a. Unless otherwise noted, all trees on the city tree list which have reached a DBH of not less than 4.5 inches;
  - b. Slash pine trees which have reached a DBH of not less than ten inches;
  - c. All trees on the city flowering tree list which have achieved a DBH of not less than six inches; and

d. Any other tree that has achieved a DBH of not less than ten inches or 25 percent of the DBH of the Florida Champion of the species as identified in "Big Trees - The Florida Register" published by the Florida Native Plant Society, 1997, as amended.

2. Historic trees are those that have achieved 50 percent or more of the DBH of the Florida Champion of the species.

3. The city tree list follows:

CITY OF STUART TREE LIST

TABLE INSET:

American Holly	( <i>Ilex opaca</i> )
Bald Cypress	( <i>Taxodium distichum</i> )
Banyan Tree	( <i>Ficus benghalensis</i> )
Dahoon Holly	( <i>Ilex cassine</i> )
Gumbo Limbo	( <i>Bursera simaruba</i> )
Hickory	( <i>Carya ashei</i> )
Laurel Oak	( <i>Quercus laurifolia</i> )
Live Oak	( <i>Quercus virginiana</i> )
Loblolly Bay	( <i>Gordonia lasianthus</i> )
Mahogany	( <i>Swietenia mahogani</i> )
Red Bay	( <i>Persea borbonia</i> )
Red Maple	( <i>Acer rubrum</i> )
Sand Pine	( <i>Pinus clausa</i> )
Slash Pine	( <i>Pinus elliottii</i> var. <i>densa</i> )
Southern Magnolia	( <i>Magnolia grandiflora</i> )
Southern Red Cedar	( <i>Juniperus silicicola</i> )
Strangler Fig	( <i>Ficus aurea</i> )
Sweet Bay	( <i>Magnolia virginia</i> )
Sweet Gum	( <i>Liquidambar styraciflua</i> )
Sycamore	( <i>Plantanum occidentalis</i> )

4. The city flowering tree list follows:

CITY OF STUART FLOWERING TREE LIST

TABLE INSET:

Glaucous Cassia 1	( <i>Cassia surattensis</i> )
Weeping Bottlebrush 1	( <i>Callistemon viminalis</i> )
Lemon Bottlebrush 1	( <i>Callistemon lanceolata</i> )

Golden Rain Tree 1	(Koelreuteria formosana)
Queens Crepe Myrtle 1	(Lagerstromia speciosa)
Paradise Tree	(Simaruba glauca)
Silver Trumpet 1	(Tabebuia caraiba)
Pink Tab or Trumpet Tree 1	(Tabebuia heterophylla)
Jerusalem Thorn 1	(Parkinsonia aculeata)
Princess Flower Tree 1	(Tibouchina grandiflora )
Hong Kong Orchid 1	(Bauhinia blakeana)

1 NOTE: It is recognized that these plant materials are not considered native vegetation materials and do not count towards the native vegetation requirements of this Code.

**Sec. 5.05.03. Tree replacement and protection requirements.**

A. *Historic trees and specimen trees.* Historic trees and specimen trees located within that portion of a development site to be developed shall be protected in accordance with the following criteria. No historic or specimen trees shall be removed without a tree removal permit pursuant to Chapter XI of this Code.

1. *Specimen trees.* All practical measures shall be taken to leave specimen trees in place and preserved within development sites.

a. Specimen trees within parking areas shall be preserved with tree wells or other appropriate measures, if practical. Any parking space requirement that would require the removal of a specimen tree may be waived by the city development director if no fewer than 90 percent of the required parking spaces will be provided. Otherwise, specimen trees shall be relocated within the project site.

b. Specimen trees within building envelopes or for which there is no practical alternative for preservation shall be relocated within the project site.

c. Specimen trees, excluding Slash Pine trees, for which relocation is not possible or is not expected to be successful, shall be replaced with like species within the project site. Replacement trees shall have a combined DBH of 2.5 times the DBH of the trees replaced. The minimum size for replacement trees is 4.5 inches DBH. Determination of replacement trees shall be calculated in accordance with Table 1 below.

d. Specimen trees, specifically and only Slash Pines, for which relocation is not possible or is not expected to be successful, shall be replaced with like species within the project site. Replacement trees shall have a combined DBH of 1.5 times the DBH of the trees replaced. The minimum size for replacement trees is 2.5 inches DBH. Replacement of this variety shall be calculated in accordance with Table 1 below.

e. When not feasible to replant with like species of Slash Pine, replacement trees may be substituted with the following palm trees on a 1:1 ratio:

- Alexander Palm
- Coconut Palm
- Chinese Fan Palm
- Date Palm
- Majesty Palm
- Royal Palm
- Christmas Palm

- Washington Palm

For every one foot of clear trunk of palm tree exceeding minimum palm tree size per the landscape code, credit will be given for one inch of replacement.

f. Additional preservation of native habitat may be substituted for the tree replacement requirements of this section as approved by the city development director. Such preservation is additional to requirements for wetlands and preserve areas and shall include sufficient native trees to meet the DBH replacement requirements in paragraph c. above.

g. Credit towards tree replacement requirements shall be provided for required landscaping only if all required trees are planted at a minimum DBH of 4.5 inches and all required palms are planted at a minimum of 14 feet clear trunk. If required trees or palms, as proposed for a development site in accordance with the landscape code of these Stuart Land Development Regulations, are planted at minimum landscape code requirements, then no credit is obtainable.

h. As determined by the city development director, monies may be contributed as part of tree replacement requirements. This tree replacement mitigation, through payment into the city tree replacement fund, shall only provide for a 50 percent mitigation of the required number of trees to be replaced. The city development director shall coordinate the recovery and disbursement of said funds in accordance with the general provisions of this chapter.

i. Relocated trees that do not survive at least two years shall, in turn, be replaced. A mechanism for financial assurance that relocated and replacement trees will meet survival criteria shall be provided.

Table 1  
Proposed Formulas for Tree Replacement and Contribution into City Tree Fund

TABLE INSET:

Tree Replacement Formula--Slash Pine:														
Total # inches to remove	×	1.5	=	Total # to be replaced	/	Minimum size to replace 2.5"	=	Total # trees to plant	×	50% mitigation to pay into city tree fund	×	175% of plant finder wholesale	=	Total \$ amount to pay into city tree fund
Tree Replacement Formula--All trees less Slash Pine:														
Total # inches to remove	×	2.5	=	Total # to be replaced	/	Minimum size to replace 4.5"	=	Total # trees to plant	×	50% mitigation to pay into city tree fund	×	175% of plant finder wholesale	=	Total \$ amount to pay into city tree fund

2. *Historic trees.* All historic trees located within a proposed development site shall be preserved.

- a. A site plan proposal shall indicate the preservation of all historic trees in all areas of a development site, including parking areas and open space. The site plan shall indicate protective measures to ensure the preservation and longevity of all historic trees, such as tree wells, construction barricades or fencing, or relocation.
- b. Any parking space requirement or building envelope which would require the removal of a historic tree may be waived by the city development director if no fewer than 90 percent of the required parking spaces are provided
- c. In the event no practical alternative exists to locating structures on the site so as to accommodate a historic tree, the applicant for development may submit for major site plan approval or planned unit development (PUD) to consider the removal and replacement of the historic tree. The city commission shall be guided by a consideration of the environmental as well as economic value of the historic tree to be replaced in deciding the appropriate means and manner of its removal and replacement.

#### **Sec. 5.05.04. Protection during development.**

##### *A. Generally.*

1. To assure the health and survival of protected trees that are not to be removed, the developer shall avoid the following kinds of tree injuries during all development activities:
  - a. Mechanical injuries to roots, trunk, and branches;
  - b. Injuries by chemical poisoning;
  - c. Injuries by grade changes;
  - d. Injuries by excavations, fill and;
  - e. Injuries by paving.
2. At a minimum, the protective measures described below shall be taken where appropriate to the development activity. Additional reasonable requirements may be necessary and shall be taken to preserve the health of protected trees in particular circumstances.

##### *B. Avoiding mechanical injuries.*

1. Prior to any land preparation or other development activities a protective barrier easily visible to equipment operators shall be placed around all protected trees so as to encompass the entire tree protection zone.
2. No attachment, wires (other than supportive wires), signs or permits may be fastened to any protected tree.
3. No equipment, construction materials or debris of any kind shall be placed within the protective barrier.
4. Landscaping activities within the bounds of the protective barrier (before and after it is removed) shall be accomplished with light machinery or manual labor. Grubbing and similar activities are prohibited. Grubbing, i.e. clearing of existing vegetation or similar activities is prohibited within the protective barrier except for removal of prohibited species. The only activity permitted within protective barriers shall be supplemental landscaping. Supplemental landscape plant material shall be of similar cultural classification as existing vegetation. Temporary irrigation shall be permitted on an as-needed basis until plant establishment.
5. In lieu of constructing the barriers required above, the developer may physically designate large areas containing protected trees where no land preparation or other development activities of any kind will occur. The area shall be designated by placing stakes a maximum of 25 feet apart and tying ribbon, plastic tape or rope from

stake to stake along the outside perimeter of the area. This perimeter line shall be beyond the tree protection zone of any protected trees growing within the area.

6. Required protective barriers and perimeter lines shall remain in place until all construction activity, except landscaping within the protected area, is terminated.

*C. Avoiding injuries due to chemical poisoning.*

1. No fuel, paint, solvent, oil, thinner, asphalt, cement, grout or any other construction chemical or other material or tools of any kind shall be stored, or allowed in any manner to enter, within a required protective barrier or perimeter line.

2. No equipment shall be cleaned within a required protective barrier or perimeter line.

*D. Avoiding injuries due to excavations.*

1. Water, sewer, and other utility lines should be routed around the tree protection zones of protected trees.

2. If a line cannot reasonably be routed around the tree protection zone, the line shall be tunneled beneath the area within the zone. The tunnel shall be offset to one side of the trunk to prevent damage to the main tap roots.

**Sec. 5.05.05. Emergencies.**

In the case of emergencies such as hurricanes, windstorms, floods, freezes or other disasters or hazards, the requirements of this section may be waived by the city manager or his/her designee upon a finding that such waiver is necessary so that public or private work to restore order in the community will not be impeded.

**Sec. 5.05.06. Public right-of-way.**

No trees shall be removed from the public right-of-way except under the direction of the city development director and the parks and recreation director. No tree shall be planted in the public right-of-way without authorization from the city.

**Sec. 5.05.07. Clearance of vegetation over streets and sidewalks.**

Trees and shrubbery shall be trimmed by the city and/or authorized agencies so that there shall be a clear space of eight feet over all sidewalks and ten feet over all streets within the city.

**Sec. 5.05.08. City tree replacement fund.**

*A. Establishment of the city tree replacement fund.* The city tree replacement fund is created in association with the city department of financial services for the purpose of accepting and disbursing payments made to the city as part of tree replacement mitigation and other monies deposited from penalties for tree removal, illegal grading, or illegal clearing. These monies shall be placed in an account and shall be used for the sole purpose of funding tree planting and replacement on public property within the city.

*B. Term of existence.* The city tree replacement fund account shall be self-perpetuating from year to year unless specifically terminated by the city commission.

*C. Purpose.* Funds received shall be utilized for acquiring and planting, trees for public purposes within the city. Acquired trees shall be suitable to the site conditions and listed within the city tree list. Public lands selected for plantings shall be publicly owned or managed lands in public right-of-way.

*D. Source of funds.* Fund monies may consist of the following:

1. All monies collected pursuant to the penalties outlined in section 5.07.00, section 11.03.04, and section 11.03.09 of this Code.

2. All monies collected as part of tree replacement mitigation allowances.

*E. Fund administration.*

1. Funds shall be expended, utilized and disbursed only for the purposes designated herein.

2. The fund shall be a separate set of self-balancing accounts established and maintained by the City of Stuart.

3. Funds shall be managed in accordance with the city's Code of Ordinances as they relate to financial matters.

4. Monies obtained pursuant to this section may be accepted on behalf of the City of Stuart by the city development director or their designee, and upon receipt shall be delivered to the City of Stuart Department of Administrative Services, which shall cause the same to be credited to the trust.

### **5.06.00 MANGROVE AND SHORELINE PROTECTION**

#### **Sec. 5.06.01. Introduction and resource management approach.**

The function and value of shoreline and mangrove areas have been recognized by the Florida Department of Environmental Protection through its "Mangrove Trimming Rule." This section is intended to permit the city to monitor shoreline and mangrove protection within the city.

#### **Sec. 5.06.02. Shoreline protection zone delineation.**

*A. Definition.* As used in this chapter, the term "shoreline protection zone" means the land adjacent to the shoreline, including the shoreline, of the St. Lucie River and Poppleton Creek, Frazier Creek, Haney Creek, Krueger Creek and Willoughby Creek. Except as otherwise provided, no development shall be permitted within the shoreline protection zone.

*B. Construction limited.*

1. An application for site plan approval that includes a portion of the St. Lucie River and Poppleton Creek, Frazier Creek, Haney Creek, Krueger Creek and Willoughby Creek shall include a delineation of the shoreline protection zone. The zone shall be established by survey.

2. Outside the community redevelopment area, the shoreline protection zone for any water body shall be 25 feet from the mean high water line.

3. Within the community redevelopment area, the shoreline protection zone for any water body shall be ten feet from the mean high water line.

4. The following types of development shall be permitted:

i. Docks, marinas or interpretative walks permitted by the State of Florida;

ii. Storm water retention areas;

iii. Landscaping;

- iv. Bulkheads and seawalls which function to protect existing development and are located landward of riverine wetlands and their ecotones;
- v. Riprap; and
- vi. Unpaved, stabilized parking.

5. Any construction activity proposed within the Zone shall have a valid permit from the South Florida Water Management District or the Florida Department of Environmental Protection.

**Sec. 5.06.03. Mangrove protection.**

The Florida Mangrove Trimming and Preservation Act applies to lands within the city. The city will monitor mangrove alteration projects. Prior to initiating any mangrove trimming or alteration within the city limits, landowners shall provide the city development department with a copy of an approved mangrove trimming permit or mangrove alteration permit from the Florida Department of Environmental Protection.

**Sec. 5.06.04. Prohibited ongoing activities.**

The following standards apply to post-development activities taking place within any protected area.

*A. Handling and storage of fuel, hazardous and toxic substances, and wastes.*

- 1. Developments where fuel or hazardous or toxic substances or wastes will be generated, handled, stored, transferred, or sold shall employ the best available facilities and procedures for the prevention, containment, recovery, and mitigation of spillage of fuel and hazardous or toxic substances or wastes. Facilities and procedures shall be designed to prevent substances or wastes from entering the water or soil, and employ adequate means for prompt and effective clean-up and spills that do occur.
- 2. No toxic or hazardous wastes or substances shall be stored in outdoor containers.
- 3. Storage or disposal of all types of wastes or substances is prohibited on shorelines.

*B. Prohibited uses.* The long-term storage of equipment or materials, and the disposal of wastes shall be prohibited.

*C. Fertilizers, herbicides, or pesticides.*

- 1. Fertilizers, herbicides, or pesticides shall not be applied in a protected area except for projects conducted under the authority of F.S. §§ 373.451--373.4595, the Surface Water Improvement and Management Act, and governmentally authorized mosquito control programs.
- 2. Fertilizers, pesticides, and herbicides shall be applied sparingly and at appropriate rates and time intervals.

*D. Spray vehicles.* Vehicles used for mixing or spraying chemicals are prohibited from withdrawing water directly from waters in protected areas.

*E. Pump-out, holding, and treatment facilities for wastes from mobile sources.* Sewage, solid waste, and petroleum waste generated by vessels or vehicles on the site shall be properly collected and disposed of.

**5.06.05 FLOODPLAINS**

**Sec. 5.06.06. General provisions.**

A. *Interpretation generally.* In the interpretation and application of this chapter all provisions shall be:

1. Considered as minimum requirements;
2. Liberally construed in favor of the governing body; and
3. Deemed neither to limit nor repeal any other powers granted under state statutes.

B. *Compliance required.* No structure or land shall hereafter be located, extended, converted, or structurally altered without full compliance with the terms of this chapter and other applicable regulations.

C. *Effect on other restrictions and regulations.* This chapter is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this chapter and another ordinance conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

D. *Warning and disclaimer of liability.* The degree of flood protection required by this chapter is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes. This chapter does not imply that land outside the areas of special flood hazard or uses permitted within such areas will be free from flooding or flood damages. This chapter shall not create liability on the part of the city or by any officer or employee thereof for any flood damages. This chapter shall not create liability on the part of the city or by any officer or employee thereof for any flood damages that result from reliance on this chapter or any administrative decision lawfully made hereunder.

E. *Lands to which chapter applies.* This chapter shall apply to all areas of special flood hazard within the jurisdiction of the city.

F. *Basis for establishing areas of special flood hazard.* The areas of special flood hazard identified by the Federal Insurance Administration in its Flood Hazard Boundary Map (FHBM), #120165 0001 C, dated August 15, 1978, and any revisions thereto, are adopted by reference and declared to be a part of this chapter; or the areas of special flood hazard identified by the Federal Insurance Administration through a scientific and engineering report entitled "The Flood Insurance Study for the City of Stuart, Florida", dated February, 1978, with accompanying Flood Insurance Rate Maps and Flood Boundary and Floodway Maps and any revisions thereto are hereby adopted by reference and declared to be a part of this chapter.

#### **5.07.00 PENALTIES FOR VIOLATIONS**

Each violation of the provisions of this chapter that involves more than 1,500 square feet of land shall be deemed a separate violation.

The Stuart Code Enforcement Board may determine in a proper case that a violation of any provision of this chapter may be irreparable or irreversible in nature pursuant to F.S. ch. 162. Accordingly, said board shall have the authority to impose a fine of up to \$7,500.00 for each violation found.

#### **5.08.00 RESOURCE PROTECTION REGULATIONS ADOPTED BY REFERENCE**

##### **Sec. 5.08.01. Martin County Well field Protection Ordinance.**

The Martin County Interim Well field Protection Ordinance (#354, October 25, 1988), or subsequent amendments thereto, is hereby adopted by reference as part of this Code. Copies of this document shall be made available to the public at the office of the city clerk.

TREE REPLACEMENT LIST - CITY OF STUART

The following species list shall serve as a guideline to those individuals replacing/planting trees subject to section \_\_\_\_\_ of this Code.

TABLE INSET:

Common Name	Botanical Name
Black Olive (F)	Bucida buceras
Coconut Palm (F)	Cocos nucifera
Crepe Myrtle (I)	Lagerstroemia indica
Ficus (F)	Ficus spp.
Geiger Tree (F)	Cordia sebestena
Gumbo Limbo (F)	Bursera simaruba
Italian Cypress	Cupressus sempervirens
Live Oak	Quercus Virginiana
Mahogany	Swietenia mahogani
Mexican Washington Palm	Washingtonia robusta
Paradise Tree (F)	Simarouba glauca
Queen Palm	Arecastrum romanzoffianum
Royal Palm (F)	Roystonea elata
Royal Poinciana (F)	Delonix regia
Sabal Palm	Sabal palmetto
Tabebuia (F)	Tabebuia spp.
Tropical Almond (F)	Terminalia catappa
Magnolia	Magnolia grandiflora
Bottle Brush (I)	Callistemon rigidus
Laurel Oak	Quercus laurifolia
Carrotwood	Cupaniopsis anacardiopsis
Wax Myrtle	Myrica cerifera
Dahoon Holly	Ilex cassine
Palatka Holly	Ilex attenuata
Red Maple	Acer rubrum
Drake Elm	Ulmus parvifolia "Drake"

Red Cedar	Juniperus silicicola
Paurotis Palm	Acoelorrhaphe wrightii
Hackberry	Celtus laevigata
Sycamore	Plantanus occidentalis
Slash Pine	Pinus elliottii Var "Densa"

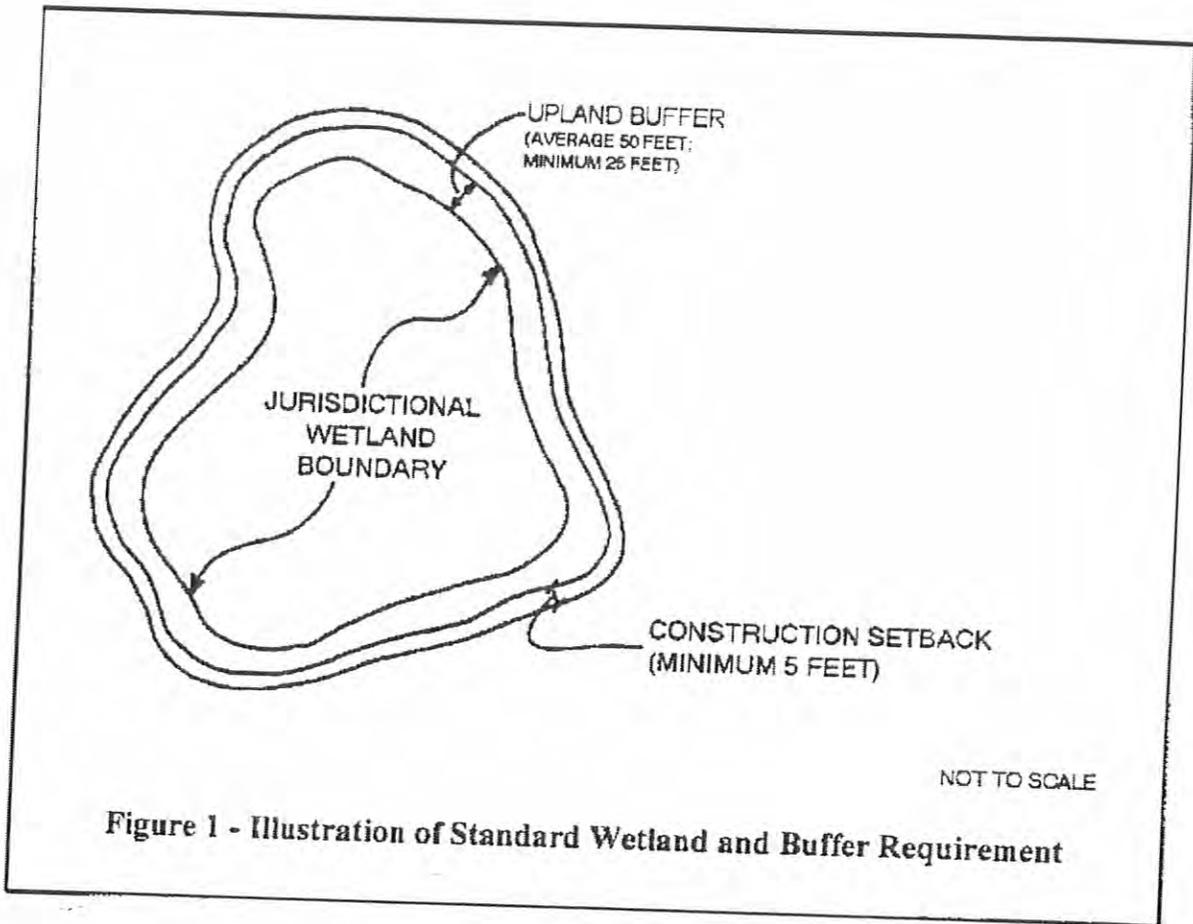
F = Susceptible to Freeze

I = Susceptible to Insects/Pests

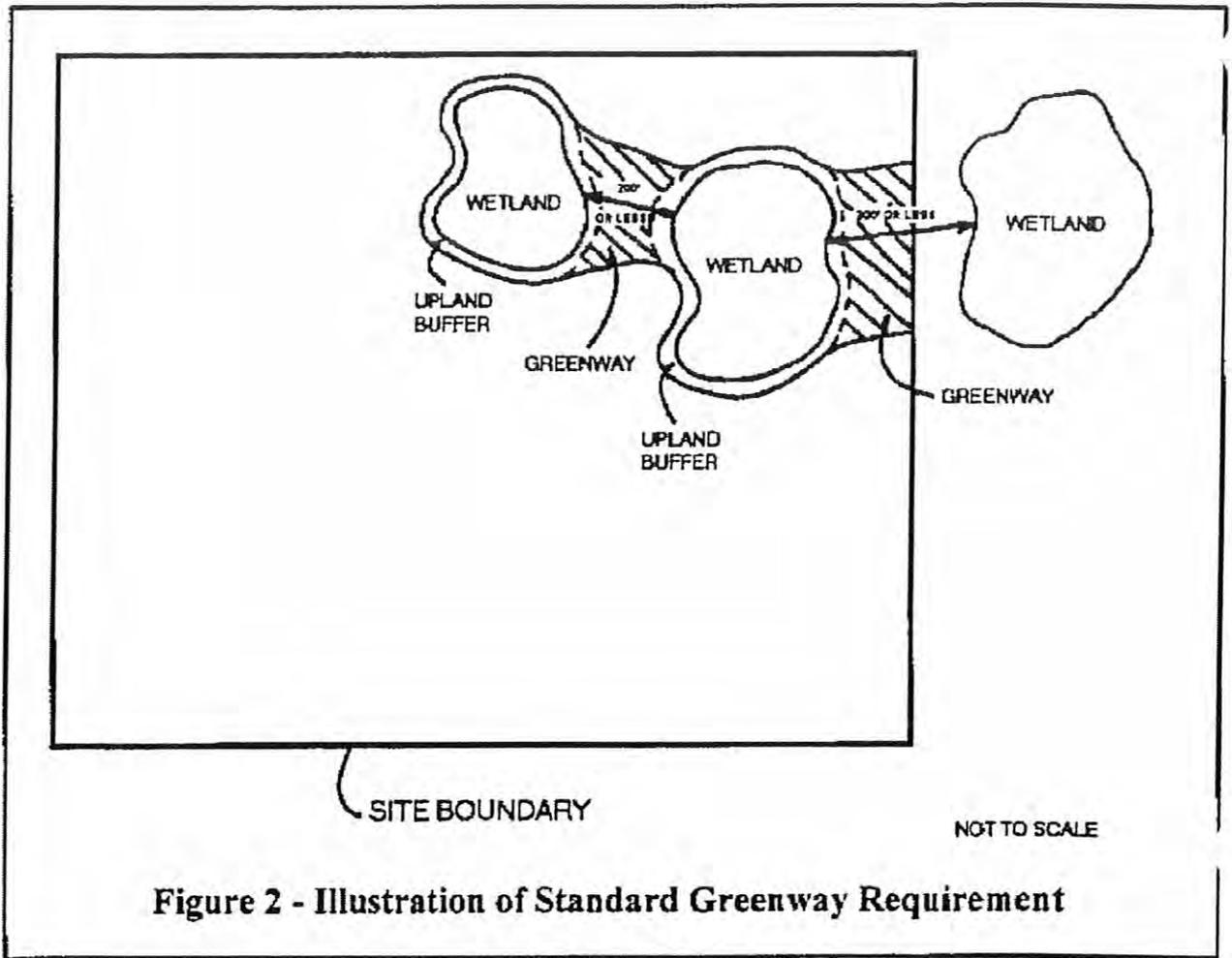
STUART COMPREHENSIVE PLAN ENDANGERED AND THREATENED SPECIES POTENTIALLY FOUND WITHIN THE CITY OF STUART

TABLE INSET:

<i>Mammals:</i>	
Manatee	State Endangered
<i>Birds:</i>	
Red Cockaded Woodpecker	Federal and State Threatened
Scrub Jay	Federal and State Threatened
Florida Sandhill Crane	State Threatened Not Listed Federal
Southern Bald Eagle	State Threatened Federal Endangered
Wood Stork	State and Federal Endangered
Peregrine Falcon	State Endangered Federal Threatened
<i>Reptiles:</i>	
Loggerhead Turtle	State and Federal Threatened
Green Turtle	State and Federal Endangered
Leatherback Turtle	State and Federal Endangered
Eastern Indigo Snake	State and Federal Threatened



**Figure 1 - Illustration of Standard Wetland and Buffer Requirement**



**Figure 2 - Illustration of Standard Greenway Requirement**

Deleted language from Chapter 10 "Hardship Relief"

#### 10.03.00 CLUSTERING OF DEVELOPMENT

Sec. 10.03.01. Generally.

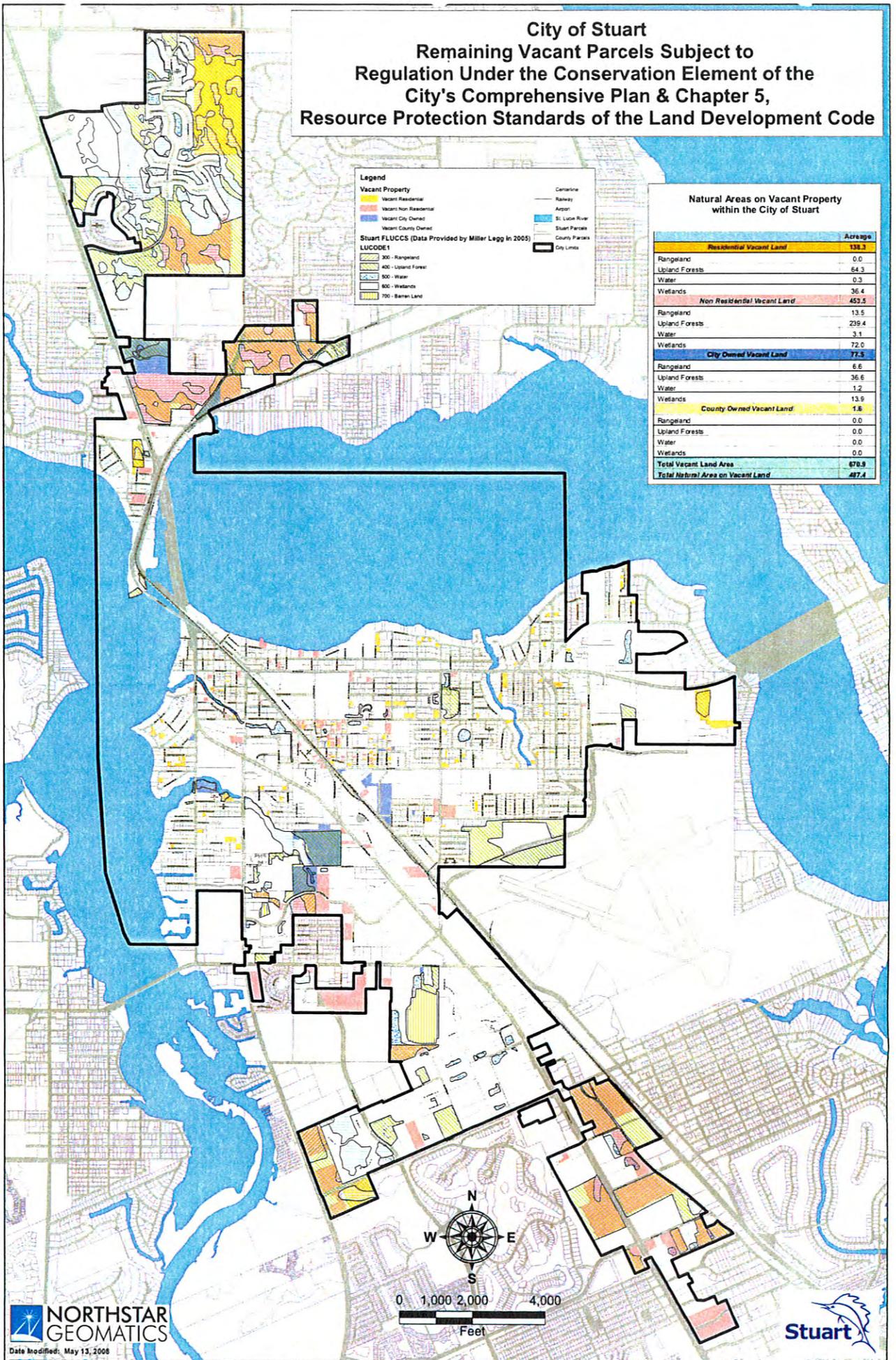
Pursuant to section 5.03.04, development activities shall be limited to uses and activities that are presumed to have an insignificant adverse effect on an environmentally sensitive area. The density or intensity of a use that would have been allowed on a site designated as an environmentally sensitive area, in the absence of the application of this Code, may be used by clustering the development in areas within the project site that are not environmentally sensitive. New development may be clustered on upland portions of a development site, which are not otherwise environmentally sensitive lands. Development densities and intensities may be transferred out of the environmentally sensitive area on a one-for-one basis, provided however, the development density and intensity in the non-environmentally sensitive portion of the site shall not exceed 150 percent of the maximum density and intensity otherwise allowed for the non-environmentally sensitive portion, provided that for each transferred residential unit an additional tenth of an acre of non-environmentally sensitive shall be preserved as upland buffer or native preserve.

Sec. 10.03.02. Clustering.

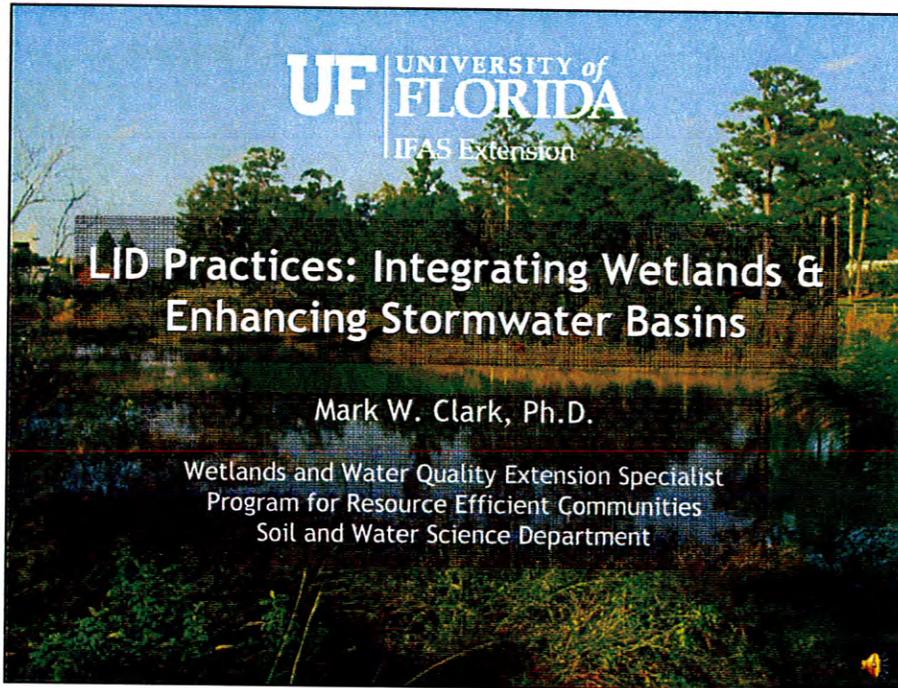
Development on parcels containing an environmentally sensitive area may be clustered on non-sensitive portions of the site by concentrating the number of units ~~or the amount of square footage allowed~~ for the entire site under the otherwise applicable land use designations on those non-environmentally sensitive portions of the site, provided however, the density or intensity of the site shall not exceed 150 percent of the density or intensity allowed in section 2.01.01 of this Code for the non-environmentally sensitive portion of the site, provided that for each transferred residential unit an additional tenth of an acre of non-environmentally sensitive shall be preserved as upland buffer or native preserve.

**Explanation: Consistency with proposed changes to the Comprehensive Plan and Chapter 5 of the LDC.**

# City of Stuart Remaining Vacant Parcels Subject to Regulation Under the Conservation Element of the City's Comprehensive Plan & Chapter 5, Resource Protection Standards of the Land Development Code







## LID Practices are Site Dependant

### 💧 Non-Infiltration Based LIDs

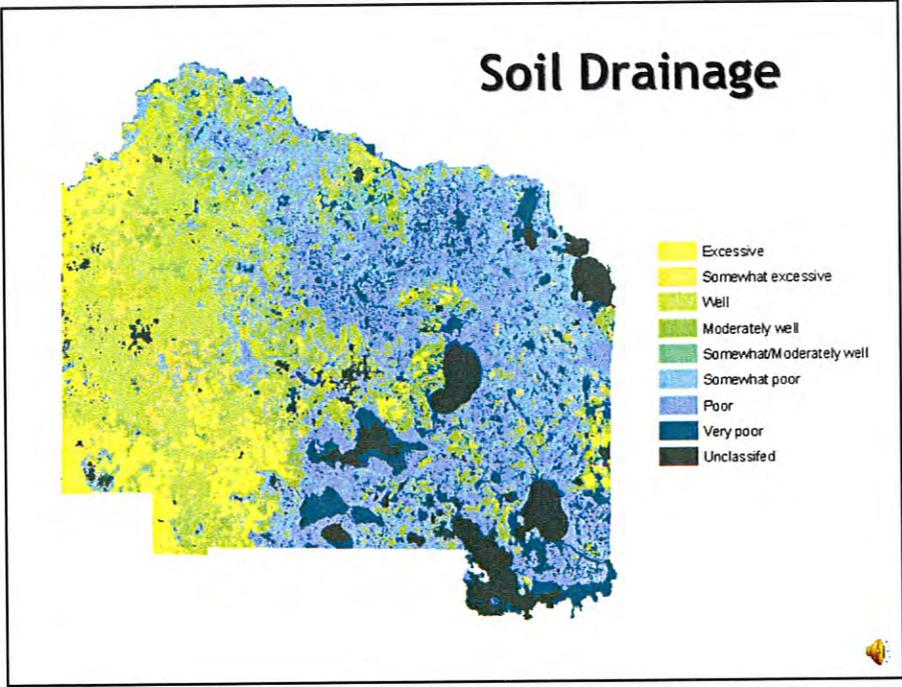
- ◆ Reduced road widths
- ◆ Curb and Gutter Elimination
- ◆ Curb Cuts
- ◆ Rain Barrels, Cisterns, etc.
- ◆ Downspout disconnections
- ◆ Surface Roughness Technology
- ◆ Green Roofs

## LID Practices are Site Dependant

- 💧 Infiltration Based - NO Specific Slope Requirement
  - ◆ Bio-retention
  - ◆ Bio-filters
  - ◆ Infiltration Trenches
  - ◆ Seepage Pits
  - ◆ Pervious Pavement
- 💧 Infiltration Based - Specific Slope Requirement
  - ◆ Vegetative Swales
  - ◆ Buffer Strips

## Surface Water Treatment Alternatives: LID?

- 💧 What if site is less conducive to infiltration LID practices
  - ◆ Site has low permeability
  - ◆ Site is prone to flooding
  - ◆ Site is sensitive to groundwater input
- 💧 More conventional, centralized approach may need to be considered but could be enhanced.

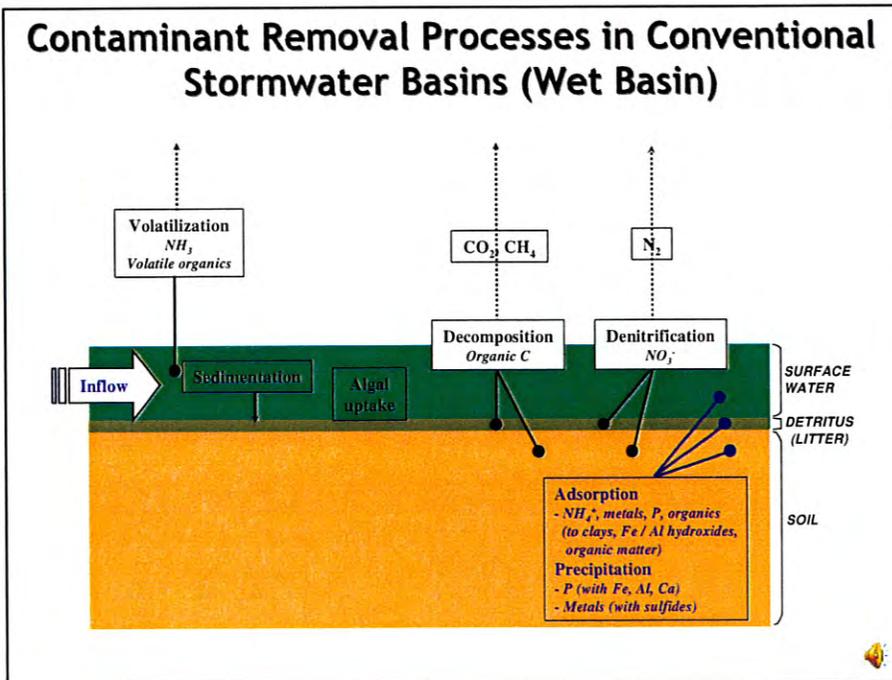


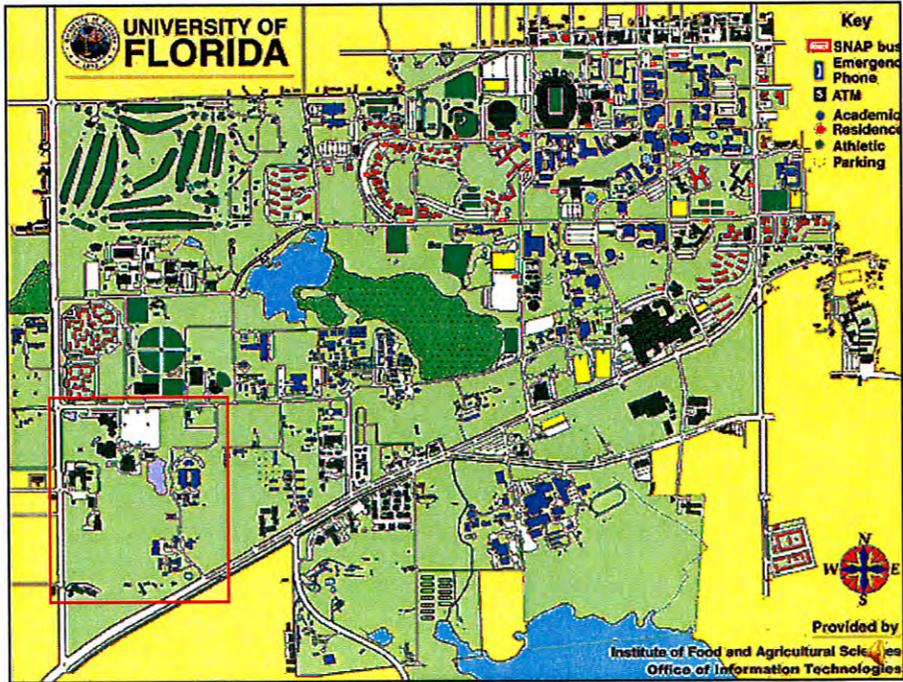
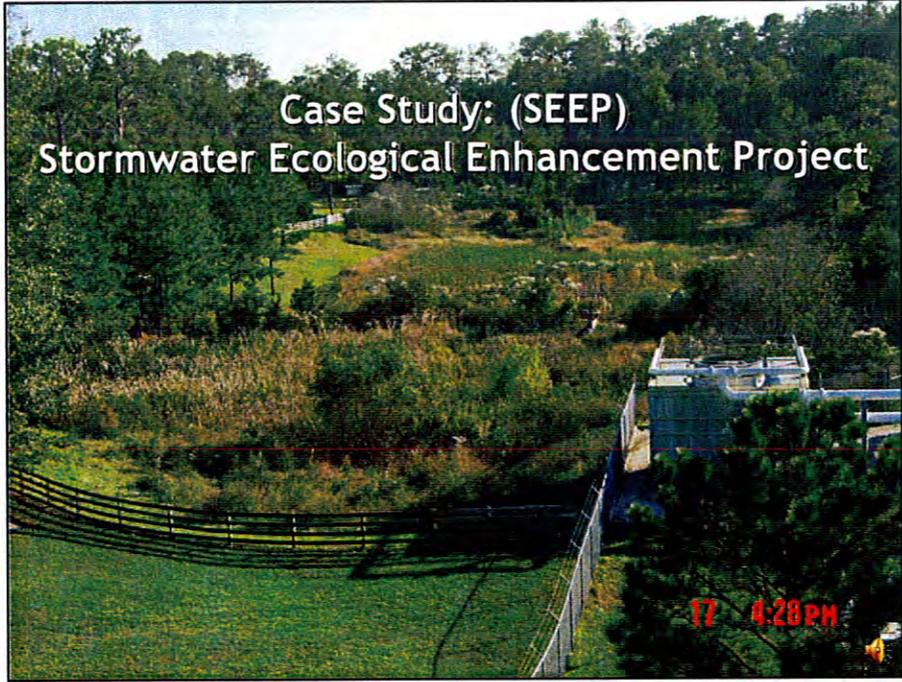


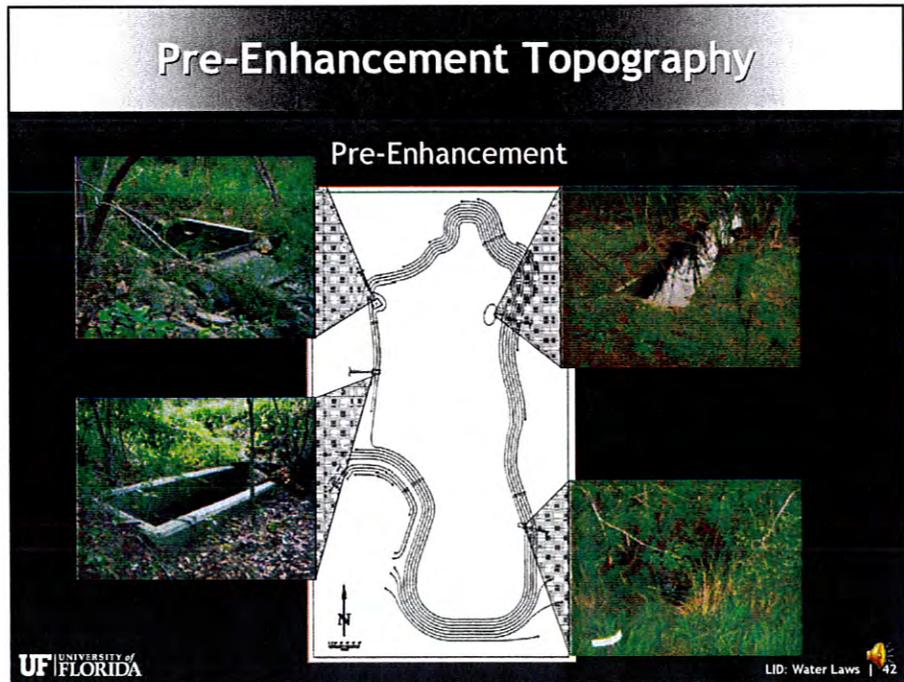
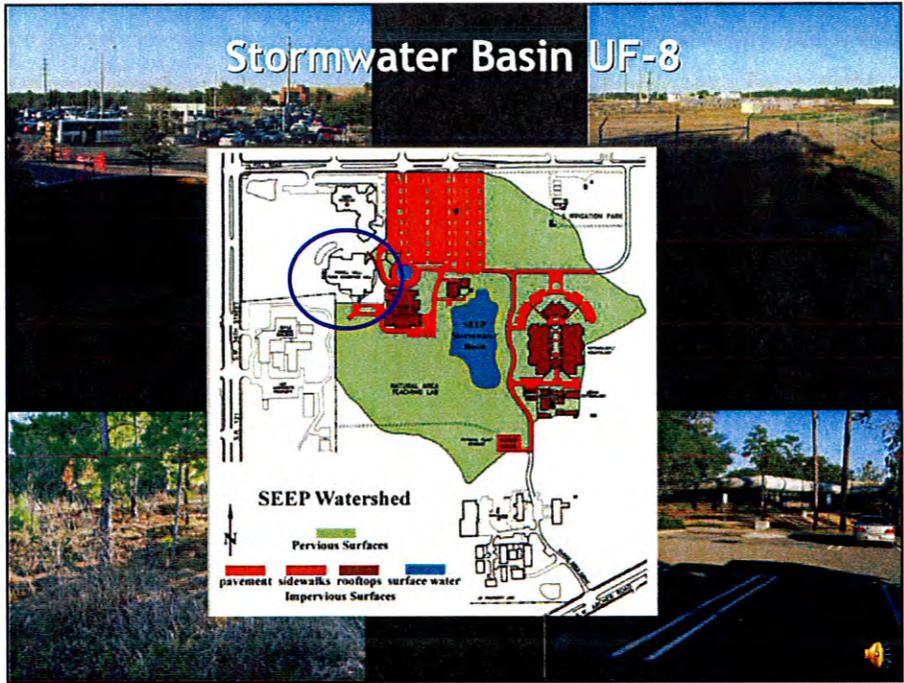
**Conventional Design**



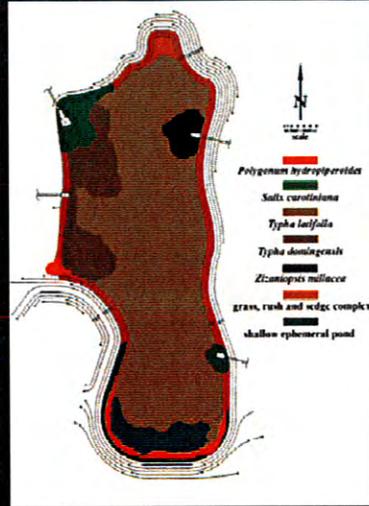
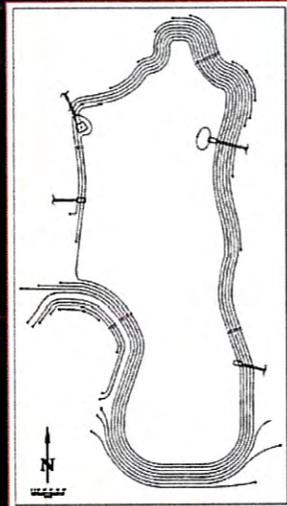
**Conventional Design**







## Pre-Enhancement Contour and Vegetation



## Prior to Recontour



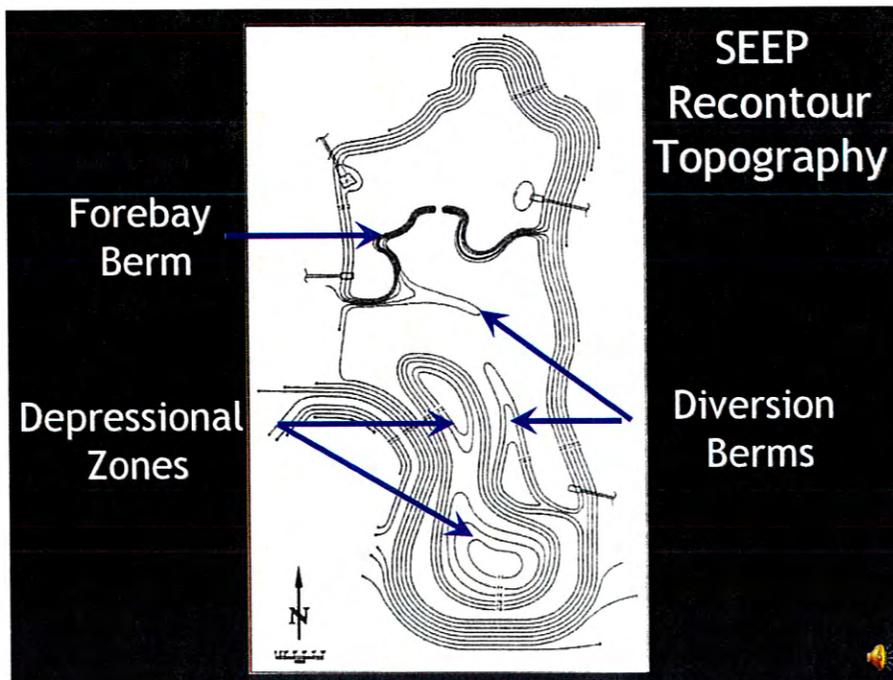
## SEEP Implementation

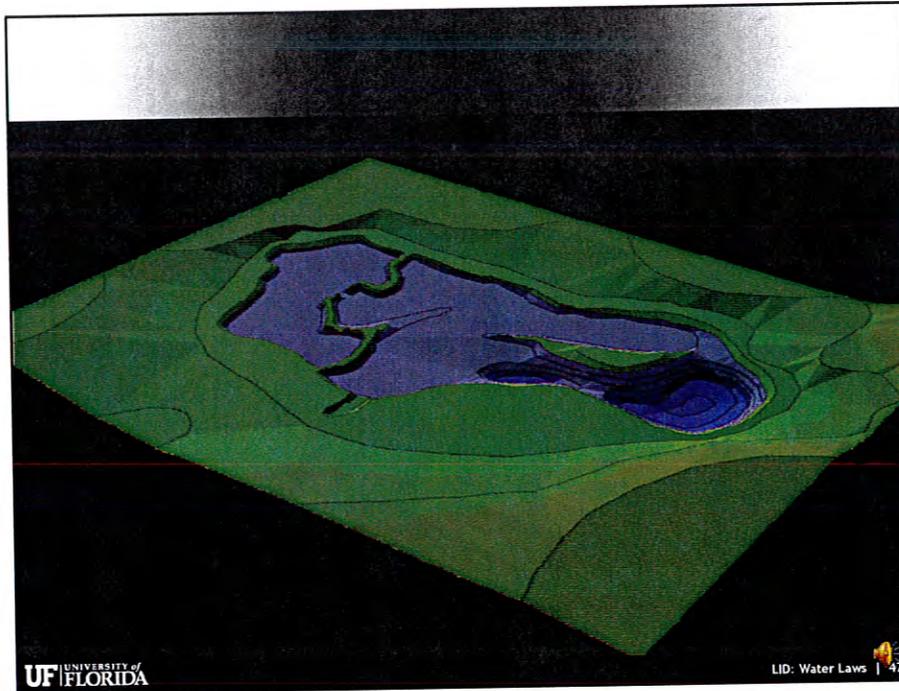
### Phase I: Recontour

- ◆ Establish forebay
- ◆ Direct flowpath through basin
- ◆ Increase diversity of hydropattern within basin

### Phase II: Species Introduction

- ◆ Introduce genetic material to utilize diversified hydrologic habitat.





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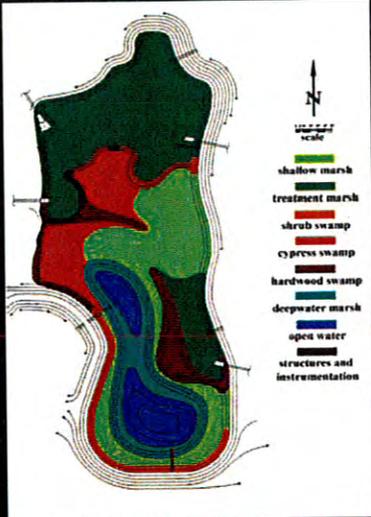
LID: Water Laws | 47



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LID: Water Laws | 48

# Vegetation Planted



1997: 32 initial species

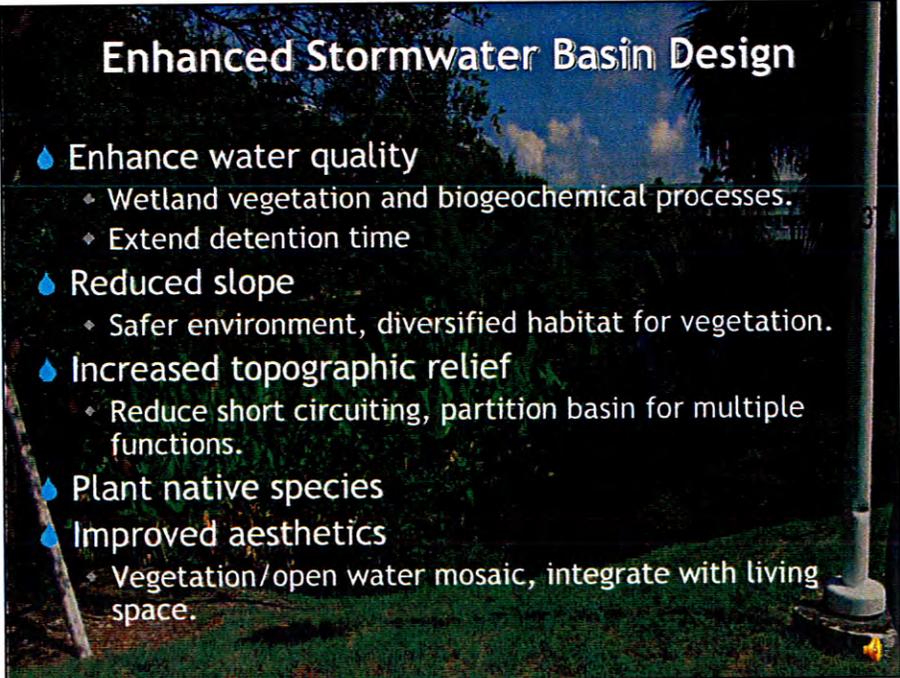
1998: 53 species, 1370 individuals planted. (85 species)





## Conventional Stormwater Basin Design

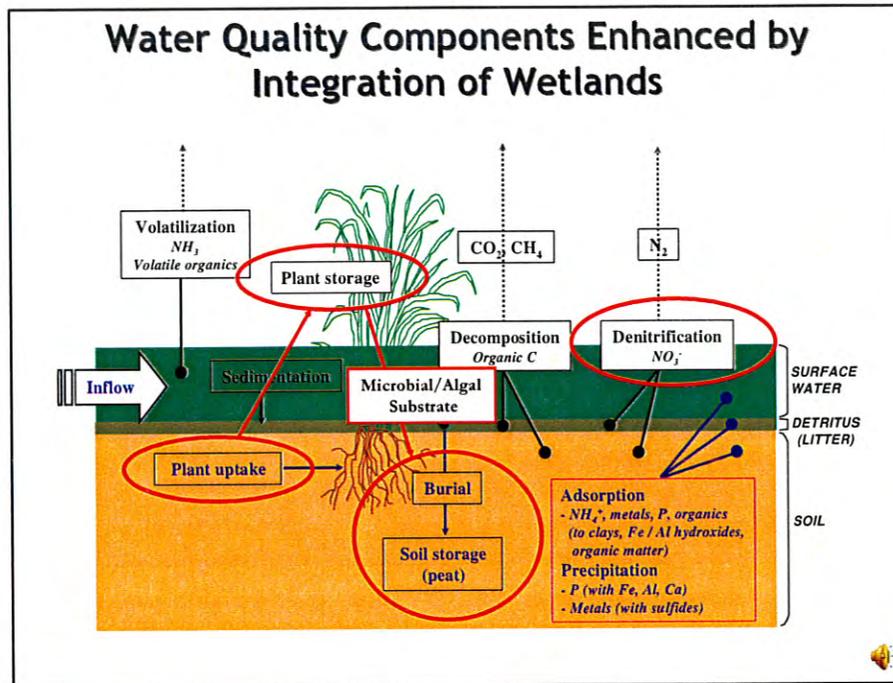
- ◆ Water quality
  - ◆ treatment highly variable, depending upon input concentration, contaminant, and basin design
- ◆ Vertical/Steep Sides
  - ◆ Often requires fence for safety
  - ◆ Absence of gradual slope reduces hydrologic diversity
- ◆ Absence of Topographic Relief
  - ◆ Reduced vegetative and wildlife habitat
  - ◆ Reduced diversity of biogeochemical processes
  - ◆ Reduced infiltration zone
- ◆ Aesthetically can be less desirable?



## Enhanced Stormwater Basin Design

- ◆ Enhance water quality
  - ◆ Wetland vegetation and biogeochemical processes.
  - ◆ Extend detention time
- ◆ Reduced slope
  - ◆ Safer environment, diversified habitat for vegetation.
- ◆ Increased topographic relief
  - ◆ Reduce short circuiting, partition basin for multiple functions.
- ◆ Plant native species
- ◆ Improved aesthetics
  - ◆ Vegetation/open water mosaic, integrate with living space.

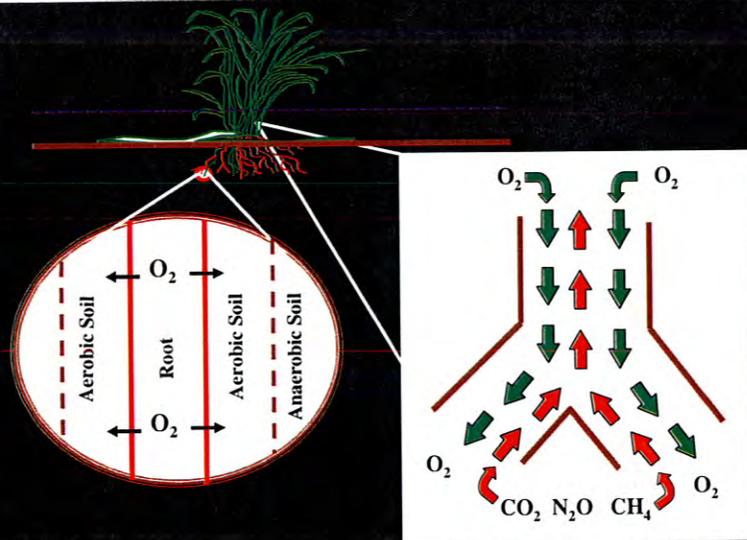
## Water Quality Components Enhanced by Integration of Wetlands



## Role of Vegetation

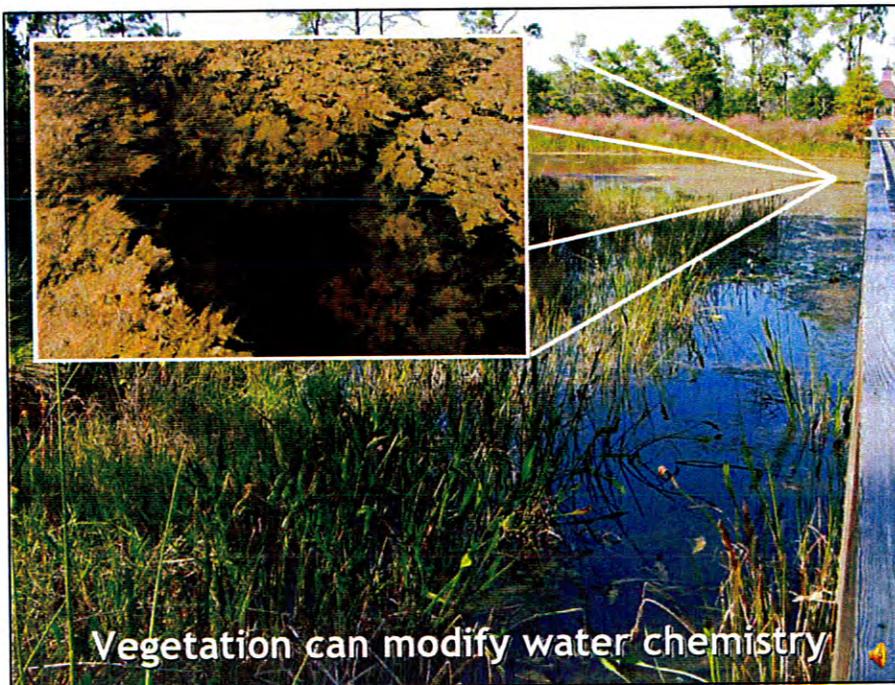
- Direct nutrient uptake
- Production of more recalcitrant organic matter and accretion
- Surface substrate for attachment of microbes and epiphytic algae
- Oxidized rhizosphere and increased total area of aerobic anaerobic interface
- Modification of water chemistry

# Oxygen Transfer Through the Plant



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LID: Water Laws | 15



Vegetation can modify water chemistry

## Pollutant Removal Pathways within a Stormwater Wetland

- Sedimentation
- Adsorption to sediments/vegetation/detritus
- Physical filtration of runoff by vegetation
- Microbial uptake/transformation
- Uptake by vegetation
- Uptake by algae
- Extra detention and/or retention

## Objectives of Enhanced Basins

- Water quality improvement
- Increased species richness and genetic diversity
- Improved aesthetics
- Wildlife habitat - if not in basin adjacent to basin
- Provide community amenity not just regulatory compliance

## Three Components of Enhancement

- 💧 Minimize contaminant loading
  - ◆ Source control
  - ◆ Pre-treatment
- 💧 Topographic complexity
  - ◆ Multiple hydrologic regimes
  - ◆ Optimized flow path
- 💧 Introduction of vegetation
  - ◆ Function
  - ◆ Aesthetics

## Topographic Enhancement Techniques

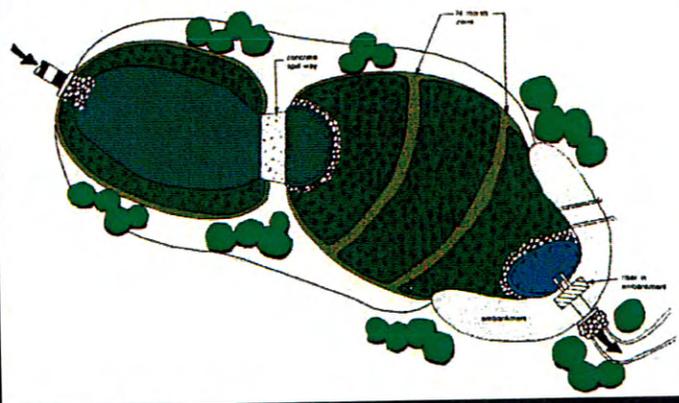
- 💧 Forebay or pond cell near inlet, as settling basin
  - ◆ Approximately 10% of basin volume
  - ◆ Regular sediment removal
  - ◆ Minimum disturbance of rest of basin.

## Topographic Enhancement Techniques

- Partition basin into multiple cells
  - ♦ Most storm events require significantly less storage/treatment than design storm event.
  - ♦ Partitioning basin results in multiple hydrologic conditions and treatment processes
  - ♦ Use spreader berms and swales to partition basin and distribute flow

## Pond Wetland System

(Schuler, 1992)



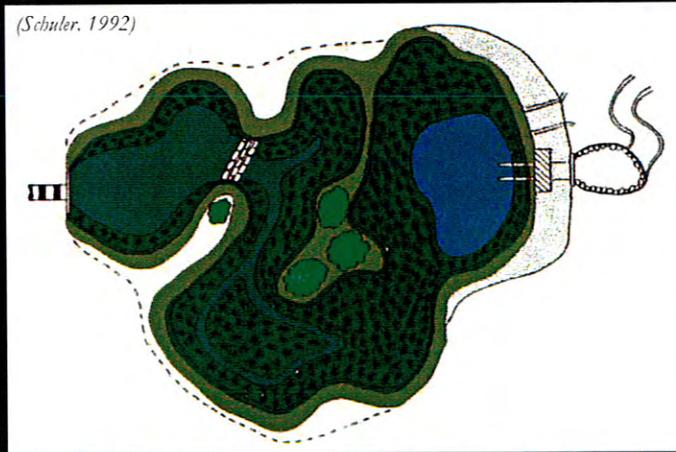
Storage Allocation - 70% pool, 30% marsh  
Area Allocation - 25% low marsh, 30% high marsh, 45% pool

## Topographic Enhancement Techniques

- 💧 Increase the surface area to volume ratio
  - ◆ Increase the total area of the wetland
- 💧 Increase the structural complexity within the basin
  - Create complex and variable microtopography
  - Establish dense stands of emergent vegetation
  - Design for sheet flow or shallow flow
  - Allow wetland detritus to accumulate within the basin
- 💧 Maximize length of treatment volume water line for infiltration.

## Shallow Marsh System

(Schuler, 1992)

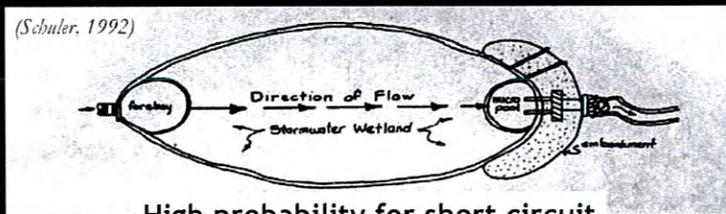


Storage Allocation - 40% pool, 60% marsh  
Area Allocation - 40% low marsh, 40% high marsh, 20% pool

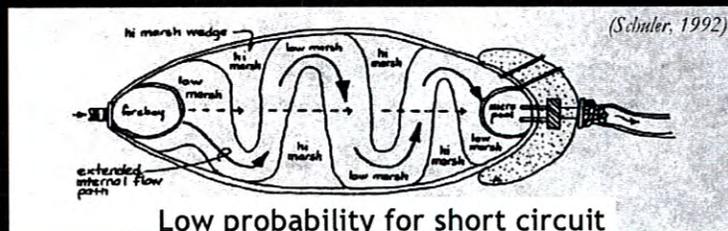
## Topographic Enhancement Techniques

- Maximize treatment time and separation distance between inflow and outflow.
- Flow velocity should be reduced below 0.5m/sec at inlet zone (forebay) for effective sedimentation.
- Sheet flow and maximum contact through vegetation provides optimal treatment.
- Biological nutrient assimilation benefits by extended detention.
- Deep permanent pool: 25-30% of area should be permanent water body (0.5-1.0m deep)

## Reduce Short Circuit & Lengthen Flow Path



High probability for short circuit



Low probability for short circuit  
Maximum length flow path



## Planting Objectives

- 💧 Hydrologic diversity is key to vegetative biodiversity (topography or multi-cell system)
- 💧 Vegetated area should occupy at least 60-80% of basin
- 💧 Right plants right place = more competitive establishment and long-term viability
- 💧 Ultimate goal is reproductive recruitment by planted species - self sustaining and self organizing system.
  - ♦ Herbaceous 1-2 years reproductive
  - ♦ Woody shrub 3-5 years reproductive
  - ♦ Trees 5-10 years reproductive
- 💧 Change environmental drivers to increase natural recruitment and biodiversity

## Changing environmental drivers can make a big difference



### After 1 year

Pond mowed to waters edge = 21 species

Ponds with no mow buffer = 62-85 species

## Starting from Scratch

- 💧 Urban areas suffer from a lack of genetic diversity.
- 💧 Recruitment in disturbed areas is often by pioneer/weedy/nuisance or exotic species.
- 💧 Need to introduce desired species or they may never become established in the basin.



## Diversity vs. Numbers

- Numbers provide more immediate function and faster closure of canopy.
- Diversity provides more opportunity for self organization, community adaptation, and response to extreme conditions.
- Plant high numbers of a few species to facilitate water quality.
- Plant variety throughout site and along elevation gradient to improve chance of survival and long-term recruitment and self organization.

## Vegetation

- Four general planting zones
  - Permanent Pool > 36"
  - Deep Marsh (low marsh) 18-36"
  - Shallow Marsh (high marsh) 0-18"
  - Ephemeral, Infrequent inundation (ED)



## Planting Layout

- 💧 Lay out species along hydrologic gradient, view-sheds, and access needs
- 💧 Think of short and long term “grow out”
- 💧 Light may become limiting to understory as canopy closes
- 💧 Consider two phase planting: overstory first then specific understory species

## Plant Stock Source

- Finding diversity is difficult!
- Native plant society and Native Nurseries.
- Phenotypic variability.
  - ◊ Ask about seed/cutting source of plant material
- Only use vegetation local to the region.
- Contract grow if time allows
- Dig yourself (make sure you have permission)
  - ◊ Right of ways
  - ◊ Ditches
  - ◊ Clearing activities provide great cuttings
  - ◊ Be careful of exotics in soil - assess area for undesirable species

## Additional Functions of Enhanced Stormwater Design

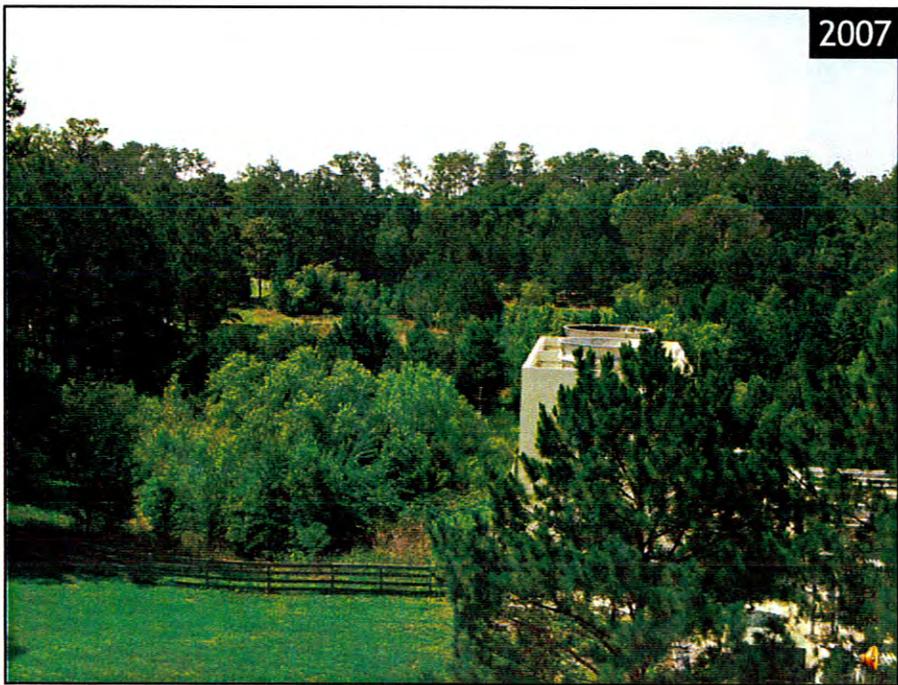
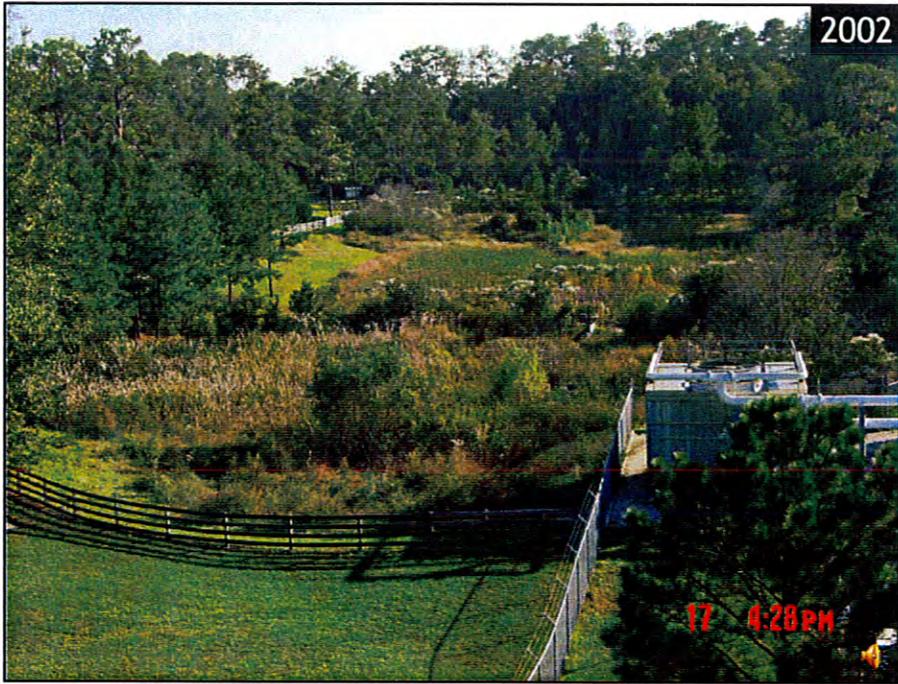
- Aesthetics
- Recreation and education
- Native plant diversity
- Food web/Biocontrol
- Wildlife habitat





## Arguments Against Integration

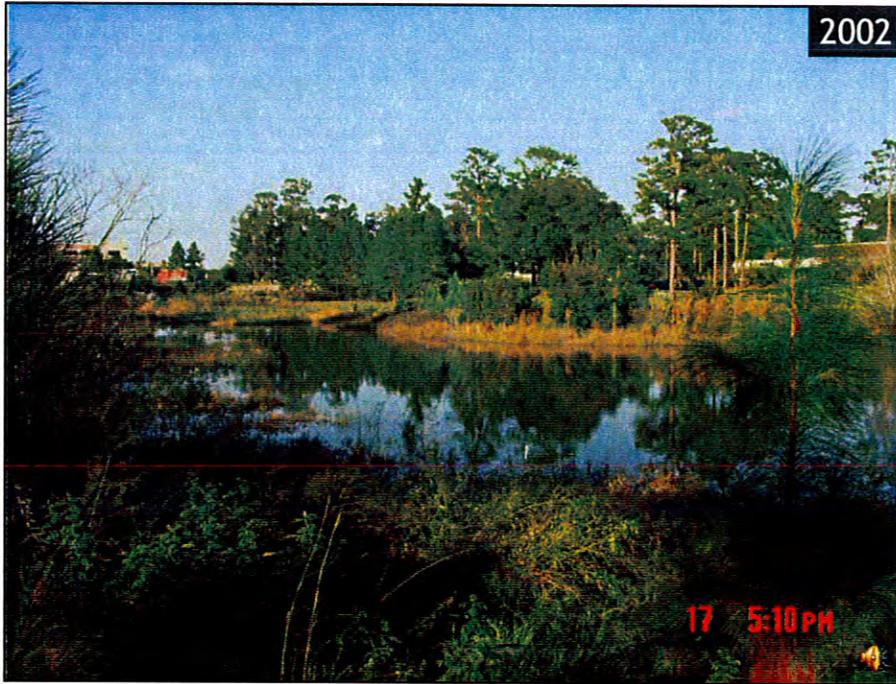
- 💧 Loss of infiltration (possible)
  - ◆ Literature suggest reduction in infiltration regardless
- 💧 Sediment accretion increased (True)
  - ◆ burial of pollutants
- 💧 Volumetric displacement (True)
  - ◆ <10% at 20 cm depth herbaceous, <5% for woody species

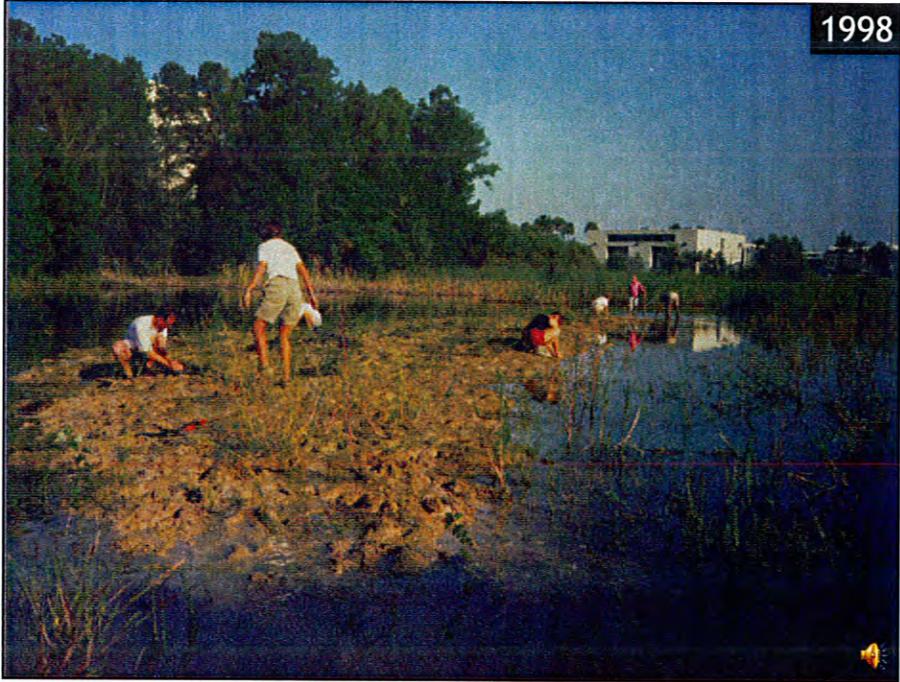






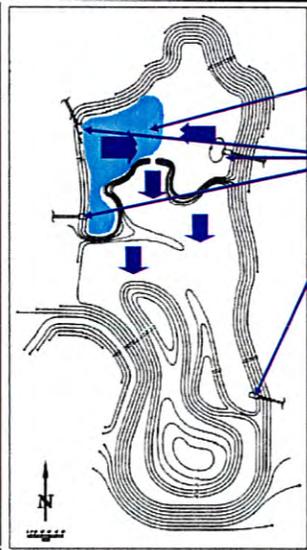








## Preliminary Soil and Water Quality Data



Elevated Zinc and Cadmium

TSS significantly higher at culvert inflows.

N is significantly lower south of forebay.

P concentrations is elevated throughout basin when system floods after dry season. P levels is significantly lower south of forebay when basin is continuously flooded during wet season.

Higher organic matter accretion in forebay

## Added Benefits

### 💧 Vegetation

- ◆ 2004 120 species total, 88 new species

### 💧 Wildlife

- ◆ 42 bird species
- ◆ 2 mammals species
- ◆ 13 herptifauna species
- ◆ 2 fish species

### 💧 Aesthetics?

## Multiple Learning Opportunities: Planting Events



## Multiple Learning Opportunities: Self-Guided Tour



## Summary

- 💧 Increase complexity of the basin
- 💧 Vary topography/hydrology (encourage different vegetation communities)
- 💧 Include primary sedimentation basin (forebay).
- 💧 Reduce side slopes
- 💧 Meander flow path, multiple cells, islands (avoids plug flow and short circuiting, increase retention time)

## Summary

- Integrate spreader berms and swales to distribute flow.
- Establish permanent deep water pool when feasible (provides aquatic refugia).
- Establish diverse selection of native plants selected from similar natural hydrologic habitat
- Promote public education (e.g. boardwalks, kiosks) and use all aspects of a project as a teaching moment.

**PROPOSED FCT-BASED AMENDMENTS TO THE CITY OF STUART COMPREHENSIVE PLAN**

The Florida Communities Trust (FCT) provides grants to eligible local governments for the acquisition of land for community-based parks, open-spaces and greenways that further the outdoor recreation and natural resource protection needs identified in local government comprehensive plans. Approximately \$66 million (unless otherwise allocated by the legislature) is available each funding cycle. (Note: In the late 1990's Stuart successfully obtained FCT grants to purchase multiple acres of preserve land in the areas of Haney and Poppelton Creeks). The agency has published a list of policies, which, if present in a jurisdiction's comprehensive plan, generate additional points. The following matrix identifies these policies and whether adoption by the City is recommended. Each set of policies, which must be met in full, generates 5 points in a 200-point scoring system. Communities need to score well in the FCT's "Comprehensive Plan" category to be competitive.

GRANT QUESTION	FCT SUGGESTED LANGUAGE	RECOMMENDED ACTION
<p>(3)(a) 1. Will the project provide acreage or outdoor recreational facilities necessary to maintain or improve adopted levels of service standards established in the comprehensive plan for recreation or open space?</p>	<p><u>1. Recreation Policy - The City shall adopt an overall parkland level of service of 1 acre per 500 persons.</u></p> <p><u>2. Recreation Policy - The City shall develop a parks and recreation system based on local and district park classifications and shall adopt the following individual level of service standards:</u></p> <p><u>Local Park— 2.0 acres per 1000 population</u></p> <p><u>District Park - 5.0 acres per 1000 population</u></p>	<p>Adopt policy 1. The City's current park inventory exceeds this standard.</p> <p>Adopt policy 2, in part. The City currently maintains a level of service (LOS) for "community" (local) parks only. With the addition of the Haney and Poppelton Creek preserves, the City is in a position to add the category of "district parks" to its comprehensive plan and can readily meet a 5-acre per 1,000 residents standard.</p> <p>As for community (local) parks, the City's current LOS exceeds the standard called for by FCT and therefore the agency's suggested language need not be adopted. (See existing policy below)</p> <p><i>Policy A1.11. The recreation level of service standard shall be three acres of developed community park per 1,000 persons (including seasonal residents). Developed community parks include improvements such as picnic facilities, play courts (e.g., basketball, tennis, volleyball), ball fields (e.g., softball, baseball, football) and restrooms.</i></p>

GRANT QUESTION	FCT SUGGESTED LANGUAGE	RECOMMENDED ACTION
<p>(3)(a) 2. Will the project further comprehensive plan directives that ensure acquisition of natural areas or open space through public acquisition?</p>	<p>1. <u>Conservation Policy - The City shall advocate purchase of lands for conservation of environmentally sensitive areas and native vegetative communities, open space and/or recreation using funds available through grants, state and federal funds, and/or private organizations. The City shall also consider adopting its own land-buying program to purchase natural areas and open space.</u></p> <p>2. <u>Conservation Policy - The City shall establish a land acquisition fund. This fund shall be used for the acquisition and management of natural areas lands and open space.</u></p> <p>3. <u>Conservation Policy - The City shall continue to purchase natural areas for the long-term protection of high quality native ecosystems. The City shall continue to apply for State matching funds for the acquisition and management of these lands.</u></p>	<p>Adopt policies 1,2 and 3. Required activities are consistent with the City's current practices, or can be readily undertaken.</p>
<p>(3)(a) 3. Will the project further comprehensive plan directives to provide new or enhanced public access to water bodies or saltwater beaches?</p>	<p>1. <u>Recreation Policy - Additional public access points and boat/canoe launching facilities shall be provided along the St Lucie River and its tributaries.</u></p> <p>2. <u>Recreation Policy - The City shall ensure public access to recreation sites and water bodies through the provision of parking, boat ramps, canoe launches, fishing piers, and bike and pedestrian ways through acquisition and other land use controls.</u></p> <p>3. <u>Recreation Policy - The City shall maintain, improve, and increase public beach and waterway access through acquisition and other land use controls.</u></p>	<p>Adopt policies 1, 2 and 3. Required activities are consistent with the City's current practices.</p>

GRANT QUESTION	FCT SUGGESTED LANGUAGE	RECOMMENDED ACTION
<p>(3)(a)(4). Will the project further comprehensive plan directives that provide for creating new or enhanced Greenways, Ecological Corridors or Recreational Trail Systems.</p>	<p>1. <u>Recreation Policy - The City shall develop a master greenway plan, including conceptual Greenway maps, that includes existing and proposed recreational trail systems and conservation greenways to link existing and new open space and outdoor recreation areas. Land acquisition efforts will focus on establishing new linkages and enhancing existing greenways and recreation trail systems, including the acquisition of acreage for destination areas and trailheads.</u></p> <p>2. <u>Recreation Policy - The City shall identify and acquire available abandoned railroad right-of-ways with recreational trails potential and which provide linkages to public parks, recreation areas and historic sites, and connects or provides access to existing recreational trails.</u></p> <p>3. <u>Conservation Policy - The City shall identify natural wildlife corridors to connect wildlife habitat to the St. Lucie River and to provide for wildlife movement along the river and its tributaries.</u></p> <p>4. <u>Conservation Policy - The City shall coordinate with federal, state and other agencies and nonprofit organizations to further the completion of the Florida National Scenic Trail.</u></p>	<p>Adopt policies 1, 2,3 and 4. Required activities are consistent with the City's current practices.</p>

GRANT QUESTION	FCT SUGGESTED LANGUAGE	RECOMMENDED ACTION
<p>(3)(a) 5. Will the project further comprehensive plan directives that ensure the preservation of Natural Communities or Listed Animal Species Habitat?</p>	<p>1. <u>Conservation Policy - The City shall protect critical wildlife habitat through acquisition, the establishment of public or private conservation easements, purchase of development rights or through other available means as deemed appropriate.</u></p> <p>2. <u>Conservation Policy - The City shall implement a program and set of standards to protect natural vegetative communities and listed species habitat from the adverse impacts of development.</u></p> <p>3. <u>Conservation Policy - Where feasible and appropriate, the City shall advocate purchase of lands for conservation of environmentally sensitive areas and native vegetative communities, open space and/or recreation using funds available through grants, state and federal funds, and/or private organizations. The City shall also consider adopting its own land-buying program to purchase natural areas, recreation and open space lands.</u></p> <p>4. <u>Conservation Policy - Land development proposals shall be required to protect ecologically viable habitats and prepare a management plan when state or federally listed vegetative and wildlife species occur within a project's boundaries.</u></p>	<p>Adopt policies 1, 2,3 and 4. Required activities are consistent with the City's current practices.</p>

GRANT QUESTION	FCT SUGGESTED LANGUAGE	RECOMMENDED ACTION
<p>(3)(a) 6. Will the project further comprehensive plan directives that provide for coordination between the Local Government and other federal, state and local agencies or Nonprofit Environmental Organizations in managing natural areas or open space or furthering the completion of the Florida National Scenic Trail?</p>	<p><u>1. Conservation Policy - The City shall coordinate with federal, state and local agencies or nonprofit environmental organizations in managing natural areas and open space.</u></p> <p><u>2. Conservation Policy - The City shall coordinate with the Prescribed Burn Council and other appropriate entities including the U.S. Forest Service, the Florida Division of Forestry, the Water Management District, and the Nature Conservancy, in conducting prescribed burns on public lands, including City-owned lands.</u></p> <p><u>3. Intergovernmental Coordination Policy - The City shall continue to coordinate with the appropriate state agencies in meeting the goals and policies of the Indian River Lagoon Aquatic Preserves Management Plan, the North Fork of the St. Lucie River Aquatic Preserve Management Plan, and the Indian River Lagoon Surface Water Improvement and Management Plan, to protect and manage natural resources.</u></p> <p><u>4. Intergovernmental Coordination Policy - The City shall protect marine, brackish and freshwater habitats necessary for the continued ecological stability of fisheries and other water dependent wildlife through coordination with the Florida Fish and Wildlife Conservation Commission, Florida Department of Environmental Protection, and other governmental agencies as appropriate.</u></p>	<p>Adopt policies 1, 2,3 and 4. Required activities are consistent with the City's current practices or can be readily undertaken.</p>

GRANT QUESTION	FCT SUGGESTED LANGUAGE	RECOMMENDED ACTION
<p>(3)(a) 7. Will the project further comprehensive plan directives that provide for restoring or enhancing degraded natural areas such as, restoration of Natural Communities, restoration of natural hydrology or removal of non-native vegetation?</p>	<p>1. <u>Conservation Policy - The City shall develop a plan to restore or enhance degraded natural areas on lands acquired by the City for conservation, public outdoor recreation and open space. This will include establishing a program for the removal of invasive exotic vegetation with annual monitoring.</u></p> <p>2. <u>Conservation Policy - In conjunction with the development of any site, the City shall require, invasive exotic vegetation to be removed from the site and prevented from re-establishing.</u></p> <p>3. <u>Conservation Policy - The City shall reduce the spread of invasive exotic vegetation and invasive aquatic vegetation by prohibiting the planting of these species and by requiring their removal when land is developed.</u></p> <p>4. <u>Conservation Policy - The City shall continue to eliminate invasive exotic vegetation to reduce their impact on the region's natural systems.</u></p> <p>5. <u>Conservation Policy - The City shall prohibit dredging and filling, and other development activities on submerged lands containing significant sea grass habitat and shall seek to restore sea grass habitat coverage wherever possible.</u></p>	
<p>(3)(a) 8. Will the project further comprehensive plan directives that ensure the protection or enhancement of surface water quality by addressing non-point pollution through enhanced stormwater treatment?</p>	<p>1. <u>Conservation Policy - The City shall ensure that the quality of surface waters within the City is maintained, and where unacceptable, improved through the use of storm water retention and treatment facilities.</u></p> <p>2. <u>Conservation Policy - The City shall continue to implement and update adopted surface and storm water management regulations to ensure that systems are designed to meet or exceed current standards, and can be practically and easily maintained.</u></p>	

GRANT QUESTION	FCT SUGGESTED LANGUAGE	RECOMMENDED ACTION
<p>(3)(a) 9. Will the project further comprehensive plan directives that ensure the preservation of historical, cultural or archaeological features?</p>	<p><del>1. Historic Preservation Objective—The City shall protect, preserve or appropriately manage historic resources located within the City.</del></p> <p><del>2. Historic Preservation Policy—The City’s Land Development Regulations shall provide for the protection of significant historic resources from the impacts of development and redevelopment.</del></p> <p><del>3. Historic Preservation Policy—Historic resources shall be included in public acquisition programs for recreation, open space and conservation to ensure their protection.</del></p> <p><del>4. Land Use Policy—The City shall protect the integrity of sites identified as significant historic resources.</del></p> <p><del>5. Land Use Policy—Areas surrounding identified sites of historic resources shall be protected against encroachment of incompatible activities and land uses.</del></p> <p><del>6. Historic Preservation Policy—The City shall establish procedures that require that all public and private development and redevelopment proposals are reviewed for their impact upon historic resources.</del></p>	<p>Do not adopt this set of policies. The City’s long-held practice of not imposing “mandatory” historic preservation is not consistent with the “shall preserve” language called for by the FCT.</p>
<p>(3)(a) 10. Is the project site located in an area that has been identified for redevelopment in the comprehensive plan and has been locally designated as an urban infill, urban redevelopment or downtown revitalization area as defined in Section 163.3164, F.S.?</p>	<p><u>1. Land Use Policy - The City shall encourage growth to locate within the designated Community Redevelopment Area (CRA) to promote urban infill, urban redevelopment and downtown revitalization.</u></p> <p><u>2. Land Use Policy - The City shall encourage growth to locate within the designated urban infill area to promote urban infill and urban redevelopment.</u></p> <p><u>3. Land Use Policy - The City shall provide recreational facilities, including trails, within designated urban infill areas.</u></p>	