

# XII - CONSERVATION ELEMENT



Serving the Community



**GOAL 12.1: Conserve, protect and appropriately manage the natural resources and environmentally sensitive areas of the City of Cocoa to ensure the highest environmental quality possible.**

**Objective 12.1.1: Environmentally Sensitive Areas.** At a minimum, Environmentally Sensitive Areas shall contain one or more of the following natural resources:

- A. Rare, threatened or endangered wildlife and/or vegetation, e.g., wildlife (scrub jay, osprey, manatee); vegetation (American chaffseed). A complete list is defined by the U.S. Fish and Wildlife Service, Florida Fish and Wildlife Conservation Commission and the East Central Florida Regional Planning Council;
- B. Rare and unique upland habitat or Florida Natural Areas Inventory (FNAI) “imperiled” or “critically imperiled” communities, e.g., sand pine scrub;
- C. Wetlands or deepwater habitats;
- D. Special geologic formations;
- E. Artifacts of archaeological or historic significance;
- F. Within floodways and areas subject to flooding.

**Policy 12.1.1.1:** The City shall coordinate with appropriate governmental entities to protect environmentally sensitive lands which extend into adjacent municipalities. This coordination shall include the Florida Natural Areas Inventory, East Central Florida Regional Planning Council (ECFRPC), the Florida Fish and Wildlife Conservation Commission, St. John’s River Water Management District (SJRWMD) and based on the information generated from the data.

**Objective 12.1.2: Air Quality.** Air quality in the City of Cocoa shall meet or exceed the minimum criteria set by the Florida Department of Environmental Protection (FDEP).

**Policy 12.1.2.1:** Roadway segments and intersections under the city's jurisdiction which are predicted to approach or exceed FDEP allowable maximum concentrations for air pollutants shall be given priority in the planning of transportation improvements.

**Policy 12.1.2.2:** The City shall coordinate with the County, adjacent municipalities and the Florida Department of Transportation in the monitoring of transportation related air quality impacts, and the planning of improvements needed on regionally significant roadways to rectify observed or predicted air quality problems on those roads.

**Policy 12.1.2.3:** New development, whether public or private, shall be designed to accommodate and encourage alternative modes of transportation to

the maximum extent practical. Appropriate measures may include, but are not limited to construction of bicycle facilities along new roadways; construction of pedestrian sidewalks along roads and within developments; provision of passenger shelters for users of mass transit.

**Policy 12.1.2.4:** The City shall encourage the establishment and use of mass transit transportation alternatives wherever such alternatives cannot be shown to be infeasible or impractical.

**Policy 12.1.2.5:** In order to reduce peak traffic loads on roadways that contribute to air quality degradation, the City shall encourage government and private sector businesses to adopt alternative work schedules where they are practical.

**Policy 12.1.2.6:** The City shall ensure, through the development approval and monitoring process, that new facilities which are subject to permitting as major air pollution sources by the FDEP are designed to use and maintain the best available emission control technology in order to reduce adverse impacts from such facilities on the environment.

**Policy 12.1.2.7:** The City shall promote planned unit development and mixed-use development to reduce the potential for mobile source emissions.

**Objective 12.1.3: Groundwater.** The City shall continue to reduce per capita consumption of fresh groundwater by its residents through conservation and reuse of existing water supplies, and through the establishment and use of non-potable supplies.

**Policy 12.1.3.1:** The City shall regulate the design, installation and operation of air/water heat pumps in a manner consistent with County policy, in order to reduce the wasteful use of groundwater by such systems.

**Policy 12.1.3.2:** The City shall require the use of reclaimed wastewater for irrigation or other non-potable uses wherever such water is reasonably available to water users.

**Policy 12.1.3.3:** In order to reduce the amount of water used in the irrigation of landscaping, the City shall encourage the use of native or drought resistant plants in the landscaping of new development or redevelopment.

**Policy 12.1.3.4:** The City shall continue to encourage conservation of water by supporting the retrofit of low-volume plumbing fixtures in existing development, and by requiring the use of such fixtures in new development and re-development.

**Policy 12.1.3.5:** New development shall not be approved unless a demonstrably secure source of potable and/or non-potable water is available to meet the projected water use demands of the development.

- Policy 12.1.3.6:** The City shall assist the St. Johns River Water Management District (SJRWMD) in the enforcement of the provisions of emergency water shortage plans at those times when an official emergency water shortage declaration is made by the SJRWMD Governing Board.
- Policy 12.1.3.7:** The City shall encourage, and to the extent possible, require use of *Florida friendly yard or landscape* (as provided for in Section 373.185, F.S.) that incorporates the Best Management Practices and philosophies described in "A Guide to Florida-Friendly Landscaping", Third Edition, 2006, as may subsequently be amended.
- Policy 12.1.3.8:** The City Code will require all new development and substantial redevelopment to connect to the reclaimed water system, if available. If not available, but availability is planned within five years, require installation of dry lines for future connection to the reclaim system.
- Policy 12.1.3.9:** The City shall disseminate water conservation information to the public consistent with the adopted City of Cocoa Water Supply Facilities Work Plan.
- Policy 12.1.3.10:** The City shall implement water conservation practices consistent with the adopted City of Cocoa Water Supply Facilities Work Plan.
- Policy 12.1.3.11:** The City shall continue to coordinate with water supply recipients concerning the sharing of information to meet the on-going water supply needs.

**Objective 12.1.4: Water Quality Protection.** Surface and groundwater quality in the City of Cocoa shall meet or exceed the minimum criteria set by the Florida Department of Environmental Protection.

- Policy 12.1.4.1:** The City shall establish site design standards and regulations for the control of stormwater runoff to ensure the adequate treatment of stormwater from all new development or re-development prior to its discharge to surface waters, consistent with the policies contained in the Stormwater Management Element and the Surface Water Management Plan.
- Policy 12.1.4.2:** The City shall identify means for reducing the volume of untreated stormwater discharged to surface waters, as part of the Surface Water Management Plan, with emphasis also being placed on the treatment of stormwater being discharged from lands and storm sewer systems in the City. The Surface Water Management Plan will identify priorities among drainage areas for providing treatment for stormwater.
- Policy 12.1.4.3:** The City shall ensure that land uses which require the routine application of pesticides or herbicides (e.g., agriculture, golf courses)

maintain a groundwater monitoring program designed to detect and eliminate contamination of the surficial aquifer by those substances. Upon detection of contamination, the City shall require the contaminator to discontinue the contamination and to take corrective action where feasible.

**Policy 12.1.4.4:** In order to protect the groundwater from contamination by hazardous wastes or materials, the City shall require that industrial parks which include tenants who use hazardous materials or generate hazardous wastes: (a) prepare hazardous materials spill containment and clean-up plans; (b) design drainage and sewer facilities to prevent contamination of soils, groundwater or surface waters from hazardous materials spills; and (c) provide interim storage facilities for hazardous materials generated on-site.

**Policy 12.1.4.5:** In order to reduce the potential for salt-water intrusion, the City shall require the use of native or drought-resistant plants, as appropriate, in the landscaping of new development or re-development.

**Policy 12.1.4.6:** The City shall monitor and restrict, if necessary, activities and land uses known to adversely affect the quality of identified water resources.

**Objective 12.1.5: Endangered & Threatened Species.** The distribution and abundance of endangered and threatened species within the City will be identified, and the habitat of viable populations of any such species shall be protected and managed, or the impacts to such habitat shall be adequately mitigated, so as to ensure their continued existence.

**Policy 12.1.5.1:** The City shall sponsor a biological survey of natural habitats within municipal limits to identify areas of suitable habitat for listed species, and to estimate population size and viability for those species which do occur.

**Policy 12.1.5.2:** Areas known to support a viable population of a listed species, or which provide habitat of a size and character that is suitable for long term protection of a listed species, shall be given priority in the acquisition of public parks or preserves. Any such park shall be managed in a manner consistent with preservation of the listed species and its habitat.

**Policy 12.1.5.3:** The City shall seek the cooperation of government and private conservation agencies in the preservation of lands which harbor a viable population of one or more listed species and their habitat.

**Policy 12.1.5.4:** Development approval in areas which have been identified as providing habitat of a size and character that is suitable for long term protection of a viable population of one or more listed species shall

be contingent upon the formulation of a management plan which would to the greatest extent possible eliminate adverse effects to any listed species which occur or are discovered on the development site.

**Policy 12.1.5.5:** The City shall consult with the FGFWFC and/or the FDEP in the review of listed species management plans prepared by private developers, and shall implement the recommendations of those agencies in the issuance of development orders.

**Policy 12.1.5.6:** The City shall discourage development within a habitat area dedicated to the public through a conservation easement.

**Policy 12.1.5.7:** With the exception of areas designated as handicap parking, any area identified for parking shall be stabilized using some type of pervious stabilizer, such as grass pavers, and the area shall be finished to look natural.

**Policy 12.1.5.8:** The City shall protect listed animal species and/or native habitat listed species in accordance with the Florida Fish and Wildlife Conservation Commission.

**Objective 12.1.6: Hydrology, Vegetation, and Wildlife.** Protect and conserve soils and native vegetation communities, and maintain the natural functions of the City's ecological zones in a manner consistent with the Goals, Objectives and Policies of the Future Land Use Element.

**Policy 12.1.6.1:** The City shall sponsor a biological survey of native vegetative communities within municipal limits to inventory the listed wildlife species that occur as permanent residents.

**Policy 12.1.6.2:** The City shall preserve natural communities in the siting, design, development and maintenance of public parks. Wherever possible, existing natural plant communities should be maintained undisturbed as a part of new parks developments except for relatively minor alterations, such as nature trails or boardwalks, which do not alter the wildlife habitat values of the system.

**Policy 12.1.6.3:** Areas of natural habitat within the 100-year floodplain shall be given priority consideration in the identification of lands that address passive recreational demand and open space objectives, except in those instances where a proposed development is determined by the City to be consistent with the Goals, Objectives and Policies of the Future Land Use Element.

**Policy 12.1.6.4:** In order to reduce the adverse consequences of floodplain development and simultaneously encourage the conservation of natural habitat, the City's Flood Damage Prevention ordinance shall be amended to discourage construction in the floodplain, unless the

proposed construction is expressly authorized by this Comprehensive Plan. Development plans shall preserve the natural functions of floodplains when practical. Compensatory storage for fill placed within the floodplain shall be allowed only when the applicant demonstrated the absence of adverse consequences of compensatory storage and demonstrates compliance with other applicable provisions of this Comprehensive Plan.

**Policy 12.1.6.5:** The City shall encourage the protection of critical natural vegetative communities and wildlife habitat by public purchase programs and by private property owners through donations, transfers of development rights, purchase of development rights, conservation easements or other appropriate mechanisms.

**Policy 12.1.6.6:** The City shall protect species which are listed as Endangered, Threatened or a Species of Special Concern by the Florida Fish and Wildlife Conservation Commission, the U.S. Fish and Wildlife Service or the Florida Committee on Rare and Endangered Plants and Animals (FCREPA) and shall not approve any development which proposes to destroy natural vegetative communities known to provide habitat to listed species except where the developer has submitted a management plan which minimizes adverse affects on the species to the greatest extent possible. The management plan shall be approved by St. John's River Water Management District.

**Policy 12.1.6.7:** The City shall not approve any development except as provided in the Goals, Objectives and Policies of the Future Land Use Element that would adversely alter the ecological functions of freshwater wetlands or deepwater habitat. Ecological functions include: (a) provision of wildlife and fisheries habitat; (b) maintenance of in-stream flows and lake levels during periods of high and/or low rainfall; (c) erosion control; (d) water quality enhancement; and (e) natural vegetative communities.

**Policy 12.1.6.8:** The City shall require that the following non-native plant species be removed from the limits of construction and required buffer areas from all sites which are developed or re-developed: *Causarina cunninghamiana* (beefwood), *Causarina qlauca* (scaly-bark beefwood), *Causarina equisetifolia* (Australian pine), *Dioscorea blulbifera* (air potato), *Malateuca quinquenervia* (punk tree), *Rincinus communis* (castor bean), *Sansevieria hyacinthoides* (African bowstring), *Schinus terebinthifolius* (Brazilian pepper); *Broussonetia papyrifera* (male mulberry), *Enterolobium contortisiliquum* (ear tree), *Eucalyptus* spp. (eucalyptus tree), *Melaleuca quinquenervia* (punk tree), *Melia azedarach* (chinaberry), *Prunus caroliniana* (cherry laurel), *Auracaria wrightii* (monkey puzzle), *Grevillea robusta* (silk oak tree), *Albizia* spp. (mimosa, woman's tongue), *Prunus serotina* (wild cherry), *Sapium sebiferum* (Chinese tallow), *Leucaena leucocephala* (lead

tree), *Dalbergia sissoo* (rosewood), *Acacia auriculiformis* (earleaf acacia), *Eugenia uniflora* (Surinam cherry), *Cupaniopsis anacardiodes* (carrotwood), and *Koelreuteria paniculata* (golden rain tree). No listed exotic species shall be used for planting purposes adjacent to protected lands.

**Policy 12.1.6.9:** The City shall not approve any development that is inconsistent with the requirements of applicable natural resource Goals, Objectives and Policies contained elsewhere in this Plan.

**Policy 12.1.6.10:** The City shall promote the use of native vegetation as specified in its ordinance for all development.

**Policy 12.1.6.11:** The City shall protect rare, unique, or significant-natural habitats within the City.

**Policy 12.1.6.12:** The City shall protect the habitat of gopher tortoises, gopher frogs, eastern indigo snakes, eagles, ospreys, alligators, pileated woodpeckers, manatees and river otters.

**Policy 12.1.6.13:** The City shall consider the abundance, status, and distribution of endangered ecosystems and other environmentally sensitive lands when reviewing land use proposals and acquisitions such as:

- A. Management plans which protect endangered wildlife which utilize critical habitats;
- B. Mitigation plans for critical habitat which is unavoidably altered; and,
- C. Restrictions of the use of critical habitats to those which are found to be compatible with the requirements of wildlife species which are threatened, endangered, or of special concern.

**Policy 12.1.6.14:** The City shall participate with the St. John's River Water Management District, the county, and other appropriate agencies to re-establish the historic hydrologic connections at the Cocoa Conservation Area and borrow pits within the county.

**Policy 12.1.6.15:** Wetlands and wetland functions shall be protected and conserved by restricting direct and indirect development impacts.

- A. *General.*
  1. The City shall avoid, or when unavoidable, minimize development impacts on wetlands; direct incompatible land uses away from wetlands; require wetland buffers; allow wetland losses only where all reasonable measures have been applied to avoid such losses; and allow for effective mitigation.

2. Land use planning and site design shall support development patterns that minimize the impact of development on wetlands.
  3. The City shall maintain a Generalized Wetlands Map as part of the Comprehensive Plan. This map shall be based on the U.S. Fish and Wildlife Service, National Wetlands Inventory.
- B. *Existing development.* Existing uses in wetlands may continue, but shall not expand unless they are allowed, permitted, or exempted by the SJRWMD and this policy.
- C. *New development and redevelopment with no significant impact.* New development and redevelopment having no significant impact on the net wetland functions shall be permitted. They include only the following:
1. *Water dependent uses.* An activity which can only be conducted on, in, over, or adjacent to water areas because the activity requires direct access to the water body or sovereign submerged lands for transportation, recreation, energy production or transmission, or source of water, and where the use of the water or sovereign submerged lands is an integral part of the activity.
  2. *Passive recreation.* Walking nature trails or elevated wooden boardwalks designed to minimize wetland system disturbance and to provide limited access for passive recreation or access to other portions of the site or adjacent waters, which are otherwise inaccessible.
  3. *Insect control structures.*
  4. *Utilities installation.* Temporary impacts associated with the installation of cables, conduits, and pipelines that transmit electricity, communication signals, potable water, raw water, reclaimed water, domestic wastewater, propane gas, natural gas, or similar infrastructure.
  5. *Rights-of-way and easements.* Minor activities by FDOT, the City, and Brevard County within existing rights-of-way or easements.
  6. *F.A.C. exemptions.* Exemptions listed in the rules of the SJRWMD.
  7. *Environmental restoration, enhancement, and research uses.*
  8. *Dredging and filling.* Uses that require the dredging and filling of less than one-hundred (100) square feet of wetlands.

- D. *New development and redevelopment with impact.* New development and redevelopment having impact on the net wetland functions shall be permitted only if the activity conforms to City's mitigation requirements listed in this policy and meets at least one of the following criteria:
1. *Road crossings.* Road crossings which impact wetlands shall be allowed if shown to be in the public interest (e.g. the construction of local, collector or arterial road linkages). When allowed, road crossings shall occur at the narrowest practical point constrained by safe roadway design and shall provide for hydrologic connectivity and aquatic species movement.
  2. *Access to uplands across wetlands.* Access to uplands property may cross wetland areas, provided that:
    - (a) No other access to such property is practical.
    - (b) Such limited access will not adversely affect any of the primary functions of the wetlands to be preserved on-site.
    - (c) The location of and construction methods employed for such access would result in minimal environmental impact of the wetlands to be preserved on-site.
  3. *Low quality wetlands.* If the SJRWMD determines a wetland (or portion thereof) is low quality and has minimal restoration potential, and beneficial restoration or enhancement mitigation of another wetland would be achieved as a result of mitigation permitting development in this low quality wetland (or portion thereof), then the future land use category shall apply.
  4. *Isolated wetlands for stormwater management systems.* As determined by the City, development may incorporate isolated wetlands into storm water management systems, provided the storm water runoff is pre-treated before entering the wetland, so that the wetland is used for nutrient and volume attenuation. The City shall encourage designs, which maintain existing natural wetlands community, except where permitting agencies impose conditions favoring a different plant community as more desirable for the purpose of providing habitat, improving water quality, or enhancing other wetland values.
  5. *Isolated wetlands less than 5 acres with no significant and sustainable wildlife values.* The City shall request the

comment and opinion of the SJRWMD or a professional biologist as to whether the wetland of less than 5 acres has significant wildlife values, based on the following factors:

- (a) The extent the isolated wetland acts in concert with the broader regional landscape to provide both food 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.

If the biological evaluation determines the isolated wetland of less than 5 acres has significant and sustainable wildlife values, the wetland shall be afforded the same level of protection as all other similar wetlands. However, if the evaluation determines no significant and sustainable wildlife values, then the future land use category of the adjacent uplands of the site shall apply. This does not preclude the application of any regulatory requirements of federal, state, or regional agencies.

6. *Non-residential uses.* Non-residential uses shall be permitted within wetlands, subject to the following minimum requirements:
  - (a) Clearing or removal of native vegetation shall not exceed ten (10) percent of the wetlands on the site. Exotic vegetation may be removed without regard to this limitation provided, however if the area cleared of exotic vegetation exceeds the applicable ten (10) percent maximum, it is replanted with native wetland vegetation.
  - (b) A restrictive or conservation easement to preserve open space shall be required.
  - (c) Allowable non-residential land uses within the Conservation future land use category shall be

limited to those uses allowed in the future land use category of the adjacent uplands of the site.

- (d) If areas annexed into the City from Brevard County have been designated with a Brevard County commercial or industrial future land use category prior to February 23, 1996, then those properties shall be subject to the wetlands protection policies of the Brevard County Comprehensive Plan Conservation Element as of the effective date of the annexation, and only if all other requirements of Policy 12.1.6.15.D.6 cannot be satisfied.

E. *Upland buffers.*

1. *General.* 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. Upland buffers shall not be developed, cleared, or landscaped that would decrease their effectiveness in supporting wetland functions, and shall not include turfed, landscaped, or impervious surfaces.
2. *Minimum width.* Where wetlands exist, upland buffers shall be provided at a minimum width of fifteen (15) feet and an average width of twenty-five (25) feet beyond the perimeter of the wetland.
3. *Encroachment.* Encroachment into upland buffers for the purpose of hydrologic connection of drainage systems and creation of mitigation areas shall be permitted and shall not require additional buffering compensation.
4. *Additional requirement.* The City may require the extension of upland buffers beyond twenty-five (25) feet if necessary to connect isolated wetlands with other protected wetlands existing within one-hundred (100) feet depending on the existence of listed species and habitat valuation.
5. *Average width exception.* Uplands buffer widths may be adjusted downward below the required minimum average on a case-by-case basis if the developable portion of existing lots of record as of December 1, 2003 does not have sufficient size or dimensions to allow for a reasonable use of the property based on the designated future land use category. In this

instance, the remaining upland buffers shall be enhanced with native species to minimize development impacts and enhance the functioning value of the wetlands buffer area.

6. *Passive recreation.* The City may approve, as appropriate, minimal use in clearing for nature trails and other passive recreational uses compatible with the purpose of the buffer zone.

F. *Implementation and mitigation.*

1. *Future land use category assignment.* The Conservation Future Land Use category shall be assigned to all wetland areas subject to a Future Land Use Map amendment adopted after December 1, 2003. For the purposes of initially determining appropriate wetland areas the City shall utilize the National Wetlands Inventory.
2. *Delineation.* In order to properly identify and delineate wetlands prior to development, the City shall rely on the delineation of wetlands and surface waters certified by the SJRWMD. The delineation shall be reproduced on development plans which are submitted for review by the City. For other review purposes which do not specifically permit development (e.g. plan amendments, rezonings, etc.), the extent of on-site wetlands shall be estimated and no delineation is required unless otherwise required by the City.
3. *Site and development review.* Wetlands existing on a proposed development parcel shall be shown as a part of the development plans submitted to the City for review. Additionally, the development plans shall show the delineation of the upland buffer for portion of a development parcel which does not require a SJRWMD permit. For projects requiring a SJRWMD permit, the City shall require as a condition of development approval that wetland buffers shall be protected and encumbered by a perpetual conservation easement.
4. *Onsite transfer of density.* Development densities/intensities may be transferred out of the undeveloped wetland areas on a one-for-one (1:1) basis to upland portions of a development site. Offsite transfer of density is prohibited.

5. *Creation of new lots.* New lots shall not be created and/or platted that do not contain sufficient buildable upland areas in order to provide a reasonable use for the lot under the requirements of the Comprehensive Plan.
6. *Mitigation.*
  - (a) *General.* 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, the issuance of a permit by any other agency, with or without mitigation, shall conform to the requirements the Comprehensive Plan.
  - (b) *Location.* Mitigation shall be permitted by both City Council and the SJRWMD within the appropriate SJRWMD watershed basin, as determined by SJRWMD and in the following manner:
    - (1) First priority - On-site.
    - (2) Second priority - Within the City limits.
    - (3) Third priority - Within five (5) miles of the City limits.
    - (4) Fourth priority - Within ten (10) miles of the City limits.
    - (5) Fifth priority - Within Brevard County.
    - (6) Sixth priority – Outside of Brevard County.

**Policy 12.1.6.16:** The City shall protect existing natural reservations identified in the Recreation and Open Space Element.

**Objective 12.1.7: Fisheries and Estuarine Habitat.** The city shall cooperate with and assist St. John’s River Water Management District (SJRWMD) and the Department of Environmental Protection (DEP) to continue to protect or restore the aquatic vegetation including, but not limited to, aquatic weed control, restoration or creation of aquatic grass beds or shoreline restoration. In addition, the City will protect the diversity of submerged and emergent aquatic vegetation and fish species as well as the quality of fresh water (estuarine), found in the City's lakes and tributaries associated with St. John’s River, and in the Indian River within the zone between the Cocoa shoreline and the Intracoastal Waterway. The protection shall be as great, or greater, than they were in 1988, as determined by SJRWMD and the DEP, using DEP established standards.

- Policy 12.1.7.1:** The City shall continue to implement alternative means of wastewater effluent discharge (such as effluent reuse) which will reduce the volume of wastewater discharged to the Indian River Lagoon.
- Policy 12.1.7.2:** The City shall establish site design standards and regulations for the control of stormwater runoff to ensure the reduction of, and the adequate treatment of stormwater runoff from all new development or re-development prior to its discharge to surface waters.
- Policy 12.1.7.3:** The City through the Surface Water Management Plan shall reduce the volume of untreated stormwater discharged to surface waters, and shall develop a program to take corrective action.
- Policy 12.1.7.4:** The City shall not permit shoreline development activities that would destroy or degrade the function of estuarine shoreline or deepwater habitat. The applicant shall demonstrate how any potential adverse impact shall be reduced or avoided.
- Policy 12.1.7.5:** Areas within the Indian River Lagoon and the tributaries to St. John's River basin, lands acquired by City for passive recreation with littoral zones shall be designated as conservation.
- Policy 12.1.7.6:** The City supports the objectives of the Indian River Lagoon Comprehensive Conservation and Management Plan 2008 update.

**Objective 12.1.8: Hazardous Waste and Materials.** The City shall coordinate with Brevard County to establish procedures and regulations which support State and County hazardous material management objectives, and which will reduce the number of sites at which improper use, storage or disposal of hazardous materials occurs.

- Policy 12.1.8.1:** The City shall coordinate with the FDEP and Brevard County in the establishment of Amnesty Days for the collection of hazardous domestic wastes.
- Policy 12.1.8.2:** The City shall ensure that businesses which store, generate, or transport hazardous wastes or materials do so in accordance with Federal and State guidelines and regulations.
- Policy 12.1.8.3:** Industrial parks which include tenants who use hazardous materials or generate hazardous wastes shall be required to: (a) prepare hazardous materials spill containment and clean-up plans; (b) design drainage and sewer facilities to prevent the contamination of soils, groundwater or surface waters from hazardous materials spills; and (c) provide interim storage facilities for hazardous wastes generated on-site.
- Policy 12.1.8.4:** The City shall provide the greatest support practical to Federal, State and County hazardous waste and materials management programs.

**Objective 12.1.9: Floodplain Management.** The City shall protect the flood storage and conveyance functions of the 100-year floodplain.

**Policy 12.1.9.1:** In order to reduce the adverse consequences of floodplain development and simultaneously encourage the conservation of natural habitat, the City's Flood Damage Prevention ordinance shall be updated as needed to maintain compliance with the National Flood Insurance Program and to discourage construction in the floodplain, unless the proposed construction is expressly authorized by this Comprehensive Plan. Developmental plans shall preserve the natural functions of floodplains when practical. The provision of compensatory storage for fill placed within the floodplain shall be allowed only when the applicant demonstrates the absence of adverse consequences of compensatory storage and demonstrates compliance with other applicable provisions of this Comprehensive Plan.

**Policy 12.1.9.2:** Developers shall be encouraged to incorporate those portions of sites that are within the 100-year floodplain as open space preservation.

**Policy 12.1.9.3:** The City shall promote wetlands preservation and non-structural floodplain management by encouraging the use of isolated wetlands as detention areas, where such use is consistent with good engineering practice and does not significantly degrade the ecological value of wetlands. Pre-treatment of stormwater run off by diversion of the "first flush" shall be required prior to discharge to wetland detention areas.

**Policy 12.1.9.4:** The City shall encourage public and private agencies, including but not limited to the Florida Department of Environmental Protection, the Florida Game and Freshwater Fish Commission, the St. Johns River Water Management District, The Nature Conservancy, The Trust for Public Lands and Brevard County, in acquiring wetlands and floodplains.

**Objective 12.1.10: Soil Conservation and Mineral Resources.** Land development and mineral extraction activities shall be regulated so as to conserve mineral resources and limit the adverse effects of soil erosion and sediment transport on air and water quality.

**Policy 12.1.10.1:** The City shall continue to regulate resource extraction activities so as to both protect and conserve mineral resources and protect the environment.

**Policy 12.1.10.2:** The City shall require that all land clearing for agriculture, excavation or development activities be conducted in compliance with soil erosion Best Management Practices published by the SCS, FDOT, FDEP, FDACS or IFAS. Land clearing for resource extraction or development shall be limited to the minimum amount necessary.

**Policy 12.1.10.3:** Land developers and excavators shall prepare and implement reclamation plans that establish a biologically productive landscape comprised of native plants. The City shall require land developers and excavators to demonstrate financial responsibility for future reclamation activities prior to approval of development.

**Policy 12.1.10.4:** The City shall employ Best Management Practices for control of erosion and sedimentation for road and other City projects.

**Objective 12.1.11: Energy Reduction and Conservation.** The City will take steps to reduce the consumption of energy through promoting more efficient land use development patterns and uses which provide alternatives to commuting to and from employment.

**Policy 12.1.11.1:** The City will promote the use of infill development along its existing commercial corridors to increase the diversity of uses located in close proximity to one another to reduce the need for multiple trips or to travel cross town.

**Policy 12.1.11.2:** Where feasible and compatible with adjacent land uses, the City will support requests for higher densities and intensities.

**Policy 12.1.11.3:** The City will promote mixed-use development patterns in new projects to provide greater diversity of use in close proximity of one another to promote reduced dependence on automobiles, and increased use of pedestrian and bicycle travel.

**Policy 12.1.11.4:** To the greatest extent possible, the City should work with providers of multimodal transportation systems, such as SCAT, to encourage them to expand, or establish service in and around the City to reduce resident's dependence on use of automobiles.

**Policy 12.1.11.5:** The City will develop a bicycle/pedestrian master plan to provide a blueprint for the development of a City-wide trail plan to provide interconnectivity of residential and commercial areas to promote bicycle and pedestrian travel as an alternative to the automobile.

**Policy 12.1.11.6:** The City will continue to promote itself as a desirable place for new clean business and industry to move to with the intention of increasing employment opportunities for Cocoa residents to reduce or eliminate the need to commute to and from work.

**Policy 12.1.11.7:** Continue working to improve citizens awareness of the need to conserve energy through continued participation of Florida Power and Lights Household Energy Makeover Initiative (HEMI) to educate residents, especially those with older less energy efficient homes, of the savings in not only the natural resources used to create energy, but also the expenses associated with inefficient heat and air conditioning units and appliances.

- Policy 12.1.11.8:** The City supports Federal and State incentives to promote use of energy efficient technology, including but not limited to solar heating, photovoltaic cells, more efficient insulation systems, and other clean energy sources.
- Policy 12.1.11.9:** The City shall review, and where feasible, adopt conservation oriented building methods and materials, such as those promoted through the United States Green Building Council's Leadership in Energy and Environmental Design (LEED) rating system.
- Policy 12.1.11.10:** To the greatest extent possible, any new structures constructed by the City shall meet, at a minimum, the Silver rating of the LEED rating system.