CONSERVATION ELEMENT

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Goals, Objectives, and Policies

GOAL #1: TO PRESERVE AND ENHANCE THE QUALITY OF THE NATURAL ENVIRONMENT THROUGH THE PROTECTION AND ENHANCEMENT OF THE VITAL NATURAL RESOURCES - LAND, AIR AND WATER (BOTH POTABLE WATER AND SURFACE WATER). [9J-5.013(2)(a)]

LAND

OBJECTIVES #1 & #2: TO ENSURE THE PRESERVATION OF WILDLIFE PARTICULARLY THREATENED AND ENDANGERED SPECIES AND THE PROTECTION OF THEIR HABITAT. IDENTIFY AND CONSERVE IMPORTANT NATURAL RESOURCES AND CRITICAL HABITAT WHERE ECONOMICALLY AND ENVIRONMENTALLY FEASIBLE, TO PREVENT ADVERSE ALTERATIONS TO THESE AREAS. [9J-5.013(2)(b)(3 and 4)]

Policy #1: The City shall cooperate with the State in acquiring and conserving environmentally endangered lands to be preserved under the State Land Conservation Act. [9J-5.013(2)(c)(9)]

Policy #2: The City shall purchase, if economically feasible, properties identified as critical habitat by the ECFRPC in their capacity as a clearinghouse for this information. The selection criteria to be used in determining these properties shall place greater weight on the selection of lands which appear on inventories of endangered or threatened species, even though public use and recreation may not be appropriate. The following criteria shall be adhered to in the implementation of this policy: {9J-5.013(2)(c)(7 - 9)}

> **Strategy #1:** Acquired land should be selected based on the need to prioritize all current fiscal obligations of the City's resources.
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> **Strategy #2:** Priority shall be given to the acquisition of land which may be important as "habitat corridors" in the movement of nonavian wildlife.

Policy #3: Where acquisition of identified property habitat is not fiscally possible, any public or private use of land greater than three (3) acres in area shall require a management plan designed to minimize harm to the species and its habitat.

> **Strategy #1:** The City shall recognize the species listed as endangered or threatened by the USFWS, NMFS, FDEP, FFWCC and FDACS as compiled by ECFRPC, acting as a data source and information clearinghouse.

Policy #4: When one or more individuals of an endangered or threatened species are found on a site undergoing development activities for which no management plan has been adopted, said activities shall cease until a management plan has been prepared by the developers and found to be acceptable by the City. [9J-5.013(2)(c)(5 and 6)]

Policy #5: The city shall protect existing natural reservations including recreation and conservation lands according to the strategies set forth in the Recreation and Open Space Element.

Policy #6: All costs for restoring environmentally damaged areas shall be borne by the party directly responsible for the damage. Mitigation (wetlands/seagrass) shall occur as per State and Federal regulations. If within a reasonable time, for the particular plant species, mitigation has not been successful, the responsible party shall replant or act to "mitigate" the problem. [9J-5.013(2)(c)(3)]

OBJECTIVE #3: TO CONSIDER SOIL AS A NON-RENEWABLE RESOURCE AND TO PROMOTE AND ENCOURAGE THE PROTECTION AND MANAGEMENT OF THIS RESOURCE

TO ENSURE ITS LONGEVITY BY CONTROLLING THE ENCROACHMENT OF URBANIZATION ON LAND POORLY SUITED FOR STRUCTURAL DEVELOPMENT. [9J-5.013(b)(3)]

Policy #1: During land clearing and site preparation, wetting operations or other soil treatment techniques appropriate for controlling unconfined emissions (including seeding and mulching of disturbed areas) shall be undertaken and implemented by the developer. [9J-5.013(2)(c)(3)]

Policy #2: Development of land shall take into consideration natural constraints such as flood hazard, wetlands, soil suitability and aquifer recharge potential, and shall be restricted depending upon the severity of those constraints. [9J-5.013(2)(c)(3)]

OBJECTIVE #4: TO PREVENT ADVERSE EFFECTS BY RESOURCE EXTRACTION ON ENVIRONMENTALLY SENSITIVE AREAS. [9J-5.013(2)(b)(3)]

Policy #1: No commercial operations for the purpose of extracting mineral resources shall be permitted until a reclamation plan and proof of financial responsibility have been approved. The following criteria shall apply in the implementation of this policy: [9J-5.013(2)(c)(2)]

> **Strategy #1:** Operators shall be required to provide financial assurance against the future costs of reclamation activities.
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> **Strategy #2:** The City shall develop a fee schedule which sets the amount of financial assurances required by the mining operator proportional to the expected scale and difficulty of reclamation. This schedule shall be developed on a per project basis.

Policy #2: Where feasible, a horizontal impervious layer (possible including a portion of the extracted resource) shall be left undisturbed and unpenetrated beneath all excavated areas in order to prevent water within the excavated area from contaminating the groundwater. The amount and the location of the impervious layer to remain intact, if any, will be determined by soil surveys to be taken prior to excavation, and included as part of the excavation and reclamation plan submitted by the mining operator to the City. [9J-5.013(2)(c)(2)]

Policy #3: No commercial mining shall be allowed in the City of Titusville Prime Aquifer Recharge Area to protect surface water and groundwater from potential adverse effects of mining on water levels and water quality in high recharge areas. [9J-5.013(2)(c)(1 and 2)]

OBJECTIVE #5: TO REDUCE POTENTIAL HARM TO THE ENVIRONMENT BY STRICT CONTROL AND REGULATION OF THE EMISSION, STORAGE AND MOVEMENT OF HAZARDOUS WASTE AND SUBSTANCES. [9J-5.013(2)(b)(3)]

Policy #1: A safe and cost effective alternative to improper waste management and disposal shall be provided through increased availability and access to hazardous waste storage/transfer facilities. The following criteria will apply in the implementation of this policy: [9J-5.013(2)(c)910)]

> **Strategy #1:** The City shall request information from the appropriate agencies concerning the nature, harmful effects, recycling, and proper disposal methods for hazardous wastes. The City will make this data available to the public.
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> **Strategy #2:** The City shall coordinate with Brevard County in the transfer of hazardous wastes to the collection station at the Central Disposal Facility.
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> **Strategy #3:** The City shall utilize recycling services provided by Brevard County.
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> **Strategy #4:** By 1991, the City will coordinate with the County in the development of an optional hazardous materials management system.

Strategy #5: Generations of hazardous wastes shall, at a minimum, conform to FDEP and TSD permitting requirements.

Policy #2: Any Storage of hazardous material within the "areas of critical concern" shall be regulated according to the City's adopted "Aquifer Protection Ordinance". [9J-5.013(2)(c)(10)]

Policy #3: The City shall, in cooperation with Brevard County, distribute materials to educate the small scale generators of hazardous waste/materials (i.e., dry cleaners, automotive repair, single family residence). [9J-5.013(2)(c)(10)]

OBJECTIVE #6: TO ENCOURAGE THE PRESERVATION/PROTECTION OF WETLANDS ACCORDING TO THEIR FUNCTION BY IMPLEMENTING PROGRAMS BOTH LOCALLY AND IN CONJUNCTION WITH OTHER GOVERNMENTAL ENTITIES, TOWARD THIS EFFORT: [9J-5.013(2)(c)(3)]

Policy #1: The development of wetlands shall be addressed in the development regulations according to the following criteria: [9J-5.013(2)(c)(3)]

Strategy #1: The protection of the wetlands shall be determined by the functional value of the wetland.

Strategy #2: The development of land under all land use categories shall take into consideration natural constraints such as flood hazard, wetlands, soil suitability and aquifer recharge potential.

Policy #2: Proposed land uses which are compatible with the function of wetlands shall be identified within a conservation land use designation on the Future Land Use Map and further addressed in the land development regulations. [9J-5.013(2)(c)(3 and 9)]

Strategy #1: In addition to the permitted land uses identified in the Future Land Use Element, conditional uses may be considered as provided for in the land development regulations, with criteria based upon the mitigation policies of the U.S. Fish and Wildlife Service. At a minimum, the criteria to be considered for approval of a conditional use shall include:

a) The use is ecologically sound;
b) The use is water dependent or water related and there is a documented public need;
c) The use is the least environmentally damaging alternative;
d) There is no practical alternative to insure reasonable use of the applicant's property; and
e) Any unavoidable damage or loss of wetland shall be mitigated to insure no net loss of wetlands and no loss of functional value.

Policy #3: Wetlands shall be defined consistent with existing state and federal regulatory agencies.

Strategy #1: At a minimum, the U.S. Department of the Interior Fish and Wildlife Service Wetland Maps (1988), or as most recently updated, shall be used to define the Conservation Land Use areas within the City.

Strategy #2: At a minimum, wetlands 5 acres or more in size shall be designated as a conservation land use and wetlands less than 5 acres will be subject to review to determine what protection, if any, they should receive from development. Said review

shall be based on the functional value criteria specified in Strategy #4. If based on this determination, protection is warranted, development may be permitted, based upon criteria set forth in the environmental performance standards of the land development regulations.

Strategy #3: The landward extent of wetlands shall be determined using the methodology outlined in Chapter 17-44.022, F.A.C., except that there shall be no requirement to show direct connection to waters of the State.

Strategy #4: Land development impacts on designated wetlands shall be assessed based upon the functional value of wetlands. The functional value assessment criteria for wetlands shall include, at a minimum, consideration of:

a) size;
b) capacity for flood storage or flow regulation;
c) potential as wildlife and/or fisheries habitat;
d) provision of habitat for state or federally protected species;
e) rarity as a vegetative community type;
f) degree of prior adverse impacts which would limit the future viability of wetland (e.g., invasion by upland or exotic species, fire, permanent alteration of drainage patterns); and
g) potential for recreational use.

Strategy #5: Activities whose impacts are assessed to be minimal, or offset by mitigation measures, shall be addressed in the land development regulations and shall utilize the following criteria:

a) the activity is necessary to prevent or eliminate a public hazard;
b) the activity would provide direct public benefits which would exceed those lost to the public as a result of the degradation or destruction of wetlands (e.g., right-of-way for public roads or utilities); and
c) the activity is proposed for wetlands whose functional values are so limited that their loss does not significantly affect the public interest (i.e., inherent in this statement is that this land can be utilized as recreational, conservation, open space or low density residential areas.)

Strategy #6: Mitigation for unavoidable impacts to wetlands which possess significant functional value, as determined by a functional assessment, will be addressed in the land development regulations.

Strategy #7: Monitoring shall be required to ensure that all mitigation or compensation efforts as outlined in the land development regulations are successful.

AIR

OBJECTIVE #1: TO MINIMIZE THE ADVERSE EFFECTS OF NON-POINT SOURCE EMISSION OF POLLUTION BY MAINTAINING AN EFFECTIVE TRANSPORTATION NETWORK. [9J-5.013(2)(b)(1)]

Policy #1: Maintain adopted level of service on all facility types throughout the network to reduce unnecessary vehicle idling emissions.

Policy #2: To encourage utilization of non-emission forms of transportation via a comprehensive bicycle and pedestrian plan.

OBJECTIVE #2: TO MINIMIZE THE ADVERSE EFFECTS OF POINT SOURCE EMISSION OF POLLUTION THROUGH THE LAND DEVELOPMENT AND REGULATORY PROCESS. [9J-5.013 (2)(b)(1)]

Policy #1: Encourage the inter-mixing of land uses to further the redevelopment goals for the downtown district and minimize vehicular work, shopping and other trips.

OBJECTIVE #3: AIR QUALITY IN THE CITY SHALL MEET OR EXCEED THE MINIMUM AIR QUALITY AS ADOPTED BY FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATIONS.

Policy #1: The City will coordinate with the Florida Department of Environment Regulation in monitoring ambient air quality within the City.

WATER (SURFACE WATER - SALT AND FRESH)

OBJECTIVE #1: TO PROTECT STREAMS, LAKES, RIVERS, ESTUARIES, WETLANDS AND THE COASTLINE FROM ENVIRONMENTALLY DESTRUCTIVE ALTERATIONS, BOTH QUALITATIVE AND QUANTITATIVE. [9J-5.013(2)(b)(2)]

OBJECTIVE #2: TO ENSURE THAT PRESERVATION OF AQUATIC LIFE, PARTICULARLY THREATENED, ENDANGERED OR RARE SPECIES, AND THE PROTECTION OF THEIR HABITAT. [9J-5.013(2)(b)(4)]

Policy #1: The City shall provide standards or programs to protect or restore littoral vegetation in and adjacent to a waterbody in order to prevent shoreline erosion, filter out nutrients and provide wildlife habitat. The following definitions and conditions shall apply to the implementation of this policy: [9J-5.013(2)(c)(6)]

Strategy #1: The removal of native emergent, submerged or floating vegetation in the littoral zone of a waterbody shall be limited to that necessary to provide reasonable access, or which is part of a government sanctioned aquatic plant control program.

A. "Littoral zone" includes the area between the ordinary high water line and the most waterward extent of native emergent, submerged or floating non-algae vegetation.

B. "Waterbody" includes all waters of the State and all lakes or ponds greater than 1 acre in size.

C. "Reasonable access" includes clearing of vegetation for purposes of health or safety, to provide river access for private recreation (not to exceed 20 linear feet of shoreline cleared per parcel of waterfront property), or as necessary for government approved public or private water dependent projects.

Policy #2: Erosion and sedimentation control practices shall be employed for all urban development and agricultural activities where needed to protect natural waterbodies, water courses, and wetlands from siltation. The following minimum criteria shall apply: [9J-5.013(2)(c)(6)]

Strategy #1: Adequate erosion and sediment control practices are those recommended by the Soil Conservation Service and which are designed to substantially reduce or eliminate soil loss into waterbodies and wetlands.

Strategy #2: Clearing of specific building sites shall not commence until the issuance of a development work order.

Strategy #3: Waterfront construction shall be required to use appropriate erosion and siltation control practices during and after construction to prevent siltation of the adjacent waterbody.

Strategy #4: Stormwater management systems shall be designed to ensure that water velocities remain below those which would cause scour and erosion.

Policy #3: New and existing marinas which service boats with on-board facilities shall be required to provide sewage pump out and to provide for the appropriate effluent disposal method. [9J-5.013(2)(c)(6)]

Policy #4: Alternative to copper-based or other metal-based anti-fouling bottom paint used on boats shall be encouraged in order to reduce the harmful effects of heavy metal bioaccumulation. [9J-5.013(2)(c)(6)]

Policy #5: Marinas shall be located in areas where maximum physical advantage exists, where the least dredging and maintenance are required, and where aquatic resources will not be adversely affected. [9J-5.013(2)(c)(6)]

STORMWATER MANAGEMENT

OBJECTIVE #1: TO ENCOURAGE THE PRESERVATION/PROTECTION OF THE FLOODPLAINS AND THEIR FUNCTIONS BY IMPLEMENTING PROGRAMS, BOTH LOCALLY AND IN CONJUNCTION WITH OTHER GOVERNMENTAL AND NON-GOVERNMENTAL ENTITIES, TOWARD THIS EFFORT. [9J-5.013(2)(b)(2)]

OBJECTIVE #2: TO RETROFIT EXISTING STORMWATER DRAINAGE SYSTEMS, TO REDIRECT OUTFALLS FROM ENVIRONMENTALLY SENSITIVE AREAS, AND TO ENHANCE ENVIRONMENTALLY SENSITIVE AREAS THROUGH MAN-MADE WETLANDS WHICH PROVIDE BOTH RENOURISHMENT OF THE WETLANDS SYSTEM AND WILDLIFE HABITAT. [9J-5.013(2)(b)(2)]

Policy #1: The City shall develop a comprehensive surface water basin management plan for the major waterways. The planning and approval of new development, new public wastewater or stormwater facilities, and the retrofitting of existing wastewater or stormwater facilities shall conform to the comprehensive surface water basin management plans.

Policy #2: The City shall institute a maintenance program for public stormwater management systems so as to ensure the proper functioning and expected pollutant removal efficiency of stormwater management systems. The following criteria shall be used toward the implementation of this policy: [9J-5.013(2)(c)(1)]

> **Strategy #1:** The City shall ensure funding of this policy through a study and adoption of a stormwater utility fee (i.e., user fee) or other mechanisms to provide monies to implement said policy.

Policy #3: The City shall promote the conservation of natural vegetation in flood plain areas and freshwater swamps for the purpose of storing stormwater run-off. [9J-5.013(2)(c)(6)]

> **Strategy #1:** An incentive that would be utilized toward the implementation of this policy would be to allow the developer to credit "undisturbed areas" as part of the development required open space.

Policy #4: Flood control for new development shall be accomplished through the limitation of fill in the 100-year flood plain as defined by FEMA. Where no practical alternative to fill in the 100-year flood plain exists, compensatory storage for such fill shall be as provided for in Strategy #1 below. The following criteria shall be applied in the implementation of this policy: [9J-5.013(2)(c)(6)] (CPA 01-1A6)

> **Strategy #1:** Compensatory storage shall be provided by excavating a volume of uplands equivalent to the loss of storage within the 100-year flood plain caused by the placement of fill. Allowances for soil storage of water in the new fill may be made in calculating the necessary amount of excavation required, if based on standard accepted engineering practice.

Policy #5: Lands exhibiting the following conditions shall be developed at a density no greater than one unit per acre unless site specific verifiable data is presented which contradicts such limiting conditions. [9J-5.013(2)(c)(6)]

- Flood hazard areas shown on the Federal Flood Rate Maps

POTABLE WATER

OBJECTIVE #1: TO ENSURE THE PROTECTION OF THE CITY'S POTABLE WATER SOURCE AND TO SAFEGUARD PUBLIC HEALTH THROUGH THE ENFORCEMENT OF ADOPTED AQUIFER PROTECTION MEASURES. [9J-5.013(2)(b)(2)]

OBJECTIVE #2: TO ENSURE THE CONSERVATION OF THE CITY'S POTABLE WATER SOURCE THROUGH THE UTILIZATION OF INNOVATIVE WATER CONSERVATION TECHNIQUES. [9J-5.013(2)(b)(2)]

Policy #1: The City shall maintain its water conservation plan. Implementation of this policy call for adherence, at a minimum, to the following criteria: [9J-5.013(2)(c)(1)]

> **Strategy #1:** Shall apply to all users of water.
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> **Strategy #2:** Shall be consistent with the emergency water shortage contingency plans developed by the St. Johns River Water Management District.

Strategy #3: Funding shall be made available for the implementation of the proposals as set forth in the Water Conservation Plan.

Policy #2: The City shall initiate a study of the cost/benefits associated with the installation of a water reuse system. [9J-5.013(2)(c)(1)]

Policy #3: Agricultural operation which use surface waters or groundwater supplies for irrigation shall be encouraged to install the most effective means of irrigation which is practical, economical, and suitable. [9J-5.013(2)(c)(1 and 6)]

Policy #4: The City shall encourage the use of private well systems or reused water for irrigation and the use of native vegetation. [9J-5.013(2)(c)(1)]

Policy #5: The City shall continue to protect its quantity and quality of water by regulating impervious coverage and the handling and storage of hazardous materials in its prime recharge area. [9J-5.013(2)(c)(1)]

Policy #6: The City shall meet water use demands by using water of the lowest quality acceptable for the intended application, and reused water shall be used in lieu of groundwater or surface water withdrawn for all water use applications which do not require potable water wherever, and whenever, such water is reasonably available. [9J-5.013(2)(c)(1)]

Policy #7: The City shall ensure its future water supplies through the implementation of comprehensive wellfield protection programs which limit activities which might degrade the quality or quantity of water from public wellfields. [9J-5.013(2)(c)(1)]

Policy #8: The City shall utilize the emergency conservation techniques in accordance with the regional water management district in times of a 'declared' severe water shortage. [9J-5.013(2)(c)(4)]