

<p>CONSERVATION ELEMENT GOALS, OBJECTIVES AND POLICIES</p>

GOAL 1.	WATERSHEDS, LAKES AND RIVERS	1
	OBJECTIVE 1.1. SPECIES DIVERSITY	1
	OBJECTIVE 1.2. SURFACE WATER QUALITY	2
	OBJECTIVE 1.3. INTERGOVERNMENTAL COORDINATION.....	4
	OBJECTIVE 1.4. ECOLOGICAL BALANCE	4
	OBJECTIVE 1.5. ARTIFICIAL LAKES	5
	OBJECTIVE 1.6. REZONING	5
GOAL 2.	FLOODPLAINS	7
	OBJECTIVE 2.1. FLOOD DAMAGE	7
	OBJECTIVE 2.2. FLOODPLAIN MANAGEMENT	8
GOAL 3.	GROUNDWATER	11
	OBJECTIVE 3.1. SALT WATER INTRUSION AND RECHARGE	11
	OBJECTIVE 3.2. INTERGOVERNMENTAL COORDINATION.....	11
	OBJECTIVE 3.3. AQUIFER PROTECTION	12
	OBJECTIVE 3.4. GROUND WATER CONTAMINATION	12
	OBJECTIVE 3.5. DEVELOPMENT	13
GOAL 4.	POTABLE WATER	15
	OBJECTIVE 4.1. POTABLE WATER SERVICES	15
	OBJECTIVE 4.2. INTERGOVERNMENTAL COORDINATION	15
	OBJECTIVE 4.3. WATER CONSERVATION	16
GOAL 5.	VEGETATION	17
	OBJECTIVE 5.1. ECOLOGICAL COMMUNITIES	17
	OBJECTIVE 5.2. HABITAT AND DEVELOPMENT	18
	OBJECTIVE 5.3. NATIVE LANDSCAPING.....	20
	OBJECTIVE 5.4. WETLAND PRESERVATION	21
GOAL 6.	FISH AND WILDLIFE	29
	OBJECTIVE 6.1. CONSERVATION	29
GOAL 7.	USES OF NATURAL RESOURCES	35
	OBJECTIVE 7.1. LAND ACQUISITION.....	35

**CONSERVATION ELEMENT
GOALS, OBJECTIVES AND POLICIES**

OBJECTIVE 7.2. IMPACT ASSESSMENT..... 35
OBJECTIVE 7.3. SUSTAINABILITY 36
GOAL 8. AIR QUALITY..... 37
OBJECTIVE 8.1. STANDARDS 37
OBJECTIVE 8.2. SITE PLAN REVIEW..... 38
GOAL 9. MINING AND MINERALS..... 40
OBJECTIVE 9.1. SAFETY STANDARDS..... 40
OBJECTIVE 9.2. HISTORIC SITES 40
OBJECTIVE 9.3. COMMUNITY BENEFIT 41
OBJECTIVE 9.4. RESOURCE PROTECTION 41
GOAL 10. HAZARDOUS WASTES 43
OBJECTIVE 10.1. SARA TITLE III COMPLIANCE 43
OBJECTIVE 10.2. EMERGENCY PREPAREDNESS 43
GOAL 11. SOIL AND EROSION..... 45
OBJECTIVE 11.1. DEVELOPMENT 45
GOAL 12. LOW IMPACT DEVELOPMENT 47
OBJECTIVE 12.1. LAND DEVELOPMENT CODE AMENDMENTS 47

<p style="text-align: center;">CONSERVATION ELEMENT GOALS, OBJECTIVES AND POLICIES</p>

GOAL 1. WATERSHEDS, LAKES AND RIVERS

THE CITY SHALL MAINTAIN AND, TO THE MAXIMUM EXTENT FEASIBLE, PROMOTE PROGRAMS TO ENHANCE THE FUNCTIONAL, AESTHETIC AND QUALITATIVE VALUE OF THE HALIFAX RIVER, THE TOMOKA RIVER, THEIR MAJOR TRIBUTARIES, AND ARTIFICIALLY CONSTRUCTED LAKES.

OBJECTIVE 1.1. SPECIES DIVERSITY

The City shall maintain the native aquatic and wetland floral and faunal species diversity of the upper Halifax River and Tomoka River.

POLICY 1.1.1.

The City shall continue to cooperate with State and regional agencies and adjacent local governments in a comprehensive study and inventory of invertebrates and seagrasses in the portions of the Halifax River and the Tomoka Marsh Aquatic Preserve which are located within the City.

POLICY 1.1.2.

The City shall continually identify and prohibit activities that would have a significantly adverse effect on existing eelgrass or seagrass beds. When specific activities are identified, provisions to prohibit and mitigate adverse impacts from said activities shall be incorporated into the Land Development Code.

POLICY 1.1.3.

The City shall continue to request that the State adopt an effective management plan with appropriate funding and personnel to provide meaningful management for the Tomoka Marsh Aquatic Preserve.

POLICY 1.1.4.

The City, in cooperation with State, regional, and local agencies, shall participate in a program to enhance the aesthetic, recreational, botanical, fish, and wildlife values, of spoil islands.

CONSERVATION ELEMENT GOALS, OBJECTIVES AND POLICIES

POLICY 1.1.5.

The City shall continue to work with the Florida Department of Environmental Protection to expand the Tomoka Marsh Aquatic Preserve boundaries to include Dodson Creek, Strickland Creek, and the portion of Thompson Creek east of US 1.

POLICY 1.1.6.

The City shall cooperate with State, regional and local governmental agencies, in an endangered species information program.

POLICY 1.1.7.

Historic stream courses, saltwater marshes, freshwater marshes, and other wetlands shall not be channelized or impeded and shall be retained in their current condition consistent with the wetland regulations of Objective 5.4.

OBJECTIVE 1.2. SURFACE WATER QUALITY

The City shall protect, enhance, and improve the ambient surface water quality of the Halifax River, the Tomoka River and their tributaries.

POLICY 1.2.1.

The City shall coordinate with the Florida Department of Environmental Protection, the St. Johns River Water Management District, the Ponce Deleon Port Authority, and other local governments in the maintenance of an on-going water quality sampling and monitoring program that identifies baseline conditions and standards as parameters to measure changes in water quality.

POLICY 1.2.2.

The City shall, in cooperation with local, regional and State agencies, adopt standards to identify, monitor, and manage point and non-point pollution source discharges. This shall include, at a minimum, a review and update of all non-point source discharge permits, checking for accuracy and completeness.

POLICY 1.2.3.

If a central wastewater system is not available, on-site sewage treatment and disposal systems shall not be allowed on lots less than one acre in size.

POLICY 1.2.4.

On-site waste treatment system facilities and drainfields shall not be located within 75 feet of the 100-year floodplain; within 75 feet of an upland/wetland interface; or within 120 feet of the

**CONSERVATION ELEMENT
GOALS, OBJECTIVES AND POLICIES**

mean high water mark of any surface water body, whichever is greater. On-site waste treatment systems should be located as far inland from a water body or wetlands as possible.

POLICY 1.2.5.

The City shall continually enforce policies that require existing homes located on lots smaller than one acre and that have septic tank systems to connect to the City central sewer system when it is within 100 feet of the lot line. The City may create assessment districts, where appropriate, to retrofit a neighborhood with sewer lines and lift stations.

POLICY 1.2.6.

The City shall continue to expand its effluent reuse program consistent with the St. Johns River Water Management District permit conditions and recommendations.

POLICY 1.2.7.

By the year 2010, the City shall develop a plan to further reduce the amount of treated effluent discharged to the Halifax River to 10% of the total volume of wastewater treated at the plant.

POLICY 1.2.8.

The operation of the stormwater control utility and the retrofitting of stormwater outfalls shall comply with the recommendations of the adopted Stormwater Master Plan.

POLICY 1.2.9.

The City shall coordinate with State, regional, and local agencies in permitting the construction of new marina facilities; marinas shall not be located in the Tomoka River or its tributaries.

POLICY 1.2.10.

In order to protect surface waters from the activities of adjacent property owners, the City shall educate residents regarding deliberate deposition of lawn debris, washing paint brushes, the use of fertilizers and chemicals or the storage of hazardous chemicals and fuel supplies in close proximity to water bodies. "Close proximity" shall be defined with regard to the proposed activity and the degree to which the adjacent water body is to be protected.

**CONSERVATION ELEMENT
GOALS, OBJECTIVES AND POLICIES**

OBJECTIVE 1.3. INTERGOVERNMENTAL COORDINATION

The City shall continue to promote intergovernmental coordination to maintain or improve the water quality, water quantity, recreational, fish, and wildlife resource values of the Halifax River, the Tomoka River, and their tributaries.

POLICY 1.3.1.

On a continuous basis, the City shall support and promote programs to improve natural tidal flushing action for the Halifax River to restore ambient water quality.

POLICY 1.3.2.

The City shall coordinate its water quality testing program with appropriate State, regional and local government testing programs to ensure efficient use of resources and to eliminate duplication of effort.

POLICY 1.3.3.

In cooperation with State, regional, and local agencies, including the Volusia County Sheriff's Department, the City shall participate where possible in a river safety program that utilizes to the maximum extent possible miscellaneous media sources, newspaper advertising, signs, and literature to prevent surface water pollution, to protect manatees and other wildlife, and to promote proper boating safety standards.

OBJECTIVE 1.4. ECOLOGICAL BALANCE

The City shall continue to review development proposals and establish programs to balance the functioning values of the Halifax River and the Tomoka River in order to maintain an optimum combination of aesthetic, ecological, recreational, and historical resources.

POLICY 1.4.1.

On a continuing basis, the City shall coordinate the identification and protection of significant archaeological, ecological, historical, and paleontological sites under and along the Tomoka River with other agencies and private organizations. This shall include promoting studies by colleges, universities, and researchers and requiring archaeological studies by developers for projects in areas that may contain significant resources.

POLICY 1.4.2.

On a continuous basis, the City shall encourage college and university studies of the Halifax and Tomoka Rivers.

POLICY 1.4.3.

On a continuous basis, the City shall seek to acquire suitable property to meet public access requirements adjacent to the Tomoka River and its tributaries and the Halifax River for passive park and canoe access facilities.

POLICY 1.4.4.

In order to effectively monitor the effects of development activities on surface water conditions, the applicant or its successors shall provide, as determined by the City, the establishment and operation of a surface water and wetland biological monitoring program.

POLICY 1.4.5.

In calculating maximum potential density or maximum permitted density for any given parcel of property, such calculations shall be exclusive of that portion of the property which is considered to be submerged lands.

OBJECTIVE 1.5. ARTIFICIAL LAKES

Artificially constructed lakes shall be designed and located so as to not negatively affect the aesthetics, ambient water quality, biotic composition/diversity, environmental integrity, flood capacity, public health and safety, or recreational values of the upper Halifax River, the Tomoka River, or their tributaries.

POLICY 1.5.1.

Artificially constructed lakes shall not be included in stormwater management systems which have outfalls into the upper Halifax River, the Tomoka River, or their tributaries without review and recommendations by the Site Plan Review Committee that all pertinent ordinances and standards have been met and that the discharge to the receiving waters will not degrade ambient surface water quality.

POLICY 1.5.2.

Artificially constructed lakes shall not be excavated in wetland systems in the upper Halifax River, the Tomoka River, or their tributaries and shall not lower water levels in these systems.

OBJECTIVE 1.6. REZONING

Rezoning shall be consistent with the Comprehensive Plan and with the objective of preserving ecological systems and the aesthetic qualities of the community.

**CONSERVATION ELEMENT
GOALS, OBJECTIVES AND POLICIES**

POLICY 1.6.1.

All rezoning shall be compatible with the objective of protecting wildlife and the environment consistent with the Comprehensive Plan.

POLICY 1.6.2.

The City shall maintain the zoning district entitled “Special Environmental District” (SE). The following criteria shall apply to the implementation of this policy:

- A. The SE district applies to all Department of Environmental Protection or Army Corps of Engineers jurisdictional wetland lines:
 - 1. not protected preserved by a conservation easement; and
 - 2. or part of an approved Master Land Use Plan for a Planned Residential Development.This area includes mosquito impoundment districts.
- B. The SE district applies to environmentally sensitive areas designated for public acquisition and protection or areas currently in public ownership which should be subject to open space and conservation type land uses.

POLICY 1.6.3.

In cases where land development regulations and land use classifications will eliminate any reasonable use of real upland property, consideration will be given to public acquisition.

GOAL 2. FLOODPLAINS

THE CITY SHALL CONTINUE TO IMPLEMENT CURRENT PROGRAMS AND STUDY AND ADOPT NEW PROGRAMS TO MINIMIZE PUBLIC AND PRIVATE LOSSES AND THREATS TO THE PUBLIC HEALTH, SAFETY AND WELFARE DUE TO FLOOD CONDITIONS AND HAZARDS.

OBJECTIVE 2.1. FLOOD DAMAGE

Flood damage prevention shall be accomplished through restricting new development from obstructing the flow of water and increasing flood heights within a floodplain. To offset any loss of flood storage capacity, compensatory storage is required for new fill, or other obstruction, put in the floodplain by providing an at least equal volume to replace the lost flood storage volume.

POLICY 2.1.1.

The City shall protect the natural functioning values of the floodplains to the maximum extent feasible through wetland buffer requirements, compensatory storage, conservation easements and tree protection ordinances.

POLICY 2.1.2.

The City shall require all new development occurring within the 100-year floodplain to provide for the protection of adjacent properties.

POLICY 2.1.3.

The City shall regulate the deposition of fill material within a floodway in order to prevent damage to the public, as an uncontrolled river may, at flood state, pose a threat to life and property in excess of that anticipated by the 100-year storm in the floodway fringe areas.

POLICY 2.1.4.

Sites for the creation of compensatory storage volume, commensurate with any flood storage volume lost as a result of development activities (including roadways) in the 100-year floodplain, shall be on the same or adjacent site or within the same hydraulically connected basin in order to provide for effective storage volume within the floodplain, but shall not be located within land areas identified for preservation purposes, such as wildlife corridors, or as being within the jurisdictional wetland limits of regulatory agencies, except for the purpose of providing pretreated stormwater storage capacity.

CONSERVATION ELEMENT GOALS, OBJECTIVES AND POLICIES

POLICY 2.1.5.

Special Flood Hazard Areas shall be interpreted as that portion of the site lying within the boundaries of the 100-year floodplain based on the Official Federal Emergency Management Agency Flood Insurance Study and corresponding Flood Insurance Rate Maps.

POLICY 2.1.6.

The City shall ensure that fill material or other structures do not adversely obstruct the movement of floodwaters natural overland sheetflow or pose a threat to the public health, safety, and welfare.

POLICY 2.1.7.

Areas not filled within the floodplain are to be generally left in their natural state. However, such areas may be used to meet landscaping and/or retention requirements, provided that the design of development is consistent with City codes and standards.

OBJECTIVE 2.2. FLOODPLAIN MANAGEMENT

All development shall continue to be reviewed in accordance with the floodplain management criteria of the City's Flood Hazard Area section of the Land Development Code, as amended, and other applicable policies as contained within the Code of Ordinances and the Comprehensive Plan.

POLICY 2.2.1.

The City shall constantly enforce the flood hazard provisions of Chapter 3, Article II of the Land Development Code which shall contain, at a minimum, provisions for:

- a. Restricting or prohibiting uses which are dangerous to health, safety, and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities;
- b. Requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
- c. Controlling the alteration of natural floodplains, stream channels, and natural protective barriers, which help accommodate or channel flood waters;
- d. Controlling filling, grading, dredging, and other development which may increase flood damage; and,
- e. Preventing or regulating the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards in other areas.

POLICY 2.2.2.

The City shall continue to develop and enforce a floodplain management program that balances the public interest in regulating the use of private property against the interests of private landowners.

POLICY 2.2.3.

The City shall continue to participate in the National Flood Insurance Program.

POLICY 2.2.4.

All development, rezoning, and changes in land classifications shall be reviewed and measured against the environment's capacity to accommodate such action and the extent of harm which the proposed development, rezoning and change in land use may impose upon the established and proper use of neighboring lands.

POLICY 2.2.5.

The City shall periodically review its zoning regulations to ensure that the density which is permitted under each zoning category is consistent with the City's desire to protect the natural functioning values of the floodplain and to protect the quality and quantity of surface water resources.

POLICY 2.2.6.

Floodplains whose functional values have been degraded or destroyed through human intervention should be restored, if possible, by acquisition of historic floodplain lands. Various state, regional and local land acquisition programs shall be used for this purpose.

POLICY 2.2.7.

The City shall perpetually enforce the flood hazard provisions of the Land Development Code and amend it as necessary to incorporate recently updated flood insurance studies and flood insurance rate maps and to further bring it into full compliance with revisions of the national flood insurance program floodplain management criteria.

POLICY 2.2.8.

All new public buildings and infrastructure shall be located outside the 100-year floodplain to the maximum extent feasible. Appropriate flood proofing measures shall be undertaken for any public buildings located within the floodplain. Any pump stations or other electrical and mechanical equipment shall be designed to be protected from physical damage by the 100-year flood.

**CONSERVATION ELEMENT
GOALS, OBJECTIVES AND POLICIES**

POLICY 2.2.9.

The City shall coordinate its floodplain management programs with appropriate Federal, State, regional, and local governments.

GOAL 3. GROUNDWATER

THE CITY SHALL SECURE PUBLIC HEALTH, SAFETY, AND GENERAL WELFARE, AND PROTECT THE QUALITY AND QUANTITY OF GROUNDWATER RESOURCES IN ORDER TO ENSURE A SAFE AND ADEQUATE WATER SUPPLY FOR PRESENT AND FUTURE GENERATIONS AND, TO PRESERVE GROUNDWATER RESOURCES PRESENTLY IN USE.

OBJECTIVE 3.1. SALTWATER INTRUSION AND RECHARGE

The City shall prevent saltwater intrusion by limiting potentially harmful water extractions and ensuring recharge occurs to the maximum extent practical and technically feasible.

POLICY 3.1.1.

Water conservation measures shall be maintained in the plumbing codes (e.g., require new construction to install water conserving plumbing fixtures) and shall be updated as the technology becomes available.

POLICY 3.1.2.

The City shall continue to deliver effluent for reuse as a component of its effluent disposal program to the maximum extent possible. This shall include “dry-line” requirements for new developments.

POLICY 3.1.3.

The City shall obtain water through interconnections with adjacent utility systems.

POLICY 3.1.4.

Potable water withdrawal from areas east of the County buffer zone shall be pumped at an appropriate volume and rate to avoid both saltwater intrusion and decreased aquifer levels. These actions shall be consistent with the City’s approved wellfield operating plan.

OBJECTIVE 3.2. INTERGOVERNMENTAL COORDINATION

Coordinate with Federal, State, regional, and other local agencies to develop intergovernmental responses to groundwater problems.

POLICY 3.2.1.

The City shall maintain and periodically review potable water supply wellfield protection standards, by designing land use controls that provide long-term protection from contamination, and by establishing criteria for regulations to ensure proper handling, utilization, storage, and

CONSERVATION ELEMENT GOALS, OBJECTIVES AND POLICIES

disposal of chemicals, fuels, and other hazardous materials within the City, to avoid groundwater contamination.

POLICY 3.2.2.

The City shall maintain formal lines of communication with Federal, State, and local agencies so that the City Police and Fire Departments can be prepared when hazardous materials are transported through the City.

POLICY 3.2.3.

On a continuous basis, the City's Engineering Division shall revise its estimates of safe yield for the Volusia-Floridan Sole Source Aquifer.

OBJECTIVE 3.3. AQUIFER PROTECTION

Excavation projects shall not harm the Volusia-Floridan Sole Source Aquifer.

POLICY 3.3.1.

The City shall prohibit removal of the confining layer of material separating the bottom of borrow pits from the top of the Volusia-Floridan Sole Source Aquifer.

OBJECTIVE 3.4. GROUNDWATER CONTAMINATION

The City shall act to prevent groundwater contamination and to ensure that any contamination will be quickly detected and subjected to a swift and effective response.

POLICY 3.4.1.

On a continuous basis, the City shall maintain its extensive water quality testing program at and near the City landfill in order to monitor groundwater quality parameters.

POLICY 3.4.2.

The City shall maintain and periodically review the provisions of the Land Development Code concerning abandoned gasoline tanks, to comply with applicable State and County regulations.

POLICY 3.4.3.

Groundwater resources shall be protected from leaking underground storage tanks by the utilization of state-of-the-art leak prevention technology (such as double-walled storage tanks).

OBJECTIVE 3.5. DEVELOPMENT

All requests for development shall be reviewed to ensure that potential impacts of the proposed development activity do not degrade the quantity and quality of groundwater resources.

POLICY 3.5.1.

Depending upon site locations and intensity of development, applicants for development may be required to provide the City with sufficient information for review of the potential impact on the groundwater resources of the City and region.

POLICY 3.5.2.

The City shall continue to require such information which shall include, but not be limited to, site hydrology, geology, geologic maps, surficial aquifer characteristics, confining unit definitions, water table contour map, direction and rate of groundwater flow, maximum/minimum recorded water table elevations, aquifer relationship to local geology, location of local discharge features, background water quality, suitability for irrigation and wastewater reuse, Volusia-Floridan Sole Source Aquifer characteristics, and potentiometric surface map.

POLICY 3.5.3.

Development within the zone of influence of wellfields shall be regulated and permitted to ensure no degradation of the quality and quantity of groundwater.

POLICY 3.5.4.

Fuel dispensing and storage facilities shall be prohibited within the zone of influence of any wellhead and wellfield.

POLICY 3.5.5.

To the maximum extent possible, the City shall encourage irrigation water to be furnished from community suppliers such as a City or neighborhood reuse system; and the City should discourage the use of individual non-potable wells.

POLICY 3.5.6.

The Volusia-Floridan Sole Source Aquifer should not be used to meet non-potable irrigation needs.

POLICY 3.5.7.

Individual well pumpage rates shall be matched to site specific hydrological characteristics in order to avoid excessive groundwater drawdowns in the Floridan Aquifer.

**CONSERVATION ELEMENT
GOALS, OBJECTIVES AND POLICIES**

POLICY 3.5.8.

The use of air/water heat pumps shall be consistent with the requirements of the Land Development Code.

GOAL 4. POTABLE WATER

THE CITY SHALL PROVIDE AN ADEQUATE QUANTITY AND QUALITY OF POTABLE WATER TO ACCOMMODATE EXISTING AND FUTURE DEMANDS WITHOUT HARMING GROUNDWATER RESOURCES.

OBJECTIVE 4.1. POTABLE WATER SERVICES

Provision of potable water services shall be extended where needed, economically feasible, and environmentally acceptable.

POLICY 4.1.1.

The City shall provide potable water service to existing or platted subdivisions throughout its service area.

POLICY 4.1.2.

The availability of groundwater supplies which may effectively be extracted, treated, and delivered in a cost-effective manner shall be a contingency for development approval.

OBJECTIVE 4.2. INTERGOVERNMENTAL COORDINATION

The City shall cooperate and coordinate the provision of water supplies with State, regional, and local governments.

POLICY 4.2.1.

The City shall cooperate with Volusia County through County grants or County established assessment districts to retrofit subdivisions approved by the County that were developed with individual wells, and are in need of central water service.

POLICY 4.2.2.

The City shall maintain a combined and connected series of finished water interconnects with adjoining utilities' water systems.

POLICY 4.2.3.

The City shall continue to cooperate with the St. Johns River Water Management District in dealing with water shortages and enforcing water use restrictions. Implementation of this policy shall include the following:

- a. Interpret District procedures associated with declaring and rescinding a water shortage;

CONSERVATION ELEMENT GOALS, OBJECTIVES AND POLICIES

- b. Designate one or more persons to be a liaison with the District concerning water shortage related matters and the enforcement of District water use restrictions;
- c. Amend its ordinance, as needed, to facilitate local enforcement of District water use restrictions;

OBJECTIVE 4.3. WATER CONSERVATION

In order to maintain adequate potable water supplies to meet public health, safety, and welfare needs and minimize adverse economic, social, and environmental impacts, the City shall encourage and require water conservation.

POLICY 4.3.1.

The City shall continue to participate in Local, District, State, and Federal public awareness programs to inform the public of the benefits of reducing water usage.

POLICY 4.3.2.

The City shall discourage the over-watering of lawns and other landscaping plants, particularly when automatically timed sprinkler systems are used. The City shall require the use of “rain sensors” as required by Florida Statutes.

POLICY 4.3.3.

The City shall continue to prohibit the sprinkling of lawns during hours of high evaporation potential.

POLICY 4.3.4.

Water reuse or water reclamation programs shall be used to reduce groundwater and surface water withdrawals for water use applications which do not require potable water. This requirement includes dry-lines for reclaimed water in new developments and the use of stormwater as a reclaimed water augmentation source, where feasible.

POLICY 4.3.5.

The City shall encourage the implementation of a combined effluent reuse system, with adjacent utility providers, including Holly Hill, Daytona Beach and Volusia County.

GOAL 5. VEGETATION

THE CITY SHALL PROVIDE FOR THE PROTECTION, ENHANCEMENT, AND MANAGEMENT OF SIGNIFICANT NATURAL VEGETATIVE COMMUNITIES IN ORDER TO MAINTAIN THEIR ECOLOGICAL, AESTHETIC, ECONOMIC AND RECREATIONAL VALUES.

OBJECTIVE 5.1. ECOLOGICAL COMMUNITIES

The City shall maintain and periodically review standards and programs that maintain upland ecological communities to the maximum extent feasible within the City.

POLICY 5.1.1.

An inventory of natural vegetative communities shall be provided by the applicant for all development proposals requiring site plan or plat approval. The applicant shall provide a plan for protection of species which are designated by either State or Federal agencies as endangered, threatened, or of special concern.

POLICY 5.1.2.

The City shall maintain, refine, and expand its FLUCCS inventory and make such information available to land developers.

POLICY 5.1.3.

Ecologically viable portions of natural upland plant communities including, but not limited to, rare or endangered ecosystems within proposed urban development sites, should be preserved and maintained in their original state, to the greatest extent practicable.

POLICY 5.1.4.

The City shall maintain and periodically review provisions in the Land Development Code to preserve the upland buffers of native vegetation; significant habitat area (including wildlife corridors); scenic vistas; areas where native vegetation is important to impede erosion, and other areas where the public interest is best served by preserving native vegetation.

CONSERVATION ELEMENT GOALS, OBJECTIVES AND POLICIES

POLICY 5.1.5.

The City shall maintain and periodically review standards that preserve the present forested tree cover to the maximum extent practical.

POLICY 5.1.6.

The City shall preserve designated canopy roads and Greenbelts as implemented by the Land Development Code.

POLICY 5.1.7.

The City shall minimize the clearing of trees for rights-of-way, to protect existing habitats as implemented by the Land Development Code.

POLICY 5.1.8.

Significant mesic or xeric communities shall not be disturbed or affected by water detention, retention, or reuse activities or structures as implemented by the Land Development Code.

OBJECTIVE 5.2. HABITAT AND DEVELOPMENT

Balance the combination of aesthetic, ecological, recreational and utilitarian qualities of the land for the long-term public interest.

POLICY 5.2.1.

Require habitat corridors and buffers of sufficient length and width to protect the long-term viability of significant habitat areas, for designated plant and animal species.

POLICY 5.2.2.

The development plan review process shall consider the overall impact of a project on adjoining ecosystems.

POLICY 5.2.3.

Require property owners to protect wetland systems in accordance with the criteria and standards for each wetland classification as noted under Objective 5.4 of this Element and in the City Wetlands Protection section of the Land Development Code, Chapter 3, Article II.

POLICY 5.2.4.

In cooperation with adjacent governmental entities, ensure the survival of significant habitat areas, habitat corridors and specimen trees.

POLICY 5.2.5.

Work with adjacent governmental entities to ensure that planned wildlife corridors are contiguous and provide for unimpeded movement of wildlife.

POLICY 5.2.6.

Manage undeveloped City-owned lands for the long-term public interest, doing so in a manner by which the City sets an example for private development to follow. For example, the City should follow Ecosystems Management Practices as defined by the Department of Environmental Protection when applicable.

POLICY 5.2.7.

Development may incorporate isolated wetlands into effective stormwater management systems, provided that the stormwater runoff is treated prior to entering any wetland system, so that the wetland is used for nutrient and volume attenuation.

POLICY 5.2.8.

Make land use decisions in conjunction with the carrying capacity of the land and its ecosystems.

POLICY 5.2.9.

On a continuous basis, the City shall study and upgrade as necessary its buffer width requirements for projects abutting waterways and wetlands.

POLICY 5.2.10.

On a continuous basis, the City shall coordinate and cooperate with contiguous governmental entities to protect environmentally sensitive vegetative habitats which extend into contiguous jurisdictions.

POLICY 5.2.11.

The area of land disturbed by development shall be as small as practicable. Those areas which are not to be disturbed shall be protected by an adequate barrier from construction activity. Whenever possible, natural vegetation shall be retained and protected.

POLICY 5.2.12.

Land that has been cleared for development and upon which construction has not commenced shall be protected from erosion by appropriate techniques designed to revegetate the area.

**CONSERVATION ELEMENT
GOALS, OBJECTIVES AND POLICIES**

POLICY 5.2.13.

Wherever feasible, site design shall accommodate any designated plant species with protected status which are in the path of development; where this is not feasible, these plants will be relocated to protected sites having appropriate growing conditions, whenever possible.

POLICY 5.2.14.

To preserve wetlands, the lateral distance of groundwater drawdown influence shall not adversely affect protected wetlands or their functions. The applicant shall demonstrate to the City Engineer through a series of borings or field permeability tests that the subsurface, groundwater, and permeability conditions shall not receive a significant negative impact. The applicant shall provide a calculation of the maximum horizontal or vertical drawdown that can be anticipated beyond the maximum perimeters of any borrow pit, detention, or retention area.

POLICY 5.2.15.

The City of Ormond Beach shall cooperate with Volusia County in the development of an interpretive/educational signage program along the Ormond Scenic Loop & Trail. The program shall include a requirement for signage and information that highlight the flora, fauna, land forms, water bodies and historical/archeological resources allocated along the corridor.

POLICY 5.2.16.

The City and Volusia County, in conjunction with the Ormond Scenic Loop & Trail Corridor Management Entity shall develop and implement a plan for safe, public parking to allow the safe enjoyment of the natural and scenic resources.

OBJECTIVE 5.3. NATIVE LANDSCAPING

The City shall promote the use of native drought-resistant vegetation in landscaping. The maximum amount of protection possible shall be provided for existing trees and other vegetation in order to assist in the control of flooding, soil erosion, dust, heat, air, and noise pollution and to improve the appearance, environmental character, and value of the total urban area and to protect nearby properties.

POLICY 5.3.1.

The City shall continue to promote and encourage xeriscape design concepts for landscaping single-family homes by providing builders, landscape designers, homeowners, and the general public with informational brochures describing xeriscape.

POLICY 5.3.2.

The City shall require that at least 50% of the landscape vegetation used on a project reviewed by the Site Plan Review Committee be comprised of drought resistant native vegetation in harmony with site specific conditions.

POLICY 5.3.3.

Vegetation on new City landscaping projects shall be comprised of at least 50% native drought resistant vegetation.

POLICY 5.3.4.

All new development and expansions of existing development, except for single-family homes in an existing subdivision, shall provide for the protection of native vegetation on the site. Existing developments should utilize native plants in common areas (entranceways, pavilions) in instances where replanting or relandscaping becomes necessary.

POLICY 5.3.5.

Native vegetation shall be used to the maximum extent possible to meet landscaping and open space requirements.

POLICY 5.3.6.

Exotic plant species, as listed as exempt species in Chapter 3, Article II of the Land Development Code, shall be removed from development sites during the time of construction.

POLICY 5.3.7.

Development shall preserve fifty (50%) percent of ecologically viable portions of natural upland plant communities, including rare or endangered ecosystems, present on-site.

OBJECTIVE 5.4. WETLAND PRESERVATION

Wetland areas within the City shall be preserved in accordance with a City that incorporates the need for wetlands preservation; directs incompatible uses away from wetland areas; promotes economic development that creates long-term jobs by establishing a means to allow wetland impacts for industrial land uses in platted industrial parks; inventories existing wetlands within the City; sets performance criteria to maintain wetland functions; establishes transition zones; and establishes land use policies for transition zones; and establishes standards for mitigation based on a policy of no-net-loss of wetland functions as a last resort.

**CONSERVATION ELEMENT
GOALS, OBJECTIVES AND POLICIES**

POLICY 5.4.1.

It is the policy of the City to require proper planning to avoid or minimize damage to wetlands; to require that activities not dependent upon a wetland location be located at 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 require silviculture to comply with all requirements; to provide for mitigation in the form of wetland restoration, wetland creation or upland preservation; to offset further losses; to promote economic development that creates long-term, value added jobs by allowing wetland impacts in excess of minimum requirements under certain conditions for commercial, industrial, and office/professional land uses, subject to applicable county, state and federal wetland regulations; and to provide for the protection of wetlands under the City's land development regulations to be adopted and implemented consistent with Section 163.3202, F.S.

POLICY 5.4.2.

Land use planning and site design shall support development patterns which minimize the impact of development on wetland communities. As a result of development, there shall be no net loss of wetlands functions or values, nor shall wetlands functions and values be degraded.

POLICY 5.4.3.

All development shall comply with wetland protection requirements of all Federal, State, and regional agencies.

POLICY 5.4.4.

The City shall require a wetland permit for any development that proposes to alter a wetland system and the permit shall clearly show the proposed alteration and mitigation. A Wetland Management Plan shall be required for all development that may adversely affect wetland systems and the requirements shall be contained in the Land Development Code.

POLICY 5.4.5.

No activities in or affecting wetlands shall destroy natural wetland functions important, unless otherwise mitigated, to the general welfare by:

- a. Decreasing breeding, spawning, nesting, wintering, feeding, or other critical habitat for fish and wildlife, including rare, threatened and endangered plant and animal species, commercially and recreationally important fish and wildlife and species of special concern;
- b. Interfering with the natural exchange of nutrients needed by fish and other forms of wildlife;
- c. Reducing groundwater recharge;
- d. Destroying sites needed for educational and scientific research.

POLICY 5.4.6.

The City shall continue to require and enforce the provision and maintenance of adequate and undisturbed upland buffers of native vegetation adjacent to the Halifax River, the Tomoka River, and all of their associated tributaries and wetlands.

A minimum shoreline requirement shall be applied for all new development to protect wildlife and marine life habitat areas and the adjacent surface water quality. The minimum shoreline setbacks shall be as follows:

- a. Tomoka River and the Little Tomoka River: A minimum of 120 feet from the mean high water mark or 50 feet from the upland/wetland interface line, whichever is greater. The minimum setback may be reduced where a planned overlay district is approved for sites where a bluff of ten feet (10') above the mean high water mark exists along the river.
- b. Halifax River: A minimum of 30 feet from the mean high water line or upland/wetland interface, or as stipulated by a specific zoning district rear yard setback contained in the Land Development Code, whichever is greater. The minimum setback may be reduced where a planned overlay district is approved for sites where a bluff of ten (10') feet above the mean high water mark exists along the river.
- c. Mosquito Control Ditches; Strickland, Dodson, and Thompson Creeks; and Misner's and Groover Branches: A minimum of 60 feet from the mean high water mark or 50' from the upland/wetland interface line, whichever is greater.
- d. For those waterways listed under "c" above, the shoreline and wetland setback may be adjusted downward on a case-by-case basis, to be no less than 30 feet from the mean high water mark or no less than 25 feet from the upland/wetland interface, whichever is greater. A request for a reduction may be considered, provided that the associated wetland and upland buffer areas are predominantly herbaceous in nature, and the functioning values of the wetland and upland buffer areas are poor for such factors as wetland wildlife quality, and quantity, and sediment and turbidity control and surface water runoff control. A determination to allow a reduction in the buffer width shall be based on a finding of conformance to all of the following criteria as conducted through the development review process:
 1. The developable portion of the property is less than 150 feet deep for existing lots of record, as of the date of adoption of the Comprehensive Plan.
 2. The proposed development shall be connected to a central water and sewer system.
 3. The proposed development shall not adversely impact the hydroperiod and other functioning values of the adjacent wetland as determined by review of a Wetlands Management Plan, which is required to be submitted under the Wetlands Protection Ordinance.
 4. The proposed development shall provide one-to-one mitigation for reduction in standard, by enhancing the functioning values of the on-site upland and wetland buffer areas.

CONSERVATION ELEMENT GOALS, OBJECTIVES AND POLICIES

POLICY 5.4.7.

The City shall maintain Land Development Code regulations consistent with the minimum standards for wetland protection as approved by Volusia County. These standards address the identification of wetlands, mitigation requirements to ensure that there is no net loss of wetlands within the City limits, and a minimum 25 foot wide buffer upland and adjacent to wetlands requirements.

POLICY 5.4.8.

All new development shall submit to the City a description of all watercourses, water bodies and wetlands on or adjacent to the site or into which surface waters flow. Information regarding their water quality and the current water quality classification, if any, given them by the Florida Department of Environmental Regulation, Army Corps of Engineers, St. Johns River Water Management District, and the Florida Department of Environmental Protection shall be included.

POLICY 5.4.9.

No development shall be approved unless it satisfies the provisions of the City's Land Development Code and the SJRWMD rules for Management and Storage of Surface Waters (MSSW), Chapter 40C-4, F.A.C.

POLICY 5.4.10.

The City will protect wetland systems through public acquisition or purchase of development rights, environmental conservation easements, cluster zoning, land banking and mitigation.

POLICY 5.4.11.

The City shall encourage the incorporation of isolated wetlands into stormwater management systems as detention facilities to avoid the filling and excavating of wetlands. Whenever isolated wetlands are used for stormwater detention, hydroperiods and stage elevations shall be designed to 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. In order to maintain the long-term viability of isolated wetlands used for retention, stormwater shall be treated to meet the general water quality criteria of c.62, F.A.C., prior to its discharge in isolated wetlands.

POLICY 5.4.12.

The City shall continue to investigate methods to safely utilize wetlands to further treat treated wastewater as an alternative to discharging effluent into the surface waters of the City.

POLICY 5.4.13.

Any drainage that occurs adjacent to a wetland will be separated by an adequate buffer, liner or other means to avoid changes in the wetland's hydroperiod.

POLICY 5.4.14.

Biological monitoring activities, including shallow groundwater levels, shall be undertaken by the developer at various locations for the purpose of evaluating wetland biological productivity and condition.

POLICY 5.4.15.

The applicant shall take positive steps to correct or mitigate any unnecessary degradation of water or wetland quality caused by site development as determined by St. Johns River Water Management District, the Florida Department of Environmental Protection, the Army Corps of Engineers, or the City.

POLICY 5.4.16.

Roadway designs in or near wetland areas will provide for the capture and diversion of stormwater runoff from roadway surfaces in wetland areas to upland stormwater retention/detention ponds for treatment prior to discharge into receiving water bodies.

POLICY 5.4.17.

On-site wastewater treatment systems shall not be allowed within 75 feet landward of the upland/wetland interface or the 100-year floodplain boundary or within 120 feet of the shoreline edge, whichever is more restrictive.

POLICY 5.4.18.

No wells shall be allowed to be constructed in wetlands.

POLICY 5.4.19.

Where artificially constructed lakes adjoin or are within 100 feet of a wetland, design elevations of such lakes will be controlled to maintain or recreate historic water levels and hydroperiods of the adjacent or nearby wetland system. Under no circumstances shall the lakes be allowed to draw down the water table within 300 feet of a wetland.

POLICY 5.4.20.

The City shall prohibit construction projects utilizing any dewatering process from discharging into a designated wetlands area.

**CONSERVATION ELEMENT
GOALS, OBJECTIVES AND POLICIES**

POLICY 5.4.21.

Limit the extensive utilization of fill material in uplands, if its utilization results in extensive or significant wetland alteration.

POLICY 5.4.22.

Wetlands shall not be used as primary sediment traps during 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.

POLICY 5.4.23.

The City shall prohibit direct discharge of stormwater into wetland areas.

POLICY 5.4.24.

The minimum distance between the edge of each stormwater retention/detention pond and adjacent wetlands shall be 300 feet, unless the St. Johns River Water Management District and/or the City accepts tests, calculations or other information furnished by the applicant through the permitting process which clearly demonstrates that deviation from the 300 feet distance would not degrade the wetlands in any way.

POLICY 5.4.25.

Although the use of wetlands for storing and purifying water is encouraged, care must be taken not to overload their capacity, thereby harming the wetlands and transitional vegetation. Wetlands should not be damaged by the construction of detention ponds.

POLICY 5.4.26.

Retention and detention ponds shall be used to retain and detain the increased and accelerated runoff which the development generates. Water shall be released from detention ponds into wetlands at a rate and in a manner approximating the natural flow which would have occurred before development.

POLICY 5.4.27.

Agricultural drainage ditches and mosquito control ditches that adversely affect the hydroperiod of natural wetland systems shall be prohibited.

POLICY 5.4.28.

Proposed activities which would destroy or degrade the function of wetlands shall not be permitted except where such activities are not contrary to the public interest and where there is no practical alternative which reduces or avoids impacts to wetlands. Unavoidable losses of

viable wetlands should be mitigated through the demonstrably successful restoration, creation or (where no other alternative is feasible) preservation of wetlands.

POLICY 5.4.29.

The purpose of mitigation is to offset unavoidable environmental impacts. Mitigation plans should consider the function of existing natural resources and provide comparable functions after mitigation is completed. Mitigation plans should maximize the preservation of existing natural resources. The mitigation plans shall consider the following methods, in order of priority in which they should be utilized:

- a. Avoiding the impact altogether by not taking a certain action or parts of an action;
- b. Minimizing impacts by limiting the degree or magnitude of the action or its implementation;
- c. Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;
- d. Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and
- e. Compensating for the impact by replacing or providing substitute resources or environments through creation of new wetlands, enhancement of existing wetlands or re-establishment of wetlands or significant upland areas which are no longer functioning due to significant alteration in the past.

POLICY 5.4.30.

Where all or part of a wetland is destroyed or substantially altered by development, an acceptable mitigation plan shall include at least:

- a. Compensatory wetland mitigation ratios shall be consistent with the ratio established for each wetland classification. Wetland-to-wetland compensation should be like kind replacement, i.e., saltwater system for saltwater system, freshwater for freshwater where practicable;
- b. Specific design requirements based upon conditions of the site and the type of wetland to be treated or restored;
- c. Periodic monitoring to remove exotic or nuisance vegetation;
- d. Monitoring and replacement to assure a survival rate of 80% wetland vegetation for a minimum of three (3) years; and
- e. An upland habitat as an adjacent buffer on mitigated sites.

POLICY 5.4.31.

An acceptable mitigation plan shall be reasonably and technically feasible. Mitigation through restoration of other degraded wetlands or preservation of significant upland areas is preferred over wetland creation.

**CONSERVATION ELEMENT
GOALS, OBJECTIVES AND POLICIES**

POLICY 5.4.32.

Mitigation shall take place as follows (ranked in preference): (1) on site or (2) in close proximity and within the same drainage basin or (3) an approved mitigation bank.

POLICY 5.4.33.

A mitigation plan approved by a Federal, State or regional agency shall be presumed to be acceptable provided, however, if no such mitigation plan is required by the approved permit from the Federal, State, or regional agency, then the local government may at its option adopt a mitigation plan in compliance with this section.

POLICY 5.4.34.

An applicant who carries out a compensatory mitigation plan shall at least grant to the City a conservation easement on the newly created or restored wetland and buffer or preserved significant upland area to protect it from future development. A legal mechanism which protects the area in perpetuity other than a conservation easement may be deemed appropriate on a case by case basis to carry out the purpose of the subsection.

POLICY 5.4.35.

The City shall utilize the Uniform Mitigation Assessment Method (UMAM), pursuant to Section 62-345, F.A.C., to determine the amount of mitigation needed to offset a wetland impact.

GOAL 6. FISH AND WILDLIFE

MAINTAIN, PROTECT, PRESERVE, OR INCREASE EXISTING NATIVE FISH AND WILDLIFE SPECIES IN TERMS OF OVERALL POPULATION AND DIVERSITY.

OBJECTIVE 6.1. CONSERVATION

The City and any development activity shall ensure that viable sized tracts of unique and significant natural habitat areas and wildlife corridors are preserved and protected with adequate buffers of native vegetation and an effective management plan in order to minimize the adverse effect of development or recreation activity on fish and wildlife. Fisheries, fishes, wildlife, and wildlife or marine life habitats shall be conserved, appropriately used, and protected, particularly those which are threatened, endangered, or of special concern.

POLICY 6.1.1.

The City shall maintain the provisions of the Land Development Code that incorporate 1) the creation of viable wildlife habitats and corridors and 2) the preservation of sustainable vegetative mosaics of significant native faunal and floral habitat and wildlife corridors into the development review process to ensure that natural habitat areas are protected to the maximum extent feasible on both site-specific and macro levels from the cumulative effects of growth and development.

POLICY 6.1.2.

If it is presumed that a designated species may be present on the basis of general characteristics including the number and types of plant communities, the linear amount of “edge” such as the boundaries between woods and grasslands, the presence of water, and the presence of movement corridors between habitat areas, the City shall require applicants for development to assess the impact of development on designated species. Designated species shall include those classified, by either the Florida Game and Freshwater Fish Commission or the U.S. Fish and Wildlife Service, as endangered, threatened, or species of special concern, or those species actively being considered for designation. When estimating the impact of proposed development, the applicant may be required to conduct an inventory of existing wildlife and vegetation on the site.

POLICY 6.1.3.

No more than 20% of the habitat area for designated species may be disturbed, whether cleared, filled or otherwise altered. Any development which disturbs designated species habitat areas shall prepare a workable management plan for those affected species. Such management plan shall be reviewed and approved by the respective State agencies.

CONSERVATION ELEMENT GOALS, OBJECTIVES AND POLICIES

POLICY 6.1.4.

The City shall monitor and review development and recreation activities, in conjunction with other agencies, along the Tomoka River and its tributaries to identify the impacts that development and recreation have on fish and wildlife within the rivers' and creeks' riparian wildlife corridor.

POLICY 6.1.5.

In order to maintain the biological integrity of the riparian wildlife corridor associated with the Tomoka River and its tributaries, the City shall continue to ensure that the width of the corridor does not diminish below present levels by preserving all connected wetland areas and requiring upland and shoreline buffers.

POLICY 6.1.6.

The City shall coordinate with the St. John's River Water Management District (SJRWMD) to inventory and analyze the extent of wildlife and make recommendations to maintain or prevent the significant decline of wildlife diversity in SJRWMD designated Riparian Habitat Protection Zones.

POLICY 6.1.7.

The City shall maintain in the development review process the review and consideration of the cumulative and macro level impacts upon native faunal and floral species, their habitats, and wildlife corridors.

POLICY 6.1.8.

The City shall cooperate with local, State, regional and Federal agencies as needed to update inventory and analysis of the quantity and quality of existing aquatic and terrestrial habitat and movement corridors.

POLICY 6.1.9.

The City will enforce riparian wildlife corridor standards to prevent the diminishing of wildlife diversity beyond the baseline diversity similar to but not less than six-hundred (600') foot St. John's River Water Management District (SJRWMD) Tomoka River Riparian Habitat Protection Zone.

POLICY 6.1.10.

On a continuous basis, the City shall update its Land Development Code to incorporate the most recent information and to best ensure protection of sea turtles.

POLICY 6.1.11.

The City shall prohibit the release of balloons into the atmosphere, except for balloons associated with educational, scientific, or transportation purposes.

POLICY 6.1.12.

The City shall maintain standards, within the land development regulations for identification and preservation of floral and faunal habitats and wildlife corridors.

POLICY 6.1.13.

Site development related activities shall not result in the harming, pursuit, or harassment of wildlife species classified as endangered, threatened or a species of special concern by either the State or Federal governments in contravention of applicable State or Federal laws. Should such species be determined to be residing on, or be otherwise significantly dependent upon the project site, the developer shall cease all activities which might negatively affect that individual or population and immediately notify the Florida Game and Freshwater Fish Commission or Florida Department of Environmental Protection, the United States Fish and Wildlife Service, and the City. Proper protection and habitat management, to the satisfaction of all agencies, shall be provided by the developer.

POLICY 6.1.14.

To minimize dependency on groundwater for irrigation and to prompt retention of wildlife habitat, native vegetation shall be utilized in landscaping to maximum extent practicable.

POLICY 6.1.15.

The City shall ensure that protected and designated environmental system corridors remain intact even after annexation.

POLICY 6.1.16.

If a habitat mitigation plan is required by an agency, the City shall ensure that the applicant provides for on-site direct supervision during the construction process and any post-construction modifications. Permit conditions of other agencies shall be submitted to the City and enforced.

POLICY 6.1.17.

The City shall encourage the Volusia Council of Governments to maintain a clearinghouse for environmental and natural resource studies and recommendations by both public and private organizations.

CONSERVATION ELEMENT GOALS, OBJECTIVES AND POLICIES

POLICY 6.1.18.

Marinas shall not be permitted in areas which are determined to be critical to the survival of the manatee. This includes the Tomoka River, Thompson Creek, Strickland Creek, and Dodson Creek. In addition, construction of new or the expansion of existing boat facilities in these areas shall be consistent with the Manatee Protection Plan for Volusia County dated August 23, 2005 (adopted by Volusia County on September 8, 2005) and the requirements of the City of Ormond Beach Land Development Code, whichever is more restrictive.

POLICY 6.1.19.

Where a site is found to be inhabited by a gopher tortoise population that meets or exceeds the Florida Game and Freshwater Fish Commission's threshold of "significant" gopher tortoise habitat or which comprises part of a gopher tortoise population that may, in the aggregate, meet or exceed this threshold, the property owner shall protect such habitat areas through the use of conservation easements, deed restrictions, or common open space areas. As an alternative, gopher tortoises may be relocated only in conformance with an approved gopher tortoise relocation plan.

POLICY 6.1.20.

Any bridge or road crossings over water bodies and/or wetlands shall be designed and constructed to minimize the right-of-way width, minimize overstory removal, and provide adequate space under the span of road to accommodate large wildlife movement and shall not impede anticipated water flows.

POLICY 6.1.21.

Land development proposals shall be reviewed to protect the natural functions of ecologically viable wildlife, fisheries and marine habitats. Applicants for development shall prepare a suitable alternative management plan, as per Policy 6.1.2, when local, State, or Federally listed vegetative, wildlife and marine species occur within project boundaries.

POLICY 6.1.22.

The City shall maintain development review standards for projects which impact habitats of endangered and threatened species or species of special concern. The type and occurrence of such habitats shall be as determined by the City, the County or the appropriate Federal (USFWS) and State (FGWFC, FDEP, ECFRPC) agencies. These review standards shall address at minimum:

- a. Proper siting of development structures and infrastructure, including clustering of dwelling units or buildings away from such habitats;
- b. Management plans which protect fish and wildlife designated as endangered, threatened or species of special concern;

- c. Mitigation plans for such habitat which is unavoidably altered;
- d. Restrictions on the use of such habitats to those which are found to be compatible with the requirements of wildlife species which are threatened, endangered, or of special concern.

POLICY 6.1.23.

The City shall establish management plans for specific endangered and otherwise designated species. At minimum, these plans shall:

- a. Provide for the coordination of Federal, State, local, and private activities involving protection of the particular species;
- b. Establish public education programs;
- c. Provide for the minimization of activities which directly or indirectly adversely impact the particular species listed above; and
- d. Establish standards for habitat protection, and/or relocation of species, where appropriate.

POLICY 6.1.24.

The City shall establish and maintain programs to reduce, and eliminate, where possible, pollution activities which adversely impact endangered species, including illegal dumping of solid and hazardous waste, littering near open water bodies, and the outdoor release of balloons.

POLICY 6.1.25.

Marine, brackish, and freshwater habitats necessary for the continued ecological stability of fisheries and water-depending wildlife shall be identified and protected through, at minimum, coordination with the Florida Game and Freshwater Fish Commission, Florida Department of Environmental Protection, and other governmental agencies as appropriate.

POLICY 6.1.26.

The City shall continue to ensure the protection of manatees by, at minimum: supporting the Tomoka River Manatee Sanctuary; supporting the regulation and enforcement of boat speeds; regulating safety and water sport activities; utilizing the boat facility siting plan in Phase II of the Manatee Protection Plan for Volusia County dated August 23, 2005; monitoring and ensuring the proper maintenance of extensive signage denoting manatee habitat and associated boat speed zone; requiring mitigation through contributions to the Manatee Conservation Fund; and ensuring the distribution of educational materials about manatees and their protection at boat launch and marina facilities. All manatee protection measures shall be consistent with the Manatee Protection Plan for Volusia County dated August 23, 2005 (adopted by Volusia County on September 8, 2005).

CONSERVATION ELEMENT GOALS, OBJECTIVES AND POLICIES

POLICY 6.1.27.

Land use activities adjacent to the following areas:

- Open space/conservation areas and recreation/open space areas designated in the Future Land Use and Recreation/Open Space Elements;
- Tomoka Marsh Aquatic Preserve;
- Tomoka River Manatee Sanctuary;
- Tomoka River OFW;
- Tomoka State Park; and
- Wetlands,

shall be limited to non-intensive uses such as Environmental Systems Corridors, Agriculture, rural, or low density residential and office/professional or neighborhood commercial. All proposed land use activities must ensure that such activities will not degrade the natural physical, biological, aesthetic, or recreational functions of such lands and shall provide for the preservation and protection of such areas in accordance with the appropriate standards including, but not limited to, setback requirements, buffers, wetland and floodplain policies.

POLICY 6.1.28.

Planning and approval of development projects shall avoid adverse impacts to species listed as endangered, threatened or species of special concern to the greatest extent practicable. Where suitable habitat on a project site is utilized by a listed species, a management plan designed to minimize harm to the species and its habitat should be prepared by the developer and adherence to the plan made a condition of development approval. Management plans shall be reviewed and approved by the appropriate State agency (FGFWFC or FDEP) and the U.S. Fish & Wildlife Service prior to their approval by the City.

POLICY 6.1.29.

The City shall support the protection of critical habitat for endangered and threatened species to the maximum extent feasible. “Critical habitat” shall include those habitat types, or specific geographical locations, which are designated as such by the USFWS, NMFS, FGFWFC, FDEP, FDACS, or the RPC.

GOAL 7. USES OF NATURAL RESOURCES

THE CITY SHALL PROVIDE FOR THE PROTECTION AND SENSITIVE USE OF NATURAL RESOURCES THROUGH DEVELOPMENT REGULATIONS AND PUBLIC PROGRAMS.

OBJECTIVE 7.1. LAND ACQUISITION

The City shall support the acquisition of unique or environmentally significant properties for public conservation reservations and maintain its proposed level-of-service for passive parks.

POLICY 7.1.1.

Upon adoption of the Comprehensive Plan, the City shall require developments along the Tomoka River and its tributaries with individual properties of five acres or larger to include all wetlands in a conservation easement to the City. The easement shall not prohibit the construction of an elevated wooded catwalk to the waterway, provided the construction is done in the most environmentally sound manner. Developments, when property along a waterway or wetland is divided into tracts of less than 5 acres, shall put those wetlands in either public or semipublic (e.g., homeowner's association) control; properties with multiple riparian ownership of less than 5 acres which are under homeowner association control shall grant a conservation easement to the City. For lots of less than 5 acres, if part of a subdivision project, only one community dock shall be allowed.

POLICY 7.1.2.

On a continuous basis, the City shall consider acquisition of vacant lands abutting the Tomoka River, its tributaries, Dodson Creek and the Halifax River.

POLICY 7.1.3.

The City shall, in coordination with local and State agencies, participate in a strategy to acquire environmentally sensitive lands.

OBJECTIVE 7.2 IMPACT ASSESSMENT

All development activities shall properly assess impacts on the environment and provide an effective mitigation plan as required.

CONSERVATION ELEMENT GOALS, OBJECTIVES AND POLICIES

POLICY 7.2.1.

The City shall require Environmental Assessment Reports for all planned unit developments, subdivisions, and other development that must comply with the special requirements of the residential suburban zoning district and that must prepare a water management plan in accordance with the provisions of the Land Development Code.

OBJECTIVE 7.3. SUSTAINABILITY

Promote energy conservation techniques such as the use of alternative and renewable energy sources thereby increasing energy efficiency.

POLICY 7.3.1

Encourage the production and use of energy generated from renewable resources.

POLICY 7.3.3

The built environment and urban design should maximize natural areas and assets and incorporate Florida Friendly landscaping to reduce energy and water consumption.

POLICY 7.3.4

Create, protect and manage systems of green infrastructure (i.e., urban forests, parks and open spaces, green roofs, natural drainage systems).

POLICY 7.3.5

Protect and enhance green spaces to provide natural carbon sinks in soils, vegetation, and streambeds to mitigate carbon emissions.

POLICY 7.3.6

Encourage site design techniques that restore natural “green infrastructure” (i.e., urban forests, parks and open spaces, natural drainage systems) instead of relying solely on engineered systems that require higher energy and carbon inputs.

GOAL 8. AIR QUALITY

MAINTAIN THE PRESENT HIGH LEVEL OF AIR QUALITY FOR HUMAN HEALTH, SAFETY, AND WELFARE, AND PROTECTION OF THE NATURAL ENVIRONMENT.

OBJECTIVE 8.1. STANDARDS

Prevent the degradation of the City's air quality below baseline standards.

POLICY 8.1.1.

No industrial or commercial business which emits air pollutants which would degrade the City's ambient air quality will be permitted unless it can be proven to the City that all available pollution control devices and practices will be installed as a part of the development upon occupancy.

POLICY 8.1.2.

The City shall encourage alternative modes of transportation by promoting the use of bicycles by building more bike lanes, bike paths, and bike racks, and requiring more improved pedestrian sidewalks.

POLICY 8.1.3.

The City shall support, by Resolution, an inspection program by the Police Department to identify vehicles which fail to meet pollution control standards as mandated by Florida Statutes.

POLICY 8.1.4.

New facilities housing the young, the elderly or the handicapped shall be prohibited from locating near point air pollution sources and vice versa. Playgrounds and active recreation areas shall also be located a safe distance from these sources.

POLICY 8.1.5.

Construction, excavation, and land clearing activities shall minimize the exposed ground surface area. Any area that is to be exposed for an extended time period shall be mulched or sodded.

POLICY 8.1.6.

In the interest of safety and air quality control, residential development shall construct a system of bikeways or provide for bicycles in the construction of the internal roadway system which will provide bicycle travel between:

- a. Homes and schools

**CONSERVATION ELEMENT
GOALS, OBJECTIVES AND POLICIES**

- b. Homes and employment centers
- c. Homes and neighborhood commercial centers.

POLICY 8.1.7.

External bicycle systems which provide for bicycle traffic to adjacent residential, employment, and educational centers shall be connected by development and the provision for facilitating the movement of bicycle traffic to nearby external residential, employment and educational centers shall be considered during the site plan review process.

POLICY 8.1.8.

Bicycle lockers or bicycle racks, transit passenger shelters and transit parking bays shall be constructed where necessary to augment and facilitate the operations of off-site transit and bicycle facilities.

POLICY 8.1.9.

The City shall continue to require all buildings scheduled for demolition or renovation be surveyed by the applicant for the presence of asbestos. Asbestos shall be removed prior to demolition. Any asbestos removal and disposal shall be performed by a contractor licensed by the Florida Department of Professional Regulation.

POLICY 8.1.10.

The City shall enforce Section 104.1.10 of the currently adopted Florida Building Code in regard to asbestos removal during demolition or construction activities.

OBJECTIVE 8.2. SITE PLAN REVIEW

The City shall review through the site plan review process the change in levels of air pollutants considered hazardous to health or damaging to property (including but not limited to carbon monoxide, sulfur oxides, hydrocarbons, particulates, nitrogen oxides, photochemical oxides); the effective or visual aesthetics, in terms of opacity and shade of emitted smoke plumes.

POLICY 8.2.1.

The City shall require all industrial and certain commercial development and residential development to prepare an Environmental Assessment Report to analyze and estimate the net change in levels and distribution of pollution caused by the development activity.

POLICY 8.2.2.

The shade and opacity of smoke emitted from developments can be quickly determined by a trained inspector making comparisons with a Ringelmann Chart, which is simply a set of illustrations of different densities.

POLICY 8.2.3.

Development activity which creates an odor on the scale of 2, 3, or 4 shall be located at sufficient distances from residential neighborhoods to reduce the odor to, at minimum, a level of 1.

The intensity of odors can most simply be determined by using a zero-to-four scale, as follows:

- 0 No sensation of odor.
- 1 Just detectable odor (the threshold dilution).
- 2 Distinct and definite odor whose unpleasant characteristics are revealed or foreshadowed (the recognition threshold).
- 3 Odor strong enough to cause a person to attempt to avoid it completely.
- 4 Odor so strong as to be overpowering and intolerable for any length of time.

POLICY 8.2.4.

Air modeling shall be accomplished using guidelines adopted by the FDEP or, if none are adopted, using a methodology agreed upon by the City, Volusia County, and FDEP. If the air modeling specified above results in any predictions of one hour or eight hour CO concentrations at or above the Federal and State standards, then ambient air monitoring for CO will be conducted at an appropriate locations(s) determined by the City of Ormond Beach, Volusia County, FDEP and the East Central Florida Regional Planning Council. This monitoring will meet all applicable State and Federal standards for CO monitoring including season, location, duration, instrumentation, quality control and quality assurance.

POLICY 8.2.5.

Should the air monitoring specified above indicate that a violation of Florida Ambient Air Quality (FAAQ) standards has occurred, and the modeling indicates that ten (10%) percent or more of the CO is attributable to project traffic, then the applicant shall pursue one or any combination of the following until modeling indicates that the FAAQ's will be achieved:

- a. Not commence the next development or monitoring phase;
- b. Participate in cost-sharing of roadway improvements;
- c. Implement an active Transportation System Management program.

**CONSERVATION ELEMENT
GOALS, OBJECTIVES AND POLICIES**

GOAL 9. MINING AND MINERALS

MINING EXTRACTION ACTIVITIES SHALL BE CONDUCTED IN A MANNER THAT MINIMIZES IMPACT ON THE ENVIRONMENT AND SURROUNDING LAND USES.

OBJECTIVE 9.1. SAFETY STANDARDS

Mineral extraction activities shall be accomplished in a manner consistent with applicable aesthetic, engineering, environmental, health, noise, recreation, and safety standards.

POLICY 9.1.1.

The City shall maintain the provisions of the Land Development Code concerning effective mineral extraction to achieve an aesthetically pleasing landscape compatible with adjacent land uses. Native vegetative buffers shall be used minimize soil erosion. Buffers shall also be established between the mining activity and adjacent existing and planned future land uses.

POLICY 9.1.2.

On a continuous basis, the City shall coordinate with local governments, the FDEP and SJRWMD to ensure that the mined areas are reclaimed in accordance with current law and permit conditions.

POLICY 9.1.3.

If a mine requires “dewatering”, the discharge shall occur from one cell of the project site to another cell. Off-site discharge shall be prohibited.

OBJECTIVE 9.2. HISTORIC SITES

Mineral extraction activities shall “respect” paleontological, archaeological, and historic sites.

POLICY 9.2.1.

The City shall initiate cooperative efforts with other government agencies and private organizations to identify and evaluate existing or potential extraction sites that are likely to contain significant paleontological, archaeological or historical resources.

POLICY 9.2.2.

Any excavation or mining activity which uncovers or appears to be disturbing archaeological or paleontological resources shall be held in abeyance until a preliminary assessment can determine the probability of significant archaeological or paleontological assets.

POLICY 9.2.3.

The City shall maintain the regulations in the Land Development Code that regulate the process for dealing with potential archaeological or paleontological resources. This shall include cooperation with the Museum of Arts and Sciences, the Volusia Anthropological Society, and the State Bureau of Historical Resources.

OBJECTIVE 9.3. COMMUNITY BENEFIT

Mineral extraction activities will generate a net benefit to the community.

POLICY 9.3.1.

The City shall require developers or owners to provide restoration plans for new or currently active borrow pits, so that once the material extraction has been completed, the former pits will continue to benefit the overall community.

POLICY 9.3.2.

The City shall require dry hydrants be installed at appropriate sites adjacent to strategically located borrow pits, to ensure an adequate fire protection capacity.

POLICY 9.3.3.

Mining operators shall demonstrate financial responsibility to pay for necessary corrective actions or repairs to roadways, buildings, other structures, groundwater, or surface water and to reclaim the site to prescribed specifications upon completion of mineral extraction activities.

OBJECTIVE 9.4. RESOURCE PROTECTION

Mining activities shall not adversely affect the quality of air, groundwater and surface water and land and wildlife.

POLICY 9.4.1.

Phasing of extractive activities shall be used as a device to assure that only small areas are affected by such activities at one time.

POLICY 9.4.2.

The City shall require that a geophysical log series (from wells or other acceptable means) be prepared for the proposed site to assess the hydrogeologic character of the site.

**CONSERVATION ELEMENT
GOALS, OBJECTIVES AND POLICIES**

POLICY 9.4.3.

Mineral and sand extraction activities shall not remove or disturb any impervious layer (e.g., clay) that naturally segregates the surficial aquifer from the Floridan Aquifer.

POLICY 9.4.4.

Once extraction ceases, appropriate usage limits regarding septic and stormwater systems are to be implemented to ensure protection of surface water, groundwater and the Volusia-Floridan Sole Source Aquifer.

POLICY 9.4.5.

Formerly mined areas may not be incorporated into a stormwater retention or detention system until an engineering, hydrologic, or hydrogeologic determination has been made showing an adequate confining layer, segregating water in the pit from the Volusia-Floridan Sole Source Aquifer.

GOAL 10. HAZARDOUS WASTES

THE CITY SHALL ENSURE THAT THE GENERATION, USE, STORAGE, TRANSPORTATION, AND COLLECTION OF HAZARDOUS OR TOXIC CHEMICALS, MATERIALS, OR SUBSTANCES WITHIN THE CITY SHALL CONSTITUTE NO SIGNIFICANT THREAT TO THE GENERAL HEALTH, SAFETY, AND WELFARE.

OBJECTIVE 10.1. SARA TITLE III COMPLIANCE

The City shall ensure compliance with SARA Title III provisions and shall ensure the proper management of hazardous materials to protect the public health, safety, and welfare and to protect natural resources.

POLICY 10.1.1.

The City shall continue to identify all industries and businesses within its boundaries which generate, use, or store hazardous or toxic chemicals, materials, or wastes.

POLICY 10.1.2.

The Fire Department shall maintain the information from Policy 10.1.1 (above) in its computer database.

POLICY 10.1.3.

The City shall continue a public information campaign oriented to industries, businesses, and homes to educate people about safe use and disposal of hazardous or toxic substances.

POLICY 10.1.4.

The City, in conjunction with the Central Florida Local Emergency Planning Committee (LEPC) shall regulate and manage hazardous waste to protect the public health, safety and welfare and to protect natural resources as per the standards and guidelines established under Goal 3.2 in the Utilities Element.

OBJECTIVE 10.2. EMERGENCY PREPAREDNESS

The City shall be fully prepared for a hazardous or toxic accident or incident, with up-to-date plans, training, and equipment.

POLICY 10.2.1.

On a continuous basis, the appropriate personnel shall be kept abreast of the appropriate accident/incident response training.

**CONSERVATION ELEMENT
GOALS, OBJECTIVES AND POLICIES**

POLICY 10.2.2.

On a continuous basis, up to date monitoring and accident/incident response equipment shall be maintained in quantities specified by Federal or State guidelines.

POLICY 10.2.3.

The City shall update its Hazardous Materials Response Plan on a continuous basis.

POLICY 10.2.4.

The City shall attempt to recover from any potentially liable third party any cost that it incurs from any hazardous or toxic accident/incident.

GOAL 11. SOIL AND EROSION

THE CITY SHALL ENSURE THE APPROPRIATE CONSERVATION AND USE OF SOIL RESOURCES.

OBJECTIVE 11.1. DEVELOPMENT

Incorporate the inherent limitation of existing soils in land planning and development, and minimize impacts, which result in soil erosion.

POLICY 11.1.1.

Prior to any land disturbance associated with land development activities, except in previously approved subdivisions, the applicant shall indicate on a site plan those areas of highly erodible soils, as defined by the U.S. Department of Agriculture Soil Conservation Service, and avoid and minimize disturbance to those areas to the maximum extent feasible.

POLICY 11.1.2.

Building and other construction in soils which are determined to be hydric in character, as defined by the USDASCS and the Florida Department of Agriculture, shall be prohibited except to accommodate an overriding public interest and except as allowed within the wetland regulations.

POLICY 11.1.3.

The City shall require excavation sites to be designed and executed to resemble and function as natural systems.

POLICY 11.1.4.

Residential site design shall be based on data contained in the U.S. Soil Conservation Service's soils report, unless a detailed soils analysis is undertaken and accepted by the City and the USDASCS regional field or State soil scientist.

POLICY 11.1.5.

The applicant of proposed development activities shall be responsible for implementing measures prior to and during construction activities on the project site to ensure that sedimentation and/or erosion problems are not created in receiving wetlands or other water-bodies.

**CONSERVATION ELEMENT
GOALS, OBJECTIVES AND POLICIES**

POLICY 11.1.6.

Septic tanks shall not be located in areas designated by the U.S. Soil Conservation Service as having severe or moderate limitations for septic tank development.

POLICY 11.1.7.

In connection with development, all swales, retention, and detention areas shall be sodded or vegetated to help prevent erosion and facilitate efficient maintenance.

GOAL 12. LOW IMPACT DEVELOPMENT

FOR NEW DEVELOPMENT AND REDEVELOPMENT, APPLY BETTER SITE DESIGN AND LOW IMPACT DEVELOPMENT (LID) TECHNIQUES, AND PURSUE COMMITMENTS TO REDUCE STORMWATER RUNOFF VOLUMES AND PEAK FLOWS, TO INCREASE GROUNDWATER RECHARGE, AND TO INCREASE PRESERVATION OF UNDISTURBED AREAS.

OBJECTIVE 12.1. LAND DEVELOPMENT CODE AMENDMENTS

By 2010 the City shall amend the Land Development Code to implement Low Impact Development techniques.

POLICY 12.1.1.

Integrate into the Land Development Code (LDC) the source control concept which places a greater importance on managing smaller, cost-effective landscape features located on each lot rather than through costly pipe and pond stormwater management design.

POLICY 12.1.2.

Maintain or improve infiltration, frequency and volume of discharges, and groundwater recharge by placing greater emphasis on reducing pervious surfaces, functional grading, open channel sections, and the increase use of bioretention/filtration landscaped areas.

POLICY 12.1.3.

Integrate alternative stormwater management practices such as on-lot microstorage, functional landscaping, open drainage swales, reduced imperviousness, flatter grades, increased runoff travel time, and depression storage into a multifunctional site design.

POLICY 12.1.4.

Reduce the use of centralized best management practices (BMPs) such as storm water ponds through the use of Integrated Management Practices (IMPs) which are distributed in small portion of a lot or parcel and near the source of impacts.

POLICY 12.1.5.

Amend the LDC and Construction Details to permit LID designs that can significantly reduce development costs through smart site design by:

- Reducing impervious surfaces (roadways), curb, and gutters;
- Decreasing the use of storm drain piping, inlet structures, and
- Eliminating or decreasing the size of large stormwater ponds.