

CONSERVATION ELEMENT

Definitions:

LISTED SPECIES – Those species designated as endangered, threatened, or of special concern.

PROTECTED – Refers to official federal, state, or internationally treaty lists which provide legal protection for rare and endangered species.

THREATENED SPECIES – Species that are likely to become endangered in the state within the foreseeable future if current trends continue. This category includes: (1) species in which most or all populations are decreasing because of over-exploitation, habitat loss, or other factors; (2) species whose populations have already been heavily depleted by deleterious conditions and which, while not actually endangered, are nevertheless in a critical state; and (3) species which may still be relatively abundant but are being subjected to serious adverse pressures throughout their range.

ECOSYSTEM – An assemblage of living organisms (plants, animals, microorganisms, etc.) and nonliving components (soils, water, air, etc.) that function as a dynamic whole through organized energy flows.

ENDANGERED, THREATENED, AND SPECIES OF SPECIAL CONCERN (referred to as listed species) – Plant and animal species listed as endangered, threatened, or of special concern by one or more of the following agencies:

1. U.S. Fish and Wildlife Service
2. Florida Game and Fresh Water Fish Commission
3. Florida Committee on Rare and Endangered Plants and Animals
4. Florida Department of Agriculture
5. Treasure Coast Regional Planning Council

Goals, Objectives and Policies

GOAL 6.1.: PRESERVE, MANAGE, OR RESTORE THE NATURAL RESOURCES IN THE CITY TO ENSURE THEIR SUSTAINABILITY, HIGH QUALITY, AND CRITICAL VALUE TO THE QUALITY OF LIFE IN THE CITY OF PALM BEACH GARDENS.

Objective 6.1.1.: Maintain development regulations to manage surface and sub-surface water resources in a manner which ensures their viability as natural habitats and utility for recreational and potable water uses. Furthermore, the regulations shall protect and maintain the quality and quantity of waters that flow into estuarine waters in the City.

Policy 6.1.1.1.: The City shall continue to maintain drainage regulations to ensure best management practices are required.

Policy 6.1.1.2.: The City shall continue to maintain land development regulations to ensure that:

- a. Site plans for new development identify the location and extent of wetlands located on the property;
- b. Site plans provide measures to assure that normal flows and quality of water will be provided to maintain wetlands after development;
- c. Where alteration of wetlands is necessary in order to allow reasonable use of property, either the restoration of disturbed wetlands will be provided or additional wetlands will be created to mitigate any wetland destruction;
- d. Land alteration or development within the Loxahatchee Slough restoration area (ecosite) or the adjacent lands within the Loxahatchee watershed are consistent with South Florida Water Management District (SFWMD) policies for water quality and quantity and SFWMD plans for modifying the hydroperiod and water levels in the area;
- e. Proposed developments comply with the Wellfield Protection Program adopted by the county; and
- f. Site plans identify floodplain areas and incorporate appropriate flood mitigating measures that comply with regulations promulgated by the Federal Emergency Management Agency Flood Insurance Program.

Policy 6.1.1.3.: The City shall require the review of all proposed wetlands development with the Florida Department of Environmental Protection (DEP), SFWMD, Treasure Coast Regional Planning Council (TCRPC), and the U.S. Army Corps of Engineers to ensure compliance with dredge and fill permitting processes.

Policy 6.1.1.4.: Through the continued implementation of land development regulations, the City shall ensure that new developments and redevelopments are designed in such a manner as to minimize the impact of such developments on the quality of surface and ground water resources, and to further ensure that new developments and redevelopments do not exceed the capacity levels for potable water and/or sanitary sewer services.

Policy 6.1.1.5.: The City shall continue to encourage the placement of a salinity dam in the tidal ditches along RCA Boulevard to prevent salt water intrusion into the shallow aquifer.

Policy 6.1.1.6.: The City shall continue to maintain land development regulations to ensure such regulations are consistent with and implement the county Wellfield Protection Program.

Policy 6.1.1.7.: By implementing the provisions of the county Wellfield Protection Ordinance, the City shall continue to ensure that no new uses are established within the zones of influence of existing or proposed wellfields that could adversely affect the quality of water resources in the water recharge area. The City shall also ensure that new potable water wells and wellfields are located in areas where no regulated materials (e.g. hazardous or toxic materials) are used, handled, stored or produced within the projected zones of influence of such wells or wellfields.

Policy 6.1.1.8.: The City shall cooperate with the SFWMD and Palm Beach County in their efforts in restoring and maintaining the Loxahatchee Slough and managing the Loxahatchee Slough Sanctuary. The City, in conjunction with the SFWMD and Palm Beach County, shall review any development adjacent to the Sanctuary for possible adverse impact on the Sanctuary during the development approval process.

Policy 6.1.1.9.: The City shall actively participate in the formulation and implementation of water supply conservation programs developed by Seacoast Utility Authority considering the most recently adopted SFWMD's Lower East Coast Regional Water Supply Plan.

Policy 6.1.1.10.: The City shall coordinate with Seacoast Utility Authority to implement potable water conservation programs established as part of its current 10-Year Water Supply Facilities Work Plan and Consumptive Use Permit.

Policy 6.1.1.11.: The City shall continue to cooperate with Seacoast Utility Authority in the development and implementation of water reuse programs, to the extent that they may apply to Palm Beach Gardens.

Objective 6.1.2.: Monitor and enforce provisions for monitoring and regulating water use in order to prolong freshwater availability pursuant to land development regulations, in conjunction with Seacoast Utility Authority, North Palm Beach County Improvement District (NPBCID), and the SFWMD.

Policy 6.1.2.1.: The City shall provide technical assistance to and cooperate with the SFWMD in preparing and adopting an emergency water management conservation plan.

Policy 6.1.2.2.: The City shall continue to maintain land development regulations which require water conservation strategies which are consistent with programs promulgated by the Seacoast Utility Authority, NPBCID, and SFWMD, and other viable programs such as:

- a. Wastewater reuse for irrigation if economically feasible;
- b. Separate metering for irrigation with potable water;
- c. A reduction in use of potable water for irrigation; and

- d. A more efficient operation of irrigation systems including the incorporation of such devices as soil water tensiometers and xeric landscaping where appropriate.

Policy 6.1.2.3.: The City shall cooperate with the SFWMD in developing and implementing programs for the further education of the public regarding various methods of water conservation at the household and small business level.

Objective 6.1.3.: **Maintain land development regulations to ensure the control of soil erosion.**

Policy 6.1.3.1.: The City shall continue to maintain land development regulations which implement Palm Beach County Soil and Water Conservation District Best Management Practices on development activities and land clearing.

Policy 6.1.3.2.: All commercial mining practices shall be prohibited throughout the incorporated area of the City.

Objective 6.1.4.: **Maintain land development regulations to ensure that all ecological communities, wildlife, and marine life, especially endangered and rare species, are identified, managed, and protected.**

Policy 6.1.4.1.: The City's land development regulations will continue to ensure that:

- a. All endangered and threatened plant, animal and marine populations are protected;
- b. Habitat of critical value to regional populations of endangered and threatened species is preserved;
- c. Nuisance and invasive exotic vegetation (i.e. Brazilian Pepper and Melaleuca) is removed by the developer at the time of development or redevelopment of a site; and
- d. Removal of native vegetation is minimized in the land development process; and, where it is economically feasible, removed material is relocated on site.
- e. Environmental Assessments are provided for any land development/alteration proposal or properties containing environmentally sensitive lands.

Policy 6.1.4.2.: Development orders and permits for development and redevelopment activities shall be issued only if the protection and conservation of wildlife, marine life and natural systems are ensured consistent with the goals, objectives, and policies of this Comprehensive Plan.

Policy 6.1.4.3.: The City shall maintain land development regulations containing specific standards and guidelines for the protection of environmentally sensitive lands containing one or more of the following:

- a. Native habitats designated as environmentally significant if they are actively used by or likely to support or contain U.S.- listed endangered, or threatened species and/or state listed endangered or threatened species, or species of special concern;
- b. A rare and unique upland community such as coastal scrub;
- c. Functioning and jurisdictional wetlands and deepwater habitats;
- d. Any part of the Loxahatchee Slough Sanctuary;
- e. Sites of historical or archaeological significance;
- f. Xeric hammock or xeric scrub;
- g. Tropical hammock;
- h. Low hammock, temperate hammock, or mesic hammock;
- i. Mixed hardwood swamp or hydric hammock;
- j. Pond apple slough;
- k. Cypress swamp;
- l. Freshwater marsh;
- m. Mangrove swamp;
- n. Oak forest;
- o. Pine flatwoods, mesic and hydric;
- p. Scrubby flatwoods;
- q. Coastal dune and strand; or
- r. Wet prairie.

Policy 6.1.4.4.: The City shall require that an environmental assessment be prepared prior to alteration of the land consistent with the provisions of the Natural Resources and Environmentally Significant Lands section of the land development regulations.

Policy 6.1.4.5.: To ensure protection of environmentally sensitive areas and listed species, the City shall implement the following criteria either in combination or singly for any proposed alteration of lands designated as environmentally significant pursuant Comprehensive Plan Policy 6.1.4.3.

1. The project design provides for the protection and preservation of valuable or unique existing natural resources, listed species and environmentally significant lands on site;
2. If no listed species have been determined to exist on the site or on-site preservation would yield a preserve area that is less than the preferred minimum of ten acres or unavoidable impacts to wetlands occur, an alternative form of mitigation acceptable to the City Council is implemented;
3. The City shall continue to require, through Land Development Regulations, that all development with significant environmental impacts, including agricultural development, set aside as preserve areas a minimum of 25 percent of the total upland native plant communities on site. The 25 percent set-aside shall be based on the quality and viability of the vegetative ecosystem. The city shall have the option to designate the portion of the plant community which will be included in the 25 percent set-aside. Such set-aside habitat shall be preserved and managed in viable condition with existing canopy, understory, and ground cover.

The city shall, for development occurring east of the Urban Growth Boundary, have the option of accepting off-site preservation or a cash payment in lieu of preservation and shall accumulate such payments from development for the purchase and management of off-site upland native plant communities. The Land Development Regulations shall establish criteria for assessing the cash payment amount and for determining which projects warrant the use of the cash payment option. A property owner of a platted upland preserve shall not be allowed to use the off-site preservation or the cash payment option to modify the preserve area.

- 4a. Wetland habitats are set-aside as preserves, and development is prohibited in wetlands except under the following circumstances consistent with Treasure Coast Regional Planning Council Policy 6.6.1.1:
 - 1) Such an activity is necessary to prevent or eliminate a public hazard;
 - 2) Such an activity would provide direct public benefit which would exceed those lost to the public as a result of habitat alteration, degradation, or destruction;
 - 3) Such an activity is proposed for habitats in which the functions and values currently provided are significantly less than those typically associated with such habitats and cannot be reasonably restored;

4) Such an activity is water dependent or, due to the unique geometry of the site, minimal impact is the unavoidable consequence of development for uses which are appropriate given site characteristics, or;

- 4b. Wetlands shall be protected by a density transfer program to upland areas. Where development occurs within wetlands, the developer must mitigate the function and value of those wetlands. Development activities shall occur at a density of no more than one dwelling unit per five acres in the urban area and one dwelling unit per twenty acres in the rural area, shall be clustered to the least environmentally sensitive portion of the site and shall include design considerations to protect the wetland functions of the rest of the site. Consistent with SFWMD regulations, a minimum 15-foot upland buffer composed of native vegetation shall be preserved or established around wetland areas.
5. For a site on which listed species are known or suspected to be present, one of the following criteria shall be satisfied:
1. It shall be successfully demonstrated that the proposed land alteration/development activity will not preclude the continued survival and viability of those listed species located on site; or
 2. A plan for relocation, either on-site or off-site, for those listed species, shall be approved by all appropriate agencies.
6. The City shall provide relief from the requirements of this policy as it relates to the 25% upland set aside for publicly owned lands upon which environmentally significant lands/or listed species are located through the Land Development Regulations. Such regulations shall require that the proposed public development includes government infrastructure, encourages economic opportunity, or increases parks and recreation level of service in order to qualify for relief from this policy.

Policy 6.1.4.6.: Public/Institutional buildings or facilities may be permitted in the Conservation land use designation and within other environmentally sensitive lands only when the building or facility is related to the conservation use, including within wetlands, 100-year floodplains, groundwater aquifer recharge areas, areas set aside by development to meet the 25 percent preservation of native ecological communities and wildlife habitats.

Objective 6.1.5.: **Maintain a hazardous waste management program for the proper storage, recycling, collection and disposal of hazardous wastes, in conjunction with the Solid Waste Authority (SWA).**

Policy 6.1.5.1.: The City shall work closely with and seek technical assistance from the DEP and SWA in identifying small quantity hazardous waste generators in the City and in developing the program for the proper disposal of such hazardous waste.

Policy 6.1.5.2.: The City shall cooperate with the SWA in sponsoring Amnesty Days to collect household hazardous waste for proper disposal.

Objective 6.1.6.: Maintain land development regulations and development policies to ensure the provision of conservation measures on newly annexed lands or lands newly acquired for the purpose of conservation in accordance with the goals, objectives, and policies of this Comprehensive Plan.

Policy 6.1.6.1.: The City shall review the master development plans of all subdivisions approved by the county but later annexed by the City for the provision of conservation/preservation areas as required by the original development order.

Policy 6.1.6.2.: Where development orders granted by another governmental agency are silent, the comprehensive plan, land development regulations, and policies of the City of Palm Beach Gardens shall apply.

Policy 6.1.6.3.: The City shall continue to cooperate with the SFWMD and Palm Beach County, through the exchange of technical information and informal coordination, in order to make a concerted effort to protect and conserve unique vegetative communities that exist in areas such as the Loxahatchee Slough, Sandhill Crane and Hungryland Slough and which fall under multiple local jurisdictions. Further, the City shall assist in the Loxahatchee Slough, Sandhill Crane and Hungryland Slough ecosites' protection by designating complete ecosites with Conservation land use and a consistent zoning district, and assisting with management activities.

Policy 6.1.6.4.: After the acquisition of new lands by agencies intended to conserve ecosites, the City shall coordinate with Palm Beach County and other applicable outside agencies in order to obtain a Management Plan for the ecosite, and designating the appropriate properties with a Conservation land use and a consistent zoning district.

Objective 6.1.7.: Implement the plan for all or a part of the Parkway System prior to the issuance of any development orders for that area included in the Conceptual Linkage Plan presented in the Future Land Use Element of this Comprehensive Plan.

Policy 6.1.7.1.: The City shall continue to maintain land development regulations to ensure the implementation and design of the Parkway System.

Policy 6.1.7.2.: The parkways shall be designed, developed and maintained to serve a multitude of functions including:

- a. Preservation of significant native ecological communities in greenways along the City's major corridors;
- b. Separate bicycle and pedestrian circulation through and between land uses within and adjacent to the areas included within the Conceptual Linkage Plan presented in the Future Land Use Element of this Comprehensive Plan;

- c. Mitigation areas for natural areas disturbed elsewhere within the area included within the Conceptual Linkage Plan presented in the Future Land Use Element of this Comprehensive Plan, where applicable;
- d. The buffering of adjacent roadways, land uses and developments, where applicable; and
- e. The provision of public access to the restored Loxahatchee Slough, where applicable.
- f. Preserve urban beauty through right of way landscaping requirements;
- g. Provide residents with a safe and multi-use pathway system which is recognized as an urban component of the Florida Greenways System;
- h. Eliminate a perceived need for using strip commercial as a buffer between arterials and residential areas; and
- i. The phasing of the establishment of the parkways shall, at a minimum, be relative to the phasing of development in the area included within the Conceptual Linkage Plan presented in the Future Land Use Element of this Comprehensive Plan.

Objective 6.1.8.: Maintain land development regulations which, in conjunction with the efforts of other regulatory agencies having jurisdiction, ensure the protection and preservation of native habitats, and maximize the provision of open space for this purpose.

Policy 6.1.8.1.: The City shall maintain open space requirements in the land development regulations with specific reference to conservation and preservation land area requirements.

Policy 6.1.8.2.: The City shall endeavor to "collect and concentrate" open space conservation areas to amass significantly large land areas that will be left in their natural settings for public dedication and use through land development regulations.

Policy 6.1.8.3.: Through the site plan and subdivision review process, the City shall endeavor to connect open space and conservation/preservation areas with the Parkway System wherever possible.

Policy 6.1.8.4.: The City shall require all developers to identify all conservation/preservation areas and submit all appropriate information to regulatory agencies.

Policy 6.1.8.5.: The City shall maintain the following minimum requirements to all required preserve areas for environmentally significant lands.

- (1) Lands to be set aside in preserve areas shall be:
 - a. Identified based on the quality of habitats, the presence of listed species, proximity to other natural areas and other relevant factors.

- b. Preserved in viable condition, with intact canopy, understory, and ground cover, and maintained without infringement by drainage or utility easements, unless the easements serve to benefit the preserve or facilities thereupon, or benefit the drainage of the development where the preserve is located.
- c. Platted as separate parcels of land, or as an established conservation easement.
- d. Capable of functioning within itself or in conjunction with manmade features.
- e. Clearly defined, protected and managed in such a way that it serves a purpose to the communities around it.
- f. Contiguous, wherever possible, to an adjacent preserve, public park, school site, or human-made open space or combination thereof.
- g. Maintained as large open or green areas with the intent of preserving large areas to promote self-sustaining, balanced plant growth, biodiversity, and wildlife enhancement and shall be connected with other preserve areas to conceptually function as wildlife corridors.
- h. One-hundred-percent protected from alteration during site construction.
- i. Compact in nature, avoiding strip or noncontiguous patterns and arranged in a continuous fashion where possible. The use of preservation areas as long, narrow buffers is discouraged.
- j. Protecting and preserving of all endangered and threatened plant, animal and marine populations and the habitat of critical value to regional populations of endangered and threatened species.
- k. Consistent with South Florida Water Management District regulations, such that a minimum 15-foot upland buffer composed of native vegetation shall be preserved or established around wetland areas landward from the edge of the wetland in all places and shall average 25 feet of width from the landward edge of the wetland.
- l. Cleared of invasive nonnative vegetation (e.g., Brazilian pepper, Australian pine and Melaleuca), except as otherwise authorized by the city, by the developer at the time of development or redevelopment of a site.

Lands that are set aside in a preserve status may be included in open space calculations for purposes of meeting open space requirements of the city's planned community district or planned unit development ordinances if the canopy, understory, and ground cover vegetation are left intact. However, such preserved lands shall not make up more than 50 percent of the total required open space, unless it is determined by the city council that a greater portion of the required open space should consist of preserved area because of special site constraints or preservation opportunities.

- (2) Alteration within the preserve shall require City approval, and shall be limited to:
- a. The construction of boardwalks, pervious walkways, and other passive recreational or educational facilities.
 - b. The construction of firebreaks, fire lanes, or fence lines and the removal of invasive nonnative species and their replacement with native species. The use of native plant communities, existing roads and trails, etc., as firebreaks is preferred to the construction of new access roads or fire lanes, which would result in the introduction and spread of invasive nonnative plant species. Bioconversion of woody biomass, removal of underbrush and overgrowth, or thinning of dead, dying or diseased native plant communities is encouraged for hazardous fuel reduction.
 - c. Primary public/institutional buildings shall be prohibited in the conservation land use designation and within other environmentally sensitive lands, including wetlands, 100-year floodplains, groundwater aquifer recharge areas, areas set aside by the development to meet the 25-percent preservation of native ecological communities and wildlife habitats, unless otherwise approved by the city council.

Policy 6.1.8.6.: The City shall maintain the following minimum requirements to require a management plan for all preservation areas and/or conservation lands.

- a) A management plan of the preserve area and/or any other conservation areas within the city shall include but not be limited to long-term protection of the preserve/conservation area, continued removal of and protection from litter and debris, avoidance of activities or land alteration which may disturb the preserve area, eradication and continued monitoring and removal of invasive nonnative plant species, control of off-road vehicles, and maintenance of hydrological requirements. Periodic prescribed burning or other mechanical methods that would simulate the natural processes of the natural historic fire regime may be required for some areas.
- b) Each management plan shall be approved, pursuant to Comprehensive Plan Policies and land development regulations by the Growth Management Department, before final approval of construction drawings or commencement of land alteration, whichever occurs first, and/or incorporation into the city as a conservation area, open space, greenway, or wildlife corridor.
- (c) Deed restrictions.
 - (1) For those lands identified for preserve status, appropriate deed restrictions shall be placed on the lands and recorded in the public records of the county, or they may be dedicated to a public entity or approved private conservation group for the purposes of preservation, or appropriate restrictive conservation easements granted in perpetuity may be established, or such other similar protective

measures may be established, as determined by the city council, upon completion of all review processes.

- (2) A conservation easement shall be established for a preserve area on a single-family residential lot five acres or greater in size. The deed restriction or conservation easement shall be dedicated to the appropriate entity, such as the property owners association, or a state or local government or agency.
- (d) The perpetual maintenance and protection of designated preserve areas shall be established by a legally binding, recorded instrument.

Policy 6.1.8.7.: The City shall provide for a voluntary density bonus program for land use designations of residential high (RH) to permit densities up to a maximum of 15.0 units per gross acre, based on one additional unit of density allowed for every ten percent of native ecological habitat put into a preserve within the planned community district (PCD). These preserve areas shall be over and above the minimum preservation and open space areas provided in accordance with standard PCD requirements.

Policy 6.1.8.8.: The City shall maintain in the land development regulations requirement for the removal of invasive nonnative species from development tracts.

Policy 6.1.8.9.: In accordance with section 163.3202, F.S., the City shall continue to maintain land development regulations that ensure the protection of environmentally sensitive lands designated in the comprehensive plan.

GOAL 6.2.: ENCOURAGE AN ENVIRONMENTALLY SUSTAINABLE CITY THROUGH ACTIONS THAT REDUCE GREENHOUSE GAS EMISSIONS AND OTHER POLLUTANTS AND REDUCE THE USE OF NON-RENEWABLE RESOURCES.

Objective 6.2.1.: Meet or exceed the minimum air quality levels established by DEP.

Policy 6.2.1.1. [RESERVED]

Policy 6.2.1.2.: Reduce pollution generated by motor vehicles by promoting cleaner burning, energy efficient vehicles, including hybrid vehicles and alternate fuels such as biodiesel and fuel cell technology, as well as through public education and encouraging the following:

1. The creation of mixed use land use centers and residential form which utilizes clustering and Planned Unit Development and Mixed Use Development styles of design;
2. Vegetative buffers between arterial roadways and residential neighborhoods;
3. The use of alternative modes of transportation including public transit, bicycle and pedestrian paths/corridors, light rail, and car-pooling.

4. The implementation of the parkway system, the installation of sidewalks for all new developments, the retrofit of neighborhoods with sidewalks and the repair of existing sidewalks, and requirements such as provision of bicycle racks.

Policy 6.2.1.3.: In an effort to reduce reliance on automobile travel, the City shall continue to implement the Parkway System, as vacant areas are developed or as redevelopment occurs; assist the Transportation Planning Agency (TPA) in the implementation of its appropriate transit and bicycle needs plans; and coordinate with PalmTran to increase the public transportation service in the City.

Policy 6.2.1.4.: The City shall cooperate with county and state agency programs to reduce air pollutants on a regional level.

Policy 6.2.1.5.: All proposed point sources of pollution shall present evidence of compliance with DEP regulations prior to being approved. No proposed point source of pollution shall be approved which exceeds the level of air quality established by the State Implementation Plan.

Policy 6.2.1.6.: By the next Evaluation and Appraisal review cycle, the City shall consider the adoption of a Mobility Plan. The Plan shall develop a long-term strategy to reduce CO₂ emissions, and provide the public and businesses additional transportation alternatives, but shall not replace, reduce or weaken road concurrency measurements.

Objective 6.2.2.: Increase education about sustainable building practices and use of environmentally sustainable products within the City of Palm Beach Gardens.

Policy 6.2.2.1.: The City shall provide education to the residents and business owners to support better energy efficient buildings, energy efficient appliances, waste recycling, building products from renewable resources, non-toxic building products and water efficient fixtures and landscapes.

Policy 6.2.2.2.: The City shall utilize non-toxic cleaning techniques throughout its facilities.

Policy 6.2.2.3.: The City shall enhance the energy efficiency of City facilities through the purchase of Energy Star rated or equivalent equipment and appliances for City use, design of efficient cooling systems and employee education on energy conservation.

Policy 6.2.2.4.: The City shall purchase products that utilize recycled materials and shall return City waste for reuse.

Policy 6.2.2.5.: By the next Evaluation and Appraisal review cycle, the City shall review the City's Land Development Regulations to consider the addition of specific energy efficient and recycling regulations to encourage conservation.