CONSERVATION GOALS, OBJECTIVES AND POLICIES

GOAL 1

To balance important environmental and conservation concerns, including air quality, water quality, groundwater, the protection of environmentally sensitive lands and endangered species with the need for residential, industrial, and commercial development. Within this balance, the community should protect the natural environment and the functioning of natural systems and protect sites and structures of historic and cultural significance.

Objective 1.1

The City of Orlando shall cooperate with Orange County and Metroplan Orlando in its efforts to retain its designation as an “attainment” area for Carbon Monoxide, Nitrogen Dioxide, Sulfur Dioxide, Lead and Particulate Matter, and its designation as a “maintained” area for Ozone, throughout the planning area.

(Policy 1.1.1) The City of Orlando shall integrate mass transit alternatives, car-pooling, rail, a bikeway system, and other innovative transportation alternatives into its traffic circulation plan in order to reduce automobile emission pollution.

(Policy 1.1.2) The City of Orlando shall restrict open burning, and other similar practices which have a negative impact on air quality.

(Policy 1.1.3) The City of Orlando shall continue to abide by the guidelines of the Florida Department of Environmental Protection for air quality.

(Policy 1.1.4) Because particulate matter caused by wind erosion is a known source of air pollution, the City shall require that all developments over one acre in size provide some type of protective action after clear-cutting has taken place. This protective action may include sand fencing, maintenance of a natural vegetative buffer, or some other measure approved by the Zoning Official.

(Policy 1.1.5) The City of Orlando shall review all air quality impact analyses distributed by the East Central Florida Regional Planning Council for major transportation construction projects, and incorporate the appropriate findings into City-issued development orders.

(Policy 1.1.6) The City of Orlando shall review all air quality impact analyses distributed by the East Central Florida Regional Planning Council for development projects which, due to their significant contribution to traffic congestion, might cause violations of State air quality standards. The City of Orlando shall incorporate the Regional Planning Council's recommendations for decreasing adverse impacts on air quality associated with these major development projects with the project development order, as appropriate.
Policy 1.1.7 The City shall implement best practices as identified in the Central Florida Water Initiative Regional Water Supply Facilities Plan to maintain and enhance a healthy ecosystem, including aquifers, lakes, streams, and wetlands. 
(Amended April 24, 2017, Effective May 25, 2017, Doc. No. 1704241203)

Objective 1.2 The City of Orlando shall maintain a systematic program for identifying and evaluating water quality problems related to the area’s surface and groundwaters. Existing and potential sources of water quality degradation shall be identified throughout the planning period.

Policy 1.2.1 The quality of water sources, including cones of influence, water recharge areas, and waterwells, shall be protected from future degradation through the utilization of the Engineering Standards Manual (ESM). The stormwater management section of the ESM has four basic functions. It is designed to:

1. regulate land development practices which would alter the drainage patterns, velocities, volumes, physical chemicals, and biological characteristics of stormwater runoff;
2. regulate land development activities involving soil disturbance and earth movement;
3. maintain vegetative cover and control disturbances to vegetation; and
4. prevent the use of water resources for dilution and disposal of domestic, municipal, or industrial wastes unless it can be demonstrated that such wastes will not lower the water quality level of service as specified in Objective 1.3 of this Element and in Policy 2.1.1 of the Stormwater and Aquifer Recharge Element. 

Policy 1.2.2 By 2040, the City shall increase the number of lakes meeting good water quality standards (Trophic State Index less than 61). 
(Amended August 28, 2017, Effective October 27, 2017, Doc. No. 1708281201)

Policy 1.2.3 The City of Orlando shall ensure through its Engineering Standards Manual (ESM) that design standards for all stormwater retention and detention systems are adhered to in order to prevent the degradation of surface water bodies.

Policy 1.2.4 The City shall continue to work with adjacent residents and the relevant environmental protection agencies to create a plan for improving water quality where problems arise 

Objective 1.3 The City of Orlando shall continue to identify and eliminate all known sources of water pollution throughout the planning period. This shall include, but not
be limited to, water bodies, drainage wells, and septic tanks. Water bodies shall be monitored and maintained to meet the minimum criteria of Chapter 62-303, F.A.C. (Impaired Water Rule). Drainage wells shall be periodically monitored to determine potential impact to the aquifer. A continuing review of the City's wastewater system shall be conducted to identify the location of septic tanks and rely on the Department of Health to eliminate inoperative septic tanks.

(Policy 1.3.1) The City of Orlando shall require that impervious surfaces be limited in prime recharge areas. Post-development groundwater infiltration rates and volumes within primary groundwater recharge areas shall meet the least restrictive of the following standards:

1. Post-development rates and volumes must be at least equal to pre-development rates and volumes; or
2. Any other method which conforms to the Engineering Standards Manual (ESM).

In addition to the above standards, the following new land uses shall be prohibited in all primary groundwater recharge areas: (1) Junk Yards; (2) Outside Storage of Hazardous or Toxic Wastes; and (3) Tank Farms.

(Policy 1.3.2) The City of Orlando shall protect water drainage wells from man-made and natural sources of pollution.

(Policy 1.3.3) The City of Orlando shall continue to plan for the conservation of water sources in accordance with the policies of the Regional Policy Plan, South Florida Water Management District and the St. Johns River Water Management District. The City of Orlando shall enforce the provisions of the applicable Water Management District's emergency water shortage plans.

(Policy 1.3.4) The City of Orlando shall regulate development in areas identified as natural hazard areas, including floodplains and flood zone areas in order to maintain flood-carrying and flood storage capabilities.

(Policy 1.3.5) The City of Orlando shall regulate development within the 100 year floodplain areas utilizing the stormwater Level of Service standards identified in Policies 1.1.1 and 1.1.2 of the Stormwater and Aquifer Recharge Element, and floodplain management practices as prescribed in the Engineering Standards Manual. These practices include: 1) adequate anchoring to

Supplement No. 18
Policy 1.3.6

The City of Orlando shall regulate all development within the 100 year floodplain, through the utilization of the Engineering Standards Manual. The ESM regulations are consistent with the policies and regulations of the National Flood Insurance Program.

New residential construction or substantial improvements of any residential structure shall have the lowest floor, including basement, elevated to at least 1.0 foot above base flood elevation (100 year). New non-residential construction or substantial improvement to any non-residential structure shall either have the lowest floor, including basement, elevated to the level of the base flood elevation or, together with attendant and sanitary facilities, be floodproofed so that below the base flood level the structure is watertight with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy.

In addition, no encroachment, including fill, new construction (including enclosed accessory structures), substantial improvements and other developments into the floodway unless certification (with supporting technical data) by a registered professional engineer is provided demonstrating that encroachments shall not result in any increase in flood levels during occurrence of the base flood discharge. This certification shall be based on an evaluation utilizing methodologies specified by the FEMA Region IV office. No development will be allowed that causes any increase in off-site Base Flood Elevation.

Policy 1.3.7 The City of Orlando shall analyze and estimate the seasonal pollutant load for each lake located within the City’s stormwater system, as required by the federal Environmental Protection Agency’s National Pollutant Discharge Elimination System permit. This analysis shall identify deficiencies within the City’s stormwater system and enable the City to effectively prioritize capital improvement projects. The City shall coordinate with the water management districts to identify and eliminate point and non-point sources of water quality degradation in locations that shall be prioritized consistent with water management district initiatives. *(Amended February 7, 2000, Effective March 9, 2000; Doc. No. 32636; Amended June 8, 2009, Effective August 25, 2009, Doc. No. 0906081103; Amended August 28, 2017, Effective October 27, 2017, Doc. No. 1708281201)*

Policy 1.3.8 If a lake located within the City’s jurisdiction fails to meet the minimum criteria of Chapter 62-303, F.A.C. (Impaired Water Rule), the City shall take the following actions:

1. Implement projects and/or programs in order to remove the lake from the impaired water list.

2. If the lake fails to improve, the Florida Department of Environmental Protection (FDEP) should adopt a Basin Management Action Plan.

3. Implement projects and/or programs identified in the Plan.

4. Monitor implementation of the Plan to ensure that the City’s allocation of FDEP’s established Total Maximum Daily Load pollutant loading is not exceeded.

5. Require new development to conduct a pollutant load analysis and demonstrate the post development loads do not exceed the predevelopment loads from the site. *(Amended June 8, 2009, Effective August 25, 2009, Doc. No. 0906081103; Amended August 28, 2017, Effective October 27, 2017, Doc. No. 1708281201)*

Objective 1.4 The City of Orlando shall, throughout the planning period, implement the following GMP policies and the regulations found in Chapter 63 of the Land Development Code, in order to further protect the City’s Environmentally Sensitive Lands. Environmentally Sensitive Lands are defined as wetlands, the habitat of Endangered and Threatened Species and Species of Special Concern, natural aquifer recharge areas, or some combination thereof. *(Amended May 17, 1993, Effective July 8, 1993, Doc. No. 26610)*

Policy 1.4.1 The City of Orlando shall protect Environmentally Sensitive Lands within its jurisdiction through the utilization of the Resource Protection Overlay Future Land Use Designation and – RP - (Resource Protection) Overlay Zoning District, the Conservation Future Land Use Designation and C - (Conservation) Zoning District, the Wekiva Overlay Future Land Use Designation and W – (Wekiva) Supplement No. 18
Overlay Zoning District, the Transitional Wildlife Habitat Overlay Future Land Use Designation and the Environmentally Sensitive Lands regulations specified in Chapter 63 of the Land Development Code.

Specifically, all projects requiring Municipal Planning Board and City Council review within the City shall include an Environmental Assessment. This shall include annexation areas. In addition, all applications for building or engineering permits within areas designated Resource Protection or Conservation shall be required to submit an Environmental Assessment.

The Environmental Assessment shall consist of three levels. Applicants may choose which level of information to submit in initial applications to the City, but the City shall determine if the submittal is appropriate on a case-by-case basis. The three levels of Environmental Assessment are as follows:

**Level A:** Where the site for a proposed development consists of legally cleared lands, with vegetation either sparse or absent, an environmental description consisting of the following may be sufficient:

1. a location map;
2. a copy of an aerial photograph;
3. ground-level panoramic photographs of the site.

**Level B:** Where the site is not cleared of vegetation and/or may contain wetlands, but has a low probability of supporting Endangered or Threatened Species, or Species of Special Concern, a site inspection and brief environmental assessment from a qualified environmental professional may be required. In addition, the Level B assessment shall also contain the following information:

1. a map showing the jurisdictional boundaries and acreage of all wetlands on the site;
2. a general description of the location and types of ecosystems on the site;
3. a statement which justifies the opinion of the biologist/consultant that the site does not harbor or support Endangered or Threatened Species, or Species of Special Concern, if such is the case; and
4. an environmental impacts map showing any proposed impacts or alterations to wetland.

**Level C:** Where the site contains native vegetation and/or wetlands which can be expected to harbor or support (or are known to harbor or support) Endangered or Threatened Species, or Species of Special Concern, the following additions to the Level B assessment shall be required:

*Supplement No. 18*
1. a vegetational map with ecosystems identified to Class III FLUCCS codes;

2. a delineation of any wetlands which are within the landward extent of Waters of the State;

3. an Endangered or Threatened Species survey map;

4. an environmental impacts map;

5. a written report to include an ecological description of the upland and wetland habitats on site.

Construction of single family and duplex homes which are part of subdivisions recorded prior to the effective date of this amendment; projects for which final local development orders have been issued prior to the effective date of this amendment; along with projects which have approved master plans; Developments of Regional Impact, except substantial deviations thereto, and Planned Developments, subject to conditions contained therein; and lands lying within urbanized disturbed areas are exempt from the requirements of this policy.

Because the state and federal governments maintain comprehensive regulations relating to the protection of endangered and threatened species, the protection of wetlands, and because they have superior expertise and experience with the oversight and remediation of Formerly Used Defense Sites (FUDS), the City shall defer to the regulatory oversight of the appropriate state and federal agencies for the protection of endangered and threatened species, and wetlands (including “Protected Wetlands” designated at Figure C-2 Part A and Part B), for properties undergoing remediation and/or regulation of Formerly Used Defense Sites.

The City shall consider the findings of the Environmental Assessment in the development review process, and shall apply the appropriate policies found in this Conservation Element. After review of the Environmental Assessment, the Department's recommendations may include, but are not limited to:

1. Protection of the Environmentally Sensitive Lands consistent with the applicable environmental regulatory agencies, and require that the applicant submit signed copies of all environmental permits prior to issuance of engineering permits or final plat by the City;

2. For Protected Wetlands, and wetlands under 0.5 acres, require site design to minimize impact of development on environmentally sensitive features;

3. Require creation of buffers and conservation easements;

4. Request other permitting agencies to protect wetlands of special value to the City which may otherwise be exempted from their permitting process; and/or

Supplement No. 18
5. Require a contribution to the Environmental Trust Fund. Such conditions shall become part of the development approval.


Policy 1.4.2
Because wetlands are an essential component of a healthy ecosystem, the City of Orlando shall penalize those responsible for the unauthorized destruction or substantial degradation of wetlands, as identified by the City. All City building permits shall be withheld until the damage is repaired or applicable permits are issued by the appropriate Regulatory Agency. In addition, any violation shall be punishable as prescribed in Section 1.08 of the City Code.

(Amended May 17, 1993, Effective July 8, 1993, Doc. No. 26610)

Policy 1.4.3
The City of Orlando shall continue to coordinate with the U.S. Army Corps of Engineers, the Florida Department of Environmental Protection, and the South Florida and St. Johns River Water Management Districts to identify and regulate wetland areas within their jurisdiction.

(Amended February 7, 2000, Effective March 9, 2000, Doc. No. 32636)

Policy 1.4.4
The City of Orlando has adopted a tiered approach to wetlands regulation. The City of Orlando has inventoried all of the wetland areas within its jurisdiction, based upon a scientifically valid functional assessment completed in 1992. As part of this analysis, eleven (11) wetland systems were identified as having above average wetland functional value compared to other wetlands in the City. The general location and extent of these wetland systems are displayed on the Protected Wetland-General Location Map Series, Figures C-2A and C-2B. The exact boundaries of these wetland systems shall be construed to coincide with the jurisdictional boundaries set by the appropriate Water Management District, by the Department of Environmental Protection, or by the U.S. Army Corps of Engineers.

TIER ONE - PROTECTED WETLANDS - The removal, alternation, or encroachment within an area designated as a Protected Wetland shall only be allowed in order to accommodate low density and intensity land uses. It is the intention of the City to restrict development in Protected Wetlands to those activities that have minimum or no post-development impacts upon the functions of the wetland, so that no net loss of wetland functions results from the activity. Regulation of Protected Wetlands shall not constitute a taking of private property. Allowable uses of property may include any natural use of the wetland environment, walking trails, private and public parks of passive orientation, wetland enhancement projects, and single family residential at a density of 1 dwelling unit per 5 acre lot. Silviculture pursuant to current Florida Department of Agriculture-Division of Forestry Best Management Practices may also be approved in limited circumstances. A limited Transfer of

Supplement No. 18
Development Rights option has also been provided, as specified in Conservation Policy 1.4.6.

The City acknowledges the unique role that the Orlando International Airport plays in the economic health and well-being of the Central Florida area. In order to protect this role, and the public investment in the airport, it is necessary to allow expansion of airport facilities consistent with reasonable protection of existing wetland systems and mitigation for necessary impacts. Therefore, on Orlando International Airport property, issuance of a permit by the Department of Environmental Protection and/or the South Florida Water Management District for impacts to wetlands shall be sufficient to demonstrate compliance with the City wetland regulations.
In addition, necessary activities shall be permitted to protect the public safety and health, provided that the City Engineer or Planning Official has determined that: a hazard exists; the proposed activity would eliminate or prevent the hazard; elimination of the hazard unavoidably impacts the wetland; and the proposed activity results in minimal impact to the wetland.

The removal, alteration, or encroachment within an area designated as a Protected Wetland shall only be allowed where the applicant is able to demonstrate that there is no practical alternative which reduces or avoids the adverse impact to the wetland. If the applicant has demonstrated that there are no reasonable alternatives, impacts to these wetlands shall only be allowed to provide roadway and utility access to uplands which could not otherwise be developed. When possible, road crossings shall occur at the most narrow point of the wetland and be designed so that water flow and wildlife movement are not interrupted.

When impacts to Protected Wetlands are permitted, mitigation above and beyond that required by other environmental regulatory agencies shall be required, as specified in Chapter 63 of the Land Development Code, except for projects in the public interest.

TIER TWO - The second tier of the City’s wetland approach involves those wetland areas greater than 0.5 acres in size and not designated as Protected. The City of Orlando shall protect these environmentally sensitive lands consistent with the applicable environmental regulatory agencies’ permitting requirements. The City reserves the right to contact and provide comments to those agencies, or to intervene during the permit application review and issuance process. The City shall not issue engineering permits for site alterations without prior issuance of the required permits from the other environmental regulatory agencies.

TIER THREE: The third tier of the City’s wetland regulation approach involves those wetland areas less than 0.5 acres in size. After reviewing the Environmental Assessment, the City shall consider whether the wetlands contain Endangered or Threatened Species, or Species of Special Concern, or are of special significance. If any of these conditions are met, the City may notify the appropriate Water Management District and request that they regulate impacts to these wetlands under their discretionary jurisdiction.

In all cases where approval of Federal and/or State Regulatory Agencies is necessary, applicants must provide the City of Orlando with a complete copy of all permits or permit applications submitted to the Water Management Districts, Florida Department of Environmental Protection, or Army Corps of Engineers.
Engineers, or a statement from the applicant’s environmental consultant explaining why no permit is required, before the City can complete its review.

The functional assessment used as the basis for the 3-tiered approach to wetlands regulation described previously included only those wetlands within the jurisdictional boundaries of the City as of 1992. For any lands proposed for future annexation after the adoption date of these amendments, the Environmental Assessment as described in Policy 1.4.1 shall be made of the site to determine if Environmentally Sensitive Lands are present on site and, if present, to classify those lands using the 3-tiered system. If such wetlands are classified as “Protected”, the appropriate Protected Wetlands-General Location Map (Figure C-2A or Figure C-2B) shall be amended to include those areas.

(Amended February 21, 1994, Effective April 14, 1994, Doc. No. 27272)

Policy 1.4.5

The City’s Land Development Code shall require buffer zone areas for Protected Wetlands, Preserved Wetlands, and Wetland Mitigation Areas to provide spatial and vegetative transition from the wetland to the developed parts of a development site, to protect the wetland ecosystem from impacts of surrounding development, and to control and to assist infiltration of stormwater runoff into the wetland. Requirements for Buffer Zones shall be as follows:

Existing native plant communities surrounding a Protected Wetland shall be preserved to a maximum required width of 50 feet or to the most landward extent of native upland vegetation, except when a more extensive buffer is required by other regulatory agencies. If no existing native plant community exists, the minimum buffer shall be at least 25 feet.

Existing native plant communities surrounding a Preserved Wetland or Wetland Mitigation Area shall be preserved to a minimum width of at least 15 feet but shall average at least 25 feet in width. If no existing native plant community exists, the minimum buffer shall be at least 15 feet, but shall average at least 25 feet in width.

The width of the natural buffer is measured perpendicularly out from the edge of the wetland. The native plant communities shall be preserved undisturbed, in their entirety, with no understory removed, except for the minimum necessary for approved riparian access. If the Protected or Preserved Wetlands do not have the required minimum existing natural buffer, then a buffer zone shall be created to the required width, and the required plantings installed, as specified in Chapter 63 of the Land Development Code.

(Amended February 7, 2000, Effective March 9, 2000, Doc. No. 32636)
Policy 1.4.6  The City of Orlando is dedicated to balancing the need for continued economic growth with the need to protect valuable natural resources. For the purpose of determining the maximum permitted intensity of development on a development site, the area covered by Protected or Preserved wetlands may be included. Although no development, other than for uses specified in Policy 1.4.4, shall be permitted within these Protected or Preserved wetlands, development may be clustered or transferred to other areas of the development site so as to achieve its available permitted intensity; however, in no case shall the total net intensity on non-Protected or non-Preserved areas be increased more than 40%. By allowing this transfer, growth shall be directed away from natural areas unsuitable for urban development. 
(Amended February 7, 2000, Effective March 9, 2000, Doc. No. 32636)

Policy 1.4.7  The City of Orlando shall prohibit the development of non-hazardous and hazardous waste disposal sites, septic tank dependent businesses and residences, junk yards, and tank farms within all wetland areas. 
(Amended May 17, 1993, Effective July 8, 1993, Doc. No. 26610)

Policy 1.4.8  The City of Orlando shall prohibit the creation of new lots or subdivisions within Protected and Preserved wetlands, specifically lots with no developable uplands. 
(Amended May 17, 1993, Effective July 8, 1993, Doc. No. 26610)

Policy 1.4.9  Because semi-aquatic and wetland-dependent State listed wildlife species may require connected and intact upland habitat in order to fulfill important biological functions, the City shall utilize the Transitional Wildlife Habitat Overlay future land use designation to limit or reduce land use densities and intensities where interspersed Protected Wetlands and associated upland strands provide habitat for semi-aquatic and wetland-dependent State listed wildlife species. The overlay shall extend between 50 and 200 feet from the landward extent of the Protected Wetland, inclusive of the 50 foot Protected Wetland buffer specified in Conservation Policy 1.4.5, depending upon individual site characteristics. Factors for consideration in delineating the extent of the overlay shall include evidence regarding the presence or absence of semi-aquatic and wetland-dependent State listed wildlife species or habitat for said species, past agricultural or development activity, and existing physical constraints such as the presence of built structures, roadways, or other public utilities.

In addition, the City shall take into consideration the balancing of these provisions with the protection of property rights, the encouragement of economic development, the promotion of other State, Regional and local planning goals by the development, the utilization of alternative, innovative solutions to provide equal or better protection than the overlay, and the degree of harm created by the lack of the overlay. The overlay shall
incorporate and be consistent with the wetland buffer requirements specified in Conservation Policy 1.4.5. Furthermore, the provisions specified in this policy shall work in conjunction with the other applicable GMP objectives and policies and shall not supersede such policies.

Depending on the configuration and characteristics of each individual site, and the option chosen, the density/intensity reduction may vary, but at no time shall the density or intensity within the overlay area (outside of the Protected Wetland buffer) exceed 5.7 dwelling units per acre for residential uses, or 0.25 floor area ratio (F.A.R.) for non-residential uses. The applicant shall utilize one of the following options:

1. **Density Transfer Option.** The density transfer option requires that no residential or non-residential development activity occur within the overlay area. In this option, development at the maximum intensity allowed by the zoning classification may be transferred to less environmentally sensitive locations on the development site. A conservation easement consisting of the retained open space area, not otherwise used for access, stormwater management, or passive recreation, shall be required at time of plat or master plan approval, pursuant to Section 704.06, F.S.

Stormwater retention and passive recreation uses shall be permitted, subject to the terms of the conservation easement. However, the combined total of said uses shall not exceed 50% of the upland retained area. The stormwater retention area shall not fall within the 50 foot Protected Wetland buffer area. The stormwater retention and passive recreation areas shall be designed so as to allow freedom of movement for the targeted semi-aquatic and wetland dependent State listed wildlife species.

Further alteration or encroachment within the overlay area shall only be allowed where the applicant is able to demonstrate that there is no practical alternative which reduces or avoids the adverse impact. If the applicant has demonstrated that there are no reasonable alternatives, impacts within the retained open space area shall only be allowed to provide roadway and utility access to other upland areas which could not otherwise be developed. When possible, road crossings shall occur at the most narrow point of the retained open space area and be designed so that wildlife movement is not interrupted.

2. **Cluster Option.** Within the overlay area, the applicant shall cluster development in such a way that a minimum of 30% of the upland area is retained as open space. The land area within the 50 foot Protected Wetland buffer shall not be utilized to meet the 30% requirement. A portion of the 30% retained area may be used for stormwater purposes,
not to exceed 25% of the upland retained area. However, the stormwater retention area shall not fall within the 50 foot Protected Wetland buffer area. The stormwater retention area shall be designed in such a way as to allow freedom of movement for the targeted semi-aquatic and wetland-dependent State listed wildlife species. The open space shall be situated in such a way as to provide optimum benefits for wildlife preservation. By clustering, the applicant may achieve the above-mentioned 5.7 units per acre and 0.25 F.A.R. intensity. A conservation easement consisting of the retained open space area, not otherwise used for stormwater management, shall be required at time of plat or master plan approval, pursuant to Section 704.06, F.S.

3. **Non-Cluster Option.** The non-cluster option requires that development densities and intensities within the overlay area be limited to 1 dwelling unit per 2 acres for residential uses, and 0.10 F.A.R. for non-residential uses. Stormwater retention and passive recreation uses shall be permitted. However, the stormwater area shall not fall within the 50 foot Protected Wetland buffer area.

For each proposed development option, the reduced allowable densities and intensities shall be reflected in all level of service analyses, land use projections, and concurrency evaluations.

In conjunction with the above-mentioned overlay, because density and intensity reductions cannot in and of themselves guarantee the protection of wildlife habitat for semi-aquatic and wetland-dependent State listed wildlife species, the City shall require, where appropriate, the utilization of wildlife corridors to provide connectivity between Protected Wetland systems through transitional uplands. The wildlife corridors shall be defined during project master plan review, and shall be clearly represented on the final approved master plan. The extent (width and configuration) of such wildlife corridors shall be established on a case-by-case basis, depending on the recommendations of the applicable wildlife agencies, vegetative communities, soil associations, and the likely occurrence of endangered and threatened species and species of special concern and their habitat. The wildlife corridor area may be included in the 30% retained area specified in Option 2. The wildlife corridors shall be buffered from the developed portions of the development site using Best Management Practices, and a conservation easement shall be applied to the wildlife corridors, pursuant to Section 704.06, F.S.

*(Amended February 27, 1995, Effective May 5, 1995, Doc. No. 27962-1)*

**Objective 1.5**

The City of Orlando shall regulate development through the authority of the Land Development Code, in order to minimize impairments to the functioning of vital natural systems, including the protection and conservation of soils, native wetland and vegetative communities, rare upland areas, urban
woodlands, tree canopy, historic trees and other Environmentally Sensitive Lands throughout the 20 year planning period.

(Policy 1.5.1) The City of Orlando shall utilize the soil association classifications within the Soil Survey of Orange County, Florida, in order to determine the development potential of proposed construction sites within the City's corporate limits.

(Policy 1.5.2) The Land Development Code requires that developers off-set the adverse impacts of soil erosion caused by land clearing. The City shall utilize and require Best Management Practices and Conservation Practices recommended by the U.S. Soil Conservation Service. These Best Management Practices and Conservation Practices include sand-fencing, maintenance of a vegetative cover on the surface layer, grubbing, reducing runoff, and increasing infiltration.

(Policy 1.5.3) Wetland vegetative communities within the City of Orlando shall not be impacted or removed without using adequate protection strategies, as described in Policies 1.4.1 through 1.4.9. Development shall be allowed within other vegetative communities so long as there are no endangered or threatened wildlife or vegetative species located on the site.

(Policy 1.5.4) Because vegetation functions to protect the soil from wind erosion and to slow stormwater runoff, the City of Orlando shall enforce the guidelines for development around lakes and wetlands described previously, and further specified within Chapter 63 of the Land Development Code.

(Policy 1.5.5) The City’s tree canopy is of vital importance to public health and the overall livability of the City. Trees provide many benefits that include producing oxygen, reducing smog by intercepting airborne particulates, sequestering carbon, and providing shade, water filtration and water retention. Because trees are a public resource and essential to the community’s livability, the City of Orlando shall continue to protect existing woodlands and encourage the renewal of urban woodlands. The Land Development Code shall discourage the removal of medium and large size canopy trees, by requiring a tree removal permit. The Land Development Code shall specify standards for tree removal and criteria to determine if a replacement tree(s) is required on site. And if a tree is removed without a permit, the code may include fines in addition to the tree permit fee. The Land Development Code shall also contain minimum setback requirements, in order to prohibit development within the undisturbed areas around the canopy tree.
In addition, the City Council may allow Modifications of Standards as a condition of Preliminary Plat approval for any 1 or 2 family development where they find that the design alternatives are essential for the protection of existing trees on the development site. Finally, the Parks Official shall be authorized to designate certain trees as Historic Trees based on their size, age, historic association, species, or other unique characteristics. Trees so designated shall be protected without regard to their location within the City. *(Amended August 28, 2017, Effective October 27, 2017, Doc. No. 1708281201; Amended August 6, 2018, Effective September 20, 2018, Doc. No. 1808061201)*

**Policy 1.5.6** The City, through the Land Development Code, shall maintain standards to protect the root system of retained trees during construction. The LDC shall designate minimum undisturbed area setbacks where development is prohibited. The developer shall be required to enclose the entire undisturbed area within a fence or similar barrier approved by the City Parks Official.

**Policy 1.5.7** Because buffering, screening and landscaping between different uses act to eliminate or minimize potential nuisances such as dirt, litter, noise and the glare of lighting, the City shall maintain standards for buffering and screening, as found in the Land Development Code. These standards shall require minimum planting areas or setbacks for trees within bufferyards, and other bufferyard design requirements such as the retention of ground cover, and the use of xeriscape. Xeriscape practices require a mixture of native plants with drought-resistant properties, including canopy trees, understory trees, and shrubbery.

**Objective 1.6** The City of Orlando shall, throughout the planning period, act to protect Endangered and Threatened Species, and Species of Special Concern. *(Amended May 17, 1993, Effective July 8, 1993, Doc. No. 26610)*

**Policy 1.6.1** Within the City of Orlando, all endangered and threatened species shall be afforded protection through the regulatory authority of the U.S. Fish and Wildlife Service, the Florida Game and Freshwater Fish Commission and the Florida Department of Environmental Protection, as mandated by the federal Endangered Species Act of 1973 and the Florida Endangered and Threatened Species Act of 1977 (s. 372.072). *(Amended February 7, 2000, Effective March 9, 2000, Doc. No. 32636)*

**Policy 1.6.2** If an Environmental Assessment, as described in Policy 1.4.1, indicates that Endangered or Threatened Species, or Species of Special Concern are found on site, the City shall require that the applicant work with the appropriate wildlife agencies on appropriate protection measures. Such measures may include preservation, habitat management, species relocation, or incidental taking as authorized by the wildlife agencies.

The City shall issue no development approvals that are inconsistent with Federal or State Management Plans.
Objective 1.7
The City shall maintain, throughout the planning period, the most appropriate means of protecting environmentally sensitive lands. Alternative methods shall include acquisition, regulation, and maintenance of City-owned lands, or any combination of the above.

Policy 1.7.1
The City of Orlando shall establish an Environmental Trust Fund for the purpose of protecting important natural resources. The Fund shall be used for the purchase, improvement, creation, restoration, maintenance and replacement of natural habitat within the City, or an environmentally sensitive area immediately adjacent to the City, in cooperation with Orange County.

Policy 1.7.2
The City shall identify the location of habitat corridors and shall protect these corridors through strategies such as the purchase of these properties with Environmental Trust Fund monies, the use of conservation easements, and/or designation with the Conservation Land Use and the -C- Conservation zoning district.

Policy 1.7.3
The City of Orlando shall maintain its land development regulations in association with environmentally sensitive lands throughout the planning period.

Policy 1.7.4
The City of Orlando, through the auspices of the Parks and Recreation Department, shall protect and maintain the unique environmental features of the following parks: Orlando Wetlands Park, OUC Wilderness Park, Mayor Langford Park, Harry P. Leu Gardens, Greenwood Urban Wetland, Turkey Lake Park, Dickson Azalea Park, Constitution Green and the Herndon Nature Park.

Policy 1.7.5
The City of Orlando shall protect all of its environmentally sensitive areas, which includes floodways, surface water bodies, areas where upland strands are interspersed with Protected Wetlands and where there is a high likelihood of occurrence for semi-aquatic and wetland dependent State listed species or habitat of said species, and wetlands, by utilizing the Resource Protection Overlay Future Land Use Designation, implemented by the Resource Protection Overlay Zoning District; the Conservation Future Land Use Designation, implemented by the -C- (Conservation) Zoning District; the Wekiva Overlay Future Land Use Designation, implemented by the W (Wekiva) Overlay Zoning District, and the Transitional Wildlife Habitat Overlay Future Land Use Designation.
The RP Overlay Future Land Use Designation on the Future Land Use Map and the RP Overlay Zoning District shall be used to identify the locations of all potential environmentally sensitive areas. The Conservation Future Land Use Designation and -C- (Conservation) Zoning District shall be used to identify the locations of all potential environmentally sensitive areas and for the purpose of protecting lakes, wetland areas, and floodways. The Wekiva Overlay Land Use Designation and W (Wekiva) Overlay Zoning District shall be used to optimize open space and promote patterns of development that protect the most effective recharge areas, karst features and sensitive natural habitats located within the Wekiva Study Area. The Transitional Wildlife Habitat Overlay Designation shall be used to protect sensitive upland areas adjacent to Protected Wetlands which provide habitat for semi-aquatic and wetland-dependent State listed wildlife species. Other regulations protecting these areas are included in Chapter 63 - Environmental Protection, of the Land Development Code. (Amended December 12, 2005, Effective February 28, 2006, Doc. No. 051212903; Amended June 8, 2009, Effective August 25, 2009, Doc. No. 0906081103)

Policy 1.7.6 The City of Orlando shall continue to cooperate with Orange County and neighboring municipalities, in order to conserve, appropriately use, and/or protect wetlands and other sensitive vegetative communities which exist within more than one jurisdiction. This cooperation shall take the form of informal and formal City/County staff communication in developing consistent wetland regulations, so that uniform standards may apply to environmentally sensitive areas which exist in both jurisdictions.

Policy 1.7.7 The City of Orlando shall participate in the hazardous waste collection and education programs of the Orange County Environmental Protection Department, to reduce illegal disposal of hazardous wastes. This participation shall include the provision of technical information and administrative support to the County, and by requiring all new businesses which store hazardous materials or generate hazardous wastes to register their materials or waste with the City at the time of zoning review.

Policy 1.7.8 The Wekiva Overlay Future Land Use Designation shall apply to all property located within the boundary depicted on Conservation Figure C-3. This overlay is intended to identify and regulate property within the Wekiva Study Area, as defined in the Wekiva Parkway and Protection Act. All development within this overlay shall optimize open space and protect the most effective recharge areas, karst features and sensitive natural habitats through upland and wetland preservation, density transfer and cluster development.

Open space shall comprise at least 20% of the gross development area of any development site of five acres or more. Such open space may include stormwater retention areas, up to 50% of the total open space required, and passive recreation areas. However, such open space may not include required
setback areas, privately owned yards of single-family lots, street rights-of-way, parking lots, impervious surfaces, active recreation areas or golf courses. Stormwater retention areas may not be located within a protected wetland buffer area.

Development shall be discouraged within the RP (Resource Protection) Overlay Zoning District of the Wekiva Study Area. To balance development interests with protection of the Wekiva Study Area, development may be clustered on or transferred to other areas of a development site outside of the RP Overlay; provided however that the total net density or intensity of the area outside of the RP area may not be increased by more than 40%.

The RP Overlay shall incorporate and be consistent with the wetland buffer requirements provided in Conservation Policy 1.4.5 and all other applicable GMP objectives and policies and shall not be interpreted to supersede any other policies of this GMP.

(Policy 1.7.9) Throughout the planning period, the City shall maintain the W (Wekiva) Overlay Zoning District to implement the Wekiva Overlay Future Land Use Designation.

(Policy 1.7.10) Density and/or intensity bonuses shall not be permitted in RP (Resource Protection) areas located within the W (Wekiva) Overlay Future Land Use Designation.

(Objective 1.8) The City of Orlando shall, throughout the planning period, implement policies and regulations to promote water conservation and ensure adequate quantities of potable water are available to serve the City’s population.

(Policy 1.8.1) In order to conserve potable water supplies throughout the planning period, the City shall maintain regulations that require water reduction devices in new development, require Xeriscaping for all development except one and two family building sites, and decrease use of potable water supplies for non-potable water uses.

The City shall continue to improve conservation rates by periodically updating the Building Code and Land Development Code to incorporate advances in water conservation practices.
Policy 1.8.2  The City shall reduce the use of potable water for irrigation purposes throughout the planning period by adopting and enforcing regulations that require property owners in the reclaimed water service area to connect to the reclaimed water network where available.  
(Amended January 22, 2007, Effective April 9, 2007, Doc. No. 0701221004)

Policy 1.8.3  The City shall reduce the use of potable water for irrigation purposes by maintaining regulations throughout the planning period that require the use of native vegetation or other drought resistant species in new development.  
(Amended January 22, 2007, Effective April 9, 2007, Doc. No. 0701221004)

Policy 1.8.4  The City shall maintain land development regulations for landscaping that promote growth of the tree canopy and conserve water.  

GOAL 2

To improve air quality and increase energy conservation through more efficient urban form and transportation system design; increase the conservation and efficient use of energy in the design and operations of buildings, public utility systems and other infrastructure and related equipment; and promote the increased use of renewable energy resources.  

Objective 2.1  Throughout the planning period, the City of Orlando shall implement the Green Works Orlando Community Action Plan to transform Orlando into one of the most environmentally-conscious cities in America. The purpose of Green Works Orlando is to reduce non-renewable energy use, potable water use, use of non-renewable or toxic materials and promote healthy lifestyles.  

Policy 2.1.1  The City shall lead by example and promote environmental stewardship, by partnering with other governments and nonprofits, educating citizens about “going green”, and encouraging others to incorporate concern for the environment into the everyday workings of government, private business, and home life.  

Policy 2.1.2  The City shall promote sustainable infrastructure and conservation by:

1. Creating healthy, livable urban centers that promote walkable neighborhoods, mixed use transit-oriented development, affordable housing, job creation, and open space;

2. Partnering with Orange County and the Orlando Utilities Commission to determine the feasibility of having a private entity design, build, own and operate innovative technologies and facilities that will separate valuable material from the waste stream; including mixed waste processing, solid
waste gasification, anaerobic digestion, and future technologies still in development;

3. Expanding the City’s reclaimed water projects to incorporate a third multi-jurisdictional regional reclaimed water supply system;

4. Creating green office standards for City operations and expanding the program community-wide for businesses;

5. Pilot testing a green power reactor which will utilize waste water sludge to create renewable resource energy; and

6. Developing low-impact development and green infrastructure policies.  

Policy 2.1.3 The City shall promote energy efficiencies and green building practices by:

1. Designing all new City buildings in compliance with LEED standards, with a goal of achieving LEED certification or appropriate green building standards for all municipal buildings;

2. Developing a comprehensive Green Building Program that will encourage and create standards for environmentally friendly buildings.

3. Instituting a green permit program to expedite projects that are designed to comply with LEED standards;

4. Maintaining Land Development Code regulations that include options for natural and water conserving landscaping, green roofs and other residential and commercial development elements that encourage conservation (power, water and natural resources;

5. Creating new green standards for commercial and multifamily buildings and single-family homes; and

6. Exploring the development of a sustainable business park to attract and promote green building and clean energy companies and jobs.  

Policy 2.1.4 The City shall reduce its air quality impacts and promote efficient and sustainable transportation system design by 2030:

1. Transitioning the entire City fleet to bio-diesel, alternative fuels, flex fuels, hybrid, and/or electric vehicles;

2. Converting every stop light and pedestrian signal to Light Emitting Diode (LED) technology;

3. Maintaining the car sharing program in Downtown Orlando;

4. Improving bicycling and pedestrian opportunities through expansion of existing networks; and
5. Enhancing transportation choices by partnering with regional transportation providers including Commuter Rail, LYNX, and LYMMO.

Policy 2.1.5 The City shall promote its “green spaces” by:

1. Developing a master plan for park and open space expansion including tree placement;

2. Restoring and enhancing the City’s tree canopy with the One Person One Tree Initiative. The program will assess the trees’ ability to reduce carbon dioxide levels through carbon sequestration in order to make recommendations for future program expansion;

3. Promoting the Orlando Easterly Wetlands project, a green space that also serves as an advanced wastewater treatment system, wildlife habitat and a recreational and educational center;

4. Assessing City owned vacant land with potential to create urban agriculture projects; and

5. Partnering with local community organizations, neighborhood associations, non-profits and businesses to implement community gardens.

Policy 2.1.6 The City shall provide “green” advocacy and education leadership by:

1. Partnering with Orange County and the Orlando Utilities Commission to promote conservation and efficiency programs;

2. Implementing to greatest extent possible the climate change initiatives outlined through national commitments, including Mayors National Climate Action Agenda, Carbon Disclosure Project, and Compact of Mayors;

3. Implementing to the greatest extent possible the State of Florida’s Energy Plan;

4. Implementing to the greatest extent possible the US EPA’s 50% food waste reduction by 2030 goal.

5. Seeking community green designations from relevant organizations such as EcoDistricts designation, the Florida Green Building Coalition, Cities for Climate Protection and Best Workplace for Commuters, LEED and Audubon Cooperative Sanctuary; and

6. Increasing awareness by educating, encouraging and empowering City employees, residents and business owners to reduce climate pollution and live an environmentally-friendly lifestyle through such community
programs as Green Up Orlando, One Person One Tree, PACE Financing Program, Keep Orlando Beautiful, Trees in the Parkway, Backyard Composting and Recycling, the Orlando Green Business Program, and the Community Footprint Reduction Campaign and to pursue grants to develop complimentary programs.


**Policy 2.1.7**

The City shall continuously improve its environmental performance as a land owner, large employer, builder and maintainer of capital facilities, to not only improve the natural environment but also to set an example for others. In the operations of City government, Orlando shall strive to reduce the use of resources and toxic materials, prevent pollution, reuse existing resources such as historic structures, control waste, and protect natural areas and biodiversity. Green building practices should be employed in the maintenance and repair of City-owned buildings.


**Policy 2.1.8**

The City shall collect data and regularly report on the sustainability measures and quantitative goals in this GMP, the Land Development Code, and other programs to inform and enable citizens and decision-makers to consider alternative policies or programs, where outcomes differ from what was intended.


**Policy 2.1.9**

The City shall revise the City Code to adopt the Building Energy and Water Efficiency Strategy (BEWES), to require tracking the energy and water efficiency of large commercial, institutional, and multi-family buildings. The City shall also consider measures to require audits and/or retrofits as part of the code amendment.

(Amended August 28, 2017, Effective October 27, 2017, Doc. No. 1708281201)

**Objective 2.2**

Throughout the planning period, the City of Orlando shall coordinate with the Orlando Utilities Commission and Orange County Government to identify, encourage and implement renewable energy alternatives.


**Policy 2.2.1**

The City shall work with OUC and Orange County to implement the Green Works Community Action Plan in order to provide a cleaner, greener and more secure energy future for the Central Florida community and for generations to come.


**Policy 2.2.2**

The City of Orlando, Orlando Utilities Commission, and Orange County Government shall implement the requirements of the Solar American Cities
grant from the U.S. Department of Energy (awarded in 2008) and SolSmart Bronze designation (currently pursuing Gold designation) in order to increase the use of solar technology and the amount of renewable energy.

Policy 2.2.3 In order to develop reliable green energy alternatives for the Central Florida community, the City of Orlando shall partner with the Orlando Utilities Commission and Orange County Government (the Green Partnership) to develop a strategic energy plan with a focus on sustainable urban growth strategies.

Policy 2.2.4 Per SolSmart Bronze designation, the City shall collaborate with community leaders to identify the region’s solar opportunities, develop a list of solar policies and priorities, and create an action plan to implement those policies with a focus on education/outreach efforts. The City shall compile the results into a viable solar master plan.

Policy 2.2.5 Reserved.

Policy 2.2.6 The City of Orlando shall cooperate with the Orlando Utilities Commission as they implement such energy conserving programs as the Solar Photovoltaic (PV) aggregate program which generates electricity and the Solar Thermal rebate program which generates heat for domestic water heating systems.

Policy 2.2.7 The City shall support renewable energy technologies, such as wind, solar and landfill gas with local partners, to the extent that such projects are practical and financially feasible.

Policy 2.2.8 The City shall support and encourage the development projects that employ green design and building practices by providing incentives.