

IV. GOALS, OBJECTIVES, AND POLICIES

Goal 1: Preserve, conserve, restore, and appropriately manage the natural resources of Hillsborough County and ~~to~~ maintain or enhance environmental quality for present and future generations.

AIR QUALITY

Issue: Hillsborough County is currently designated as an attainment area for 5 out of the 6 criteria pollutants. This attainment area designation means that the County meets national and state ambient air quality standards for those pollutants. The County is a maintenance area for the pollutant lead. The lead maintenance area is a small geographical site that is currently meeting the air quality standard but requires continuous monitoring. There are two types of standards established by the Clean Air Act: primary standards and secondary standards. Primary standards address and set pollutant limits to protect public health. Secondary standards are designed to limit pollutant levels to protect public welfare, such as damage to animals, crops, vegetation, and buildings.

Automobile emissions continue to constitute nearly one-third of the air pollution sources in the county. However, point source emissions, primarily coal-burning power plants, also contribute significantly to air pollution. Modern changes are on the horizon though. In 2003, Tampa Electric Company's (TECO) Bayside Power Station shut down the last of its coal-fired units to complete the process of re-powering the plant to natural gas. The change resulted in emission reductions of 99 percent for SO₂ and NO_x, and 92 percent for particulate matter (PM). Future growth in the county will add automobile traffic, as well as increase the demand for electric generating facilities. Compliance with existing regulations and innovative voluntary air pollution control measures are needed to improve and safeguard the County's air quality.

The Environmental Protection Commission of Hillsborough County (EPC) is the local environmental regulatory agency charged with enforcing air quality regulations throughout both incorporated and unincorporated Hillsborough County. Through an interlocal agreement with the Florida Department of Environmental Protection (FDEP), to which the Environmental Protection Agency has delegated enforcement of the Federal Clean Air Act, the EPC processes and enforces the Florida Department of Environmental Protection's air quality permits. The EPC also implements its own programs, such as regulation of open burning to ensure that burning does not add to air quality problems during periods of air stagnation or temperature inversions.

~~The EPC was created by a special legislative act, and is not administered by the Office of the County Administrator. Staff does report to the Board of County Commissioners sitting as the EPC Board. For that reason, language in this Plan does not mandate the EPC to implement the Plan's provisions, but rather seeks a cooperative association between the County and the EPC to ensure that the Plan is implemented and enforced.~~

~~**Issue:** Hillsborough County is currently designated as a maintenance area. This maintenance area designation means that the County meets national and state ambient air quality standards; however, a community does immediately change from a non-attainment to an attainment area. The interim step is a maintenance area designation which remains in effect for a ten year period. During this ten year period air quality standards will be monitored to ensure that community continues to meet the standards. Automobile emissions constitute the most substantial and problematic source of air pollution in the county. However, point source emissions, primarily power plants, also contribute significantly to air pollution. Future growth in the county will add automobile traffic, as well as increase the demand for electric generating facilities. Both more stringent regulations and better compliance with existing regulations are needed to improve and safeguard our air quality.~~

~~The Environmental Protection Commission of Hillsborough County (EPC) is the local environmental regulatory agency charged with enforcing air quality regulations throughout Hillsborough County. Through interlocal agreement with the Florida Department of Environmental Protection (FDEP), to which the Environmental Protection Agency has delegated enforcement of the Federal Clean Air Act, the EPC processes and enforces Florida Department of Environmental Protection's air quality permits. The EPC also implements its own programs, such as regulation of open burning to ensure that burning does not add to air quality problems during periods of air stagnation or temperature inversions.~~

~~The EPC was created by Florida Statute, and is not administered by, nor directly responsible to, the Board of County Commissioners or the County Administrator. For that reason, language in this Plan does not mandate the EPC to implement the Plan's provisions, but rather seeks a cooperative association between the County and the EPC to ensure that the Plan is implemented and enforced.~~

Objective 1: Hillsborough County shall continue to maintain compliance with all national and state ambient air quality standards, and take appropriate steps to do so. Such steps may include coordinating with the state and adjacent communities, promoting clean fuels and alternative fuel technology, instituting transportation demand management strategies, and establishing improved transit opportunities, among others.

[Administrative]

Policy 1.1:

The County shall continue to actively promote the use of ride-sharing, car pooling, mass transit systems, walking, safer bicycle facilities, employer-option transportation control measures such as flexible work hours, employer based car-pooling, ~~and~~ compressed work weeks, and other techniques for reducing total motor vehicle emissions.

[Administrative]

Policy 1.2:

The County shall continue to ensure the continuation ~~and enhancement~~ of a local mobile source control program ~~that complements the state motor vehicle inspection program to reduce the level of excessive automobile emissions resulting from emission control tampering and mis fueling~~ to promote the reduction of mobile source emissions through voluntary measures.

[Administrative]

Policy 1.3:

When planning and implementing transportation system improvements, the County shall give priority to traffic flow improvements that reduce air pollution concentrations, particularly in areas where ambient standards are violated. The County shall also work with the Florida Department of Transportation, the Metropolitan Planning Organization, the Environmental Protection Commission of Hillsborough County and other agencies in the transportation planning and funding process to ensure that priority is given to traffic flow improvements that reduce air pollution concentrations, particularly in areas where ambient standards are violated and the County has no jurisdiction.

[Administrative]

Policy 1.4:

The County shall cooperate with the Environmental Protection Commission to ensure that an air quality monitoring program to monitor compliance with all ambient air quality standards is maintained.

Policy 1.5:

The County shall ensure continued regulation of open burning for non-agricultural land clearing and land management, to avoid burning during periods of elevated pollution levels or unfavorable meteorological conditions, through cooperation with the Environmental Protection Commission of Hillsborough County, which is mandated by Florida law to control air pollution.

Policy 1.6:

The County shall continue to meet national ambient air quality standards.

Policy 1.7:

The County shall not support the lowering of existing local, state or federal ambient air quality standards to accommodate the conversion of electric generating facilities from oil or gas burning to coal burning, unless necessary for the public health, safety and welfare.

Policy 1.8:

The County, in coordination with the Environmental Protection Commission of Hillsborough County, shall continue to actively promote energy conservation measures and alternative energy sources to reduce the demand for electricity and to minimize power plant emissions from the burning of fossil fuels. For example, the County will actively participate in the U.S. Environmental Protection Agency's "Green Lights" program, which promotes energy conservation in major public and private structures and facilities.

[Administrative]

Policy 1.9:

The County shall continue to support the Environmental Protection Commission's program to inventory and regulate previously unregulated small stationary sources and facilities which generate emissions of volatile organic compounds (VOCs), oxides of nitrogen (NOx), and hazardous air pollutants (HAPs).

[Staff Recommended]

Policy 1.10:

The County shall continue to monitor air quality impacts from its solid waste to energy facility, in accordance with its air emissions permit.

Policy 1.11:

The County shall ensure continued support of a local hazardous and toxic air pollutants program to implement and enforce the ~~federal~~ Federal National Emission Standards for Hazardous Air Pollutants Program, which regulates sources of hazardous substances, ~~;~~ ; including asbestos and Title III of the Clean Air Act Amendments which develops control strategies for toxic and hazardous air pollutants.

[Administrative]

Policy 1.12:

The County shall provide public education regarding air quality issues.

Policy 1.13:

The County shall communicate and work with federal, state, and local agencies and governments, especially Pinellas County, in pursuing regional compliance with ambient air quality standards.

Policy 1.14:

The County shall request that the local Chambers of Commerce work to attract clean, non-smokestack industries in new industrial developments.

Policy 1.15:

The County shall cooperate with the Environmental Protection Commission to ensure enforcement of fugitive dust control measures used during non-agricultural land clearing and development.

Policy 1.16:

The County shall cooperate with the Environmental Protection Commission of Hillsborough County and the Department of Environmental Protection to institute the most effective procedure to alert the public of an air pollution episode ~~by providing data indicating the likelihood of such an episode.~~
[Staff Recommended]

Policy 1.17:

The County shall, as allowed by general law, continue to coordinate with the ~~Florida Department of Health and Rehabilitative Services~~State to update building code requirements which minimize the risk of radon gas emissions and accumulation in residential developments.
[Staff Recommended]

LINKING LAND AND WATER MANAGEMENT

Issue: Water as rain, in rivers, streams and lakes, under ground and, ultimately, in Tampa Bay - is a critical component of Hillsborough County's natural resource base, its ecology, its economy and its residents' quality of life. The citizens of Hillsborough County will not accept environmental degradation. They have historically furthered environmental protection through their strong support of: the Environmental Protection Act, the Environmental Lands Acquisition and Protection program (ELAPP), the policies of the comprehensive plan, the Linking Land and Water Management in Northwest Hillsborough County Study, the programs and initiatives outlined in SWFWMD's Hillsborough County Integrated Plan; and many other plans, programs, policies and actions.

Hillsborough County "manages" its natural resources through the policies and actions described in the Comprehensive Plan. A structure, road or other facility can only be permitted in accordance with this comprehensive plan and the land development regulations that are adopted and enforced consistent with plan directives. Likewise, the County's infrastructure, public facilities and services are planned and provided in accordance with this plan. The County's holistic approach towards growth management eliminates the concept of "waste" water; all water must be managed as a resource, ~~—~~ and used to

accomplish a wide range of multiple public objectives. Growth and development can only take place consistent with environmental protection. County government, in coordination with other governments, the private sector and its citizens, must continue to take an approach which coordinates land and water management in an effort to manage stormwater, wastewater and provide potable water supplies in a manner that protects, improves and restores the natural environment.

The efforts of a year long search for a better way to manage land and water resources in Northwest Hillsborough County concluded with the report titled “Linking Land and Water Management in Northwest Hillsborough County.” The “linking” concept is the connecting or joining of the core areas of land, water, and environment together in a way that explains the relatedness of public policies addressing land and water management. This report presents a process and other elements that could have beneficial application for solving problems in other areas of the County. Such a model could eventually be of even greater significance to the general public and any group of government agencies grappling with planning and management issues of any kind.

Objective 2: ~~By 1998, the~~ County shall continue to implement a coordinated land and water management process, in part through ~~the~~ integration of environmental protection practices in the planning of public facilities and the provision of public services.

[Administrative]

Policy 2.1:

Through a coordinated land and water management approach, including the consideration of a full range of multiple uses of water in the development and implementation of public facilities and services, the County shall preserve the character of rural communities in Hillsborough County while providing for orderly development, the protection and conservation of natural resources and the public welfare.

Policy 2.2:

Hillsborough County shall develop and implement community plans, as necessary, to: ensure orderly and manageable growth, the efficient and cost-effective provision of public services, the preservation of the character of communities and the conservation, and protection of natural resources.

Policy 2.3:

Rural, suburban and urban areas shall be designated and planned through methods including the application of urban services boundaries and appropriate design standards.

Policy 2.4:

Hillsborough County shall develop and implement level of service standards for rural development, consistent with the establishment of urban services boundaries and the preservation of the rural character of the community.

Policy 2.5:

Recognizing the design and character differences of rural, suburban and urban communities, Hillsborough County shall appropriately plan and foster economic growth and the development of community activity centers consistent with urban services boundary designations and the character of the community.

Policy 2.6:

The County, recognizing the limits of groundwater in localized areas and the renewable nature of the potable water supply, shall manage its land and water resources in a manner that protects, conserves, improves and restores, as appropriate, terrestrial and aquatic ecological systems and ensures the perpetuation of potable water supplies into the future.

Policy 2.7:

The County shall review, amend and implement regulations which protect and conserve surface water, ground water, aquifer recharge areas and wellfields to ensure a coordinated land and water policy approach including: considerations of land use types and densities, impervious surface limitations, stormwater management plans, and alternative site planning and engineering techniques.

Policy 2.8:

The County shall protect the public against the threat of sinkholes through its planning and land development process, including publishing available sinkhole data and providing for consideration of sinkhole risk in the land suitability analysis of the Comprehensive Plan.

Policy 2.9:

The County shall include the sinkhole phenomenon in its consideration of the suitability of land for development through the review process of land development codes, including appropriate stormwater management measures.

Policy 2.10:

The County shall cooperate in an intergovernmental approach with the Southwest Florida Water Management District to provide technical expertise to the public with regard to sinkhole risks.

SURFACE WATER RESOURCES

Issue: In the past, surface water quality in Hillsborough County has been degraded due to a variety of unregulated water uses and adjacent land uses. The most prominent sources of water pollution have included point source discharges of domestic and industrial wastewater, mining operations, and urban and agricultural runoff. The passage of state and local laws aimed at controlling these sources of pollution has resulted in improved local water quality ~~in recent years~~. However, at times, some surface water bodies in the County still do not meet state standards for their designated uses. Improved compliance with existing point and non-point source and stormwater regulations is needed, and more stringent regulations for septic tank discharges should be considered.

NOTE: The preservation, protection, restoration and proper management of the surface water resources of Tampa Bay and associated saltwater wetlands are specifically and more comprehensively addressed in the Coastal Management Element of the Comprehensive Plan, except Cockroach Bay Aquatic Preserve, which is addressed in the Future Land Use Element. In addition, goals, objectives and policies pertaining specifically to the county's major rivers (the Hillsborough, the Alafia and the Little Manatee Rivers), are included in the River Resources section of ~~the this Future Land Use~~ Element. There are also goals, objectives and policies relative to the management and regulation of surface water resources in the Sanitary Sewerage, Potable Water and Stormwater Management Elements.

The Environmental Protection Commission of Hillsborough County (EPC) is the local environmental regulatory agency charged with controlling water pollution throughout Hillsborough County. Through interlocal agreement with the Florida Department of Environmental Protection (FDEP), the EPC processes and enforces FDEP's permits to ensure compliance with state and local water pollution standards. The EPC also implements its own programs regulating activities that are reasonably expected to cause or contribute to water pollution. The EPC was created by Florida Statute, and is not administered by, nor directly responsible to, the Board of County Commissioners or the County Administrator. For that reason, language in this Plan does not mandate the EPC to implement the Plan's provisions, but rather seeks a cooperative association between the County and the EPC to ensure that the Plan is implemented and enforced.

Objective 3. The County shall develop its stormwater management program to be consistent with the goals, plans and programs of the ~~state State~~ and the ~~water Water management Management district-District~~ and work to improve surface water quality as measured by data collected by the EPC. By 2010, the water quality of natural surface water bodies in Hillsborough County that do not meet state and water management district water quality standards for their designated use shall be improved or restored to the applicable water quality standard.

Policy 3.1:

The County shall not support the reclassification of any surface water body within County boundaries to acknowledge lower water quality conditions,

unless necessary to protect the public health, safety or welfare. Where economically feasible, the County shall support the reclassification of surface water bodies to accommodate higher standards, where it can be demonstrated that improved water quality conditions will prevail in the future.

Policy 3.2:

The County shall require that all domestic wastewater treatment plants discharging effluent into Tampa Bay or its tributaries provide advanced wastewater treatment, or if specific alternative criteria developed by the Surface Water Improvement and Management Program can only be met by removing a surface water discharge, such a program shall be implemented, where economically feasible and in accordance with **Policy 3.3 below**.

Policy 3.3:

The County shall continue to develop and promote environmentally acceptable effluent disposal alternatives to surface water discharge, including, but not limited to, reuse for irrigation and industrial purposes.

Policy 3.4:

The County shall support the maintenance and expansion of the Environmental Protection Commission's scientifically defensible surface water quality monitoring program, in order to monitor progress towards compliance with state water quality standards.

Policy 3.5:

Where economically feasible, the County shall provide improved domestic wastewater treatment service to developed areas where persistent water quality problems are clearly attributable to poorly functioning septic treatment systems.

Policy 3.6:

The County shall work with the appropriate agencies to develop scientifically-defensible siting criteria, performance standards, and density limitations for septic systems, to ensure protection of surface water quality. The County shall request that special criteria and standards be developed for those septic systems to be located in areas adjacent to Class I and Class II Waters and Outstanding Florida Waters. Within one year after such criteria and standards are developed, the County shall amend appropriate development regulations to include these criteria and standards.

Policy 3.7:

The County shall support the development of a nutrient monitoring and control program for those land uses that are located adjacent to natural surface water bodies and that contribute significant nutrient loadings, by appropriate regulatory agencies. Where economically and environmentally

feasible, the County shall support requiring the implementation of Best Management Practices (BMPs) for controlling nutrient loadings, including retrofitting, if needed, to meet specific alternative criteria as established by the Surface Water Improvement and Management Program. (See **Policy B-11.1, Future Land Use Element**)

Policy 3.8:

The County shall require that existing developments planned for expansion, modification or replacement provide or support stormwater treatment improvements within the affected drainage basin where treatment facilities are lacking. Where economically and environmentally feasible, the County shall require retrofitting of stormwater treatment facilities in urbanized areas lacking such facilities

Policy 3.9:

The County shall monitor emerging stormwater treatment technology and Best Management Practices and shall cooperate with the Southwest Florida Water Management District and the Department of Environmental Protection to ensure that water quality objectives are met through the most appropriate and effective methodologies.

[Staff Recommended]

Policy 3.10:

The County shall cooperate with the School Board, the Environmental Protection Commission, the Planning Commission, and the Southwest Florida Water Management District to distribute public education materials aimed at residential homeowners, that address the surface water quality and wetland impacts of improperly managed lawn litter and fertilizer/herbicide/pesticide applications.

Policy 3.11: ⁱ

- a. ~~By December 31, 2004, t~~The County shall ~~establish~~continue a comprehensive surface water protection program that shall include the determination of Surface Water Resource Protection Areas (SWRPAs) surrounding surface water bodies used as part of the public potable water supply system and criteria for restrictions and prohibitions to be applied within the SWRPAs.
- b. Surface water bodies designated as part of the potable water supply system shall be protected by a SWRPA which is based on the 100-year flood plain and any ~~setback~~buffers as may be required by law/regulation to protect the surface water resource. The County shall maintain SWRPAs using available data and analysis, on a map adopted as part of the Future Land Use Map (FLUM) series, showing where land uses, regulated or associated activities may be regulated or prohibited to prevent potential degradation of public potable water supply sources.

- c. The County shall protect existing and planned future sources of public potable water supply adopted in Tampa Bay Water's Master Water Plan through the regulation of land use activities, and the regulation and/or prohibition of substances or associated activities that have been established to be significant threats to the present or future use of such natural resources for potable water purposes.
- d. The County shall protect existing and planned future sources of public potable water supply through the identification of prohibited activities in SWRPAs. Such prohibited activities are those that have been established to be significant threats which can degrade or contaminate the water resources of the County, such as and including, but not necessarily limited to: new and expanding sanitary landfills, phosphogypsum piles, industrial land use designations, concentrated animal feeding operations dairy farm storage and treatment facilities, interim wastewater treatment plants, stormwater discharges to the ~~Floridan aquifer~~Floridan Aquifer, land applications of sludge and septage, and underground storage tanks. Additionally, the County shall ~~identify certain substances as regulated substances and shall~~continue to require that handling of ~~said regulated~~ substances in a SWRPA be in accordance with local, state and federal mandates. Regulated substances shall be those substances listed in 40 CFR, Chapter 1 Table 302.4, as amended.
- e. The County shall maintain a permitting, inspection and enforcement program for the County's policies and regulations to protect surface water resources for public potable water supplies in SWRPAs.
- f. No additional areas shall be designated with industrial land use plan categories within the SWRPAs.

[Administrative]

Policy 3.12:

Consistent with the Clean Water Act, Hillsborough County, in cooperation with Tampa Bay Water and the Environmental Protection Commission, shall support the reclassification of the Alafia River generally upstream of the intake at Bell Shoals and the Tampa Bypass Canal, including the Harney Canal, generally upstream of Structure 160 to Class I, designating these areas for potable water use.

WETLANDS AND FLOODPLAIN RESOURCES

Issue: ~~In past decades, a significant percentage of the county's original wetlands waterways and floodplains were drained, filled, dredged or channelized, thus reducing or eliminating their natural functions of providing water quality treatment, flood volume storage, and productive and diverse fish and wildlife habitat. Recent federal, state, regional and local wetland protection laws have slowed the destruction and alteration of wetlands, waterways and floodplains. However, increased growth pressure in the more marginally developable portions~~

~~of the county will place even greater stresses on remaining resources in the future. Where wetland or floodplain encroachment is unavoidable, a scientifically defensible and effective compensatory mechanism is needed to ensure that no net loss of wetland acreage occurs. Where feasible, previously altered wetlands should be restored to increase overall viable wetland acreage.~~

The Environmental Protection Commission of Hillsborough County (EPC) has adopted, pursuant to Chapter 84-446, Laws of Florida, as amended, ~~Rules~~ rules relating to activities affecting wetlands. All wetlands in Hillsborough County fall within the protective jurisdiction of the EPC, whether or not they are also within the jurisdiction of the Southwest Florida Water Management District (SWFWMD), the Florida Department of Environmental Protection (FDEP) and ~~/or~~ U.S. Army Corps of Engineers (USACE). The EPC was created by Florida Statute, and is not administered by, nor directly responsible to, the Board of County Commissioners or the County Administrator. For that reason, language in this Plan does not mandate the EPC to implement the Plan's provisions, but rather seeks a cooperative association between the County and the EPC to ensure that the Plan is implemented and enforced.

Objective 4: The County shall continue to apply a comprehensive planning-based approach to the protection of wetland ecosystems assuring no net loss of ~~wetland acreage~~ ecological values of functions performed by wetlands and other surface waters authorized for projects in Hillsborough County. The County shall work with the Environmental Protection Commission, the Southwest Florida Water Management District, the Florida Department of Environmental Protection, and the Tampa Bay Estuary Program to achieve a measurable annual increase in ~~restored wetland acreage~~ ecological value of functions performed by wetlands and other surface waters. It shall be the County's intent to maintain optimum wetland functions as well as acreage.ⁱⁱ

[Regulatory]

Policy 4.1:

The County shall, through the land use planning and development review processes, and in cooperation with the Environmental Protection Commission, continue to conserve and protect wetlands from detrimental physical and hydrological alteration.ⁱⁱⁱ

Policy 4.2:

Channelization or hardening (e.g., paving, piping) of natural stream-courses shall be prohibited except in cases of overriding public interest. The County shall continue to request appropriate regulatory agencies ~~to~~ implement this policy in cases where its implementation would be more stringent than enforcement of these agencies' regulations.

Policy 4.3:

The County shall, through the land planning and development review processes, and in cooperation with the Environmental Protection Commission, continue to prohibit unmitigated encroachment into wetlands.

Policy 4.4:

~~The County shall support the development of a unified and coordinated wetland compensatory mitigation and restoration program by appropriate federal, state and local environmental regulatory agencies that will not weaken local regulatory authority and will ensure no net loss of wetland acreage and a measurable increase in restored wetland function and acreage.~~
Reserved.

[Administrative]

Policy 4.5:

The County shall actively pursue alternative means of financing surface water quality improvements and wetland restoration projects including, but not limited to: federal and state grant programs, low-interest loans, special local revenue districts and private sector contributions, where appropriate.

Policy 4.6:

The County, in cooperation with the Environmental Protection Commission and the Southwest Florida Water Management District, shall continue to promote, through the development review process, the use of desirable native wetland plant species for the creation of wetland habitat and for biologically enhancing filtration and treatment of pollutants in newly constructed stormwater retention and detention ponds.^{iv}

Policy 4.7:

The County shall, in cooperation with the Planning Commission, the Environmental Protection Commission, the Florida Department of Environmental Protection and the Southwest Florida Water Management District, develop a computerized database and geographic information system (GIS) for monitoring natural resource trends throughout the county and for performing other important planning and resource management functions.

Policy 4.8:

The County shall cooperate with the Southwest Florida Water Management District to ensure that minimum freshwater flows and levels are scientifically determined and maintained to support natural optimal diversity and productivity in wetlands.^v

Policy 4.9:

All wetland mitigation projects must restore the ecological value of functions performed by impacted wetlands and other surface waters.~~type, nature and function of the impacted wetlands. (Per Governor and Cabinet Final Order)~~

[Regulatory]

Policy 4.10:

The County, in conjunction with the Environmental Protection Commission, shall continue to protect wetlands and hydric soils in accordance with EPC Wetlands Rule, Chapter 1-11, Rules of the EPC.^{vi}

Policy 4.11:

~~During the development review process, all wetlands and other water bodies identified as either conservation or preservation areas shall be designated on all development plans and plats, and shall require a minimum vegetated buffer width of 50 feet or an alternative buffer width based on the methods described in the technical manual developed pursuant to Policy 4.15. During the development review process, wetlands shall be designated as conservation or preservation on all development plans and plats. A minimum setback of 50 feet shall be required for wetlands designated as Preservation Areas and 30 feet for wetlands designated as Conservation Areas.~~^{vii}

[Staff Recommended]

Policy 4.12:

The review of the impacts of proposed development on wetlands will be made by weighing the specific environmental benefits provided by the target wetland with the impact that the proposed development could reasonably be expected to have upon the wetland's ability to provide those environmental benefits. Priority shall be given to avoiding the disturbance of wetlands in the County and to encourage their use only for purposes which are compatible with their natural functions and environmental benefits.^{viii}

Policy 4.13:

Development which impacts wetlands may be deemed appropriate only as a last resort; where:

1. the avoidance or minimization of impacts, in that order, are found not to be feasible;
2. ~~all~~ reasonable use of the property is otherwise unavailable and/or onsite preservation of a functioning wetland system is deemed unsustainable;
3. the adverse impact is offset by the benefit of the development to the public such that it is reasonable, in the public interest and an acceptable mitigation plan is proposed.

This determination shall be made by Hillsborough County and/or the ~~Hillsborough County~~ Environmental Protection Commission of Hillsborough County.^{ix}

[Staff Recommended]

Policy 4.14:

The development review process, part of a comprehensive program for the protection of wetlands, shall make every effort to maintain natural undisturbed wetlands by way of a sequential review process that first evaluates all means of avoiding wetland impacts in regard to a particular project; if necessary, secondly, evaluates and requires measures to minimize wetland impacts; and if necessary, thirdly, evaluates and requires the mitigation of wetland impacts.^x

Policy 4.15:

By 2008, Hillsborough County, in cooperation with the EPC, shall develop and adopt a technical manual that will be used to determine site-specific adjustments to the 50 foot buffer width that shall be allowed based on environmental conditions present on the site. These conditions will include but are not limited to: surface and ground water hydrology, soil types present, slopes, desired buffer functions, and intensity of the proposed land use. The technical manual shall be based upon the most up-to-date guidance available from the U.S. Department of Agriculture, the National Research Council, and other appropriate sources regarding the design, establishment and maintenance of vegetated buffers for the purpose of water quality protection.

[Staff Recommended]

Objective 5: The County shall continue to prevent net loss of 100-year floodplain storage volume in Hillsborough County. The County shall continue to protect and conserve natural wildlife habitat attributes where they exist within the 100-year floodplains of major rivers and streams.

Policy 5.1:

The County shall protect the functions and values of all riverine wildlife corridors along rivers in the county as well as along creeks, such as those that may be associated with Rocky Creek, Bullfrog Creek, Cypress Creek, Blackwater Creek, Trout Creek, Double Branch Creek, and other creeks of similar size. Protected functions and values shall include floodwater conveyance, water storage, water quality enhancement, wildlife habitat, wildlife corridors, groundwater recharge, and minimum stream-flows. The degree of protection may vary depending on the location. Protection methods may include, but are not limited to, density and intensity restrictions of "non-water dependent" land uses.

Policy 5.2:

The County, through the land planning and development review processes, shall continue to prohibit unmitigated encroachment into the 100-year floodplain of riverine systems.

Policy 5.3:

Hillsborough County shall restrict densities and encourage clustering to preserve open space to protect floodplains.
[Regulatory]

Policy 5.4:

Hillsborough County shall restrict filling low lying areas as a means of meeting minimum flood elevations.
[Regulatory]

Policy 5.5:

Hillsborough County shall reduce repetitive (flood) loss properties, through methods such as at risk property acquisition or elevation, as feasible.
[Regulatory]

Policy 5.6:

By 2008, Hillsborough County shall review the efficacy of requiring that all new structures built in the 100-year floodplain include at least 1 foot freeboard elevation.
[Regulatory]

LAKE RESOURCES

Issue: The County's lakes are important natural and community resources that serve as scenic and recreational amenities while performing a number of beneficial environmental functions. Lakes serve as important fisheries and as parts of wildlife habitat mosaics, providing sources of food for a variety of wildlife, including listed species, as well as to filter and attenuate (reduce, slow down) stormwater and provide reliable recharge to the surficial and, in some cases, the ~~Floridan aquifer~~ Floridan Aquifers. They also serve as sources of scenic beauty and provide various forms of recreation. ~~Degraded lakes are those whose natural functions or recreational values are reduced or lost. Because Florida lakes tend to be relatively shallow and nutrient-rich, and our climate is warm and temperate, eutrophication, the natural aging process of lakes and ponds, is relatively rapid here naturally. Mankind's activities tend to hasten the process, which leads to an increase in total bio-mass but a reduction in over-all biological diversity and a general reduction in perceived benefits to mankind.~~

Lakes are an important part of Hillsborough County's natural heritage, and the maintenance of their integrity is crucial. Natural and man-made lakes (as

opposed to stormwater retention ponds) are protected as Waters of Hillsborough County in accordance with Environmental Protection Commission rules. Lake Keystone and Lake Thonotosassa are 'managed' as sovereign submerged lands by the Tampa Port Authority. There are currently no land use or management guidelines specific to lakes in effect county-wide.

~~The environmental quality of lakes in Hillsborough County varies widely, depending in large part on the intensity of human activity, both directly along the shoreline and within the lake's drainage basin (watershed). For example, although shoreline development around Lake Thonotosassa is not intense, several pollution producing activities in the watershed have degraded the lake's environmental quality. Lakes can be affected in different ways by a number of activities. Draw downs from wellfield over pumpage, advanced eutrophication caused by nutrient overloads, often resulting in fish kills, and safety hazards from user conflicts all have some effect.~~

~~Lake management objectives must be realistic; lakes must be managed to produce the most feasible mix of multiple uses conducive to maintaining the desired level of environmental quality for any given lake. Generally, it is more economically feasible to maintain a natural resource in its existing state than attempt to restore it from a degraded condition. Therefore, the County's management objective should be to establish a process wherein a lake's existing environmental quality can be identified, and performance standards and criteria applied such that beneficial lake functions are maintained and, where feasible, restored.~~

~~Some specific management guidelines have been established through the SWFWMD's Surface Water Improvement and Management (SWIM) Plan for Lake Thonotosassa. The University of Florida's Lakewatch Program has established ambient water quality and other parameters for 30 lakes in northwest Hillsborough. The SWFWMD has also established regulatory lake levels for many of the county's lakes, but has not developed specific management guidelines for these lakes. The District SWFWMD has, however, published a lake management technical information booklet. The County has also established several policies relevant to lakes. However, despite the amount of information available on some lakes, there is not a significant data base for a vast majority of the county's lakes, and many lakes are becoming eutrophic at an accelerated rate, with potential for ecosystem collapse. In order to adequately protect and manage lake resources in the long run, a lake quality data base and monitoring program must be established.~~

Objective 6: The ecological integrity of natural lakes and ponds shall be maintained or improved through the development and implementation of ~~individual subbasin/watershed~~ Stormwater Management Master Plans.

[Administrative]

Policy 6.1:

The County shall strive to achieve water quality consistent with Class III (or better) standards for all natural lakes. (Class III standards provide for the propagation and survival of fish and wildlife and imply good water quality.)

Policy 6.2:

Wetlands associated with lakes shall be maintained and managed for optimum fisheries and other environmental values.

Policy 6.3:

The County, in conjunction with the Environmental Protection Commission, shall condition land use approvals and regulate activities affecting lakes such that the lake will continue to provide the optimum number and types of uses maintaining or improving the lake's existing environmental quality, in accordance with established development standards and regulations.

Policy 6.4:

Where present, existing natural areas on lake shorelines shall be retained in as natural a state as feasible. Minimal encroachment for physical access to the water shall be permitted, such that the landowner retains reasonable beneficial use of the property without degrading the lake's existing environmental quality. Developmental activities should be compatible with the adjacent natural or built environment and sensitive to the need to provide maximum natural/open space proximate to the lake.

Policy 6.5:

A development project's potential impact on a lake's existing environmental quality shall be assessed during the planning and development review process. Standards ensuring compatibility with maintaining or improving the lake's existing environmental quality shall be developed and applied.

Policy 6.6:

The County shall ~~prepare and~~ implement individual ~~subbasin/watershed~~ Stormwater Management Master Plans, ~~which shall include:~~

- ~~1. A lake watch/lake management process by which to identify existing environmental conditions in a representative selection of lakes to use as a base line for lake quality protection, restoration and management.~~
- ~~2. Development of a Lake Quality Index for use in identifying the range of different lake conditions and assessing the range of possible management strategies to apply in different situations.~~
- ~~3. An estimate of the costs of various management options, including an assessment of short and long term fiscal and environmental impacts of various alternatives, and likely funding sources.~~

- ~~4. A Hillsborough Lake Atlas by which data on lakes is compiled and available at a centralized internet based location.~~
 - ~~5. A strategic plan for effectuating lake management.~~
- [Administrative]

Policy 6.7:

Identification of a lake's existing environmental quality shall include an assessment of the following factors:

1. Water quality;
2. Associated habitat values, including both submerged and emergent vegetation, where present; and
3. The character and degree of development along the shoreline and within the watershed likely to impact the lake's water quality or habitat values.

Policy 6.8:

Educated citizen involvement will be crucial to the success of any lake ecosystems management effort. In order to help waterfront property owners manage their lands in ways that are not detrimental to a lake's environmental quality, the County will develop a technical assistance process designed to provide information regarding the management, hydrology and ecology of lakes.

Policy 6.9:

Hillsborough County, in cooperation with the Southwest Florida Water Management District, shall review the adequacy of current stormwater design standards, including vegetated buffer requirements, in relation to lake water quality and implement changes as necessary.

Policy 6.10:

The recommendations of the report titled "Hillsborough County Lakes: Analysis of Local Planning and Regulation" shall be implemented by ~~2003~~2008.^{xi}

[Administrative]

GROUNDWATER RESOURCES

Issue: Hillsborough County is underlain by a multi-layered freshwater aquifer system that includes the surficial, intermediate, and ~~Floridan aquifer~~Floridan Aquifer systems. ~~The Floridan aquifer is by far the most productive freshwater potable aquifer system in the County, capable of high yields (>5,000 gallons per minute) of very good quality water. The factors that influence Hillsborough County's potable water supply are hydrologically and geo-physically complex.~~ In northern Hillsborough, the ~~Floridan aquifer~~Floridan Aquifer is in some instances

hydraulically connected to surface waters. This leads to two problems: 1) draw-downs due to wellfield pumpage can lead to draw-downs of surface waters, and 2) contamination of surface waters can lead to contamination of potable water supplies. In eastern and southern Hillsborough, the Floridan aquifer is protected from surface contamination by intermediate aquifer thick clay units, but threatened by saltwater intrusion from Tampa Bay or from below, exacerbated caused by over-pumping and the lack of rainfall in the Southern Water Use Caution Area (SWUCA) basin.

~~Unregulated development in areas of high recharge/contamination potential may pose unacceptable threats to water quantity and quality within the aquifer system. Excessive development in areas of high potential contamination to aquifer recharge may, through unmitigated increases in total impervious surfaces and subsequent increased rate and volume of run off, reduce the amount of water available to replenish groundwater resources. Combined with potentially greater withdrawals of groundwater supplies and reduced recharge due to land drainage, the risk of potable groundwater contamination due to saltwater intrusion may be increased. Furthermore, the proliferation of improperly sited, constructed and maintained septic tanks, underground storage tanks, sewage percolation ponds, effluent spray irrigation sites, sewage and septage sludge land disposal sites, and other potential sources of groundwater pollution common in urban and suburban areas in Florida may pose a significant cumulative threat to the quality of potable groundwater supplies. Improved mapping of and impact assessment in areas of high aquifer recharge/contamination potential, and increased monitoring of groundwater quality and quantity, are needed. In addition, scientifically defensible land use regulations and performance standards for development activities in areas of high aquifer recharge/contamination potential may need to be developed to protect groundwater quantity and quality for future generations. Further, means of ensuring adequate water supplies while maintaining the quality and quantity of surface water supplies and the biological integrity of aquatic and terrestrial ecological systems must be a major public priority.~~

The Southwest Florida Water Management District (SWFWMD) is responsible by statute for protecting ground and surface waters, including wetlands, throughout the County. Tampa Bay Water (TBW)^{xiii} is responsible for supplying the County's potable water, under permit from SWFWMD. The Environmental Protection Commission of Hillsborough County (EPC) and the Florida Department of Environmental Protection (FDEP) have jurisdiction over discharges to groundwater in Hillsborough County. The FDEP has delegated the Underground Storage Tank (UST) programs to the EPC. EPC is also responsible for protecting surface waters and wetlands from any impacts, including draw-downs from wellfield pumpage, in accordance with its rules. Hillsborough County also administers a land development permitting program in compliance with SWFWMD and EPC rules and its own surface water and natural resource

protection programs, as established through this Plan and the Land Development Code.

The State permits septic tank placement in accordance with Chapter 10D-6, Florida Administrative Code. There is no conclusive evidence, however, that State rules governing septic system placement are adequate for eliminating the likelihood of groundwater pollution, particularly in areas of demonstrated high recharge/contamination potential. The question of whether or not existing septic system locational standards and operational procedures are adequate is unresolved, but there is mounting evidence that poorly-sited and maintained septic systems and disposal of septage and other sewerage by-products may lead to increased water quality problems.

Additional objectives and policies affecting the management and regulation of groundwater resources are included in the Potable Water, Sanitary Sewerage and Future Land Use Elements.

Objective 7: Under all future growth scenarios, and to the extent it has the authority to do so, the County shall ensure compliance with State groundwater quality standards and maintain or improve current groundwater quality conditions within county boundaries.

Policy 7.1:

Prior to permit approval, the County shall consider the Southwest Florida Water Management District's Water Resource Assessment Project (WRAP) and/or DRASTIC information for determining the potential for impacts of proposed land use changes and developments in areas with high aquifer recharge/contamination potential. The County shall also use this information when planning and siting public facilities.

[Staff Recommended]

Policy 7.2:

Under the supervision of the U.S. Environmental Protection Agency and the Florida Department of Environmental Protection, the County shall continue to implement and fund investigations of closed landfills under the Proactive Closed Landfill Investigation Program.

Policy 7.3:

To maximize recharge to potable water aquifers, the County shall use alternative site-planning and engineering techniques, such as establishing recharge zones in Resource Protection Areas, and may apply specific regulations, standards and criteria to new development in such areas including the use of Best Management Practices (BMP). Such regulations and performance standards may include, but are not limited to, the control of land use types and densities, impervious surface limitations, additional

requirements for onsite retention of stormwater, and groundwater discharge controls.

Policy 7.4:

A program to maximize recharge through the use of private and public stormwater management facilities shall be developed and implemented. This program may require, among other things, that pre-development groundwater recharge volumes and rates be maintained on site after development, if the site is located in an area of known or identified average annual recharge potential of at least two surface inches of water, and may include restrictions on the lowering of groundwater levels to meet stormwater management regulations. The County shall encourage stormwater retention rather than stormwater detention for new development projects in these areas through Best Management Practices (BMPs) in the land development and review process.

Policy 7.5:

The County, together with the Environmental Protection Commission, shall reciprocally cooperate with the U. S. Geological Survey, the Southwest Florida Water Management District, and Tampa Bay Water to facilitate the sharing of collected groundwater monitoring data, in order to monitor and assess the status of the County's groundwater supply.^{xiii}

Policy 7.6:

- a. The County shall continue^{xiv} a comprehensive wellhead protection program that shall include the determination of wellhead resource protection areas (WRPAs) surrounding potable water supply wells and criteria for restrictions and prohibitions to be applied within the delineated wellhead resource protection area.
- b. Public potable water supply wells included in the County's wellhead resource protection program shall include public^{xv} water wells and aquifer storage and recovery (ARS) wells that are intended for drinking, culinary or domestic purposes, and are permitted by a consumptive/water use permit with a daily amount of 100,000 gallons-per-day (gpd) or greater.
- c. The County shall maintain^{xvi} wellhead resource protection areas using available data and analysis, on a map adopted as part of the Future Land Use Map (FLUM) series, showing where land uses, regulated or associated activities may be regulated or prohibited to prevent potential degradation of public potable water supply wells. Regulated substances shall be those substances listed in 40 CFR, Chapter 1, Table 302.4, as amended.
- d. The County shall protect existing and planned future wellheads of public potable water supply wells adopted in Tampa Bay Water's Master Water Plan through the regulation of land use activities, and the regulation and prohibition of substances or associated activities that have been established to be significant threats to the present or future use of such wells for potable water purposes.

- e. The County shall protect existing and planned future wellheads of public potable water supply wells through the identification of prohibited activities in wellhead resource protection areas. Such prohibited activities are those that have been established to be significant threats which can degrade or contaminate the water resources of the County, such as and including, but not necessarily limited to: new and expanding sanitary landfills, phosphogypsum piles, industrial land use designations, concentrated animal feeding operations, dairy farm storage and treatment facilities, interim wastewater treatment plants, stormwater discharges to the ~~Floridan aquifer~~Floridan Aquifer, land applications of sludge and septage, and placement of underground storage tanks within 1000 feet of a public potable water supply well. Additionally, the County shall identify certain substances as regulated substances and shall require that handling of said substances in the WRPA be in accordance with state and federal mandates. Regulated substances shall be those substances listed in 40 CFR, Chapter 1, Table 302.4, as amended.
- f. The County shall continue^{xvii} a permitting, inspection and enforcement program for the County's policies and regulations to protect wellhead resources for public potable water supplies in wellhead resources protection areas. **(Policy revised per Final Order of the Governor and Cabinet)**
- g. No additional areas shall be designated with industrial land use plan categories within the WRPAs.
- ~~h. h.~~ h.—The County shall protect potable water wellfields with a potable water well protection area of a 500 foot radial setback from a potable water well. Potable water wellfield means the site of one or more water wells which supply potable water for human consumption to a water system which serves at least 15 service connections used by year-round residents or regularly serves at least 25 year-round residents. Florida Department of Environmental Protection Chapter 62-521, as amended, protection measures shall apply in the potable water wellfield protection area. The potable water wells and the 500 foot radial setback shall be shown on a map adopted as part of the FLUM series.
- i. The County shall maintain its source water protection program known as the Wellhead Resource and Surface Water Resource Protection Program through a biannual review and update of the policies, official maps, and best available data and undertake changes to the Land Development Code as are necessary to protect source waters.^{xviii}

Policy 7.7:

Through the land development review process, the County shall continue to prohibit land excavations that would breach the confining layers of the ~~Floridan aquifer~~Floridan Aquifer.
[Administrative]

Policy 7.8:

The County shall cooperate with the Florida Department of Environmental Protection to ensure the provision of joint review of new pollution-discharge-to-groundwater permits for such facilities as effluent percolation ponds, spray irrigation fields, and other wastewater treatment and disposal systems greater than 5,000 gpd, in areas of demonstrated high recharge/contamination potential by facilitating such reviews.

Policy 7.9:

By 2009, ~~T~~the County shall coordinate with the appropriate agencies to develop scientifically-defensible siting criteria, performance standards, and density limitations for septic systems to protect groundwater quality. The County shall request that special criteria and standards be developed for those septic systems to be located in areas of demonstrated high recharge/contamination potential. Within one year after such criteria and standards are developed, the County shall amend appropriate land development regulations to include these criteria and standards.

[Staff Recommended]

Policy 7.10:

The County shall cooperate with state and local environmental regulatory agencies to ensure maximum compliance with the Underground Storage Tank (UST) Program, especially in areas of demonstrated high aquifer recharge/contamination potential, by including these agencies in the appropriate development approval processes.

Policy 7.11:

The County shall cooperate with the Environmental Protection Commission and the Southwest Florida Water Management District to ensure that excessive consumptive use of groundwater or excessive drainage does not significantly lower water tables or surface water levels, reduce base flows, adversely affect lakes or wetlands, or increase current levels of saltwater intrusion by including these agencies in the appropriate development approval processes.

Policy 7.12:

The County shall not support the re-classification of any groundwater aquifer within County boundaries to acknowledge lower groundwater quality unless necessary to protect the public health, safety or welfare. Where economically feasible, the County shall support the reclassification of groundwater aquifers to accommodate higher standards where it can be demonstrated that improved water quality conditions will prevail in the future.

Policy 7.13:

The County shall not support the use of deep-well injection as a method of effluent or waste disposal, except where it can be demonstrated that the

capacity for receiving injection is adequate and that such disposal will have no adverse effect upon existing or potential potable water aquifers.

WATER CONSERVATION

Issue: Potable water is currently supplied to the residents of Hillsborough County ~~from a combination of sources, including the Hillsborough River reservoir and a network of public and private wellfields, located both within and outside County boundaries. The sole supply of water to these sources is the rain which falls within Hillsborough and adjacent counties to the north and east, minus losses through evapotranspiration and runoff into salt water.~~ through an agreement with Tampa Bay Water, a regional public potable water wholesaler. Tampa Bay Water has developed a diversified system of water resource development facilities. Although these sources are adequate to meet all current demands, future population projections indicate that municipal and domestic water demands will significantly increase over the next several decades, while at the same time the water demands of industry and agriculture will continue to compete for the supply of potable water. ~~Concurrently, significant increases in impervious surfaces may actually decrease the recharge potential and the available water supply below historically reliable levels. During previous periods of drought, excessive groundwater withdrawals in parts of Hillsborough and surrounding counties have resulted in significant environmental degradation due to the de-watering of wetlands and surface waters. Furthermore, in some developed coastal areas of Florida, entire wellfields have had to be abandoned because of saltwater intrusion, resulting in a permanent loss of part of the freshwater resource, and a serious interruption of water supply. Future 'safe yield' groundwater withdrawal limitations must be established which consider and account for conditions of historically preceded low rainfall, predictable increases in demand, and potential contamination, transmission line failure, or other events causing significant interruption of the water supply. Although state-of-the-art projections of the future quantity of groundwater resources are only slowly becoming available, the 'Water Budget Concept' can be applied now to give useful estimates of the maximum and minimum limits of total water supply. While very sophisticated tests and computer modeling are necessary to determine the maximum safe yield of individual wellfields, the total safe yield of all wellfields and all other water sources should not exceed the general limits of water supply calculable by the Water Budget Concept. For these reasons, the Water Budget Concept is a useful tool for estimating the probable limits on water demand, and when they can be reasonably expected to be reached. The warning period provided by this method is absolutely necessary in planning for when, and how much, water needs to be conserved through limitations on demand or supplements to the overall water supply (e.g., water reuse). In addition, p~~Public education will be critical to the success of all future water conservation efforts.

Objectives and policies dealing with water conservation are also included in the Potable Water, Sanitary Sewerage and Stormwater Management Elements.

Objective 8: The County, as a member of Tampa Bay Water, shall meet its potable water demands under all future supply and demand scenarios through the expansion of reuse and the conservation and appropriate use of groundwater, surface water, desalination and other alternative sources; while preventing significant environmental degradation due to excessive groundwater, surface, desalination and other alternative source withdrawals.^{xix}

Policy 8.1:

The County shall request that Tampa Bay Water cooperate with the Southwest Florida Water Management District (“District”) to establish scientifically and legally defensible minimum flows and levels using the best information, analyses and modeling available and to implement and prevent the violation of minimum flows and levels through the District’s Water Use Permitting and Environmental Resource Permitting programs. Once established, the County shall cooperate with the District and Tampa Bay Water to ensure that new and existing water supply development projects do not exceed safe yields limits and are permitted at quantities that will not violate established minimum flows and levels and that recovery strategies are developed and implemented to achieve and prevent violation of minimum flows and levels where water levels or flows are currently below established minimum flows or levels.^{xx}

Policy 8.2:^{xxi}

The County shall continue and expand its comprehensive water conservation program, including enhanced public education, enforcement of specific building code requirements, incentives for water saving devices, measures and requirements for controlling and reducing potable water consumption and use of Water Wise Landscaping techniques; the use of the lowest quality water reasonably, safely and feasibly available; ~~and by 2003 shall amend its Land Development Code and/or technical manuals to enhance water conservation with provisions which may address, but are not necessarily limited to:~~

- ~~1. banning irrigation and turf grass requirements in deed restrictions;~~
- ~~2. requiring that planter beds and foundation plantings, for new development and redevelopment, may only be irrigated by low volume techniques;~~
- ~~3. limiting the use of highly water dependent turf grasses in new development;~~
- ~~4. requiring Water Wise Landscaping; and~~
- ~~5. adjusting building setback and impervious surface requirements.~~

[Administrative]

Policy 8.3:

The County shall continue to implement a comprehensive Water Reuse Program that maximizes the use of treated sewage effluent for residential and recreational irrigation purposes.

Policy 8.4:

The County shall, through the development review process, ensure compliance with state law regarding irrigation and recommend the use of the most practical, economically feasible and efficient irrigation methods available for new residential, recreational and agricultural irrigation systems; and shall promote the replacement of less efficient systems with more efficient ones through educational efforts. This policy should not be interpreted to require replacement of existing systems.

Policy 8.5:

The County shall assist the Southwest Florida Water Management District in enforcing water conservation measures.

Policy 8.6:

The County shall assist the Southwest Florida Water Management District in the Quality Water Improvement Program (QWIP) through the identification, capping or reconstruction of abandoned artesian wells.

Policy 8.7:

When reuse alternatives are available or planned, the County shall inform the Southwest Florida Water Management District and the Health Department, as appropriate, of existing or pending water reuse systems, for consideration in review of Water Use Permit applications.

Policy 8.8:

The County shall continue its inverted block rate structure to discourage non-essential uses of potable water. Information stressing the need for conservation, and providing conservation tips, will be included in the billing process.

Policy 8.9:

The County shall, through the development review process, restrict the substantial lowering of the water table to meet stormwater treatment or storage requirements.

Policy 8.10:

Through the development review process, the County shall continue to require ~~xeriscape~~ Florida Friendly landscaping and low-volume irrigation in commercial and industrial projects and require low-flow plumbing fixtures in new developments. The County shall also promote these and other water conservation measures in existing developments.

[Administrative]

Policy 8.11:

The County shall develop a legal and financial mechanism to purchase, to the extent reasonably feasible, development or mineral rights, easements and partial or complete title to lands necessary to safeguard the public water supply. This mechanism may compensate land owners through transfer of development rights, tax benefits, etc., for regulation of land use to safeguard the public water supply.

Policy 8.12:

The County shall promote the evaluation and use of the Aquifer Storage and Recovery (ASR) concept and other means of minimizing the adverse environmental impacts of peak demand for ground and surface water resources.

Policy 8.13:

The County will protect water quality and quantity by restricting activities and land uses which would adversely affect the quality and quantity of identified water sources used as a source of public water supply.

Policy 8.14:

The County shall support regional water supply initiatives, including the development of alternative sources pursuant to the Northern Tampa Bay New Water Supply and Groundwater Withdrawal Reduction Agreement and Tampa Bay Water's New Water Plan, provided the regional water supply initiatives are in the public interest and will not: (1) result in a net loss of wetland acreage or other adverse environmental impacts; (2) exceed safe yield limits; (3) violate established minimum flows and levels; or (4) interfere with an existing legal use of water.^{xxii}

Policy 8.15:^{xxiii}

The County shall support and participate in the Southwest Florida Water Management District's regional water supply planning efforts to assure coordination between the Regional Water Supply Plan and the development and annual update of the County's Water Facilities Work Plan.

Policy 8.16:

Hillsborough County, as a member of Tampa Bay Water, and in coordination with the Environmental Protection Commission (EPC) of Hillsborough County, the Southwest Florida Water Management District (SWFWMD), the Tampa Bay Estuary Program (TBEP), the Department of Environmental Protection (DEP) and the Hillsborough County City-County Planning Commission, shall support new and alternative potable water sources and water management projects and practices that are consistent with the Hillsborough County Comprehensive Plan, the Comprehensive

Conservation and Management Plan (CCMP) for Tampa Bay and sound resource conservation and environmental protection policies.^{xxiv}

Policy 8.17:

In meeting future demands for potable water while minimizing impacts on natural resources, Hillsborough County, as a member of Tampa Bay Water, shall support the use of fiscal cost/benefit analysis, as well as the environmental, social and general welfare costs and benefits of water management projects, programs and new potable water sources.^{xxv}

Policy 8.18:

Hillsborough County, as a member of Tampa Bay Water, shall support new and alternative water sources that will not result in individual or cumulative adverse impacts to natural resources.^{xxvi}

Policy 8.19:

In determining the cumulative impacts of new alternative potable water sources, Hillsborough County, as a member of Tampa Bay Water, shall support the consideration of all available data of historic, existing and proposed conditions by Tampa Bay Water and the Southwest Florida Water Management District, consistent with water management district rules.^{xxvii}

Policy 8.20:

~~In an effort to provide for potable water demand while preserving the integrity of living resource habitat, Hillsborough County shall encourage and support determination, by the year 2001, of quantitative thresholds for significant harm to Tampa Bay and its riverine systems associated with, or resulting from, cumulative changes in local salinity, circulation, and other important parameters affecting such systems.^{xxviii}~~

~~[Administrative]~~

MINERAL RESOURCES AND LAND EXCAVATION

Issue: Hillsborough County contains a significant base of economically valuable phosphate deposits. The mining of phosphate in the County has, in past years, generated significant economic benefits throughout the entire Tampa Bay region. However, the relatively unregulated mining industry of the past was also responsible for significant environmental damage, including the destruction of wetlands, floodplains, and wildlife habitat, and the siltation and eutrophication of rivers and streams. ~~In addition, large tracts of land have been committed to the maintenance of clay settling ponds and non-productive reclamation areas. Improved state and local regulation of the phosphate industry in recent years has reduced operational impacts on the environment. However, more effective and productive methods of habitat reclamation, and greater enforcement of reclamation requirements, may be needed.~~ The following three objectives and

their policies were developed specifically to provide guidance in the planning, management and regulation of phosphate mining and land excavation, - development activities with unique characteristics and problems. Priority should be given to this section when considering policies seemingly in conflict. Phosphate mining operates under the concept of sequential land use, whereby areas with known deposits of economically viable materials are first protected from urban development, then mined in accordance with federal, state and local regulations, permits and procedures, and finally restored to a productive land use in a timely manner.

Objective 9: The County shall continue to provide opportunity for and require the prudent operation of mining activities and timely reclamation of mined areas.

Policy 9.1:

The County shall, through the land use planning process, implement sequential land use in areas known to be underlain by economically valuable mineral deposits.

Policy 9.2:

The County shall require the phasing of mineral extraction to ensure that limited land areas are affected by excavation and settling ponds at one time and that reclamation occurs in the most effective manner.

Policy 9.3:

Through the land use planning process, the County shall encourage expeditious mineral extraction in areas which are crucial to the provision of essential public services to ensure the recovery of mineral resources as well as the creation of the properly reclaimed land forms in such areas.

Policy 9.4:

The County shall continue to provide a zoning category that allows phosphate mining activities and shall continue to implement the Phosphate Mining Regulations to require prudent operation of mining activities.

Objective 10: Mining activities in Hillsborough County shall comply with, or exceed, state and local regulations related to land reclamation and the protection of wetlands, water quality and quantity, and wildlife habitat, and shall protect the public health, safety and welfare.

Policy 10.1:

The County shall require demonstration that natural habitats, particularly environmentally sensitive areas, can be successfully restored prior to mining unit approvals in such areas.

Policy 10.2:

The County shall require consideration and, where appropriate, incorporation of County-approved conceptual greenway and wildlife corridor plans into reclamation plans where corridors are proposed in areas to be mined. Reclamation plans shall address responsibility for preservation, restoration, and management of the corridors, with an emphasis on maintaining and restoring contiguous natural systems.

Policy 10.3:

The County shall continue to prohibit mineral extraction within the 25-year floodplain and to restrict mining activities in the 100-year floodplain of rivers and streams, and shall provide for stream-side buffers for mining and mining-related activities to protect perennial streams that normally flow 1 cubic-foot-per-second (cfs) or more or contain water a minimum of nine (9) months a year.

Policy 10.4:

The County shall restrict mining in documented listed species habitat.

Policy 10.5:

~~Reserved~~The County shall develop and implement performance-based reclamation standards for mined lands. Such standards shall address, but are not limited to, restoration of topography, soils, hydrology, natural plant communities and natural systems, including ecological greenways, as well as reclamation to other uses of the land, such as agriculture and silviculture.

[Administrative]

Policy 10.6:

The County shall, with the assistance of the Florida Department of Environmental Protection and the Environmental Protection Commission, periodically review, and amend if necessary, the Phosphate Mining Regulations to ensure that the best available technology to restore natural land forms and vegetative communities and the most cost effective, efficient and timely clay settling and land reclamation methods are being utilized to minimize natural resource impacts.

Policy 10.7:

The County shall require demonstration of the capability of restoring essential wildlife habitat prior to permitting mining in areas that support listed species.

Policy 10.8:

The County shall continue to require proof of long-term financial responsibility for the reclamation of mined lands.

Policy 10.9:

The County shall continue to require appropriate setbacks between mining activities and adjacent existing and future land uses to ensure public health and safety, as well as economic and aesthetic attributes.

Policy 10.10:

The County shall provide the public with factual information regarding health hazards associated with reclaimed lands and radon gas emissions.

Issue: The demand for fill material for construction in Hillsborough County has resulted in an increasing number of land excavation projects, especially in outlying rural areas. In the past, land excavation projects were not regulated and may have resulted in local surface water problems. In addition, land excavation areas were sometimes left as non-productive open water bodies with little or no fish and wildlife habitat value. Development of the Land Excavation Regulations has improved the public safety requirements and reduced the hydrologic impacts of land excavations, but the productive reuse of such areas still remains an issue. In addition, land excavations must be located and operated in a manner that minimizes negative impacts on surrounding property, and must be appropriately reclaimed.

Objective 11: The County shall continue to regulate the location and operation of land excavations to minimize negative impacts on surrounding properties, ensure that land excavations are appropriately reclaimed, and encourage the productive reuse of such areas.

Policy 11.1:

The County shall continue to prohibit land excavation activities that adversely impact surface or groundwater levels or wetlands on surrounding property.

Policy 11.2:

The County shall require reclamation plans to ensure environmentally acceptable and economically viable reuses of excavated lands.

Policy 11.3:

The County shall require the preparation of wetland/lake management plans for the reclamation of land excavation projects to be reclaimed as lakes to ensure that such areas become viable and productive aquatic systems. The County, with the assistance of the Environmental Protection Commission, shall provide technical assistance to prepare such plans.

Policy 11.4:

The County shall encourage the recreational development of reclaimed land excavations.

Policy 11.5:

The County shall periodically review, and amend, if necessary, the Land Excavation Regulations to ensure adequate standards and requirements are in place to minimize the negative impacts of land excavations, and to ensure that land excavations are appropriately reclaimed.

Policy 11.6:

The County shall require setbacks between land excavations and adjacent land uses to protect public health, safety and welfare.

Policy 11.7:

The County shall restrict land excavations in documented listed species habitat.

Policy 11.8:

The County shall require demonstration of restoration of essential wildlife habitat prior to permitting land excavations in areas that support listed species.

SOIL RESOURCES

Issue: With few exceptions, the soils of Hillsborough County can be generally characterized as poorly drained fine sands which are relatively nutrient poor. Because there is minimal topographic relief in the County, natural erosion has not been a problem in the past. However, temporary soil erosion during land clearing for agriculture and development often results in localized erosional problems when best management practices and erosion control measures are not followed. In utilizing soils for development and agricultural activities, proper planning is imperative to ensure consideration of soil suitability for a given land use, and to avoid depletion of valuable soil resources.

Objective 12: The County shall continue to require soil conservation and protection measures, consistent with best management practices, be applied during land alteration and development activities.

Policy 12.1:

During the land development review process, the County shall recommend the use of soils in accordance with the soil suitabilities identified by the USDA Soil Conservation Service. Prior to the commitment of resources to development and land use activities, the County shall continue to require site-specific analyses when the proposed use and the identified soil suitabilities appear to be incompatible.

Policy 12.2:

The County, in cooperation with the USDA Soil Conservation Service, shall require that topsoil best management practices be observed during all land alteration activities. To the greatest degree practicable, erosional soil loss due to construction and agricultural activities shall be minimized.

Policy 12.3:

During the land development review process, the County shall continue to evaluate and utilize, where appropriate, soil capability analyses for flood hazard, stability, permeability, and other relevant soil characteristics when permitting new development.

HAZARDOUS MATERIALS AND WASTES

Issue: Numerous large and small quantity generators of hazardous materials and wastes, including both commercial and industrial facilities, are located within Hillsborough County. ~~While many of these facilities are registered and regulated under federal and state programs, large amounts of hazardous materials are improperly handled, treated and disposed of by small businesses, as well as by the general public, often because they are unfamiliar with the complex and rapidly changing regulations. An inadequate number and distribution of facilities for the storage, treatment and especially transfer of hazardous materials/wastes continues to be a problem. Improved public education and stricter enforcement of existing regulations are needed.~~

The Environmental Protection Commission of Hillsborough County (EPC) is the local environmental regulatory agency charged with controlling air and water pollution throughout Hillsborough County, by interlocal agreement with the Florida Department of Environmental Protection. The EPC is responsible for keeping an inventory of small quantity hazardous waste generators in Hillsborough County. Local fire departments are also active in hazardous materials emergency programs.

Objectives and policies addressing hazardous materials and waste issues are contained in the Solid Waste Element.

FLORA AND FAUNA

Issue: Due to its subtropical climate and variable hydrology and geology, Hillsborough County supports a wide variety of plant and animal species. However, the rapidly growing human population and its associated urbanization has resulted in a substantial loss of natural wildlife habitat, especially in the coastal portions of the County, while the cumulative impacts of development continue to divide and isolate large contiguous natural areas. In addition, the spread of exotic nuisance plant species has displaced large numbers of birds and

other animal species not adapted to utilize such habitats. As a result of habitat destruction and alteration, the natural populations of many wildlife species have declined dramatically. Advancing urbanization has so increased property values in outlying areas that it is becoming increasingly difficult to publicly purchase lands necessary to protect wildlife habitat. The Comprehensive Plan identifies the following types of environmentally sensitive areas and calls for their protection: Conservation Areas, which include freshwater marshes, wet prairies, hardwood swamps, cypress swamps, natural shorelines (other than beaches and dunes), Class III Waters, and significant wildlife habitat; and Preservation Areas, which include coastal marshes, mangrove swamps, marine grassbeds, natural beaches and dunes (coastal strand), Class I and II Waters, aquatic preserves, essential wildlife habitat for threatened and endangered species and species of special concern (listed species), and State wilderness areas.

~~The most recent additions to the Environmentally Sensitive Areas definition are significant wildlife habitat and essential wildlife habitat. These areas were added when the Plan was updated in 1989.~~ Significant wildlife habitat is defined in this Plan as contiguous stands of natural plant communities which have the potential to support healthy and diverse wildlife populations. Essential wildlife habitat is land that supports listed species, whether or not the land is significant wildlife habitat or is part of a natural plant community or other natural system. Listed species are plant or animal species in Hillsborough County that are listed as Endangered, Threatened, or a Species of Special Concern by a state or federal wildlife agency. (See definition of listed species)

The County's program to protect significant and essential wildlife habitat includes development regulation, land acquisition, habitat management, and education. The County also cooperates with and seeks assistance from state and federal wildlife agencies to protect wildlife resources.

Objective 13: The County shall protect and conserve significant wildlife habitat, and shall ensure a no net loss of essential wildlife habitat in Hillsborough County.

Policy 13.1:

The County shall continue to implement a local wildlife and wildlife habitat protection and management program to protect significant and essential wildlife habitat, and shall coordinate with state and federal wildlife programs.

Policy 13.2:

The County shall maintain and update its map of natural plant communities that potentially provide significant wildlife habitat and wildlife corridors in Hillsborough County. The Florida Fish and Wildlife Conservation Commission's natural systems and land use cover inventory shall serve as the basis for this map. Areas of significant wildlife habitat shall be indicated as environmentally sensitive areas on the Future Land Use Plan Map.^{xxix}

Policy 13.3:

The County, in consultation with the Florida Fish and Wildlife Conservation Commission (FWC), shall protect and restore areas identified as significant wildlife habitat, as determined through means including, but not limited to: listed species surveys, field observations of listed species, the Natural Systems and Land Use Inventory map, the Biodiversity Hot Spots map, the Strategic Habitat Conservation Areas map and the Environmentally Sensitive Areas (ESA) overlay of the Future Land Use Map (FLUM).^{xxx}

Policy 13.4:

The County shall incorporate and build upon the LANDSAT data utilized by the Florida Fish and Wildlife Conservation Commission to develop a computerized database and Geographic Information System for monitoring changes in land use cover and trends in the distribution of significant and essential wildlife habitat.^{xxxii}

Policy 13.5:

The County shall continue to implement a comprehensive program to conserve and protect significant wildlife habitat from development activities. The program may include, but not be limited to, the following:

- Transfer of development rights;
- Clustering and setbackbuffer requirements;
- Conservation easements;
- Post-acquisition disposition mechanisms (e.g., lease back options);
- Fee simple purchase;
- Land or mitigation banking; and
- Tax incentives.

[Administrative]

Policy 13.6:

The County shall continue to restrict development activities that adversely affect areas identified as essential wildlife habitat, as determined through means including, but not limited to: listed species surveys, field observations of listed species, the Natural Systems and Land Use Inventory map, the Biodiversity Hot Spots map, the Strategic Habitat Conservation Areas map and the Environmentally Sensitive Areas (ESA) overlay of the Future Land Use Map (FLUM). Where development activities are proposed in such areas, applications for land development will be sent to the FWC for review. The County may also require site-specific wildlife surveys and other field documentation, as needed, to assist in assessing potential impacts. To assure the protection of natural resources, recommendations of the FWC will be incorporated as conditions of development approval.^{xxxiii}

Policy 13.7:

During the land use planning and development review processes, the County shall consider the effects of development on significant wildlife habitat, to protect wildlife corridors from fragmentation. Where necessary to prevent fragmentation of wildlife corridors, the County shall require the preservation of effective wildlife corridors within development projects.

Policy 13.8:

By 2009, The County shall develop incentives designed to encourage private land owners to manage land holdings for wildlife attributes.

[Staff Recommended]

Policy 13.9:

By 2009, The County shall implement a public education program on the need to protect and manage the habitat of threatened and endangered species and species of special concern.

Policy 13.10:

Off-site preservation as mitigation for on-site development shall not be permitted for field-verified Significant Wildlife Habitat that is capable of being managed or restored on-site as a high quality natural plant community or communities, except in the case of a public project, such as a road or stormwater facility, for which there is no prudent and feasible alternative. In such case, the project must incorporate appropriate design features, as recommended by the Florida Fish and Wildlife Conservation Commission or other appropriate entity, that provide for the safe passage of wildlife or provide other significant environmental benefits.^{xxxiii}

Policy 13.11:

The County shall continue to identify, adopt and preserve a wildlife corridor greenway, generally north of the City of Tampa's northern boundary to the Pasco County line, connecting Cypress Creek and the Hillsborough River.

Policy 13.12:

During the development review process, the County shall require the development and implementation of management plans for those areas of significant or essential wildlife habitat determined during site review to provide particularly valuable and manageable habitat qualities. In such cases, the County shall provide technical assistance in preparing a management plan, if requested.

Policy 13.13:

~~The County's Significant Wildlife Habitat (SWH) overlay on the Future Land Use Map (FLUM) will be updated by April, 2000.^{xxxiv}~~ The County shall review

and amend, as necessary, the Significant and Essential Wildlife Habitat Program by December 2007.

[Regulatory]

Policy 13.14:

Hillsborough County shall protect the integrity of Shoreline Wildlife Corridors and promote the understanding of the importance of these areas.

[Staff Recommended]

Objective 14: Populations of listed species occurring in Hillsborough County shall be maintained through the preservation and management of essential wildlife habitat and the implementation of the following policies. Where feasible and appropriate, the abundance and distribution of populations of such species shall be increased.

Policy 14.1:

The County shall consult with and consider the recommendations of the Florida Fish and Wildlife Conservation Commission in determining the issuance of, and conditions to be placed on, land development approvals that would impact upon listed species. Conditions of approval shall ensure the maintenance and, where feasible and appropriate, increase the abundance and distribution of populations of such species.^{xxxv}

Policy 14.2:

The County shall recommend specific management and recovery strategies for key listed species, as they are developed by the Florida Fish and Wildlife Conservation Commission and the U.S. Fish and Wildlife Service, and shall assist in their implementation. These management techniques shall also be incorporated into the management plans of natural preserve lands owned or managed by the County.^{xxxvi}

Policy 14.3:

The County shall assist the U. S. Fish and Wildlife Service, the Florida Fish and Wildlife Conservation Commission and the Florida Department of Environmental Protection in the implementation of recovery programs for listed species occurring in Hillsborough County.^{xxxvii}

Policy 14.4:

The County shall request the technical assistance of the Florida Fish and Wildlife Conservation Commission in conducting inventories of listed species in Hillsborough County.^{xxxviii}

Policy 14.5:

The County shall cooperate with appropriate federal, state and local agencies and governments in protecting the West Indian manatee, and restoring its habitat, and shall not permit development or activities

inconsistent with established laws and procedures to protect and restore manatee habitat.

Objective 15: The County shall minimize the spread of exotic nuisance species and shall incorporate programs to control such species into the management plans for County-owned lands, with the objective of a 90 percent reduction of exotic nuisance plants from previously uncontrolled levels. The County shall conserve and use, and shall continue to require the conservation and use of native plant species in the developed landscape. The County shall also continue to protect lands designated Conservation and Preservation Areas within pending and approved development projects.

Policy 15.1:

The County shall assist the Florida Department of Agriculture and Consumer Services, the Southwest Florida Water Management District and the Florida Department of Environmental Protection in eliminating exotic nuisance plant species (e.g. punk tree, Brazilian pepper).

Policy 15.2:

The County shall continue to require the conservation of trees and existing native vegetation and the use of ~~xeriscape~~ Florida Friendly Landscape principles and native plants in the landscaping of new development projects.

[Administrative]

Policy 15.3:

The County shall continue to maintain and distribute information about recommended ~~xeriscape~~ Florida Friendly Landscape principles and native plants and other educational materials to increase public awareness of the need to reduce the use of potable water for irrigation and to provide habitat for wildlife in the developed landscape.

[Administrative]

Policy 15.4:

The County shall continue to require the conservation of trees and existing native vegetation in new development projects.

Policy 15.5:

During the land use planning and development review processes, the County, in conjunction with the Environmental Protection Commission, shall continue to protect lands designated Conservation or Preservation Areas within approved development projects from activities that would significantly damage the natural integrity, character, or ecological balance of said areas.

[Administrative]

Policy 15.6:

~~During the land use planning and development review processes, the County, in conjunction with the Environmental Protection Commission, shall continue to protect lands designated Preservation Areas within approved development projects from activities that would damage the natural integrity, character, or ecological balance of said areas.~~Reserved.
[Administrative]

Policy 15.7:

The County shall develop a program to utilize ~~xeriscape~~Florida Friendly Landscape principles in conjunction with native plants and trees in public rights-of-way and other public lands, whenever practical, thereby conserving water, improving habitat for urban wildlife, conserving Central Florida flora, and improving the county's aesthetic appeal and environmental quality.
[Administrative]

Policy 15.8:

The County shall improve programs on County-owned lands to control, and eliminate where feasible, exotic nuisance species, and shall incorporate these programs into the management plans of natural preserve lands.

NATURAL PRESERVES

Issue: A significant amount of environmentally sensitive or ecologically important land in Hillsborough County is currently held in private ownership. The management objectives of many private landowners are generally oriented towards maximizing agricultural or silvicultural production, rather than the maintenance of abundant fish and wildlife resources. The County is working with various agencies and landowners to promote better land management and preservation practices and has developed and implemented a wildlife habitat protection program.

As urbanization advances into outlying areas, increasing property values encourage the sale and subdivision of large tracts of land for development. In the past, County park lands have been purchased fee simple or have been donated for recreational management. Public education and awareness of the problem, along with the development of more creative mechanisms for preservation, protection, and management of natural preserve lands, and economic incentives for maintaining private lands for wildlife benefits, will allow for the continuation and expansion of the County's Environmental Lands Acquisition and Protection (ELAP) Program. Areas of significant and essential wildlife habitat have been identified for preservation and improved public and private management. The County's ELAP Program needs to be continued and other protection and management options utilized.

Objective 16: The County shall continue to increase the acreage of natural preserve lands and to ensure their protection and proper use.

Policy 16.1:

The County shall continue to implement the Environmental Lands Acquisition and Protection program, at funding levels equal to or greater than the current funding level of one-quarter mill.

Policy 16.2:

The County shall use the natural systems and land use cover inventory to help identify lands suitable for protection through public acquisition under the Environmental Lands Acquisition and Protection program or through alternative means, including private management.

Policy 16.3:

The County shall use and promote, through public awareness efforts, the use of protection alternatives for acquiring and protecting environmental lands, including: public purchase, conservation easements, transfer or purchase of development rights, and long-term leases. These alternatives shall be used to protect lands qualifying for acquisition under the Environmental Lands Acquisition and Protection program.

Policy 16.4:

The County shall continue to request assistance in public acquisition of natural preserves under federal, State and regional programs including, but not limited to, the Preservation 2000, Florida Communities Trust, Conservation and Recreation Lands (CARL), and Save-Our-Rivers (SOR) programs.

Policy 16.5:

The County shall continue to manage natural resources on publicly owned County lands in cooperation with the U.S. Fish and Wildlife Service, Florida Fish and Wildlife Conservation Commission,^{xxxix} the Florida Department of Environmental Protection, the Southwest Florida Water Management District, and the Florida Department of Agriculture and Consumer Services, as appropriate.^{xl}

Policy 16.6:

The County shall provide multiple use opportunities on County-owned natural preserve lands consistent with natural resource protection and conservation, to provide for passive recreation, wildlife habitat, watershed protection, erosion control, maintenance or enhancement of water quality, aquifer recharge and aquifer recharge protection.

Policy 16.7:

The County shall discuss with landowners the alternatives for protecting ecologically valuable lands which have qualified for acquisition by federal, state, regional, or local land management agencies, in an effort to discourage more intense land uses.

Policy 16.8:

Through the land use planning and development review processes, the County shall restrict incompatible development activities adjacent to publicly owned or managed natural preserves.

Policy 16.9:

The County shall acquire, and support the acquisition of, a diversity of natural habitat types to ensure maximal diversity of wildlife species.

Policy 16.10:

By 2009, the County shall prepare a report to the Board of County Commissioners evaluating the success and future direction of the ELAP Program, including: a consideration of extending the program tax and expanding the scope of the program through referendum; broadening the scope of acquisitions; and, increasing the percentage of funds for land management, habitat restoration, improved access, and provision of appropriate facilities.

[Regulatory]

Objective 17: The ability of the County to qualify for matching funds from state and regional land acquisition programs, such as Florida Communities Trust, Preservation 2000, Conservation and Recreational Lands, and Save Our Rivers, shall be enhanced through the implementation of the following policies:

Policy 17.1:

The County shall protect natural resources, coastal resources, and outdoor recreational areas from adverse impacts attributable to adjacent land uses.

Policy 17.2:

The County shall preserve rare and threatened vegetative communities and protect listed species from development.

Policy 17.3:

The County shall continue to seek available funding to assist the County's efforts to protect and enhance beach and shoreline ecosystems.

Policy 17.4:

The County shall seek to restore and enhance degraded natural areas on lands acquired for preservation, including: removal of noxious exotics, reforestation, and restoration of shorelines and natural hydrology, as needed.

Policy 17.5:

The County shall protect and enhance surface and ground water resources through acquisition, protection, and management of lands with important water resources.

Policy 17.6:

The County shall seek to protect and restore aquatic vegetation in areas acquired for preservation, including exotic weed control, and aquatic grass-bed restoration.

Policy 17.7:

Where appropriate, the County shall enhance public access to publicly-owned natural areas, including water bodies.

Policy 17.8:

The County shall provide appropriate outdoor recreational facilities for activities on lands acquired for preservation, including hiking trails, boardwalks, interpretive picture displays, educational programs and wildlife observation areas.

Objective 18: The County shall seek to measurably improve the management of all natural preserves within County boundaries by implementing the following policies.

Policy 18.1:

The County shall provide public education on the benefits of natural preserves to eliminate the problems of human intrusion into preserves designated for limited public access.

Policy 18.2:

The County shall develop site specific management plans for all lands owned or leased by the County and purchased under the Environmental Lands Acquisition and Protection program within three years of acquisition and shall review these plans periodically to ensure compliance with the program's objectives.

Policy 18.3:

During the acquisition of ecologically important lands, the County shall give priority to acquiring the optimal acreage needed to maintain the integrity of the natural plant communities or ecological units involved, and to establishing a system of interconnected or contiguous wildlife corridors.

Policy 18.4:

The County shall encourage private land owners to utilize multiple-use management techniques to provide both economic (e.g., cattle grazing, silviculture) and ecological (e.g., provision of wildlife habitat) benefits and by 2009 shall develop a technical assistance manual addressing such techniques.

[Staff recommended]

LAND USE

Issue: In past decades, land use decisions were based primarily upon socio-economic and demographic factors, with little consideration given to preserving or conserving the natural attributes of the land. As a result, urban land uses were often allowed to replace or permanently alter environmentally sensitive lands and natural systems. ~~With a better understanding of the ecological impacts of land uses, it has become clear that the natural carrying capacity of the land must be carefully considered in land use decisions if the natural attributes and functions of the environment are to be maintained for future generations.~~ Policies and regulations that appropriately preserve or conserve valuable natural resources while allowing for orderly economic growth should continue to be implemented.

Objective 19: The County shall continue to review, amend and implement land development regulations to ensure the protection of the attributes, functions and amenities of the natural environment under all projected growth scenarios.

Policy 19.1:

~~The County shall request the Environmental Protection Commission (EPC) to evaluate existing scientific studies regarding construction setback distances and buffers needed to maintain the hydrological and biological integrity of wetlands and water bodies (e.g. SJRWMD Wekiva River study) and shall request EPC to recommend appropriate scientifically defensible setback distances and buffers from wetlands and water bodies. Within one year of such recommendation the EPC recommending scientifically defensible setback distances and buffers from wetlands and water bodies needed to maintain the hydrological and biological integrity of wetlands and water bodies (e.g. St. Johns River Water Management District (SJRWMD) Wekiva River study), the County shall amend its land development regulations, to the extent that such setback distances and buffers are determined to be warranted. Until amended per this policy, all current setbacks shall remain in effect.~~

[Administrative & Agency Review Comment]

Policy 19.2:

The County shall use techniques, which may include clustering and transfer of development rights, to encourage the location of development away from environmentally sensitive areas or economically important agricultural or mineral resources.

Policy 19.3:

During the development review process, the County shall promote the preservation of representative examples of upland native plant communities by encouraging the use of the upland forest density credit incentive provision of the Future Land Use Element.

Policy 19.4:

The County shall consider developing a Hillsborough Quality Development (HQD) review process that provides incentives, such as reasonable increases in densities or intensities and allow alternative methods for meeting the concurrency requirements, for developments that undergo planned unit development review and preserve significant environmental features or natural resources in excess of existing regulations, provide on-site day care, provide or actively support mass transit or ride sharing, provide for affordable housing, and/or provide other improvements that benefit the public. The HQD process should be implemented through the inclusion of additional policies and provisions in both the Comprehensive Plan and Land Development Code.

Policy 19.5:

By 2009, the County shall review, and amend if necessary, those land development regulations that protect the natural environment from the adverse impacts of development, in order to better address the cumulative impact on the environment and shall incorporate provisions that mitigate any potentially cumulative adverse impacts. Consideration shall include a review of all past, present and foreseeable cumulative impacts. Past impacts shall include those that have occurred since the County began regulating environmental impacts.

[Staff recommended]

Policy 19.6:

The County shall continue to encourage infilling and growth within identified and environmentally acceptable 'activity centers', and shall discourage urban sprawl, through the application of the Urban Growth Boundary concept and other means.

Policy 19.7:

The County shall continue to discourage and minimize the removal of natural upland vegetation caused by site filling and shall maintain natural drainage patterns and water table levels, where feasible.

Policy 19.8:

The County shall identify Resource Protection Areas, as defined in the Conservation and Aquifer Recharge Element, on the Future Land Use Map series, to the extent practicable. Protection of these areas is addressed in the Conservation and Aquifer Recharge, Coastal Management, and Future Land Use Elements.

RIVER RESOURCES

“River Resources” is a section of the Conservation and Aquifer Recharge Element of the Comprehensive Plan that provides a special focus on the rivers in Hillsborough County: the Hillsborough, Alafia and Little Manatee Rivers. These rivers directly influence development patterns and provide economic opportunities, as well as environmental and recreational benefits. Because of the importance of these rivers, policies are included herein the Plan to address the need for their preservation and proper sustainable use.

Rivers in Hillsborough County are regulated and/or managed by a number of different federal, state, regional and local entities, each with different, not necessarily consistent agency mandates and missions. River resources are affected by the actions of these agencies and by landowners and the general public. The purpose of this section is to provide one place to focus the County’s policies regarding river management and the protection of riverine corridor resources. In general, it is County government philosophy to manage river resources such that any development takes place when consistent with long-term protection of the natural attributes of a river, such as wildlife habitat and stormwater attenuation, storage, filtration and erosion control.

General policies that address river issues throughout Hillsborough County precede those which focus on each of the individual rivers. The general policies address the conditions and issues the three rivers have in common. Policies for an individual river corridor address the unique qualities of that river.

Policies specifically addressing the Hillsborough River consist of management policies from the Hillsborough River Master Plan ~~adopted by amendment in 1987 and Plan update in 1989~~. The ~~Hillsborough River Master~~ Plan promotes the adopted goal for the Hillsborough River, which is "To make the Hillsborough River cleaner, safer, and more attractive."

A distinct set of policies providing for management direction of the Alafia River recognizes the specific and individual needs of the Alafia River originally identified in the Alafia River Study. These policies will guide future development along the river corridor to achieve the overall goal for the Alafia River which is "To preserve, protect and promote the Alafia River and its natural resources and recreational benefits."

The Little Manatee River is the most pristine of the three rivers and requires special consideration. The policies included in this plan address the river's special attributes and are designed to achieve the overall goal, which is to "To recognize and maintain this unique water resource that provides economic and recreational opportunities as well as vital wildlife habitat."

RIVER RESOURCES:

General

GOAL 2: To make the rivers and primary tributaries of Hillsborough County cleaner, safer and more attractive, protect the natural functions and wildlife habitats in the river corridors and promote the economic and recreational benefits provided by these water bodies.

[Administrative & Agency Review Comment]

Objective 20: The County will continue to maintain or improve the quality of water in its rivers and primary tributaries where water quality does not meet or exceed state water quality standards for its designated use. Implementation of the following policies will accomplish this objective:

[Agency Review Comment]

Policy 20.1:

The County shall, in conjunction with, the Environmental Protection Commission of Hillsborough County (EPC), and other appropriate agencies, identify pollution sources that adversely affect rivers and develop strategies by which to mitigate or eliminate such sources and their effects.

Policy 20.2:

The developer of any project along a river shall provide stormwater management systems that filter out pollutants before the stormwater enters the rivers, in accordance with Florida Department of Environmental Protection and Southwest Florida Water Management District rules, including the exemption provisions of these rules. New drainage outfalls along rivers shall be designed with stormwater treatment facilities rather than discharging stormwater directly into the rivers. Where environmentally feasible, the stormwater discharge from detention ponds shall flow into rivers through vegetated swales.

Policy 20.3:

Discharges of raw sewage to the rivers and tributaries shall be prohibited.

Policy 20.4:

Solid waste landfills and hazardous material facilities in unincorporated Hillsborough County shall be sited and managed such that they will not adversely affect the rivers and tributaries.

Policy 20.5:

Septic tank and drainfield installation shall be prohibited within 200 feet of the EPC wetland lines of the Rivers and their tributaries, except in such cases where the 200-foot criterion cannot be met because of vested lot size or configuration. In such cases, placement and construction of such facilities shall be in accordance with State law and shall prevent adverse impacts to water quality to the greatest extent practicable.

[Administrative]

Policy 20.6: The Conservation and Aquifer Recharge Element River Resources section “Goals, Objectives and Policies” shall be known as the River Corridor Policy Overlay. Rivers and primary tributaries of the County shall be protected by a combination of Goals, Objectives and Policies as provided for in Care Goals 2, 3, 4, 5 and 6 as the River Corridor Policy Overlay.

[Agency Review Comment]

Objective 21: The County will continue to preserve natural shorelines and reverse the trend toward hardened shores and channelization along rivers and primary tributaries. The County shall enforce a shoreline construction controls as provided by the Tampa Port Authority and state statute to address shoreline conservation. Implementation of the following policies, and other policies throughout this Plan, will accomplish this objective:

[Agency Review Comment]

Policy 21.1:

Shore alteration which would harden riverbanks shall be prohibited, except in cases of overriding public interest. Regulatory agencies shall be directed to continue to implement this policy in cases where its implementation would be more stringent than enforcement of their regulations.

Policy 21.2:

Publicly-owned or controlled lands shall continue to be improved by the restoration of vegetated riverbanks, including the gradual replacement of deteriorated seawalls and rip-rap with native vegetation. Planting over rip-rap riverbanks is encouraged, with proper preparation of the riverbanks to prevent erosion and ensure healthy vegetation. Improve existing County-owned/maintained boat ramps, where necessary.

Policy 21.3:

Natural riverbanks and natural levees along the rivers and tributaries shall be conserved, preserved, and restored except in cases of overriding public interest. This shall not be construed to require restoration by the private property owner.

Policy 21.4:

The County shall support and participate in the monitoring of riverine shoreline conditions by directing personnel to report any illegal or unsafe conditions observed while in the course of assigned duties to the appropriate authorities. Examples would include unsafe structures such as derelict docks, non-permitted water-oriented construction, dumping of trash and debris or cases of wildlife harassment.

Policy 21.5:

Draining, clearing or filling wetlands, including hydric hammocks, which comprise the riverine swamp system shall be prohibited within 500 feet of rivers' EPC wetland lines.

[Administrative]

Objective 22: The County will control boat traffic, reduce the nuisances associated with boat traffic, and improve compliance with water safety laws along rivers and primary tributaries. Implementation of the following policies will accomplish this objective:

[Agency Review Comment]

Policy 22.1:

Motorized craft shall yield to non-motorized craft where not in conflict with navigation laws and the County shall require that all watercraft operate within the same regulations, with exceptions as provided by the County.

Policy 22.2:

Deployment by the Hillsborough County Sheriff's Office of personnel should be based according to user patterns and special events to enforce boating laws, especially safety and speed laws.

Policy 22.3:

To enhance public safety and natural resources, the County shall continue to establish and post marine regulatory speed zones, where appropriate, including in the vicinity of marinas, bridges, marine structures, navigably constricted areas and in areas of rivers where manatees are known to inhabit.

Policy 22.4:

Request the development and enforcement of regulations or ordinances relating to the time and place appropriate for the operation of air boat/air powered craft and All Terrain Vehicles and other non-conventional recreational vehicles on and along river corridors by the ~~Environmental Protection Commission of Hillsborough County and the~~ Sheriff's Office.

[Agency Review Comment]

Objective 23: The County will follow established standards for development along rivers and primary tributaries~~in the river corridors~~. Implementation of the following policies will accomplish this objective:

[Agency Review Comment]

Policy 23.1:

The construction of new overhead utilities shall be prohibited within 250 feet of rivers' EPC wetland lines, unless underground placement is clearly demonstrated to be environmentally or technically unsound. The construction of transmission lines for electric power is permitted in existing, approved corridors.

[Staff Recommended]

Policy 23.2:

Water-dependent uses such as docks, boathouses and boardwalks shall constitute the only private over-the-water structures allowed on rivers. Structures that are clearly in the public interest, such as bridges, shall also be allowed.

Policy 23.3:

The County will comply with shoreline construction and placement standards for ramps, docks, seawalls, and other marine construction, in accordance with existing applicable laws, rules and policies.

Policy 23.4:

Where river shoreline exists in a natural state, all new boat ramps shall be designed to preserve the integrity of the shorelines to the maximum extent possible.

Objective 24: The County will continue to preserve, enhance and restore wildlife habitats and archaeological resources along rivers and primary tributaries. Implementation of the following policies will accomplish this objective:

[Agency Review Comment]

Policy 24.1:

The County shall continue to consult with and consider the recommendations of the Florida Fish and Wildlife Conservation Commission for preventing or mitigating probable impacts upon fish and wildlife resources when determining the issuance of development approvals that may impact endangered or threatened species or species of special concern.^{xli}

Policy 24.2:

Encourage the creation and acquisition of conservation easements along rivers and tributaries, pursuant to Section 704.06 F.S.

Policy 24.3:

Archaeological sites along the rivers shall be evaluated in terms of national or state criteria for significance to determine if they are eligible for listing on the National Register of Historic Places. If they are so eligible, then they shall be either preserved or excavated prior to development of the area containing the archaeological site.

Policy 24.4:

The County shall restrict development activities in river corridors that would adversely affect significant and essential wildlife habitat, in accordance with the Objectives and related policies of the Conservation and Aquifer Recharge Element.

Objective 25: The County will continue to minimize urban encroachment along the rivers by encouraging the establishment of a "green" river corridor through protection of the river banks and associated native vegetation along rivers and primary tributaries. Implementation of the following policies will accomplish this objective:

[Agency Review Comment]

Policy 25.1:

The removal of healthy, native trees, with a diameter at breast height of five inches or greater, shall be prohibited within 100 feet of the rivers' EPC wetland lines, except when reasonable property utilization is not possible without tree removal or in cases of overriding public interest.

[Staff Recommended]

Policy 25.2:

The use of public riverfront property shall preserve the riverbank where it exists in a natural state and shall protect associated natural resources.

Policy 25.3:

Hillsborough County recognizes the special character of, and shall not take any action which will impair the use or enjoyment of State-designated canoe trails in Hillsborough County. These areas include, but are not necessarily limited to: the Hillsborough River Canoe Trail, the Alafia River Canoe Trail, and the Little Manatee River Canoe Trail.^{xlii}

RIVER RESOURCES:

Hillsborough River

GOAL 3: To make the Hillsborough River cleaner, safer and more attractive, to protect its natural ecological functions which support plant and animal wildlife and to promote the enhancement of the river as a recreational and aesthetic asset to the surrounding community.

[Administrative]

Objective 26: Continue to protect this major source of drinking water and promote the improvement of water quality in the river where it does not meet or exceed state water quality standards for its designated use. Implementation of the following policies will accomplish this objective:

Policy 26.1:

No person shall control or attempt to control aquatic plants by chemical or biological means in the Hillsborough River except as provided in a permit issued by the Florida Department of Environmental Protection. Alternative methods to chemical control, and side effects of current methods, shall be evaluated on a regular basis and reported to the Hillsborough River Interlocal Planning Board in an effort to identify and promote less harmful methods of weed control.

Policy 26.2:

~~The construction, re-construction, extension, or alteration of any privy, cesspool, septic tank, drain field, or other sewage disposal device within two hundred (200) feet, measured from the mean annual high water line, of the Hillsborough River and its tributaries from the Pasco County Line, to the city limits of the City of Tampa, shall be prohibited. This policy shall not prohibit recommended maintenance of existing septic systems, if no alternative means of sewerage treatment is available.~~Reserved.

[Administrative]

Policy 26.3:

Prevent further destruction of desirable natural vegetative buffers along the Hillsborough River and its tributaries.

Policy 26.4:

Prevent potential contamination by effluent disposal from a wastewater treatment plant within the drainage basin by requiring advanced treatment and viral reduction of all sewage in the drainage basin which is part of an effluent disposal program.

Policy 26.5:

~~Develop a strategy, in conjunction with the Southwest Florida Water Management District, to field check newly constructed surface water management systems to assure they have been constructed to permitted standards.~~Reserved.

[Staff Recommended]

Policy 26.6:

Develop a strategy, in conjunction with the Southwest Florida Water Management District, to monitor the operation and maintenance of surface water management systems.

Policy 26.7:

Continue enforcement of EPA Rule #5 (Rivers and Harbors Act of 1899, Statute 407) regarding pollution of water bodies by the Environmental Protection Commission of Hillsborough County, and State and federal agencies.

Policy 26.8:

~~Request review of the contingency plans to mitigate the effects of potential discharges of raw sewage to the river and its tributaries by the Environmental Protection Commission of Hillsborough County and the Department of Environmental Protection. Reserved.~~
[Staff Recommended]

Policy 26.9:

Support the Hillsborough River Interlocal Planning Board and the Technical Advisory Council, in coordination with landowners, sanitation departments and interested volunteers, to have periodic clean-up days of the river and its banks throughout the year.

Objective 27: Reverse the trend toward hardened shores and channelization. Implementation of the following policy will support this objective:

Policy 27.1:

To preserve natural wildlife habitat, construction of vertical seawalls in the Upper Hillsborough River, north of Fletcher Avenue, shall be prohibited.

Policy 27.2:

Support the elimination of vertical seawalls and replacement with natural slopes and wetland vegetation along the river banks as existing bulkheads are repaired or replaced.

Objective 28: The County shall continue to cooperate with state and federal programs to provide for improved boat traffic control in the Hillsborough River and shall minimize public use conflicts and nuisances by promoting the enforcement of water safety laws. Implementation of the following policies will accomplish this objective:

Policy 28.1:

New marinas shall be prohibited on the upper Hillsborough River.

Policy 28.2:

The river shall be patrolled to ensure boating laws of the State of Florida and Hillsborough County are strictly enforced.

Policy 28.3:

Facilities such as restrooms and trash receptacles at existing public boat ramps shall be maintained, or improved if the facilities do not meet acceptable standards.

Policy 28.4:

The construction of new ramps shall be severely restricted by establishing criteria for justification and requiring any proposals to meet criteria.

Policy 28.5:

Water skiing on the river shall be allowed only between the dam (near the City of Tampa Water Treatment Plant), and the 56th Street bridge.

Policy 28.6:

To prevent riverbank erosion, protect wildlife habitat, and ensure public safety, especially during low water periods, that portion of the river north of 56th Street shall be posted with "Idle speed, no wake" signs.

Policy 28.7:

In recognition of the designation of a portion of the Hillsborough River that flows within or along the County's jurisdictional limits as a state recreational trail (canoe), from the Fletcher Avenue, southerly and downstream to River_hills Park, the City shall recognize the special character of this part of the river and shall not take any action which will impair its use as designated by the state.

[Administrative]

Policy 28.8:

Support the enforcement of ~~the Environmental Protection Commission Noise Rule, Chapter 1-10, by the Environmental Protection Commission of Hillsborough County and rules and regulations by~~ the Sheriff's Office.

[Agency Review Comment]

Policy 28.9:

The County shall post signs at public access points (e.g. boat ramps), specifying adherence to boating safety regulations.

Objective 29: The County shall implement ~~established~~ standards for development in the river corridor. Implementation of the following policies will accomplish this objective:

[Administrative]

Policy 29.1:

Within 100 feet of the river's EPC wetland lines, existing publicly-owned parking lots, loading docks, and service areas (containing such items as trash receptacles and machinery) shall be screened from the river by dense planting using ~~xeriscape~~-Florida Friendly Landscaping principles and native vegetation when appropriate.

[Staff Recommended]

Policy 29.2:

No additional areas shall be designated with industrial land use plan categories within 500 feet of the river's EPC wetland lines.

[Staff Recommended]

Policy 29.3:

The County shall support the guidelines and standards for riverfront development as recommended in the Hillsborough River Corridor Overlay Study. The guidelines and standards recognize:

- a) The unique character of the middle and upper river;
- b) Existing Plan policies for the Hillsborough River;
- c) The boundaries of the overlay area;
- d) Strict environmental performance standards which could allow any activity so long as the use or user does not:
 - pollute the river;
 - require a seawall;
 - eliminate visual access by the public;
 - provide landscaping using exotic nuisance species;
 - commence construction without site plan control approval;
 - construct a structure exceeding two stories except with provision of a formula based on distance from the centerline of the river, with the exception of urbanized areas;
- e) Conditional limitation to control development such as low FAR's;
- f) Provision for setbackbuffers through prescriptive easement, dedication or acquisition;
- g) Lower densities for remaining vacant private parcels along the upper river;

h) Certain uses should be prohibited in this designation, (i.e., parking lots, parking structures, truck service roads, loading docks, warehouses, manufacturing plants, ship building and repair, dredging equipment operators, any heavy activity uses);

i) Certain landscaping should be required. Homeowner requirements should be less stringent than commercial or "other uses" property owners. In general, exotics should be prohibited and natural vegetation should be retained; and,

j) Site specific reviews should be required for all development within the river corridor.

[Administrative]

Objective 30: Develop and implement construction and placement standards for ramps, docks, seawalls, and other marine construction. Implementation of the following policies will accomplish this objective:

Policy 30.1:

The number of docks in single family zoning districts shall be limited to one per zoning lot. Shared ownership of docks is encouraged in all new subdivisions adjacent to the river. Shared ownership may be accomplished by construction on the property line or by establishing the dock(s) as common property.

Policy 30.2:

Multifamily zoning districts shall be permitted one dock per zoning lot and one additional dock shall be permitted for every 100 feet of linear river frontage in excess of 100 feet. Where multiple docks are permitted, they shall be clustered with a maximum separation of 30 feet between docks. Each dock shall contain no more than two berths.

Policy 30.3:

Continue to support the multi-jurisdictional distribution of a pamphlet detailing proper marine construction by the Tampa Port Authority (TPA), the Environmental Protection Commission (EPC), the Department of Environmental Protection (DEP), the U.S. Army Corps of Engineers, local building departments and other appropriate entities that can effectively provide the pamphlet to contractors and the public.

Policy 30.4:

Support the requirement of a local specialty license for contractors involved in marine construction projects to assure the proper placement, methods and materials are used in the construction of seawall, docks, ramps and other marine-related structures.

Objective 31: Continue to manage the Hillsborough River as an important community asset and provide appropriate public access to this valuable natural amenity. Implementation of the following Policies will accomplish this Objective:

Policy 31.1:

Private landowners are encouraged to provide public vistas, dedications of land interests, and pedestrian/bike paths which link public and private property within the river corridor into a linear greenbelt system.

Policy 31.2:

At public access points, the County should provide information on laws created to minimize use conflicts and mitigate public nuisances along the Hillsborough River.

Policy 31.3:

Acquire vacant waterfront parcels as they are available and restrict the sale of County-owned riverfront property.

Policy 31.4:

The County shall not vacate dead-end roads on the riverfront and shall use them for passive open space and stormwater retention, where environmentally feasible.

Objective 32: Continue to preserve and enhance wildlife habitats and preserve archaeological resources. Implementation of the following policies will accomplish this objective:

Policy 32.1:

~~Draining, clearing or filling wetlands, including hydric hammocks shall be prohibited within 500 feet of the river.~~Reserved.
[Administrative]

Policy 32.2:

The removal of exotic nuisance plant species from the riverbank shall be encouraged, and may be required as a permitting condition.

Objective 33: Preserve the rural character of the Upper Hillsborough River by discouraging additional development within the river corridor except for those sites improved or developed that are dedicated to passive recreational pursuits. Implementation of the following policies will accomplish this objective:

Policy 33.1:

The upper Hillsborough River shall be managed as a wildlife habitat corridor to provide an area for wildlife passage.

Policy 33.2:

Recreation facilities in the upper Hillsborough River corridor shall be designed to minimize impacts upon wildlife habitat by encouraging less disruptive passive pursuits such as hiking, nature study, photography, picnicking, fishing, and canoeing. No buildings shall be constructed within 500¹ feet of the river's EPC wetland lines.

[Staff Recommended]

Policy 33.3:

To preserve the quiet, pristine character of the upper Hillsborough River, additional boat docks and ramps in this section of the river are prohibited. This provision shall not apply to canoe launches.

Policy 33.4:

In keeping with the natural character of the upper Hillsborough River, parking lots and service roads shall be prohibited within 500 feet of the EPC wetland lines of the river and its tributaries.

[Staff Recommended]

RIVER RESOURCES:

Alafia River

GOAL 4: To preserve, protect and promote the Alafia River and its natural resources and recreational benefits.

[Administrative]

Objective 34: The County shall maintain water quality, and improve water quality where it does not meet or exceed State water quality standards for its designated use, thereby protecting and improving habitat for marine life. Implementation of the following policy will support this objective:

Policy 34.1:

By 2009, ~~T~~the County shall request the Department of Environmental Protection and the Southwest Florida Water Management District to: 1) conduct an inventory of all existing outfalls; 2) conduct a waste load study to review discharge into the Alafia River; and 3) develop an amortization program designed to eliminate illegal discharges.

[Staff recommended]

Objective 35: The County shall continue to preserve and restore natural vegetation, and wildlife habitats, and preserve archaeological resources. Implementation of the following policies will accomplish this objective:

[Administrative]

Policy 35.1:

~~Draining, clearing or filling wetlands, including hydric hammocks, which comprise the riverine swamp system shall be prohibited within 500 feet of the river. Reserved.~~

~~[Administrative]~~

Policy 35.2:

Encourage the reclamation of mined lands along the Alafia River with native vegetation and encourage public acquisition for wildlife corridors, where appropriate.

Policy 35.3:

Promote the use of mechanisms designed to bring private undeveloped lands along the river into the public ownership or management, focusing on programs such as the Trust for Public Lands, tax incentives, impact fees, density credits, wildlife conservation easements, transfers of development rights and long-term leases.

Policy 35.4:

Recognizing the aesthetic, biological and economic value of the natural river corridor, setbackbuffer requirements in connection with development along the Alafia River shall be applied in accordance with setbackbuffer policy policies established in the Conservation and Aquifer Recharge Element.

[Administrative]

Objective 36: The County shall continue to protect terrestrial and marine wildlife and their habitats. Implementation of the following policies will accomplish this objective:

Policy 36.1:

Provide manatee protection on the Alafia River by posting reduced speed signs in areas of known manatee habitation and enforcing them.

Policy 36.2:

Establish and expand public education programs concerning endangered and threatened species of animals and plants and their habitats.

Objective 37: The County shall minimize river use conflict and mitigate public nuisances that adversely affect inhabitants along the river. Implementation of the following policies will accomplish this objective:

Policy 37.1:

The Alafia River shall be recognized as important for canoeing as well as other recreational pursuits.

Policy 37.2:

The County shall seek state funding through the Marine Patrol derelict vessel removal program to remove all abandoned craft recommended for removal by the Marine Patrol or Tampa Port Authority.

Policy 37.3

All abandoned/deteriorated docks and seawalls shall be removed at the expense of the owner upon advisement of the Tampa Port Authority. Removal shall occur within an amortization period set forth by the Port Authority. Any replacement structures shall be constructed according to the recommended criteria specified by the Port Authority.

Policy 37.4:

Legislation that provides for the licensing of all power boat operators in the State of Florida in an effort to promote safe boating practices should be supported.

Objective 38: The County shall preserve the natural shoreline and prevent further channelization. Implementation of the following policies will accomplish this objective:

Policy 38.1:

Prohibit backfilling of waterfront properties or extension of these lots through artificial means.

Policy 38.2:

Increase public awareness of the ecological and economic implications resulting from hardening of shorelines and the removal of native vegetation and wildlife habitats along the river. Provide information through permitting agencies and appropriate parks and recreation entities.

Objective 39: Implement the following guidelines for development within the river corridor. Implementation of the following policies will accomplish this objective:

Policy 39.1:

Where practical and feasible, all over-water construction shall comply with appropriate criteria established by the Tampa Port Authority or the County, in accordance with applicable laws, within a reasonable time period.

Policy 39.2:

Where economically and environmentally feasible, upgrade all over-water public facilities not currently meeting appropriate criteria established by the Tampa Port Authority or the County, in accordance with applicable law.

Policy 39.3:

~~Septic tank and drainfield installation shall be prohibited within 200 feet of the Alafia River and its tributaries, except in such cases where the 200-foot criterion cannot be met because of lot size or configuration. In such cases, placement and construction of such facilities shall be in accordance with State law and shall prevent adverse impacts to water quality. Reserved.~~
[Administrative]

Policy 39.4:

No additional heavy industrial land use designations shall be located within 500 feet of the river's EPC wetland lines.
[Staff Recommended]

Policy 39.5:

Reserved.

Policy 39.6:

The County shall support development of criteria for the Alafia River that protect the river corridor from visual intrusion. The County shall consider including criteria similar to that which has been established for the State Scenic Rivers System.

RIVER RESOURCES:

Little Manatee River

GOAL 5: To recognize and maintain this unique water resource which provides economic and recreational opportunities, as well as vital wildlife habitat.
[Administrative]

Objective 40: The County shall continue to support maintaining and improving water quality in each appropriate water classification found in the Little Manatee River, or improving water quality where it does not meet or exceed state water quality standards for its designated use. ~~Implementation of the following policy will support this objective:~~

Policy 40.1:

~~Septic tanks and drainfield installation shall be prohibited within 200 feet of the Little Manatee River and its tributaries, except in such cases where the 200-foot criterion cannot be met because of lot size. In such cases, placement and construction of such facilities shall be in accordance with State law and shall prevent adverse impact to water quality. Reserved.~~
[Administrative]

Objective 41: Preserve wildlife habitats and archaeological resources. Implementation of the following policies will accomplish this objective:

Policy 41.1:

~~Draining, clearing or filling wetlands, including hydric hammocks, shall be prohibited within 500 feet of the river.~~Reserved.
[Administrative]

Policy 41.2:

Until such time as scientifically defensible setbacks and buffers are determined and implemented in accordance with policy located in the Conservation and Aquifer Recharge Element, clearing or filling of natural plant communities within 50 feet of the Environmental Protection Commission wetland jurisdictional line or within 100 feet of the mean and ordinary high water line, whichever is greater, shall be restricted in urban and suburban land use categories.

Policy 41.3:

Provide manatee protection on the Little Manatee River by posting reduced speed signs in areas of known manatee habitation and enforcing them.

Objective 42: The County shall continue to -minimize urban encroachment upon the river bank by encouraging the establishment of a "green" river corridor. River corridor preservation can best be achieved through protection of the natural shoreline, and associated wetlands and uplands. Implementation of the following policies will accomplish this objective:

[Administrative]

Policy 42.1:

No heavy industrial land use designations shall be located within 500 feet of the river's EPC wetland lines.
[Staff Recommended]

Policy 42.2:

The Little Manatee River shall be recognized as providing important wildlife habitat and managed as a corridor for wildlife passage.

Policy 42.3:

The Little Manatee River shall be recognized as an important recreational resource.

Policy 42.4:

Recreation facilities in the Little Manatee River corridor shall be designed to minimize impacts upon essential and significant wildlife habitat. This is to be achieved by encouraging passive river corridor uses, such as: hiking, picnicking, nature study, photography, fishing, and canoeing.

Policy 42.5:

In keeping with the natural character of the Little Manatee River, parking lots, and service roads, shall be prohibited within 500 feet of the EPC wetland lines of the river and its tributaries, east of U.S. 41, unless there is an Overriding Public Interest.

[Staff Recommended]

Policy 42.6:

Recognizing the aesthetic, biological and economic value of the natural river corridor, new setbackbuffer requirements in connection with development along the Little Manatee River shall be established in accordance with policy located in the Conservation and Aquifer Recharge Element.

[Administrative]

Objective 43: The County shall continue to develop and review policies and strategies addressing the unique qualities, protection and use of the Little Manatee River. Implementation of the following policies will accomplish this objective:

Policy 43.1:

Appropriate Soil Conservation Service Best Management Practices shall continue to be reviewed and considered as appropriate tools to help implement this Plan.

Policy 43.2:

Appropriate provisions from the Cockroach Bay Aquatic Preserve Management Plan shall continue to be considered as appropriate tools to help implement this Plan or other applicable plans endorsed by the Board of County Commissioners.

Policy 43.3:

Continue to evaluate the need for establishing a special land use category and/or zoning overlay district to ensure proper protection and use of the Little Manatee River and associated natural resources.

RIVER RESOURCES:

Palm River

[Agency Review Comment]

GOAL 6: To preserve, protect and promote the Palm River and its natural resources and recreational benefits.

Objective 44: The County shall maintain water quality, and improve water quality where it does not meet or exceed State water quality standards for its designated use, thereby protecting and improving habitat for marine life. Implementation of the following policy will support this objective:

Policy 44.1: By 2009, The County shall request the Department of Environmental Protection and the Southwest Florida Water Management District to: 1) conduct an inventory of all existing outfalls; 2) conduct a waste load study to review discharge into the Palm River; and 3) develop an amortization program designed to eliminate illegal discharges.

Objective 45: The County shall continue to preserve and restore natural vegetation, and wildlife habitats, and preserve archaeological resources. Implementation of the following policies will accomplish this objective:

Policy 45.1: Draining, clearing or filling wetlands, including hydric hammocks, which comprise the riverine swamp system shall be prohibited within 500 feet of the river. Reserved.

Policy 45.2: Promote the use of mechanisms designed to bring private undeveloped lands along the river into the public ownership or management, focusing on programs such as the Trust for Public Lands, tax incentives, impact fees, density credits, wildlife conservation easements, transfers of development rights and long-term leases.

Policy 45.3: Recognizing the aesthetic, biological and economic value of the natural river corridor, setbackbuffer requirements in connection with development along the Palm River shall be applied in accordance with setbackbuffer policy policies established in the Conservation and Aquifer Recharge Element.

Objective 46: The County shall continue to protect terrestrial and marine wildlife and their habitats. Implementation of the following policies will accomplish this objective:

Policy 46.1: Provide manatee protection on the Palm River by posting reduced speed signs in areas of known manatee habitation and enforcing them.

Policy 46.2: Establish and expand public education programs concerning endangered and threatened species of animals and plants and their habitats.

Objective 47: The County shall minimize river use conflict and mitigate public nuisances that adversely affect inhabitants along the river. Implementation of the following policies will accomplish this objective:

Policy 47.1: The Palm River shall be recognized as important for canoeing as well as other recreational pursuits.

Policy 47.2: The County shall seek state funding through the Marine Patrol derelict vessel removal program to remove all abandoned craft recommended for removal by the Marine Patrol or Tampa Port Authority.

Policy 47.3 All abandoned/deteriorated docks and seawalls shall be removed at the expense of the owner upon advisement of the Tampa Port Authority. Removal shall occur within an

amortization period set forth by the Port Authority. Any replacement structures shall be constructed according to the recommended criteria specified by the Port Authority.

Policy 47.4: Legislation that provides for the licensing of all power boat operators in the State of Florida in an effort to promote safe boating practices should be supported.

Objective 48: The County shall preserve the natural shoreline and prevent further channelization. Implementation of the following policies will accomplish this objective:

Policy 48.1: Prohibit backfilling of waterfront properties or extension of these lots through artificial means.

Policy 48.2: Increase public awareness of the ecological and economic implications resulting from hardening of shorelines and the removal of native vegetation and wildlife habitats along the river. Provide information through permitting agencies and appropriate parks and recreation entities.

Objective 49: Implement the following guidelines for development within the river corridor. Implementation of the following policies will accomplish this objective:

Policy 49.1: Where practical and feasible, all over-water construction shall comply with appropriate criteria established by the Tampa Port Authority or the County, in accordance with applicable laws, within a reasonable time period.

Policy 49.2: Where economically and environmentally feasible, upgrade all over-water public facilities not currently meeting appropriate criteria established by the Tampa Port Authority or the County, in accordance with applicable law.

Policy 49.3: Septic tank and drainfield installation shall be prohibited within 200 feet of the Palm River and its tributaries, except in such cases where the 200-foot criterion cannot be met because of lot size or configuration. In such cases, placement and construction of such facilities shall be in accordance with State law and shall prevent adverse impacts to water quality.

Policy 49.4: No additional heavy industrial land use designations shall be located within 500 feet of the river's EPC wetland lines.

Policy 49.5: The County shall support development of criteria for the Palm River that protect the river corridor from visual intrusion. The County shall consider including criteria similar to that which has been established for the State Scenic Rivers System.

[Agency Review Comment]

THE COCKROACH BAY AQUATIC PRESERVE PLANNING AREA

The Cockroach Bay Aquatic Preserve (CBAP) Planning Area is a unique area of special concern in Hillsborough County. The aquatic preserve designation is a recognition by the State of Florida of the area's outstanding biological resources

and overall environmental qualities. The first management plan for CBAP was published by the Florida Department of Environmental Protection in 1987. ~~Since that date, the CBAP has been enlarged, several management activities that directly affect the CBAP have been initiated, and issues and objectives for the CBAP have been refined, thus necessitating an update of the Plan. This update is currently under development and is expected to be adopted in 1998. As stated in the 1997 draft update, "The overall objectives of the Plan are to ensure the protection and enhancement of the Cockroach Bay Aquatic Preserve's natural resources, and to encourage the wise utilization of those resources." An update to this plan was adopted in 1999.~~

Despite the stated intent of the Plan, the lack of funding at the State level has not allowed the Florida Department of Environmental Protection, which has primary management responsibility for the Aquatic Preserve program, to implement and enforce the provisions of the Management Plan as aggressively as may be necessary to protect the Preserve's natural resources. It is the intent of Hillsborough County to assist the State in protecting and managing this important natural resource, to improve its natural viability, and to increase its benefits to the citizens of Hillsborough County by adopting the following Goal, Objective and Policies:

GOAL 7: To protect the natural resources of the Cockroach Bay Aquatic Preserve from environmental degradation and manage the Preserve's resources for the benefit and enjoyment of the citizens of Hillsborough County.

[Administrative]

Objective 4450: New permitted discharges likely to impact the Cockroach Bay Aquatic Preserve will be required to meet or exceed applicable federal, state, regional and local water quality standards through cooperation with the Environmental Protection Commission of Hillsborough County (EPC), the Southwest Florida Water Management District (SWFWMD), the Hillsborough County Public Health Unit (HCPHU) and the Florida Department of Environmental Protection (FDEP). As a means of ensuring this, the County will request these agencies to develop a system whereby 2-5% of permitted point and non-point discharge structures are monitored in the field (as-builts) to document that they are operating as permitted.

Policy 4450.1:

The County shall participate with the Florida Department of Environmental Protection, the Cockroach Bay Aquatic Preserve Management Advisory Team and other applicable organizations to revise and implement the "Cockroach Bay Aquatic Preserve Management Plan."

Policy 5044.2:

The County shall work with the Department of Environmental Protection, the Environmental Protection Commission of Hillsborough County (EPC)

and the Hillsborough County Public Health Unit (HCPHU) to identify the sources of pollution responsible for the closure of the Cockroach Bay Aquatic Preserve to public shell fishing, and, upon identification, will develop a program to identify means of eliminating such sources in a timely but cost-effective manner.

Policy 5044.3:

The County shall review, and mitigate or restrict as appropriate, all proposed development likely to impact the Cockroach Bay Aquatic Preserve to ensure that water quality or habitat degradation, either attributable to the development alone or in combination with other developments, does not occur.

Policy 5044.4:

The County shall seek to establish a scientifically defensible protective buffer zone between the Cockroach Bay Aquatic Preserve and adjacent upland land uses to prevent degradation of water quality and aquatic vegetative habitats as part of the Cockroach Bay Aquatic Preserve Management Plan called for in Policy 44.1.

Policy 5044.5:

The Board of County Commissioners shall continue to coordinate with and support the "Cockroach Bay Aquatic Preserve Management Advisory Team" (CAPMAT), with members representing the County, the Planning Commission, the Environmental Protection Commission, Hillsborough Community College, state and regional agency staff, concerned citizens and area landowners. The Team shall serve as an ongoing means of better managing the resources of the Cockroach Bay Aquatic Preserve. The Team will meet ~~regularly on an as needed basis as determined by the Cockroach Bay Aquatic Preserve Manager~~ and report ~~periodically as necessary~~ to the Board of County Commissioners and request Board action as necessary. The Board will designate appropriate staff for the Team. From time to time, Team meetings should be held in ~~south-South~~ County to encourage public input. The Management Advisory Team shall assist the Cockroach Bay Aquatic Preserve Manager with the following:

1. ~~Assist the County with~~ implementation of the Goal, Objectives and Policies that affect the Cockroach Bay Aquatic Preserve area;
2. Identify the specific area of likely impact on the Aquatic Preserve, to be known as the "Area of Concern," based on review of the boundaries of the Aquatic Preserve, the Little Manatee River Watershed, and drainage basins which discharge to Cockroach Bay and the Aquatic Preserve;
3. Identify concerns and problems that may affect the Preserve area;

4. Identify research needs and collect data that may assist in resolving identified problems and concerns;
5. Document the extent and relative health of seagrasses and identify sources of seagrass damage before recommending actions to ban boating or identify exclusionary areas in the Preserve;
6. Identify an implementation procedure, thresholds and a timeline for review of applications for development approval within the defined Area of Concern to ensure compatibility with the intent of the Preserve;
7. Review proposed comprehensive plan and land development code revisions that may impact the Area of Concern and recommending appropriate changes and other measures to further these Goals, Objectives and Policies;
8. Investigate funding sources;
9. Identify and propose technically and fiscally sound approaches and solutions to identified problems and concerns;
10. Request the County to pursue the expansion of the boundaries of the Cockroach Bay Aquatic Preserve and the protection of adjacent uplands, if deemed ecologically appropriate and beneficial, to promote more effective management of the CBAP natural system and its biological resources;
11. Assist in the development of public education maps and work with the appropriate authorities in the placement of markers clearly indicating boating channels and potential hazards in appropriate locations throughout the Cockroach Bay Aquatic Preserve. In addition, work to post manatee educational information and warning signs as needed throughout the Preserve;
12. In conjunction with the Southwest Florida Water Management District (SWFWMD), the Florida Department of Environmental Protection (FDEP), the Tampa Electric Company (TECO) and other property owners, initiate a program to reverse the spread of noxious exotic plant species in the Area of Concern, with the goal of replacing exotics with viable desirable native plant communities. Such a program should include: assessment of the extent of the problem, identification of the geographic focus of action, identification of costs and likely funding sources, assess the potential for a volunteer component of the program, and enlist the cooperation of affected private property owners, if any; and
13. Develop a means through which to base decisions and recommendations on sound, scientifically-defensible research in order to avoid arbitrary recommendations.

[Administrative]

Policy 5044.6:

The County will utilize a variety of mechanisms, such as the use of natural plant communities for the treatment of stormwater, detention of stormwater, and purchase of lands by the Environmental Lands Acquisition and Protection (ELAP) Program for multiple use as wildlife habitat and stormwater management.

Policy 5044.7:

The County will continue to coordinate with Hillsborough Community College's efforts at the Cockroach Bay Environmental Studies Center to study land management practices such as exotic plant control and fire management. The Environmental Lands Acquisition and Protection Program can utilize the results of such studies to more effectively manage lands purchased throughout the area of concern.

Policy 5044.8:

The County will request the ELAP Program to purchase suitable parcels in the Area of Concern and incorporate site restoration projects that achieve water quality and/or habitat benefits to the Preserve.

Policy 5044.9:

The County will work with the appropriate authorities, including the Environmental Protection Commission and the Florida Department of Environmental Protection, to implement means of protecting seagrasses from propeller dredging throughout the Cockroach Bay Aquatic Preserve.

Policy 5044.10:

The County will encourage all appropriate agricultural or construction operations within the Cockroach Bay drainage basin to develop and apply soil conservation measures and implement Best Management Practices (BMPs). Upon completion of the County's Stormwater Management Master Plan for this area, the County will require the use of BMPs.

Policy 5044.11:

The County will continue to work with residents to develop solutions to water quality problems in the area of concern.

Policy 5044.12:

The County will continue to implement means of improving enforcement of marine conservation laws in the Cockroach Bay area. The purpose of such means would be to educate boaters and fishermen about boating and safety laws and to issue warnings and citations.

Policy 5044.13:

The County shall address such issues as land use, densities and ~~setback~~buffers in the Area of Concern.

[Administrative]

Sustainable Development

Issue: Key components of the County's overall commitment to make economical use of public dollars and protect the environment are improving energy conservation and efficiency and engaging in resource efficient sustainable development practices. With rising costs and increasing demands for energy and natural resources, the County will seek to reduce energy use and manage development in a more resource efficient manner. The County can motivate employees, residents and businesses to become more energy efficient and to apply sustainable construction practices. Acting to conserve energy and become resource efficient saves public money and benefits the environment.

Goal 8: The county shall have sufficient and reliable energy available to meet the future needs of Hillsborough County residents, businesses and government, and development practices shall be resource efficient.

[Staff Recommended]

Objective 51: Hillsborough County will engage in and promote practices that result in energy conservation and efficiency.

[Staff Recommended]

Policy 51.1:

The County will continue to offer energy conservation and efficiency information to enable residents, businesses and county employees to reduce electrical loads and demands on the electrical utility system.

[Staff Recommended]

Policy 51.2:

The County will continue to enhance employee awareness of energy efficiency through training and periodic notifications.

[Staff Recommended]

Policy 51.3:

The County will educate consumers about the importance of and need for energy conservation and efficiency, for example, running public service announcements about energy conservation and efficiency.

[Staff Recommended]

Policy 51.4:

The County will conserve energy and become more energy efficient within its operations by developing and adopting a comprehensive energy management plan.

[Staff Recommended]

Policy 51.5:

The County will study the potential for incorporating alternative energy sources at County-owned facilities.

[Staff Recommended]

Policy 51.6:

The County will continue to pursue energy-saving options for exterior lighting of County buildings and facilities.

[Staff Recommended]

Objective 52: The County will encourage energy efficient and sustainable development practices.

[Staff Recommended]

Policy 52.1:

The County will encourage builders and developers to exceed the minimum requirements for energy efficiency of the Florida Building Code by sharing information on available training, tools or literature on resource efficient development.

[Staff Recommended]

Policy 52.2:

The County will explore sponsoring or partnering with organizations such as the Cooperative Extension Service, University of Florida to educate consumers about emerging practices in energy conservation and sustainable development.

[Staff Recommended]

Policy 52.3:

The County will explore creating incentives for new homes, developments and commercial buildings to become certified under the U.S. Green Building Council's "Leadership in Energy and Environmental Design" (LEED) program, the Florida Green Building Coalition (FGBC), or meet similar standards of development.

[Staff Recommended]

Policy 52.4:

The County will seek to maintain and increase environmentally beneficial plant life.

[Staff Recommended]

Policy 52.5:

The County will work towards increasing the supply of recycled content materials by expanding curbside or dumpster recycling to business and commercial users.

[Staff Recommended]

Objective 53: The County will support the development of and consider use of alternative energy/fuel in order to achieve energy supplies that are secure, sustainable and not harmful to the environment.

[Staff Recommended]

Policy 53.1:

The County will support the adoption of federal, state and local polices that foster domestic production of environmentally safe energy sources.

[Staff Recommended]

Policy 53.2:

The County will seek to diversify its fuel supply and reduce its use of fossil fuels by using alternative energy technologies where feasible.

[Staff Recommended]

Policy 53.3:

The County will investigate the use of alternative energy technology for existing, new and renovated County facilities.

[Staff Recommended]

Policy 53.4:

The County will seek to stimulate economic growth of new business, business expansion and development of technology in alternative energy and alternative fuel in Hillsborough County.

[Staff Recommended]

V. APPENDICES

DEFINITIONS

Advanced Wastewater Treatment - As defined in Chapter 403.086, Florida Statutes, or as amended in the future.

Adverse Impact (upon a natural resource) - Direct contamination, alteration or destruction, or that which contributes to the contamination, alteration or destruction of a natural resource, or portion thereof, to the degree that its environmental benefits are or will be eliminated, reduced, or impaired.

Alafia River Canoe Trail - State designated canoe trail pursuant to the Florida Recreational Act of 1979 (Section 260.014, Florida Statutes) and the Florida Recreational Trails System Program [Subsection 16D-7.05(9), F.A.C.]. This canoe trail designation includes the Alafia River from, and including, the western limit of the Bell Shoals Road right-of-way to, and including, Aldermans Ford Park.^{xliii}

Amnesty Days (Hazardous Waste) - Voluntary program that allows citizens to bring small quantities of hazardous waste to a central collection facility for proper disposal.

Aquatic Preserve - Submerged lands owned or leased by the State of Florida as identified in Chapter 258, Florida Statutes, that have been set aside in an essentially natural or existing condition for the benefit of future generations.

Aquifer Recharge - The replenishment of groundwater in an aquifer occurring primarily as result of infiltration of rainfall, and secondarily by the movement of water from adjacent aquifers or surface water bodies.

Areas of High Aquifer Recharge/Contamination Potential - Areas that, by virtue of their hydrogeologic characteristics, represent a relatively high aquifer recharge potential in Hillsborough County (i. e., two surface inches or greater of water) and a relatively high contamination potential to the underlying ~~Floridan-aquifer~~Floridan Aquifer, and for which DRASTIC indices of 160 or greater have been determined using the USEPA DRASTIC methodology.

Best Available Control Technology (Air Pollution) - An air quality emission limitation, including a visible emissions standard, based on the maximum degree of reduction of each pollutant emitted that, on a case-by-case basis, taking into account energy, environmental and economic impacts, and other costs, is determined to be achievable through application of production processes and available methods, systems, and techniques (including fuel cleaning or treatment or innovative fuel combustion techniques) for control of

each such pollutant. A design, equipment, work practice, operational standard, or combination thereof, may be prescribed instead to satisfy the requirement for the application of this technology.

Best Management Practices (BMPs) - Method or combination of methods determined after problem assessment, examination of alternative practices, and appropriate public participation, to be the most effective and practicable means of reducing or preventing non-point source pollution to levels compatible with water quality goals. These measures could include both structural (e.g., sediment/debris basins, wetland impoundment of agricultural runoff, etc.) and non-structural (e.g., street vacuuming, deferred grazing systems, etc.) approaches to abatement of non-point source pollution, and would vary on a regional and local basis depending on the nature of the problems, climate, physical characteristics, land use, soil types and conditions and other factors.

Buffer - Area defined by a physical distance and restricted activities that serves to minimize the effects of development activity on an adjacent property, structure or natural resource.

Class I Waters - Potable water supplies as classified and specified in Chapter 17-362, Florida Administrative Code.

Class II Waters - Shellfish propagation or harvesting water as classified and specified in Chapter 17-362, Florida Administrative Code.

Class III Waters - Waters deemed suitable for recreation, propagation and protection of fish and wildlife as classified and specified in Chapter 17-362, Florida Administrative Code

Cone of Influence - A concentric area around one or more major waterwells, the boundary of which is determined by the government agency having specific statutory authority to make such a determination based on groundwater travel or drawdown depth.

Conservation Areas - Environmentally sensitive areas that include the following:

- Natural shorelines (other than those included in preservation areas);
- Class III Waters;
- ~~Category II~~ Wetlands, including but not limited to, freshwater marshes and wet prairies, hardwood swamps, and cypress swamps; and
- Significant wildlife habitat.
[per epc]

Conservation Uses - Activities within land areas designated for the purpose of conserving or protecting natural resources or environmental quality and includes areas designated for such purposes as natural flood control, protection of quality or quantity of groundwater or surface water, floodplain management, fisheries management, or protection of natural vegetative communities or wildlife habitats.

Deep-Well Injection - The discharge of water or other liquids under pressure to deep strata below potable water aquifers.

Development- The construction, reconstruction, conversion, structural alteration, relocation or enlargement of any structure; any mining, excavation, landfill or land disturbance, and any non-agricultural use or extension of the use of land. Includes redevelopment.

Drainage Basin - The area defined by topographic boundaries that contributes stormwater to a drainage system, estuarine waters, or oceanic waters, including all areas artificially added to the basin.

Dredge and Fill - The process of excavation or deposition of ground materials by any means, in local, state or regional jurisdictional waters (including wetlands), or the excavation or deposition of ground materials so as to create an artificial waterway that is to be connected to jurisdictional waters or wetlands (excluding stormwater treatment facilities).

Endangered and Threatened Species - Flora and fauna as identified by the U. S. Fish and Wildlife Service's "List of Endangered and Threatened Wildlife and Plants" in 50 CFR 17.11-12; fauna identified by the Florida Fish and Wildlife Conservation Commission in Section 9-27.03-05, Florida Administrative Code; and flora identified by the Department of Agriculture and Consumer Services "Preservation of Native Flora Act," Section 581.185-187, Florida Statutes. Endangered Species are so designated due to man-made or natural factors which have placed them in imminent danger of extinction while threatened species are so designated due to a rapid decline in number and/or habitat such that they may likely become endangered without corrective action (see "listed" species).^{xliv}

Environmentally Sensitive Areas - Lands that, by virtue of some qualifying environmental characteristic (e.g. wildlife habitat), are regulated by either the Florida Department of Environmental Protection (FDEP), the Southwest Florida Water Management District (SWFWMD), or any other governmental agency empowered by law for such regulation. These include Conservation and Preservation Areas as defined in the Conservation and Aquifer Recharge Element (CARE).

Essential Wildlife Habitat - Land or water bodies that, through the provision of breeding or feeding habitat, are necessary to the survival of listed.

~~**Evapotranspiration** - The combined loss of precipitation through plant transpiration and evaporation from the land surface.~~

Exotic Nuisance Species - A non-native plant not limited to, but including the following:

<u>Scientific Name</u>	<u>Common Name</u>
<i>Bauhinia variegata</i>	Orchid Tree
<i>Broussonetia papyrifera</i>	Paper Mulberry
<i>Casuarina spp.</i>	Australian Pine
<i>Citrus spp.</i>	Citrus Tree
<i>Dalbergia sissoo</i>	Indian Rosewood
<i>Enterolobium contortisiliquum</i>	Earpod Tree
<i>Eucalyptus spp.</i>	Eucalyptus
<i>Grevillea robusta</i>	Silk Oak
<i>Jacaranda acutifolia</i>	Jacaranda
<i>Melaleuca quinquenervia</i>	Punk Tree
<i>Melia azedarach</i>	Chinabery
<i>Schinus terebinthifolius</i>	Brazilian Pepper

Floodplains - Areas inundated during a 100-year or other specified flood event identified by the National Flood Insurance Program as an A Zone or V Zone on Flood Insurance Rate Maps.

~~**Florida Friendly Landscaping** - Landscaping that conserves water and protects the natural environment as promoted by the Florida Yards and Neighborhoods Program.~~

Fugitive Dust - Particulate matter suspended in the air through land clearing and construction activities.

Functionally Restored Wetlands - Hydrologically or biologically altered wetlands that have been restored to natural levels of productivity and species diversity.

G-1 Aquifer Groundwater Classification - Prime or unique potable water aquifers that should be afforded maximum protection.

Geographic Information System - A computer hardware/software system capable of storing and analyzing geographic information as well as sophisticated image processing.

Hazardous Materials - A substance or material in a quantity or form that may pose an unreasonable risk to health and safety or to property when stored, transported or used in commerce.

Hazardous Waste - As defined in 40 CFR 261.3. A waste, or a combination of wastes that because of its quantity, concentration, physical, chemical, or infectious characteristics may cause or significantly contribute to an increase in mortality or an increase in serious irreversible or incapacitating reversible illness or may pose a substantial present or potential hazard to human health or the environment when improperly transported, disposed, stored, treated, or otherwise managed.

Hazardous Waste Generator - Any person or site whose action or process produces hazardous waste identified or listed in 40 CFR 261 or whose act first causes a hazardous waste to become subject to regulation.

Hillsborough River Canoe Trail - State designated canoe trail pursuant to the Florida Recreational Act of 1979 (Section 260.014, Florida Statutes) and the Florida Recreational Trails System Program [Subsection 16D-7.05(9), F.A.C.]. This canoe trail designation includes the Hillsborough river from, and including, Riverhills Park to, and including, Crystal Springs.^{xlv}

Impervious Surface - Surface that has been compacted or covered with a layer of material so that it is highly resistant to infiltration by water, including surfaces such as compacted sand, limerock, shell, or clay, as well as most conventionally surfaced streets, roofs, sidewalks, parking lots and other similar structures.

Interim Wastewater Treatment Plant - A wastewater treatment facility that will be abandoned when a County regional or sub-regional treatment facility is available.

Little Manatee River Canoe Trail - State designated canoe trail pursuant to the Florida Recreational Act of 1979 (Section 260.014, Florida Statutes) and the Florida Recreational Trails System Program [Subsection 16D-7.05(9), F.A.C.]. This canoe trail designation includes the Little Manatee River Canoe Trail from, and including, the eastern limit of the U.S. Highway 301 right-of-way to, and including, the Little Manatee River State Recreational Area.^{xlvi}

"Listed" Species - Those species of plants and animals "listed" as Endangered, Threatened or Species of Special Concern by an official state or federal plant or wildlife agency (see Endangered or Threatened Species).

Mineral Extraction - The excavation of mineral deposits (e.g. phosphate) from surface and subsurface strata.

Mitigation - The abatement or diminution of adverse environmental impacts through corrective action after the impacts have occurred (e.g. compensation, restoration, replacement, etc.), or through an avoidance or minimizing of impacts prior to occurrence.

National Ambient Air Quality Standards (NAAQS) - Restrictions established by the Environmental Protection Agency (EPA) pursuant to Section 109 of the Clean Air Act to limit the quality or concentration of an air pollutant that may be allowed to exist in the ambient air for any specific period of time. Those air pollutants for which standards exist are: carbon monoxide, lead, nitrogen dioxide, ozone, sulfur dioxide and total suspended particulates.

Native Species - Flora and fauna that naturally occur in Hillsborough County; not to mean naturalized or indigenous species that originate from outside the County.

Natural Plant Communities - Naturally occurring stands of native plant associations exhibiting minimal signs of anthropogenic disturbance. Specific community types can be identified by characteristic dominant plant species composition. Community types found in Hillsborough County include pine flatwoods, dry prairie, sand pine scrub, sandhill, xeric hammock, mesic hammock, hardwood swamp, cypress swamp, freshwater marsh, wet prairie, coastal marsh, mangrove swamp, coastal strand and marine grassbeds. Descriptions of these community types are provided in the Inventory and Analysis section of the Conservation and Aquifer Recharge Element (CARE).

Natural Preserve - Areas designated for conservation purposes and operated by contractual agreement with, or managed by a federal, state, regional or local government or non-profit agency, such as: national parks, state parks, County parks, lands purchased under the Save Our Coast, Conservation and Recreation Lands, Save Our Rivers, or Environmental Lands Acquisition and Protection programs, sanctuaries, preserves, monuments, archaeological sites, historic sites, wildlife management areas, national seashores and Outstanding Florida Waters.

Natural Shorelines - Shorelines which have not been physically altered through hardening or bulkheading.

Natural Streamcourses - Perennial streams that have not been physically altered through bulkheading or hardening.

NESHAPS Program - A federal program regulating stationary sources of air pollutants, defined by CAA Section 112 as the National Emission Standards for Hazardous Air Pollutants.

Non-attainment (Air Pollution) - Any area not meeting ambient air quality standards and designated as a non-attainment area under Section 17-2.410, Florida Administrative Code for any of the NAAQS listed air pollutants.

Non-point Source Pollution - Water pollution that is not point source pollution, as defined herein.

Outstanding Florida Waters (OFWs) - Surface waters that have been deemed to be worthy of special protection as identified in Section 17-3.041, Florida Administrative Code.

Overriding Public Interest - Actions required by local, state, or federal government, necessary for the promotion of public safety, health or general welfare.

Performance Standard - A target or objective that defines or qualifies the desired or required state of operation.

Point Source Discharge - Release of degraded water through a discernible, confined or discrete conveyance, including but not limited to pipes, ditches, channels, tunnels, conduits or wells. This term does not include return flows from irrigated agriculture.

Point Source Pollution - Water pollution that has as its source a discernible, confined or discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal enclosure.

Pollution - The presence in the outdoor atmosphere, ground or water, of any substances, contaminants, noise or man-made or man-induced alteration of the chemical, physical, biological, or radiological integrity of air or water, in quantities or at levels that are or may be potentially harmful or injurious to human health or welfare, animal or plant life, or property, or that does or may unreasonably interfere with the enjoyment of life or property.

Preservation Areas - Environmentally sensitive areas that include the following:

- Aquatic preserves;
- Essential wildlife habitat;
- Class I and II Waters;
- ~~Category I~~ Wetlands, including but not limited to, marine grassbeds, coastal marshes, and mangrove swamps;
- Coastal strand; and
- State wilderness areas.

[per epc]

Primary Tributaries - A primary tributary is a creek, stream or river branch which is the first order of a dendritic pattern to the main reach of a River. These are ~~Water-water~~ bodies shown on the most recent U.S. Geological Survey (USGS) quadrangle sheets as having perennial flow which eventually drain into any permanent open water body or River. Primary tributaries are designated on the official maps showing rivers and primary tributaries which is a part of the map series of the Comprehensive Plan. The official source for tributaries is the USGS quadrangle base maps for Hillsborough County as published by the United States Geological Service(USGS).
[Agency Review Comment]

Receiving Waters - The surface water body into which non point source and point source discharge enters after appropriate water quality treatment. [per epc]

Regional Wastewater Treatment Plants - Large public wastewater treatment plants designed to service more than a single development.

Resource Protection Areas - Land or water bodies that are ecologically or economically significant natural resources for which special protective measures have been, or need to be established. Resource Protection areas include the following:

- Hillsborough River 100-year floodplain and major tributaries;
- Alafia River 100-year floodplain and major tributaries;
- Little Manatee River 100-year floodplain and major tributaries;
- Tampa Bay and associated tidal wetlands;
- Cockroach Bay Aquatic Preserve;
- Lake Thonotosassa;
- Significant and essential wildlife habitat;
- Areas of high aquifer recharge/contamination potential;
- Public potable water wellfields and their cones of influence; and
- Areas of major phosphate deposits.

River - A River in Hillsborough County is the Alafia River, Little Manatee River, Hillsborough River, and Palm River as designated on the official map showing rivers and primary tributaries which is a part of the map series of the Comprehensive Plan.
[Agency Review Comment]

River Corridor Policy Overlay - The Conservation and Aquifer Recharge Element River Resources section “Goals, Objectives and Policies” shall be known as the River Corridor Policy Overlay. Rivers and primary tributaries of

the County shall be protected by a combination of Goals, Objectives and Policies as provided for in Care Goals 2, 3, 4, 5 and 6 as the River Corridor Policy Overlay.

[Agency Review Comment]

Safe Yield - The volume of groundwater that can be withdrawn from public water supply aquifers without resulting in adverse environmental impacts (e.g. saltwater intrusion), while at the same time ensuring an adequate long-term water supply under conditions of historically precedented low rainfall, predictable increases in demand, and events causing significant interruption of the water supply.

Saltwater Intrusion - Inward or upward movement of saline water within a surface water or groundwater aquifer system.

Septic Tank System - An on-site wastewater disposal system for individual homes, multi-family residences and commercial facilities where municipal wastewater service is unavailable. The system consists of two major components, a septic tank and a sub-surface wastewater infiltration system (SWIS). The septic tank is an underground tank that provides primary wastewater treatment that consists of the removal of settleable and floatable solids. The clarified effluent from the septic tank flows to the SWIS where it receives physical, chemical and biological treatment as it percolates through the unsaturated soil to the groundwater.

Sequential Land Use - A practice whereby lands overlaying valuable mineral resources are protected from intensive urban development until such minerals can be mined, and that land reclaimed for a viable economic use.

Setback - Physical distance that serves to minimize the effects of development activity on an adjacent property, structure or natural resource; and within which it may be necessary to restrict activities. Also, a required horizontal distance from the subject land or water area designed to reduce the impact on adjacent land, land uses or cover types located on the subject land or water area.

Shoreline Wildlife Corridor: Upland area along the shorelines of natural water bodies important to the function and health of natural systems and wildlife. Shoreline Wildlife Corridors shall be the same area encompassed by the applicable wetland buffer under the Comprehensive Plan.

[Staff recommended]

Significant Adverse Impact (on a natural resource) - Direct contamination, alteration or destruction, or that which contributes to the contamination, alteration or destruction, of a natural resource, or portion thereof, to the degree that its environmental benefits are, or will be, eliminated, reduced, or impaired,

such that the activity will cause long term negative impacts on the natural resource. If adequate mitigation or compensation is provided, such activity shall not be considered a Significant Adverse Impact.

Significant Wildlife Habitat - Contiguous stands of natural plant communities which have the potential to support healthy and diverse populations of wildlife and which have been identified on the Natural Systems and Land Use Cover Inventory map, developed by the Federal Department of Transportation under contract to the Florida Fish and Wildlife Conservation Commission and incorporated into the 1989 Future of Hillsborough County Comprehensive Plan.^{xlvii}

Species of Special Concern - Fauna identified in Section 39-27.03-05 Florida Administrative Code that warrants special protection, recognition or consideration because it has an inherent significant vulnerability to habitat modification, environmental alteration, human disturbance, or substantial human exploitation that in the foreseeable future, may result in its becoming a threatened species; may already meet certain criteria for designation as a threatened species but for which conclusive data is limited or lacking; may occupy such an unusually vital and essential ecological niche that should it decline significantly in numbers or distribution other species would be adversely affected to a significant degree; or has not sufficiently recovered from past population depletion.

State Water Quality Standards - Numerical and narrative standards that limit the amount of pollutants that are allowed in Waters of the State, as defined by Chapter ~~17-362~~, Florida Administrative Code.

Stormwater Runoff - That portion of precipitation that is not passed into the soil by infiltration, evaporated into the atmosphere, or entrapped by small surface depressions and vegetation, and that flows over the land surface during, and for a short duration following any rainfall.

Stormwater Treatment Facility - A structural best management practice (BMP) designed to reduce pollutant loadings to receiving waters by physically reducing the volume of stormwater discharge. Structural BMP's include, but are not limited to, detention ponds, retention systems, open bottom inlets, undercut ditches, and swales.

Transfer of Development Rights (TDRs) - The transfer of a property's legal development rights either within a property owner's parcel, such as in wetlands density transfers, or off-site.

Uniform Mitigation Assessment Method (UMAM) – Standardized state assessment method to determine the amount of mitigation needed to offset adverse impacts to wetlands and other surface waters. This methodology was

promulgated through Chapter 62-345, F.A.C. and requires the replacement of the ecological value of impacted wetlands and other surface waters.

Water Budget - A formula that can be used to derive estimates of the maximum and minimum limits of a water supply by quantifying all inputs (e.g. precipitation) and outputs (e.g. runoff, consumptive use).

Water Wise Landscaping: Landscaping utilizing techniques to conserve water including grouping plants with like watering requirements and irrigating each grouping appropriately with efficient irrigation technology, as outlined in the Florida Yards and Neighborhoods Program. This landscaping incorporates the seven principles of xeriscape™ landscaping: 1) planning & design; 2) soil preparation; 3) appropriate use of turf; 4) proper plant selection (right plant in the right spot); 5) use of mulches; 6) appropriate use of irrigation; 7) and routine maintenance.^{xlvi}

Wetlands - Lands that are transitional between terrestrial (upland) and aquatic (open water) systems where the water table is usually at or near the surface, or where the land is covered by shallow water, and such lands are predominantly characterized by hydrophytic vegetation. The presence of hydric soils as determined by the U. S. Soil Conservation Service (SCS), and other indicators of regular or periodic inundation, shall be used as evidence of the presence of a wetland area. The existence and extent of these shall be determined by the jurisdictional limits defined by Chapter ~~17-462-340~~, Florida Administrative Code and implemented by the Florida Department of Environmental Protection, or as defined within Chapter 40D-4 Florida Administrative Code and implemented by the Southwest Florida Water Management District (SWFWMD), or as defined within the Wetlands Rule, Ch. 1-11, and implemented by the Environmental Protection Commission of Hillsborough County (EPC).[per epc]

Wildlife - Any member of the animal kingdom, with the exception of man, including but not limited to any mammal, fish, bird, amphibian, reptile, mollusk, crustacean, arthropod, or other invertebrate and excluding domestic animals.

Wildlife Corridors - Contiguous stands of significant wildlife habitat that facilitate the natural migratory patterns, as well as other habitat requirements (e.g. breeding, feeding), of wildlife.

Xeriscape Landscaping - Cultivated landscaping utilizing predominantly native, drought tolerant plant species to minimize irrigation requirements.

Xeriscape Principles - Application of xeriscape principles is the intelligent planning and design of any landscape whereby plants are properly selected and grouped, according to soils and micro-climates, such that the use of pesticides,

fertilizers and potable water is minimized and drought and freeze are tolerated, and the landscape provides habitat for the appropriate wildlife and also provides pleasure for the gardener and observers. The Seven Principles of Xeriscape are:

- **Planning and Design** - The most critical aspect of the xeriscape concept, an intelligently-planned landscape, applying xeriscape principles, can go far toward reducing water, fertilizer and pesticide use and maintenance, providing habitat, resisting freeze and drought, and providing a rewarding and environmentally compatible Florida lawn. Plantings based on soils, hydrology, micro-climate, etc. can minimize maintenance while maximizing enjoyment of your yard.
- **Appropriate Plant Selection** - Plant selection plays a large part in determining the yard's watering and maintenance requirements, habitat and aesthetic values, etc. Placing plants with similar watering requirements together will make watering more efficient.
- **Soil Analysis** - Using soils according to their characteristics minimizes the use of soil additives and maximizes the likelihood of optimum garden conditions.
- **Practical Turf Areas** -Once the use of turf is determined appropriate, turf areas, and the appropriate grass type, should be planned in light of soils, watering requirements, the degree of sun or shade, etc.
- **Efficient Irrigation** - Irrigation should be planned such that plants get as much water as they need, but no more. While overhead sprinklers may be appropriate for lawns, drip irrigation may be most efficient for planting areas. Irrigation must be considered in the initial yard plan and design.
- **Use of Mulches** - Mulches help to retain moisture, reduce soil temperature, minimize weeds, and are also attractive.
- **Appropriate Maintenance** - Another important consideration in the yard plan should be long-term maintenance - both how the initial design can minimize maintenance, and also how the plants can be trimmed and pruned over time to fit the lawn's long range plan.

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- ⁱ CPA 04-07 – This amendment addresses the protection of surface water that will be part of the Tampa Bay Water’s Master Water Plan; updating the adopted Wellhead Resource Protection Map, and adding a Surface Water Resource Protection Map and a Potable Water Wellfield Protection Map.
- ⁱⁱ CPA 99-27 – Modified policy to clarify the County’s wetlands protection program and are required to settle DCA objections pursuant to the Evaluation and Appraisal Report (EAR) based amendments. Ordinance Number 00-36, adopted by BOCC 10/25/00; DCA Notice of Intent published on 12/19/00 *Tampa Tribune*, effective date of amendment 1/9/01
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- ^x CPA 99-27 – Modified policy to clarify the County’s wetlands protection program and are required to settle DCA objections pursuant to the Evaluation and Appraisal Report (EAR) based amendments. Ordinance Number 00-36, adopted by BOCC 10/25/00; DCA Notice of Intent published on 12/19/00 *Tampa Tribune*, effective date of amendment 1/9/01
- ^{xi} CPA 02-06 – Clarify existing policy 6.6 by setting apart a provision of this policy that guides the update and implementation of lake water quality regulations and activities, as a new policy 6.10, DCA Notice of Intent published on *Tampa Tribune*, effective date of amendment 2/20/03.
- ^{xii} CPA 99-20 - Modified policy identifying Environmental “Overlay” vs. map layer of the Future Land Use Map; clarified use of terminology and agency titles. Ordinance # 99-30, adopted by BOCC 12/16/99, DCA Notice of Intent published on 2/7/00 *Tampa Tribune*, effective date of amendment 2/29/00.
- ^{xiii} CPA 99-20 - Modified policy identifying Environmental “Overlay” vs. map layer of the Future Land Use Map; clarified use of terminology and agency titles. Ordinance # 99-30, adopted by BOCC 12/16/99, DCA Notice of Intent published on 2/7/00 *Tampa Tribune*, effective date of amendment 2/29/00.

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- ^{xiv} CPA 99-18 – Modified policies to reflect currently established wellhead resource protection areas, permit inspection and enforcement program into the Element. Ordinance # 99-30, adopted by BOCC 12/16/99, DCA Notice of Intent published on 2/7/00 *Tampa Tribune*, effective date of amendment 2/29/00.
- ^{xv} CPA 99-18 – Modified policies to reflect currently established wellhead resource protection areas, permit inspection and enforcement program into the Element. Ordinance # 99-30, adopted by BOCC 12/16/99, DCA Notice of Intent published on 2/7/00 *Tampa Tribune*, effective date of amendment 2/29/00.
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- ^{xviii} CPA 04-07 – This amendment addresses the protection of surface water that will be part of the Tampa Bay Water's Master Water Plan; updating the adopted Wellhead Resource Protection Map, and adding a Surface Water Resource Protection Map and a Potable Water Wellfield Protection Map.
- ^{xix} CPA 99-37 – This amendment addresses the development of new regional sources of potable Water. Ordinance Number 00-36, adopted by BOCC 10/25/00; DCA Notice of Intent published on 12/19/00 *Tampa Tribune*, effective date of amendment 1/9/01
- ^{xx} CPA 99-20 - Modified policy identifying Environmental “Overlay” vs. map layer of the Future Land Use Map; clarified use of terminology and agency titles. Ordinance # 99-30, adopted by BOCC 12/16/99, DCA Notice of Intent published on 2/7/00 *Tampa Tribune*, effective date of amendment 2/29/00.
- ^{xxi} CPA 01-05 - Modified to support water conservation and lake quality protections measures and to add a definition for "water-wise landscaping". This amendment addresses and implements the recommendations of two reports: *"Hillsborough County Lakes: An Analysis"* and *"Land Use and Water"*.
- ^{xxii} CPA 99-20 - Modified policy identifying Environmental “Overlay” vs. map layer of the Future Land Use Map; clarified use of terminology and agency titles. Ordinance # 99-30, adopted by BOCC 12/16/99, DCA Notice of Intent published on 2/7/00 *Tampa Tribune*, effective date of amendment 2/29/00.
- ^{xxiii} CPA 04-06 – 2002 legislation requires that local governments having responsibility for water supply facilities and are located within an area for which a Regional Water Supply Plan (RWSP) has been prepared by the water management district adopt a 10 year water supply facilities work plan. The goal of the work plan is to meet projected water demands. The local work plan also projects future water supply needs for 20 years and identifies the methods and assumptions used in projecting future demand.
- ^{xxiv} CPA 99-37 – This amendment addresses the development of new regional sources of potable water. Ordinance Number 00-36, adopted by BOCC 10/25/00; DCA Notice of Intent published on 12/19/00 *Tampa Tribune*, effective date of amendment 1/9/01
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- xxviii CPA 99-37 – This amendment addresses the development of new regional sources of potable water. Ordinance Number 00-36, adopted by BOCC 10/25/00; DCA Notice of Intent published on 12/19/00 *Tampa Tribune*, effective date of amendment 1/9/01
- xxix CPA 99-38 – This amendment addresses the Florida Game and Freshwater Fish Commission’s name change to the Florida Fish and Wildlife Conservation Commission (FWC) Ordinance Number 00-36, adopted by BOCC 10/25/00; DCA Notice of Intent published on 12/19/00 *Tampa Tribune*, effective date of amendment 1/9/01
- xxx CPA 99-38 – This amendment addresses the Florida Game and Freshwater Fish Commission’s name change to the Florida Fish and Wildlife Conservation Commission (FWC) Ordinance Number 00-36, adopted by BOCC 10/25/00; DCA Notice of Intent published on 12/19/00 *Tampa Tribune*, effective date of amendment 1/9/01
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- xxxiv CPA 99-20 - Modified policy identifying Environmental “Overlay” vs. map layer of the Future Land Use Map; clarified use of terminology and agency titles. Ordinance # 99-30, adopted by BOCC 12/16/99, DCA Notice of Intent published on 2/7/00 *Tampa Tribune*, effective date of amendment 2/29/00.
- xxxv CPA 99-38 – This amendment addresses the Florida Game and Freshwater Fish Commission’s name change to the Florida Fish and Wildlife Conservation Commission (FWC) Ordinance Number 00-36, adopted by BOCC 10/25/00; DCA Notice of Intent published on 12/19/00 *Tampa Tribune*, effective date of amendment 1/9/01
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- xxxvii CPA 99-38 – This amendment addresses the Florida Game and Freshwater Fish Commission’s name change to the Florida Fish and Wildlife Conservation Commission (FWC) Ordinance Number 00-36, adopted by BOCC 10/25/00; DCA Notice of Intent published on 12/19/00 *Tampa Tribune*, effective date of amendment 1/9/01
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- xli CPA 99-38 – This amendment addresses the Florida Game and Freshwater Fish Commission’s name change to the Florida Fish and Wildlife Conservation Commission (FWC)

Ordinance Number 00-36, adopted by BOCC 10/25/00; DCA Notice of Intent published on 12/19/00 Tampa Tribune, effective date of amendment 1/9/01

^{xliii} CPA 00-03 – Clarified location and protection of the designated Hillsborough River, Alafia River, and the Little Manatee River Canoe Trails to implement provision required in Ch. 260.018 Florida Statutes. Ordinance # 00-42, adopted by the BOCC 12/13/00, DCA Notice of Intent published 2/7/01 Tampa Tribune, effective date of amendment 2/28/01.

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^{xlviii} CPA 01-05 - Modified to support water conservation and lake quality protections measures and to add a definition for "water-wise landscaping". This amendment addresses and implements the recommendations of two reports: *"Hillsborough County Lakes: An Analysis"* and *"Land Use and Water"*.