

# **Natural Resource Conservation and Management Element**

## **GEOLOGY, GROUNDWATER PROTECTION AND AQUIFER RECHARGE**

GOAL ONE: PROTECT AND MANAGE THE FUNCTIONAL INTEGRITY OF THE COUNTY'S GEOLOGIC FEATURES AND ATTRIBUTES, AND ITS NATURAL GROUNDWATER AQUIFER RECHARGE AREAS AND WELLFIELDS, IN A MANNER THAT PRESERVES AND ENHANCES NATURAL FUNCTIONS, AND PROTECTS GROUNDWATER QUALITY.

- 1.1. Objective: Pinellas County shall continue to implement a comprehensive groundwater protection program.
- 1.1.1. Policy: Pinellas County shall continue to enforce zones of protection for regional wellfields within Pinellas County boundaries, consistent with the adopted wellhead protection ordinance, as determined by a flow net analysis based on the Floridan Aquifer potentiometric surface.
- 1.1.2. Policy: Pinellas County shall continue to control the use and storage of hazardous substances within its wellfield protection zones through implementation of the wellhead protection provisions of the Pinellas County Code.
- 1.1.3. Policy: Pinellas County shall continue to utilize its emergency response program that includes provisions for responding to accidental pollution events and providing a list of toxic and hazardous substances subject to the restrictions of the program, and shall require that businesses within the wellhead protection zone include emergency response measures within their operating permits.
- 1.1.4. Policy: Pinellas County shall rely upon and coordinate with Tampa Bay Water to assess groundwater quality and the impacts of groundwater withdrawals.
- 1.1.5. Policy: Pinellas County shall continue to use the Future Land Use Map to restrict the density and intensity of development within the identified wellfield protection zone.
- 1.1.6. Policy: Pinellas County shall continue to coordinate with adjacent counties, municipalities and agencies in an ongoing effort to protect regional wellfields and recharge areas.
- 1.1.7. Policy: The County shall continue to utilize the Future Land Use Map to protect aquifer recharge areas by limiting residential density to a maximum of 0.5 unit per acre within the northern portion of Planning Sector 2 (which includes the Eldridge-Wilde Wellfield and

surrounding lands), and by designating major wetland systems and associated uplands as preservation or preservation/resource management.

- 1.1.8. Policy: To protect groundwater recharge and groundwater quality, Pinellas County will preserve or restore natural drainage features through application of surface water management regulations during site plan review, by adherence to applicable federal, state and local regulations in County-designed projects, and by supporting potable water system improvements which are designed to protect and enhance the source water supply.
- 1.1.9. Policy: The County shall enforce ordinances that regulate borrow pits and landfills throughout Pinellas County, and landfills shall be prohibited within the wellhead zones of protection as determined in the County's groundwater protection program.
- 1.1.10. Policy: The County shall prohibit additional commercial or industrial land uses within the designated wellhead protection area in Planning Sector 2.
- 1.1.11. Policy: The County shall protect the wellfields in Planning Sector 2, including through lease agreements with property owners and by designating wellfields on County-owned property as Preservation - Resource Management, or Preservation on the Future Land Use Map.
- 1.1.12. Policy: Pinellas County shall continue to encourage and participate in efforts by the Southwest Florida Water Management District (SWFWMD) to prioritize the identification of groundwater recharge areas within the Northern Tampa Bay Water Use Caution Area (NTBWUCA).
- 1.1.13. Policy: In association with the update to the Land Development Code, evaluate the County's wellhead protection program to assess whether it continues to effectively regulate the direct or indirect release of pollutants into sinkholes, and areas of high groundwater recharge, in order to prevent groundwater contamination.
- 1.1.14. Policy: Pinellas County will regulate land use and development in a manner that protects the functions of natural drainage features for their contribution to recharge of the potable water supply.
- 1.1.15. Policy: Pinellas County will continue to encourage the development and implementation of source water protection initiatives and source water assessment programs by Tampa Bay Water.

- 1.1.16. Policy: Pinellas County will coordinate with the Southwest Florida Water Management District and the Florida Department of Environmental Protection, and utilize Florida Vulnerability Assessment (FAVA) data and maps, to identify and categorize recharge areas, and will incorporate the information into a geographic information systems format to facilitate use as a planning tool.
- 1.1.17. Policy: Pinellas County shall continue to acquire lands that contribute to protection of potable water recharge areas to the regional wellfields in this County.
- 1.2. Objective: Pinellas County shall continue to enforce its water shortage program in accordance with the Water Shortage Plan of the Southwest Florida Water Management District and Section 82 of the Pinellas County Code.
  - 1.2.1. Policy: Pinellas County shall utilize the provisions of County Code Section 82 in cooperating with the Southwest Florida Water Management District and Tampa Bay Water to deal with water shortages and when enforcing water use restrictions as provided in Section 373.609, FS.
  - 1.2.2. Policy: Pinellas County staff shall, in times of declared water shortage, provide timely and accurate information to the public, and enforce water use restrictions, consistent with Southwest Florida Water Management District guidelines and County Commission directives.
  - 1.2.3. Policy: The County shall continue its commitment to be a model for, and to implement proactive, innovative, and creative conservation education programs and technologies.
- 1.3. Objective: Consideration will be given to the suitability of underlying soil conditions when making land use, zoning and development order decisions.
  - 1.3.1. Policy: Pinellas County will evaluate soil conditions and limitations in the review of land use and zoning changes, and site plans.

## **NATURAL SYSTEMS AND LIVING RESOURCES**

**GOAL TWO: PINELLAS COUNTY WILL CONSERVE, PROTECT, RESTORE AND APPROPRIATELY MANAGE ITS NATURAL SYSTEMS AND LIVING RESOURCES ENSURE THE HIGHEST ENVIRONMENTAL QUALITY POSSIBLE.**

- 2.1. Objective: Pinellas County shall continue to implement management programs for the conservation of natural ecosystems and species of conservation concern (inclusive of native vegetative communities, terrestrial, marine, estuarine and aquatic ecosystems, and native wildlife species).

- 2.1.1. Policy: Pinellas County shall follow an active program of identification, protection, conservation and/or restoration of functioning native ecosystems and native habitats, including for species of conservation concern.
- 2.1.2. Policy: Pinellas County shall continue to enforce existing ordinances that protect and conserve native ecosystems and wildlife habitat, including habitat for species of conservation concern, from destruction by development activities.
- 2.1.3. Policy: Pinellas County shall continue to require that the type, intensity and location of development be correlated inversely with important ecosystems and native wildlife species existing on each site.
- 2.1.4. Policy: Pinellas County shall continue to require that development of a site require maintenance or improvement of existing native vegetative communities and shall continue to require the removal of ecologically undesirable non-native vegetation.
- 2.1.5. Policy: The removal of ecologically-undesirable non-native vegetation will be required, to the degree feasible, in conjunction with County projects; native species and intact habitat will be protected or enhanced, and landscaping will, at a minimum, be 80 percent native species selected to suit the individual site and to meet Florida Yards and Neighborhoods standards.
- 2.1.6. Policy: Pinellas County shall continue to make a target list of ecologically undesirable plant species available to the public through such means as, but not limited to, the provision of literature in department lobbies, in development regulations, on the County's website and in a variety of publications and educational outreach activities.
- 2.1.7. Policy: Pinellas County shall continue to pursue the acquisition of properties which contain desirable habitats, have the potential to be restored to provide desirable habitat, or serve to "fill in the gaps" in ecological corridors, or connect and enhance functional wildlife habitats in Pinellas County and throughout the region.
- 2.1.8. Policy: Pinellas County shall continue to manage County-owned environmental lands and resource-based parks to provide avenues for the dispersal of isolated populations of wildlife throughout Pinellas County and adjacent counties.
- 2.1.9. Policy: Pinellas County shall protect natural reservations as identified within the Recreation, Open Space and Culture Element by designating, whenever possible, natural reservations as Recreation/Open Space, Preservation-Resource Management, or Preservation on the County's Future Land Use Map.

- 2.1.10. Policy: Watershed and waterbody management plans shall identify existing and potential wildlife corridors and contiguous conservation and preservation areas and will identify opportunities to connect/enhance environmental lands and the open space network within the unincorporated county, municipalities and adjacent counties.
- 2.1.11. Policy: In the County's land acquisition, land regulation, and land management program, consideration will also be given to the protection of important, but isolated, lands where the isolation itself is providing an important habitat/species protection function.
- 2.1.12. Policy: Pinellas County's land acquisition efforts shall include a commitment to linking open space areas, and creating a network of greenways and greenspaces, which can be managed to support the protection, enhancement and restoration of functional and connected natural systems while providing, where appropriate and feasible, unique recreational opportunities, including nature-based experiences, for both residents and visitors.
- 2.1.13. Policy: Pinellas County shall continue to implement recovery programs for its natural ecosystems and for native wildlife including species of conservation concern, as well as those habitats identified in the Comprehensive Conservation and Management Plan (CCMP) as being of special concern, those identified as natural resources of regional significance by the Strategic Regional Policy Plan, and/or those resources identified by the County.
- 2.1.14. Policy: In association with the update to the Land Development Code, Pinellas County will evaluate the possibility of, or need for, buffers to protect nesting bald eagles. [10-57]
- 2.1.15. Policy: Pinellas County will coordinate with Pasco and Hillsborough Counties regarding extension of regional ecological corridors and greenway systems, and will share information regarding land development proposals that might have extra-jurisdictional impacts on existing corridors.
- 2.1.16. Policy: In association with the update to the Land Development Code, Pinellas County will determine the feasibility of regulatory techniques and/or incentives that can be used to help close the gaps in the ecological greenway system by partnering with the private sector on the set aside, or use, of lands that contribute to contiguity.

- 2.1.17. Policy: Pinellas County shall coordinate and share information with other local governments and agencies relative to the conservation, protection and management of natural ecosystems and native wildlife, including species of conservation concern in Pinellas County.
- 2.1.18. Policy: Pinellas County considers the protection of intact upland systems to be a priority and will continue to coordinate with environmental and regulatory agencies regarding the need to protect the County's diminishing uplands, particularly from wetland mitigation regulations applied during the development and permitting process.
- 2.1.19. Policy: In association with the update to the Land Development Code, a comprehensive review of existing environmental regulations will be initiated to identify opportunities to introduce new innovations, regulations and incentives that contribute to environmental improvement.

## **ENVIRONMENTAL LANDS AND RESOURCE-BASED PARKS**

GOAL THREE: PINELLAS COUNTY'S ENVIRONMENTAL LANDS AND RESOURCE-BASED PARKS ARE THE HALLMARK OF THIS COUNTY'S ENVIRONMENTAL COMMITMENT, AND THESE LANDS ARE TO BE PROTECTED AND MANAGED IN PERPETUITY FOR THEIR CONTRIBUTION TO THE BIODIVERSITY AND BIOLOGICAL SUSTAINABILITY OF THE REGION, AS A MEANS OF PROVIDING RESPITE FROM URBAN LIFE AND BECAUSE THEY INSTILL FUTURE GENERATIONS WITH A SENSE OF APPRECIATION FOR FLORIDA'S NATURAL HERITAGE.

- 3.1. Objective: Pinellas County will, at all times and in all actions, be a leader in urban ecology by being a conscientious steward of its environmental lands and resource-based parks and will maintain the integrity of these lands for their ecological, hydrological and open space value, in a manner that contributes towards a net environmental and ecosystem benefit.
- 3.1.1. Policy: Pinellas County will continue to, through a variety of media, provide education and promote public access to its environmental lands and resource-based parks, consistent with approved management plans, as a means of instilling environmental stewardship, and appreciation of this County's natural resources.
- 3.1.2. Policy: Pinellas County will consider the impact of land use and zoning decisions, and site plan decisions, on environmental lands and resource-based parks, so that decisions do not inadvertently conflict with approved management plans or best management practices.
- 3.1.3. Policy: By December 2013, evaluate the creation of a Pinellas County environmental lands trust to be used to secure and acquire infill

parcels, by allowing for the contribution of lands or monies. [10-57]

- 3.1.4. Policy: To foster environmental stewardship, the County's public outreach efforts will include information and education on best management practices for the neighbors of environmental lands and resource-based parks, as well as watershed concepts that demonstrate the impact of activities on nearby lands to the health of the preserve ecosystem.
- 3.1.5. Policy: Pinellas County will continue to pursue acquisition of infill properties that "close the gaps" in existing environmental lands and resource-based parks that enhance existing boundaries or natural systems.
- 3.1.6. Policy: Pinellas County will develop trails, outdoor classroom areas, exhibits and other facilities at its environmental lands and resource-based parks that are accessible to the public in order to enhance visitor experiences, without compromising environmental integrity, and in accordance with approved land management plans.
- 3.1.7. Policy: Pinellas County will strengthen partnerships with the media and municipalities to promote the purpose and value of environmental lands and resource-based parks.
- 3.2. Objective: As funding and staffing become available, Pinellas County will complete land management plans for its resource-based parks and its environmental lands. [12-10]
- 3.2.1. Policy: Pinellas County will continue to develop and update comprehensive management plans for its environmental lands and resource-based parks to ensure the protection and conservation of natural ecosystems and native wildlife, including species of conservation concern.
- 3.2.2. Policy: Each County environmental land and resource-based park land management plan will include, but not be limited to: natural resource descriptions, floral and faunal inventories, staffing needs, natural resource management strategies, educational programs, and resource-based recreation where compatible.
- 3.2.3. Policy: Baseline environmental data will be collected for each environmental land and resource-based park in order to devise appropriate management strategies.
- 3.2.4. Policy: Each management plan for a resource-based park will address which lands are available for educational activities or programming, as well as identify the capacity for events.
- 3.2.5. Policy: Pinellas County will undertake a sustainability analysis when

necessary to assess compatibility of and impacts of, proposed uses in resource-based parks, preserves and managed environmental lands, including resource management strategies.

- 3.2.6. Policy: Subsequent to adoption of the Brooker Creek Preserve Management Plan, the location of any new vertical water supply infrastructure within the Brooker Creek Preserve will require that the County conduct two public information meetings, with final action to be at a public hearing by the Board of County Commissioners, and subject to the uses, standards, processes, and resource management overlay requirements (i.e., the RMO-2 requirement) specifically defined in the Preservation-Resource Management Future Land Use Category, and the corresponding Preservation – Resource Management Zoning District. [09-14]
- 3.2.7. Policy: In addition to meeting environmental permitting requirements, and the requirements of the controlling land use category, any groundwater pumping decisions, including applications for permits, related to the Brooker Creek Preserve will also be evaluated by staff to ensure that impacts to wetlands and uplands can be avoided or minimized, and the public will be informed about a water use permit application for Brooker Creek Preserve before that application is submitted by Pinellas County. The filing of permit applications by Pinellas County for water use within the Brooker Creek Preserve shall require approval by the Board of County Commissioners at a public hearing. [09-14]

## **STRENGTHENED CONNECTIONS TO THE WATER**

**GOAL FOUR: PINELLAS COUNTY WILL REMAIN A LEADER IN THE PROTECTION AND RESTORATION OF ITS SURFACE WATERS AND THE DEPENDENT HABITATS AND RESOURCES WHICH ARE ESSENTIAL TO THIS COUNTY'S CHARACTER, ECONOMY AND QUALITY OF LIFE.**

- 4.1. Objective: Pinellas County shall protect, and conserve surface water resources and their living resources by preserving where appropriate, or restoring where possible, freshwater, marine and estuarine habitats, including coastal wetlands tidal streams, seagrasses, and other submerged aquatic vegetation, and by monitoring and managing, as best as possible, interactions between human activities and dependant marine and freshwater species.
- 4.1.1. Policy: The County shall continue to prohibit dredging and filling or other development activities having significant long-term impacts on marine and estuarine habitats such as seagrass beds, mangroves, tidal marshes and tidal flats, except in cases clearly in the public interest.



4.1.2 Policy: The County shall continue to enforce its erosion control regulations to reduce sedimentation and turbidity in coastal/marine habitats (particularly seagrass beds) and freshwater habitats that result from upland development activities.

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4.1.3. Policy: The County shall continue to enforce alternatives to the hardening and bulkheading of natural coastal shorelines, natural stream courses, and tidal creeks consistent with the land development code.

4.1.4. Policy: The County shall continue its program to require the eradication of ecologically undesirable vegetation from intertidal, riverine and nearby upland areas that is not indigenous to Florida and which has altered natural ecosystems by competitively excluding native plant species.

4.1.5. Policy: The County shall continue to cooperate with the Florida Department of Environmental Protection, the Southwest Florida Water Management District, the Tampa Bay Estuary Program and other appropriate agencies in protecting, restoring or enhancing natural freshwater habitats and adjacent uplands, as well as estuaries, and natural systems such as tidal flats, tidal streams, mangrove forests, seagrass beds, salt barrens, salt marshes and adjacent uplands by participating in revegetation projects, the development and implementation of management plans for Tampa Bay and the Boca Ciega Bay and Pinellas County aquatic preserves, Pollution Recovery Trust Fund environmental enhancement projects, Pinellas-Anclote River Basin Board Cooperative Funding projects, and other appropriate restorative and mitigative programs.

4.1.6. Policy: Pinellas County shall continue to prohibit non-water dependent development or redevelopment within natural intertidal areas (e.g., salt marshes, tidal flats and mangrove forests).

4.1.7. Policy: The County shall continue to enforce its regulations that require natural upland buffers adjacent to estuaries, bays and other surface waters, and shall review their effectiveness in association with the update of the Land Development Code.

4.1.8. Policy: Pinellas County shall continue to support the protection of manatees through such measures as enforcing no-wake zones, implementing sea grass protection areas, and by providing manatee signage.

4.1.9. Policy: Pinellas County will continue to collect information (e.g., manatee watch line, mortality data, seagrass monitoring, etc.) required to identify critical use areas for manatees, and will use the information to annually assess and revise, if necessary, its manatee protection measures and programs.

- 4.1.10. Policy: By 2010, review existing County regulations (e.g., Zoning Code, Water and Navigation Control Regulations, Boating Regulations, etc.) to determine if they continue to adequately support manatee protection goals.
- 4.1.11. Policy: Pinellas County will continue its boater and public education efforts regarding coastal and marine resource protection, and will particularly target education towards areas and incidences of high susceptibility to interactions between boaters and manatees.
- 4.1.12. Policy: Pinellas County will assess, at least every two years, the effectiveness of its existing seagrass protection zones and determine whether additional zones or measures are required to protect existing or establish new, protection zones.
- 4.1.13. Policy: Pinellas County will continue to identify, implement and enforce appropriate measures to protect important sea grasses, including the waters of Fort DeSoto/Mullet Key, Safety Harbor, Weedon Island, Clearwater Harbor, St. Joseph's Sound and Boca Ciega Bay.
- 4.1.14. Policy: Pinellas County will continue to participate with other agencies in determining appropriate measures for protecting manatees, including the development of manatee protection measures by the Tampa Bay Estuary Program's Manatee Awareness Coalition.
- 4.1.15. Policy: Pinellas County will continue its land acquisition, management and protection efforts as ones means of protecting the survivability of coastal and marine resources.
- 4.1.16. Policy: To further boater and wildlife safety, Pinellas County will continue to coordinate with the Sheriff's Marine Unit regarding marine enforcement, monitoring and speed restrictions.
- 4.1.17. Policy: Through implementation of land development regulations, by enforcing land use and zoning restrictions, by regulating the location of dock, marinas and boat ramps, by monitoring water quality and freshwater and marine resources, and through public education, Pinellas County will contribute to the protection of marine and freshwater-dependent species.
- 4.1.18. Policy: Pinellas County will continue active participation in State and regional technical forums regarding management and protection of freshwater, coastal and marine resources.
- 4.1.19. Policy: Pinellas County will continue to provide funding to support sea turtle nesting monitoring, and will partner with volunteer groups, research organizations and enforcement agencies to monitor sea turtle

- nesting areas.
- 4.1.20. Policy: Pinellas County will continue to support research organizations that provide education regarding measures the public can take to improve the survivability of sea turtles.
- 4.1.21. Policy: Pinellas County will continue to partner with the coastal municipalities to encourage enforcement of existing, or to implement new, lighting ordinances with a focus on reducing lights on the beach that may disorient nesting sea turtles and their hatchlings.
- 4.1.22. Policy: The Pinellas County Board of County Commissioners shall continue to utilize its regulatory authority as the Pinellas County Water and Navigation Control Authority to ensure development is consistent with the objectives and policies of this Element pertaining to the protection, enhancement, and restoration of freshwater, marine and coastal resources.
- 4.1.23. Policy: Pinellas County shall continue to use its land development code, and in particular, its countywide controls under the Water and Navigation Control Authority, to exercise locational restrictions and site-specific development controls to ensure development is undertaken in a manner that does not compromise the County's goals for protecting coastal and marine habitats and dependent species, including manatees.
- 4.2. Objective: Pinellas County shall continue to support and cooperate in the development of comprehensive and coordinated management plans for Tampa Bay and the aquatic preserves located in Pinellas County by providing staff resources and technical support in the preparation, review, and implementation of these management plans.
- 4.2.1. Policy: Pinellas County shall continue to cooperate with, and assist as appropriate, the Southwest Florida Water Management District in the development and implementation of Surface Water Improvement and Management Plans for water bodies in Pinellas County.
- 4.2.2. Policy: Pinellas County shall participate with the Department of Environmental Protection in the development of the Boca Ciega Bay and Pinellas County Aquatic Preserves Management Plan, as they are scheduled by the State.
- 4.2.3. Policy: Pinellas County shall continue to participate in the Agency on Bay Management and the Tampa Bay National Estuary Program as a means to provide a multi-jurisdictional/-multi-disciplinary forums for managing the resources of Tampa Bay.
- 4.2.4. Policy: Pinellas County shall coordinate with other local governments in protecting multi-jurisdictional estuaries by soliciting municipal

comments before applications for development are heard by the Pinellas County Water and Navigation Control Authority.

## **PROMOTING ENVIRONMENTAL STEWARDSHIP**

**GOAL FIVE: PINELLAS COUNTY WILL BE A RECOGNIZED LEADER IN ENVIRONMENTAL EDUCATION AND LOCAL ENVIRONMENTAL STEWARDSHIP.**

- 5.1. Objective: Pinellas County will continue to be an innovative leader in environmental education and outreach, placing emphasis on the conservation and restoration of natural ecosystems and native wildlife, including species of conservation concern.
- 5.1.1. Policy: Where mutual benefit is achieved, Pinellas County shall actively pursue and maintain interactive public involvement and functional partnerships with the Pinellas County School Board, as well as area colleges, environmental organizations and non-profits for the purposes of developing and disseminating educational materials and programs.
- 5.1.2. Policy: Pinellas County will continue to operate and enhance its environmental education facilities and programming with an emphasis on the County's natural and cultural heritage and the promotion of local sustainability ethics, and will use the County's Urban Sustainability Center/County Extension as one means of disseminating environmental education information to the public
- 5.1.3. Policy: Pinellas County shall maintain innovative education facilities and programs at various County parks and preserves including Brooker Creek Preserve, Weedon Island Preserve, Sawgrass Lake Park and the Florida Botanical Garden and County Extension.
- 5.1.4. Policy: Pinellas County will use its beaches, parks and preserves as locations to display and disseminate sustainability and environmental education.
- 5.1.5. Policy: Pinellas County will continue to coordinate with the School Board on environmental education curriculum and programming.
- 5.1.6. Policy: Pinellas County will work to raise public awareness of existing environmental facilities and programs, and will specifically target marketing to under-served participants.

## **FLOODPLAINS AND FLOODPLAIN MANAGEMENT**

**GOAL SIX: PINELLAS COUNTY WILL PRESERVE, PROTECT, RESTORE AND MANAGE THE NATURAL RESOURCES OF ITS FLOODPLAINS TO MAINTAIN OR ENHANCE WATER QUALITY, PLANT AND ANIMAL DIVERSITY, AND AQUATIC PRODUCTIVITY, TO PROTECT THE FLOOD STORAGE VALUE AND PURPOSE, AND TO PROTECT THE**

## PUBLIC AND MINIMIZE PROPERTY DAMAGE.

- 6.1. Objective: Pinellas County shall continue to protect floodplains, flood ways, and all other natural areas having functional hydrological characteristics in order to minimize adverse impacts on the natural system, public safety and investment, and floodplain function and purpose.
- 6.1.1. Policy: All construction in floodplains and flood ways shall continue to be required to comply with Federal Emergency Management Agency or Federal Insurance Administration standards and County building codes, and will meet or exceed the requirements of the County's participation in the Community Rating System (CRS).
- 6.1.2. Policy: Developers shall continue to be required, through the site plan review process, to incorporate those wetland portions of sites which are within 100-year floodplains as conservation easements.
- 6.1.3. Policy: Construction in floodplains shall continue to be limited by the enforcement of Section 158, the Pinellas County Floodplain Management portion of the Land Development Code, as amended, and in addition, will be subject to the permitting authority of the Southwest Florida Water Management District (SWFWMD), as delegated by the Federal Emergency Management Agency (FEMA).
- 6.1.4. Policy: No development or fill is allowed within the 100-year floodway, but may be permitted within the 25-year and 100-year floodplain as long as there is no increase in base flood elevation as a result of the activity, and as long as the flood hazard reduction provisions of Section 158 of the Pinellas County Code are met.
- 6.1.5. Policy: Because of their contribution to floodplain stability and floodplain habitat value, special emphasis will be placed on protecting viable native floodplain forests from destruction by excavation activities during development and redevelopment.
- 6.1.6. Policy: To protect public safety and minimize potential property damage, any request to increase residential density above 5.0 units per acre on the Future Land Use Map within the 100 year floodplain for property located within a repetitive loss area, or located within an area of known flooding identified in an existing watershed plan approved by the Board of County Commissioners, must be able to demonstrate how existing flooding issues will be resolved.
- 6.1.7. Policy: To protect the natural recharge areas and extensive natural systems in northeast Pinellas County, the County will not approve any request to increase residential density above 5.0 units per acre on the Future Land Use Map for areas within 100-year floodplains located in Planning Sector 2 (East Lake Tarpon Planning Sector).

- 6.1.8. Policy A request to increase density over 5.0 units per acre on the Future Land Use Map within the 100 year floodplain where the property is also located within that area defined by the SLOSH model to be inundated by a Category 3 hurricane may be considered as long as the applicant can demonstrate that the impact of the proposed amendment on the demand for shelter space can be mitigated and the requirements of Policy 6.1.9 are met.
- 6.1.9. Policy: A request to amend the Future Land Use Map on a property within the 100 year floodplain to a designation with an increased maximum impervious surface ratio will be required to provide adequate information to demonstrate that their development proposal will meet County floodplain, flood protection and stormwater regulations, in which case a development agreement may be required to formalize floodplain management and public safety requirements. Applicants are encouraged to incorporate the disaster mitigation components of the Florida Green Building Coalition as a part of the project design.
- 6.1.10. Policy: A request to amend the Future Land Use Map or a development or redevelopment application for a project within a floodplain located within a watershed with an approved watershed plan will be reviewed for consistency with, and must further, the goals of the respective watershed plan.
- 6.1.11. Policy: A reduction in floodplain storage as a result of development or redevelopment activity will require comparable compensation.
- 6.1.12. Policy: As a part of the site plan review, for any project located within the floodplain, the development applicant will be required to provide adequate information to the County that demonstrates that floodplain functions will not be adversely impacted by the development, that adjacent properties will not be adversely affected, that the project is not inconsistent with an approved watershed plan, and that the offsite stormwater conveyance system will be able to accommodate flows from the project site.
- 6.1.13. Policy: In association with the update to the Land Development Code, the County will review existing regulations to ensure that site development, erosion control, habitat management, water quality and flood control requirements are internally consistent, mutually supportive, effective and sustainable for the long term.
- 6.1.14. Policy: In association with the update to the Land Development Code, Pinellas County will evaluate how best to promote development and redevelopment proposals that demonstrate a sustainability commitment through such means as: reducing the amount of impervious surface on an already developed site, maximizing or

restoring natural floodplain functions and habitat, demonstrating innovation in stormwater management techniques, and/or recognizing the potential for changing long term floodplain conditions due to the anticipated impacts of climate change. [10-57]

- 6.1.15. Policy: The County shall encourage acceptable materials and alternatives to the hardening and bulkheading of natural banks, natural stream courses, lakes and creeks through the enforcement of appropriate ordinances, and in association with the update to the Land Development Code, shall develop criteria for acceptable materials to use for this purpose. [10-57]
- 6.2. Objective: Pinellas County shall continue to maintain, and enhance where possible, the current balance of living resources in the floodplains of the County.
- 6.2.1. Policy: The County shall continue to prohibit dredging and filling or other development activities having significant long-term impacts on the ecological or hydrological function of the floodplains, except in cases clearly in the public interest.
- 6.2.2. Policy: Pinellas County shall enforce its policies on natural systems and living resources in order to support the ecological value and natural function of its 25 and 100 year floodplains
- 6.2.3. Policy: The County shall continue to cooperate with the Southwest Florida Water Management District and other appropriate agencies in expanding or enhancing existing natural habitats associated with floodplains.
- 6.2.4. Policy: Fill may be limited to the footprint of the building when necessary to protect floodplain function or habitat, and to meet the County's provisions for flood hazard reduction and standards for development in areas subject to flooding.
- 6.2.5. Policy: The County shall continue to enforce its erosion control regulations to reduce sedimentation in floodplains resulting from upland development activities.
- 6.2.6. Policy: Wetlands and floodplains shall continue to be preserved through such means as a Preservation designation on the Future Land Use Map, and shall be protected as flood storage and conveyance systems, as well as wildlife and vegetative habitat.

## **ENVIRONMENTAL SUSTAINABILITY IN EVERY-DAY PRACTICE**

**GOAL SEVEN: PINELLAS COUNTY WILL BE A LEADER IN ENVIRONMENTALLY SUSTAINABLE GOVERNMENT OPERATIONS, A PROPONENT OF SMART AND SUSTAINABLE GROWTH MANAGEMENT PRACTICES AND WILL HAVE A STRONG**

ECONOMY SUPPORTED BY SOUND ENVIRONMENTAL PRINCIPLES, PROGRAMS AND PRACTICES.

- 7.1. Objective: Pinellas County intends to lead by example and will both exemplify and promote environmentally sustainable practices. [10-57]
- 7.1.1. Policy: By December 2008, for new County construction and in the redevelopment of County properties, Pinellas County will utilize low impact development principles, to the extent practicable, to address stormwater management needs and to model innovative techniques
- 7.1.2. Policy: Pinellas County will provide education to the public and the development community on the value and benefits of sustainable building and landscape design.
- 7.1.3. Policy: By December 2010, Pinellas County will consider what enhancements are cost effective and feasible with regard to the sustainability components of its purchasing policy. [10-57]
- 7.1.4. Policy: Pinellas County will continue to meet its silver certification as a *Green Local Government* from the *Florida Green Building Coalition* and will strive to achieve the Platinum designation.
- 7.1.5. Policy: By December 2008, at new and remodeled County offices, identify, schedule and begin to implement green building practices that are appropriate to our climate and to the particular building type. [10-57]
- 7.1.6. Policy: By December 2008, develop a plan and schedule for ensuring that, to the extent practicable, County leased office space is energy and water efficient, practices office paper recycling and utilizes building maintenance practices that are not detrimental to public health.
- 7.1.7. Policy: By 2012, Pinellas County will require energy efficiency in all of its operations, buildings and leased spaces, and will incorporate, to the extent practicable, non-traditional, sustainable energy options where feasible, so as to be a model for sustainability and to reduce carbon emissions.
- 7.1.8. Policy: By January 2009, consider the development of a marketing initiative directed at using locally produced products locally.
- 7.1.9. Policy: Pinellas County shall continue to utilize environmentally beneficial landscape principles, incorporating low maintenance design, integrated pesticide management and will incorporate Florida Yard and Neighborhoods landscape materials and designs, at all new or re-landscaped County properties.
- 7.1.10. Policy: Pinellas County will continue to work in partnership with its citizens,



neighboring governments, developers, businesses, educators and agencies to achieve a sustainable future, and will collaborate locally, regionally and nationally to identify innovative opportunities and ideas for consideration.

- 7.1.11. Policy: In association with the update to the Land Development Code, Pinellas County will re-tool, where necessary, County practices and regulations, and will transform its development regulations into a Smart Growth and Quality Development Code, promoting flexibility, incorporating economic and environmentally sustainable incentives, and relying upon the creativity and dedication of County staff to model and implement.
- 7.1.12. Policy: By December 2008, consider using development agreements where appropriate to partner with the development community on quality environmental site and building designs.
- 7.1.13. Policy: Pinellas County will require that all new County buildings be constructed to meet a nationally recognized, high-performance green building rating system approved by the State of Florida Department of Management Services.
- 7.1.14. Policy: In association with the update to the Land Development Code, determine a threshold, incentives and criteria for requiring and/or encouraging LEED standards/certification, or equivalent standard, in private design. [10-57]
- 7.1.15. Policy: By December 2008, at least one County staff person will become a LEED-certified (or an equivalent green certification) professional to provide technical assistance to County and private projects.
- 7.1.16. Policy: By December 2008, Pinellas County will incorporate its sustainability commitment into new employee orientation, and will offer, and require all management staff to train in sustainable and efficient operations for incorporation into daily office operations.
- 7.1.17. Policy: By December 2011, develop a 'green' map for visitors, identifying conservation-minded and energy efficient operations and programs, such as clean marinas, hotels participating in programs to reduce waste and conserve energy, and travel destinations with natural or cultural interests. [10-57]
- 7.1.18. Policy: Utilize the Bushnell Center for Urban Sustainability at Pinellas County Extension Center as a catalyst for educating the public on energy efficiency, green building and design, natural resource conservation and disaster mitigation. [10-57]

7.2. Objective: Pinellas County will plan responsibly for climate change and will educate

citizens and stakeholders so that they are partners in determining this County's future.

- 7.2.1. Policy: Pinellas County will initiate a greenhouse gas reduction target for Pinellas County government operations and implement specific Climate Action Plan goals by 2015. [10-57]
- 7.2.2. Policy: Continue to monitor, and participate in, current science regarding the timeline and impacts of climate change on Florida and Pinellas County, and collaborate with other governments and organizations to identify best practices for promoting a climate-friendly economy, carbon-neutral practices, and contributing to meeting climate stabilization targets.
- 7.2.3. Policy: In association with the update to the Land Development Code, determine whether there is a need to further amend the Comprehensive Plan and land development regulations to protect public and private coastal infrastructure and investment from the inland advancement of coastal waters, and to coordinate land use planning decisions with the expectations of sea level rise.
- 7.2.4. Policy: Consistent with the State's initiative to improve the sustainability of Florida's energy production and consumption patterns, and to minimize the County's own carbon footprint, identify opportunities and funding for local implementation of renewable energy options that apply to the built environment, infrastructure, utilities and transportation sectors, using the FGBC Green Local Government Standard as a guide.
- 7.2.5. Policy: By January 2009, provide information to the public regarding how the County is planning to adapt to climate change, and encouraging residents to partner with the County in making conscientious choices to minimize their impact on the local, regional and global climate.
- 7.2.6. Policy: Through its Urban Sustainability Program, Pinellas County will provide education countywide regarding climate-friendly policies and programs, including emphasis on air quality, land use planning, transportation, zoning, forest preservation, water conservation, and wastewater and solid waste management
- 7.2.7. Policy: Redevelopment activities within the unincorporated County will contribute to the overall environmental improvement of the local and regional watershed.
- 7.3. Objective: Pinellas County will initiate a program to maximize retention and enhancement of the County's mature native shade tree canopy for the environmental value and for the contribution to this County's quality of

life.

- 7.3.1. Policy: In association with the update to the Land Development Code, evaluate the need to update regulations aimed at preserving and enhancing the native tree canopy in the unincorporated area
- 7.3.2. Policy: Coordinate and share information regarding native tree protection strategies and goals that could be modeled countywide. [10-57]
- 7.3.3. Policy: Recognize that protection and enhancement of the native tree canopy is integral to the County's sustainability ethic and contributes incrementally to improving the local and global climate.

## **AIR QUALITY**

**GOAL EIGHT: PINELLAS COUNTY AMBIENT AIR QUALITY WILL MEET OR SURPASS ALL STATE AND FEDERAL STANDARDS FOR REGULATED AIR POLLUTANTS TO ENSURE A HEALTHY ENVIRONMENT FOR ITS CITIZENS.**

- 8.1. Objective: Pinellas County will maintain all established National Ambient Air Quality Standards (NAAQS).
  - 8.1.1. Policy: Measures necessary to reduce ozone precursor and primary/secondary fine particulate emissions shall be implemented in accordance with final guidelines established by the EPA and the most current Florida State Implementation Plan, Statement of Commitments, and Maintenance Plans.
  - 8.1.2. Policy: Pinellas County shall support federal fuel programs (e.g. volatility regulations, fuel sulfur content) as a means of significantly reducing mobile source pollutant emissions.
  - 8.1.3. Policy: Pinellas County shall support the use of the latest and most applicable air quality emissions models and the latest and most applicable mobile source emissions models in determining air pollution control strategies.
  - 8.1.4. Policy: Pinellas County shall continue to require Stage I vapor control systems for all new and reconstructed gas stations as applicable.
  - 8.1.5. Policy: Pinellas County will maintain detailed stationary and area source emission inventories for criteria pollutants in order to assess air quality impacts.
- 8.2. Objective: Pinellas County shall continue to assess and monitor and reduce transportation related air quality impacts.
  - 8.2.1. Policy: Pinellas County shall maintain detailed mobile source emission inventories for criteria pollutants in order to assess air quality

impacts.

- 8.2.2. Policy: Pinellas County shall give priority, whenever feasible, to those transportation projects (e.g. highway improvements) that result in the greatest reductions of air pollution concentrations.
- 8.2.3. Policy: Pinellas County shall continue to implement countywide systems (e.g. signalization and ITS) as a means of improving traffic flow and reducing vehicular air pollution emissions.
- 8.2.4. Policy: Pinellas County shall continue to assess existing and planned transportation facilities in order to identify potential air quality problems and, where appropriate, develop mitigation plans.
- 8.2.5. Policy: The Pinellas County Air Quality Division will continue to support the Technical Coordinating Committee of the Metropolitan Planning Organization (MPO), and review transportation related projects subject to the requirements of the SAFE, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA – LU).
- 8.2.6. Policy: The Pinellas County Air Quality Division shall continue to support diesel emission reduction programs such as the Environmental Protection Agency Region 4 Diesel Collaborative and grant applications for diesel reduction projects.
- 8.3. Objective: Pinellas County shall continue to assess, on an annual basis, the effectiveness of its existing air pollution control program and the need for revised control strategies or additional program elements.
  - 8.3.1. Policy: Pinellas County shall continue to maintain the status of its existing approved local air program in accordance with Florida Statutes and interagency agreements with the Florida Department of Environmental Protection.
  - 8.3.2. Policy: Pinellas County shall maintain its air monitoring network and upgrade air monitoring stations as new standards, procedures, or programs are promulgated by the US Environmental Protection Agency.
  - 8.3.3. Policy: Pinellas County shall continue to maintain the air compliance and inspection program to effectively meet interagency agreements with the Environmental Protection Agency and the Florida Department of Environmental Protection (FDEP).
  - 8.3.4. Policy: Pinellas County shall continue to meet its obligations for receipt of Federal Section 105 Air Pollution Control Grant Funds.

8.3.5. Policy: Pinellas County shall amend its comprehensive air quality ordinance as needed to ensure the effectiveness of the Air Quality Compliance Program and protect the health and welfare of the citizens of Pinellas County.

GOAL NINE: PINELLAS COUNTY SHALL IMPROVE MANAGEMENT OF NON-CRITERIA AIR POLLUTANTS SUCH AS HAZARDOUS AND TOXIC SUBSTANCES.

9.1. Objective: Pinellas County shall participate in the development and implementation of reasonable and effective federal and state regulatory programs to minimize human exposure to carcinogens and toxic substances, consistent with Title III of the 1990 Clean Air Act amendments and related EPA/State toxics programs as developed.

9.1.1. Policy: The application of pesticides and other toxic substances by County staff shall be timed and performed in such a manner as to minimize exposure to humans and non-targeted wildlife and vegetation.

9.1.2. Policy: Pinellas County shall continue to make information available to the public on radon and make referrals to FDOH as deemed appropriate.

9.1.3. Policy: Pinellas County shall continue to encourage the use of alternative pest control practices, through integrated pesticide management training.

9.1.4. Policy: Pinellas County shall continue its implementation of delegated NESHAP responsibilities regarding asbestos and other regulated air toxics.

9.1.5. Policy: Pinellas County will coordinate with Municipal Building Departments and contractors to ensure awareness of asbestos compliance requirements.

9.1.6. Policy: Pinellas County shall continue to monitor and study the levels and sources of toxic air pollutants consistent with EPA programs and objectives.

9.1.7. Policy: Pinellas County will perform risk analysis with regard to measured and modeled Hazardous Air Pollutants consistent with EPA policies and guidelines.

9.1.8. Policy: Pinellas County will maintain detailed stationary, area, and mobile source emission inventories for hazardous air pollutants in order to assess air quality impacts.

**GOAL TEN: PINELLAS COUNTY WILL CONTINUE TO IMPROVE PUBLIC AWARENESS CONCERNING AIR QUALITY ISSUES THROUGH THE USE OF IMPROVED EDUCATIONAL MATERIALS, PUBLIC INFORMATION CAMPAIGNS, AND THE USE OF COUNTY MEDIA FACILITIES.**

10.1. Objective: Pinellas County will continue to promote air quality awareness through public education and outreach programs.

10.1.1. Policy: Pinellas County shall continue to support an air quality forecasting program and notify the public of air quality on a daily basis, as well as pollution episodes as they occur.

10.1.2. Policy: Pinellas County will develop educational and outreach materials targeting voluntary emission reduction actions for everyday activities, as well as, during pollution episodes when they occur.

10.1.3. Policy: Pinellas County will continue to make air quality information available on a user-friendly Website that is updated on a regular basis.

10.1.4. Policy: Pinellas County will continue to utilize existing, as well as, develop new education and outreach materials. In addition, we will seek out, as well as, develop education and outreach events.

10.1.5. Policy: Pinellas County will support developing Sustainability and Green County programs to include education and outreach on issues such as indoor air quality, transportation alternatives, and clean fuel vehicles.