

# CONSERVATION ELEMENT

## CHAPTER 1

## TABLE OF CONTENTS

<b>DIRECTIVES.....</b>	<b>2</b>
<b>GOALS, OBJECTIVES AND POLICIES.....</b>	<b>3</b>
Air Quality.....	3
Energy .....	4
Surface Water .....	5
Flood Hazard Areas .....	10
Wetlands .....	14
Objective 5 .....	14
Minerals .....	17
Soil Erosion.....	19
Vegetation.....	21
Wildlife.....	23
Aquifer Protection .....	26
<b>LIST OF MAPS .....</b>	<b>29</b>

## CONSERVATION ELEMENT

### DIRECTIVES

*Directives are principles or guidelines that provide the general philosophical outlook of Brevard County with regard to the element of the Plan in which it is stated. Directives do not necessarily require specific actions for implementation. However, they shall guide specific actions wherever possible.*

#### Air Quality

In order to maintain its "attainment" status, Brevard County should develop a complete air monitoring program. More complete baseline data would allow better assessment of large-scale development which could degrade air quality. Areas of localized poor air quality should be identified, and a program for reduction or elimination of the pollution source should be developed in conjunction with FDEP and EPA.

Stationary air pollution sources and new transportation projects listed on the adopted Transportation Improvement Program should be evaluated for their cumulative effects on air quality. These sources should include sources adjacent to, as well as within, the county.

Alternate energy resources that do not degrade air quality should be given preference over resources which do degrade air quality. In addition, Brevard County ordinances or programs concerning clean-up and disposal of hazardous materials, mass burn facilities, and solid waste disposal shall not result in the degradation of air quality or endangerment of human health.

Conversion of power plant to coal should not cause degradation of air quality below minimum standards. Best available technology should be utilized for all new power plants.

Land use should also be compatible with the maintenance of good area quality. Development should be designed in such a way as to minimize traffic congestion. Urban land uses should be buffered from stationary and linear pollution sources (roadways). Vegetation should be utilized whenever possible to buffer air pollution sources and maintain air quality. Multi-use developments, such as Planned Unit Development, or other innovative land uses should be utilized to reduce the need to travel. Facilities that house the elderly, very young or sick should be located away from emission sources or areas of poor air quality.

## **GOALS, OBJECTIVES AND POLICIES**

### **GOAL**

PROTECT, CONSERVE, ENHANCE, MAINTAIN AND APPROPRIATELY USE NATURAL RESOURCES AND ENVIRONMENTAL SYSTEMS, MAINTAINING THEIR QUALITY AND CONTRIBUTION TO THE QUALITY OF LIFE AND ECONOMIC WELL BEING OF BREVARD COUNTY.

### **Air Quality**

#### **Objective 1**

Air quality within Brevard County shall meet or exceed the minimum air quality as adopted by the Florida Department of Environmental Protection.

#### **Policy 1.1**

Brevard County shall cooperate with the Florida Department of Environmental Protection (FDEP) in monitoring ambient air quality within the county.

#### **Policy 1.2**

Developments of Regional Impact, major transportation projects and power generation projects shall be evaluated for their impacts on air quality. Buffer areas adjacent to industrial uses, power generation projects or other stationary air pollution sources shall be utilized as required to maintain air quality within accepted standards.

#### **Policy 1.3**

The County shall reduce the potential for mobile source emissions by the following means:

##### **Criteria:**

- A. Promote appropriate Planned Unit Development and multi-use developments or use centers.
- B. Vegetative strips along major transportation corridors to buffer residential land uses.
- C. Promote alternative transportation methods such as car pooling, van pooling and mass transit.
- D. Promote bicycle and pedestrian traffic by constructing and maintaining additional bike and pedestrian paths.
- E. Roadways with adopted Levels of Service should be evaluated in order to maintain acceptable air quality after the development is completed.

#### **Policy 1.4**

By 1999, Brevard County should adopt the U.S. Environmental Protection Agency model community noise ordinance or a more stringent ordinance to reduce noise levels within the County.

**Policy 1.5**

By 1999, Brevard County should develop and adopt standards for the location of facilities that potentially generate noxious emissions.

**Policy 1.6**

Alternate energy resources that do not degrade air quality should be given preference over resources which do degrade air quality. In addition, Brevard County ordinances or programs concerning clean-up and disposal of hazardous materials, mass burn facilities, and solid waste disposal shall not result in the degradation of air quality or endangerment of human health.

**Policy 1.7**

Conversion of power plant to coal should not cause degradation of air quality below minimum standards. Best available technology should be utilized for all new power plants.

**Policy 1.8**

Land use should also be compatible with the maintenance of good area quality. Development should be designed in such a way as to minimize traffic congestion. Urban land uses should be buffered from stationary and linear pollution sources (roadways). Vegetation should be utilized whenever possible to buffer air pollution sources and maintain air quality. Multi-use developments, such as Planned Unit Development, or other innovative land uses should be utilized to reduce the need to travel. Facilities that house the elderly, very young or sick should be located away from emission sources or areas of poor air quality.

**Energy****Objective 2**

Reduce per capita energy consumption within Brevard County.

**Policy 2.1**

Brevard County shall address various energy saving methods including:

**Criteria:**

- A. Encouraging appropriate Planned Unit Development and multi-use developments;
- B. Regulating subdivisions to address bicycle and pedestrian pathways; and
- C. Regulating land clearing and landscaping regulations to augment passive cooling by trees.

**Policy 2.2**

Brevard County shall continue to implement the Florida Energy Efficient Code for new construction and substantially rehabilitated structures.

**Policy 2.3**

Brevard County should continue to implement waste reduction, reuse, recycling and conversion of waste to energy as part of its waste management strategies.

**Policy 2.4**

Brevard County shall consider energy conservation in the development and implementation of County ordinances.

**Policy 2.5**

Brevard County should pursue transportation options that would decrease per capita energy consumption.

**Policy 2.6**

Brevard County should coordinate with the East Central Florida Regional Planning Council, the Economic Development Commission of Florida's Space Coast, and the State to encourage development and use of energy efficient and renewable technologies to enhance economic development while conserving energy.

**Surface Water****Objective 3**

Improve the quality of surface waters within Brevard County and protect and enhance the natural functions of these waters.

**Policy 3.1**

Brevard County shall cooperate with the Florida Department of Environmental Protection (FDEP) to require small package treatment plants adjacent to surface waters to comply with existing federal, state, or regional rules and regulations, and to ensure that the necessary renovations to achieve compliance are completed in a timely manner.

**Policy 3.2**

Brevard County shall continue to prevent negative impacts of development in and adjacent to Class I waters by implementing and revising, as necessary, the Surface Water Protection Ordinance including the following minimum criteria:

**Criteria:**

- A. Maintain a two hundred (200) foot shoreline protection buffer from ordinary or mean high waterline.
- B. Acceptable uses within the shoreline protection buffer are passive recreation, hunting, fish and wildlife management, open space and nature trails, and similar uses.
- C. Require discharges of any substances into Class I waters to meet or exceed applicable receiving water quality standards.
- D. Prohibit dredging and filling, except for permitted utility crossings, publicly owned recreational projects which do not degrade water quality

and necessary maintenance of existing projects.

- E. Regulate development and mining operations within the hydrologic basin of Class I waters. Prohibit mining operations within the 10-year floodplain of Class I waters.
- F. Prohibit alteration within the shoreline protection buffer unless it is in the public interest or does not adversely impact water quality and natural habitat.

### **Policy 3.3**

Brevard County shall continue to make efforts to prevent negative impacts of development in and adjacent to the Indian River Lagoon and its tributaries designated as Class II waters, Aquatic Preserves and Outstanding Florida Waters by implementing and revising as necessary, the Surface Water Protection Ordinance, including the following minimum criteria:

#### **Criteria:**

- A. Maintain a fifty (50) foot shoreline protection buffer from the mean high water line or the safe upland line as determined by the FDEP Bureau of Survey and Mapping.
- B. No more than twenty (20) percent of the lot width or twenty-five (25) linear feet, whichever is greater, of any shoreline protection buffer of a project or parcel, or the offshore emergent vegetation associated with a project or parcel may be altered for reasonable access or for allowable development. Within the shoreline protection buffer, allowable development shall be limited to docks, boat ramps, pervious walkways, elevated walkways, and approved accessory uses, as set forth by the County land development regulations. Accessory uses shall be allowable only on existing bulkheaded lots utilizing required stormwater management techniques.

The remainder of the shoreline protection buffer shall be maintained in unaltered vegetation, except for noxious species, as permanent open space. This shall not preclude mitigation projects or the planting of native species. Provisions for the alteration and/or removal of non-native noxious vegetation shall be established by the Brevard County Natural Resources Management Division.

- C. For residential lots platted or established by deed on the official record books of Brevard County prior to September 8, 1988, an alternative to the fifty (50) foot shoreline protection buffer described above shall be available for those lots which have insufficient lot depth to construct a primary structure or pool with its associated decking and features. In the case where there is insufficient lot depth to construct a primary structure, this alternative shall allow the shoreline protection buffer to be reduced to twenty five (25) feet if additional measures are taken to preserve water

quality and natural habitat within the adjacent surface water body. In the case where there is insufficient lot depth to construct a pool with its associated decking and features, an encroachment of up to 720 square feet within the shoreline protection buffer shall be available if additional measures are taken to preserve water quality and natural habitat within the adjacent surface water body. These additional measures should, at a minimum, be consistent with DEP 17-25 and 17.302 F.A.C. and may include but are not limited to the provision of a stormwater system which is capable of preventing the first inch of runoff from a 25 year, 24 hour storm from entering surface waters and revegetation with native shoreline vegetation. Within the shoreline protection buffer, development shall be limited to those activities outlined in 3.4 (B).

- D. Prohibit shoreline alteration other than that allowed for reasonable access or approved accessory uses, unless the alteration is in the public interest and does not adversely impact water quality, natural habitat and adjacent shoreline uses.
- E. Prohibit channelization, dredging and filling, and impoundment of natural waters of the State unless the activity is clearly in the public interest and does not adversely impact water quality, natural habitat and adjacent shoreline uses. Dredging shall not be permitted in or connected to Class II Waters, Outstanding Florida Waters (OFWs), Aquatic Preserves, areas that contain ten percent (10%) seagrass or more, and conditionally approved shellfish harvesting waters unless the activity is a federal navigation project, in the public interest, such as approved maintenance dredging of existing public or private navigational channels, or where dredging may improve water quality by removing accumulated silt or improving circulation, or for maintenance of existing structures and utility structures and utility crossings, or for shoreline hardening as allowed by this element.
- F. Prohibit discharges of any substances below ambient water quality standards.
- G. Within the shoreline protection buffer the maximum amount of impervious surface is thirty (30) percent.

### **Policy 3.4**

Brevard County shall continue to prevent negative impacts of development in and adjacent to Class III waters (except Outstanding Florida Waters and Aquatic Preserves) along the St. Johns River and Indian River Lagoon and its tributaries by implementing and revising as necessary, the Surface Water Protection Ordinance including the following minimum criteria:

#### **Criteria:**

- A. A twenty five (25) foot shoreline protection buffer from the mean high water line or the safe upland line as determined by the FDEP Bureau of

- Survey and Mapping shall be established.
- B. No more than twenty (20) percent of the lot width or twenty-five (25) linear feet, whichever is greater, of any shoreline protection buffer of a project, parcel, or the offshore emergent vegetation associated with a project or parcel may be altered for a reasonable access or for allowable development. Within the shoreline protection buffer, allowable development shall include docks, boat ramps, pervious walkways, elevated walkways, and approved accessory uses, as set forth by the County land development regulations. Accessory uses shall be allowable only on existing bulkheaded lots utilizing required stormwater management techniques. The remainder of the shoreline protection buffer shall be maintained in unaltered vegetation, except for noxious species, as permanent open space. This shall not preclude mitigation projects or the planting of native species. Provisions for the alteration and/or removal of non-native, noxious vegetation shall be established by the Brevard County Office of Natural Resources.
  - C. For residential lots platted or established by deed on the official record books of Brevard County prior to September 8, 1988, an alternative to the twenty five (25) foot shoreline protection buffer described above along Class III waters shall be available for those lots which have insufficient lot depth to construct a primary structure or pool with its associated decking and features. In the case where there is insufficient lot depth to construct a primary structure, this alternative shall allow the shoreline protection buffer to be reduced to fifteen (15) feet if additional measures are taken to preserve water quality and natural habitat within the adjacent surface water body. In the case where there is insufficient lot depth to construct a pool with its associated decking and features, an encroachment of up to 720 square feet within the shoreline protection buffer shall be available if additional measures are taken to preserve water quality and natural habitat within the adjacent surface water body. These additional measures should, at a minimum, be consistent with DEP 17-25 and 17.302 F.A.C. and may include but are not limited to the provision of a stormwater system which is capable of preventing the first inch of runoff from a 25 year, 24 hour storm from entering the surface waters and revegetation with native shoreline vegetation. Within the shoreline protection buffer, development shall be limited to those activities outlined in this policy.
  - D. Prohibit shoreline alteration other than that allowed for reasonable access or approved accessory uses, unless it is in the public interest; or prevents or repairs erosion; or does not adversely impact water quality, natural habitat and adjacent shoreline uses.
  - E. Prohibit discharges of any substances below ambient water quality standards.

**Policy 3.5**

All dredging activities must be done with effective turbidity controls. Where turbidity screens or similar devices are used, they should be secured and regularly monitored to avoid manatee entrapment.

**Policy 3.6**

Vertical seawalls and bulkheads shall be prohibited along the Indian River Lagoon system, excluding man-made canals. Hardening of the estuarine shoreline shall be allowed only when erosion is causing a serious (significant) threat to life or property. Rip-rap material, pervious interlocking brick systems, filter mats and other similar stabilization methods combined with vegetation shall be used in lieu of vertical seawalls and bulkheads when hardening of the shoreline is approved.

**Policy 3.7**

New man-made canals connected to the Indian River Lagoon system are prohibited. The expansion (widening and/or deepening) of existing ditches, drainage right-of-ways, drainage easements and stormwater facilities connected to unless it is in the public interest, as defined in the glossary, and does not adversely impact the Indian River Lagoon to accommodate boat traffic shall be prohibited unless the activity is an approved maintenance dredging on existing public navigational channels, private or public canals, or an existing marina's maintenance dredging.

**Policy 3.8**

Septic tanks and drain fields shall be set back at least one hundred (100) feet from the shoreline of the Indian River Lagoon. In those cases where there is insufficient lot depth, except where a variance has been granted by the state, the septic tank and drainfield shall be placed the maximum distance possible from the edge of the lagoon, a minimum of seventy-five (75) feet.

**Policy 3.9**

By 2002, Brevard County will undertake a spoil island assessment project to determine which islands are valuable bird rookery areas. These islands will then be designated as such, and protected during nesting season. Other islands will be designated as recreational areas. This study will be coordinated with any spoil island management plans designed and implemented by other agencies, such as the Florida Inland Navigational District.

**Policy 3.10**

Brevard County shall continue to work with the St. Johns River Water Management District (SJRWMD), FDEP, and Indian River Lagoon Program (IRLP) and other appropriate agencies in developing appropriate water quality standards for estuarine waters within the Indian River Lagoon.

**Policy 3.11**

Brevard County shall continue to support and implement its program for plugging free-flowing artesian wells, with highest priority being given to those adjacent to the Lagoon.

**Policy 3.12**

Brevard County should cooperate with the SJRWMD in the District's aquatic weed program for the St. Johns River.

**Policy 3.13**

Brevard County strongly supports the designation of the Indian River Lagoon from SR 405 north to the County line as an Aquatic Preserve.

**Policy 3.14**

The creation of new spoil islands should be discouraged. Existing spoil islands should be retained in public ownership and utilized as bird rookeries and recreational areas. In addition, restoration efforts such as wetland vegetation planting, upland vegetation planting, and refuse removal that could foster biological production, control erosion and enhance the habitat, aesthetic and recreational values of the island should be undertaken.

**Flood Hazard Areas**

**Objective 4**

Reduce loss of flood storage capacity and reduce risk to life and property by continuing to apply regulations which minimize the impact of development within flood hazard areas.

**Policy 4.1**

Brevard County shall continue to protect the riverine floodplain. At a minimum, the following criteria shall be the basis for the protection of the riverine floodplain:

**Criteria:**

- A. The ten-year riverine floodplain should be maintained in its natural state unless a project has a special reason or need to be located there. These special reasons and needs are further defined in the land development regulations. These needs may include but are not limited to agriculture and passive recreation.
- B. Development within the riverine one-hundred year floodplain shall not adversely impact the drainage of adjoining properties or degrade the quality of the receiving surface water body.
- C. The following uses are not compatible with the resource requirements of the one-hundred year riverine floodplain and shall not be permitted. These include, but are not limited to:
  - 1. Placing, depositing or dumping of solid waste except for treated



- D. Development within the riverine floodplain should not result in a loss of floodplain storage capacity below the 25-year floodplain elevation of riverine systems, or impact adjacent property.
- E. The best available data shall be utilized to determine appropriate floodplain elevations.

### **Policy 4.3**

Within the annual riverine floodplain (that is the area that is at or below the annual flood elevation) residential, commercial, and industrial land uses shall be prohibited unless the project has a special reason or need to locate within the annual floodplain and there is overriding public interest. The annual riverine floodplains within Brevard County should be left in their natural state, and re-established where feasible.

### **Policy 4.4**

New dikes, levees or other such structures should not be permitted below the 100-year riverine flood elevation except for temporary earthen structures that have a maximum height of less than the 10-year flood elevation and which will not restrict the flow of the 100-year storm floodwaters. The only potential exceptions to this provision are such structures which are shown to have over-riding public benefit. Replacement or repair of dikes, levees and other such structures are permitted as long as such replacement or repair does not change the status of the floodplain and will maintain the existing ability to utilize the property. Non-structural methods of floodplain management are given priority over structural methods.

### **Policy 4.5**

Brevard County shall develop regulations to protect the estuarine floodplains by implementing the following minimum criteria:

#### **Criteria:**

- A. Development within the one-hundred year estuarine floodplain shall not adversely impact the drainage of adjacent properties or the quality of the receiving surface water body.
- B. The following specific uses are not compatible with the resource requirements of the one-hundred year estuarine floodplain and shall not be permitted. These include, but are not limited to:
  - 1. Placing, depositing, or dumping of solid wastes.
  - 2. Processing and storing of threshold amounts of hazardous materials.
  - 3. Disposal of hazardous materials.
- C. The annual estuarine floodplains within Brevard County should be left in their natural state, and re-established where feasible.

### **Policy 4.6**

Brevard County shall develop regulations to ensure that alterations of isolated one-hundred year floodplains do not adversely impact the drainage of adjacent properties or public drainage facilities.

**Policy 4.7**

Brevard County shall continue to protect the coastal floodplain through the implementation of the following minimum criteria:

**Criteria:**

- A. Prohibit development within the annual coastal floodplain.
- B. Limit development water-ward of the Brevard County Coastal Construction Setback Line to those structures necessary to protect the natural dune system and to provide beach access.
- C. Brevard County shall continue to maintain construction standards for all development within the one-hundred year storm surge zone as established by the Florida Department of Environmental Protection, the U.S. Southern Building Code, or other applicable regulations.

**Policy 4.8**

Brevard County shall identify structural controls within the floodplain which degrade natural systems and make recommendations for alternatives to re-establish the natural floodplain, where feasible.

**Policy 4.9**

Brevard County shall continue to participate in the National Flood Insurance Program administered by the Federal Emergency Management Administration (FEMA). Amendments to the County's flood ordinance shall be adopted as necessitated by changes in FEMA regulations.

**Policy 4.10**

Public facilities should not be located within the 100-year riverine or estuarine floodplain unless the following apply:

**Criteria:**

- A. The facilities are water-dependent, such as mosquito control facilities; or,
- B. The facilities are water-related, such as boat ramps, docks or surface water management facilities; or,
- C. The facilities are not adversely affected by periodic flooding or standing water, such as highway bridges and some recreational facilities; or,
- D. The building structures are flood-proofed and located above the 100-year flood elevation, or removed from the floodplain by appropriately constructed dikes or levees; or,
- E. The facilities are found to be in the public interest and there is no feasible alternative.

## **Wetlands**

### **Objective 5**

Preserve, protect, restore, and replace wetlands to achieve no net loss of functional wetlands in Brevard County after September, 1990. The County shall ensure the protection of wetlands and wetland functional values by prioritizing protective activities with avoidance of impacts as the first priority, minimization of impacts as the second priority, and mitigation for impacts as the third priority.

### **Policy 5.1**

Brevard County shall utilize the same methodology, soil types, hydrological requirements and vegetation types as the FDEP and the SJRWMD in delineating wetlands.

### **Policy 5.2**

Brevard County shall adopt regulations which promote no net loss of functional wetlands. At a minimum, the following criteria shall be included in the land development regulations:

#### **Criteria:**

- A. The basis for no net loss shall be established as of the effective date of the required ordinance.
- B. Wetlands shall be considered functional unless the applicant demonstrates that the water regime has been permanently altered, either artificially or naturally, in a manner to preclude the area from maintaining surface water or hydroperiodicity necessary to sustain wetland functions.
- C. If an activity is undertaken which degrades or destroys a functional wetland, the person performing such an activity shall be responsible for repairing and maintaining the wetland. If it is not feasible or desirable for the responsible person to perform the repair and maintenance of the wetland, then the responsible person shall mitigate for the wetland loss. Mitigation can include, but not be limited to: wetland restoration, wetland replacement, wetland enhancement, monetary compensation or wetland preservation.
- D. Wetland activity conducted by a public agency may not be utilized for wetland mitigation credit by private persons unless approved by Brevard County.
- E. The following land use and density restrictions are established as a maximum density or most intense land use that may be considered only if the other criteria established in Conservation Element Policy 5.2 are met:
  1. Residential land uses shall be limited to not more than one (1) dwelling unit per five (5) acres unless strict application of this policy renders a legally established parcel as of September 9, 1988, which is less than five (5) acres, as unbuildable. For development activities on property

greater than five (5) acres, density may be transferred to an upland portion of the site if consistent with all county land development regulations and compatible with adjacent uses. Residential property which includes wetland areas shall be subdivided in such a way that buildable areas are included in each lot. Subdivided lots shall contain sufficient uplands for the intended use and for any buffering necessary to maintain the function of the wetland(s), and shall be compatible with adjacent uses.

2. Commercial and industrial land development activities shall be prohibited in wetlands contained in properties designated on the Future Land Use Map as commercial and industrial after February 23, 1996, and in surrounding buffers for such wetlands, with specifications based on the Buffer Zones for Water, Wetlands, and Wildlife in the East Central Florida Region, (1990, Brown, M.T., Schaefer, and K. Brandt, published by the Center for Wetlands, University of Florida), except for certain commercial development at I-95 interchanges that are consistent with the following criteria:

- a. There will be no less than 100,000 square feet of commercial building within a project;
- b. There is current overcapacity on the adjacent roadways, and it is projected that roadway capacity within four (4) miles of the intersection will be no more than 80% of the congestion ratio (the ratio of projected volume to maximum allowable volume) after 500,000 square feet of commercial space has been developed within one-half mile of the intersection of the off-ramp with the connecting roadway;
- c. Wetland mitigation shall equal or exceed 125% of the mitigation which is otherwise required;
- d. The development is located within one-half mile of the intersection of the off-ramp with the connecting roadway;
- e. There will be no more than two curb cuts on each quadrangle of the interchange within one-half mile of the connection of the off-ramp and the connecting roadway; and
- f. A maximum of forty (40) acres shall be allotted in proximity to the interchange, counting both sides.

3. Commercial and industrial land development activities may be permitted in wetlands contained in properties designated on the Future Land Use Map as commercial and industrial prior to February 23, 1996, only if all of the following criteria are met:

- a. The property is substantially surrounded by land(s) developed as commercial or industrial as of February 23, 1996, and has sufficient infrastructure in place to serve the commercial or industrial use.
- b. The proposed land development activity will not result in

increased flooding problems on adjacent properties.

- c. The wetland is not classified by the Florida Land Use, Cover and Forms Classification System (1985) as a Stream and Lake Swamp (FLUCS 615), Cypress (FLUCS 621), Atlantic White Cedar (FLUCS 623), Wetland Forested Mixed (FLUCS 630), or Wet Prairies (FLUCS 643).

For wetlands specified in 5.2.F.3(c), the wetland functionality shall be maintained and protected by a 15 foot natural, native vegetative buffer for isolated wetlands and by a 50 foot natural, native vegetative buffer for other wetlands.

The Forested Wetlands Location Map depicts the location of the following wetland types (FLUCS 615, 621, 623, 630, and 643), which also possess commercial or industrial zoning classifications and Future Land Use Map designations as of February 23, 1996, and is incorporated herein by this reference.

4. In the event that the denial of commercial or industrial development activities in wetlands results in an inordinate burden under the Bert Harris Property Rights Act or a taking under state or federal law, an affected property owner may appeal such denial to the Board of County Commissioners in the manner provided in Section 62-507(b)(2), Code of Ordinances of Brevard County, Florida.
  5. The utilization of fill should be kept to a minimum and related primarily to structural building area requirements, on-site disposal system requirements, the 100 year flood elevation requirement for first floor elevations, and to one primary access to the on site structures.
  6. Dumping of solid or liquid wastes shall be prohibited.
  7. Applying or storing pesticides and herbicides should be prohibited unless such application is required for protection of the public health.
- F. An exemption for agricultural pursuits, utilizing best management practices, which do not result in permanent degradation or destruction of the wetland shall be included within the land development regulation.

### **Policy 5.3**

Wetland regulations adopted by Brevard County should avoid duplication of wetland regulation unless regulated activities will result in the destruction and/or degradation of functional wetlands. Where the wetland degradation or destruction has been permitted by FDEP or SJRWMD based on FDEP and SJRWMD professional staff application of criteria and evaluation the County shall apply the land use and density requirements of Policy 5.2 and the avoidance, minimization of impacts, and mitigation priorities established by Objective 5. Any permitted wetland degradation or destruction shall provide for mitigation as designated in the Conservation Element.

#### **Policy 5.4**

Wetlands artificially created for wastewater treatment or disposal or for wetland stock nurseries shall not be subject to these regulations and shall not be used to fulfill the requirements of this objective (Objective 5).

#### **Policy 5.5**

Natural, isolated wetlands should be incorporated into water management systems where practical and appropriate, as an alternative to destruction of wetlands. Whenever wetlands are utilized within water management systems, quality of the water discharged to the wetlands, hydroperiods and stage elevations should be designed to maintain or enhance the wetland.

### **Minerals**

#### **Objective 6**

Brevard County shall continue to implement regulations regarding mining, borrow operations and private lakes which protect environmental systems and permit appropriate utilization of the mineral resources.

#### **Policy 6.1**

Mining regulations entitled *Land Alteration* shall continue to include, at a minimum, the following provisions to prevent adverse effects on water quality and quantity.

##### **Criteria:**

- A. Mining operations are not permitted within Type 1 aquifer recharge areas, as defined by this Comprehensive Plan.
- B. Mining operations are not permitted within Type 2 aquifer recharge areas which are being used for a drinking water supply or where there is potential for private drinking water supply systems.
- C. Mining operations are not permitted within the 10-year floodplain of the St. Johns River or freshwater tributaries of the Indian River Lagoon or wetlands as protected within this Plan.
- D. Mining operations located within the watersheds of Class I surface waters shall not have adverse impacts on water quality and quantity of potable surface water sources.

#### **Policy 6.2**

The County's mining regulations shall continue to include, at a minimum, the following provisions to minimize adverse impacts to environmental resources.

##### **Criteria:**

- A. Mining operations should not adversely impact protected wetlands or other water dependent systems, and shall be set back a minimum of 100 feet from such wetlands.

- B. Mining operations shall not cause salt water intrusion. Monitoring by the mining operator shall be required to insure this requirement.

### **Policy 6.3**

The County's mining regulations shall continue to include, at a minimum, the following provisions.

#### **Criteria:**

- A. Mining operations within any zoning classification shall require a Conditional Use Permit.
- B. Reclaimed mines shall have a minimum five (5) feet horizontally to one (1) foot vertically (5:1) side slopes to a normal water depth of at least five (5) feet below the water surface; subaqueous side slopes deeper than five (5) feet shall be no steeper than 2:1, and a littoral zone.
- C. When the borrow pit (lake) is to be utilized in conjunction with residential development, stormwater shall not be released directly into lakes with depths greater than eight (8) feet. Pretreatment of stormwater, for example via swales, shall be required.

### **Policy 6.4**

A reclamation plan and proof of financial responsibility must be submitted and approved prior to the commencement of the mining operation. The reclamation plan shall address the following concerns, at a minimum.

#### **Criteria:**

- A. Average depth;
- B. Bottom contours and littoral zones;
- C. Revegetation plan, showing plant materials;
- D. Control of stormwater runoff and drainage;
- E. Recreational amenities, if any;
- F. Stocking with fish, if any; and
- G. Maintenance plan.

### **Policy 6.5**

A concept plan to bind the operational scope and other physical features of the operation shall be submitted and approved prior to the commencement of the mining operation. The concept plan shall address the following criteria, at a minimum.

#### **Criteria:**

- A. Size and location of operation;
- B. Location of equipment and equipment storage;
- C. Extent of buffering and setbacks;
- D. Side slopes;
- E. Points of ingress and egress; and
- F. A vicinity map depicting removal routes that trucks and other vehicles

- will use to haul to sites or areas external to the borrow site.
- G. The required reclamation plan shall also be included.

### **Policy 6.6**

Brevard County shall continue to implement regulations for land excavation operations in addition to those for commercial borrow operations. These regulations are titled *Private Lakes* and shall continue to include, at a minimum, the following:

#### **Criteria:**

- A. Definition of regulated land excavation operations. The construction of a private lake will not be used or constructed as a commercial borrow operation by virtue of its intended use, and maximum size.
- B. Exemptions, including the construction of swimming pools, and water retention areas required in conjunction with an approved site plan or subdivision plat.
- C. The minimum size to be regulated.
- D. Setbacks shall continue to be established in the private lake regulations from property lines and rights-of-way lines of a publicly owned road, street, highway, drainage, or public or private utility easements, and cable TV easements.
- E. Regulated excavations shall not be permitted within:
1. Type 1 aquifer recharge areas as identified within this Plan;
  2. Type 2 being utilized as sources for public drinking water supplies.
  3. Below the ten-year floodplain of freshwater tributaries of the Indian River Lagoon or the St. Johns River.
- F. Limitations shall be adopted on length of time that excavations may occur and hours of operation.
- G. Requirements for side slopes of the completed excavation.
- H. Maximum permitted depths.
- I. Reclamation requirements.

### **Soil Erosion**

#### **Objective 7**

Eliminate inappropriate land use practices causing soil erosion and reduce sediment accumulation in the Indian River Lagoon, St. Johns River and other large surface water bodies.

### **Policy 7.1**

Brevard County shall continue to implement its adopted land clearing, tree protection, and landscaping ordinances to address revegetation and premature land clearing.

#### **Criteria:**

- A. Require permitting prior to any land clearing,
- B. Require phased clearing in conjunction with phased construction.

- C. Require permits for the removal of trees or vegetation in conjunction with land surveying along property lines.
- D. Require areas cleared of vegetation to be revegetated with biologically appropriate vegetation, to prevent wind or water erosion, within ninety (90) days of initial land clearing activity where no approved landscape plan exists or no active development order has been issued. Native vegetation should be utilized to the maximum extent possible.
- E. Exempt single-family residential lots of two and one-half (2 1/2) acres or less in size, from the requirement of written notification to clear land, after the issuance of a Certificate of Occupancy for the single-family residential lot.
- F. Exempt land clearing in conjunction with agricultural purposes or normal silviculture utilizing best management practices.

### **Policy 7.2**

Where localized soil erosion is noted by Code Enforcement, Office of Natural Resources Management, or other County agency, the Brevard Soil and Water Conservation District will be contacted and their recommendations shall be incorporated into a program instituted to assist the landowner to renourish and stabilize such areas.

### **Policy 7.3**

In those cases where soil erosion is of concern, especially properties along the Atlantic Ridge, Brevard County shall request review by the Brevard Soil and Water Conservation District. Brevard County shall consider their recommendations in the design, review and development of projects. Projects should minimize impervious surfaces by using pervious surfaces where ever feasible, such as for overflow parking.

### **Policy 7.4**

Brevard County will participate with the Brevard Soil and Water Conservation District to educate the public about the causes of soil erosion, as well as methods for preventing or repairing such erosion.

### **Policy 7.5**

Brevard County should employ Best Management Practices for control of erosion and sedimentation for road construction and other County projects.

### **Policy 7.6**

Brevard County shall utilize techniques in the installation of new facilities or improvement of existing facilities to minimize sediment accumulation within surface water bodies and wetlands.

#### **Criteria:**

- A. Turbidity screens shall be utilized for all projects which have the potential

- to release sediments.
- B. All runoff shall be detained prior to release to allow pollutants, soil, particulates and organic materials to settle out.
  - C. Phased projects should be cleared in conjunction with construction of each phase.
  - D. Areas cleared of vegetation should be revegetated with appropriate vegetation, to prevent wind or water erosion, within ninety (90) days of initial land clearing activity where no approved landscape plan exists or no active development order has been issued.

## **Vegetation**

### **Objective 8**

Conserve, appropriately use and protect native vegetative communities, including forests as appropriate, by regulating land clearing and landscaping practices within Brevard County.

#### **Policy 8.1**

Brevard County shall continue to implement and improve the land clearing and tree protection ordinance, and the landscaping ordinance, as amended.

#### **Policy 8.2**

Brevard County shall continue to utilize information from the East Central Florida Regional Planning Council and other agencies in undertaking a program to inventory and identify vegetative communities within the County, and to determine loss rates and rarity of such communities.

#### **Policy 8.3**

Brevard County shall continue to review all development plans for compliance with vegetative protection regulations. By 2002, Brevard County shall develop environmental design criteria that encourages the use of community green space and clustering developments, and shall coordinate with the Building and Construction Advisory Committee, the Brevard County Home Builders Association and other appropriate groups to develop an environmental design incentive program.

#### **Policy 8.4**

By 2002, Brevard County should develop a scientific advisory group (SAG) to investigate preservation of vegetation, particularly of upland communities.

#### **Policy 8.5**

By 2002, Brevard County shall protect vegetative communities from inappropriate development using the following minimum criteria:

##### **Criteria:**

- A. Vegetative communities classified by the Florida Natural Areas Inventory

- as G1, G2, S1 and S2 should be considered for protection.
- B. The inventory and identification of vegetative communities developed by the Office of Natural Resources Management and other agencies shall be utilized in developing the ordinance.
  - C. Protection of vegetative communities shall be coordinated with federal, state, and local wildlife habitat protection regulations.

**Policy 8.6**

Brevard County should continue to develop programs for county-wide acquisition of unique vegetative communities which have been identified for protection. This acquisition shall be voluntary, and shall not include the use of eminent domain.

**Policy 8.7**

Brevard County should contact the municipalities within the county and pursue developing a county-wide vegetation protection ordinance to standardize existing landscaping ordinances.

**Policy 8.8**

By 2002, Brevard County should develop an urban forestry program to implement the County's landscaping, native vegetation preservation, and tree protection policies. This program should address the following criteria, at a minimum:

**Criteria:**

- A. Establish principles and practices regarding the management of vegetation in Brevard County.
- B. Include a public information program to make citizens aware of the importance of vegetation and vegetative communities.
- C. Inventory areas containing vegetation of special concern.
- D. Monitor the success of existing vegetation requirements, including the conversion of previously undeveloped land by commercial or residential interest. These sites should be closely monitored to determine the impact on existing native vegetation within and surrounding the project boundaries. Recommendations for changes to the regulations should be made based on monitoring data.
- E. Brevard County shall establish a noteworthy tree program to encourage the protection of these trees through recognition.

**Policy 8.9**

By 2002, agricultural and silvicultural lands which are unique to Brevard County should be identified and programs for the protection of such lands should be evaluated and established. These programs should include, but not be limited to, voluntary agricultural or silvicultural districts, time-certain dedications, purchase or transfer of development rights, and voluntary fee simple purchase of agricultural or silvicultural lands.

**Policy 8.10**

Brevard County shall develop a county-wide program for invasive exotic removal on public lands and shall educate private property owners on reasons to remove invasive exotics from private lands. This program should emphasize replacement of invasive exotics with native vegetation where feasible.

**Wildlife****Objective 9**

Protect endangered and threatened wildlife species and species of special concern from adverse impacts due to loss of crucial habitat.

**Policy 9.1**

Brevard County shall continue to obtain and utilize information from the U.S. Fish and Wildlife Service, Florida Game and Freshwater Fish Commission, Florida Department of Environmental Protection, Florida Natural Areas Inventory, East Central Florida Regional Planning Council and other agencies to inventory and identify crucial habitat for endangered or threatened wildlife species and species of special concern within the County, and to determine loss rates and rarity of such habitat.

**Policy 9.2**

By 2002, Brevard County shall develop an ordinance which requires a crucial habitat review be conducted at the pre-application stage of all projects requiring site-plan or subdivision approval. The following minimum criteria shall apply.

**Criteria:**

- A. The Office of Natural Resources Management shall use resource maps which show potential areas of crucial wildlife habitat for threatened and endangered wildlife species and species of special concern.
- B. The Office of Natural Resources Management shall develop criteria for the use of crucial habitat. The County shall consult, as appropriate, with the Florida Game and Fresh Water Fish Commission, the U.S. Fish and Wildlife Service, the Florida Department of Environmental Protection, and the Florida Natural Areas Inventory and other resource groups in the development of these criteria.
- C. The Office of Natural Resources Management shall perform this review for each project that creates or expands the amount of impervious surface on site, and for each project requiring a site plan, subdivision approval, or

land alteration permit. This review shall be for each project one (1) acre or greater in size.

- D. If potential endangered and threatened species or species of special concern habitat is shown on the proposed project, a site visit by the Office of Natural Resources Management may be conducted for verification.
- E. If the endangered or threatened species or species of special concern is found on-site or there is evidence that the species is on-site, a copy of all permitting documentation required by State or Federal agencies shall be provided by the project owner to the Office of Natural Resources. Approval by the Office of Natural Resources Management is required prior to the issuance of a building or construction permit.

### **Policy 9.3**

Brevard County should coordinate a scientific advisory group to investigate preservation of wildlife habitat, particularly of upland communities.

### **Policy 9.4**

Brevard County shall continue the Environmentally Endangered Lands Program (EEL) as authorized by the voter-approved public referendum in September 1990. This program shall remain committed to acquiring, protecting, and maintaining environmentally endangered lands and making improvements as appropriate for passive recreation and environmental education.

### **Policy 9.5**

Development of Brevard County owned conservation areas shall be in accordance with the intent of the original acquisition.

### **Policy 9.6**

Prior to development of any county-owned property, an environmental assessment should be completed which would analyze the impact of the proposed development on the natural resources and wildlife habitat of the property.

### **Policy 9.7**

By 2002, a wildlife corridor analysis should be performed. This analysis should determine the appropriateness of such corridors, how extensive they should be, the location of potential corridors, what fiscal resources are available for implementation and possible economic incentives for property owners to voluntarily participate in formation of a wildlife corridor program.

### **Policy 9.8**

Brevard County shall delineate and protect linkages between natural systems and the open space systems.

### **Policy 9.9**

On February 7, 2003, the Florida Fish and Wildlife Conservation Commission approved the Brevard County Manatee Protection Plan (MPP). The MPP includes the following major components: habitat protection, education, boat facility siting, State of Florida manatee protection boat speed zones, manatee mortality, law enforcement, and boating safety. In addition to the criteria established in the MPP and incorporated into the Coastal Element, the following criteria shall also apply:

**Criteria:**

- A. All existing and new marinas shall erect manatee education and awareness signs, which will be posted and maintained in a prominent location. Each marina operator shall establish and maintain a permanent manatee educational display at a prominent location at their marina. Brevard County shall establish and maintain a display at public boat launch facilities and license tag agencies.
- B. Those involved in the sale of boats and motors should provide manatee information to the buyer at the time of delivery of boats or motors.
- C. Brevard County shall maintain well-marked speed limit signs, in accordance with the uniform waterway marker program, for manatee protection and boating safety speed zones established by local ordinance only.
- D. Brevard County, or other appropriate agencies, shall develop standardized information packet containing information regarding manatees and regulations protecting manatees for distribution by the U.S. Fish and Wildlife Service, Florida Department of Environmental Protection, Brevard Marine Association, and other agencies or groups as appropriate. This will include information concerning the existing manatee slow speed or idle zones, and any additional zones which may be deemed necessary within areas frequented by manatees.
- E. Brevard County shall continue to monitor manatee protection measures to determine their effectiveness.
- F. Brevard County shall identify areas containing significant manatee habitat features. Marinas with powerboat slips shall be sited in accordance with the boat facility siting criteria established in the adopted Manatee Protection Plan.

**Policy 9.10**

Brevard County should continue to enforce its sea turtle protection ordinance in order to protect sea turtles along the County's beaches. Efforts shall be made to make beachfront lighting ordinances within the County uniform. This may be accomplished through interlocal agreements.

**Policy 9.11**

Beach renourishment and dune restoration plans shall continue to be designed and implemented so that sea turtle nesting is not disrupted.

**Policy 9.12**

By 2002, Brevard County Office of Natural Resources Management shall develop a county-wide scrub-jay management plan. Management plans shall be developed for other species, as deemed necessary.

**Policy 9.13**

By 2002, the Brevard County Office of Natural Resources Management shall develop model management plans for other endangered and threatened species and species of special concern dependent upon habitat rarity and loss rates.

**Policy 9.14**

Brevard County shall continue to assist in the application of, and compliance with, all state and federal regulations which pertain to endangered, or threatened species and species of special concern.

**Policy 9.15**

By 2002, the County shall develop education programs to promote the preservation of endangered and threatened species and species of special concern as well as their habitat, with the assistance of the Florida Department of Environmental Protection, the Florida Game and Fresh Water Fish Commission, and the U.S. Fish and Wildlife Service, and other agencies or groups as appropriate. Brevard County encourages the development of post-development wildlife management plans which would enhance the wildlife potential of existing developments.

**Policy 9.16**

Brevard County supports the use of Turtle Excluder Devices (TEDs) or other devices to protect wildlife from shrimp and other fishing nets.

**Aquifer Protection****Objective 10**

Maintain the surficial and Floridan aquifer systems for reasonable and beneficial uses.

**Policy 10.1**

By 2002, Brevard County shall undertake a surficial and Floridan aquifer protection study, including modeling of wellfield cones of influence. This study will be coordinated with other appropriate agencies and will become the basis for an aquifer management plan.

**Policy 10.2**

Until an aquifer management plan is adopted by Brevard County, at a minimum the following criteria shall be incorporated into the land development regulations to protect the aquifer.

**Criteria:**

- A. In Type 1, 2, and 3 aquifer recharge areas, post-development groundwater recharge volume shall equal pre-development recharge volume. The maximum allowable impervious surfaces in these areas shall be: Type 1 - 25%; Type 2 - 35%; and Type 3 - 45% unless the developer can demonstrate that post-development recharge volume shall equal pre-development recharge volume and dependent upon additional regulations and local conditions. Citrus, improved pasture, row crop agricultural operations, and normal silvicultural operations using Best Management Practices shall be exempt.
- B. For water quality purposes, stormwater run-off in Type 1, 2, and 3 aquifer recharge areas should be directed through a vegetated stormwater management system which at a minimum has a soil depth of at least two feet above the seasonal high water table. Citrus, improved pasture, row crop agricultural operations, and normal silvicultural operations using Best Management Practices shall be exempt. If alternative methods can be shown to meet an equal or greater degree of stormwater treatment these methods may be considered.
- C. Within Type 1 aquifer recharge areas, the following are prohibited:
  - 1. New septic tanks.
  - 2. New underground storage tanks.
  - 3. Storage of threshold amounts of hazardous materials.
  - 4. Disposal of hazardous materials.
- D. Within Type 2 aquifer recharge areas, the following are prohibited:
  - 1. Storage of threshold amounts of hazardous materials.
  - 2. Disposal of hazardous materials.
- E. Within Type 3 aquifer recharge areas, the disposal of hazardous materials is prohibited.
- F. Groundwater withdrawals shall be managed to prevent salt water intrusion and adverse affects to existing wells. Anyone proposing a new public water supply well must own or control all areas within 500 feet of the proposed well.
- G. An applicant can show that the area does not function as a recharge area by providing additional information about hydrogeologic conditions on site.

**Policy 10.3**

Brevard County shall support the City of Titusville's efforts to obtain G-1 sole source aquifer designation.

**Policy 10.4**

Brevard County shall continue cooperation with the City of Titusville through the existing Interlocal Agreement and development of new pre-annexation agreements for properties within the City's Area of Critical Concern in order to carry out Titusville's

aquifer protection policies, protection of existing and planned wellfields, and the provision of potable water.

**Policy 10.5**

Brevard County shall develop a public education program concerning the importance and methods of protecting the County's surficial and Floridan aquifers.

**Policy 10.6**

By 2002, Brevard County shall model the cone of influence of the Mims wellfield.

**Policy 10.7**

By 2002, Brevard County shall develop and adopt within its Land Development Regulations a wellfield operating permit to regulate land uses which involve the storage, production, use and disposal of threshold amounts (to be determined) of regulated substances identified as priority pollutants by the Environmental Protection Agency in 40 CFR 122.21 within Type 1, Type 2, and Type 3 aquifer recharge areas.

## APPENDIX

### LIST OF MAPS

<b>Map</b>	<b>Title</b>
<b>1</b>	<b>General Soils</b>
<b>2</b>	<b>Vegetation</b>
<b>3</b>	<b>Biologically Diverse Habitat</b>
<b>4</b>	<b>Flood Zones</b>
<b>5</b>	<b>Indian River Lagoon Seagrass (1992)</b>
<b>6</b>	<b>Surface Water Quality</b>
<b>7</b>	<b>Scrub Habitat</b>
<b>8</b>	<b>Wetlands</b>
<b>9</b>	<b>Marinas -- North Brevard</b>
<b>10</b>	<b>Marinas -- North Central Brevard</b>
<b>11</b>	<b>Marinas -- South Central Brevard</b>
<b>12</b>	<b>Marinas -- South Brevard</b>
<b>13</b>	<b>Marinas -- Sebastian Inlet Area</b>