

## **CONSERVATION ELEMENT - 9J5.013 (2), F.A.C.**

### **Goals, Objectives and Implementing Policies.**

This section defines the goals, objectives and implementing policies by which the City of Minneola shall manage, protect, and conserve natural resources within its jurisdictional territory through the year 2025, pursuant to Florida Statute 163.3177(6)(d) and Florida Administrative Code 9J-5.013.(2).

#### **GOAL 5-1: CONSERVATION OF NATURAL RESOURCES. CONSERVE, PROTECT AND EFFECTIVELY MANAGE NATURAL RESOURCES WITHIN THE CITY OF MINNEOLA, PARTICULARLY ENVIRONMENTALLY SENSITIVE LANDS THAT INCLUDE THE FOLLOWING:**

- a) **Lakes within the City Limits**
- b) **Wetlands**
- c) **Wildlife Habitats and Endangered Species**
- d) **Groundwater Aquifers.**

#### **Objective 5-1.1: Protect Air Quality.**

Protect Air Quality within the City of Minneola by Complying with or Exceeding Air Standards Established by the Florida Department of Environmental Regulations.

#### **Policy 5-1.1.1: Promote Activities Conducive to Safe Air Quality.**

The City shall promote land use activities which are conducive to maintaining existing air quality by establishing provisions within the Future Land Use Element which:

- a) Define permitted and non-permitted uses within commercial, industrial, and agricultural land use designations
- b) Ensure that development meets or exceeds the minimum air quality standards established by the Florida Department of Environmental Protection (FDEP).

#### **Policy 5-1.1.2: Coordinate with Lake County to Effectively Mitigate Pollution Generated from Adjacent Unincorporated Areas.**

The City shall coordinate with Lake County to assure that County land use controls applicable to adjacent unincorporated areas promote land uses which will not adversely impact air quality within the City. The City shall encourage the County to consider the affects of prevailing wind directions on the location of industrial or commercial developments occurring adjacent to the City, with emphasis to avoid locating any pollution-generating activities to the south or north side of the City.

#### **Policy 5-1.1.3: Cooperate with FDEP Air Quality Monitoring Activities.**

The City of Minneola shall cooperate with FDEP in the monitoring of air quality and in the placement of air monitoring devices in the City's jurisdictional area if

such activity is deemed necessary by FDEP.

**Policy 5-1.1.4: Reduce Wind-Related Soil Erosion.**

Measures shall be taken on at construction sites or cleared areas which assure that exposed, destabilized, or other altered soils is expeditiously covered with an acceptable erosion control material. The land development regulations incorporate specific measures to protect soils from wind erosion at such sites.

**Objective 5-1.2: Protect Quality Of Surface And Ground Waters.**

Protect The Quality Of Surface And Ground Water By Reducing Existing And Preventing Future Potential Sources Of Contaminants From Entering Groundwater And By Coordinating Conservation Efforts With Federal, State And County Entities Having Jurisdictional Authority Over These Water Sources.

**Policy 5-1.2.1: Restrict Activities Known to Adversely Affect the Quality of Surface and Ground Water.**

The City shall not permit any industrial land use activities within 500 feet to lake front areas. Within high recharge groundwater aquifer areas heavy mining, golf courses and urban uses with extensive impervious surfaces (80% or greater) and residential densities of greater than eight dwelling units per acre shall be prohibited. Industrial uses within high recharge areas shall be prohibited if such uses generate pollutants listed on the Florida Substance List that may adversely impact the quality of surface and ground waters. The storage and placement of chemicals and other environmentally hazardous material within the 100 Year Flood Plain, well field protection zones and conservation open space land use designation shall be restricted or prohibited according to policies cited herein this element. The manufacturing of hazardous waste materials, as defined in Policy 5-1.2.1, is prohibited within commercial and industrial land use designation in the Future Land Use Map.

**Policy 5-1.2.2: Definition of a Hazardous Material.**

Hazardous materials are defined as follows:

A Hazardous material is any material which, because of its physical, chemical, or infectious characteristics, can pose a substantial or potential hazard to human health or safety or the environment when improperly used, treated, stored, transported, or disposed of. A hazardous material can be toxic, ignitable, corrosive, or reactive (a material that may react violently and/or produce hazardous vapors or gases when exposed to water). Land Development Regulations have been revised to incorporate this definition of a Hazardous Material.

**Policy 5-1.2.3: Compliance with State Requirements to Protect Water Quality.**

The City shall include principles within the development review process which require applicants of proposed commercial and industrial developments to provide evidence prior to the issuance of a Certificate of Occupancy that all

appropriate operating permits have been issued by State regulatory agencies, particularly for commercial activities, such as gasoline stations; industrial activities using chemicals on the Florida Substance List applicable to commercial or industrial uses; and operations using on-site storage facilities for chemical or hazardous materials and wastes. All commercial and industrial uses must provide sanitary sewer facilities compliant with Florida-10D6.046, F.A.C.

**Policy 5-1.2.4: Protection of Outstanding Florida Waters and Class III Surface Waters: Lake Minneola and Lake Plum.**

Lake Minneola is designated as an Outstanding Florida Waters and Lake Plum is designated as a Class III waters (i.e., waterbodies which currently support recreation and foster maintenance of fish and aquatic wildlife). These waters shall be protected by incorporating the following provisions into the City's land development regulations:

- 1) Dredging activities shall be limited to FDEP approved dredging
- 2) Ensure good water quality by applying the state antidegradation criteria (based on ambient water quality) to surface waters designated as an Outstanding Florida water
- 3) Ensure good water quality by coordinating with the FDEP and the St. Johns River Water Management District in monitoring the quality of stormwater run-off and all discharge entering these lakes. The City shall notify the appropriate agency as potential issues or problems are identified
- 4) Limit the use of Outstanding Florida Waters and Class III waters to water dependent activities that are not contrary to the public interest and which satisfy a community need
- 5) Limit modification of grassbeds only to those cases involving overriding public interest
- 6) Where modification of grassbeds is permitted the City shall assure that:
  - a) A determination of overriding public interest has been demonstrated by the applicant prior to modification of grassbeds
  - b) Project run-off, including nitrogen, phosphorous, and other nutrients, shall be controlled to prevent an increase in water turbidity, a decrease in aquatic wildlife propagation, or other degradation of water quality

Projects damaging grassbeds during construction shall incorporate mitigative techniques which re-establish conditions favorable to natural regeneration of the grassbeds.

**Policy 5-1.2.5: Establish Shoreline Protection and Lakefront Littoral Zones.**

The City shall manage development along lake shoreline areas and Lakefront Littoral region through the establishment of both a Shoreline Protection and a Lakefront Littoral Zone. Both Zones shall be established as part of any new

surface water management system which consists of lakes and wet detention areas greater than or equal to .05 acres in size, based upon the 10 year storm event. The Land Development Regulations have been revised to provide appropriate development setbacks to preclude encroachment into lakefronts, consistent with the criteria established in this policy. The following criteria shall govern actions necessary to protect Shoreline and Lakefront Protection Zones:

A. Shoreline Protection Zone.

To protect lakefront from impacts created by the encroachment of development, a shoreline protection zone shall be delineated at a point where no emergent aquatic vegetation can grow landward to a point established 50 feet landward of the water's edge. Only passive recreation activities, as defined in policy 5-1.6.4, shall be permitted within the shoreline protection zone.

A developer may obtain a determination of the boundary through a field study by submitting documentation with the development application. Such documentation shall include a hydrological study of the area within seventy-five feet landward of the water's edge.

(1) A design and management plan shall also be provided prior to the construction of the on-site storm water management system. This plan shall include:

(a) Preservation activities utilized to maintain native vegetation, as mandated by the tree and native vegetation protection ordinance proposed in policy stated herein (only native vegetation shall be maintained within the Shoreline Protection Zones); and

(b) A shoreline management plan that describes procedures to assure minimal impacts to water quality and shoreline erosion. Where deemed necessary silt screening shall be implemented to retain fluvial sediments carried by runoff stormwater or wave action.

(2) The following uses and activities are presumed to have an insignificant adverse effect on shoreline protection zones:

- a) Scenic, historic, wildlife, or scientific preserves
- b) Minor maintenance or emergency repair to existing structures or improved areas
- c) Clearing of shoreline vegetation to create walking trails having no structural components, not to exceed four (4) feet in width
- d) Timber catwalks, docks, and trail bridges that are less than four (4) feet wide, provided that no filling, flooding, dredging, draining, ditching, tiling or excavating is done, except filling and excavating necessary for the installation of pilings
- e) Commercial or recreational fishing, hunting or trapping, and creation and maintenance of temporary blinds, as allowed by State laws
- f) Constructing fences where no fill activity is required and where navigational access will not be impaired by construction of the fence.

(B) Protection of the Lakefront Littoral Zone.

The Lakefront Littoral Zone region consists of an interface zone between the land of the drainage basin and the open water of lake. Applicants of new development or redevelopment shall include the following with the site plan and development application:

- 1) Include typical cross sections of the surface water management system from the 100 Year Water Mark elevation to the 3 foot contour (i.e., below average elevation)
- 2) Provide a description of any management procedures to be followed in order to assure the continued viability and health of the Lakefront Littoral Zone. The lakefront littoral zone as established shall consist entirely of native vegetation and shall be maintained permanently as part of the water management system
- 3) Limit development within the Lakefront Littoral Zone to water related passive recreation structures as defined in Policy 5-1.6.4.

**Policy 5-1.2.6: Wetland Buffers.**

Wetlands shall be protected from impacts generated by adjacent land uses through natural buffer zones established for legally existing lots of record which were approved prior to the effective adoption date of the Comprehensive Plan and for those approved after the adoption date, according to the following regulations.

(A) Existing Lots of Record.

A natural buffer zone for a legally existing lot of record existing prior to February 1, 1992 and which is naturally vegetated shall be determined as follows:

- (1) The wetland line shall be delineated based on a field survey of the site by a professional biologist, registered engineer, or a representative of the St. Johns River Water Management District;
- (2) A natural buffer width of 30 feet shall be added to the upland side of the wetland delineation; and,
- (3) The applicant may use this methodology for newly created lots of record to demonstrate that a smaller natural buffer width is appropriate. Such demonstration must be presented and approved prior to the issuance of the final development order.

(B) Existing Lots of Record with Removed Vegetation.

The buffer zone for a legally existing lot of record which existed prior to the February 1, 1992, and in which the natural vegetation was removed prior to this date shall be determined as follows:

- (1) A fifteen foot buffer shall be retained adjacent to the wetland line;

(2) Site specific stormwater treatment such as swale/berm system and erosion control measures shall be required adjacent to the upland side of the 15 foot buffer.

(C) Lots Approved After February 1, 1992.

Natural buffer zones for any lot created after February 1, 1992 shall be based on guidelines contained in "An Evaluation of the Applicability of Upland Buffers for the Wetlands of the Wekiva Basin (Center for Wetlands, Brown and Schaefer, 1987)" and "Buffer Zones for Water, Wetlands, and Wildlife (Center for Wetlands; Brown, Schaefer, and Brandt; 1989)." The applicant of development may propose alternate methodology, but such methodology may be subject to verification and must address the following:

- (1) Erodibility of soils upland of the wetland line;
- (2) Depth of the water table below the soil surface in the zone immediately upland of the wetland line; and,
- (3) Habitat requirements of aquatic and wetland dependent wildlife based on:
  - (a). Habitat suitability;
  - (b). Spatial requirements;
  - (c). Access to upland habitat; and
  - (d). Noise impacts.

(D) Commercial and Industrial.

All new commercial and industrial development must follow the buffer methodology described in (C) above.

(E) Hardships.

Applicants of single family residential developments unable to meet the wetland buffer requirements may receive a hardship variance if evidence of the following conditions are submitted with the development plans and approved by the City Council.

- (1) The buffer width cannot be met with reasonable reconfiguration of the site plan;
- (2) The wetland line has been delineated according to procedures defined in subsection (A) (I).
- (3) Construction will not occur within the wetlands unless:
  - (a) No upland alternatives exist;
  - (b) No significant loss of wetland function occurs; and,
  - (c) All appropriate state agency permits are obtained by the applicant of development.
- (4) Stormwater management techniques shall be implemented to protect water quality, consistent with level of service standards set forth in this Plan.

(F) Setback Application.

All buffers shall be implemented through setback requirements stipulated within the Land Development Regulations.

**Policy 5-1.2.7: Definition of Wetlands.**

Wetlands shall be defined as areas which are identified by being inundated or saturated by surface or groundwater with a frequency or duration sufficient to support, and that under normal conditions do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include: swamps, marshes, bogs and similar areas. The extent and jurisdiction shall be determined by the Florida Department of Environmental Protection, and as defined within Chapter 40D-4 and 40C-4, implemented by the St. John's River Water Management District, respectively.

**Policy 5-1.2.8: Development Limitations within Wetlands.**

No development shall be allowed within wetlands unless an appropriate dredge and fill permit is obtained from the Department of Environmental Protection and where necessary applicable to the United States Army Corps of Engineers. If an Isolated Wetland is involved or proposed to be filled or dredged an appropriate Management and Surface Water permit must be obtained from the St Johns River Water Management District as it relates to the Isolated Wetland Rule Chapter 40C-1, F.A.C. Where no permit is necessary only conservation facilities and passive water related recreational uses shall be permitted within areas designated for conservation open space as stipulated in policy 5-1.6.4.

The City shall designate all wetlands within the City as conservation open space within the Future Land Use Element and on the Future Land Use Map. The City of Minneola shall limit development within wetlands to land uses supporting conservation facilities and water-related passive recreation activities, as defined within policy 5-1.6.4.

Wetlands shall be protected from the encroachment of development through development restrictions established within the City's Lakefront Littoral and Shoreline Protection Zones (as defined in Policy 5-1.2.5) and, where applicable, within the City's Tree and Native Protection Ordinance (as defined within Policy 5-1.4.1).

The following defines the jurisdiction of public agencies over wetlands:

(A) Extent of Florida Department of Environmental Protection (DEP).

The Wetlands Protection Act (WIPA) requires that a permit be obtained from the Department of Environmental Regulation for most "dredging" and "filling" in surface waters of the state. The jurisdiction of the DEP under the Wetlands Protection Act of 1984, Chapter 403, Part VIII extends to all waters of the State of Florida. The following are rules adopted by DEP that affect the City of Minneola:

- (1) natural lakes, except:
  - (a) those owned entirely by one person other than the state; or
  - (b) those that become dry each year and are without standing water; or
  - (c) those of no more than 10 acres in landward extent with a maximum average depth of two feet or less existing throughout the year.

\* DEP determines the landward extent of jurisdiction under the dominant vegetation test, the applicant may perform or request a site-specific soil assessment.

(B) Extent of United States Army Corps of Engineers.

Section 404 of the Clean Water Act authorizes the Secretary of the Army, acting through the Chief of Engineers, to issue permits for the discharge of dredged or fill material into the waters of the United States at specific disposal sites. Dredging and excavation are not covered unless there is a discharge of the dredged material into navigable waters. A Corps permit is required prior to undertaking the following activities, among others: filling of wetlands adjacent to navigable waters; drainage of wetlands through ditching and diking (so long as a discharge occurs); and clearing and scraping wetlands.

(C) Extent of St Johns River Water Management District.

Isolated wetlands that infrequently flow into or otherwise exchange water with a described water body are not intended to be included within the dredge and fill jurisdiction of the Department of Environmental Protection. St Johns River Water Management District has been delegated stormwater management responsibility by DEP for certain small, isolated wetlands.

**Policy 5-1.2.9: Control Sediment and Pollution Carried in Stormwater Runoff.**

Sediments, silt, and pollution carried by urban runoff shall be reduced to the greatest extent possible through stormwater management techniques designed to retain and detain stormwater runoff. By efficiently balancing runoff's on-site residence time to enable soils and vegetation to perform natural filtration functions. The following techniques and activities shall be employed to maintain water quality of surface runoff:

(1) Mandatory On-Site Retention.

The first one-inch of runoff shall be retained on—site through retention ponds/facilities; or one-half inch of runoff if it has less than 50% impervious surface and less than 100 acres, whichever is greater.

The Public Facilities Element shall adopt a water quality level of service standard which accomplishes these retention requirements.

(2) Erosion Controls.

To protect water quality within lakes, the City shall require sites under construction to provide measures to retard, impede, and treat surface water runoff, consistent with water quality level of service standards established in the Public Facilities Element. In addition, the Land Development Regulations shall list appropriate measures that the development site must temporarily install or perform to comply with the LOS standard. The intent of the regulatory measures shall be to conserve the lakes and protect them from detrimental impacts of development under construction and remain consistent with the intent of Policies 5-1.2.4 and 5-1.4.1. Development within both the Shoreline Protection and Lakefront Littoral Zones shall be restricted to passive and water—related passive recreation facilities, respectively, or conservation facilities as defined in policy 5-1.6.4. Natural surface waters shall not be used as sediment traps during or after development.

(3) Use of Native Vegetation.

As supported in this element, trees and native vegetation shall be protected through an ordinance in the Land Development Regulations. This tree and native vegetation protection ordinance shall identify species subject to protection, describe circumstances when existing subject vegetation may be eradicated or altered, requirements and restrictions on planting new vegetation, and prohibited exotic species. These regulations shall mandate fair and equitable restoration and/or compensatory mitigative measures in order to compensate for loss of vegetation and to enhance stabilization of fragile slopes and/or lake shorelines.

The City shall review site plans for proposed development in Pine Flatwoods, Long Leaf Pine-Xeric Oak, and other forested uplands to assure that common areas and other buffer areas use native vegetation to the greatest feasible extent.

(4) Permeable Surface Area.

Permeable Surface Area shall be protected to control urban runoff by mandating the dedication of open space by new development and by limiting the land area that can be covered by impervious material and construction as stipulated in policies 5-1.3.1, 5-1.3.2, 5-1.3.3, 5-1.3.4, and 5-1.3.5.

(5) Recreational Space and Common Conservation Open Space.

Stormwater management, recreation and common conservation open space planning are compatible efforts and shall be closely coordinated. Stormwater run-off shall be retained/detained in new parks and common conservation open space and be recharged to the aquifer without detracting from the recreational value of a site.

**Policy 5-1.2.10: Mitigate Impacts of Septic Tank System Discharge into Groundwater Supplies and Surface Waters.**

No on-site sanitary sewer system shall directly discharge into any lake, nor shall a system use surface waters for back—up or overflow discharge. High density residential development (up to 6 units per acre), lower density residential developments proposed in soils where septic tanks are not suitable, and certain non—residential developments are subject to mandatory use of central sewer system according criteria and threshold established in the Public Facilities Element.

Land Development Regulations shall require that a site be able to properly absorb septic tank effluent if hookup to a treatment plant is not feasible and on—site sewage facilities are to be used. Special concern shall be given to areas with steep slopes, high ground water, and impermeable soils. Septic tanks shall also be located as far away from the shoreline as possible. The DHRS requires a minimum 75 foot setback from the Ordinary High Water Line of a lake (1OD-6.046, F.A.C.).

**Policy 5-1.2.11: Reduce Sediments and Suspended Solids Associated with Shoreline Erosion.**

To protect shoreline from erosion, and to reduce sediments and suspended solids introduced to surface waters, the City shall coordinate with the U.S. Soil Conservation Service and other relevant State agencies upon the development of shoreline erosion problems to identify and analyze best management practices to implement corrective measures to retard or prevent further erosion.

**Policy 5-1.2.12: Acquire Land Adjacent to Water Front Areas.**

The City shall pursue funding sources which are available from the State of Florida to acquire land along Lake Plum and Lake Minneola.

**Policy 5-1.2.13: Development Regulations for Karst Areas (Sinkholes).**

To protect groundwater quality from potential contamination introduced through sinkhole passages that provide rapid downward percolation to groundwater storage areas, and to protect property and life from potential damage or threat resulting from sinkhole collapse, development occurring adjacent to an existing sink hole shall be subject to development restrictions compatible to the type of sink formation exhibited at a subject site. Such development restrictions shall be determined on a case by case basis according to the circumstances involving the cause of the sink hole. Upon such activity, the City shall call upon the Florida Sink Hole Research Institute, or a surrogate state agency in its absence, to determine what actions are necessary to protect adjacent property and groundwater quality. Based on the findings and recommendations presented by the State, the City shall take appropriate action. The following activities shall govern actions necessary to protect property and groundwater from sink formations:

- (a). Sink Formations in Existing Developed Areas.

No sink formation shall be filled or excavated, and no debris placed adjacent to the sink, until the Florida Sink Hole Research Institute, or a surrogate state agency, has completed a site investigation to determine appropriate actions to protect property and groundwater quality. Based on findings and recommendations provided by State agencies, the City shall amend the Comprehensive Plan to revise land use designations and development restrictions adjacent to the site as appropriate to protect adjacent property and groundwater quality, consistent with procedures stipulated in Section 163.3187, F.S.

(b). Sink Formations on Undeveloped Sites Not Issued a Development Order.

Based on a finding by the Florida Sinkhole Research Institute, or surrogate state agency, that the sink does not require immediately fill to protect groundwater quality, the site shall be left undisturbed until a development application is submitted for the adjoining property. At the time a development is proposed for the subject site, the development application must include a hydrological or geological study of the area within a 250 foot radius of the sink hole, prepared by a professional hydrologist, geologist, or registered engineer, to assure that adjacent ground proves safe to hold the weight of construction.

If the study prepared by the Florida Sink Hole Research Institute allows for fill and development of a collapse sink, than the proposed site plan may proceed according to this finding. In the case that the Florida Sink Hole Research Institute deems the sink hole undevelopable, a fifty foot buffer shall be established from the point determined geologically safe for construction in the above required study.

Recent and active Sinkholes shall be designated on the Future Land Use Map as common conservation open space.

**Policy 5-1.2.14: Regulate Agricultural Activities to Preserve Water Quality.**

Agricultural activities are limited within the City of Minneola. No areas within the City are designated for agricultural use on the Future Land Use Map. The City shall encourage existing agriculture land use activities to use best management practices in order to reduce pesticide and fertilizer runoff, prevent soil erosion, and preserve water quality.

**Policy 5-1.2.15: Participation in Florida Lakewatch Program.**

The City Manager shall contact the Department of Fisheries and Aquaculture at the University of Florida with an official letter for the purpose of evaluating city participation in the Florida Lake Watch Program.

**Objective 5-1.3: Protect The Quantity Of Surface And Ground Water.**

Protect the Quantity of Surface and Ground Water through the Preservation of

Permeable Surface and through the Promotion of Conservation Activities Affecting the Consumption of Potable Water.

**Policy 5-1.3.1: Avoid Reduction of Recharge Volumes Entering Groundwater Supplies.**

The City shall avoid reduction of recharge volumes entering ground water supplies through the following governmental actions:

(A) Preservation of Permeable Surface.

The Future Land Use Element and the Future Land Use Map shall establish land use types and densities which are compatible to the preservation of permeable ground surface areas. Impervious surface ratios shall be based on open space requirements which in turn shall be consistent with hydrogeological and soil characteristics controlling development densities. The Future Land Use Element shall convert open space requirements to impervious surface ratios for all land use categories.

Maximum Impervious Surface Area Standard

SF Family High Density	45 %	SF Family Medium Density	35 %
SF Family Low Density	30 %	Gen. Commercial	90 %
Office/Residential	70 %	Industrial	80 %
Institutional	60 %	Recreation	50 %
Conservation	5 %	Utility	10 %
Open Space Corridor	5 %	Agriculture	10 %

\* Residential development within 300 feet of Lake Minneola shall reduce maximum impervious surface area by five percentage points.

Minimum Open Space Requirements

MF High Density	15 %	MF Medium Density	15 %
SF High Density	15 %	SF Medium Density *	15 %
SF Low Density *	20 %	Gen. Commercial	10 %
Office/Residential	15 %	Utility	15 %

\* Applicable only to developments exceeding twenty-five units.

\*\* Only common conservation open space may apply to meeting open space requirements.

(B) Compatibility of Density and Recharge.

The Future Land Use Element and the Future Land Use Map shall promote land use activities and development densities which are compatible to high recharge, 12 inches or more per year, potential percolation rates. Stormwater management systems in areas of high recharge shall be provided in a manner that minimizes

increases in quantity and declines in quality of surface water runoff from a developed property. Densities in high recharge area shall be limited to 4 dwelling units per acre.

(C) Permeable Parking Surface.

Promote the application of permeable parking lot surfaces for commercial developments proposed within high recharge areas through land development incentives to be provided within the Land Development Regulations. Such incentives will include the complete or partial credit of permeable parking surface areas, toward meeting open space requirements. The incentive shall consider frequency of use of the parking site, parking material, and parking space needs.

**Policy 5-1.3.2: Feasibility of a Central Sanitary Sewer System and Waste Water Reclamation Program.**

The City investigated the central sanitary sewer alternatives available to Minneola. Such alternatives to be evaluated shall include, but are not limited to:

- (A) Connection with the Clermont sewer system, including:
  - 1) coordination with Clermont to determine feasibility of connection;
  - 2) establish a septic utility district;
  - 3) investigate the availability of grants to connect to the Clermont system;
- (B) Minneola to provide sanitary sewer system, including a septic utility district;
- (C) Coordination with Lake County to establish a regional sanitary sewer system provided by either a private or public entity; discuss delineation of urban service area for Minneola and Clermont.

The City shall also evaluated the merits and implemented a wastewater reclamation program prior with the implementation of the central wastewater treatment system designed to reduce water consumption associated with lawn and landscaping irrigation.

**Policy 5-1.3.3: Compliance with Water Management District Consumptive Use Permit.**

The City shall monitor water flow from its municipal system on at least a monthly basis to assure that water flows are consistent with permitted consumption rates established by the St. Johns River Water Management District through the consumptive use permit. In the event normal water demands are anticipated to exceed allowable levels, the City shall coordinate with the SJRWMD to apply for additional consumptive use.

**Policy 5-1.3.4: Participation and Compliance with Water Management District Emergency Water Plan and Conservation Efforts.**

The City shall cooperate with the St. Johns River Water Management District (SJRWMD) in the enforcement of the provisions of the Water Management District's emergency water shortage plans and the City shall evaluate the enforcing of water restrictions by issuing citations by June 2010.

**Policy 5-1.3.5: Promote Conservation of Water.**

To conserve potable ground water sources and to accomplish reasonable reductions in water consumption, the City shall undertake the following activities:

(A) The City shall require developments over twenty-five (25) units to use non-potable water for irrigation where such non-potable water sources are available.

(B) The City shall require low volume plumbing fixtures in all development approved after the adoption date of this Comprehensive Plan (i.e. Toilets 1.6 gal/flush, urinals 1.0 gal/flush, showerheads 2.5 gal/mm., kitchen faucets 2.5 gal/mm., bathroom faucets 2.0 gal/mm).

(C) The City shall annually (by April of each year) evaluate the performance of its water distribution system to determine if excessive leakage has occurred as result of waterline deterioration. The City shall schedule repairs to any identified damage or deficiency in the distribution system based on the extent of damage, urgency to correct the problem, and availability of funds. Any non-emergency improvement, qualifying as a capital improvement, shall be included in the CIP.

(D) Consistent with policies established by the ECFRPC to reduce water consumption related to irrigation, the City shall require new development to use and/or preserve native or drought-resistant vegetation for landscaping to the greatest reasonable extent. The selection of such plants shall be based on those species deemed appropriate within the Florida Native Plant Society's publication Native Plants for Landscaping in Florida, or comparable recommended guidelines supported by the Florida Department of Agriculture and Consumer Services, the Florida Department of Natural Resources, or the ECFRPC. The Land Development Regulations have been revised to incorporate provisions supporting this policy.

(E) The City Clerk shall contact through an official letter the St. Johns River Water Management District for the purpose of initiating a public education program on water conservation efforts. The City of Minneola shall become actively involved in this process by distributing education brochures to homes and business through its water billing system upon receipt of such material from the SJRWMD.

(F) The City shall promote water conservation awareness and need for water

(G) The City shall evaluate the enforcing of water restrictions by issuing citations by June 2010.

(H) The annual city water audit shall include the evaluation of the amount of water used in the utility production and treatment facilities, transmission lines, and distribution systems each calendar year.

(I) The City shall evaluate the feasibility of the following: implementing an incentive program to replace inefficient landscape, plumbing devices and appliances; promote and encourage the use of low impact development techniques by June 2010.

(J) The City shall require individual meter for all new connections.

(K) The City shall require an inclined block rate structure for potable water as a water-conservation measure.

(L) The City shall update the existing landscape ordinance as required through the WMD CUP process and to include "Florida Friendly" practices in the design installation and maintenance of landscapes.

(M) The City shall record as data for the annual water audit that water used by the utility for line flushing.

(N) The City shall implement a conservation plan as approved by the SJRWMD through the CUP process.

(O) The City shall implement an indoor plumbing fixture retrofitting program in a least 10% of the connections served over a ten year period.

(P) The City shall implement a soil moisture monitoring and rain sensor device distribution program in a least 10% of the applicable connections served over a ten year period.

(Q) The City shall implement a program to perform indoor water audits of a least 10% of individual connections and recommend techniques to reduce water consumption by June 2011.

(R) The City shall inspect at least 15% of existing or proposed landscapes and recommend changes consistent with "Florida Friendly" concepts.

**Policy 5-1.3.6: Reuse Water Practices**

In order to promote the utilization of reuse water the City shall undertake the following activities:

(A) The City shall require the installation of reclaimed water distribution dry lines in all new developments.

(B) The City shall require the installation of meters for individual connections to reuse system.

(C) The City shall require that existing neighborhoods be retrofitted with reuse lines if a new potable water system is installed.

(D) The City shall require connection of new development or substantial redevelopment to a reuse system to supply uses that do not require potable water where available.

(E) The City shall require reuse water to be used in irrigation and other nonpotable needs in public areas owned by the City where available.

(F) The City Land Development Regulations require A and B above. The provision for reuse line in existing neighborhoods under the conditions of C above will be added to the Land Development Regulations by June 2010.

**Policy 5-1.3.7: Wellfield Protection.**

In order to protect the quality and quantity of Minneola’s potable water supply, a wellfield protection zone shall be established within a radius of seventy five, two hundred, and five hundred feet from potable water wells. The following land uses are prohibited within these zones:

No new development shall be permitted within seventy-five feet from a well. Within a two-hundred foot radius, septic tanks, sanitary sewer facilities, Within a five hundred foot radius of a well, industrial uses shall be prohibited, including activities that require the storage, use, handling, production or transportation of restricted substances on the Florida Substance List (CH.442, F.S.), and agricultural chemicals, petroleum products, hazardous/toxic wastes, industrial chemicals, etc. In addition, wastewater treatment plants, percolation ponds, mining activities and similar activities are prohibited. Excavation of waterways or drainage facilities which intersect the water table shall not occur within 500 feet as well as solid waste disposal facilities shall also be prohibited in all cities.

**Objective 5-1.4: Conserve, Appropriately Use And Protect Native Vegetative Communities.**

Conserve, Appropriately Use and Protect Native Vegetation Indigenous to the City

**Policy 5-1.4.1: Implementing Protection of Vegetative Communities and Aquatic Habitats.**

A Tree and Native Vegetation Protection Ordinance shall be used in managing and protecting the impacts of development on major vegetative communities and aquatic habitats. These regulations shall mandate fair and equitable restoration and/or compensatory mitigative measures in order to compensate for loss of vegetation and to enhance stabilization of fragile slopes and/or lake shorelines. The Land Development Regulations include a Tree and Native Vegetation Ordinance, which incorporate the following criteria:

(A) Review Criteria.

(1) Site Plans:

The City shall review site plans for proposed development in Pine Flatwoods, Long Leaf Pine—Xeric Oak, and other forested uplands to assure that common areas and other buffer areas use existing native vegetation (native vegetation is defined as plant material indigenous to Lake County, Florida, including all those species listed in Table 5-11 in the Conservation Element Data Inventory and Analysis) within all required open space areas.

(2) Subdivisions, Multi-Family, Commercial and Industrial:

Prior to the approval for proposed development, each owner or applicant of sites five (5) acres or more shall provide a site survey of tree(s) and vegetative communities.

The identification and evaluation of vegetative resources shall be performed by either a forester, biologist, ecologist, horticulturist, landscape architect, licensed landscape contractor, certified nurseryman or person having similar recognizable skills and experience.

(B) Removal Criteria.

(1) Pine Flatwoods, Long Leaf Pine-Xeric Oak, and other forested uplands may only be approved for removal if one or more of the following criteria are met:

(a). where the location of the tree prevents the construction of utility lines, drainage facilities, on-site sewage disposal systems, roadways or required parking areas which cannot be practically relocated or rerouted or where the trees cannot be utilized as part of these systems; removal of the tree pursuant to this criteria shall be exempt from the replacement criteria in Policy 5-1.4.1 under section (2).

(b). where the tree is weakened by age, storm, fire or other injury so as to pose a danger to persons, property, site improvements or other trees. Removal of the tree pursuant to this criteria shall be exempt from the replacement criteria in Policy 5-1.4.1 under section (2).

(c). where site design modifications, as determined by a pre-clearing inspection, are not feasible to allow the use permitted, as determined by the specific zoning of the subject property.

(d). there shall be no clearing, except hand clearing, within the dripline (dripline is defined as an imaginary vertical plumb line that extends downward from the tips of the outermost tree branches and intersects the ground) of any protected or other trees selected to be preserved for landscaping. Where no native vegetation exists within the dripline, pervious paving, bricking or any other material which does not restrict the health and growth of a protected or preserved tree may be utilized. In addition, for all trees to be protected, the area within the dripline shall be temporarily fenced to prevent drainage to the tree and root system during construction activities.

(2) Replacement Criteria:

Where the removal of a protected tree meets any one or more of the criteria identified in Policy 5.1.4-1 under section (1). The developer may choose one of the following options:

(a). Provide trees to replace the removed tree where the total dbh of the replacements is equal to twenty-five percent of the total dbh of the tree or trees removed;

(b). The developer may relocate or transplant the protected tree elsewhere on the same lot or parcel of land if there is a source of water and adequate irrigation system on site to assure viability of the transplanted tree; or

(C) Inspection.

(1) Inspection Prior to Certificate of Occupancy or Certificate of Completion:

Prior to issuance of a Certificate of Occupancy or Certificate of completion, the City reserves the right to conduct a site inspection to assure that no unauthorized clearing has taken place and to assure that all protected trees and vegetation identified for preservation are in place and have been maintained in a viable condition.

(2) Follow-Up Inspection: the city reserves the right to conduct a final site inspection one or two years after the issuance of a certificate of occupancy for residential subdivision, multiple-family and non-residential developments to assure that no unauthorized removal of protected trees and native vegetation has occurred.

**OBJECTIVE 5-1.5: Conserve, Appropriately Use And Protect Fisheries.**

Conserve, Appropriately Use and Protect Fisheries Indigenous to Lake Minneola, Lake Plum and Other Small Lakes within Minneola.

**Policy 5-1.5.1: Manage Impacts of Development on Fisheries.**

The City shall promote land use activities which are compatible with preservation of fisheries within the City's lakes. The City shall prohibit any land use which shall detrimentally affect water quality or water temperature within its lakes.

**Policy 5-1.5.2: Assist Federal and State Agencies in the Maintenance of Fish Populations.**

The City shall coordinate and assist the Federal and State environmental and wildlife preservation agencies to protect fish populations within the City's lakes and to promote environmental management activities which enhance fish propagation through natural processes or by managed fish restocking.

**Policy 5-1.5.3: Aquatic Weed Control.**

The City shall coordinate with the Lake County Water Authority to control any aquatic weed, algae blooms, or other aquatic plant proliferation occurring within the City's lakes.

**OBJECTIVE 5-1.6: Conserve Wildlife And Wildlife Habitats.**

Conserve and Protect Wildlife and Wildlife Habitats through the Management of Growth and Development within the City, and through Coordination of Conservation Activities with Lake County, the Florida Fish and Wildlife Commission, the SJRWMD, and the State Department of Agriculture and Consumer Services.

**Policy 5-1.6.1: Coordinate with the State and Regional Agencies to Promote Preservation of Wildlife and Wildlife Habitats.**

The City shall notify the Florida Department of Agriculture and Consumer Services of any significant clusters of endangered or threatened plant (fauna) species occurring within its jurisdiction. The City shall notify the Florida Fish and Wildlife Commission to the presence of any roosting, nesting, or common feeding areas used by endangered or threatened wildlife occurring within its jurisdiction.

**Policy 5-1.6.2: Conservation of Wildlife Habitats.**

Developers of planned unit developments or of residential subdivisions with more than twenty-five (25) units shall be required to designate a portion of any existing native vegetative communities for common conservation open space (see Policy 5-1.6.3 for definition of common conservation open space) in order to preserve areas for wildlife habitat.

As wetlands within the development site can be applied as credit towards meeting common open space requirements, a minimum of twenty-five percent (25%) of land dedicated for common open space must represent uplands. The City may require a dedication of additional upland area above the minimum requirement pursuant to ramifications of Policy 5-1.6.6.

The location of common conservation open space shall be negotiated during the development review process. Applicants of new residential developments breaching the threshold shall dedicate a minimum amount of land area for common conservation open space according to the following standards applicable to each residential designation:

Residential Land Use Category	Minimum Open Space Standard
Single Family High Density	15%
Single Family, Medium Density (*)	15%
Multi-Family, High Density	15%
Multi-Family, High Density (*)	15%
Single Family, Low Density (*)	20%

(\*) Applicable to developments with more than twenty-five (25) units.

The City may request assistance from the East Central Florida Regional Planning Council or the Lake County to evaluate the most suitable location of upland habitat.

**Policy 5-1.6.3: Definition of Common Conservation Open Space.**

Common Open Space shall be defined as any parcel or area of land or water essentially left in its natural state or improved and set aside, dedicated, designated or reserved for common use or enjoyment for the public or the residents of a development and may include such complementary structures and improvements as related to only conservation facilities and passive recreation uses. As stipulated in Policy 6-1.5.1 Conservation Open Space shall represent significant natural or historical resources that require protection from detrimental impacts associated with the encroachment of development. Natural areas that are unsuitable for development also are a form common conservation open space. Conservation open space areas shall be those which are designated for the purpose of conserving or protecting natural resources or environmental quality and includes areas designated for such purposes as flood control, protection of quality or quantity of ground water or surface water, floodplain management, fisheries management, or protection of vegetative communities or wildlife habitats. This definition of open space is intended to be consistent with that defined under 9J-5.003 (63), Florida Administrative Code. Areas which qualify for such designation are described within the Conservation Element.

**Policy 5-1.6.4: Passive Recreation Activities and Conservation Facilities Considered Permitted Uses.**

Only conservation facilities and passive recreation uses shall be permitted within areas designated for Common Conservation Open Space. Such activities:

- (A) Passive Recreation:
  - (1) Boardwalks and docks not to exceed a width of four feet.
  - (2) Hiking and bicycle trails, not to exceed a width of eight feet; Picnic areas;

- (3) Fishing piers exceeding a width of five feet may only locate within lakes and not within wetlands.
- (4) Golf courses that dedicate a minimum of 10% of uplands.
- (5) Observation towers.
  
- (B) Conservation Facilities:
  - (1) Stormwater management facilities designed to protect the natural surface water flow regime and groundwater quality or quantity;
  - (2) Fire lanes and fire/observation towers;
  - (3) Facilities designed to protect nesting, feeding, or habitat areas of designated endangered, threatened, or species of special concern, as determined by the Florida Game and Freshwater Fish Commission, or to support the propagation of common wildlife;
  - (4) Fishery management;
  - (5) Facilities designed to protect an archaeological or historical site;
  - (6) Facilities designed to retard or eliminate soil erosion problems, particularly shoreline erosion along lakes shores;
  - (7) Facilities necessary to eliminate unwanted exotic vegetation; and
  - (8) Wildlife monitoring devices/stations.

**Policy 5-1.6.5: Evaluating Impacts on Endangered and Threatened Flora and Fauna Species.**

The City shall incorporate into the Land Development Regulations the 9J-2.0258 Upland Vegetation and Wildlife Policy Rule cited in the Florida Administrative Code for the purpose of establishing upland vegetation and wildlife standards and criteria to be used in evaluating the impacts of proposed development on upland vegetation used as common habitat by endangered or threatened species.

**Policy 5-1.6.6: Protection of Endangered and Threatened Flora and Fauna Species.**

Upland vegetative communities and wildlife habitats (particularly those identified as primary habitat for endangered or threatened species) for which the City or a State agency deems environmentally significant shall be protected from adverse impacts associated with development to a degree necessary to maintain the perpetual viability of the endangered or threatened specie(s). Upland areas identified within the Conservation Element as essential breeding, feeding or habitat sites for endangered or threatened flora or fauna creatures shall be protected by the following activities:

(A) Conservation Open Space Designation.

Environmentally significant upland habitat may be designated as conservation open space on the Future Land Use Map under the following circumstances:

- (1) The site is owned by a government body or agency;
- (2) The site is programmed for purchase by a government agency within the first three years of the Five-Year Schedule of Capital

- Improvements;
- (3) A request to designate the site as conservation open space is made by the land owner.
  - (4) Land dedicated as common conservation open space within developments approved after the adoption date of this Comprehensive Plan, shall be designated on the Future Land Use Map as conservation open space upon the first opportunity an amendment may occur consistent with procedures in Chapter 163.3187., F.S.

Development proposed to occur within areas designated as Conservation Open Space are subject to all policies pertaining to open space requirements and development restrictions. A habitat management plan will not be required unless proposed development within the site designated as conservation open space intends to remove or displace an active nesting or breeding area of an endangered or threatened specie, or will remove or eradicate a living endangered or threatened plant.

(B) Undesignated Sites with Endangered or Threatened Species.

Any areas identified within the Conservation Element as refuge, breeding, feeding, or habitat areas of endangered or threatened species shall be subject to the following activities:

- (1) An applicant of a subdivision, plat, replat, or PUD of more than 25 acres shall prepare a Critical Habitat Management Plan prepared by a professional biologist, ecologist, or other related professional. As a minimum standard, this Plan shall analyze the following issues:
  - (a) Affected Species;
  - (b). Land needed to support continued on-site presence of the species;
  - (c). Impacts of proposed development which will disturb the species;
  - (d). Recommended plans and measures necessary to protect the subject species based on FGFWPC or USFWS guidelines and standards;
  - (e). Cost to Developer to implement the recommended management plan for cost/benefit analysis purposes.

The adequacy of the study shall be determined by the City of Minneola. The final development plan shall conform to recommendations determined within the study as approved by the City Council. The City will reserve the right to have a State or County agency review the Critical Habitat Management Plan and provide a written response.

**Objective 5-1.7: Conserve And Appropriately Use Soils.**

Conserve and Appropriately Use Soils through the Incorporation of Land Development Regulations which Include Performance Criteria Designed to Reduce the Incidence of Soil Erosion Resulting from Land Clearing, Breaches in Stabilized Lake Shorelines, and Soils Exposed to Environmental Conditions due to the Lack of Vegetation.

**Policy 5-1.7.1: Implementing Erosion Control.**

The City shall require that appropriate measures be taken during land clearing and building operations to assure that exposed, destabilized or otherwise altered soil is expeditiously covered with an acceptable erosion control material. This provision shall be applicable to the act of subdividing and installation of related improvements as well as during the development review process including the period during which improvements may occur as well as the length of time soil may be exposed to the environment. The Land Development Regulations incorporate provisions specifying appropriate measures controlling land clearing activities.

The tree and native vegetation protection ordinance shall be applicable to all clearing and grading activities and shall include specifications for management principles guiding the removal or placement of vegetation and the application of landscaping designs. Regulations shall also require developers to take precautionary measures, where necessary, to avoid destruction or damage to native vegetation.

**Policy 5-1.7.2: Coordination with the U.S. Soil Conservation District.**

The City shall notify the local office of the U.S. Soil Conservation Service of any major soil erosion problems that may occur within the City's jurisdiction.

**Policy 5-1.7.3: Regulation of Mining Activities.**

As no significant deposits of valuable minerals are present with the City of Minneola, no mining activities shall be permitted to occur within the City's jurisdictional area.

**Objective 5-1.8: Protect Environmentally Sensitive Lands.**

Protect Environmentally Sensitive Lands from the Encroachment of Development In Order to Preserve Their Natural Functions and To Assure Their Perpetual Existence. Environmentally Sensitive Lands Shall Represent:

- Wetlands,
- Lakes, Surface Waters, Sink Holes (recent and active)
- Aquifer Recharge Areas with High Percolation Rates,
- Undisturbed Significant Vegetative Communities, particularly sites Serving as

Habitat or Refuge for Endangered and Threatened Plants and Animals.

**Policy 5-1.8.1: Designation of Environmentally Sensitive Areas.**

The Future Land Use Element shall designate all wetlands and recent or active sink holes as conservation open space. The City may designate significant high recharge areas, areas within the 100 Year Floodplain, and undisturbed natural vegetative communities as conservation open space depending on the necessity to protect such areas from the encroachment of development.

The Future Land Use Map Series shall illustrate all areas designated as

conservation open space. Land Development Regulations shall restrict or prohibit development in areas designated for conservation open space on the Future Land Use Map to passive recreation and conservation activities. No development shall encroach or fill lakes with exception to passive water-related recreation and conservation facilities approved by the State of Florida.

**Policy 5-1.8.2: Protection and Maintenance of Floodplain.**

(Note: Wetlands in the 100 Year Flood Zone, hereafter Flood Zone, are protected through other policies established herein this element. Land not classified as a wetland but situated within the boundaries of the Flood Zone are referred to as “uplands of the Flood Zone”). Applicants of development and redevelopments shall position structures and impervious surfaces to areas outside the Floodplain Zone to the greatest extent possible according to qualifying circumstances and provisions stipulated below. Where development occurs within the Flood Zone to maintain reasonable use of and value of property, compensatory mitigation shall maintain minimal loss of its natural flow regime according to qualifying circumstances and provisions also stipulated below. The 100 Year Flood Zone shall be delineated within the Future Land Use Map Series, and its demarcations shall be determined by the most recent Flood Insurance Maps prepared by the Federal Emergency Management Agency.

(A) Prohibited Land Use Activity.

Industrial, commercial and office land uses shall be prohibited from encroaching the uplands of the 100 Year Flood Zone, with exception to 100% permeable surface parking areas designed for seasonal or occasional overflow demands which may locate on uplands of the Flood Zone. (Wetlands in the Flood Zone are governed by other policies herein this element.) Storing or processing materials that would, in the event of a 100 Year Storm, be buoyant, flammable, explosive, or potentially injurious to human, animal or plant life is prohibited. Material or equipment immune to substantial damage by flooding may be stored if securely anchored to prevent flotation or if readily removable from the area upon receipt of a flood warning. Wastewater treatment plants, septic tanks, and spray fields shall not be placed within the Flood Zone.

(B) Clustering Residential Development Outside the Flood Zone.

Applicants of residential development shall cluster dwelling units on uplands located outside the 100-Year Flood Zone at a maximum density not to exceed eight units per acre unless hydrological and geomorphological conditions make clustering unfeasible or the extent of the flood zone covering a proposed development site prohibits application of clustering. Central sanitary sewers shall be required where density of the clustered units exceeds four units per acre, or where proposed densities equal to or less than four units per acre are inconsistent with soil conditions for septic tank use.

Developments clustering residential units outside the Flood Zone shall be credited towards Open Space requirements set forth in Policy 5-1.6.2,

Conservation of Wildlife Habitats, on an acre-to-acre basis for each non-wetland acre within the Flood Zone that has been preserved through clustering. (e.g., For each developable acre in the Flood Zone preserved through clustering, an acre shall be subtracted from the total common open space acreage otherwise applied to the subject property).

(C) Limitations/Restrictions on New Development In Undisturbed Flood Zone Areas.

The following limitations and restrictions shall apply to new development allowed within undisturbed Flood Zone Areas:

(1) Compensatory Mitigation.

There hydrological and geomorphological conditions make clustering unfeasible, where the extent of the Flood Zone covering a proposed development site prohibits the reasonable application of clustering, or where no practical alternative to fill in the 100-year flood plain exists, compensatory storage shall be provided through excavation of a volume of uplands equivalent to the loss of storage within the 100 Year Flood Zone caused by the placement of fill or the construction of impervious surface. Only adjacent uplands outside the Flood Zone are eligible to be excavated.

(2) Residential Subdivision Site Plan Design.

Plans and designs for development proposing to alter uplands of the Flood Zone through compensatory storage shall first minimize potential flood damage by positioning recreation, conservation uses, and common conservation open space, whether provided voluntarily or mandatorily, to those areas within the Flood Zone, reserving land outside the Flood Zone for development. The Flood Zone shall be delineated on all final development plans submitted to the City.

(3) Additional Open Space Requirements.

Common open space requirements shall increase by five percentage points above existing requirements when alteration to uplands of the Flood Zone occurs through compensatory storage. Common open space shall be located within the Flood Zone to the maximum extent possible and shall be consistent with common open space principles outlined in Policy 5-1.6.2, Conservation of Wildlife Habitats. Development is limited to passive recreation activities and conservation facilities within conservation open space, as allowed through Policy 5-1.6.4, Passive Recreation Activities and Conservation Facilities Considered Permitted Uses. Open space allocated towards contiguous upland habitats, as cited in Policy 5-1.6.2, shall be allocated with first priority to upland habitats of the Flood Zone.

(4) Impervious Surface Principles.

In the event the compensatory mitigation occurs, maximum impervious surface area principles applicable to the development area proposed in the Flood Zone shall be reduced two percentage points for conservation, corridor,

and utility open space; by ten percentage points for residential uses; and by thirty points for other acceptable land uses. Commercial, office and industrial uses are not acceptable uses.

(5) Sanitary Sewer Systems.

Septic tanks, wastewater treatment plants, and spray fields are prohibited within the 100 Year Flood Zone.

(6) Stormwater Facilities.

Drainage facilities shall be in place and functional concurrent with deadlines established in the Concurrency Management System (Policy 8A-I.1.3.). Such drainage facilities shall be designed to:

- (a). Comply with the City's established level of service standards and State stormwater facility standards;
- (b). Maintain the natural flow regime and function of the floodplain;
- (c). Efficiently function with connected drainage facilities under jurisdictional authority of the St. Johns River Water Management District;
- (d). Support and further regional stormwater master plans prepared by Lake County or the SJRWMD.

D. Limitations and Restrictions on New.

Development or Redevelopment in Existing Developments located within the 100-Year Flood Zone. The following limitations and restrictions shall apply to new development or redevelopment occurring on developed and vacant lots situated in the Flood Zone Areas:

(No existing development lies within the 100 Year Flood Zone with exception to public recreation land uses).

(1) Minimum Floor Height Elevation.

All new construction and substantial improvements of existing construction must have the first floor elevation for all enclosed areas at eighteen inches above the 100-year flood elevation.

(2) Construction Material and Methods.

All new construction and substantial improvements of existing construction shall be constructed with material and utility equipment resistant to flood damage, and using methods and practices that will minimize flood damage and prevent the pollution of surface waters during a 100-year storm event.

(3) Service Facilities and Utilities.

Electrical heating, ventilation, plumbing, air conditioning, and other service facilities shall be designed or located to prevent water from entering or accumulating within the components during a 100 Year Storm Event. All new

and replacement water supply and sanitary sewage systems shall be designed to minimize or eliminate both infiltration of flood water into the systems and discharges into flood waters.

**Policy 5-1.8.3: Protection of State Preserves and Reservations.**

Though no land within the City has been designated by the Federal, State, or County government as a preserve or natural reservation, the City shall continue to support preservation of nature reservations and preserves within Lake County.

**Policy 5-1.8.4: Acquisition of Environmentally Sensitive Land.**

The City shall pursue State funds to purchase environmentally sensitive lands designated as conservation open space on the Future Land Use Map.

**Objective 5-1.9: Management Of Hazardous Wastes To Protect Natural Resources.**

Manage the Use and Disposal of Hazardous Wastes to Protect Natural Resources and Public Health and Safety.

**Policy 5-1.9.1: Regulate Land Uses Generating Hazardous Waste.**

The City shall reserve all rights and privileges to deny development of any commercial or industrial activity which may use, store, or sell hazardous wastes which represent a potential threat to the quality of groundwater or the health and safety of City residents.

**Policy 5-1.9.2: Protect Natural Ecological Systems and Resources.**

The City shall include in the land development regulations principles and regulations that are consistent with policies in the element directing the preservation of natural ecological systems and resources where discussed.

**Policy 5-1.9.3: Assist Lake County Hazardous Waste Management Program.**

The City shall assist Lake County in the monitoring and management of hazardous waste generators within Minneola by coordinating with the Lake County by notifying County staff to new commercial and industrial developments that may use or generate hazardous waste. The City shall also notify the County of the presence of any disposed, buried, or stored wastes or material for which the volatility and chemical contents thereof are unknown.

**Objective 5-1.10: Conservation Of Historically Significant Sites.**

Conserve Historically Significant Sites through the Use of Land Development Regulations and Protection of Existing Historical Structures.

**Policy 5-1.10.1: Promote the Identification of Historically Significant Sites.**

The City shall coordinate with the State Division of Historic Resources in continuing to identify, protect, analyze, and explain the City's historical, archaeological, and cultural resources. Such efforts shall include determination of

their worth and vulnerability, as well as determination of specific applicable preservation management policies.

**Policy 5-1.10.2: Performance Standards for Protecting Sites of Historic, Archaeological, and Cultural Resources.**

The City shall prohibit development activities in or adjacent to historic/archaeological sites that depreciate or eliminate their historical value. Provisions have been incorporated into the Development Regulations to support this policy. Activities deemed adverse to the preservation of historic sites shall include:

- (a). Demolition or alteration of all or part of such site;
- (b). Isolation from, or alteration of the associated environment;
- (c). Placement of visual, audible, or atmospheric elements that foster discordance with the character of the property;
- (d). Transfer or sale of a registered historic site without adequate contractual written agreement to maintain and preserve the historical character of the structure;
- (e). Removal or placement of native vegetation shall be subject to restrictions and requirements stated within the Tree and Native Vegetation Protection Ordinance, proposed within the above cited policies and are included within the Land Development Regulations.

**Policy 5-1.10.3: Registration of Locally Historic Sites.**

The City shall promote and support local efforts, including those fostered by the Lake County Historical Society, to effectively pursue registration of historically significant sites under Federal and State certified historical master files.

**Objective 5-1.11: Implementation And Evaluation Of The Effectiveness Of Conservation Activities.**

The City Shall Implement Conservation Activities Proposed In The Conservation Element Through The Capital Improvement Budgeting And Programming Process And Shall Evaluate Their Effectiveness On An Annual Basis.

**Policy 5-1.11.1: Schedule, Budget and Implement Conservation Activities Qualifying as Capital Improvements.**

Conservation activities involving the purchase of land or implementation of programs which qualified as a capital improvement, as defined within the Capital Improvement Element Goals, Objectives, and Policies, shall be scheduled and budgeted within the Five-Year Capital Improvement Program and Schedule. Expenditures for programs not qualify as capital improvements shall be budgeted within the capital budget for the respective year the activity will be financed.

**Policy 5-1.11.2: Evaluate the Effectiveness of Conservation Activities.**

The City shall annually (by March of each year) review conservation goals, objectives and policies supported in the Conservation Element of the Comprehensive Plan and implemented through land development regulations, to

measure the effectiveness of the City's conservation activities. Deficiencies identified within the evaluation process shall be analyzed to determine ameliorative measures necessary for correction.

**Policy 5-1.11.3: Evaluate Effectiveness of Intergovernmental Coordination.**

The City shall evaluate the effectiveness of intergovernmental coordination activities established within the Conservation policies or upon the emergence of conservation issues extending into areas beyond the City's jurisdiction.

**OBJECTIVE 5-1.12: Intergovernmental Coordination Activities For The Conservation Of Natural Resources.**

Manage Natural Resource And Conservation Issues Transcending The City's Jurisdictional Area Or Constituting An Issue Of Regional Nature Through Intergovernmental Coordination.

**Policy 5-1.12.1: Implementing Policies for Intergovernmental Coordination with Lake County to Manage Conservation Issues and Activities.**

The City shall coordinate with Lake County to manage natural resources and conservation activities. Such management activities shall engage, but not be limited to:

- (1) Participate in County forums and in technical review activities concerning emergency preparedness, with emphasis toward issues included in the Peacetime Emergency Preparedness Plan.
- (2) Participate in technical review concerning ground and surface water quality; floodplain and stormwater management; fish and wildlife preservation, in particular endangered and threatened species; wildlife habitats and significant vegetative communities; and issues affecting the function and survival or environmentally sensitive areas. Such issues and activities shall also be coordinated with appropriate State and regional entities for which jurisdictional authority or interest overlies.
- (3) Public access issues to lake front areas shall be coordinated with Lake County, including issues concerning maintenance and improvements.
- (4) The City shall coordinate with Lake County in order to assure that all future development within unincorporated areas adjacent to the City shall occur in an orderly and timely manner concurrent with the availability of infrastructure and services. Such development reviews shall closely monitor and evaluate impacts on:
  - City infrastructure levels of service, especially impacts on roadways, water and wastewater systems, floodplain and stormwater management, and area wide recreation.
  - Natural resources, especially ground water quality and quantity.
- (5) The City shall coordinate with the Lake County Environmental Services

Department on issues related to hazardous waste management, drainage, solid waste disposal and recycling, and protection of surface and ground waters.

- (6) The City has coordinated with Lake County to reduce solid waste disposal as mandated by the Florida Solid Waste Management Act of 1988.

**Policy 5-1.12.2: Implementing Policies for Intergovernmental Coordination with State Agencies.**

Issues which shall be coordinated with the Department of Natural Resources (FDNR), the Department of Environmental Protection (FDEP), the St. Johns River Water Management District (SJRWND), and the Florida Fish and Wildlife Commission (FFWC), as deemed necessary to resolve conservation concerns which presently exist or which may emerge include the following:

- (1) The City shall coordinate all development and natural resource conservation measures impacting all lakes in Minneola with the FGFWFC and the FDEP, as well as other applicable State public agencies.
- (2) To assure implementation of sound principles and practices of conservation resource management during the development review process as well as the formulation of policies impacting natural resource management, the City shall coordinate with technical staff of the SJRWMD and FDEP.
- (3) The City shall coordinate with the Florida Sinkhole Research Institute or the Lake County to manage issues concerning the impact of sinkhole formations or potential threats thereto.
- (4) In matters surrounding stormwater management, floodplain protection, drainage, surface and ground water quality and quantity, and consumptive use permits for potable water, the City shall coordinate with the SJRWMD as well as other appropriate State agencies.
- (5) The City shall coordinate with FDEP and the Lake County for issues concerning the management of hazardous waste.
- (6) On issues related to the proper management and operation of septic tank systems and on-site, low use ground well, the City shall coordinate with the Florida Department of Environmental Protection.
- (7) The City shall coordinate with the FFWC to resolve any issues pertaining to development impacts adversely affecting the nesting, propagation, or survival of any endangered or threatened animal, and shall likewise assert responsibility to coordinate with the Florida Department of Agriculture and Consumer Services on similar issues concerning endangered and threatened plants.

- (8) On issues concerning the preservation of historical sites located within the City of Minneola, coordination shall occur with the Florida Department of State.

**Policy 5-1.12.3: Coordination with the East Central Regional Planning Council.**

The City shall coordinate with the East Central Regional Planning Council (ECFRPC) to review any development of regional impact studies associated with any development within the City, or for DRI projects impacting natural resources or conservation activities within Minneola.