

## ARTICLE VI. - RESOURCE PROTECTION STANDARDS

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### **Sec. 33-56. - Purpose.**

The purpose of this article is to establish those resources or areas of a development site that must be protected from harmful effects of development. A developer should apply the provisions of this article to a proposed development site before any other development design work is done. Application of the provisions of this article will divide a proposed development site into areas that may be developed and areas that must generally be left free of development activity. The proposed development should then be designed to fit within the areas that may be developed.

(Ord. No. 2002-09, §§ 1, 2, 2-18-02)

### **Sec. 33-57. - Trees.**

33-57.01. *Purpose.* The purpose of this article is to prohibit the destruction of protected trees as defined in this article until a development plan, preliminary subdivision plat or other specific plan for development has been approved, and to provide specific criteria for allowable tree removal. The city commission finds and determines that it is in the best interest of the public health, safety and welfare to protect, preserve and enhance tree cover in DeLand, Florida. The values of trees are many and varied and include, but are not limited to, the following:

- (a) Trees are valuable producers of oxygen, a necessary element to the survival of man, and serve to reduce the environmentally dangerous carbon dioxide concentrations in the air.
- (b) The leaves of trees trap and filter out ash, dust and pollen in the air.
- (c) Trees may reduce wind velocity and noise levels.
- (d) Trees may prevent erosion by stabilizing the soil through their root system and by breaking the force of raindrops pounding upon soil surfaces.

- (e) Trees reduce the quantity of surface runoff and reduce the percentages of impervious surfaces.
- (f) Trees help purify water by removing the nutrients from water passing through the ground from the surface to the groundwater table.
- (g) Trees provide shade and transpire water, which helps to moderate temperature, and clean the air.
- (h) Trees provide shade, shelter and essential habitat for wildlife.
- (i) Trees provide valuable visual aesthetics and psychological contrast to the manmade urban environment.
- (j) Trees are a valuable asset and increase the economic and aesthetic value of developed and undeveloped properties.

33-57.02. *Applicability of terms and provisions.* Except as provided in section 33-57.06 of this article, the terms and provisions of this article shall apply to all unimproved real property, all publicly owned lands, all public or private rights-of-way and all improved real property, when and if any new development is proposed for such property, lands or rights-of-way or any other time removal of a protected tree is proposed.

(Ord. No. 2008-08, § 12, 4-7-08)

33-57.03. *Issuance of certificate of occupancy.* Compliance with this article, including any conditions attached to the Tree Removal Permit, shall be a condition to the issuance of a certificate of occupancy. Other than for subdivision infrastructure improvements required by an approved preliminary plat or as exempted in section 33-57.06, no Tree Removal Permit will be issued for property until such time as the city issues a building permit for the same property, or as otherwise may be permitted by the city.

(Ord. No. 2008-08, § 13, 4-7-08)

33-57.04. *Tree removal and change of grade permit requirement.*

- (a) *Permit requirement.* Except as provided in section 33-57.06 of this section, it is hereby unlawful for any person to cut down, move, remove or destroy through damaging or to authorize or cause the same, of any protected trees or replacement trees or to change or modify the grade of any land in accordance with the provisions of this section, without obtaining one or more of the following:
  1. *Unsubdivided land.* A Tree Removal Permit, or an approved site plan, with an associated approved building permit or an approved preliminary plat, as applicable is required.

2. *Subdivided land.* An approved site plan, with an associated approved building permit is required. The phasing of a proposed development must be shown on the appropriate landscaping plan. No clearing of areas outside of the first phase shall be permitted without a replanting plan of the required plants in the landscape plan and timetable to commence construction. Seeding or sod is required to be installed for all lots at the time of completion of infrastructure installation. If construction has not commenced within two years, replanting of the required plants in the landscape plane of the entire cleared area will be required. If a phase is added after the site plan or plat has been approved a revised site plan or the construction plans for the plat shall be required to be submitted for compliance determination. The removal of non-protected trees does not require a Tree Removal Permit.
- (b) *Permit applications.* Any person who is required to obtain a Tree Removal Permit shall submit an application to the building department on a form to be supplied by the city. A tree survey and a written statement indicating the reasons for removal, relocation or replacement of trees shall accompany every application. The applicant must demonstrate to the satisfaction of the city forester that a reasonable effort has been made to situate the improvements so as to save as many of the existing trees as possible and to work with the existing grade to the greatest extent possible. Tree protection barricades must be in place prior to the issuance of the permit.
- (c) *Tree Removal Permit application requirements.*
1. *Application forms.* A complete permit application for removing or relocating trees shall be submitted by a property owner or authorized agent of the owner, on city approved application form(s).
  2. *Fees.* Each permit application must be accompanied by the appropriate fee(s) as established by the city commission. An administrative fee will be collected with each permit application. The permit application fees are non-refundable and non-transferable.
  3. *Required application data.* The city approved permit application must be accompanied by surveys, and other documents as required by the city forester, that describe the proposed activities and phasing of the development in sufficient detail to meet the standards of this article and to clearly identify all potential impacts to the environment and public health. A property boundary survey shall be submitted with the application. Property boundaries must be locatable in the field by the inspectors. As a minimum, property corners must be located and so designated to be clearly identifiable and visible on site. Property corners shall be intervisible or line markers shall be provided.

4. *Action on permit application.* The building department shall, in a timely manner, from the date of filing, determine if the application is complete. If it is determined the application is incomplete, it shall be returned to the applicant. If the application is determined to be complete, the building department shall transmit the application and plans to the city forester.

(d) *Tree Removal Permit issuance.*

1. If the application meets the requirements of this article, the city forester shall approve the application subject to appropriate permit conditions. In the event that the application does not comply with the requirements set forth in this article, said application shall be denied, with reasons stated.

2. Upon approval or denial of the application, the city forester shall notify the building department. If the application is approved, the building department will notify the applicant that the Tree Removal Permit is approved subsequent to the requirements of section 33-57 of this article. If the application is denied, the building department shall notify the applicant, stating the reasons for denial.

(e) *Posting of permit.* A copy of the approved Tree Removal Permit shall be clearly posted on the job site during all phases of clearing and construction activities.

(f) *Termination of permit.* All Tree Removal Permits shall expire one year from the date of issue unless time extensions are granted by the city forester. Application for extensions of time shall be made in writing to the building department at least 30 days prior to the expiration of the permit.

(Ord. No. 2008-08, § 14, 4-7-08)

33-57.05. *Protected trees removal and replacement.*

(a) *Conditions for permit to remove protected trees.*

1. *Application contents.* Any person who is required to obtain a Tree Removal Permit shall submit an application in accordance with section 33-57.04(b).

2. *Standards of review.* The application shall be reviewed on the following criteria:

a. The extent to which the actual or intended use of the property requires cutting down or destruction of trees, or changes of grade.

b. The desirability of preserving any tree by reason of its size, age or some other outstanding quality such as uniqueness, rarity or status as a historic or specimen tree.

- c. The extent to which the area would be subject to increased water runoff and other environmental degradation due to removal of trees or changes of grade.
- d. The heightened desirability of preserving or enhancing tree cover in densely populated areas.
- e. The need for visual screening in transitional areas or relief from glare, blight, commercial or industrial unsightliness or any other affront to the visual or aesthetic sense in the area.
- f. The effect that changes in the natural existing grade will have on the trees to be protected and preserved.
- g. The effect that changes in the natural or existing grade will have on drainage and its impact on adjoining properties.
- h. The health of the existing trees on site.
- i. The extent to which existing tree coverage provides connections to adjacent open space, wildlife habitat, or natural vegetative areas.

(b) *Replacement of removed trees.*

1. Trees removed pursuant to paragraph (a) above shall be replaced at the expense of the developer. Replacement trees shall be taken from the approved tree list contained in the document entitled "List of Permitted Shrubs and Trees for Landscaping and Tree Protection."
2. Replacement shall be based upon of one-third of the total DBH of the trunk(s) of the tree(s) removed that measure six inches or greater DBH. DBH shall be measured at four and one-half feet above the ground. Single trees may be replaced with two or more trees, provided the minimum replacement requirements are met. In no case shall replacement stock be less than eight feet in height, have a DBH of less than two inches, or a caliper of less than three inches. If replacement trees are relocated to the landscape buffer the replacement stock must meet the DBH requirements of the specific buffer.
3. A replacement tree may be a tree moved from one location to another on the site, or moved off the site pursuant to paragraph 4 below.
4. Replacement trees must be planted on the development site if sufficient land is available. If sufficient land is not available on the development site, a fee may be paid as provided for in paragraph 5 below, to the city for purposes of planting trees on public property.
5. When space is not available for planting replacement trees (either canopy or understory) on site a developer may, after demonstrating to

the satisfaction of the city that it is not practical for the replacement trees to be planted on the development site, elect to make a monetary contribution to the "Tree Replacement Reserve Account" to be established by the city within the general operating fund. The contribution shall equal or exceed the amount required to purchase, plant and maintain for one year a sufficient number of replacement trees to meet the developer's minimum tree coverage and specimen tree requirements set forth in sections 33-57.05 and 33-57.07 respectively of this article. The city commission shall establish the required contribution amount by resolution on an annual basis. All contributions to the Tree Replacement Reserve account shall be to purchase and maintain trees on city property or along public rights-of-way as the city commission may determine, to protect, preserve and enhance tree cover in DeLand, Florida to purchase lands for preservation as green belt areas or passive recreational uses; to purchase nursery stock and supplies or to fund the Landscape Assistance Program. The Landscape Assistance Program is a local grant program to fund requests from existing development for assistance in landscaping.

6. Laurel Oaks (*Quercus laurifolia*) which are larger than 20" DBH and which have been determined to be in deteriorated condition by the city forester may be removed and replaced by one two-inch DBH (three-inch caliper) minimum sized canopy tree from the "List of Permitted Shrubs and Trees for Landscaping and Tree Protection."

(c) *Specimen tree protection.*

1. *Specimen tree.* The following species of trees with the minimum specified DBH are determined to be specimen trees in the City of DeLand, Florida:

Common Name	Botanical Name	Minimum DBH
Bald cypress	<i>Taxodium distichum</i>	12 inches
Bay, loblolly	<i>Gordonia lasianthus</i>	12 inches
Bay, red	<i>Persea borbonia</i>	12 inches
Bay, swamp	<i>Persea borbonia</i>	12 inches
Bay, sweet	<i>Magnolia virginiana</i>	12 inches
Cedar, eastern red	<i>Juniperus virginiana</i>	12 inches
Cedar, southern red	<i>Juniperus silicicola</i>	12 inches
Elm	<i>Ulmus spp.</i>	18 inches
Hickory	<i>Carya spp.</i>	18 inches
Magnolia	<i>Magnolia grandiflora</i>	12 inches
Maple	<i>Acer spp.</i>	18 inches
Oak, live	<i>Quercus virginiana</i>	10 inches
Oak, sand live	<i>Quercus virginiana var.</i>	10 inches

	<i>geminata</i>	
Oak, turkey	<i>Quercus laevis</i>	12 inches
Pine, Longleaf	<i>Liquidambar styraciflua</i>	18 inches
Sweet gum	<i>Liquidambar styraciflua</i>	18 inches
Sycamore	<i>Platanus occidentalis</i>	18 inches

1. All specimen trees not exempted by section 33-57.06 shall be preserved and protected as follows:

Number of Specimen Trees	Minimum Specimen Tree Protection Requirement
Less than three per acre or a portion thereof	100 percent of all specimen trees
Three to five per acre	3 per acre
More than five to eight per acre	4 per acre
More than eight per acre	50 percent of all specimen trees per acre up to a maximum of eight trees per acre

Tree counts are to be averaged over the total number of acres in the development project.

3. All specimen trees permitted to be removed shall be replaced by a sufficient number of replacement trees so that their DBH equals 50 percent of the total DBH of specimen trees to be removed from the property. Unhealthy specimen trees, as determined by the city forester will be replaced at the same rate as non-specimen protected tree. Specimen trees shall be replaced using species designated as canopy trees on the "List of Permitted Shrubs and Trees for Landscaping and Tree Protection."
  4. The developer shall provide legal mechanisms to insure the protection of all specimen or other trees designated to remain after construction. Such mechanisms may include, but are not limited to, conservation easements, common open space, tree protection easements, deed restrictions and homeowner association documents. Such protected trees shall only be removed based on imminent danger caused by deterioration or damage.
  5. New subdivisions must include the tree protection areas as common open space for the purpose of specimen tree protection and not included in individual lots.
- (d) *Historic tree protection.* Unless otherwise authorized by this article, no historic tree shall be removed without a recommendation by the city forester, the tree advisory committee, and a finding by the city commission that the tree is a hazard (due to health or natural damage) or that it is not economically or practically feasible to develop the parcel without removing the tree. The developer shall explain in detail why the tree is a hazard or why it is not economically or practically feasible to

develop the parcel without removing the historic tree. The city forester shall make a presentation to the tree advisory committee on the application and make a recommendation as to whether it should be approved or denied. The tree advisory committee shall make a recommendation to the city commission on the application. Any historic tree permitted to be removed shall be replaced by a sufficient number of replacement trees so that their DBH equals 100 percent of the total DBH of the historic tree to be removed from the property. In no case shall replacement stock be less than ten feet in height, have a DBH of less than four inches, or a caliper of less than six inches.

Historically significant trees shall be as follows:

1. Bald cypress if 20-inch or larger DBH;
2. Live Oak or Sand Live Oak if 25-inch or larger DBH;
3. Red Cedar if 25-inch or larger DBH.

(Ord. No. 2008-08, § 16, 4-7-08)

33-57.06. *Exemptions and variances.*

(a) *Exemptions.*

1. Single-family and duplex homes and properties. The removal of any trees on owner-occupied one and two family lots are subject to the tree protection requirements of this Code, only if one of the following applies:
  - a. The tree or trees proposed to be removed were utilized to meet the minimum tree protection requirements of this Code; or
  - b. The tree or trees proposed to be removed are historic trees as defined by this Code.
2. *Nuisance trees.* The following nuisance trees shall be exempt from the tree protection requirements of this Code:

Common Name	Botanical Name
Australian pine	<i>Casuarina spp.</i>
Brazilian pepper	<i>Terebinthefolius schinus</i>
Chinaberry	<i>Melia azedarach</i>
Camphor	<i>Cinnamomum camphora</i>
Ear tree	<i>Enterolobium cyclocarpum</i>
Eucalyptus	<i>Eucalyptus spp.</i>
Poison wood	<i>Metopium toxiferum</i>
Punk tree	<i>Melaleuc spp.</i>

Silk oak	<i>Grevillea robusta</i>
Strawberry guava	<i>Psidium cattleianum</i>
Woman's tongue	<i>Albizia lebbbeck</i>
Golden Rain Tree	<i>Koelreuteria paniculata</i>
Chinese Tallow	<i>Sapium sebiferum</i>

3. *Commercial growers.* All commercial nurseries, botanical gardens, tree farms and grove operations shall be exempt from the provisions of this section, but only as to those trees which were planted for silvicultural or agricultural purposes or for the sale or intended sale in the ordinary course of business.
4. *Emergencies.* During emergencies caused by a hurricane or other disaster, the city manager may suspend these tree protection regulations. The removal of trees damaged by fire, windstorm, lightening or other acts of God, which pose imminent danger to life or property are hereby exempt from the permitting requirement of this article; provided, however, that any person who removes such trees shall report the circumstances to the city forester and provide photographic evidence of the damage to the tree(s) on or before the first business day immediately following the removal.

(b) *Variances.* The preservation of any protected tree maybe considered as a factor in rendering a decision upon an application for a variance from the literal application of other requirements of this Code. [See article IX of this chapter for variance provisions.]

(Ord. No. 2008-08, § 17, 4-7-08; Ord. No. 2010-16, § 4, 9-7-10)

33-57.07. *Minimum requirements.*

(a) *Minimum tree coverage.*

1. Except in the C-2A zoning district which is exempt from these standards, excluding those standards governing historic trees; each lot shall contain a minimum of one tree for every 2,500 square feet of lot area (rounded to the nearest whole number). When determination of the number of trees required by this section results in a fractional tree, the fraction of less than one-half may be disregarded, and a fraction of one-half or greater shall be counted as one tree. The minimum tree coverage requirement of this section shall be considered, with credit given for each tree retained, when determining compliance with the minimum landscaping requirements otherwise required by this Code. No more than 25 percent of the minimum tree coverage requirements may consist of palms on the approved tree adopted by resolution of the city commission and contained in the document entitled "List of Permitted Shrubs and Trees for Landscaping and Tree Protection.

2. *Tree replacement requirement.* If a lot or parcel contains an insufficient number of existing trees to meet the requirement of this section, a replacement tree shall be provided for every 2,500 square feet of lot or parcel area.
  3. Any replacement trees required by a site plan, subdivision or building permit must be in place prior to a building receiving a certificate of occupancy or the recording of a final plat.
- (b) *Tree protection area requirements.* Except in the C-2A zoning district which is exempt from these standards, excluding those standards governing historic trees.
1. Fifteen percent of the square footage of any new development shall be designated for the protection of trees. By approval of a site plan for redevelopment sites or sites within the aviation access area of the DeLand Municipal Airport, requirements for tree protection areas may be modified or waived if it is determined that it is impractical to establish a tree protection area.
  2. No grading or filling may be conducted in tree protection areas where existing trees will be preserved. Fences and passive recreational facilities, such as benches and unpaved pathways may be allowed in a tree protection area.
  3. The area required to protect specimen trees may be included to satisfy this requirement. If grading takes place within ten feet of a tree protection area, the trees within the first five feet of the affected boundary will be counted as removed trees and must be included in the replacement calculations.
  4. This required area may be constituted as one or more sub areas within the development. Said areas may include required landscape buffer or other landscape areas and should remain as one or more common, contiguous open space(s). To reduce the number of fragmented tree protection areas, the tree protection area within a development shall be a minimum size equivalent to the minimum lot size of the zoning designation.

The minimum size for any tree protection area is 30 feet in width for protecting existing trees, 20 feet may be used for planting replacement trees, and it may not be located inside a stormwater retention facility or within a utility easement. Proposed tree protection areas are encouraged to locate adjacent to any approved tree protection areas and shall not be located in the backyard or sideyard area of platted building lots within a subdivision. Such designated areas shall contain sufficient land area to comply with minimum tree protection standards to adequately protect the trees contained within

the area.

5. A minimum of 50 percent of the required minimum number of trees as provided in Section 33-57.07(a) shall consist of existing trees within said area. This requirement may be waived or modified if the development contains an insufficient number of existing trees to meet this requirement or if the modification of this requirement is warranted by specific on-site conditions.
6. Tree protection areas must contain at least one tree per 2,500 square feet. If there are not sufficient trees on the property to meet this requirement, they must be planted by the developer.
7. The city forester and the planning director or the planning director's appointed representative, may consider special proposals for tree preservation where extraordinary circumstances, ecological need and/or resource conservation warrant. These include, but are not limited to:
  - a. The restoration, creation and/or preservation of wetlands trees and associated vegetation where enhancement is beneficial to the viability of the wetlands, water quality and the preservation of wildlife habitat.
  - b. The preservation, restoration and/ or recreation of culturally and/or historically significant landscapes, gardens, canopy roads and/or scenic views and byways.
  - c. The creation of xeric landscapes substantially meeting the intent of the city's tree and landscape ordinances where a minimum of 90 percent of all plant materials are drought tolerant Florida native species specifically selected to meet the "right plant - right place" concept, and where a formal irrigation plan utilizing temporary irrigation measures is proposed, The irrigation plan must be approved and implemented specifically for the establishment of the planted material and subsequently removed. Irrigation may be above ground, but must be screened by mulch or similar material contributing to the orderly and attractive look of the site. The landscape and irrigation plans must be submitted by a qualified landscape professional. All plant materials need to be provided by outlets recognized by the Association of Florida Native Nurseries or similarly established qualifying organization.
  - d. The creation of scrub or other specific habitats where the installation of such provides a viable expansion of existing or planned habitat conducive to the preservation of Florida threatened and endangered, or similarly listed, species.
  - e. All plant materials accepted under this provision are subject to the

regulations appearing in section 33-57.09, Tree survival.

8. *Redevelopment.* All redevelopment projects that require a Class II, III, or IV site plan shall be required to meet the tree preservation area requirements of Section 33-57 to the fullest extent possible. Due to site limitations technical review committee, planning board, or the city commission, depending on the type of site plan, may allow modifications, including modification of the size, number, species, and placement of trees in a manner which meets the intent of the regulations.

(Ord. No. 2008-08, § 17, 4-7-08; Ord. No. 2010-16, §§ 5—7, 9-7-10)

33-57.08. *Protection of trees during development activities.*

(a) *Generally.*

1. To assure the health and survival of protected trees that are not to be removed, the developer shall avoid the following kinds of tree injuries during all development activities:
  - a. Mechanical injuries to roots, trunk, and branches;
  - b. Injuries by chemical poisoning;
  - c. Injuries by grade changes;
  - d. Injuries by excavations; and
  - e. Injuries by paving.
2. Tree protection measures shall be planned and undertaken in consultation with the city forester.

(b) *Avoiding mechanical injuries.*

1. Prior to issuance of any permit for land preparation or other development activities a protective barrier easily visible to equipment operators shall be placed and maintained around all protected trees so as to encompass the entire tree protection zone. The barricades shall be constructed as specified by the city forester. If fill is deposited adjacent to the protection zone, a suitable temporary or permanent retaining structure shall be constructed to prevent siltation of the barricaded area.
2. No attachment, wires (other than supportive wires), signs or permits may be fastened to any protected tree.
3. No equipment, vehicles, fill, building materials, trash, construction materials or debris of any kind shall be placed within the protective barrier.

4. Landscaping activities within the bounds of the protective barrier (before and after it is removed) shall be accomplished with light machinery or manual labor. Grubbing and similar activities are prohibited.
5. In lieu of constructing the barriers required above, the developer may physically designate large areas containing protected trees where no land preparation or other development activities of any kind will occur. The area shall be designated by placing stakes a maximum of 25 feet apart and tying ribbon, plastic tape, rope, or some other durable material, from stake to stake along the outside perimeter of the area. This perimeter line shall be beyond the tree protection zone of any protected trees growing within the area.
6. Required protective barriers and perimeter lines shall remain in place until all construction activity, except landscaping within the protected area, is terminated.
7. Barriers or barricades shall be completely removed from the site at the end of the construction, unless otherwise stipulated on the approved tree preservation plan.

(c) *Avoiding injuries due to chemical poisoning.*

1. No fuel, paint, solvent, oil, thinner, asphalt, cement, grout or any other construction chemical or other material or tools of any kind shall be stored, or allowed in any manner to enter, within a required protective barrier or perimeter line.
2. No equipment shall be cleaned within a required protective barrier or perimeter line.

(d) *Avoiding injuries due to grade changes.* A change of grade shall not be made within the tree protection zone unless tree protection measures have been designed by a landscape architect or certified arborist and approved by the city forester.

(e) *Avoiding injuries due to excavations.*

1. Swales, water, sewer, irrigation, stormwater, and other utility lines should be routed around the tree protection zones of protected trees.
2. If a line cannot reasonably be routed around the tree protection zone, the line shall be tunneled beneath the area within the zone with the approval of the city forester.

(f) *Avoiding injuries due to increasing impervious surface.* Paving within the tree protection zone of any historic tree is prohibited. Paving more than 50 percent of the tree protection zone of any other protected tree with any

material is prohibited unless a system approved by the city for root protection is used.

(Ord. No. 2004-39, § 8, 10-18-04; Ord. No. 2008-08, §§ 18—20, 4-7-08)

33-57.09. *Tree survival.* Any trees designated to remain after construction (including replacement trees) shall be replaced in the event said trees die after the issuance of a certificate of occupancy for the developed site. If, however, the development otherwise meets the minimum requirements of section 33-57.08 of this section, the city may waive the replacement requirements. The developer shall provide legal mechanisms to insure the protection of all specimen or other trees designated to remain after construction. Such mechanisms may include, but are not limited to, conservation easements, common open space, tree protection easements, deed restrictions and homeowner association documents. Such protected trees shall only be removed based on imminent danger caused by deterioration or damage.

33-57.10. *Inspection, violations, enforcement and appeals.*

(a) *Inspections.*

1. *Construction inspection.* During the process of site clearing, an authorized agent of the city may make periodic inspections to ensure that the proposed work is being done in compliance with the Tree Removal Permit and the requirements of this article.
2. *Final inspection.* After all proposed clearing has been completed and all required tree and soil preservation measures have been implemented, an authorized representative of the city shall make a final inspection to verify that all work has been completed in compliance with the Tree Removal Permit and the requirements of this section. No building permit or certificate of occupancy may be issued until the terms of this section have been met.

(b) *Violations.* The city shall issue a "Stop Work Order" to any person found in the act of cutting down, destroying, damaging or removing trees in violation of this article or revoke the building permit for the subject property. The Stop Work Order shall not be withdrawn or the building permit reinstated until the owner or developer has posted a bond and submitted an acceptable restoration plan to the city. The amount of the bond shall be 110 percent of the estimated cost of replacement trees for the property, as determined by the city. The bond shall be retained by the city for a period of two years after the planting of the replacement trees and may be used by the city to ensure survival or replacement of any replacement trees. The primary consideration of the restoration plan shall be to return the affected portion of the property to its natural state, or, if that is impossible, to counterbalance the negative effects of the violation over the entire property to the greatest extent possible. In evaluating a

proposed restoration plan, the city shall consider the following:

1. The cross sectional area of trunk(s) removed.
2. The specific aesthetic character of the material removed.
3. Any special function the material carried out as a screen or buffer.
4. The amount of other natural material preserved on the site, and the opportunities for planting additional materials.

(c) *Enforcement.*

1. The city may also initiate enforcement proceedings against any violator of this article before the code enforcement special magistrate, which may order the replacement of trees unlawfully removed and the replacement of trees which do not survive for five years after replacement in addition to any other sanctions which the code enforcement special magistrate may lawfully impose. If the replacement is not made within the time provided for in the order issued by the code enforcement special magistrate, the code enforcement special magistrate may impose the maximum fine per day for each tree unlawfully removed until the replacement is made.
2. Any person who knowingly or intentionally cuts down, removes, destroys or kills a tree without first obtaining a permit as provided in this section, shall be guilty of a misdemeanor punishable by a fine of up to \$500.00 and/or by imprisonment for up to 60 days.
3. No further permits for the subject property or development shall be issued except as specifically authorized by the city manager or his designated representative until such violations have been corrected and a restoration plan has been accepted by the city.
4. Any person who knowingly or intentionally cuts down, removes, destroys, or kills a historic tree without first obtaining a permit and commission approval as provided in this section, shall be guilty of a misdemeanor punishable as provided in section 1-6 of this Code.

(Ord. No. 2002-09, §§ 1, 2, 2-18-02; Ord. No. 2008-08, §§ 21, 22, 4-7-08)

33.57.11 *Tree abuse on commercial and multi-family residential properties.*

- (a) *Tree abuse* defined. Tree abuse means any one or more of the following:
- a. Removal of more than twenty-five percent of the canopy of a tree; or
  - b. Topping or hat racking a tree; or
  - c. Removal of main lateral branches leaving the trunk of the tree in a stub appearance; or
  - d. Cutting a tree which destroys its natural habit of growth; or

- e. Pruning that leaves stubs or results in flush cuts or splintering of limb ends; or
- f. Using climbing spikes, nails, or hooks, except for the purpose of total tree removal; or
- g. Pruning of live palm fronds which initiate above the horizontal plane.

- (b) *Exemptions.* No person shall commit tree abuse unless one of the following exemptions applies:
  - 1. The abuse is necessary to alleviate a dangerous condition posing an imminent threat to the public or property; or
  - 2. The abuse is necessary to prevent service interruptions for franchise utilities; or
  - 3. The abuse is necessary for the transplantation of Cabbage Palms
- (c) *Violations.* The city shall issue a "Stop Work Order" to, or revoke the building permit for, the subject property of any person found in the act of Tree abuse, or found to have committed Tree abuse in violation of this article. The Stop Work Order shall not be withdrawn or the building permit reinstated until the owner or developer has made a contribution into the Tree Replacement Reserve Account. The penalty shall be determined by the city forester based the diameter of the damaged tree. The minimum penalty shall be one inch DBH contribution for each inch DBH of the abused tree. The city manager shall hear and decide appeals where it is alleged there is an error in any order, requirement, decision or determination made by the city forester in the enforcement of this section.
- (d) *Tree protection during sidewalk and curb repair*  
Where sidewalk or curb damage due to the growth of tree roots occurs, every effort shall be made to correct the problem without removing or damaging the tree. The city forester shall be responsible for developing or approving corrective measures in consultation with the city engineer.

Section 33-57.12 *Sidewalk and roadway clearance.* It shall be the duty of the owner, lessee or occupant, having control of any lot or parcel of real estate in the city, to keep the branches and limbs of all trees which extend outside of the private property lines trimmed so as to have a clearance of at least eight (8) feet over and above abutting sidewalks, and all limbs and branches trimmed so that if any branches or limbs extend over any street or roadway there shall be a clearance of at least fourteen (14) feet over such roadway. This section shall also apply to trees planted, maintained and grown by the owner, lessee, occupant, homeowners association or the agent, representative or employee of any such owner, lessee or occupant, whether the trees be planted and growing inside of the private property line or whether the trees be planted and growing outside of the private property lines between the private property lines and the curb of the street.

Section 33-57.13 *Hazardous trees on private property.* It shall be the duty of any person or persons owning or occupying real property, bordering on any street,

upon which property there may be trees, to prune such trees in such manner that they will not obstruct or shade the street lights, obstruct the passage of pedestrians on sidewalks, obstruct vision of traffic signs or other traffic control devices, or obstruct views of any street or alley intersection.

- (a) It shall be the duty of any person owning or occupying real property, bordering on any public right-of-way, park or other public land, on which there may be trees that are diseased or insect infested, to remove, spray or treat such trees in such manner that they will not infect or damage nearby public vegetation or cause harm to the community or citizens therein.
- (b) The public services director, in conjunction with the recommendation from the city forester, if available in a timely manner, may order trees on private land that cause obstructions, present insect or disease problems or otherwise present a danger to public health or safety on public right-of-way or public property to be pruned, removed or treated, and assess costs against the property owner. Prior to ordering a tree to be removed, the public services director shall make a reasonable attempt to contact the property owner to address the tree removal.

33-57.14 *Natural vegetation retention areas.*

- (a) Areas of property seeking development approvals may be designated as natural vegetation retention areas indicating that all existing vegetation will remain on that area of the site.
- (b) Under this designation, trees which are listed in the “List of Permitted Shrubs and Trees for Landscaping and Tree Protection” meeting the minimum replacement size criteria, up to trees of the minimum tree definition criteria, may be retained as replacement stock for trees to be removed elsewhere on the site.
- (c) DBH of these replacement trees must be calculated and may be applied toward replacement volume needed on the site as a whole. Trees designated as replacement stock pursuant to this method shall become protected trees.
- (d) A conservation easement shall be executed in favor of the city and recorded in the public record which protects the natural conservation vegetation area.

33-57.15 *Palm replacement requirements.*

- (a) Palms may be used as replacement stock for other palms up to the full DBH replacement requirement for the palms being removed from the

site. Palms may be substituted as replacements for other species under the following conditions:

- (1) If the DBH of palms being removed from the site is less than 25 percent of the total DBH of trees being removed, palms may be substituted for replacement of non-palm species up to a maximum of 25 percent of the total DBH replacement required.
- (2) Because palms are generally moved as mature trees, it is necessary to equate the DBH of commonly moved palms to the DBH of commonly planted non-palm species when substituting palms for non-palm species pursuant to subsection (a)(1) of this section. For the purpose of substitution of palms for non-palm species, each 3" DBH of palm equates to 1" DBH non-palm species.

33-57.16 *Tree Banking*

- (1) To encourage voluntary tree replacement planting(s), for Class II site plans the technical review committee, for Class III site plans the planning board and for Class IV site plans the city commission may allow an applicant to plant three-inch (3") caliper or larger approved canopy tree(s) to compensate for future approved protected tree removal(s). Banked tree(s) are to be planted on the same lot or a lot designated for tree banking within the same master parcel from which future tree removal(s) are anticipated. Total DBH compensation will be calculated on the date of the tree removal. If the banked compensation is not sufficient to meet the conditions required for tree removal(s), additional compensation will be required until all conditions are satisfied. Banked trees are required to be Florida Grade #1 or better and are to be measured according to the standards established in the definitions of this section. Trees must be thriving and in good condition as determined by the city forester at the time of inspection, which must be within fourteen (14) days of tree removal(s).
- (2) It shall be the responsibility of the applicant to maintain and present all necessary documentation required by the technical review committee, planning board or commission to receive credit for any tree replacement as a required condition for tree removal(s).
- (3) An Applicant, with the approval of the city forester, may plant an approved portion of replacement trees at a municipal, institutional or conservation site for public or environmental benefit within the city limits. Such sites must be governed and maintained by the receiving agency and set aside and legally recorded for this purpose.

33-57.17 *Penalties for Tree Removal without required permit or for tree abuse.*

- (a) Any protected tree(s) removed without a permit, destroyed or receiving major damage as determined by the city forester in violation of this ordinance must be replaced and/or compensated for at double the amount that would be required under this Article for the removal of such tree.
- (b) If no evidence exists on site to calculate the DBH of the tree(s) removed, then each tree shall be presumed to be a minimum of a twenty-four inch (24") protected specimen tree. It is the property owner's responsibility to prove otherwise.
- (c) For repeat offenders, the city has the right to double restoration requirements or fines (or both) for each subsequent infraction, and in the alternative or in addition to revoke or suspend a contractor's license to do business in the city when a contractor is responsible for the unpermitted tree removal, or the tree destruction or abuse.

**Sec. 33-58. - Wetlands.**

33-58.01. *Findings of fact.* The City of DeLand City Commission has determined that wetlands contiguous to waters of the state, noncontiguous and isolated wetlands serve the following important functions in the hydrologic cycle and ecological system and therefore require protection for the following reasons:

- (a) Riverine wetlands and adjacent floodplain lands provide natural storage and conveyance of floodwaters.
- (b) Wetlands provide temporary storage of surface waters during times of flood, thereby regulating flood elevations and the timing, velocity and rate of flood discharge.
- (c) Wetlands temporarily store flood flows and reduce the velocity of the floodwaters, reducing erosion and facilitating the settling of suspended sediment. Wetland vegetation filters and detains sediment, which would otherwise enter lakes and streams.
- (d) Wetlands may protect water bodies by providing settling of suspended sediments, assimilation of nutrients and uptake of other natural and manmade pollutants. Wetland vegetation filters sediment, organic matter and chemicals. Microorganisms utilize dissolved nutrients and break down of organic matter.
- (e) Wetlands adjacent to rivers, streams, and lakes are important to freshwater fisheries as spawning grounds.
- (f) Wetlands provide essential breeding and predator escape habitats for many forms of mammals, birds, reptiles, amphibians, fishes and invertebrates.

- (g) Wetlands provide essential habitat for many rare, endangered, and threatened species.
- (h) Wetlands provide excellent recreational opportunities including, but not limited to, fishing, hunting, camping, photography, boating and nature observation.
- (i) Wetlands, especially those in karst terrain, do contribute to surface water storage and may contribute to groundwater recharge.
- (j) Considerable acreage of wetlands has been lost, and their important functions impaired, by draining, dredging, flooding, filling, excavating, building, polluting, and other acts. Remaining wetlands are in jeopardy of being lost or impaired by such acts.
- (k) The continued losses of wetland functions are contrary to the public health, safety and welfare.
- (l) Although federal, state, and regional regulations provide some protection for wetlands and their functions, the city has the authority, which it must use, to adopt additional regulations in order to assure that the resource protection requirements contained in the conservation element of the City of DeLand Comprehensive Plan and the Volusia County Minimum Standards for Environmental Protection ordinance are fully implemented.

33-58.02. *Purpose and intent.* It is the purpose and intent of this section to provide for the protection, maintenance, enhancement and utilization of wetlands within the City of DeLand, recognizing the rights of individual property owners to use their lands in a reasonable manner as well as the rights of all citizens to protection and purity of the waters of the City of DeLand and their associated wetland ecosystems. It is the policy of the City of DeLand to minimize the disturbance of wetlands in the city and to encourage their use only for the purposes, which are compatible with their natural functions and environmental benefits. It is further the purpose and intent of this section to insure that there is no net loss of wetlands as defined herein. To this end, wetland management plans shall be required as provided herein.

33-58.03. *Applicability of terms and provisions.* Except as provided in section 33-58.07 the terms and provision of this section shall apply to all unimproved real property, all publicly owned lands, all public or private rights-of-way, and all improved real property, when and if any new development is proposed for such property, lands or rights-of-way.

33-58.04. *Issuance of certificate of occupancy.* Compliance with this section, including any conditions attached to the wetlands alteration permit, shall be a condition to the issuance of a certificate of occupancy.

33-58.05. *Relationship to other requirements relating to wetland protection.* In addition to meeting the following wetlands protection requirements, development

plans shall comply with applicable federal, state and water management district regulations. In all cases the strictest of the applicable standards shall apply.

33-58.06. *Protection zones established.* Two zones of protection for wetlands are hereby established. The protection zones shall be known as the Wetland Protection and Wetland Buffer Zones.

- (a) *Wetland Protection Zone.* There is hereby created a "Wetland Protection Zone" in which special restrictions on development apply. The boundaries of this zone shall be the most landward extent of the following:
  - 1. The landward extent of wetlands delineation shall be as provided in Rule 62-340 et seq. Florida Administrative Code.
  - 2. In the event an undeveloped area has been recently cleared of all vegetation, the wetland boundary may be determined by a study of the soils, aerial mapping, photography, hydrology, and other relevant historical information.
- (b) *Wetland Buffer Zone.* There is hereby created a "Wetland Buffer Zone" adjacent to each wetland protection zone.
  - 1. In no case shall a Buffer Zone of less than 25 feet be permitted. In such instances where city staff determines that greater wetlands protection is necessary, a larger transitional zone may be required. However, said buffer shall not impede reasonable access to a body of water.
  - 2. Activities or construction which do not have adverse effect on the natural function of the buffer may be allowed within the buffer. The activities or construction include but are not limited to pruning, planting of suitable native vegetation, removal of exotic and pioneer plant species, and the creation and maintaining of walking trails.
  - 3. Except for individual single-family residential lots as provided in this section, developments which have been issued a valid environmental resource permit from the Florida Department of Environmental Protection or the St. Johns River Water Management District shall not be subject to the requirements of this section.

*Wetland Protection and Buffer Zones*

33-58.08. *Exemptions.* Activities which are exempted from this section include:

- (a) Nonmechanical clearing of vegetation from an area of less than ten percent of the protected zone not to exceed 25 feet in width, for access to open water, provided the vegetation is removed from the wetland and disposed in a suitable upland site.

(b) Minor maintenance or emergency repairs to existing structures of improved areas.

(c) Cleared walking trails having no structural components.

(d) Timber catwalks and docks for direct access to water bodies having no fill and which are four feet or less in width.

(e) Overhead utility crossings; provided however, associated access roads shall be subject to the requirement of this section.

(f) Maintenance, together with incidental dredge and fill activities in ditches, retention and detention areas, public road and other rights-of-way, and other related drainage systems.

(g) Bona fide mosquito control activities reviewed by the Florida Department of Agriculture and Consumer Services subcommittee on managed marshes and subsequently permitted by federal, state or regional agencies.

(h) Wetlands one-half acre or smaller; provided, however, if the entire wetland exceeds this threshold for exemption, whether on one or more lots, then the entire wetland is regulated as otherwise provided in this section.

(i) Activities within artificial wetlands which are created as part of a manmade treatment system.

(j) Activities where a federal, state, regional, county or city government completed dredge and fill or wetland application was approved by said government on or before the adoption of this section or where said governing agencies have previously determined no permit was required for a proposed development within one year prior to the adoption of this section.

(k) Silviculture activities which follow the best management practices outlined in the publication, Silviculture Best Management Practices Manual, Florida Department of Agriculture and Consumer Services, Division of Forestry, most recent edition. Provided, however, failure to follow said practices shall be a violation this section. The use of the Management Guidelines for Forested Wetlands published by the Florida Department of Agriculture and Consumer Services shall be encouraged.

(l) Developments which require the issuance of a development order for a site plan or subdivision and have obtained a valid environmental resource permit from the Florida Department of Environmental Protection or the St. Johns River Water Management District.

33-58.09 *Permits and application requirements.*

(a) *Permit requirement.* Except as provided in section 33-58.08 of this

section, it is hereby unlawful for any person to engage in any activity which will remove, fill, drain, dredge, clear, destroy or alter any wetland as defined in this section, without obtaining a wetland alteration permit from the city in accordance with the provisions of this section. Said permit may be issued concurrently or in conjunction with other land development permits issued by the city or other federal, state, regional and local levels.

It is the intent of this section that construction of a single-family dwelling on upland which does not alter by moving, filling, draining, dredging, clearing or destroying any wetland shall not require a permit pursuant to this section. Provided, however, no such individual single-family residential lot permit shall be required in the event a valid St. Johns River Water Management District or Florida Department of Environmental Protection environmental resource permit has previously been issued for a development covering the same area of land.

- (b) *Application requirements.* Any person who is required to obtain a wetland alteration permit shall submit an application to the planning department on a form to be supplied by the city. The wetland alteration permit application shall be filed concurrently with any applicable application for site plan review or plat approval. The application shall include, but is not limited to the following:
1. A sketch, map or survey with the type and extent of wetland mapped to scale, unless previously depicted on an approved permit application from a federal, state, or regional agency.
  2. For projects which impact one-half acre or more, a wetland management plan that shall contain sufficient information for the city to evaluate the environmental characteristics of the wetlands, the potential and predicted impacts of the proposed activities on wetlands and the effectiveness and acceptability of those measures proposed by the applicant for reducing adverse impacts. The wetland management plan shall include but not be limited to a detailed analysis of the following:
    - a. A detailed description of all water bodies, water courses, and wetlands on site and a general description of all water bodies, water courses, and wetlands immediately adjacent to the site and associated hydrologic conditions, and a general description of the upland habitats on-site.
    - b. A site survey to scale no greater than one inch equals 50 feet which identifies the landward extent of the wetland boundaries, buffer zones, existing and proposed conservation areas, adjacent off-site conservations areas, and the natural systems on the site, including topography, vegetative communities, soils, and drainage patterns.

- c. A detailed description of any proposed activity within the wetland and buffer zones including analysis of on and or off site mitigation areas, if applicable.
  - d. A plan for control of erosion, sedimentation, and turbidity during and after construction which describes in detail the type and location of control measures and provisions of maintenance.
  - e. A detailed description of methods to be utilized in meeting the criteria listed in section 33-58.10 of this section.
  - f. A copy of all other federal, state and regional permits and/or applications and conditions issued for the proposed project.
  - g. Other information which the city may require to determine whether to approve the wetlands alteration permit.
3. The city may issue a wetlands alteration permit, which may incorporate the general and specific conditions which were made part of the permit from federal, state, or regional agencies. Provided, however, before the issuance of the wetlands alteration permit, said federal, state, or regional permit application when available shall be furnished to the city. Concurrent applications to the city and any federal, state, or regional agency shall be encouraged.
  4. The wetland alteration permit shall not be approved unless the wetland management plan clearly indicates that the proposed development will meet the performance standards described in section 33-58.10 of this section. The city may deny the permit if it does not meet such standards, stating the reasons therefore.
- (c) *Review of wetland alteration permit.* In determining whether the development is permissible under the provisions of this section, the city shall consider but not limited to the following criteria:
1. The ability of the wetland to receive, store and discharge surface water runoff so as to contribute to hydrological stability and control of flooding and erosion.
  2. The ability of the wetland to recharge the groundwater as demonstrated by reliable available information.
  3. The ability of the wetland to provide filtration and nutrient assimilation from surface water runoff.
  4. The ability of the wetland to provide habitat and significant ecological function in the life cycle for fish, wildlife or other forms of animal or plant life.
  5. The ability of the wetland to function as an integral part of any

waters, water body or watercourse.

6. The cumulative impacts of the proposed development on the wetland system in combination with other developments which have been or shall be proposed in the same drainage basin.
  7. The technical feasibility of any proposed wetland mitigation plans and the likelihood of their success in restoring or replacing the environmental benefit altered by the development.
  8. The capacity of the existing wetland to provide environmental benefits because of such factors as maturity, size, degree of prior alteration, physical relationship to other water systems, and adjacent land uses.
  9. The degree or magnitude of the impact of the proposed alteration on the wetland and how such impact shall be minimized through mitigation measures, either off site or on site, or both, and recommendations concerning the appropriate location of said mitigation.
  10. Whether, and the extent to which, a proposed project must be located within a wetland or water body in order to perform the project's basic functions.
  11. Whether the wetlands impacted by the proposed activity are protected or used in a manner which does not adversely impact their beneficial functions as provided in this section.
  12. The ability for the wetland to continue to function after development is completed.
  13. Whether the proposed project and the wetland impacts are consistent with the policies in the comprehensive plan.
- (d) *Reimbursement to city.* At any point in the review process of a site plan, plat, or land development permit, the city may require that a submitted wetland management plan be reviewed by a consulting firm that has the environmental expertise to conduct such a review. The cost of this review shall be the responsibility of the applicant. Site plan approval, plat approval, or the issuance of a land development permit is conditional upon the applicant reimbursing the city for any costs incurred in any such review. Additionally the cost of any on-site inspections shall be the responsibility of the applicant. The issuance of a certificate of occupancy shall be conditional upon the applicant reimbursing the city for any costs incurred for any such inspections.

33-58.10. *Performance standards for development activity within wetlands and buffers zones.*

- (a) *Generally.* There shall be no net loss of wetland function. Any alteration of wetlands or buffers shall be mitigated in accordance with the requirements of section 33-58.11. Wetlands shall be protected from sedimentation during development activities. Wetlands shall be protected or used in a manner which does not adversely impact their beneficial functions as provided in the City of DeLand Comprehensive Plan.
- (b) *Wetland protection.* Except as expressly provided herein, there is hereby established a presumption that development activity will have an adverse effect on wetlands. Except as provided for herein, no development activity shall be undertaken in a wetland.
  - 1. *Activities presumed to have an insignificant adverse effect on wetlands.* Certain activities are presumed to have an insignificant adverse effect on the beneficial functions of a wetland. These activities may be undertaken unless it is shown by competent and substantial evidence that the specific activity would have a significant adverse effect on the wetland protection zone. The following uses and activities are presumed to have an insignificant adverse effect on wetland protection zones:
    - a. Scenic, historic, wildlife, or scientific preserves.
    - b. Minor maintenance or emergency repairs to existing structures or improved areas.
    - c. Cleared walking trails of four feet or less in width and having no structural components.
    - d. Timber catwalks and docks four feet or less in width.
    - e. Commercial or recreational fishing or hunting, and creation and maintenance of temporary blinds.
    - f. Cultivating agricultural or horticultural products that occur naturally on the site.
    - g. Constructing fences where no fill activity is required and where navigational access will not be impaired by construction of the fence.
    - h. Developing an area that no longer functions as a wetland, except a former wetland that has been filled or altered in violation of any rule, regulation, statute, or this chapter. The developer must demonstrate 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 structure and function. If the water regime of a wetland has been artificially altered, but wetland species remain

the dominant vegetation of the area, the department shall determine the feasibility of restoring the altered hydrology. If the wetland may be restored at a cost that is reasonable in relation to benefits to be derived from the restored wetland, the developer shall, as a condition of development, restore the wetland and comply with the requirements of this chapter.

2. *Special uses.*

a. *Water-dependent activities.* Designated water-dependent activities that are otherwise prohibited may be allowed if the developer shows that the public benefits of the activity substantially outweigh the adverse environmental effects on a wetland area, and that no practicable alternative to placement in the wetland area exists.

b. *Permittable water-dependent activities.* Upon issuance of a permit by the city, the following are permittable water-dependent activities:

1. Dockage or marinas where dock length does not exceed 25 percent of the width of the water body and containing less than one slip per 100 feet of shoreline. All docks and slips shall be at least 100 feet from any federal navigation project.
2. Installation of buoys, aids to navigation, signs, and fences.
3. Installation of subaqueous transmission and distribution lines for water, wastewater, electricity, communication cables, oil or gas. Lines may be entrenched in (not exceeding 10,000 cubic yards of dredging), laid on, or embedded in bottom waters.
4. Construction of footbridges and vehicular bridges.
5. Replacement or widening of bridges on pilings or trestles where the effects of pollutants discharged into open waters are minimized.
6. Construction of artificial reefs.

c. *Minimization of impacts.* The water dependent activity shall be designed, constructed, maintained and undertaken in a way that minimizes the adverse impacts on the beneficial functions of the effected [affected] wetland area.

(c) *Wetland Buffer Zone.*

1. *Generally.* All development in a wetland Buffer Zone shall be designed, constructed and maintained to avoid significant adverse effects on the adjacent environmentally sensitive zone.

2. *On-site transfer of development.* The acreage within a wetland protection zone may be used to determine the total allowable units or square footage of development that will be allowed on a site containing all or part of such a zone. This development potential may be transferred from the wetland protection zone to the upland portion of the property. Allowable development potential may not, however, be transferred from without the area encompassed by the wetland protection and wetland Buffer Zones to within such area.
3. *Special design standards for wetland Buffer Zones.* The following special design standards apply within wetland Buffer Zones:
  - a. Natural vegetative buffers shall be retained between all development and all wetland protection zones. If a natural vegetative buffer does not exist, a buffer shall be created utilizing native vegetation. The size of the buffer shall be the minimum necessary to prevent significant adverse effects on the wetland protection zone but in no case shall it be less than 25 feet adjacent to and surrounding all wetlands except those wetlands designated as Outstanding Florida Waters or Natural Resource Management Area in which case the buffer adjacent to and surrounding wetlands in these categories shall be no less than 50 feet. Buffers larger than required by this section may be required by the city if the upland activity will adversely impact the wetland's beneficial functions without larger buffers. The factual basis of the decision as to the size of the Buffer Zone shall be stated as a finding in the written record. Except as otherwise provided herein, no development shall be permitted within the required buffer. The required buffer shall not, however, impede reasonable access to a body of water. The following activities or constructions, which do not have a significant adverse effect on the natural function of the buffer, may be allowed within the buffer. The activities or construction include, but are not limited to pruning, planting of suitable native vegetation, removal of exotic and nuisance pioneer plant species, and the creation and maintenance of walking trails.
  - b. Other reasonable protective measures necessary to prevent significant adverse effects on a wetland protection zone may be required. The factual basis of the decision to require the measure shall be stated as a finding in the written record. Protective measures may include, but are not limited to:
    1. Maintaining natural drainage patterns.
    2. Limiting the removal of vegetation to the minimum necessary to carry out the development activity.
    3. Expeditiously replanting denuded areas.

4. Stabilizing banks and other unvegetated areas by siltation and erosion control measures.
5. Minimizing the amount of fill used in the development activity.
6. Disposing of dredged spoil at specified locations in a manner causing minimal environmental damage.
7. Constructing channels at the minimum depth and width necessary to achieve their intended purposes, and designing them to prevent slumping and erosion and allow re vegetation of banks.
8. Dredging wetlands at times of minimum biological activity to avoid periods of fish migration and spawning, and other cycles and activities of wildlife.
9. Designing, locating, constructing and maintaining all development in a manner that minimizes environmental damage.
10. Prohibiting septic tanks or locating them away from high groundwater areas and peaty soils.
11. Using deed restrictions and other legal mechanisms to require the developer and successors to protect the environmentally sensitive areas and maintain the development in compliance with the protective measures.

33-58.11. *Mitigation.*

- (a) *Generally.* If an applicant fails to overcome the presumption that the proposed activity will have a significant effect upon the wetland, and the city finds the imposition of permit conditions inadequate to minimize potential adverse environmental effects, mitigation shall be required. The purpose of mitigation is to offset unavoidable environmental impacts. Mitigation plans should consider the function of existing natural resources and provide comparable functions after mitigation is completed. Mitigation plans should maximize the preservation of existing natural resources. An acceptable mitigation plan shall be reasonably and technically feasible. Mitigation through restoration of other degraded wetlands is preferred over wetland creation. Mitigation should take place on site or in close proximity thereto or in areas so designated as provided in section 33-58.11.

A mitigation plan approved by a federal, state, or regional agency shall be presumed to be acceptable to the city, provided however, if no such mitigation plan is required by the approved permit from the federal, state, or regional agency, then the city shall require a mitigation plan in

compliance with this section. Mitigation should not contribute to the production of mosquitoes by creating mosquito larval habitat or by eliminating habitat for predatory fish.

The mitigation plan shall consider the following methods, in order of priority in which they should be utilized:

1. Avoiding the impact altogether by not taking a certain action or parts of an action.
2. Minimizing impacts by limiting the degree or magnitude of the action or its implementation.
3. Rectifying the impact by repairing, rehabilitating, or restoring the effected environment.
4. Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
5. Compensating for the impact by replacing or providing substitute resources or environments through enhancement of existing wetlands or reestablishment of wetlands which are no longer functioning or creation of new wetlands.

(b) *Components of plan.* Where all or part of a wetland is destroyed or substantially altered by development, an acceptable mitigation plan shall include at least:

1. The type and functions of the wetland, the proposed mitigation ratios, species present or to be planted, plant density, anticipated source of plants, soils and hydrologic regime. Replacement of the same type of wetland of at least a one to one ratio unless the value of the wetland based on its functional value is determined to warrant a greater or lesser ratio. There shall be like kind replacement.
2. Specific design requirements based upon conditions of the site and the type of wetland to be created or restored, including a plan for monitoring the success of a created or restored wetland
3. A detailed plan describing the monitoring and methods of control and maintenance of exotic or nuisance vegetation.
4. Monitoring and replacement to assure a survival rate of 80 percent wetland vegetation for a minimum of three years.
5. An upland habitat as an adjacent transitional zone on mitigated sites.
6. An acceptable mitigation plan shall be reasonably and technically feasible. Mitigation through restoration of other degraded wetlands is preferred over wetland creation.

7. Mitigation should take place on-site or in close proximity thereto or in areas approved by the city.
8. An applicant who carries out a compensatory mitigation plan shall grant a conservation easement on the newly created or restored wetland and buffer to protect it from future development. A legal mechanism other than a conservation easement may be deemed appropriate on a case-by-case basis to carry out the purpose of the subsection.
9. In determining the replacement acreage ratios for restored or created wetlands, the city shall consider, in addition to any other relevant criteria, the following criteria:
  - a. The length of time that can be expected to elapse before the functions of the impacted wetlands functions have been restored or offset.
  - b. Any special designation or classification of the water body, including Outstanding Florida Waters, designated natural resource management area waters, aquatic preserves or Florida Clean Water Act designated Class I, II or III waters.
  - c. The type of wetland to be created and the likelihood of successfully creating that type of wetland.
  - d. Whether or not the affected wetland(s) are functioning as natural, healthy wetland(s) of that type.
  - e. Whether the wetland is unique for that watershed.
  - f. The presence or absence of exotic or nuisance plants within the wetland and adverse effects those plants have on the wetland's beneficial functions.
  - g. Whether the proposed project eliminates or changes the wetland from one type to another.
  - h. The amount and quality of upland habitat preserved as conservation areas or buffer.
10. A mitigation plan should be designed to ensure that the wetlands provides minimal mosquito larval habitat and does not eliminate habitat for predatory fish.
11. Any wetlands which have been altered without a permit in a manner which does not comply with this division shall be restored and the mitigation requirements as provided in this section shall apply.

12. Plants to be utilized for mitigation plans must be native and must be named under federal, State of Florida or County of Volusia lists of plants acceptable for mitigation for the size, location and type of wetland proposed. The mitigation plan shall include a scaled drawing(s) identifying proposed plants and illustrating their proposed planting location.

- (c) *Mitigation for special uses.* Compensatory mitigation, by which wetlands are purchased, created, enhanced and/or restored to compensate for the loss of such lands, is required whenever a special use is allowed under section 33-58.10(a)2. of this section. The purchased, created, enhanced, or restored wetland must be of the same type as that destroyed or degraded. Compensatory mitigation shall not be the basis for approving a project that could not otherwise be approved. A developer of a compensatory mitigation plan shall grant a conservation easement under § 704.06, Florida Statutes, on the newly purchased, created, enhanced or restored environmentally sensitive lands to protect them from future development.
- (d) *Conservation easements.* An applicant who carries out a compensatory mitigation plan shall grant a conservation easement on the newly created or restored wetland and transitional zone to protect it from future development. A legal mechanism other than a conservation easement may be deemed appropriate on a case by case basis to carry out the purpose of the section.

33-58.12. *Environmental planning.* The city shall designate lands, which are suitable for creation, acquisition, restoration or preservation of wetlands or wetland habitat systems, including adjacent upland habitat. The purpose of such designation is to identify areas suitable for the off-site mitigation of the impacts of wetland alteration. Such lands may be on public or private property.

33-58.13. *Prohibited ongoing activities.* The following standards apply to post development activities taking place within any wetland or Buffer Zone.

- (a) *Point source and nonpoint source discharges.* Absent an amendment to the development order, point source and nonpoint source discharges shall continue to meet the standards applicable to the original development.
- (b) *Clearing.* Absent an amendment to the development order, no person shall clear more vegetation than was permitted for the original development.
- (c) *Handling and storage of fuel, hazardous and toxic substances, and wastes.*
  - 1. Developments where fuel or toxic substances will be stored, transferred, or sold shall employ the best available facilities and procedures for the prevention, containment, recovery, and mitigation of spillage of fuel and toxic substances. Facilities and procedures shall be designed to prevent substances from entering the water or soil, and employ adequate means for prompt and effective clean up of

spills that do occur.

2. No toxic or hazardous wastes or substances shall be stored in outdoor containers.
  3. Storage or disposal of all types of wastes is prohibited on shorelines.
- (d) *Prohibited uses.* The long term storage of equipment or materials, and the disposal of wastes shall be prohibited.
- (e) *Fertilizers, herbicides, or pesticides.* Fertilizers, herbicides, or pesticides shall not be applied in a Wetland Buffer Zone except for projects conducted under the authority of chapter 62.C-20, Florida Statutes, and governmentally authorized mosquito control programs.
- (f) *Spray vehicles.* Vehicles used for mixing or spraying chemicals are prohibited from withdrawing water directly from waters.
- (g) *Pump-out, holding, and treatment facilities for wastes from mobile sources.* Sewage, solid waste, and petroleum waste generated by vessels or vehicles on the site shall be properly collected and disposed of.

33-58.14. *Administration and enforcement.*

- (a) *Inspections.*
1. *Construction inspection.* During the process of site clearing, an authorized agent of the city may make periodic inspections to ensure that the proposed work is being done in compliance with the Wetlands Alteration Permit and the requirement of this chapter.
  2. *Final inspection.* After all proposed clearing has been completed and all required wetlands preservation measures have been implemented, an authorized representative of the city shall make a final inspection to verify that all work has been completed in compliance with the Wetlands Alteration Permit and the requirements of this chapter. No building permit or certificate of occupancy may be issued until the terms of this chapter have been met.
- (b) *Fees.* Permit fees shall be set by resolution of the city commission.
- (c) *Violation, Stop Work Order and enforcement.*
1. The city shall issue a "Stop Work Order" to any person found in the act of altering, destroying, damaging or removing wetlands in violation of this chapter or revoke the building permit for the subject property. The Stop Work Order shall not be withdrawn or the building permit reinstated until the owner or developer has posted a bond and submitted an acceptable restoration plan to the city. The amount of the bond shall be 110 percent of the estimated cost of

replacing or repairing the wetland for the property, as determined by the city. The bond shall be retained by the city for a period of two years after the replacement or repairing of the wetland and its vegetation and may be used by the city to ensure survival or replacement of any of the replacement or repaired wetland. The primary consideration of the restoration plan shall be to return the affected portion of the property to its natural state, or if that is impossible, to counterbalance the negative effects of the violation over the entire property to the greatest extent possible. In evaluating a proposed restoration plan, the city shall consider the following:

- a. The area of the wetland altered or destroyed.
  - b. The specific aesthetic character of the material removed.
  - c. Any special function the material carried out as a screen or buffer.
  - d. The amount of other natural material preserved on the site, and the opportunities for the planting or creation of additional wetland preservation areas.
2. The city may also initiate enforcement proceedings against any violator of this chapter before the code enforcement board, which may order the replacement of wetlands unlawfully removed and the replacement of wetlands, which do not survive for one year after replacement. If the replacement is not made within the time provided for in the order issued by the code enforcement board, the board may impose the maximum fine per day for any area of a wetland unlawfully altered or destroyed until the replacement is made.
  3. In addition to sections 33-58.11(a) and (b), any person who knowingly or intentionally alters, removes, destroys or kills any portion of a wetland without first obtaining a permit as provided in this chapter, shall be guilty of a misdemeanor punishable by a fine of up to \$10,000.00 and/or by imprisonment for up to 60 days for each unit unlawfully removed.
  4. No further permits for the subject property or development shall be issued except as specifically authorized by the city manager or his designated representative until such violations have been corrected and a restoration plan has been accepted by the city.

33-58.15. *Appeals.* The city manager shall hear and decide appeals where it is alleged there is an error in any permitting, order, requirement, decision or determination made by city staff in the enforcement of this section.

(Ord. No. 2002-09, §§ 1, 2, 2-18-02)

**Sec. 33-60. - Habitat of endangered or threatened species.**

33-60.01. *Purpose and intent.* It is the purpose of this section to provide standards necessary to protect wildlife classified as endangered, threatened, or a species of special concern as designated by the United States, the State of Florida or County of Volusia the\_habitat used by said of species.

33-60.02. *Development application requirements.*

- (a) *Survey requirement.* At the time of application for any building permit, zoning permit, subdivision approval, rezoning certification, special exception, variance or other official action of local government having the effect of permitting the development of land, and where FLUCCS codes indicate the possible presence of any federal, State of Florida or County of Volusia Listed Species, the applicant shall submit a report detailing the results of an on-site survey. The methodology utilized in this survey shall conform with the methodology and practices accepted by the Office of Environmental Services, Florida Department of Freshwater Fish Commission.
- (b) *Management plan with application.* A management plan meeting the requirements of section 33-60.04 of this section may be submitted with any planned development rezoning application. However, except as set forth in paragraph (c) below, a management plan meeting the requirements of section 33-60.04 of this section shall be required for all final development order applications if listed species are found on the property.
- (c) *Exemptions.* Surveys and management plans are not required for properties rezoned to Planned Development (PD) prior to April 1, 1991, and for any development project of five acres or less in land area.

33-60.03. *Habitat Management Plan.*

- (a) *When required.* A Habitat Management Plan shall be prepared as a prerequisite to the approval of any development proposed on a site containing areas subject to this section.
- (b) *Contents.* The Habitat Management Plan shall be prepared by an ecologist, biologist or other related professional. The plan shall document the presence of affected species, the land needs of the species that may be met on the development site, and shall recommend appropriate habitat management activities and other measures to protect the subject wildlife. The plan shall include the following:
  - 1. Recommended management activities; and
  - 2. An action plan with specific implementation activities, costs, schedules, and assignment of responsibilities; and

3. Occupied habitat zones shall be established which include all occupied habitat of listed species; and
4. Occupied habitat Buffer Zone boundaries shall be established parallel to all occupied habitat zones, and shall extend at a distance appropriate for the habitat.
5. A one inch≤400 feet aerial map and map at the scale of the development application to indicating the following:
  - a. Habitat classifications depicted by using the Florida Land Use and Cover Classification System (FLUCCS); and
  - b. Location of individuals, nest sites, dens, burrows, feeding locations, roosting and perching areas, and trails, as appropriate; and
  - c. Areas to be preserved, including occupied habitat zones and occupied habitat Buffer Zones; and
6. Except as provided for in paragraph 8 below, the occupied habitat zone and the occupied habitat Buffer Zone shall remain free of all development. Each zone shall be identified on final site plans and plats. A conservation easement shall be granted to the city for the preserved habitat as a condition of the final development order approval, unless the director determines that it would not be logistically or economically feasible for the city to maintain the easement.
7. In the event that adjacent parcels include conservation easements or other public interest in the land, effort shall be made to connect the conservation easements to provide wildlife corridors.
8. Encroachment into occupied habitat and habitat Buffer Zones is permissible where the developer demonstrates, to the satisfaction of the director and the game commission, that the development will not cause degradation of species existing on the site and then only after the incentives for habitat preservation contained in [section] 33-60.05(c) above are exhausted.
9. In cases where guidelines have been prepared by the game commission for a listed species, those guidelines shall be considered in the preparation of the management plan.
10. The management plan shall clearly provide that the applicant or his successor in interest is responsible for all aspects of the implementation of the management plan. A monitoring report as to the condition of the habitat and management techniques applied to the habitat shall be submitted to the director for review on an annual basis

from the date that the final development order is issued for five consecutive years.

11. The management plan shall be finalized prior to issuance of the final development order.

- (c) *Management plan review.* The management plan shall be subject to final approval by the director. The management plan shall be reviewed by the director and when possible, by the game commission. If the game commission fails to review any plan in conjunction with the director, determinations shall be made without the benefit of game commission expertise.
- (d) *Conformity of Final Development Plan.* The Final Development Plan approved for a development shall conform to the recommendations in the Habitat Management Plan.
- (e) *Preservation of land.* Where land on a proposed development site is to be preserved as habitat of rare, endangered or special concern species, such land shall be adjacent to existing viable habitat, a significant wetland system, floodplain, or wildlife corridor. If such lands are not adjacent to the development site, land to be set aside shall be of such quantity and quality as to provide viable habitat, as documented in the study required in paragraph (b) above.
- (f) *Fee in lieu.* As an alternative to preservation of land, the city may establish a fee-in-lieu-of-land program, whereby the city can purchase land, which will provide a significant habitat. In the event that the director and applicant agree to mitigate impacts off site, the applicant shall pay a fee in lieu of providing conservation areas for occupied habitat and required buffer. The collected fee shall be dedicated for use by the city only for purposes of establishing and maintaining a listed species mitigation park, administered by the city, Volusia County, the St. Johns River Water Management District, the game commission or the Florida Department of Natural Resources. Assessments shall be based upon the acreage of occupied habitat impacted that would otherwise be preserved by this section.

33-60.04. *Habitat preservation.*

- (a) *Mandatory.* The preservation of the occupied habitat zone and occupied habitat Buffer Zone for up to a total of ten percent of the entire property acreage shall be required.
- (b) *Waiver of mandatory preservation.* The director and the applicant may agree to waive the above listed preservation techniques, provided that:
  - 1. The occupied habitat zone is isolated; and,

2. The applicant provides an appraisal of the impacted area at predevelopment values; and,
  3. Off-site mitigation procedures set forth in section 33-60.04(f) of this section are met.
- (c) *Optional habitat preservation.* In order to promote habitat preservation in excess of the minimum habitat preservation requirements of this section, the following incentives are offered. These incentives shall only apply to those areas which are not already preserved under the lakes and wetland protection provisions of this article. The incentives are as follows:
1. Transfer of density and intensity is permitted from the area to be preserved for habitat to the developable portion of the site, provided that all other applicable requirements of this chapter are met.
  2. Occupied habitat and habitat buffers in excess of ten percent of the entire property acreage may be used to fulfill any applicable minimum open space requirements at a ratio of one unit habitat and habitat buffer to one and a half unit required open space. In no event shall this credit be interpreted to reduce any required Buffer Zone. To the extent that occupied habitat and habitat buffers exceed applicable minimum open space requirements, the city shall permit a credit against recreation and park fees. In no event shall the credit against the impact fees exceed appraised value of the preserved land. The appraised shall be based on predevelopment values and on the average of two appraisals approved by the director.

(Ord. No. 2002-09, §§ 1, 2, 2-18-02)

**Sec. 33-61. - Flood hazard management.**

33-61.01. *Generally.*

- (a) *Purpose and intent.* It is the purpose and intent of this section to promote the public health, safety and general welfare and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:
1. Restrict or prohibit uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights;
  2. Require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
  3. Control the alteration of, and protect natural floodplains, stream channels, and natural protective barriers which are involved in the

accommodation of floodwaters;

4. Prevent or regulate the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards to other lands;
  5. To protect human life and health;
  6. To minimize expenditure of public money for costly flood control projects;
  7. To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
  8. To minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in floodplains;
  9. To help maintain a stable tax base by providing for the sound use and development of flood prone areas in such a manner as to minimize flood blight areas;
  10. To insure that potential home buyers are notified that property is in a flood area; and
  11. To protect natural floodplains, stream channels and natural protective barriers involved in the accommodation of floodwaters.
- (b) *Lands to which this section applies.* This section shall apply to all areas of special flood hazard within the jurisdictional boundaries of the City of DeLand.
- (c) *Compliance.* No structure or land shall hereafter be located, extended, converted or structurally altered without full compliance with the terms of this section and other applicable regulations.
- (d) *Basis for establishing the areas of special flood hazard.* The areas of special flood hazard identified by the Federal Emergency Management Agency (FEMA), with accompanying maps and other supporting data, and any revisions thereto, are adopted by reference and declared to be a part of this section. Areas within the city not covered by the FEMA analysis shall be determined by field analysis until the FEMA maps are updated to include the entire City of DeLand.
- (e) *Abrogation and greater restrictions.* These flood hazard management regulations do not repeal, abrogate, or impair any existing easements, covenants, or deed restrictions.
- (f) *Warning and disclaimer of liability.* Although the degree of flood

protection required by this section is reasonable and appropriate for regulatory purposes, based on scientific and engineering considerations, more severe floods will occur and flood heights may be increased by manmade or natural causes. Consequently, this section is not intended to imply that land outside the areas of special flood hazard or uses permitted within those areas will be free from flooding or flood damages. This section shall not create liability on the part of the city or any of its officers or employees for any flood damages that result from reliance on these flood hazard management regulations or any administrative decision lawfully made thereunder.

- (g) *Declaration of public nuisance.* All development located or maintained within any area of special flood hazard after October 1, 1994, in violation of these flood hazard management regulations is hereby declared a public nuisance per se.
- (h) *Interpretation.* In the interpretation and application of this Section, all provisions shall be:
  1. Considered as the minimum required;
  2. Liberally construed in favor of the city; and
  3. Deemed neither to limit nor repeal any other powers granted under state statute.

33-61.03. *Standards for reducing flood hazards in the area of special flood hazard.*

- (a) *Generally.* The standards in this section apply to all development permitted within the area of special flood hazard as shown on a Flood Hazard Boundary Map or a Flood Insurance Rate Map.
- (b) *Compensatory stormwater storage required.* Encroachments, including fill, new construction, substantial improvements and other development, are prohibited unless a registered professional engineer certifies that compensatory storage will be provided in order to alleviate flood problems within the impacted area.
- (c) *Anchoring.* All new construction and substantial improvements of existing construction shall be anchored to prevent flotation, collapse or lateral movement of the structure during a Base Flood. Manufactured homes shall be anchored, tied down and blocked in accordance with the standards of section 15C-1.10, Florida Administrative Code.
- (d) *Construction materials and methods.* All new construction and substantial improvements of existing construction shall be constructed with materials 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 Base Flood.

(e) *Service facilities and utilities.*

1. 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 Base Flood.
2. All new and replacement water supply and sanitary sewage systems shall be designed to minimize or eliminate both infiltration of floodwaters into the systems and discharges from the systems into floodwaters.
3. On-site sanitary sewage systems shall be located and constructed to avoid impairment to them or contamination from them during flooding, and shall not be installed wholly or partially in a regulatory floodway.

33-61.04. *Additional standards for reducing flood hazards in areas for which Flood Insurance Rate Maps have been prepared.*

- (a) *Generally.* The following standards must be complied with in all areas of special flood hazard for which a Base Flood elevation has been established as set forth in section 33-61.01(d) of this section.
- (b) *Compensatory stormwater storage required.* Encroachments, including fill, new construction, substantial improvements and other development are prohibited unless a registered professional engineer certifies that compensatory storage will be provided in order to alleviate flood problems within the impacted area.
- (c) *Elevated buildings.* New construction or substantial improvements of elevated buildings that include fully enclosed areas formed by foundation and other exterior walls below the flood protection elevation shall be designed to preclude finished living space and designed to allow for the entry and exit of floodwaters to automatically equalize hydrostatic flood forces on exterior walls. Designs for complying with this requirement must either be certified by a professional engineer or architect or meet the following minimum criteria:
  1. Provide a minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding.
  2. Place the bottom of all openings no higher than one foot above grade.
  3. Equip openings with devices such as screens, louvers, or valves that permit the automatic entry and exit of floodwater. Access to the enclosed area shall be the minimum necessary to allow for parking of

vehicles (i.e. a garage door) or storing equipment used to maintain the premises (i.e. a standard exterior door), or entering the living area (i.e. a stairway or elevator). The interior of the enclosed area shall not be partitioned or finished into separate rooms.

(d) *Residential structures.*

1. All new construction and substantial improvements of existing construction of residential structures shall be constructed with the lowest floor elevated to or above the flood protection elevation.
2. For all new construction and substantial improvements of existing construction, enclosed areas below the lowest floor that are subject to flooding shall be designed to equalize hydrostatic flood forces on exterior walls by allowing for automatic entry and exit of floodwater. Designs for meeting this requirement must either be certified as meeting this requirement by a registered professional engineer or architect, or meet or exceed the following minimum standards:
  - a. Provide a minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding.
  - b. Place the bottom of all openings no higher than one foot above grade.
  - c. Equip openings with devices such as screens, louvers, or valves that permit the automatic entry and exit of floodwater. Access to the enclosed area shall be the minimum necessary to allow for parking of vehicles (i.e. a garage door) or storing equipment used to maintain the premises (i.e. a standard exterior door), or entering the living area (i.e. a stairway or elevator). The interior of the enclosed area shall not be partitioned or finished into separate rooms.
3. Electrical, plumbing, and other utility connections shall not be placed below the flood protection elevation.

(e) *Nonresidential structures.* New construction and substantial improvements of existing construction of nonresidential structures shall either comply with section 33-61.03(c) of this section, or be constructed, including attendant utility and sanitary facilities, to meet the following standards:

1. Walls below the flood protection elevation shall be substantially impermeable to the passage of water.
2. Structural components shall resist hydrostatic and hydrodynamic loads and effects of buoyancy.

3. Be certified as meeting the standards of this section by a registered professional engineer or architect.

(f) *Subdivisions.*

1. All preliminary subdivision proposals shall identify the area of special flood hazard and the elevation of the Base Flood.
2. All final subdivision plans shall identify the elevation of proposed structures and pads. If the site is filled above the Base Flood, a registered professional engineer or surveyor shall certify the final pad elevation.
3. All public utilities and facilities in subdivisions shall be located and constructed to minimize flood damage, and shall be adequately drained to reduce exposure to flood hazards.
4. Each lot must include a site suitable for constructing a structure in conformity with the standards of these flood damage prevention regulations.
5. All agreements for deeds, purchase agreements, leases, or other contracts for sale or exchange of lots within an area of special flood hazard and all instruments conveying title to lots within an area of special flood hazard must prominently publish the following flood hazard warning in the document:

**Flood Hazard Warning**

This property may be subject to flooding. You should contact local building and zoning officials and obtain the latest information about flood elevations and restrictions before making plans for the use of this property.

33-61.05. *Standards for reducing flood hazards in certain zones within the area of special flood hazard.*

- (a) *Regulatory floodways.* Encroachments, including fill, new construction, substantial improvements and other development, are prohibited.
- (b) *Standards for areas of shallow flooding.* The following standards apply to areas of shallow flooding located within the area of special flood hazard.
  1. *Residential structures.* The lowest floor of all new construction of and substantial improvements to residential structures shall be elevated above the highest adjacent grade at least one foot above the depth number specified in feet on the Flood Insurance Rate Map (FIRM) at least two feet if no depth number is specified.
  2. *Nonresidential structures.* The lowest floor of all new construction of and substantial improvements to nonresidential structures shall:

- a. Be elevated as prescribed in section 33-61.05(b)1 above; or
  - b. Be constructed, together with attendant utility and sanitary facilities, so that any walls below the level prescribed in section 33-61.05(b)1. above shall be substantially impermeable to the passage of water and any structural components below that level shall be capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy.
- (c) *Standards for streams without established Base Flood elevations and/or regulatory floodways.* The following standards apply to small streams in the area of special flood hazard for which no Base Flood data or regulatory floodway have been provided.
1. *Encroachments.* No encroachments, including fill material or structures, shall be located within a distance of the stream bank equal to five times the width of the stream at the top of the bank, or 20 feet from the top of each bank, whichever is greater, unless a registered professional engineer demonstrates and certifies that the encroachments would not result in any increase in flood levels in a Base Flood.
  2. *Elevation.* New construction of or substantial improvements to structures shall be elevated or flood-proofed to minimize risks of flooding reasonably to be expected based on the best available data.

33-61.06. *Administration and enforcement.*

- (a) *Generally.* In addition to the administrative and enforcement provisions in article XII of this chapter, the following provisions apply.
- (b) *Designation and duties of local administrator.* The engineer shall administer and implement the provisions of these flood hazard management regulations. In addition to duties assigned elsewhere, the engineer shall:
  1. Review all proposed developments to assure that the requirements of these regulations have been met.
  2. Review all certificates submitted to satisfy the requirements of these regulations.
  3. Notify adjacent communities, the water management district, and the State of Florida Department of Community Affairs prior to permitting or approving any alteration or relocation of a watercourse, and provide evidence of such notification to the Federal Emergency Management Agency.
  4. Verify and record the actual elevation (in relation to Mean Sea Level)

of the lowest floor, or of the flood proofing, of all new or substantially improved structures regulated by this section.

5. Interpret the boundaries of the area of special flood hazard and the various zones, including the regulatory floodways.
6. Maintain all records pertaining to the implementation of these flood damage prevention regulations.

(c) *Certification of as-built elevations.*

1. For development activity which includes structures, and in areas where Base Flood elevations are available, the developer shall submit to the engineer a certification prepared by a registered land surveyor or licensed professional engineer of the as-built elevation in relation to Mean Sea Level of the lowest floor, floodproofed elevation, or horizontal structural members of the lowest floor, as applicable. This certification shall be provided before additional construction may occur.
2. The engineer shall review submitted floor elevation survey data and inform the applicant of deficiencies within five working days. No work shall be permitted to proceed until the deficiency is removed in the opinion of the engineer. Failure to submit the certification or to make required corrections shall be cause to issue a Stop Work Order for the project.
3. Upon submittal of certified elevations and/or a determination by the engineer that the development meets all of the applicable requirements of this section, the engineer shall issue a certificate of compliance. All work performed before the issuance of this certificate shall be at the risk of the developer.

(d) *Enforcement.*

1. Any violation of this section is a public nuisance and may be restrained by injunction or otherwise abated in a manner provided by law.
2. In addition to any remedy or penalty provided herein or by law, any person who violates the provisions of these flood damage prevention regulations shall be punished by a fine of not less than \$100.00 nor more than \$500.00 or by imprisonment in the county jail for a period not to exceed 60 days, or by both such fine and imprisonment. Each day during which the violation occurs shall constitute a separate offense.
3. Any violator may be required to restore land to its undisturbed condition. In the event that restoration is not undertaken within a

reasonable time after notice, the city may take necessary corrective action, the cost of which shall become a lien upon the property until paid.

(Ord. No. 2002-09, §§ 1, 2, 2-18-02)

**Sec. 33-62. - Mining and excavations.**

33-62.01. *Findings of fact.* The City of DeLand City Commission has determined that construction and maintenance activities within the City of DeLand require a supply of suitable fill material, which may be found in certain locations within the city and that it may be necessary and desirable to permit land excavation and mining for the purpose of obtaining such materials. The city commission further finds that without proper safeguards, land excavation and mining operations may have serious impacts on the appropriate use and development of properties involved, properties in the vicinity, maintenance of soil and groundwater quality, and the general health, safety and welfare of the community.

33-62.02. *Purpose and intent.* It is the purpose and intent of this section to provide for the protection of the public health, safety, and welfare through the establishment of reasonable standards for review and regulation of the location and operation of land excavation and mining sites. The provisions of this section are intended to allow excavation and mining activities where appropriate and subject to reasonable conditions designed to protect existing land uses and conservation areas, provide reasonable development standards for stormwater management and air quality, as well as reasonable operational standards to limit noise levels.

33-62.03. *Applicability of terms and provisions.* The terms and provisions of this section shall apply to all excavation and mining activities within the jurisdictional boundaries of the City of DeLand. Excavation and mining activity is permitted only in accordance with the provisions of this section and only within areas zoned M-1 industrial district and M-1A City of DeLand Airport Industrial Park District. The city shall require that mining sites, including borrow pits, located within adjacent unincorporated Volusia County undergo reclamation pursuant to a reclamation plan approved by the city as a condition of voluntary annexation. (Policy 1.6.2. City of DeLand Conservation Element)

33-62.04. *Permitting requirement established.*

(a) *Permit requirements.* This section establishes a permitting requirement for all excavation and mining activity within the city. It shall be illegal to excavate or mine any real property in the City of DeLand without first obtaining a mining permit from the city in accordance with the provisions of this section. Said permit may be issued concurrently or in conjunction with other land development permits issued by the city.

(b) *Application requirements.* Any person required to obtain an excavation or

mining permit shall submit an application to the planning department on forms supplied by the city. The application shall include, but is not limited to the following:

1. *General information.*

- a. The name, address, and telephone number of the owner, contract purchaser, and/or lessor of the property for which the permit as requested, along with evidence of ownership or the agent for the owner if the owner has authorized said agent to submit the application.
- b. The name, permanent business address, and telephone number of the individual or business entity that will be engaged in the excavation and/or filling activity.
- c. The proposed approximate dates for beginning and completing requested activities.
- d. The proposed days and hours of operation.
- e. A legal description of the property for which the permit application is being made.
- f. A location map.

2. *Site information.*

- a. Information regarding existing natural and manmade features of the site, including, but not limited to, topography, roadways, utility lines and easements, permanent and/or temporary buildings, wells, septic tanks, drain fields, storage tanks, storm water management facilities, and other significant physical features.
- b. Property lines, right-of-way lines, and easement lines.
- c. Setbacks from right-of-way lines, easement lines, and property lines.

3. *Off-site information.*

- a. Property lines and identification of land ownership within 400 feet of the property to be utilized for the proposed activity.
- b. Points of access to the site from public roads.
- c. Delineation of haul roads and routes in the immediate area of the project.
- d. Existing land use, structures, zoning districts, public institutions, roads, water bodies, environmentally, sensitive areas, other natural

features, and any other condition that reasonably can be expected to affect or be affected by the proposed project and which is located within 400 feet of the property.

4. *Preliminary excavation or mining plan.* A preliminary excavation or mining plan containing the following information shall be submitted:
  - a. A site plan identifying areas to be excavated, any on-site storage areas, any fencing and buffering proposed for the project, and the conceptual storm water management system.
  - b. A cross sectional drawing showing the proposed depth of any excavation area or areas and the relationship of excavation areas to the top of the wet season high-water table.
  - c. A description of proposed dewatering methods, if dewatering will be required. If pumping is planned, the disposal area shall be indicated. If water is to be discharged off site or into surface waters, the plan shall show the means of treatment of the water so as to mitigate against significant adverse impacts on area-wide water resources.
5. *Final site plan.* The following information shall be submitted for review before the issuance of a permit:
  - a. A final excavation or mining plan showing the information required for submission of the original application, but modified to reflect any conditions of approval established by the city.
  - b. A groundwater evaluation report prepared and sealed by a qualified professional geologist or by a professional engineer registered in the State of Florida. All diagrams shall be prepared with reference datum as National Geodetic Vertical Datum (NGVD) or Mean Sea Level (MSL). The groundwater evaluation report shall include:
6. *Soil-boring reports.* Soil-boring reports that define the extent of geologic units present in the area proposed for excavation or mining. Criteria used to determine the adequacy of the proposed soil-boring program including: the size of the excavation or mining area; the regional geology of the vicinity and anticipated geologic units to be impacted by excavation or filling operations; depth to water in the uppermost aquifer system present at the site; the depth and spacing of borings shall be sufficient to characterize the geology of the site.
7. *Cross sections.* Geologic cross sections, which show depths to the first aquifer unit encountered.
  - a. A groundwater quality monitoring plan may be required for

excavation or mining activities which are conducted in areas where previous site activities may have degraded groundwater quality. The water quality monitoring plan shall include: proposed depth, locations, and construction details for monitor wells; proposed groundwater sampling program with anticipated sampling schedule and parameter coverage.

8. *Reclamation plan.* A reclamation and reuse plan shall be submitted which shall include:
  - a. A description of the manner in which restructuring, reshaping, and/or revegetation will be accomplished.
  - b. Two typical cross sections and contours showing areas to be filled, backfilled, restructured and/or reshaped, and revegetated. Water areas and water level elevations will be shown when lake creation is part of the reclamation plan.
- (c) *Application review and approval.* Applications for permits for excavation or mining shall be handled as a Class III development in accordance with the administrative procedures contained in article XII of this chapter. In the case of a permit request to be issued concurrently or in conjunction with other land development permits issued by the city, there view shall be handled as a Class III development or the class of the full development proposal, whichever is higher.
- (d) *Permit duration.* An excavation or mining permit shall be valid for the period specified for completion of all operations, including necessary reclamation, as set forth in the permit.
- (e) *Annual review.* The city on an annual basis shall conduct a review of compliance with the terms of this section and the city may, as it determines necessary to protect the public interest, require such changes in the permit conditions as are warranted. The permittee may also, on any anniversary date of the permit, seek amendment of the permit conditions in order to vary or expand the scope of his operations by filing an application for amendment to the original permit application. Any amendment to the original permit conditions by the city or application for amendment by the permittee shall be processed as the original permit.

33-62.05. *Exemptions.* Excavations for the purpose of developing a stormwater management system in accordance with the terms and conditions of an approved final development order shall be exempt from the requirements of this section.

33-62.06. *Performance standards and conditions for excavation or mining activities.* All mining operations conducted under authority of a permit issued in accordance with the provisions of this section shall be subject to the following restrictions and conditions:

(a) *Design standards.* The mine or excavation shall comply with the following design standards:

1. *Side slopes.*

- a. From the bottom of the excavation to a point four feet below the normal water table, side slopes shall be limited to a maximum of one and one-half feet horizontal to one foot vertical; and
- b. From a point four feet below the normal water table to natural ground surface or the top of the berm, the side slopes shall be limited to a maximum of four feet horizontal to one foot vertical.

2. *Berm and swale.* To prevent stormwater from discharging into the excavation or mining area, the following is required:

- a. A berm shall be constructed extending around the perimeter of the excavation, which berm shall be two feet above natural ground, have a top three feet wide, and have maximum front and back slopes of four feet horizontal to one foot vertical.
- b. A swale shall be constructed extending around the perimeter of the excavation or berm, which swale shall have a depth of between one and two feet, maximum slopes of four feet horizontal to one foot vertical, and minimum horizontal grade of two-tenths percent in 500-foot lengths.
- c. The city commission shall authorize relief from the berm or swale requirements if it finds, after receiving the recommendation of the city engineer, and based upon conditions peculiar to the proposed mining operation, that either or both are unnecessary to protect the public interest.

3. *Setbacks and buffers.*

- a. No excavation below adjacent road grade shall be permitted within 50 feet of the right-of-way line of any state highway or within 150 feet of the right-of-way line of any other public roadway. Except on the subject property, an excavation shall be permitted within 150 feet of any natural or manmade surface water body, watercourse or wetlands. No excavation shall be permitted within 50 feet of any adjoining property, except for adjacent property which has been or is currently being used for mining or which is owned by the applicant. For adjacent property, which has been or is currently being used for mining of which the applicant, mining activities owns shall be permitted up to the property line.
- b. Mining operations requiring a permit shall be buffered from all adjacent commercial or residential uses within 200 feet by a wall,

hedge, or other durable landscape barrier of at least six feet in height that forms a continuous screen between the uses. If such a barrier is of nonliving material, at least one shrub or vine shall be provided for each five feet of barrier on the side of the barrier toward the residential or commercial use.

- (b) *Boundary markers.* Prior to commencing operations, the permittee shall have all property lines and corners marked with poles no less than three feet in height and painted red, spaced no greater than 200 feet apart or such other spacing as recommended by the city engineer and approved by the city commission, and set in the ground such that the top of each pole can be clearly seen with the naked eye from the next marker.
- (c) *Notice of commencement or cessation.* No later than five days after commencement, the permittee shall notify the city engineer that excavation or mining operations have commenced. No later than ten days after excavation or mining operations have ceased or been interrupted, the permittee shall notify the city engineer of such cessation or interruption.
- (d) *Dewatering.* In the event of dewatering associated with excavations (including mining), the applicant shall present evidence that no saltwater intrusion and or reduction in quality or quantity of well water available to properties within one-quarter mile of the permitted activity will occur.
- (e) *Conditions.* The city shall attach any reasonable condition, limitation, or requirement to an excavation or mining permit as is necessary to effectuate the purposes and to carry out the spirit of this Code. Such conditions, which may include requirements either in addition to or more restrictive than those otherwise set forth in this Code, shall be set forth expressly in the mining permit.
- (f) *Environmentally sensitive areas.* Mining shall not be permitted in any area designated as environmentally sensitive in the Comprehensive Plan.
- (g) *Performance security.* Prior to receiving a permit, an applicant for an excavation or mining permit shall provide a performance bond or other security, approved as to form and legal sufficiency by the city attorney, to assure compliance with the requirements of the mining permit and the reclamation plan.
  - 1. *Amount.* The bond or other security shall be set by the city commission, upon recommendation of the city engineer, in an amount reasonably related to the cost of reclamation activity.
  - 2. *Release.* The bond or other security shall be released by the city commission only upon certification by the city engineer that all ordinances, conditions, and reclamation requirement shave been fulfilled.

33-62.07. *Reclamation.* In order to rehabilitate affected lands after mining has been completed, a well-planned reclamation scheme to restore the land to beneficial use is required. The permittee shall be required to:

- (a) *Criteria for reviewing the reclamation plan.* In reviewing the reclamation plan, the city engineer shall evaluate the plan and recommend conditions as may be necessary to assure that:
  - 1. Groundwater quality in the surrounding area is maintained; and,
  - 2. Surface water in the surrounding area is not degraded.
- (b) *Stockpiling differing geological materials.* All excavation of overburden shall be accomplished in a manner conducive to segregated stockpiling of differing geologic materials. Topsoil, clean sands and clay soils shall each be stockpiled separately or layered in stockpiles in such a manner as to avoid comingling of differing geologic materials, and in all cases care shall be taken to avoid contaminating topsoil with clay materials. Upon completion of the mining operation, restoration of the ground surface shall be accomplished by replacement of each of the differing soil types in reverse sequence from that in which they were removed. Each separate layer, horizon or geologic strata shall be replaced and consolidated before the succeeding layer is replaced.
- (c) *Recontouring.* Contours shall be regraded as closely as possible to those existing originally on the site unless the mining and reclamation plan has established an alternate set of contours as being more desirable for the final intended use of the reclaimed land. No slope on the reclaimed site shall be steeper than one (vertical) to six (horizontal), except in the case of lime rock cuts which shall be left at a stable slope. Final site grading adjacent to artificially created water bodies shall be such as to drain storm water away from these water bodies unless otherwise approved in the reclamation plan.
- (d) *Waterbodies.* Planned waterbodies or groundwater lakes may be incorporated in the final reclamation plan, especially in case of lime rock mining. These bodies of water must be designed for a minimum depth of eight feet or more over as least 80 percent of the water surface area. At least ten percent or more shall be refilled to shallower depths of two to four feet in order to encourage aquatic plant growth and fish propagation. A littoral zone shall be established as part of any water body created by an excavation requiring a mining permit. A design and management plan must be submitted which shall:
  - 1. Include a topographic map of the proposed littoral zone showing the control elevation contour and the minus two and one-half-foot control water elevation contour, and include a cross sectional view of the littoral zone planting design, showing the required slopes from the top

of the bank to a depth of two and one-half feet below the control water elevation;

2. Specify how the vegetation is to be established, including the extent, method, type, and timing of any planting provided;
3. Provide a description of any water management procedures to be followed in order to ensure the continued viability and health of the littoral zone; and
4. Include a site plan, which documents the location and extent of the littoral zone.

The established littoral zone shall consist of native vegetation and shall be maintained permanently as part of the water body. All landscaping, littoral zone revegetation plans, and lake management plans shall comply with St. Johns River Water Management District rules.

- (e) *Revegetation.* All disturbed areas shall be seeded promptly and mulched with grass mixtures, at a rate of application in accordance with Florida Department of Transportation specifications, to establish capable cover during the growing season for which they are applied. Revegetation shall be considered complete upon demonstrating a reasonable stand of perennial cover established one year after reclamation. The permittee shall be responsible for any erosion that occurs during the first year following reclamation.
- (f) *Time for reclamation.* Reclamation shall be continuous. It shall commence immediately after an area is excavated or mined out and shall be completed not later than one year after the completion of the excavation or mining activity.

33-62.08. *Minimum operating standards.*

- (a) Excavations and mining shall be conducted in such a manner that ensures that in no case will the top of a slope line for any excavation approach closer than 75 feet to any property line or existing or planned right-of-way line. No spoil or other excavated materials will be placed between the edge of any excavation and the property lines or easements.
- (b) Spoil piles, stock piles of processed ore, or any other excavated material will not be higher than 50 feet and stockpiled at a stable slope.
- (c) All mining operations shall be performed in a manner which will prevent vibrations of the soil from reaching a magnitude sufficient to cause damage of any kind to persons or property outside of permittee's exterior property lines.

33-62.09. *Administration and enforcement.*

(a) *Permit fees.* Permit fees shall be as established by the DeLand City Commission.

(b) *Inspection.* The city engineer or designate shall have authority to conduct inspections of any permitted mining operation, and to measure water levels in and take water samples from the mine. By seeking and obtaining a permit under this chapter, a permit applicant shall be deemed to have consented to such inspections at any reasonable time upon presentation of proper identification by the city engineer or designate.

(Ord. No. 2002-09, §§ 1, 2, 2-18-02)

**Sec. 33-63. - Potable water wellfield protection.**

33-63.01. *Purpose and intent.* The purpose and intent of this section is to safeguard the health, safety and welfare of the citizens of the City of DeLand. This is accomplished by providing for regulation of the storage, handling, use or production of hazardous substances within zones of protection surrounding potable water supply wells thereby providing protection of the principle source of water for domestic, agricultural, and industrial use. The availability of adequate and dependable supplies of potable quality water is of primary importance to the future of the city. The Floridan aquifer, from which potable water for city residents is drawn, has been designated by the United States Environmental Protection Agency as a "sole source aquifer" meaning that it is the only practical source of drinking water for the residents of the city. Therefore, standards are described in this section with the intent of protecting both the quantity and quality of the groundwater supply. It is further the intent of this section to control development in and adjacent to designated well heads to protect water supplies from potential contamination.

33-63.02. *Establishment of wellfield protection zones.*

(a) *Zones of protection.* Two zones of protection for potable water wellfields are established: the primary and the secondary protection zones as defined in this section. Limitations upon activity within each zone are specified in this section. The regulations set out in this section shall apply to all lands identified on said map as lying within the two protection zones established by this section.

(b) *Interpretation of zone designation.* To determine the application of regulations contained in this section to properties and buildings within the primary and secondary protection zones, the following rules shall apply:

1. Properties located wholly within one protection zone shall be governed by the restrictions applicable to that zone.
2. Properties having parts lying within more than one zone shall be governed by the restrictions applicable to the protection zone in which each part of the property is located.

3. Where the boundary between two protection zones passes through a building, the entire building shall be considered to be in the more restrictive zone.
  4. Where protection zones of different wells or well fields thereof, overlap a building, a property, or a portion, the most restrictive regulations shall apply.
- (c) *Surficial Aquifer protection.* Because the Surficial Aquifer is uniformly present in the substrate underlying the city and because the Surficial Aquifer provides both water for irrigation and recharge to potable drinking water supplies; solid and liquid waste containers and containers storing regulated and/or hazardous substances shall be located and contained in a manner preventing release of the contents on to the ground, into the aquifer or otherwise released on or in to any structure which would likewise similarly convey the contents.

33-63.03. *Wellfield protection zone permits.*

- (a) *Generally.* Except as provided in sections 33-63.05(d) and 33-63.06 of this section, no person shall construct, modify, install or replace a potential pollutant and/or hazardous substance storage system or component thereof within a primary or secondary protection zone without obtaining a wellfield protection zone permit, in accordance with the provisions of this section.
- (b) *Application procedures and requirements.*
1. Where a development is being processed under articles XII or XIII of this chapter and a wellfield protection permit is required, the information and exhibits in sections 2.a. through h. of this section shall be provided with the preliminary plat or Final Development Plan application for concurrent review.
  2. An applicant for a wellfield protection zone permit not being processed concurrently with an application for plat or development approval pursuant to article XII of this chapter, shall be submitted in the manner described herein on the forms prescribed by the director with the following information and applicable documents:
    - a. Name, address, and phone number of the property owner, operator, and/or agent.
    - b. Signature of agent or owner.
    - c. Legal description of the property, including the Tax Parcel Number.
    - d. A survey of scale drawing of the property, if required by the

director, identifying existing structures, adjacent streets, water bodies and all potable water supply wells located within 1,000 feet of the proposed hazardous substance storage area.

- e. A description of the proposed activity at the proposed location.
  - f. Construction plans and specifications for the hazardous substance storage system, including, but not limited to, details of tanks, conveyance and pumping systems, secondary containment, leak detection, overfill protection and access, prepared by a professional engineer licensed by the state of Florida.
  - g. A list of all known hazardous substances that may be utilized, generated and/or stored at the described property.
  - h. Other information that the engineer may reasonably require.
3. The application with all applicable documents and a nonrefundable processing fee, shall be submitted to the building official.
  4. Three copies of the required documents shall be submitted with the application. The documents shall meet the requirements of this section.
  5. The building official shall determine the acceptance of the application within three days of filing. If the application is determined to be incomplete it shall be returned to the applicant. If the application is determined to be complete, it shall be accepted and the building official shall transmit it to the director.
  6. Upon receipt, the director shall review the application, conduct a preliminary site inspection notifying the applicant prior to said inspection and make a determination of approval, approval with conditions or denial within 20 working days of acceptance. If the application meets all of the requirements of this section, it shall be approved. Upon such approval, the director shall return the application to the building official with approval noted. If the application is denied, it shall be returned to the building official with the reasons for denial noted thereon.
  7. Provided, however, upon receipt of an accepted application, if the director determines that the proposed activity fails to meet the minimum requirements of this section, or if additional information is required, a request will be made to the applicant to provide the additional information and modify the application.
  8. If the applicant fails to make the necessary modifications or provide the additional information within 60 days, then the engineer shall deny the permit. If the necessary modifications are made or the

additional information is provided, the engineer shall approve the permit within 20 working days from receipt of the additional information.

9. The building official shall issue the permit or denial immediately upon receiving the determination of the director.

(c) *Standards for review.* In determining whether the proposed development shall be approved under the provisions of this section, the director shall consider the requirements of this section, together with the following criteria:

1. Whether, and the extent to which, a proposed development must be located within the wellfield protection zone in order to perform the development's basic functions.
2. The cumulative impacts of the proposed development on the wellfield protection zones in combination with other developments, which have been permitted or constructed immediately adjacent to the secondary protection, zone.
3. The protection afforded after development is completed and/or any adverse conditions caused by the development.
4. Whether the proposed development is consistent with the policies in the City of DeLand Comprehensive Plan.

(d) *Issuance of permits—Conditions.*

1. A permit shall specify the facility covered by the permit. Said permit may cover one or more hazardous substance storage systems located at the same facility. Said permit shall provide conditions necessary to ensure that the provisions of this section are met. Commencement of construction of a facility under a wellfield protection permit shall be deemed acceptance of all conditions specified in the permit.
2. No hazardous substance storage, handling or use may be commenced unless the owner or operator demonstrates that the system has been constructed in substantial conformity with the permit.
3. As a condition to receipt of the permit, the applicant shall indemnify and hold the City of DeLand harmless from any and all claims, liabilities, causes of action, or damages arising out of the issuance of the permit.

33-63.04. *Restrictions within the zones of protection.*

(a) *Primary protection zone.* Except as otherwise provided in this section, any new nonresidential use, handling, production or storage of pollutants and/or hazardous substances shall be prohibited within the primary

protection zone. Any existing nonresidential use, handling, production or storage of hazardous substances shall be considered a nonconforming activity, and shall apply for a wellfield protection permit as provided in this section, and shall be subject to the containment standards in [section] 33-63.05(e).

- (b) *Secondary protection zone.* Except as otherwise provided in this section, all new or existing nonresidential use, handling, production or storage of pollutants and/or hazardous substances within secondary protection zones, shall apply for a wellfield protection permit as provided in this section.
- (c) *Existing activity.* Any person with existing nonresidential activity shall have a period of one year from the adoption of this section to apply for a permit without a fee as may otherwise be required by any fee resolution adopted by the city commission pursuant to this section. Thereafter, said person shall adhere to the fee schedule adopted in said resolution.
- (d) *Exemptions.* The following activities or uses are exempt from the provisions of this section:
  1. The transportation of any pollutants and/or hazardous substance through either or both the primary or secondary protection zones.
  2. Agricultural uses, except that said uses shall comply with chapter 487.011 et. seq., the Florida Pesticide Law and the Florida Pesticide Application Act of 1974; and Rule 5E-2.011 et seq. and Rule 5E-9.001 et seq., Florida Administrative Code.
  3. The use of any pollutants and/or hazardous substance solely as fuel in a vehicle fuel tank or as lubricant in a vehicle.
  4. Fire, police, emergency medical services, governmental emergency management center facilities, and public utilities.
  5. Retail sales establishments that store and handle pollutants and/or hazardous substances for resale in their original unopened containers.
  6. Office uses, except for the storage, handling or use of pollutants and/or hazardous substances.
  7. Repairing or maintaining any facility or improvement on lands within the primary or secondary zone.
  8. Storage tanks which are constructed and operated in accordance with the storage tanks regulations as set forth in chapter 17-61, Florida Administrative Code.
  9. Geotechnical borings.
  10. Residential activities.

- (e) *Containment standards.*
1. *Generally.* Primary and secondary levels of containment shall be required for all storage systems intended for the storage of pollutants and/or hazardous substances, except as provided in sections 33-63.05(d) and 33-63.06 of this section. These requirements shall apply to all areas of use, production, and handling; to all storage areas; and to aboveground and underground storage areas.
  2. *Primary containment.* All primary containment shall be product-tight.
  3. *Secondary containment.* All secondary containment shall:
    - a. Be constructed of materials of sufficient thickness, density, and composition so as not to be structurally weakened as a result of contact with the discharged hazardous substances;
    - b. Have leakproof trays under containers, floor curbing or other containment systems to provide secondary liquid containment;
    - c. Be of adequate size to handle 111 percent of the total volume of the container(s) in order to contain all spills, leaks, overflows, and precipitation until appropriate action can be taken;
    - d. Be constructed of materials of sufficient strength to preclude any hazardous substances loss to the external environment; and
    - e. Be sheltered so that the intrusion of precipitation is inhibited.
- (f) *Monitoring capacity.* Except as provided in sections 33-63.05(d) and 33-63.06 of this section, all storage systems intended for the storage of pollutants and/or hazardous substances shall be designed with the capability of detecting that the pollutants and/or hazardous substances stored in the primary containment has entered the secondary containment. Visual inspection of the primary containment is the preferred method; however, other means of monitoring may be approved by the director.
- (g) *Miscellaneous requirements.*
1. Vacuum suction devices, absorbent scavenger materials or other devices designated and approved by the director, shall be present on site or available within a time set by the engineer. Devices or materials shall be available in sufficient supply so as to control and collect the total quantity of pollutant and/or hazardous substances. To the degree feasible, emergency containers shall be present and of such capacity as to hold the total quantity of pollutant and/or hazardous substances plus absorbent material.
  2. Procedures shall be established for periodic in-house inspection and maintenance of containment and emergency equipment. Such

procedures shall be provided to the director in writing. A checklist and schedule of regular maintenance shall be established and a log shall be kept of inspections and maintenance. The director shall keep such logs and records available for inspection.

33-63.05. *Modification of requirements.* Any person affected by this section may petition the director for modification from the prohibitions and monitoring requirements of this section, provided that the person demonstrates by a preponderance of competent, substantial evidence that special or unusual circumstances and adequate technology exists to isolate the facility or activity from the potable water supply in the event of a spill. In granting or denying modifications, the director shall give consideration to the following factors:

- a. Hazardous substances inventory;
- b. Containment;
- c. Emergency collection devices;
- d. Emergency plan;
- e. Daily monitoring;
- f. Equipment maintenance;
- g. Reporting of spills;
- h. Potable water well monitoring;
- i. Alterations/expansions;
- j. Groundwater monitoring;
- k. Reconstruction after a catastrophe (fire, vandalism, flood, explosion, collapse, wind, war or other);
- l. Other factors, as applicable to groundwater protection issues.

33-63.06. *Maintenance, repair, or replacement.*

- (a) *Modification or repair.* Any modification or repair of a storage system, other than minor repairs or emergency repairs, shall be in accordance with plans to be submitted to the director and approved prior to the initiation of such work.
- (b) *Emergency repairs.* A facility owner or operator may make emergency repairs to a storage system in advance of seeking an approval whenever an immediate repair is required to prevent or contain an unauthorized discharge or to protect the integrity of the containment.
- (c) *Replacement.* Replacement of any existing storage system for pollutants

and/or\_hazardous substances must be in accordance with the new installation standards.

33-63.07. *Out-of-service storage systems.*

- (a) *Systems temporarily out of service.* Storage systems which are temporarily out of service and are intended to be returned to use shall continue to be monitored and inspected. Any storage system, which is not being monitored and inspected in accordance with this section, shall be closed or removed in a manner approved by the director.
- (b) *Closure of facilities.* Upon closure of a pollutant and/or hazardous substance storage systems for any reason, the facility owner or operator shall file an application with the building official of intention to close the storage system. Said application shall be processed as provided in [section] 33-63.04(b) of this section. By signing the wellfield protection permit application, the owner is held responsible to adhere to the closure procedures outlined in this section. An application to close a pollutant and/or hazardous substance storage facility shall include the following:
  - 1. A schedule of events to complete the closure of this activity which does or did store, handle, use, or produce pollutant and/or\_hazardous substances. As a minimum, the owner/applicant shall address the following:
    - a. Disposition of all pollutant and/or hazardous substances and contaminated containers.
    - b. Cleanup of the activity and environs to preclude leaching of pollutant\_and/or\_hazardous substances into the aquifer.
    - c. Certification by the director that disposal and cleanup have been completed in a manner acceptable to the director. Certification may be waived if method of removing operating waste is not a septic tank, sewer main, or floor drain the applicant provides evidence to the director that all of the following conditions apply to the subject land use facility or activity:
      - 1. The entire operation is maintained inside the building(s) of the facility.
      - 2. The method of removing operating waste is not a septic tank, sewer main, or floor drain.
      - 3. There is no evidence of spills permeating floors or the environs.
      - 4. There are no outstanding or past notices of violation from any regulatory agency concerned with hazardous, industrial or

special waste.

5. There is no evidence of past contamination in the public drinking water well(s) associated with a facility located in the primary and secondary protection zones.
  6. The applicant shall provide a sworn statement that disposal and cleanup have been completed in a manner acceptable to the director.
2. The director shall inspect the facility to determine whether or not the requirements of this section have been met.
- (c) *Abandoned systems.* Whenever an abandoned storage system is located, a plan for the closing or removing or upgrading and permitting of such storage system shall be filed by the owner of the property at a reasonable time as determined by the director. Provided, however, such reasonable time for filing shall be not more than six months.

33-63.08. *Appeals.* Determinations of the director may be appealed in writing within 30 days of said determination to the city manager by the applicant. The city manager may uphold, modify or reverse the determination of the director.

33-63.09. *Fee resolution.* The City of DeLand may at its option, adopt a fee schedule by resolution to provide for the funding for the administration of this section.

(Ord. No. 2002-09, §§ 1, 2, 2-18-02)

**Sec. 33-64. - Erosion control.**

33-64.01. *Required soil conservation measures.* The following soil conservation measures shall apply to all development activities requiring site development plan or subdivision reviews.

- (a) *During construction.* The developer shall follow standard practices as specified in the Erosion Control Handbook—Florida published by the U.S. Department of Agriculture Soil Conservation Service, latest edition, or details specifically approved by the city to prevent erosion and depositing of soils off the construction site.
- (b) *After construction.* All disturbed areas shall be mulched, seeded or sodded as required by the city, and shall be maintained as such. The removal or lack of maintenance of vegetation resulting in on-site or off-site erosion or windblown loss of soils shall be deemed a violation of this section.

(Ord. No. 2002-09, §§ 1, 2, 2-18-02)

**Secs. 33-65—33-70. - Reserved for future use.**