

ARTICLE VIII - RESOURCE PROTECTION

[Note: Volusia County has adopted the Minimum Standards for Environmental Protection Ordinance which requires Pierson and other cities to enact certain resource protection regulations. These regulations must address the County's minimum standards for wetlands protection, stormwater management, tree protection, and potable water well field protection. Article IX addresses, in part, this requirement. If the Town finds advantage in deferring to the County to enforce its resource protection regulations within the Town in lieu of the Town enforcing the provisions of this Article, that can be accomplished by mutual agreement. Consequently there will not be a need to adopt this Article. We will, however, have to include within the Town's Land Development Regulations a provision to ensure that no development permit will be issued by the Town until after the County has reviewed and approved such development for compliance with its Minimum Standards Ordinance.]

SECTION 8.1 GENERAL PROVISIONS

8.1.1 Environmental Standards

These environmental standards shall apply in all classifications:

- A. Air Pollution - There shall be no emission of fumes, odors, vapors, gases, chemicals, smoke, dust, dirt, fly ash, or any particulate matter in violation of applicable State standards.
- B. Water Pollution - There shall be no discharge of liquid or solid wastes into any public or private sewage disposal system, or into or on the ground, or into any waterway, waterbody or drainage canal, nor any accumulation of any liquid or solid wastes in violation of applicable State standards.

SECTION 8.2 WETLANDS

8.2.1 Identification of Wetlands

Wetlands shall be as defined in Section 2.2. However, in circumstances where the natural boundary of wetland vegetation is unclear, the line of demarcation may be approximated at a surveyed elevation measured at a location in the same wetland where the natural line is clear. 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 historical information as appropriate. If the proposed project requires multiple permits from the Federal, State, or Regional agencies, a Town jurisdictional determination shall not be required. The most restrictive wetland boundary as determined by the other permitting agencies shall be accepted by the Town.

8.2.2 Exemptions

Activities which are exempted from this Article include:

- A. non-mechanical clearing of wetland or buffer vegetation from an area of five hundred (500) square feet or less, for access, provided the vegetation is removed from the wetland and disposed of on a suitable upland site.
- B. minor maintenance or emergency repair to existing structures or improved areas;
- C. clearing and construction of walking trails having no structural components or fill and four feet wide or less;
- D. overhead utility crossings, provided however, associated access roads shall be subject to the requirements of this Article;
- E. 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;
- F. bona fide mosquito control activities of the Volusia County Mosquito Control Department.

G. development within wetland one-half (1/2) 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 Article;

H. development within artificial wetlands which are created as part of a man-made treatment system.

I. development where a Federal, State, regional, or local government completed dredge and fill or wetland application was tendered to said government on or before the adoption of this Article.

8.2.3 Permit Requirements

No person shall engage in any activity which will remove, fill, drain, dredge, clear, destroy or alter any wetland or wetland buffer as defined in Section 2.2 on any lot or portion thereof without obtaining a Wetland Alteration Permit in accordance with the provisions of this Section. Said above described permit may be issued concurrent or in conjunction with other land development permits. It is the intent of this Section that construction of a single family dwelling on upland which does not alter by removing, filling, draining, dredging, clearing or destroying any wetland or wetland buffer shall not require a permit pursuant to this Section.

A. Concurrent Application with Development Order Review

If the Wetlands Alteration Permit application is to be processed concurrently with an application for any Development Order under Article III of these Regulations as the case may be, then it shall be filed as part of the Development Order review application, and shall include a Wetland Management Plan, which shall include but not be limited to the following:

1. A detailed description of all water bodies, water courses, and wetlands on-site and a general description of wetlands immediately adjacent to the site and associated hydrologic conditions.
2. A general description of the upland habitats on-site.
3. A site survey to scale no greater than one inch equals fifty feet (1" = 50 ft.) which identifies the landward extent of the wetland boundaries, buffer zones, existing and proposed conservation areas and adjacent off-site conservation areas.
4. A detailed description of any proposed activity within the jurisdictional wetlands and buffer zones.
5. A detailed analysis of on-site and/or off-site mitigation areas, if applicable.
6. A Wetlands Management Plan for the 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.
7. A detailed description of methods to be utilized in meeting the criteria listed in Section 8.2.4.
8. A copy of all other Federal, State, and Regional permits and/or applications and conditions issued for the proposed project.
9. Other information which the Development Regulations Administrator may reasonably require to determine whether to approve the wetlands alteration permit.

B. Application Without Development Order Review

1. Except as otherwise provided in Section 8.2.3, A. an application for a Wetlands Alteration Permit shall be submitted with the following information:
 - a. name, address, and phone number for the property owner and/or agent.
 - b. signature of agent or owner.

- c. legal description of property, including the Property Appraisers parcel number.
 - d. a scale drawing of the property identifying existing structures, adjacent streets, and water bodies.
 - e. a scaled drawing and description of the proposed activity and proposed location.
 - f. a copy of all other Federal, State, and Regional permits and/or applications and conditions issued for the proposed project.
 - g. a Wetland Management Plan as provided for in Section 8.2.3, A. provided however that such plan shall not be required for the following activities:
 - (i) a private dock and additions whose total area does not exceed five hundred (500) square feet for a single family residence.
 - (ii) a private boat ramp for a single family residence which does not exceed fifteen (15) feet wide and does not require any filling.
 - (iii) construction of a seawall in a man-made canal where the seawall will be connected to existing seawalls on adjacent properties.
 - (iv) restoration of existing and functioning structures.
2. An applicant is encouraged to arrange a pre-application conference with the Development Regulations Administrator to discuss the proposed wetlands alteration and the scientific method utilized to evaluate and justify any wetlands alteration prior to submitting a formal application to the Development Regulations Administrator.
 3. An application for a Wetland Alteration Permit and a non-refundable processing fee shall be filed with the Development Regulations Administrator.
 4. Three (3) copies of the required submittals shall be submitted with the application. The submittals shall meet the requirements of these Regulations and provide the information in Sections 8.2.3, A. and 8.2.3, B.
 5. The Development Regulations Administrator shall determine the completeness of the application within three (3) 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 the Development Regulations Administrator shall transmit it to the Development Regulations Administrator.
 6. Upon receipt, the Development Regulations Administrator shall review the application and conduct a preliminary site inspection. If the application meets all of the requirements of these Regulations, it shall be approved within ten (10) working days of receipt. Upon such approval the Development Regulations Administrator shall return the application to the Development Regulations Administrator with approval noted by the Development Regulations Administrator. If the application is denied, it shall be returned to the Development Regulations Administrator with the reasons for denial noted thereon, within ten (10) working days of receipt.
 7. Provided, however, upon receipt of a completed application, the Development Regulations Administrator determines that the proposed activity fails to meet the minimum requirements of this Article, or if additional information is required, a request will be made, within ten (10) working days after the preliminary site inspection, to the applicant to provide the additional information and modify the application and/or mitigation plans to prevent or limit the adverse impacts to the wetland or buffer.
 8. If the applicant fails to make the necessary modifications or provide additional information

within sixty (60) days, then the Development Regulations Administrator shall deny the permit. The Development Regulations Administrator shall approve the permit within ten (10) working days after receiving the required modifications or additional information, unless the modifications fail to meet the requirements of this Article.

9. The Development Regulations Administrator shall notify the applicant immediately after the Development Regulations Administrator approves or denies the application and issues the permit.

8.2.4 Review Criteria

In determining whether the development is permissible under the provisions of this Article, the Development Regulations Administrator shall consider, but not be limited to the following criteria:

- A. the ability of the wetland to receive, store and discharge surface water run-off so as to contribute to hydrological stability and control of flooding and erosion;
- B. the ability of the wetland to recharge the groundwater as demonstrated by reliable available information;
- C. the ability of the wetland to provide filtration and nutrient assimilation from surface water run-off;
- D. 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;
- E. the ability of the wetland to function as an integral part of any waters, water body, or watercourse;
- F. 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;
- G. 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;
- H. the capacity of the existing wetland to provide environmental benefits because of such factors a maturity, size, degree of prior alteration, physical relationship to other water systems, and adjacent land uses;
- I. 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;
- J. 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.
- K. whether the wetlands impacted by the proposed activity are protected or used in a manner which does not adversely impact their beneficial functions.

8.2.5 Issuance of Permits - Conditions

A. If the application meets the requirements of this Article, the Development Regulations Administrator shall issue the permit based upon approval by the Development Regulations Administrator, as provided in this Section and may attach such appropriate conditions to the said permit in order to comply with the standards of Section 8.2.4. The Development Regulations Administrator may deny the permit if it does not meet such standards, stating the reasons thereof.

B. The Development Regulations Administrator may approve a Wetlands Alteration Permit, which shall 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 submitted to the Development Regulations Administrator. Concurrent applications to the local government and any Federal, State, or

regional agency shall be encouraged. Provided, however that the Development Regulations Administrator is not prevented from approving additional conditions to the said permit in order to comply with the standards of Section 8.2.4.

8.2.6 Buffer Requirements:

A. A buffer of not less than twenty-five (25) feet in width shall be established adjacent to and surrounding all wetlands. Wetland buffers greater than twenty-five (25) feet in width may be required if the upland activity adversely impacts the wetlands beneficial functions. The buffer may coincide with the setback on a lot under Article V, the Zoning Regulations.

B. Development activities or construction which do not have a significant adverse effect on the natural function of the buffer may be allowed within the buffer. Proposed activities within the buffer may be permitted in accordance with the requirements of this Article. The activities or construction which may be permitted 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.

8.2.7 Mitigation

A. Mitigation Requirements

1. It is presumed that development activity will have an adverse affect upon wetlands, and that permit conditions are inadequate to avoid potential adverse environmental affects. If the applicant fails to overcome this presumption then 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. The mitigation plans shall consider the following methods, in order of priority in which they should be utilized:
 - a. avoiding the impact altogether by not taking a certain action or parts of an action;
 - b. minimizing impacts by limiting the degree or magnitude of the action or its implementation;
 - c. rectifying the impact by repairing, rehabilitating, or restoring the affected environment;
 - d. reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action;
 - e. compensating for the impact by replacing or providing substitute resources or environments through creation of new wetlands, enhancement of existing wetlands or re-establishment of wetlands which are no longer functioning due to significant attention in the past.
2. Where all or part of a wetland is destroyed or substantially altered by development, a proposed mitigation plan shall include at least:
 - a. a description of the wetland and buffer to be created or restored, which shall include but not be limited to 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;
 - b. a plan for monitoring the success of a created or restored wetland;
 - c. a detailed written estimate of the cost of the mitigation. The detailed estimate should include costs associated with earth moving, planting, consultant fees, and monitoring;

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- d. a detailed plan describing the monitoring and methods of control and maintenance of exotic or nuisance vegetation;
 - e. monitoring and replacement to assure a survival rate of eighty (80) percent wetland vegetation for a minimum of three (3) years;
 - f. an upland habitat as an adjacent buffer on mitigated sites, as provided in Section 8.2.6.
3. An acceptable mitigation plan shall be reasonably and technically feasible. Mitigation through restoration of other degraded wetlands is preferred over wetland creation.
 4. Mitigation should take place on-site or in close proximity thereto or in areas so designated as provided in Section 8.2.7, D.
 5. 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 purposes of the section.
 6. A mitigation plan approved by a Federal, State, or regional agency shall be presumed to be acceptable to the Development Regulations Administrator, provided however, if no such mitigation plan is required by the approved permit from the Federal, State, or regional agency, then the Development Regulations Administrator may require a mitigation plan in compliance with this Section.
 7. Mitigation should not contribute to the production of mosquitoes by creating mosquito larval habitat or by eliminating habitat for predatory fish.

B. Mitigation Ratios

In determining the replacement acreage ratios for restored or created wetlands, the Development Regulations Administrator shall consider, but not be limited to the following criteria:

1. the length of time that can be expected to elapse before the functions of the impacted wetlands functions have been restored or offset.
2. any special designation or classification of the water body, including but not limited to Outstanding Florida Waters, Aquatic Preserves, or Class II.
3. the type of wetland to be created and the likelihood of successfully creating that type of wetland.
4. whether or not the affected wetland are functioning as natural, healthy wetland of that type.
5. whether the wetland is unique for that watershed.
6. the presence or absence of exotic or nuisance plants within the wetland and adverse effects those plants have on the wetlands beneficial functions.
7. whether the proposed project eliminates or changes the wetland from one type to another.
8. the amount and quality of upland habitat preserved as conservation areas or buffer.
9. whether the applicant chooses to allocate funds to the County of Volusia Environmental Improvement Fund as provided in Section 8.2.7, C.

Except as provided in Section 8.2.7, A. 6., the mitigation ratio for created or restored wetlands shall not be less than four to one (4:1). The minimum mitigation ratio for wetlands which have been harvested for timber within five (5) years prior to submittal for a Development Order Review shall be a minimum of five (5) acres of created or restored wetlands to one acre of adversely impacted wetland.

C. Environmental Improvement Trust Fund

1. If the Wetlands Alteration Permit Application is not processed concurrently with a Development Order Review and a successful mitigation is not likely to offset unavoidable impacts, then the proposed development shall be assessed a mitigation fee.
2. All mitigation fees shall be deposited in a fund to be known as the Pierson Environmental Improvement Trust Fund. The purpose of the fund is to purchase, improve, create, restore, manage and replace natural habitat within the Town. The fund shall be used for these purposes. The fund may be utilized in concert with other funding sources for the purposes required under this Section. The fees may be used for the creation, or restoration of any wetland type.
3. The Environmental Improvement Trust Fund shall be expended as provided in paragraph 8.2.7, D.
4. Until a resolution of the Town Council approving the mitigation fees is adopted as provided herein, this Section shall not be operative.

D. Off-Site Mitigation

1. The Town may designate and attempt to purchase, or otherwise acquire, lands within the Town, which are suitable for the creation, acquisition, restoration or preservation of wetlands or wetland habitat systems, including adjacent upland habitat. The purpose of such designation is to provide areas suitable for the off-site mitigation of the impacts of wetland alteration.
2. The off-site mitigation areas may be developed with the intention of utilizing the areas for passive and/or active recreational parks, provided however, the wetlands beneficial functions are not adversely impacted.

SECTION 8.3 TREE PROTECTION

8.3.1 Intent

This section is intended through the preservation, protection and planting of trees to aid in the stabilization of soil by the prevention of erosion and sedimentation; to reduce storm water run-off and the costs associated therewith and replenish ground water supplies; to aid in the removal of carbon dioxide and generation of oxygen in the atmosphere; provide a buffer and screen against noise pollution; to provide protection against severe weather; to aid in the control of drainage and restoration of stripped land subsequent to construction or grading; to conserve and enhance the Town's physical and aesthetic environment; and to generally protect and enhance the quality of life and the general welfare of the Town.

8.3.2 Review and Approval of Development Sites

If a development requires site plan approval by the Development Regulations Administrator, then it shall be reviewed and approved by the Development Regulations Administrator prior to issuance of a tree removal permit.

8.3.3 Removal of Trees

It shall be unlawful to cut down, move, remove, or effectively destroy through damaging, or to authorize the same unless the removal is authorized by a final development plan or tree removal permit.

8.3.4 Exemptions

Notwithstanding any other provision of this section to the contrary, any person may cut down, destroy or replace or authorize removal of one or more trees, whose trunks lie wholly within the boundaries of

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property owned by said person without obtaining a Tree Removal Permit in accordance with the following:

- A. Said property is zoned for single-family or two-family use and a single-family or two-family dwelling or mobile home is located on said property and it is owner occupied.
- B. Said property contains trees which may have been determined by the Town of Pierson to be deteriorated as result of age, hurricane, storms, fire, freeze, disease, lightning or other Acts of God.
- C. Said property contains Agricultural uses as defined by Town codes.
- D. Said property is within an existing public or private right-of-way or maintenance easement and contains trees which must be removed or thinned to insure the safety of the motoring public and to maintain visibility of oncoming traffic at intersecting public streets or such other tree or trees which may disrupt public utilities such as power lines, drainageways and similar public needs. Provided, however, as may be determined by the Town of Pierson, specimen trees in public or private rights-of-way or utility easements may only be removed upon the issuance of a Tree Removal Permit. Said tree so removed shall be replaced with a replacement tree and the location of said replacement tree shall be as determined by the Town of Pierson's Development Regulations Administrator.
- E. Said property contains trees which are planted and grown for sale to the general public or some public purposes. All licensed plant or tree nurseries and botanical gardens are included in this exemption.
- F. The trees are one of the following species:

COMMON NAME	BOTANICAL NAME
Australian Pine	Causuarina litorea
Australian Pine	Casuarina glauca
Brazilian Pepper	Schinus terebinthefolius
Citrus	Citrus species
Ear Pod Tree	Enterolobium cyclocarpa
Chinaberry	Melia azedarach
Eucalyptus	Eucalyptus species
Punk Tree or Cajeput	Melaleuca quinquenervia
Silk Oak	Grevillea robusta
Woman's Tongue	Albizia lebbeck

8.3.5 Application for Tree Removal Permit

Prior to issuance of a tree removal permit, the developer shall submit a plan containing the following:

- A. A tree survey to scale no greater than one inch equals fifty feet (1" = 50 ft.), which identifies trees by location, common name and DBH.
- B. The tree survey shall denote the following information:
 - 1. Existing trees to be removed, relocated and retained, or,
 - 2. Replacement stock to be planted.
 - 3. Existing trees to be removed and trees to be retained requiring protection shall be clearly

designated on-site. Method of designation shall be included in the plans submitted for review.

4. Existing and proposed utility easements.
5. Existing and proposed improvements on the site.
6. Name and address, signature, and telephone number of property owner and developer.
7. Legal description of the property and Parcel Number.
8. North arrow, scale, and identification of streets abutting the property.
9. Reason for removal of trees.

8.3.6 Specimen Tree Protection Requirements.

The following table sets forth the minimum requirements for the protection of specimen trees for all development within the Town upon site development plan or subdivision approval.

No. of Specimen Trees	Minimum Specimen Tree Protection Requirement
less than 3 per acre or a portion thereof	80 percent of all specimen trees
3.0 to 5.0 per acre	50 percent of all specimen trees
5.1 to 8.0 per acre	4 specimen trees per acre

Notwithstanding the exemptions of Section 6, the Developer of a subdivision shall provide legal mechanisms which insure the protection of specimen trees after construction has occurred on the development. Such mechanisms may include, but not be limited to conservation easements, common open space, tree protection easements, deed restrictions and homeowner association documents. Individual residential lots are to be permitted per subsection 8.3.5 and 8.3.12.

8.3.7 Area Tree Protection Requirements

Fifteen (15) percent of the square footage of any development shall be designated for the protection of trees. The area required to protect specimen trees may be included to satisfy this requirement. This required area may be constituted as one or more sub-areas within the development. Said area may include any landscape buffer or other landscape areas that may be required. Such designated areas shall contain sufficient land area to comply with minimum tree protection standards to adequately protect the trees contained within the areas. A minimum of fifty (50) percent of the required minimum number of trees as provided in Section , shall consist of existing trees within said area. The Development Regulations Administrator may provide for a waiver or modification of this requirement if the development contains an insufficient amount of existing trees to meet this requirement or, if a modification of this requirement is warranted by specific on-site conditions.

8.3.8 Relocation of Trees

The Development Regulations Administrator may provide for the relocation of existing trees to suitable areas within the development. Relocation shall be performed in accordance with sound industry practices, including watering to insure survival of replacement trees. Relocated trees may be applied toward required replacement trees.

8.3.9 Natural Vegetation Retention Areas

Areas of a development may be designated as natural vegetation retention areas indicating that all existing vegetation shall remain undisturbed on the area site. Under this designation, trees which contain sufficient size to meet the minimum replacement size and up to six (6) inches DBH size may be retained as replacement trees. Replacement trees shall be considered protected trees and shall be spaced sufficiently far apart to allow adequate growth room for the species.

8.3.10 Replacement of Trees

Trees identified for removal on the tree removal permit application shall be replaced by replacement stock. Replacement shall be based on the replacement of one-tenth (1/10th) of the total of the cross sectional area of the trunk(s) of the tree(s) removed. Cross sectional area shall be taken at the DBH of the tree. Single trees may be replaced with two or more trees provided the cross sectional requirements are met. In no event shall replacement stock be less than six (6) feet in height nor have a DBH of less than one and one-half (1-1/2) inches. Replacement species shall be the same general species as the tree removed or an alternate species acceptable to the Development Regulations Administrator. Palms may be used as replacement stock up to the full cross-sectional replacement area of palms being removed from the site.

Palms may be substituted as replacements for other species being removed under the following conditions:

1. If the cross-sectional area of palms being removed from the site comprises zero to twenty-five percent (0 - 25%) of the total cross-sectional area of trees being removed, palms may be substituted for replacement of non-palm species up to a maximum of twenty-five (25) percent of the total replacement cross-sectional area required.
2. If the cross-sectional area of palms being removed exceeds twenty-five (25) percent of the total cross-sectional area of trees being removed, no substitution of palms for non-palm species will be allowed. The use of palms will be restricted to the replacement cross-sectional area originally calculated based on palms that are being removed.
3. Since palms are generally moved as mature trees, it is necessary to equate cross-sectional area of commonly moved palms to cross-sectional area of commonly planted non-palm species when substituting palms for non-palm species under Item #2 above. For the purpose of substitution of palms for non-palms species, a ratio of sixteen (16) square inches of replacement cross-sectional area of palms may be substituted for one (1) square inch of replacement cross-sectional area of non-palm species.

For example, a six (6) inch DBH palm tree containing 28.26 square inches may be substituted for a one and one-half (1-1/2) inch DBH hardwood tree containing 1.77 square inches of cross-sectional area. The following informational chart indicates common size comparisons:

DBH of Palm	DBH of Non-Palm Species
6".....	equates to 1-1/2"
8".....	equates to 2"
10".....	equates to 2-1/2"
12".....	equates to 3"
16".....	equates to 4"

This substitution ratio applies only when replacing non-palm species with palm.

8.3.11 Tree Survival

Except for any exemptions contained in Section 6 of this section, all trees relocated, replaced, or existing within the terms of this section shall be replaced in the event said trees expire. Said replacement stock shall be maintained in accordance with sound industry practices, including watering. If the development otherwise meets the minimum requirement subsection 8.3.6, the Development Regulations Administrator may waive the replacement requirements. To insure survival of trees, the developer shall also utilize the provisions of the Tree Protection Manual for Builders and Developers published by the Florida Department of Agriculture and Consumer Services Division.

8.3.12 Tree Protection During Development

A. Prior to the commencement of construction of a development, the applicant shall clearly mark any tree or tree groups to be maintained in the proximity of any area where land clearing equipment is to be operated. The markings shall remain in place during construction. Said equipment shall be operated in a manner as to not injure or destroy any trees in accordance with this section.

B. During the construction stage of development, a temporary barrier at least three (3) feet in height shall be formed a minimum radius of six (6) feet from the base of the tree or trees and it shall include at least fifty (50) percent of the area under the drip line of the trees. The developer shall not cause or allow the cleaning of equipment or material within the drip line of any tree or groups of trees to be maintained. Neither shall the developer cause or allow the disposal of waste material, such as paint, oil, solvents, asphalt, concrete, mortar, or any other material harmful to the life of a tree within the drip line of any tree or group of trees. No attachment, wire (other than the protective guy wires), signs, or permits may be fastened to a tree. Nothing contained herein shall be construed to prevent the designation of driveways or parking areas beneath tree branches so long as the impervious surface amounts to no more than fifty (50) percent of the total area under the drip line of the tree. In no event shall the impervious area be located closer than six (6) feet from the trunk of the tree. In no event shall motorized equipment be allowed to park on or traverse that area which is to remain in its natural state surrounding a tree which is to be preserved.

C. Except for palm trees, all trees and replacement stock shall have their natural soil level maintained. Tree Wells and/or planter island shall be provided, if necessary, to maintain the natural existing soil level. All efforts shall be made to maintain natural drainage to such trees.

D. In connection with the clearing of any lot for new construction on any lot, each lot shall contain a minimum of one (1) tree for each 2,500 square feet of lot area (rounded to the nearest whole number). If the lot contains an insufficient number of existing trees to meet this requirement, or if the lot has no existing trees, replacement trees shall be provided.

8.3.13 Standards of Review and Appeals

The Development Regulations Administrator in approving or denying a Permit shall consider the following:

1. The extent to which the actual or intended use of the property requires cutting down or destruction of trees.
2. The desirability of preserving any tree by reason of its size, age, or some other outstanding quality, such as uniqueness, rarity or status as an historic or specimen tree.
3. The extent to which the area would be subject to increased water run-off and other environmental degradation due to removal of the trees.
4. The heightened desirability of preserving or enhancing tree cover in densely developed or densely populated areas.
5. 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.

6. The effect that changes in the natural grade will have on the trees to be protected and preserved.

The applicant has the right to appeal to the Town Council at its next regular meeting to be heard if the Development Regulations Administrator disapproves the application or suggests other conditions or modifications thereto.

8.3.14 Stop Work Order

A Stop Work Order will be issued by the Development Regulations Administrator to any person found in the act of cutting down, destroying, damaging or removing trees in violation of this section. All work on any development permitted or non-permitted shall cease on the site when a Stop Work Order is issued and will not commence until in compliance.

8.3.15 Penalties

Any violation of this section shall be punishable by a fine not exceeding \$500.00, or imprisonment for Sixty (60) days or both such fine and imprisonment.

SECTION 8.4 WELLFIELD PROTECTION

8.4.1 Definitions

For the purposes of this Section, the following definitions shall apply:

EPA - United States Environmental Protection Agency.

Hazardous Substances - Those materials specified in Section 8.4.9 of these Regulations.

Non-residential Activity - Any activity occurring on any described parcel of land, whether or not within a structure, with the exception of residential activity as defined herein.

Potable Water - Water that is satisfactory for drinking, culinary and domestic purposes meeting current State and Federal drinking water standards.

Potable Water Supply Well - A potable water well to supply water which has been permitted for consumptive use by the St. Johns River Water Management District and the casing diameter is six inches or greater.

Primary Containment - The first level of product-tight containment, i.e., the inside portion of that container which comes into immediate contact on its inner surface with the hazardous substance being contained.

Primary Well Field Protection Zone - The land area immediately surrounding any potable water supply well and extending a radial distance of 200 feet.

Product-tight - Impervious to the hazardous substance with is or could be contained so as to prevent the seepage of the hazardous substance from the containment system. To be product-tight, the containment system shall be made of a material that is not subject to physical or chemical deterioration by the hazardous substance being contained.

Residential Activity - Any building of structure or portion there of that is designed for or used for residential purposes. Residential activity shall include those customary and accessory residential activities associated with the principal permitted use of a lot for residential purposes as set out in Article V of these Regulations.

Secondary Containment - The level of product-tight containment external to and separate from primary containment.

Secondary Well Field Protection Zone - The land area surrounding the Primary Well Field Protection Zone, and extending a radial distance of 800 feet from said Primary Well Field Protection Zone.

Spill - The release or escape of a hazardous substance, directly or indirectly to soils, surface waters or groundwaters.

Storage System - Any one or combination of tanks, sumps, wet floors, waste treatment facilities, pipes, vaults, or other portable or fixed containers used, or designed to be used, for the storage of hazardous substances at a facility.

Well - Any excavation that is drilled, cored, bored, washed, driven, dug, jetted, or otherwise constructed when the intended use of such excavation is for the location, acquisition, development, or artificial recharge of groundwater, but such term does not include any well for the purpose of obtaining or prospecting for oil, natural gas, minerals, or products of mining or quarrying, for inserting media to dispose of oil brines or to repressure oil bearing or natural gas-bearing formations or for storing petroleum or natural gas or other products or for temporary de-watering or subsurface formations for mining, quarrying or construction purposes.

Well Field - An area of land which contains or is designated for future use for one or more potable water supply well.

Well Field Protection Zone Permit - That permit issued by the Town of Pierson authorizing the activities provided in Section 8.4 of these Regulations.

8.4.2 Purpose and Intent

The purpose and intent of this Section is to safeguard the public health, safety and welfare of the people of the Town of Pierson, by providing for regulation of the storage, handling, use or production of hazardous substances within zones of protection surrounding potable water supply well fields, thereby protecting the potable water supply from contamination.

8.4.3 Scope

The regulations set forth herein shall apply to all areas surrounding a well field and the designated Well Field Protection Zones and other areas of the Town as provided herein.

8.4.4 Designation of Enforcement Official, His Powers and Duties

The Development Regulations Administrator is hereby designated as the enforcement official whose duties shall include, but not be limited to, enforcement, inspection, record keeping, and administration in its section implementing this Article. The Town Council may at its option, adopt a fee schedule by resolution to provide for the funding of this program.

8.4.5 Establishment of Well Field Protection Zones

The Town Council hereby adopts a Primary and Secondary Well Field Protection Zone for each and every Potable Water Supply Well located within the Town limits. The geographic extent of said zones which shall be delineated on maps as now or hereafter updated and supplemented and which are on file at the Town Hall. Said maps are hereby adopted by reference by the Town Council.

8.4.6 Restrictions within the Zones

1. The Primary Well Field Protection Zone is established as a zone of exclusion where no development will be permitted.
2. Within the Secondary Well Field Protection Zone, the following land uses shall be prohibited:
 - a. landfills;

- b. facilities for the bulk storage, handling or processing of materials on the Florida Substance List;
- c. activities that require the storage, use or transportation of restricted substances, toxic or hazardous materials, agricultural chemicals, petroleum products, hazardous toxic waste, medical waste, etc.;
- d. feedlots or other commercial animal facilities;
- e. wastewater treatment plants, percolation ponds, and similar facilities;
- f. mines; and
- g. excavation of waterways or drainage facilities which intersect the water table.

8.4.7 Exemptions

The following activities or uses are exempt from the provision of this Section:

- 1. The transportation of any hazardous substance through either or both the Primary or Secondary Well Field Protection Zone, provided the transporting vehicle is in transit.
- 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 2.001 et seq., and Rule 5E-9.001, et seq., Florida Administrative Code.
- 3. The use of any hazardous substance solely as fuel in a vehicle fuel tank or as lubricant in a vehicle.
- 4. Fire, police, emergency medical services, emergency management center facilities, and public utilities of this Section.
- 5. Retail sales establishments that store and handle hazardous substances for resale in their original unopened containers.
- 6. Office uses, except for the storage, handling or use of hazardous substances as provided for in applicable administrative codes.
- 7. Constructing, repairing or maintaining any facility or improvement on lands within any Primary or Secondary Well Field Protection Zone and within any said 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.

8.4.8 Variances

The Board of Adjustments may, for good cause, authorize a variance from the terms of this Section as provided for in Article XI.

8.4.9 Hazardous Substances Regulated

A. The hazardous substances regulated by these Regulations shall consist of the following:

- 1. Chapter 38F-41 of the Florida Administrative Code (the Florida Substance List).
- 2. Title 40 of the Code of Federal Regulations Part 261 (Identification and Listing of Hazardous Wastes).
- 3. Title 40 of the Code of Federal Regulations Part 302.4 (Table 302.4) (List of Hazardous

Substances and Reportable Quantities).

4. Title 40 of the Code of Federal Regulations Part 355, Appendix A and B (List of Extremely Hazardous Substances).

A hazardous substance, as defined herein, includes any solution, mixture, or formulation containing such materials, and also includes any material which, due to its chemical or physical characteristics, as determined by the local government which poses a substantial threat to the life, health, or safety of persons or property or to the environment.

8.4.10 Well Field Protection Zone Permits

Except as provided in Sections 8.4.6 and 8.4.7 of this Section, no person shall construct, modify, install, or replace, a hazardous substance storage system, or component thereof within the Primary or Secondary Potable Well Field Protection Zone or allow the discharge of a hazardous substance into the soils, groundwater or surface water within said zone. Underground vehicular fuel storage subject to Chapter 17-61, Florida Administrative Code, is exempt from these permit requirements.

A. General requirements:

1. Application for a well field protection permit, or renewal thereof, shall be made and completed in the manner and on the forms provided by the Development Regulations Administrator. The application shall be completed with all requested information and shall be signed by the owner or operator, as applicable. The completed application shall be submitted to the Development Regulations Administrator, together with the appropriate permit fee as established by the Town Council.
2. The Development Regulations Administrator shall issue or renew said permit upon the applicant's demonstration that all standards required by these Regulations and other applicable regulations have been met and upon receipt of the appropriate said fee.
3. Said permit, when issued, shall be in the name of the owner or operator, as applicable, which name may be that of an individual, firm, association, joint venture, corporation, partnership, governmental entity, or other legal entity. A permit shall specify the regulated facility covered by the permit. Said permit may cover one (1) or more hazardous substance storage systems located at the same facility. Said permit shall provide conditions necessary to ensure that the provisions of these Regulations are met. Commencement of construction of a regulated facility under a well field protection permit shall be deemed acceptance of all conditions specified in the permit.

B. Documents. When a well field protection permit is required, the following information and accompanying documentation as may be applicable shall be submitted to the Development Regulations Administrator, together with the completed application:

1. Construction plans and specifications for the hazardous substance storage system, including, but not limited to, details to tanks, conveyance and pumping systems, secondary containment, leak detection, overfill protection, and access.
2. Prior to any person causing, allowing, permitting, or suffering the placement of any hazardous substance in a storage system covered by a well field protection permit, pursuant to this Section, may not be approved unless the owner or operator demonstrates that the system has been constructed in substantial conformity with the permit.
3. Upon closure of a hazardous substance storage systems, the facility owner or operator shall notify the Development Regulations Administrator of intention to close the storage system.

C. Denial, Suspension, or Revocation of Permits.

1. The Development Regulations Administrator may deny, suspend, or revoke a permit for failure to comply with this Section and/or the conditions of any permit issued pursuant to this Section. The Development Regulations Administrator may revoke any permit issued pursuant to these Regulations on a finding that the permit holder or his agent:
 - a. Knowingly submitted false or inaccurate information in the application or operational reports.
 - b. Has violated the provisions of these Regulations or permit conditions.
 - c. Has refused lawful inspections as required by these Regulations.

8.4.11 Containment Standards

A. Except as provided in Sections 8.4.6 and 8.4.7 of this Section, no person, firm, or corporation shall construct or install any storage system for hazardous substances within any Primary or Secondary Well Field Protection Zone until an approved permit has been issued as provided in this Section.

B. Monitoring Capacity. Except as provided in Sections 8.4.6 and 8.4.7 of this Section, all storage systems intended for the storage of hazardous substances shall be designed with the capability of detecting that the hazardous substance 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 required by the Development Regulations Administrator.

C. Containment Requirements. Primary and secondary levels of containment shall be required for all storage systems intended for the storage of hazardous substances, except as provided in Sections 8.4.6 and 8.4.7 of this Section.

1. All primary containment shall be product-tight.
2. Secondary containment:
 - a. All secondary containment shall be constructed of sufficient thickness, density, and composition so as not to be structurally weakened as a result of contact with the discharge hazardous substances. Leak-proof trays under containers, floor curbing or other containment systems to provide secondary liquid containment shall be installed. The secondary containment shall be of adequate size to handle one hundred ten (110) percent of the volume of the largest container in order to contain all spills, leaks, overflows, and precipitation until appropriate action can be taken. The specific design and selection of materials shall be sufficient to preclude any hazardous substances loss to the external environment. Secondary containment systems shall be sheltered so that the intrusion of precipitation is inhibited. These requirements shall apply to all areas of use, production, and handling, to all storage areas, and to aboveground and underground storage areas.
 - b. Vacuum suction devices, absorbent scavenger materials or other devices approved by the Development Regulations Administrator, shall be present on-site or available within a time set by the Development Regulations Administrator. Devices or materials shall be available in sufficient magnitude so as to control and collect the total quantity of hazardous substances. To the degree feasible, emergency containers shall be present and of such capacity as to hold the total quantity of hazardous substances plus absorbent material.
 - c. Procedures shall be established for periodic in-house inspection and maintenance of containment and emergency equipment. Such procedures shall be in writing. A regular checklist and schedule of maintenance shall be established and a log shall be kept of inspections and maintenance. Such logs and records shall be kept available on

site for inspection by the Development Regulations Administrator.

D. Out-of-Service Storage Systems.

1. Storage systems which are temporarily out of services, and are intended to be returned to use, shall continue to be monitored and inspected.
2. Any storage system which is not being monitored and inspected in accordance with this chapter shall be closed or removed in a manner approved by the Development Regulations Administrator.
3. 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 at a reasonable time as determined by the Development Regulations Administrator.

E. Maintenance, Repair, or Replacement.

1. Any substantial 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 Development Regulations Administrator and approved prior to the initiation of such work.
2. 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.
3. Replacement of any existing storage system for hazardous substances must be in accordance with the new installation standards.