

**CHAPTER 62, ARTICLE X,  
DIVISION 2.**

**AQUIFER PROTECTION\*- Updated March 9, 2010**

---

\* **State Law References:** Provisions for protection of potable water wellfields required, F.S. § 163.3202(2)(c); water resources generally, F.S. ch. 373; water wells, F.S. § 373.302 et seq.

---

**Sec. 62-3631. Definitions.**

For the purpose of this division, certain terms and words pertain and are defined as follows:

*Aquifer* means a saturated geologic formation, group of formations or part of a formation that transmits groundwater.

*Area IV Well Field* means the geographic area associated with the installation of wells by the City of Titusville as generally depicted in Appendix A.

*Best management practices* means those practices as developed by the U.S. Department of Agriculture, the state department of agriculture or other appropriate agencies.

*Borrow pit* means a site, tract or parcel of land of less than 50 acres in size from or upon which earth, sand, rock or shell is excavated, and where such excavated earth, sand, rock or shell remains on the site.

*Commercial borrow pit* means a site, tract or parcel of land of less than 50 acres in size from or upon which earth, sand, rock or shell is excavated, and where such excavated earth, sand, rock or shell is removed from the site.

*Development activity* means the construction, installation, demolition or removal of a structure, impervious surface or drainage facility; or clearing, scraping, grubbing, killing or otherwise removing the vegetation from a site; or adding, removing, exposing, excavating, leveling, grading, digging, burrowing, dumping, piling, dredging or otherwise significantly disturbing the soil, mud, sand or rock of a site.

*Development order* means any order granting, denying, granting with conditions or deferring an application for a development permit.

*Facility* means any nonresidential location or part thereof, including any structure, building, installation or equipment located thereon.

*Hazardous materials* means any material defined, listed, classified or characterized as a hazardous substance, hazardous waste or toxic substance

according to any of the following state or federal codes or regulations:

- (1) F.A.C. ch. 38F-41 (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 (Designation of Hazardous Substances).
- (4) Title 40 of the Code of Federal Regulations part 355, appendix A and B (Lists of Extremely Hazardous Substances).

A hazardous material includes any solution, mixture or formulation containing such materials, and also includes any material which, due to its chemical or physical characteristics, is determined by the county administrator or his designee to pose a substantial threat to the life, health or safety of persons or property or to the environment.

*Highly permeable soils* means soils which have a permeability rate greater than 20 inches per hour as identified by the Brevard County Soil Survey, 1974, and which exist to a depth of 60 inches through tests as determined by a certified soil scientist. A proposed testing plan shall be presented to the Soil Conservation Service for approval prior to the reevaluation of the soils.

*Impervious surface* means a surface which has been compacted or covered with a layer of material so that it is highly resistant to infiltration by water. It includes semipervious surfaces such as compacted clay, as well as most conventionally surfaced streets, roofs, sidewalks, parking lots and other similar surfaces.

*Mining operations* means the excavation of solid minerals, including but not limited to clay, gravel, phosphate, lime, shell and shells (excluding live shellfish), stone and sand from any mine, quarry, pit or other real property that is greater than 50 acres in size.

*Prime wellhead protection areas* means those areas which have one of the following land use characteristics:

- (1) Within the city of Titusville's Area of Critical Concern.
- (2) Within 500 feet of a public water supply well.
- (3) Within the boundaries of a development plan that proposes a public water supply well.
- (4) Within the Area IV Well Field.

*Public* means pertinent to or serving the people.

*Public water supply well* means a well constructed or identified for construction under a consumptive use permit for the purpose of providing potable water for general use which serves at least 250 people on a daily basis or has a minimum of 100 service connections. Public water supplies may be either publicly or privately owned.

*Recharge characteristics* means the capability of a property, prior to any alterations, to transmit groundwater based upon the elevation, slope, compaction and type of soils.

*Release* means any sudden or gradual spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping or disposing of hazardous materials, including the abandonment or discarding of barrels, containers and other receptacles containing any hazardous materials, into the environment, in such a manner as to endanger the public health, safety or welfare or the environment, or in violation of any federal, state or local law, rule or regulation.

*Remedy* means those actions consistent with permanent remedy taken instead of or in addition to removal actions in the event of a release or threatened release, to prevent or minimize the release of hazardous materials so that they do not migrate to cause substantial danger to present or future public health, safety or welfare or the environment. The term includes but is not limited to such action at the location of the release as storage, confinement, perimeter protection using dikes, trenches or ditches, clay cover, neutralization, cleanup of released hazardous materials or contaminated materials, recycling or reuse, diversion, destruction, segregation of reactive wastes, dredging or excavations, repair or replacement of leaking containers, collection of leachate and runoff, on-site treatment or incineration, and any monitoring reasonably required to ensure that such actions protect the public health, safety and welfare and the environment.

*Remove* means the cleanup or removal of released hazardous materials from the environment, including such actions as it may be necessary to take in the event of the threat of a release, such actions as may be necessary to monitor, assess and evaluate the release or threat of a release, the transportation, storage and disposal of removed material, or the taking of such other actions as may be necessary to prevent, minimize or mitigate damage to the public health, safety or welfare or to the environment which may otherwise result from a release or threat of release. The term includes, in addition, but is not limited to the following: security fencing or other measures to limit access, provision of alternative water supplies, and temporary evacuation and housing of threatened individuals not otherwise provided for.

*Solid wastes* means sludge from a waste treatment works, water supply treatment plant or air pollution control facility, or garbage, rubbish, refuse or other discarded material, including solid, liquid, semisolid or contained gaseous material resulting from domestic, industrial, commercial, mining, agricultural or

governmental operations.

*Storage system* means a storage tank and all associated integral piping.

*Storage tank* means an enclosed stationary device which is constructed primarily of nonearthen materials (e.g., metal, concrete, plastic or glass) and which is designed for the primary purpose of storing pollutants.

*Threshold amount.* The following threshold amounts refer to aggregate totals of liquid and solid hazardous materials and include any combination of liquids and solids. For purposes of this division, one gallon of liquid hazardous materials shall be considered equivalent to ten pounds of solid hazardous material.

- (1) Type 1 and Type 2 recharge areas: Five gallons of liquid or 50 pounds of solid.
- (2) Type 3 recharge areas: Any hazardous material listed in title 40 of the Code of Federal Regulations part 355, appendix A and B (Lists of Extremely Hazardous Substances) which exists at the facility in quantities greater than the threshold planning quantity.

*Threshold planning quantity* means those amounts of hazardous materials defined in title 40 of the Code of Federal Regulations part 355, appendix A and B (Lists of Extremely Hazardous Substances).

*Type 1 Aquifer Recharge Areas* means those areas that have highly permeable soils and are within the City of Titusville's Area of Critical Concern, or are within five hundred (500) feet of a public water supply well or within the boundaries of a development that proposes a public water supply well provided that this area serves to recharge the aquifer from which the well draws.

*Type 2 Aquifer Recharge Areas* means those areas that have highly permeable soils, are not classified as Type 1 aquifer recharge areas and are above 30 feet mean sea level (NGVD 1929).

*Type 3 Aquifer Recharge Areas* means those areas that have highly permeable soils, are below 30 feet mean sea level (NGVD 1929) and have highly permeable soils.

#### **Sec. 62-3632. Purpose and intent.**

It is the purpose and intent of this division to maintain the surficial aquifer system by protecting the function of designated aquifer recharge areas. Current and future water supply demands upon the surficial aquifer system can be protected by maintaining predevelopment groundwater levels, topographic elevations and high recharge rates, as well as restricting or prohibiting the presence of hazardous materials within recharge areas. It is also the intent of this division to designate prime wellhead protection, Type 1 and Type 2 aquifer recharge areas as environmentally sensitive areas, and the regulations set out in

this division shall apply for the protection of these areas. In addition, these regulations shall also apply to Type 3 aquifer recharge areas. Standards found within this division shall apply to any person, firm, organization or agency constructing septic tanks, undertaking agriculture or forestry operations not utilizing best management practices, undertaking mining operations or construction of private lakes, or undertaking any development project, as well as facilities which receive, store or use solid wastes or hazardous materials.

**Sec. 62-3633. Exemptions.**

The following shall be exempt from the provisions of this division:

- (1) Agriculture and forestry practices utilizing best management practices shall be exempt, provided that these activities do not reduce the recharge characteristics or negatively impact the water quality. This exemption shall not apply to storage or disposal of hazardous materials.
- (2) The following materials are not subject to the provisions of this division:
  - a. Commercial products limited to use at the facility solely for office or janitorial purposes.
  - b. Prepackaged consumer products sold to individuals for personal, family or household purposes.

**Sec. 62-3634. Prime wellhead protection areas.**

The following regulations shall apply to prime wellhead protection areas:

- (1) There shall be no abandonment, land-spreading or other release of a hazardous material, or soil, sand or debris containing hazardous materials, on or into the land, surface water or groundwater, or into any drain or conveyance leading to the land, surface water or groundwater.
- (2) New facilities which store, handle or use hazardous materials shall be prohibited after April 3, 1989.
- (3) Underground storage tanks shall be prohibited.
- (4) Solid waste disposal activities shall be prohibited.
- (5) The maximum septic tank density shall be one black water tank and one gray water tank, or one combined tank, per acre.
- (6) Commercial borrow pits, borrow pits, mining operations and private lakes as described in Article XIII, Division 5, of this chapter shall be prohibited.
- (7) Land alteration shall not alter the recharge or storage characteristics of the area. This includes the removal of high-permeability soils or replacement with lower-permeability soils; compaction; or the cutting, filling, grading or alteration of natural topography without an active development order.
- (8) Wellhead installation in the Area IV Well Field shall meet the protective measures identified in Chapter 62-521.400 F.A.C.

**Sec. 62-3635. Type 1 aquifer recharge areas.**

The following regulations shall apply to the Type 1 aquifer recharge areas:

- (1) There shall be no abandonment, land-spreading or other release of a hazardous material, or soil, sand or debris containing hazardous materials, on or into the land, surface water or groundwater, or into any drain or conveyance leading to the land, surface water or groundwater.
- (2) New facilities which store, handle or use hazardous materials shall be prohibited after April 3, 1989.
- (3) Underground storage tanks shall be prohibited.
- (4) Solid waste disposal activities shall be prohibited.
- (5) The maximum septic tank density shall be one black water tank and one gray water tank, or one combined tank, per acre.
- (6) The maximum impervious surface shall be 25 percent of the Type 1 recharge area on the site.
- (7) Commercial borrow pits, borrow pits, mining operations and private lakes as described in Article XIII, Division 5, of this chapter shall be prohibited.
- (8) Land alteration shall not alter the recharge or storage characteristics of the area. This includes the removal of high-permeability soils or replacement with lower-permeability soils; compaction; or the cutting, filling, grading or alteration of natural topography without an active development order.

**Sec. 62-3636. Type 2 aquifer recharge areas.**

The following regulations shall apply to the Type 2 aquifer recharge areas:

- (1) The regulations found in section 62-3635(1) and (2) shall apply in type 2 recharge areas.
- (2) Solid waste disposal activities shall be prohibited.
- (3) The maximum impervious surface shall be 35 percent of the Type 2 aquifer recharge area on the site.
- (4) Commercial borrow pits, borrow pits, mining operations and private lakes as described in article XIII, division 5, of this chapter shall be prohibited.
- (5) Land alteration shall not alter the recharge or storage characteristics of the area. This includes the removal of high-permeability soils or replacement with lower-permeability soils; compaction; or the cutting, filling, grading or alteration of natural topography without an active development order.

**Sec. 62-3637. Type 3 aquifer recharge areas.**

The following regulations shall apply to Type 3 recharge areas:

- (1) There shall be no abandonment, land-spreading or other release of a hazardous material, or soil, sand or debris containing hazardous materials, on or into the land, surface water or groundwater, or into any drain or conveyance leading to the land, surface water or groundwater.

- (2) New facilities which store, handle or use hazardous materials in excess of the threshold amount shall be prohibited after April 3, 1989.
- (3) If there is local use from private wells, including irrigation wells, the maximum impervious surface shall be 45 percent of the type 3 aquifer recharge area on the site, unless the developer can document that the proposed development will not decrease the recharge potential of the site. The use of porous concrete, reuse water and other methods that a certified engineer can use to demonstrate that the proposed development will not decrease the recharge potential of the site will be acceptable to meet the intent of this requirement. Any area which is within a designated wastewater reuse area as outlined in chapter 110, article IV, or utilizing 100 percent reuse water for irrigation as agreed to by the applicant and the county, shall be exempt from this maximum impervious surface requirement. This shall include agreements entered into with the county prior to April 3, 1989. The natural resources management office shall accept the use of porous concrete in type 3 aquifer recharge areas if certified by a professional civil engineer registered in the state of Florida that installation and maintenance shall be such that the permeability rates meet or exceed manufacturer's specifications.
- (4) If there is not local use from private wells, the natural resources management office shall review the proposed project during the site plan or development approval process, and may waive the 45 percent impervious surface requirement.
- (5) Land alteration shall not alter the recharge or storage characteristics of the area. This includes the removal of high-permeability soils or replacement with lower-permeability soils; compaction; or the cutting, filling, grading or alteration of natural topography without an active development order.

**Sec. 62-3638. Appeals.**

Any appeals relating to any administrative decision or determination concerning implementation or application of the provisions of this Division shall be filed in accordance with the provisions set forth in Section 62-507, Brevard County Code.