

---

**Guide to Local  
Groundwater Protection  
in Florida**

---

**Volume III  
Appendices**

---

Prepared for

St. Johns River  
Water Management District

Southwest Florida  
Water Management District

---

Jeff Wade  
Center for Governmental Responsibility  
University of Florida College of Law  
Gainesville, Florida 32611

January 1991

---

# TABLE OF CONTENTS

## VOLUME III

---

- A-1      *Appendix A: Representative Ordinances***
- B-1      *Appendix B: Planning and Technical References***
- C-1      *Appendix C: Sources of Information***

---

## ***Appendix A: Representative Ordinances***

3	Acton, Mass. (Zoning By-Law)
15	Austin, Tex. (Hazardous Materials Storage)
41	Broward County (Wellfield Protection)
58	Broward County (Stormwater Management)
69	Cortlandville, N.Y. (Aquifer Protection District)
77	Crawford County, Wis. (Animal Waste Management)
83	Dade County Code, Sec. 24-12.1 (Protection of Potable Water Supply Wells)
112	Dade County Code, Sec. 24-12.2 (Regulation of Underground Storage Facility)
120	Dade County Code, Sec. 24-13 (Liquid Waste Disposal and Potable Water Supply Systems)
133	Dayton, Ohio (Regulation of Hazardous Materials in Wellfield Protection Overlay Zones)
147	Dayton, Ohio (Chapter 53)
157	Holliston, Mass. (Aquifer Protection Overlay Bylaw)

165	Lee County (Wellfield Protection)
202	Manatee County (Groundwater/Wellhead Protection)
205	Model Local Groundwater Protection Ordinance, Title 5 (Livestock Waste)
213	Model Groundwater Protection District Bylaw Ordinance
218	Model Individual Sewage Disposal Facility Control Ordinance
229	Model Bylaw/Ordinance for Regulating Underground Hazardous Material Storage
247	Palm Beach County (Wellfield Protection)
288	Pinellas County (Wellhead Protection)
329	Panhandle Health District No. 1 (Rathdrum Prairie Sewage Disposal Regulations)
332	Spokane County (Critical Materials Storage)
348	Santa Cruz County, Calif. (Hazardous Materials)
380	Suffolk County, N.Y. (Toxic and Hazardous Materials Storage and Handling Controls)
410	Temple Terrace, Fla. (Wellfield Protection)
419	Winter Park, Fla. (Stormwater Management)



**TOWN OF ACTON, MASS.  
Zoning By-Law, Sec. 4.3  
Aquifer Protection District  
(1989)**

**4.3      GROUNDWATER Protection District**

**4.3.1      Purpose** - GROUNDWATER is the sole source of drinking water available to the residents, businesses and industries of the Town of Acton. The purpose of the GROUNDWATER Protection District is to protect the public health, safety, and welfare by protecting the Town's limited present and future drinking water supply, to ensure a sufficient quantity of potable pure drinking water for the present and future residents of Acton, and to limit the adverse effects of the USE and development of land on the quality of the GROUNDWATER and SURFACE WATER resources of the Town of Acton. The GROUNDWATER Protection District is an overlay district whose boundaries are superimposed on all districts established by this bylaw and whose regulations are in addition to any other regulations established by this bylaw. The regulations in this district are not intended to supersede or limit the protections contained in state or federal GROUNDWATER protection programs, but to supplement protections contained in other statutes and regulations. The GROUNDWATER Protection District encompasses the entire Town, but it is divided into four separate protection zones, the regulations for which vary depending on their proximity to the Town's present and future drinking WATER SUPPLY wells.

**4.3.2      District Boundaries** - The GROUNDWATER Protection District is divided into four protection zones, as follows:

**4.3.2.1      ZONE 1 - The Well Protection Area** - The area from which GROUNDWATER will travel to a pumping municipal well within a one year time period, based on average recharge conditions and anticipated pumping, as established in the "Groundwater Protection District Map of the Town of Acton, January 1989", prepared by Goldberg, Zoino and Associates (GZA) in the "Final Report - Aquifer Protection Zones, Town of Acton, Massachusetts, January 1989".

**4.3.2.2      ZONE 2 - The Recharge Protection Area** - The area within which GROUNDWATER will move toward a pumping municipal well at the end of a 180 day period of no surficial recharge and full design capacity pumping of the well (the Massachusetts Department of Environmental Quality Engineering ZONE II delineation standard), as established in the "Groundwater Protection District Map of the Town of Acton, January 1989", prepared by Goldberg, Zoino and Associates (GZA) in the "Final Report - Aquifer Protection Zones, Town of Acton, Massachusetts, January 1989". A copy of the GZA report can be viewed at the Engineering and Planning Departments and at the Office of the Town Clerk.

**4.3.2.3      ZONE 3 - The AQUIFER Protection Area** - The Area of the TOWN underlain with the geologic formation of STRATIFIED DRIFT, based on the U.S. Soil Conservation Service's (SCS) soil map field sheets 1988 and Interim Soil Survey Report, 1986; and based on the United States Geologic Survey's (USGS) Surficial Geology Maps for the Hudson Maynard Quadrangle, 1956, and the Assabet River Basin, Hydrologic Investigations Atlas, 1969.

**4.3.2.4      ZONE 4 - The Watershed Protection Area** - Consists of the entire TOWN including Zones 1-3 and separates the TOWN into watershed areas along the existing

GROUNDWATER divides. The areas of ZONE 4 outside from the boundaries of ZONES 1, 2 and 3 consist primarily of bedrock, glacial till and small isolated sand and gravel deposits. Water from these areas will eventually recharge into the lower lying areas of ZONES 1, 2 and 3, although at a rather slow rate. Recharge from these areas into ZONES 1, 2 and 3 occurs through movement of GROUNDWATER and SURFACE WATER. The purpose of ZONE 4 is to promote public awareness that all GROUNDWATER areas in the Town are interconnected and to prevent possible contamination of the GROUNDWATER from any source.

4.3.2.5 Boundary Determination - The location of the various ZONES are shown on the "Groundwater Protection District Map of the Town of Acton, January 1989", consisting of Map Number 3A showing all ZONES at a scale of 1"=1200', and of Map Number 3B. Map Number 3B consists of sheet 3B-1 through 3B-17 showing ZONE 1 and ZONE 2 at a scale of 1"=200'. The sheets 3B-1 through 3B-18 correspond to the matching town atlas pages which are also indicated on these sheets, and the ZONE delineations are either traced on these corresponding town atlas pages or on matching overlays to these pages. The "Groundwater Protection District Map of the Town of Acton, January 1989" is available at the office of the Town Clerk and the Engineering and Planning Departments. Actual site locations of the ZONE 1 and ZONE 2 boundary lines shall be determined by scaling from the Map Number 3B. Actual site location of the ZONE 3 boundary line shall be determined by the Building Commissioner, or in the case of a Special Permit hereunder, by the Planning Board, based on information from Map Number 3A. Said determination may be assisted through field investigations conducted by a soil scientist who is certified under qualification class A (advanced qualifications) by the Society of Soil Scientist of Southern New England.

4.3.2.6 Split ZONE LOTS - Notwithstanding any other provisions of this Bylaw, whenever a GROUNDWATER Protection District ZONE boundary line divides a LOT, each portion of the LOT shall comply with the requirements of this Bylaw applicable to its respective ZONE.

4.3.3 Definitions - For the purpose of the GROUNDWATER Protection District the following terms shall have the following meaning:

4.3.3.1 **AQUIFER** - An area of permeable deposits of rock or soil, containing significant amounts of potentially recoverable water.

4.3.3.2 **DIVERSION BOX** - A precast concrete box or similar structure, designed and positioned to direct a defined initial portion of runoff from a storm event in one direction and to direct the remainder of the runoff water in another direction.

4.3.3.3 **PRIMARY, SECONDARY, TERTIARY TREATED EFFLUENT** - As defined from time to time in the applicable regulations of the Massachusetts Department of Environmental Quality Engineering.

4.3.3.4 **FILL** - Any material taken from on-site or off-site used for the purpose of augmenting or altering existing on-site topography, including but not limited to, landscaping, grading, or leveling of naturally occurring depressions in the land or of man-made excavations.

4.3.3.5 **GENERATOR OF HAZARDOUS MATERIALS OR WASTE** - Any individual or business that produces, uses or stores (stores: within the meaning of STORAGE

pursuant to Section 4.3.3.13) on site HAZARDOUS MATERIAL OR WASTE as defined in Section 4.3.3.7, as a PRINCIPAL or ACCESSORY USE and in quantities exceeding normal household or BUILDING maintenance needs.

- 4.3.3.6 GROUNDWATER - Water beneath the ground surface in the zone of saturation where every pore space between rock and soil particles is saturated with water.
- 4.3.3.7 HAZARDOUS MATERIAL OR WASTE - Any substance, including petroleum or derivatives thereof, or combination of substances which because of their quantity, concentration, physical, chemical, infectious, flammable, combustible, radioactive, or toxic characteristics, may cause or significantly contribute to a present or potential risk to human health, safety or welfare; to the GROUNDWATER resources; or to the natural environment. Any substance, including but not limited to those regulated under the applicable Acton Board of Health regulations and under any of the following State and Federal laws and regulations, or any amendments thereof, shall be considered HAZARDOUS MATERIAL OR WASTE:
- M.G.L, Chapter 21C, 315 CMR 2.04;
  - M.G.L, Chapter 21E, 310 CMR 40.00;
  - M.G.L, Chapter 111F, 105 CMR 670.00;
  - M.G.L, Chapter 148, Section 13;
  - Toxic Substances Control Act - 15 U.S.C. s.2601 et seq.;
  - Federal Insecticide, Fungicide and Rodenticide Act - 7 U.S.C. s.136 et seq.;
  - Resource Conservation and Recovery Act - 42 U.S.C. s.6901 et seq.;
  - Comprehensive Environmental Response, Compensation and Liability Act of 1980 - 42 U.S.C. s.9601 et seq.;
  - Federal Clean Water Act - 33 U.S.C. s.1251 et seq.;
- For the purposes of this section, sanitary domestic wastes from residential sources shall not be considered a HAZARDOUS MATERIAL OR WASTE.
- 4.3.3.8 IMPERVIOUS COVER - Refers to material covering the ground, with a coefficient of runoff greater than 0.7 (as defined in Data Book for Civil Engineers by Seelye;  $C = \text{runoff/rainfall}$ ) including, but not limited to, macadam, concrete, pavement and buildings.
- 4.3.3.9 MAXIMUM GROUNDWATER ELEVATION - The height of the GROUNDWATER table when it is at its maximum level or elevation. This level is usually reached during the months of December through April. Determination of the MAXIMUM GROUNDWATER ELEVATION shall be made upon adequate field testing, and where necessary upon the assumption that any well, which during pumping would draw down the GROUNDWATER elevation at the site, is not operating and that the GROUNDWATER table has leveled off.
- 4.3.3.10 UNDISTURBED OPEN SPACE - An area within the OPEN SPACE that lies outside of any disturbances due to clearing, grading, paving, building, landscaping or other site development activities. It may be subject to limited and selected cutting of trees, removal of dead wood, or yearly mowing of grass and brush.

- 4.3.3.11 **SOLID WASTE** - For the purpose of this section, **SOLID WASTE** shall mean any unwanted or discarded solid material, as defined in 310 CMR 18, with the exception of brush, yard trimmings and grass clippings.
- 4.3.3.12 **STRATIFIED DRIFT** - Permeable, porous deposits of glacial outwash, consisting primarily of sand and gravel. the particular deposits referred to herein are those occurring in glacial river valleys in which the town's drinking **WATER SUPPLIES** are located. These deposits are defined in the United States Geologic Survey's (USGS) Surficial Geology Maps for the Hudson Maynard Quadrangle, 1956, and the Assabet River Basin, Hydrologic Investigations Atlas, 1969, and in the U.S. Soil Conservation Service's (SCS) soil map field sheets, 1988, and Interim Soil Survey Report, 1986; soil types associated with **STRATIFIED DRIFT** listed in the Interim Soil Survey Report: Agawam series, Amostown series, Birdsall series, Carver series, Deerfield series, Freetown series, Freetown-ponded, Hadley series, Haven series, Hinkley series, Hinkley series-bouldery, Limerick series, Merrimac series, Merrimac-urban land complex, Ninigret series, Occum series, Pipestone series, Pootatuck series, Quonset series, Raynham series, Rippowam series, Saco series, Scarboro series, Scio series, Sudbury series, Suncook series, Swansea series, Tisbury series, Walpole series, Windsor series, Winooski series; also Udorthents, Gravel Pits, Landfills, and Urban Land Complexes when surrounded by or primarily associated with soil types listed above. The above referenced soil types are associated with **STRATIFIED DRIFT** in general, however, not necessarily every listed soil type does occur within the boundaries of the Town of Acton.
- 4.3.3.13 **STORAGE** - On-site containment or retention of materials (liquid, gas, solid) for **PRINCIPAL** or **ACCESSORY USE** for a period of more than 24 hours and occurring with a frequency of more than once a month.
- 4.3.3.14 **SURFACE WATER** - All surface water bodies and wetlands protected under Massachusetts General Laws, Chapter 131, Section 40.
- 4.3.3.15 **WATER SUPPLY** - A **GROUNDWATER AQUIFER** and **SURFACE WATER** recharge to a **GROUNDWATER AQUIFER**, which is a present or potential future drinking **WATER SUPPLY** source for the Town of Acton.
- 4.3.4 **OPEN SPACE and LOT cover** - The following requirements shall apply for **OPEN SPACE**, **UNDISTURBED OPEN SPACE** and **IMPERVIOUS COVER**:
- 4.3.4.1 **ZONE 1** - In the Well Protection Area (**ZONE 1**) a minimum of 90% of every **LOT** shall remain **OPEN SPACE**, 50% of every **LOT** shall remain as **UNDISTURBED OPEN SPACE**. No more than 10% of every **LOT** shall be covered with **IMPERVIOUS COVER**.
- 4.3.4.2 **ZONE 2** - In the Recharge Protection Area (**ZONE 2**) a minimum of 70% of every **LOT** shall remain **OPEN SPACE**, 40% of every **LOT** shall remain as **UNDISTURBED OPEN SPACE**. No more than 30% of a **LOT** shall be covered with **IMPERVIOUS COVER**.
- 4.3.4.3 **ZONE 3, ZONE 4** - In the Aquifer Protection Area (**ZONE 3**) and in the Watershed Protection Area (**ZONE 4**) the **OPEN SPACE** requirements of the underlying Zoning District shall apply.

- 4.3.4.4 Outdoor STORAGE - Outdoor STORAGE areas shall not be considered a part of the OPEN SPACE of any LOT.
- 4.3.5 Depth to GROUNDWATER - Except for single FAMILY residential USES or BUILDINGS, no land within ZONES 1, 2 and 3 of the GROUNDWATER Protection District shall be developed or used except in accordance with the following requirements:
- 4.3.5.1 Minimum Distance to GROUNDWATER - The vertical distance between the existing or pre-development land surface and the MAXIMUM GROUNDWATER ELEVATION shall generally not be reduced, except when necessary to properly grade and construct STREETS, driveways, parking facilities and BUILDING sites, in order to comply with applicable regulations and to meet generally accepted access and safety standards. (1) The minimum distance between the finished or post-development grade from the MAXIMUM GROUNDWATER ELEVATION shall be not less than ten (10) feet, except as provided in Section 4.3.5.2. (2) If the distance between the existing or pre-development land surface and the MAXIMUM GROUNDWATER ELEVATION is less than ten (10) feet, the distance may be reduced in accordance with Section 4.3.5.2.
- 4.3.5.2 Maximum Allowed Reduction within 10ft of GROUNDWATER - Where the existing or pre-development land surface is less than 10 feet above the MAXIMUM GROUNDWATER ELEVATION, the vertical distance between the finished or post-development grade to the MAXIMUM GROUNDWATER ELEVATION may be not less than ninety (90) percent of the pre-development distance.
- 4.3.5.3 GROUNDWATER Recharge Facilities - The bottom elevation of a leaching pond, or the bottom elevation of the stone layer in a leaching galley or trench shall be not less than two (2) feet above the MAXIMUM GROUNDWATER ELEVATION. This section shall apply to structures associated with surface drainage only.
- 4.3.6 Other Design and Operation Requirements - Except for single FAMILY residential USES or BUILDINGS, no land within ZONES 1, 2 and 3 of the GROUNDWATER Protection District, and with respect to Sections 4.3.6.1 and 4.3.6.2 no land within the entire GROUNDWATER Protection District, shall be developed or used except in accordance with the following requirements:
- 4.3.6.1 FILL - FILL material shall not contain either HAZARDOUS MATERIAL OR WASTE, or SOLID WASTE. This Section shall also apply in ZONE 4.
- 4.3.6.2 Watershed Recharge - The amount of annual precipitation being captured and recharged to the GROUNDWATER on site shall not be reduced due to development related surface runoff from the site when compared to pre-development conditions. Where a Special Permit or Subdivision Approval is required the Special Permit Granting Authority or the Planning Board shall require a hydrologic budget or water balance calculation for the site, showing pre- and post-development conditions, prepared by a Massachusetts Registered Professional Engineer experienced in hydrogeology. This Section shall also apply in ZONE 4.
- 4.3.6.3 Treatment and Renovation of Runoff - All water runoff from impervious covers shall, at a minimum, be funneled into gas trap catch basins. The first (1st) inch of every storm event shall be directed into a retention pond(s), where it shall be retained for an average of at least 3 days prior to recharge into the ground or

discharge from the site. The retention pond(s) shall be exposed to sunlight, vegetated, and lined with soil featuring a permeability of 0.0001 cm/sec (0.1417 in/hr) or less. A DIVERSION BOX shall direct all water, which falls onto the site in excess of one (1 ) inch during a single storm event, toward additional storage, direct infiltration, or discharge from the site.

4.3.6.4 Pollution Safeguards - (1) Drainage facilities shall be designed to prevent leaks and shall be equipped with emergency slide gates or similar provisions to be closed in the event of an emergency. (2) Loading and unloading areas for HAZARDOUS MATERIALS OR WASTE, including fuel and heating oils, shall be equipped with a containment dike. (3) Compliance with the Acton Hazardous Materials Control Bylaw shall be required.

4.3.6.5 Location - Where a LOT is divided into two or more protection ZONES, potential pollution sources, such as HAZARDOUS MATERIALS OR WASTE processing, storage and disposal systems, septic systems, or wastewater treatment plants, shall be located on that portion of the LOT which is in the ZONE farthest away from the public wells. Where the ZONE boundary in question is one between ZONE 3 and ZONE 4, septic systems and wastewater treatment plants may be located in either ZONE, subject to certain restrictions contained in Section 4.3.7 of this Bylaw.

4.3.7 GROUNDWATER Protection District Use Regulations - No land which lies in Zone 1, 2, and 3 of the GROUNDWATER Protection District shall be USED and no activity shall be conducted on any land within these ZONES of the GROUNDWATER Protection District except in conformance with the following regulations:

4.3.7.1 Permitted USES all ZONES - All USES allowed in the underlying zoning district except those which are prohibited or regulated in section 4.3.7.2 are permitted.

4.3.7.2 Prohibited USES and USES requiring a Special Permit - In the following table of USE regulations "N" indicates that the USE is prohibited. "Y" indicates that a USE is permitted, and "SP" indicates that a USE may only be permitted by a Special Permit from the Planning Board.

Table 4.3.7.2

**USE Regulations within the  
GROUNDWATER Protection District**

	ZONE 1 Well Protection Area	ZONE 2 Recharge Protection Area	ZONE 3 Aquifer Protection Area
1. Sanitary landfill/solid waste disposal site, refuse treatment and disposal facility.....	N	N	N
2. GENERATOR OF HAZARDOUS MATERIALS OR WASTE, except for municipal USES as defined in Section 3.4.1 of this Bylaw.....	N	N	SP
3. Motor Vehicle Repair Facility.....	N	N	SP
4. Motor vehicle STORAGE for the purposes of leasing, rental, sale, resale, parts recovery, or similar USES.....	N	N	SP
5. Car, truck and equipment washing facilities.....	N	N	SP
6. STORAGE of petroleum products for purposes other than heating the premises on which it is located.....	N	N	SP
7. Underground STORAGE of fuel oil, gasoline, or other HAZARDOUS MATERIALS.....	N	N	SP
8. Underground STORAGE of fuel oil, gasoline, or other HAZARDOUS MATERIALS associated with residential USE.....	N	N	N
9. Commercial Laundries.....	N	N	SP
10. Dry cleaners with on-site cleaning facilities.....	N	N	SP
11. Furniture/wood stripping, painting & refinishing.....	N	N	SP
12. Disposal of snow contaminated with deicing chemicals and originating from a protection ZONE further distant from a public well than the location of disposal.....	N	N	N

		ZONE 1 Well Protection Area	ZONE 2 Recharge Protection Area	ZONE3 Aquifer Protection Area
13.	Outdoor STORAGE of fertilizer, pesticide, herbicide and deicing chemicals.....	N	N	SP
14.	Chemical, bacteriological, biological or radiological laboratory or production facility.....	N	N	N
15.	Subsurface disposal of wastewater effluent at a rate of less than 3.5gpd/1000sf of land area.....	Y	Y	Y
16.	Subsurface disposal of wastewater effluent at a rate of 3.5gpd or more per 1000sf of land area but at a rate of less than 6gpd/1000sf of land area.....	N	Y	Y
17.	Subsurface disposal of wastewater effluent at a rate of 6gpd or more per 1000sf of land area.....	N	N	Y
18.	Subsurface disposal of wastewater effluent on a non-buildable LOT(**) except where expressly permitted other wise in this Bylaw.....	N	N	N
19.	Subsurface disposal of wastewater effluent at a rate of less than 750gpd per buildable LOT(**).....	Y	Y	Y
20.	Subsurface disposal of wastewater effluent at a rate of 750gpd or more per buildable LOT(**) but at a rate of less than 2,000gpd per buildable LOT(**).....	N	Y	Y
21.	Subsurface disposal of wastewater effluent at a rate of 2,000gpd or more per buildable LOT(**) but at a rate of less than 6,000gpd per buildable LOT(**).....	N	N	Y
22.	Subsurface disposal of wastewater effluent at a rate of 6,000gpd or more per buildable LOT(**).....	N	N	N



		ZONE 1 Well Protection Area	ZONE 2 Recharge Protection Area	ZONE 3 Aquifer Protection Area
23.	Subsurface disposal of tertiary treated wastewater effluent at a rate of 6,000gpd or more but at a rate of less than 15,000gpd(***).....	N	SP	SP
24.	Subsurface disposal of tertiary treated wastewater effluent at a rate of 15,000gpd or more(***).....	N	N	SP

**NOTES:**

- (\*) A USE may fall under one or more categories listed in this Table. Except as indicated in NOTE(\*\*\*), any USE must be able to qualify for a Y or a SP in every applicable category, in order to be considered allowed (Y) or in order to be considered eligible for consideration of a special permit (SP), as the case may be.
- (\*\*) For the purpose of this table buildable LOT shall mean a LOT that qualifies as a BUILDING LOT in the underlying zoning district in which it is located.
- (\*\*\*) If a USE qualifies for consideration of a special permit (SP) under this item, it shall be so qualified regardless of any requirements in items 15 through 22.

gpd - Gallons per day

#### 4.3.8 Special permit in the GROUNDWATER Protection District

4.3.8.1 Special Permit Granting Authority - The Special Permit Granting Authority for USES in the GROUNDWATER Protection District shall be the Planning Board.

4.3.8.2 Applicability - A special permit in the GROUNDWATER Protection District shall be required for:

- a) Any new PRINCIPAL and ACCESSORY USE designated SP in the Table of USE Regulations - Section 4.3.7.2.
- b) Any change or substantial extension of any PRINCIPAL or ACCESSORY USE designated SP in the Table of USE Regulations - Section 4.3.7.2 - previously authorized through a Special Permit under this section, including any change or increase in HAZARDOUS MATERIALS OR WASTE produced, used or stored on the site, or any change in the grade of the land or the drainage system for the LOT, which affects the flow of GROUNDWATER or SURFACE WATER from the site.
- c) Any change or substantial extension of any PRINCIPAL or ACCESSORY USE designated SP or N in the Table of USE Regulations - Section 4.3.7.2 - existing as of the date of adoption of this section, including any change or increase in HAZARDOUS MATERIALS OR WASTE produced, used or stored on the site, or any change in the grade of the land or the drainage system for the LOT, which affects the flow of GROUNDWATER or SURFACE WATER from the site.

#### 4.3.9 Contents of Special Permit Applications in the GROUNDWATER Protection District:

4.3.9.1 Filing Requirements - Each application for a Special Permit shall be filed with the Town Clerk and the Planning Board. The application, including any plans and accompanying text, shall be sufficient, in the opinion of the Planning Board, to allow full evaluation of the proposed USE and its impact on the GROUNDWATER resources and shall comply with the rules and regulations governing Special Permits in the GROUNDWATER Protection District. Such rules and regulations shall be adopted by the Planning Board pursuant to section 10.3.1 of this bylaw and shall be available in the offices of the Town Clerk and the Planning Board.

4.3.9.2 Hydrogeologic Assessment - The application shall include analysis prepared by a Massachusetts Registered Professional Engineer experienced in hydrogeology, to demonstrate that the proposed activity will comply with the purpose of this section of the Bylaw. At a minimum, the analysis shall fully describe: the seasonal profile of elevation, velocity and direction of GROUNDWATER and SURFACE WATER flows with and without the proposed USE; the location of all present, and potential future public drinking water supplies that could be affected by the proposed USE; the location of any other public or private GROUNDWATER and SURFACE WATER resources that could be affected by the proposed USE. The application shall also include the results of an analysis of the GROUNDWATER below the site, testing for Priority Volatile Organic Compounds, nitrates and sodium chloride. The Planning Board may require the testing for additional compounds as it deems appropriate. All GROUNDWATER Protection District ZONE boundaries on the site shall be shown on a plan.

- 4.3.9.3 Watershed Recharge Capacity - The application shall include a local hydrologic budget or water balance calculation for the site showing pre- and post-development conditions. Such calculation shall be performed by a Massachusetts Registered Professional Engineer experienced in hydrogeology.
- 4.3.9.4 GROUNDWATER Recharge Systems - The application shall include plans and written materials as appropriate to allow full evaluation of the proposed recharge and drainage systems and their compliance with this Bylaw.
- 4.3.9.5 Pollution Sources - The application shall include a list of all HAZARDOUS MATERIALS OR WASTE to be produced, stored, loaded, unloaded or otherwise processed on site as part of the PRINCIPAL or ACCESSORY USE, and shall show on a plan the locations where such HAZARDOUS MATERIALS will be or may be present or accumulated during normal operations on the site. The application shall demonstrate compliance with the HAZARDOUS MATERIALS Control Bylaw of the Town of Acton.
- 4.3.9.6 Profile of Events, Emergency Response Plan - The application shall include a full profile of potential events which could adversely affect the normal range of the quality of water leaving the site and an Emergency Response Plan proposed to respond to and mitigate such events. Such events shall include any which could, in the opinion of the Planning Board, reasonably be expected to occur at least once in the lifetime of the proposed USE. The Emergency Response Plan shall be site specific and shall be prepared according to applicable state and federal regulations. It shall outline measures to be taken and procedures to be followed in the event of a HAZARDOUS MATERIALS OR WASTE spill or any other emergencies that could threaten the GROUNDWATER AND SURFACE WATER resources of the site and of the Town of Acton as a whole. A specific location on site shall be designated where emergency response equipment, i.e. shovels, absorbent materials, foam, protective wear, water tight barrels etc., shall be kept ready for use. The Planning Board may require that a yearly emergency response training course be provided for some or all personnel employed at the site and that participation in such a course shall be condition of employment at the site.
- 4.3.9.7 Provisions of Safeguards - The application shall include, in form of plans and written materials, provisions to protect against HAZARDOUS MATERIAL OR WASTE discharge or loss resulting from corrosion, accidental damage, spillage, or vandalism through measures such as: spill control provisions in the vicinity of HAZARDOUS MATERIAL OR WASTE, chemical or fuel delivery and pickup points; secured STORAGE areas for HAZARDOUS MATERIALS or WASTES; indoor STORAGE provisions for corrodible, volatile or dissolvable HAZARDOUS MATERIALS OR WASTE; and closed vapor recovery systems for operation which allow evaporation of HAZARDOUS MATERIALS into the interior of any STRUCTURE.
- 4.3.9.8 HAZARDOUS MATERIALS management and disposal - The application shall include a HAZARDOUS MATERIALS management plan describing all aspects of the handling process, from the description of the source to the location of final disposal.
- 4.3.10 Action by the Planning Board, Criteria for Special Permit - After notice and public hearing, and after due consideration of all reports and recommendations submitted to the Planning

Board regarding the Special Permit application, the Planning Board may grant such a Special Permit provided that it shall make the following findings:

4.3.10.1 Maintain GROUNDWATER Quality - That the proposed USE will not cause the GROUNDWATER quality at the down-gradient property boundary to fall below the drinking water standards established by the Acton Water District, or where no such standards exist, below standards established in 314 CMR 6.00, Massachusetts Drinking Water Standards, or by the Acton Board of Health. Where existing GROUNDWATER quality is already below those standards, the Planning Board may grant such Special Permit upon determination that the proposed USE will not result in further degradation of the GROUNDWATER quality, and will not impede its improvement over time.

4.3.10.2 Protection of Overall WATER SUPPLY - That the proposed USE will not, during construction or thereafter, have an adverse effect on the GROUNDWATER, SURFACE WATER and overall WATER SUPPLY of the Town of Acton. In the case of a change or extension of a PRINCIPAL or ACCESSORY USE designated SP or N in the Table of USE Regulations - Section 4.3.7.2 - existing as of the date of adoption of this section, the Planning Board shall find that the USE after the change or extension will be in harmony with the specific purpose and intent of this section to protect the GROUNDWATER, SURFACE WATER and overall WATER SUPPLY of the Town of Acton.

4.3.10.3 Compliance - That the proposed USE is in harmony with the purpose and intent of this Section and complies with the standards of Section 10.3.5 of this Bylaw.

In making such determinations, the Planning Board shall give consideration to the proposed USE, the demonstrated reliability and feasibility of the proposed pollution control measures associated with the USE, and the degree of pollution threat to the GROUNDWATER which would result if the control measures perform at less than design specifications. The Planning Board may impose such conditions, safeguards, and limitations as it deems appropriate to protect the GROUNDWATER AND SURFACE WATER resources of the Town of Acton.

4.3.11 Submittal of "As Built" Plan - Upon completion of any work authorized through a Special Permit under this section an "as built" plan prepared by a Registered Professional Engineer, showing all improvements authorized or required, shall be submitted to the Building Commissioner for approval prior to the issuance of an Occupancy Permit.

**CITY OF AUSTIN  
Ordinance No. 84  
Hazardous Materials Storage  
(1984)**

AN ORDINANCE PROVIDING FOR THE REGISTRATION AND SAFE STORAGE OF HAZARDOUS MATERIALS; AMENDING CHAPTER 9-10 OF THE AUSTIN CITY CODE OF 1981 BY ADDING ARTICLE VI THERETO; PROVIDING FOR A MATERIALS STORAGE PERMIT AND PROHIBITING THE RECEIPT, PRODUCTION, OR STORAGE OF HAZARDOUS MATERIALS WITHOUT SUCH PERMIT; PROVIDING FOR THE PROTECTION OF TRADE SECRETS; PROVIDING FOR SEVERABILITY; AND PROVIDING AN EFFECTIVE DATE.

**ARTICLE VI HAZARDOUS MATERIALS STORAGE AND REGISTRATION  
DIVISION 1  
PURPOSE, APPLICABILITY, AND PERMIT REQUIREMENT**

**Sec. 9-10-501 Purpose**

The purpose of this Article is to protect the public health, life, resources, environment, and property, to ensure fire prevention, and to safeguard the health and lives of fire, police, and emergency medical service personnel, by regulating the handling and storage of flammable or combustible liquids, solids, or gases, organic or inorganic chemicals and fuels, and other hazardous materials.

**Sec. 9-10-502 Applicability**

This Article applies to any person located within the city limits of the City of Austin. This Article shall also apply to any person outside the city limits if such person is located both within the City of Austin's five mile extraterritorial jurisdiction and within a water-supply watershed, including the watershed of Lake Austin, or Lake Travis, or within any of the Aquifer-Related Watersheds, including the watersheds of Barton, Williamson, Slaughter, Big Bear, Little Bear, Onion Creek and Edwards Aquifer recharge Zone North of the Lower Colorado River; which watersheds are shown on the Hazardous Materials Storage and Registration Map, which shall be available for inspection in the offices of the City Clerk, Fire Department, and Planning and Growth Management Department. However, said map shall not be construed to restrict the applicability of this Article to new areas not shown on said map in the event of expansion of the City's corporate limits or extraterritorial jurisdiction through annexation or otherwise.

**Sec.9-10-503 Permit Requirement**

Any person shall obtain and maintain in force a Hazardous Materials Storage Permit or, if eligible under Section 9-10-504(b), a "short form" permit from the City of Austin Fire Department prior to and while receiving, producing, or storing either temporarily or permanently, any material or materials regulated by Division 2 of this Article. However, any person engaged in such activities on the effective date of this Article shall have twelve (12) months after the effective date within which to apply for a permit, and any such person shall be deemed to be in compliance with this Article until such time as the permit application is denied or the permit, if granted, is cancelled or terminated; provided however, any such person shall file with the Fire Department within ninety (90) days after the effective date the information and documents specified in Sections 9-10-512(a) and 9-10-512(b) of this Article.

In those cases in which the operator of the facility at which hazardous materials are received, produced, or stored does not own the facility or tanks at the facility, it shall nevertheless be the responsibility of the operator to obtain the permit required under this Article. If the operator is prohibited by the lease (or by some other legal document between the operator and the owner) from making any improvement or modification to the facility, or taking any action necessary to comply with this Article, then the owner shall be responsible for making such modification, or taking such action.

**Sec. 9-10-504 Procedure For Obtaining Permit and Procedure for Obtaining Waiver**

- a. A Hazardous Materials Storage Permit shall be granted after:
  - 1. the applicant has filed with the Fire Department a Materials Management Plan in accordance with Division 3 of this Article;
  - 2. the applicant has paid the permit fee in accordance with Section 9-10-506; and,
  - 3. the applicant is in compliance with the design specifications in Division 8 of this Article.
- b. 1. A "short form" permit shall be granted after:
  - A. the applicant has filed the information required in Section 9-10-512(a) and in Section 9-10-512(c); and,
  - B. the applicant has paid the permit fee in accordance with Section 9-10-506.
- 2. Only operators of the following businesses are eligible to obtain a "short form" permit in lieu of the Hazardous Materials Storage Permit:
  - A. Doctors Offices
  - B. Hospitals
  - C. Dry Cleaners
  - D. Gun Shops
  - E. Liquefied Petroleum Gas Storage Areas
  - F. Construction sites where fuel is stored on site in quantities regulated by this Article.
  - G. Welding Shops
  - H. Liquor stores and Bars
  - I. Retail stores which are not exempt under Section 9-10-510(e)
  - J. Any business granted eligibility to apply for a "short form" permit pursuant to Section 9-10-504(b) (4).

3. Operators of facilities with only underground storage, providing requirements are met in Division 8 (Containment) and Section 9-10-514 (Closure) of this Article, are eligible for the "short form" permit provided for in this Article.
  4. Any person who operates a business other than a business listed in Section 9-10-504(b) (2) (A-l) above may apply for the Fire Department for eligibility for a "short form" permit in lieu of the Hazardous Materials Storage Permit is not necessary in the particular case to prevent an actual or potential hazard to the public health, safety or welfare, taking into consideration the needs of emergency response personnel, the protections of the environment, the economic impact upon the applicant, and the effectiveness of a "short form" permit in the particular case. Utilizing the foregoing criteria, the Fire Department may condition the "short form" eligibility upon compliance with Division 8 requirements or other requirements of this Article. The procedure to be followed in applying for eligibility for a "short form" permit is the same procedure set forth in Section 9-10-504(d) for applying for a waiver.
- c. With respect to new storage facilities the Fire Department shall act upon the permit application within thirty (30) days after it is submitted. If the Fire Department fails to grant or deny the permit within such period, the permit shall be deemed granted. With respect to existing facilities, the permit application shall be acted upon by the Fire Department within six (6) months.
  - d. Waiver: The Fire Department may waive any requirement of this Article where it has been demonstrated to the satisfaction of the Fire Department that the requirement is not necessary to prevent an actual or potential hazard to the public health, safety, or welfare, taking into consideration the needs of emergency response personnel, and the protection of the environment. Any person requesting a waiver of any requirement of this Article shall submit to the Fire Department a written application for waiver which states the reasons within forty-five (45) days after the application is received. In the event the application is denied, the applicant shall have recourse to the appeal procedures set forth in Section 9-10-508 of this Article.
  - e. The Fire Department may revoke or suspend any permit where it is determined by the Department that the permittee is in violation of any provision of the Article.

#### Sec. 9-10-505 Transfer of Permit and Effective Date of Permit

- a. The permit may be transferred to new owners of the same business only if the new owners sign the permit, accept responsibility for all obligations under this Article at the time of the transfer of the business and document such transfer and such acceptance on a form provided by city within thirty (30) days of transfer of ownership of the business. Such transfer of the permit shall be subject to the approval of the city.
- b. No permit shall become effective until the permit has been signed and accepted by the permittee. Where the permittee is a company, firm or corporation, the acceptance must be signed by a person having the legal authority to bind the permittee.

#### Sec. 9-10-506 Fees

No permit shall be granted, renewed, or continued in effect until or unless the fees specified in Appendix "A" have been paid. The fee shall be paid simultaneously with the filing of the application. No refund or rebate of a permit fee shall be allowed by reason of the fact that the

permit is denied or the permittee discontinues the activity or use of a facility prior to the expiration of the term or that the permit is suspended or revoked prior to the expiration of the term.

**Sec. 9-10-507 Definitions**

Unless otherwise expressly stated, whenever used in this Article, the following terms shall have the meanings set forth below:

- a. **Abandoned** when referring to a storage facility, means out of service and not safeguarded in compliance with this Article. However, a storage facility shall not be deemed to be abandoned within the meaning of this Article if it was closed in accordance with this Article or with any other applicable state, federal, or local law or regulation.
- b. **Facility** means a building or buildings, appurtenant structures, and surrounding land area used by a person at a single location or site.
- c. **Hazardous Material** means any material which is subject to regulation pursuant to Division 2 of this Article.
- d. **Non-portable container** means any container which has a storage capacity of 55 gallons or more.
- e. **Officer** means the employee assigned by City to administer this Article or the designee of such employee, who shall also be a City employee.
- f. **Permit** means any Hazardous Materials Storage Permit issued pursuant to this Article or any "short form" permit issued pursuant to Section 9-10-504(b) of this Article.
- g. **Permittee** means any person to which a permit is issued pursuant to this Article and any authorized representative, agent or designee of such person.
- h. **Person** means any person, firm, corporation, or other legal entity.
- i. **Pipes** means pipeline systems which are used in connection with the storage of hazardous materials within the confines of a facility.
- j. **Primary Containment** means the first level of containment, or the inside portion of that container which comes into immediate contact on its inner surface with the hazardous material being contained.
- k. **Product-tight** means impervious to the hazardous material which is contained, or is to be contained, so as to prevent the seepage of the hazardous material from the primary containment. to be product-tight, the container shall be made of a material that is highly resistant to physical or chemical deterioration by the hazardous material being contained or shall be equipped with an inner liner which protects the construction material of the tank or container from the contained material.
- l. **Secondary Containment** means the level of containment external to and separate from the primary containment. A building may be considered secondary containment where it satisfies the requirements of Division 8.



- m. **Single-walled** means construction with walls made of but one thickness of material. Laminated, coated, or clad materials shall be considered as single-walled.
- n. **Storage Facility** means any one or combination of tanks, sumps, wet floors, pipes, vaults or other portable or fixed containers, used, or designed to be used, for the storage of hazardous materials at a facility.
- o. **Sump** means a pit or well in which liquids collect.
- p. **Wet Floor** means a floor which is used routinely to collect, contain or maintain standing liquids or to transmit standing liquids on a more or less continuous basis.

**Sec. 9-10-508 Procedure for Appeals**

- a. If the Fire Department modifies, denies or terminates a permit or disapproves a permit pending receipt of additional information, the Fire Department shall notify the person requesting or holding the permit in writing. The notification shall be accompanied by a statement of the reasons for such action. The reasons shall be based upon requirements of this Article.
- b. Any applicant or permittee aggrieved by a decision of the Fire Department shall have the right to make an appeal to the Chief of the Fire Department. Such appeal shall be perfected by giving a written notice containing the following information to the Chief of the Fire Department within fifteen(15) days of receipt of notification of the Fire Department's decision:
  - 1. The name and address of the person making the appeal.
  - 2. The facts surrounding the particular ruling.
  - 3. The ruling of the Fire Department.
  - 4. The technical reasons why the ruling should be set aside.
- c. Within a period of fifteen (15) days from the filing of the appeal, the Chief of the Fire Department shall hear the appeal together with technical testimony of the person making the appeal, or his technical expert, and the Fire Department, and make a decision either affirming or reversing the Fire Department's decision within fifteen (15) days thereafter. The person requesting or holding the permit shall be notified of the decision in writing. The notification shall be accompanied by a statement of the reasons for the decision.
- d. Any applicant or permittee aggrieved by a decision of the Chief of the Fire Department shall have the right to make an appeal to the City Council. Such appeal shall be perfected by giving a written notice containing the following information to the mayor within ten (10) days after the receipt of the decision of the Chief of the Fire Department:
  - 1. The name and address of the person making the appeal.
  - 2. The facts surrounding the particular ruling.
  - 3. The rulings of the Fire Department and the Chief of the Fire Department.

4. The technical reasons why the ruling should be set aside.
- e. The City Council shall hear the appeal within thirty (30) days from the filing of the appeal. If the appeal is not heard by the City Council within such period, the appeal shall be deemed granted.
- f. Pending the appeal of the action of Fire Department, the action of the Fire Department shall be stayed.

## DIVISION 2 MATERIALS REGULATED

### Sec. 9-10-509 Materials Regulated

#### a. Materials

A material shall be regulated by this Article if it is in a quantity specified in Paragraph b of this Section and if it meets any one of the following criteria:

1. Toxicity - has a toxicity rating of 2 or above as defined in Appendix B of this Article.
2. Flammability - has a flammability rating of 2 or above as defined in Appendix B of this Article.
3. Reactivity - has a flammability rating of 2 or above as defined in Appendix B of this Article.
4. Compressed gases.

#### b. Quantities

Any material meeting any of the criteria listed above is regulated by this Article where the aggregate quantity of each individual material throughout the facility is equal to or greater than the following:

	<u>Rating</u>	<u>Quantity</u>
Flammability	4 Extreme	20 l (5.2 gal)
	3 High	200 l (52 gal)
	2 Moderate	2000 l (520 gal)
Toxicity	4 Extreme	10 g (0.35 oz) or 10 ml (0.3 fl oz) or 0.44 l (water volume of container, glass only)
	3 High	1 kg (2.2 lb) or 1 l (0.26 gal)
	2 Moderate	200 kg (440 lb) or 200 l (52 gal)

Reactivity	4 Extreme	10 g (0.35 oz) or 10 ml (0.3 fl oz)
	3 High	1 kg (2.2 lb) or 1 l (0.26 gal)
	2 Moderate	200 kg (440 lb) or 200 l (52 gal)
Compressed Gases		200 cf at STP (0 C, 1 atm)

Mixtures shall be regulated if the amount of the regulated material in the mixture is equal to or greater than the regulated amount stated above or if the mixture is regulated by the above criteria.

In the case of a material having a rating above 2 in more than one category, the regulated amount will be on the highest rating.

#### Sec. 9-10-510 Materials Excluded From Regulation

The following materials are excluded from the materials regulated by this Article:

- a. Commercial products to be used at the facility solely for janitorial or maintenance purposes and not for resale.
- b. Radioactive materials regulated by the Texas Department of Health pursuant to article 4590f, Vernon's Annotated Texas Statutes.
- c. Any material used or stored at a private residence.
- d. Any waste material regulated by the Texas Department of Health or the Texas Department of Water Resources pursuant to Article 4477-7 of Vernon's Annotated Texas Statutes.
- e. Material (except gun ammunition, or liquids with a flammability rating of 3 or above under the criteria in Appendix "B") which is contained solely in consumer retail or pharmaceutical products for distribution to, and use by, the general public.
- f. Any material contained in a transportation vehicle.
- g. Inert gases or gases which do not support combustion.

### DIVISION 3 MATERIALS MANAGEMENT PLAN

#### Sec. 9-10-511 Materials Management Plan

Each applicant for a permit shall file a Materials Management Plan (MMP) with the City of Austin Fire Department.

#### Sec. 9-10-512 Standard Form

The standard form plan must be submitted and must include the following information:

- a. **General Information:** The submitted plan shall include the following components:
- Name and address of the facility
  - Business phone number
  - Name, title, and business phone number of responsible official
  - Number of employees
  - Hours of operation
  - Principal business activity
  - Name, emergency telephone number of primary emergency response person, and the name and emergency telephone number of such person's alternate.
- b. **Facility Description Map:** The submitted plan shall include a map drawn at a legible scale which shall include the following information:
- Location of all structures
  - Hazardous material loading, handling, and storage areas
  - Parking lots, internal roads, drives
  - Storm sewer and sanitary sewer drains, and manholes
  - The City may also require information as to the location of the following:
    - 100 year floodplains, surface water bodies
    - General Land uses within one mile of non-portable above ground
    - Storage facilities for 1) motor fuels 2) noxious and toxic gases, and 3) quantities of toxic or reactive liquids regulated by this Article in quantities greater than 750 gallons.
- c. **Facility Storage Map:** The submitted plan shall include a Facility Storage Map for licensing purposes. The map shall include:
- Location of all hazardous materials storage and use areas, and potential temporary storage areas. (interior, exterior, and underground)
  - Access to such facilities
  - Emergency equipment related to each facility
  - Name and maximum hazardous materials storage capacity of hazardous materials stored.
- d. **Hazardous Materials Inventory:** The submitted plan shall also include a Hazardous Materials Inventory. The Hazardous Materials Inventory should include information as prescribed below:
- The name of each hazardous material stored
  - Floor plan to scale and the maximum hazardous materials storage capacity of the facility
  - The estimated maximum accounts, the United Nation (UN) or North America (NA) number if such number exists for each hazardous material stored
  - If the Fire Department does not have a material safety data sheet for any hazardous material stored at the facility, or if no material safety data sheet exists for any such hazardous material, then the applicant shall provide, with respect to each such hazardous material, the toxicity rating, reactivity rating, and/or flammability rating utilizing the criteria set for the in Appendix "B" or the Department of Transportation (D.O.T.) (The Hazardous Materials table in 49 CFR, 172.101) classification of the material upon proof that Appendix "B" criteria does not exist for the material.

#### Sec. 9-10-513 Contingency Plan

The MMP shall contain a contingency plan which describes the procedures which facility personnel must take in response to fires, explosions, or any unauthorized discharge of hazardous materials. The MMP shall provide an assurance that simplified emergency procedures shall be provided to each employee who deals with hazardous materials and posted in conspicuous locations where the regulated hazardous materials are stored or handled outside of the manufacturing process of the facility.

The contingency plan must include the name, business address and emergency telephone number of the primary emergency response person and of the alternate, an evacuation plan of the facility, a list of emergency assistance numbers to be called, and a hazardous material spill, containment, clean-up plan, and the name of at least one contractor capable of and permitted to handle and haul the spilled material.

#### Sec. 9-10-514 Closure Plan

- a. The MMP shall contain a closure plan which describes procedures for terminating the storage of hazardous materials in each storage facility in a manner that:
  1. Minimizes the need for further maintenance;
  2. Eliminates to the extent possible the threat to public health or safety or to the environment from residual hazardous materials in the storage facility;
  3. Demonstrates that hazardous materials that were stored in the storage facility will be removed, disposed of, neutralized, or reused in a manner which is permissible under applicable state, federal, and local laws;
  4. Provides that, if the storage facility has underground tank(s), or if there is any suspicion of soil contamination from any above-ground storage facilities, then soil sample(s) from area(s) likely to have the maximal amount of contamination shall be obtained and analyzed for residual hazardous materials, in an appropriate manner, by a laboratory. Information pertaining to the location of samples, sampling methods, test procedures, and test results shall be provided to the City. If there is an indication of soil contamination, the permittee shall be required to demonstrate to the satisfaction of the Fire Department that the condition no longer presents a threat of harm to the public health and the environment; and,
  5. Provides for the removal or decontamination of all storage facilities in order to minimize present and future public health and environmental hazards.
- b. The closure plan for underground storage tanks shall, in addition to the above, provide the following procedures for the closure or removal of such tanks:
  1. For the closure of such tanks, the following procedures shall be incorporated into the closure plan:
    - a) All flammable or combustible liquid shall be removed from the tank and from all connecting lines.
    - b) The suction, inlet, gauge, and vent lines shall be disconnected.

- c) The tank shall be filled completely with a concrete slurry or other material pursuant to approval by the Fire Department capable of filling all voids and hardening to a solid material.
  - d) The remaining underground piping shall be capped.
  - e) The permittee shall apply for a tank closure inspection from the Fire Department.
2. For the removal of such tanks, the following procedures shall be incorporated into the closure plan:
- a) All flammable or combustible liquids in the tank and connecting lines shall be removed.
  - b) The suction, inlet, gauge, and vent lines shall be disconnected and capped or plugged.
  - c) The tank shall be made safe for removal for the introduction of carbon dioxide gas or by other approved methods which render the tank free of ignitable vapors prior to removal of the tank. The addition of dry ice (15 lbs. per 1000 gallon capacity) is recommended to lower the oxygen concentration in the tank.
  - d) The permittee shall apply for a tank closure inspection from the Fire Department.

#### **Sec. 9-10-515 Security Precautions**

The MMP shall contain a description of the security precautions which will be utilized to prevent the unauthorized entry of persons or animals into the storage facilities.

#### **Sec. 9-10-516 Coded Information**

In the event that the material being registered is a trade secret, or if its disclosure would give advantage to competitors, or if for any other reason its disclosure is not required under the Open Records Act, and the applicant requests confidentiality as hereinafter set forth in Section 9-10-521 of this Article, it shall be identified in a coded manner (with key) and not in a manner which would reveal such information to any person other than the City.

#### **Sec. 9-10-517 Warning Markings**

The Materials Management Plan shall contain a plan to provide warning markings on above ground containers, storage areas, structures, fences, gates, and access points addressing the hazard of the material stored.

#### **Sec. 9-10-518 Compliance with Material Management Plan**

The failure to comply with the MMP on file with the City shall constitute a violation of this Article. A permittee shall not store a hazardous materials in a storage facility in a quantity which substantially exceeds the maximum hazardous materials storage capacity designated in the MMP pursuant to Section 9-10-512(c) or (d) without first amending the MMP pursuant to Section 9-10-523.

**Sec. 9-10-519 Exemptions**

After the effective date of 29 CFR 1910.1200, Sections 9-10-513 and 9-10-517 shall not apply to any person required by federal law to develop and implement a written hazard communication program under 29 CFR 1910.1200(e).

**DIVISION 4  
PUBLIC RECORDS AND CONFIDENTIAL INFORMATION**

**Sec. 9-10-520 Public Records**

The MMP is a public record except as provided in Section 9-10-521. Any request for a public record hereunder shall be submitted in writing to the City of Austin Fire Department officer responsible for administering this chapter.

**Sec. 9-10-521 Confidential Information**

- a. The City of Austin Fire Department officer shall protect from disclosure any and all information which such officer is required to protect from disclosure under the Texas Open Records Act. Permit applicants or permittees are encouraged but not required, to comply with the following procedures to assist the Fire Department in maintaining confidentiality:
  - 1. At the time such information is submitted in writing to the City of Austin Fire Department, a written claim of confidential status is simultaneously submitted to the City of Austin Fire Department;
  - 2. The confidential information sought to be protected is submitted to the City of Austin on a separate form or forms, clearly and conspicuously marked or labeled as containing confidential information;
  - 3. Said form or forms containing the confidential information is submitted only to a City of Austin Fire Department official designated by the City of Austin Fire Department to receive confidential information;
  - 4. Accompanying each item of information for which a claim of confidentiality is asserted is a letter or legal memorandum signed by the attorney of the permittee or permit applicant, supporting the asserted confidential status and setting forth the reasons why such information should be given confidential status under the Texas Open Records Act.
- b. Such Fire Department officer shall not protect from disclosure any information which in the written opinion of the City Attorney's Office or Attorney General is required to be disclosed under the Texas Open Records act.
- c. Nothing in this Article shall be construed to require any person to disclose to the City of Austin any information the disclosure of which would violate any federal law or contract with the United States Government.

DIVISION 5  
RENEWAL

Sec. 9-10-522 Renewal

A permit is issued for a term of three years. Every application for the renewal of a permit shall be made not later than sixty (60) days prior to expiration. The existing permit shall remain effective until a final decision by the City is made to either grant or deny a pending application for renewal. Ninety days prior to permit expiration, the City shall notify the permittee.

DIVISION 6  
AMENDMENTS AND FACILITY CLOSURE

Sec. 9-10-523 Amendments to Materials Management Plan and Application For Closure

- a. The MMP provided for in Division 3 of this Article or, with respect to holders of a short form permit, the information required in Section 9-10-512(a) and 9-10-512(c) of this Article, shall be supplemented or amended within thirty (30) days after the occurrence of any event that would render the information contained therein untrue or incomplete. Each application for an amendment shall be accompanied by an appropriate amendment to the MMP. However, an amendment involving a change in land use within one mile of the facility, or involving, a minor change in quantities of hazardous materials stored, shall not be necessary unless such change would affect the Fire Department's ability to safely respond to an emergency. In addition, an amendment to the MMP shall not be required: to record the storage of hazardous materials in cases where the duration of such storage will not exceed forty-five (45) days, or to record a temporary change of storage location in cases where the new location will not be utilized for such storage in excess of forty-five (45) days.
- b. The permittee shall apply for approval to close a storage facility at least thirty (30) days prior to the termination of the storage of hazardous materials at the storage facility. Such closure shall be in accordance with the Facility Closure Plan which meets the requirements of Section 9-10-514, unless an alternation or change in the Facility Closure Plan is necessary, in which case the application for closure shall contain such changes(s) or alternation(s). This thirty (30) day period may be waived by City if there are special circumstances requiring such waiver.

DIVISION 7  
INSPECTION

SEc. 9-10-524 Inspections by City

City shall conduct inspections for the purpose of ascertaining compliance with this Article and causing to be corrected any conditions which would constitute any violation of this Article.

a. Right of Entry

Whenever necessary for the purpose of investigating or enforcing the provisions of this Article, or whenever any enforcement officer has reasonable cause to believe that there exists in any structure or upon any premises, any condition which constitutes a violation of this Article, said officers may enter such structure or premises at all reasonable times to



inspect the same, or to perform any duty imposed upon any of said respective officers by law; provided that if such structure or premises be occupied, the officer shall first present proper credentials and request entry, and further provided, that if such structure or premises is unoccupied, the officer shall first make a reasonable attempt to contact a responsible person from such firm or corporation and request entry. If entry is refused, the officer seeking entry shall have recourse to every remedy provided by law to secure entry.

b. Inspections by City - Discretionary

Nothing in this Article shall be construed to hold the city or any officer, employee or representative of the city responsible for any damage to persons or property by reason of making or failing to make an inspection.

Sec. 9-10-525 Inspections by Permittee

The permittee may be required by City to conduct various self-monitoring inspections of its own facilities and to maintain logs or file reports in accordance with its MMP. The inspector conducting such self-monitoring inspections shall be qualified to conduct such inspections.

Sec. 9-10-526 Maintenance of Records

The permit application, the permit, the inspection reports, the monitoring logs, and all other records required by this Article shall be maintained by the permittee for a period not less than three (3) years. Said records shall be made available to city during normal working hours and upon reasonable notice.

DIVISION 8  
CONTAINMENT DESIGN SPECIFICATIONS

Sec. 9-10-527 Containment of Hazardous Materials

No permit or approval excluding general application for the "short form" permit as provided in Sec. 9-10-504(b) of this Article shall be granted unless the permit applicant demonstrates to the satisfaction of the City, by the submission of appropriate plans and other information, that the design, construction, and operation of the storage facility complies with the specifications contained herein.

Sec. 9-10-528 Specifications for New Storage Facilities

No person shall construct or install any new storage facility, or make any addition or modification to an existing storage facility, except in accordance with the following requirements.

a. Monitoring Capability

All new non-portable storage facilities intended for the storage of hazardous materials which are liquids or solids at standard temperature and pressure (STP) shall be designed, constructed, and operated with a monitoring system capable of detecting that the hazardous material stored in the primary containment has entered the secondary containment. If water could intrude into the secondary containment, a means of regular or periodic monitoring for water intrusion and for safely removing the water shall also be provided unless water within the secondary containment is part of the system designed.

Regular monitoring shall be capable of differentiating between water and the hazardous substance.

**b. Containment Requirements**

Primary and secondary levels of containment shall be required for all new storage facilities intended for the storage of hazardous materials which are liquids or solids at standard temperature and pressure (STP). Such facilities shall meet the following specifications:

1. All primary containment shall be product-tight.
2. Secondary containment:
  - a) All secondary containment shall 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 materials and so as to be capable of containing hazardous materials discharged from a primary container for a period of time equal to or longer than the maximum anticipated time sufficient to allow recovery of the discharged hazardous material.
  - b) In the case of an installation with one primary container, the secondary containment shall be large enough to contain at least 110% of the volume of the primary container.
  - c) In the case of an above ground storage facility with multiple primary containers, the secondary container shall be large enough to contain 150% of the volume of the largest primary container placed in it, or 50% of the aggregate internal volume of all primary containers in the storage facility, whichever is greater.
  - d) In the case of an under ground storage facility with multiple primary containers, the secondary container shall be large enough to contain 110% of the volume of the largest primary container placed in it, or 50% of the aggregate internal volume of all primary containers in the storage facility, whichever is greater.
  - e) If the storage facility is open to rainfall, then the secondary containment must be able to additionally accommodate the volume produced by a ten (10) inch rainfall in a twenty-four (24) hour period.
  - f) In the case of readily visible piping, no secondary containment is required.
  - g) In cases where continuous electronic monitoring is used as an alternative in monitoring wells within the secondary containment, the volume of the secondary container displaced by the backfill shall not be considered in calculating the volume requirement of the secondary container, provided the facility is not located within the Edwards Aquifer Recharge Zone (as shown on the Hazardous Materials Storage and Registration Map) and the following site information is also submitted to and the secondary containment is approved by the Environmental Resource Management

**Division of the Department of Planning and Growth Management:**

- 1) Depth to the water table
- 2) Water table gradient
- 3) Sediment permeabilities

The Environmental Resource Division will approve the secondary containment if:

- 1) The depth to the water table from the base of the excavation for the secondary containment is at least 50 feet above the highest recorded water table depth; and,
- 2) If the water table gradient flow is moving towards a water supply source, the sediment permeability is less than  $10^{-3}$  centimeters per second.
- 3) Single-walled containers do not fulfill the requirement of an underground storage tank providing both a primary and secondary containment. However, an underground storage tank with a primary container constructed with a double complete shell shall be deemed to have met the requirements for primary and secondary containment set forth in this section if the outer shell is constructed primarily of non-earthen materials, including, but not limited to concrete, steel, and plastic, which provides structural support; a leak detection system is located in the space between the shells; the system is capable of detecting the entry of hazardous substances from the inner container into the space; and the system is capable of detecting water intrusion into the space from the outer shell.

**c. Overfill Protection**

An approved means of overfill protection shall be required for any non-portable primary container.

**d. Separation of Materials**

Materials that in combination may cause a fire or explosion, or the production of a flammable, toxic, or poisonous gas, or the deterioration of a primary or secondary container shall be separated in both the primary and secondary containment so as to avoid intermixing.

**e. Drainage System**

Drainage of precipitation from within a storage facility containing hazardous materials which are liquids or solids at STP shall be controlled in a manner approved by the city so as to prevent hazardous materials from being discharged. No drainage system will be approved unless the flow of the drain can be controlled.

**f. Professional Engineer Stamp**

The city may require design submittals to bear the stamp of one or more professional engineers, registered with the State of Texas, attesting to, such as but not limited to the following: structural soundness, seismic safety, compatibility of construction materials with contents, cathodic protection, and mechanical compatibility with the structural elements.

g. Installation Test

Upon receipt at the site, and prior to lifting the underground storage tank into the tank excavation, the standard installation testing for underground storage systems specified in Section 2-7 of the Flammable and Combustible Liquids Code, adopted by the National Fire Protection Association, (NFPA 30), as amended and published in the respective edition of the Uniform Fire Code, shall be followed.

h. Air Test and Ballasting with Water

Upon installation of the underground storage tank into the tank excavation and after backfilling with suitable material, the tank will be air tested with a pressure not to exceed 5 pounds per square inch in accordance with Section 2-7 of the Flammable and Combustible Liquids Code, adopted by the National Fire Protection Association, (NFPA 30), as amended and published in the respective edition of the Uniform Fire Code.

If the underground storage tank meets the requirements of the air test, then the tank shall be ballasted with water until placed into service. The water ballast shall be used to prove long term tank integrity.

i. Precision Tank Test

The owner of the tank may elect to not ballast underground storage tanks with water upon installation if the tank is air tested when installed and backfilled, and, prior to being placed into service, the tank is tested in the operating condition using the precision test defined by the National Fire Protection Association Pamphlet 329 "Recommended Practice for Handling Underground Leakage of Flammable and Combustible Liquids", as amended for proving the integrity of an underground storage tank. The precision tank test shall not be performed by the owner of the tank to be tested, or by an employee of the owner.

Sec. 9-10-529 Specifications for Existing Storage Facilities

Any storage facility in existence as of or being constructed on the effective date of this Article, or any storage facility for which a building permit was issued prior to the effective date of this Article, which does not meet the standards of Section 9-10-528 may be permitted pursuant to this Article as long as it is providing safe storage for hazardous materials, as provided in Paragraph (e) of this Section. However, any substantial additions or substantial modifications to existing storage facilities or to plans for the construction thereof after the effective date of this Article shall comply with Section 9-10-528. In addition, in order to obtain a permit, existing storage facilities which contain hazardous materials which are liquids or solids at standard temperature and pressure (STP) must be monitored in accordance with a plan approved by city as set forth herein.

- a. The operator shall provide a method of detecting leaks or releases of any hazardous materials stored in the facility, and thereafter, the operator shall monitor each facility, based on materials stored and the type of monitoring installed.

b. For underground storage facilities, the following monitoring methods shall be followed:

1. Daily inventory records shall be kept on file with reconciliation and review by the operator on a monthly basis. Anytime the daily inventory records indicate a leak in the storage facility, the City may require a precision test regardless of the time since the last test.
2. If a pressurized pump system is connected to the tank, the system shall have a leak detection device to monitor for leaks in the piping.
3. The tank shall be tested, using the precision test as defined by the National Fire Protection Association Pamphlet 329, "Recommended Practices for Handling Underground Leakage of Flammable and Combustible Liquids" as amended, for proving the integrity of an underground storage tank according to the following schedule. The precision tank test shall not be performed by the owner of the tank to be tested, or by an employee of the owner.

**TANK AGE**

(As of effective date  
of this Ordinance)

**TEST FREQUENCY**

Newly installed to  
5 years old

Not required

6 to 10 years old

Within 12 months of  
effective date of  
ordinance.  
Thereafter, every 2  
years

Over 10 years old

Annually beginning  
within 12 months  
after effective date  
of ordinance

4. In lieu of specifications set out by Section 9-10-529(b)(3), the operator of an underground storage facility shall provide regular and periodic leak detection which is located in monitoring wells adjacent to the facility and which is approved by the Fire Department.

c. For above ground storage facilities, the plan shall provide a means for visual inspection of the tanks.

d. Such monitoring devices and methods, as approved by city shall be installed and operating within twelve (12) months after the effective date of this Article. City may grant an extension of this compliance date, however, such extension shall not exceed six (6) additional months.

e. The continued use of, and permit approval for, existing storage facilities is subject to review and modification by the City whenever there has been any leak or accidental release from the storage facility and each time the permit is renewed. In the event of a willful release or failure to comply with modifications set forth by the City within the

amount of time specified, permit is subject to termination by the City. In determining whether continued storage in a storage facility is safe, City shall consider the age and condition of the storage facility, the methods of containment, the methods of monitoring, the feasibility of the required retrofit, the concentration of the hazardous materials contained, the severity of potential unauthorized discharge, and the suitability of other long term preventive measures which meet the intent of this Article.

- f. Existing storage facilities which are not approved in accordance with this Article must be upgraded to comply with this Article or be closed within one (1) year of a decision not to issue a full term permit. An extension of time for compliance with this subsection, not to exceed one (1) additional year may be granted by City. If the owner of the storage facility chooses to close the storage facility, in lieu of upgrading the facility to comply with this Article, then in such event the owner shall file a Closure Plan as specified in Section 9-10-514, and the closure of the facility must conform to such plan.

#### Sec. 9-10-520 Specifications for Out of Service Storage Facilities

- a. No storage facility shall be abandoned.
- b. Storage facilities which are temporarily out of service, and are intended to be returned to use, must continue to be monitored and inspected.
- c. Any storage facility which is not being monitored and inspected in accordance with this chapter must be closed or removed in a manner approved by city as specified in the MMP.
- d. Any person having an interest, including a leasehold interest, in real property and having reason to believe that an abandoned storage facility is located upon such property shall make a reasonable effort to locate such storage facility within six (6) months of the effective date of this Article.
- e. Whenever an abandoned storage facility is located, a plan for the closing or removing or the upgrading and permitting of such storage facility shall be filed within ninety (90) days of its discovery. A closure plan, if submitted, shall conform to the standards of a Closure Plan, as specified in Section 9-10-514.

#### Sec. 9-10-531 Leaks or Accidental Releases

This Section applies to storage facilities which contain hazardous materials which are liquids or solids at standard temperature and pressure (STP).

- a. Any leak or accidental release from the non-portable primary containment which the permittee is able to cleanup within eight hours, and which does not escape from the secondary containment, does not increase the hazard of fire or explosion and does not cause any deterioration of the secondary containment, shall be recorded on the permittee's monitoring reports.
- b. Any leak or accidental release which escapes from the primary or secondary containment and increases the hazard of fire or explosion, or causes any deterioration of the secondary containment, shall be reported by the permittee to the City of Austin Fire Department immediately upon detection. The reporting party shall provide information relating to the ability of the permittee to contain and dispose of the hazardous material, the estimated time it will take to complete containment and disposal, and the degree of hazard created. This reporting requirement shall also apply with respect to any leak or accidental release

form a storage facility that does not have secondary containment.

- c. The Fire department may review the permit whenever there has been a leak or accidental release or when it determines that a storage facility is unsafe. In determining whether to modify or terminate the permit, the Fire Department shall consider the age of the storage facility, the methods of containment, the condition of primary and secondary containment, the methods of monitoring, the feasibility of any required repairs, the concentration of the hazardous substances stored, the severity of potential leaks or accidental releases, and the suitability of any other long-term preventative measures which would meet the requirements of this Article.
- d. If there has been any leak or accidental release from an underground storage tank containing motor vehicle fuel not under pressure, the permittee may repair the tank once by an interior-coating process if the tank meets all of the following requirements:
  - 1. One of the following tests has been conducted to determine the thickness of the storage tank. If the person conducting the test determines that the test results indicate that the tank has a serious corrosion problem, the Fire Department may require additional corrosion protection for the tank or may prohibit the permittee from making the repair.
    - a) An ultrasonic test.
    - b) A special inspector shall enter and inspect the entire interior surface of the tank and certify the shell will provide structural support for interior lining using the following criteria:
      - i. Fiberglass tanks: The tank must be cleaned such that no residue remains on the tank wall surface.
        - 1) Interior diameter measurements are to be taken. Any tank where a cross-section has compressed more than 1% of the original diameter should not be lined or returned to service.
        - 2) An interior inspection should identify any area where compression or tension cracking is occurring. Additional glass fiber reinforcing is required prior to tank lining.
      - ii. Steel tanks: The tank's interior surface must be abrasive-blasted completely free of scale, rust and foreign matter, as specified in the American Petroleum Institute's recommended practice 16-31, relating to white metal blasting. Any perforations or areas showing corrosion pitting shall be sounded with a brass ball-peen hammer to enlarge the perforation or break thorough a potentially thin steel area. Tanks that exceed any of the following should not be interior lined or returned to service:
        - 1) A tank having an open seam or split no longer than three inches; or
        - 2) A tank having perforation no longer than one and one-half (1 1/2) inches in diameter except under the gauging opening where the perforation may be no larger than two and one-

half (2 1/2) inches in diameter; or

- 3) A tank with less than five (5) perforations (none larger than one half inch) in any one square foot area.
- 4) A tank with less than twenty (20) perforations (none larger than one-half inch in diameter) in a five hundred (500) square foot area.

c) Other comparable test as approved by the Fire Department.

2. The material used to repair the tank by an interior-coating process is compatible with the motor vehicle fuel that is stored, as approved by the Fire Department.
3. The material used to repair the tank by an interior-coating process is applied in accordance with nationally recognized engineering practices, such as the American Petroleum Institute's recommended practice No. 1631 for the interior lining of existing underground storage tanks.
4. Before the tank is placed back into service following the repair, the tank is tested in the operating condition, using the precision test defined by the National Fire Protection Association Pamphlet 329 "Recommended Practice for Handling Underground Leakage of Flammable and Combustible Liquids", as amended, for proving the integrity of an underground storage tank. The precision tank test shall not be performed by the owner of the tank to be tested, or by an employee of the owner.

- e. If there has not been a leak or accidental release from an underground storage tank containing motor vehicle fuel not under pressure, the permitholder may line or reline the interior of the tank as a preventative measure. Such action shall not be restricted by the provisions contained under subdivision (d).



## APPENDIX A

### FEE SCHEDULE

1. **Three-Year Permit Fee.** Once every three years there shall be paid a permit fee calculated as follows: for each class of hazardous materials (the classes being toxics, flammables, and reactives), the quantity range of the sum of all materials in the class shall be multiplied by \$40.00. The quantity range shall be determined in accordance with the schedule set forth in Paragraph 4 below. The procedure for calculating the fee is outlined in Paragraph 5 below. With respect to the "short form" permit, the foregoing method of calculating the fee shall also be utilized. After the initial inspection of the facility, if a permit application is denied because the facility does not comply with this Article.
2. **Annual Inspection Fee.** Once every year, except for the first year after the permit is granted, there shall be paid a \$40.00 inspection fee for the entire facility.
3. **Closure Fee.** When a facility is closed there shall be paid a \$40.00 closure fee for the inspection of the closure of the facility. If re-inspections are made necessary because of improper closure, there shall be paid a \$25.00 re-inspection fee.
4. **Quantity Range Schedule.** The quantity range schedule is as follows:

#### QUANTITY RANGE SCHEDULE

<u>Range Number</u>	<u>Liquid (Gallons)</u>	<u>Gas (Cubic Feet)</u>	<u>Solids (Pounds)</u>
1	Up to 55	Up to 200	Up to 250
2	55 - 550	200 - 2,000	250 - 2,500
3	550 - 2,705	2,000 - 10,000	2,500 - 125,000
4	2,750 - 5,000	10,000 - 20,000	125,000 - 250,000
5	More than 5,000	More than 20,000	More than 250,000

5. **Procedure for Calculating Three Year Permit Fee.** The procedure for calculating the three year permit fee is outlined as follows:

<u>Hazardous Class</u>	<u>Quantity Range</u>					<u>Required 3rd Year Permit Fee</u>
	1	2	3	4	5	
1. Toxics						x \$40.00
2. Flammables						x \$40.00
3. Reactives						x \$40.00

## APPENDIX B

### (1) Determination of Degree of Health Hazard

The health hazard rating of a material shall be determined by evaluating the potential for harm and the relative toxicity of the material or mixture of materials as a whole. Table V-1 applies to human effects data. In the absence of human exposure data, Table V-2 shall be used as a guideline. Where both acute and chronic exposure data are available, the data for the worst effect shall be used to develop the rating.

**TABLE V-1**  
**TOXICITY RATING FOR HAZARDOUS MATERIALS**  
(Human Exposure by Any Route)

Rating	Key Words	Acute (Single Exposure, immediate or delayed effects)	Chronic (Repeated Exposure)
4	<b>EXTREME HEALTH HAZARD</b>	Death	Death*
3	<b>HIGH HEALTH HAZARD</b>	Major temporary or permanent injury may threaten life	Major permanent injury (Includes mutagens and teratogens)
2	<b>MODERATE HEALTH HAZARD</b>	Minor temporary or permanent injury** (Includes nonlife threatening substances which sensitize the majority of exposed workers)	Minor temporary or permanent injury (Includes skin carcinogens)
1	<b>SLIGHT HEALTH HAZARD</b>	Minor injury readily reversible**	Minor injury readily reversible
0	<b>NO SIGNIFICANT HEALTH HAZARD</b>	Materials which produce toxic effects only under the most unusual conditions or by overwhelming dosage.	

\* Includes substances which bear a significant relationship to the development of cancer in man, but excluding the common varieties of skin cancer.

\*\* Allergens are rated according to their sensitizing potential rather than the severity of an allergic reaction upon reexposure to a substance by a sensitized worker.

**TABLE V-2  
RELATIVE ACUTE TOXICITY CRITERIA**

Rating	Key Words	LD50 Single Oral Dose: Rate mg/kg	LC50 Inhalation Vapor Exposure: Rate ppm	LD50-Skin Rabbits: mg/kg
		less than or equal to	less than or equal to	less than or equal to
4	EXTREMELY HAZARDOUS	1	10	5
3	HIGHLY HAZARDOUS	50	100	43
2	MODERATELY HAZARDOUS	500	1,000	340
1	SLIGHTLY HAZARDOUS	5,000	10,000	2,800
0	NO SIGNIFICANT HAZARD	5,000 or greater	10,000 or greater	2,800 or greater

**(2) Determination of Degree of Fire Hazard**

The fire hazard rating of a product shall be determined by evaluating the potential for harm and the relative flammability of the material or mixture of materials as a whole, using the criteria which follows.

The fire hazard rating of a liquid shall be determined from the criteria contained in Table V-3 and based on data using the final product formulation. The test procedures as found in 29 CFR 1910.106 and 107 are mandatory for liquids.

**EXTREMELY FLAMMABLE: Rating 4**

Any liquid or gaseous material which is a liquid while under pressure and having a flash point 73 F (22.8 C).

Materials which on account of their physical form or environmental conditions can form explosive mixtures with air and which are readily dispersed in air, such as dusts of

combustible solids and mists or flammable or combustible liquid droplets.

**HIGHLY FLAMMABLE: Rating 3**

Liquids and solids that can be ignited under almost all ambient temperature conditions. This rating shall include:

Liquids having a flash point at or above 73 F (22.8 C) and below 100 F (37.8 C).

Solid materials in the form of coarse dusts which may burn rapidly but which generally do not form explosive atmospheres with air.

Solid materials in a fibrous or shredded form which may burn rapidly and create flash fire hazards, such as cotton, sisal and hemp.

Materials which burn with extreme rapidity, usually by reason of self-contained oxygen (eg., dry nitrocellulose and many organic peroxides).

Materials which ignite spontaneously when exposed to air or other substances.

**MODERATELY COMBUSTIBLE: Rating 2**

Materials that must be moderately heated or exposed to relatively high ambient temperatures before ignition can occur. Materials with this rating would not under normal conditions form hazardous atmospheres with air, but under high ambient temperatures or under moderate heating may release vapor in sufficient quantities to produce hazardous atmospheres with air. The rating shall include:

Liquids having a flash point above 100 F (37.8 C) but below 200 F (93.4 C).

Solids and semisolids which readily give off flammable vapors.

**SLIGHTLY COMBUSTIBLE: Rating 1**

Materials that must be preheated before ignition can occur. Materials with this rating require considerable preheating, under all ambient temperature conditions, before ignition and combustion can occur. This rating shall include:

Materials which will burn in air when exposed to a temperature of 1,500 F (815 C) for a period of 5 minutes or less.

Liquids, solids and semisolids having a flash point at or above 200 F (93.4 C).

**NONCOMBUSTIBLE: Rating 0**

This degree should include any material which will not burn in air when exposed to a temperature of 1,500 F (815 C) for a period of 5 minutes.

The relative ratings are taken from the NFPA 704M [3] booklet, with changes in flash point to reflect current OSHA regulations.

**TABLE V-3  
RELATIVE FLAMMABILITY CRITERIA  
FOR LIQUIDS HAVING A FLASH POINT**

Numerical Rating	Key Terms	Flash Point F (C)
4	EXTREMELY FLAMMABLE	below 73 (22.8)
3	HIGHLY FLAMMABLE	at or above 73 (22.8) but below 100 (37.8)
2	MODERATELY COMBUSTIBLE	at or above 100 (37.8) but below 200 (93.4)
1	SLIGHTLY COMBUSTIBLE	at or above 200 (93.4)
0	NONCOMBUSTIBLE	greater than 1,500 (815)

**(3) Determination of Degree of Reactivity**

The reactivity hazard rating of a material shall be determined by evaluating the potential for harm and the relative reactivity of the material or mixture of materials as a whole, using the criteria which follow.

Materials in this category may be self-reactive by polymerization, decomposition, or condensation, and/or reactive with other materials commonly encountered in the workplace. The reactivity in this category often involves the rapid release of energy in the form of heat and pressure, and/or the release of highly hazardous products. The assessment of relative reactivity requires specific knowledge of what materials may be encountered in the workplace.

**EXTREMELY REACTIVE: Rating 4**

Materials which in themselves are readily capable of detonation or of explosive decomposition or explosive reaction at normal temperatures and pressures. This rating should include materials which are sensitive to mechanical or localized thermal shock at normal temperatures and pressures.

**HIGHLY REACTIVE: Rating 3**

Materials which in themselves are capable of detonation or of explosive decomposition or explosive reaction, but which require a strong initiating source or which must be heated under confinement before initiation. This rating should include materials which are sensitive to thermal or mechanical shock at elevated temperatures and pressures or which react explosively with water without requiring heat or confinement.

**BROWARD COUNTY CODE**  
**Wellfield Protection**  
**Chapter 27-12**  
**(1989)**

WHEREAS, there is an urgent need to protect existing and future public utility potable water supply wells in Broward County from the adverse affects of contamination,

WHEREAS, the Biscayne Aquifer was designated by EPA as a sole source aquifer on October 11, 1979,

WHEREAS, there is a need to approach wellfield protection in a comprehensive manner by controlling the storage, handling, use or production of hazardous materials within wellfield Zones of Influence, and

WHEREAS, the Environmental Quality Control Board recognizes the importance of this program, the need to reduce duplication efforts in this area of operations and the directive of Charter Amendment adopted by the electorate of Broward County on November 8, 1988,

NOW THEREFORE, be it enacted by the Broward County Environmental Quality Board:  
Section 1, Addition of Sections 27-12.20 through 27-12.27.

**PART III WELLFIELD PROTECTION**

**Section 27-12.20**

**DEFINITIONS**

The following definitions apply only to Part III of Chapter 27-12. Applicable definitions found in other chapters shall be used in this chapter.

1. Continuous Transit is the nonstop movement of a mobile vehicle.
2. Hazardous Material Wellfield License is a license issued by EQCB to a person operating a facility that stores, handles, uses or produces Regulated Substances, as defined herein, to comply with Part III of Chapter 27-12. Upon the effective date of this regulation, all Wellfield Protection Permits issued by the Broward County Water Resources Management Division pursuant to the Wellfield Protection Ordinance (Ordinance No. 84-60), as amended, and Resolution 84-2025. as amended, shall be converted to Hazardous Material Wellfield Licenses. All conditions and requirements of the Wellfield Protection Permit and information provided to Broward County Water Resources Management Division as part of the Wellfield Protection Permit shall be incorporated into the Hazardous Material Wellfield Protection License issued for the facility.
3. Nonresidential Activity means any activity which occurs in any building, structure or open area which is not used primarily as a private residence or dwelling.

4. Permitted Pumping Capacity refers to the amount of water authorized by the South Florida Water Management District to be pumped from a well, expressed as gallons per day.
5. Pollutant Travel Time is the time required by pollutants to travel from one point to another.
6. Potable Water is that water that is satisfactory for drinking, culinary and domestic purposes, meeting current state and federal drinking water standards.
7. Public Utility is any privately-owned, municipally-owned or county-owned system providing water or wastewater service to the public which has at least fifteen service connections or regularly serves an average of at least twenty-five individuals daily for at least sixty days of the year.
8. Regulated Substances are those substances contained in the list of hazardous and toxic substances appended to Part III of Chapter 27-12.
9. Travel Time Contour is the locus of points from which water takes an equal amount of time to reach a given destination such as a well or wellfield.
10. Travel Time Zones are the areas bounded by travel time contours.
11. Well means an artificial excavation that derives water from the interstices of the rocks or soil which it penetrates.
12. Wellfield means a tract of land which contains a number of existing or proposed wells for supplying water as specified in the Wellfield Protection maps, as amended, approved by the Broward County Board of Commissioners.
13. Zones of Influence refers to zones delineated by iso-travel time contours around existing or proposed wellfields as specified in the Wellfield Protection maps, as amended, approved by the Broward County Board of Commissioners, within which hazardous materials are regulated to protect the quality of the groundwater.

Zone 1: The land area situated between the well(s) and the ten day travel time contour.

Zone 2: The land area situated between the ten day and the thirty day travel time contours.

Zone 3: The land area situated between the thirty day and the two hundred ten day travel time contours, or the thirty day and the one foot drawdown contours, whichever is greater.

#### **Section 27-12.21 Incorporation of Regulated Substances List**

The list of Regulated Substances shown in the appendix to this Chapter is hereby incorporated to provide for simplicity of transfer of authority to EQCB. Existing EQCB regulations include every item on this list.

#### **Section 27-12.22 Incorporation of Zones of Influence Maps**

The Zones of Influence maps completed in January 1984 and subsequent amendments to these maps approved by the Broward County Board of Commissioners are incorporated



and made a part of this regulation and shall be on file and maintained by the Broward County Office of Environmental Services with up to date copies provided to the Broward County Environmental Quality Control Board.

**Section 27-12.23 Prohibitions, restrictions and licensing within Zones of Influence**

**1. Zone 1**

- a. Within Zone One a nonresidential activity which includes the storage, handling, usage or production of any Regulated Substances shall not be permitted except as provided herein.
- b. All persons who previously engaged in nonresidential activities within a Zone One who store, handle, use or produce any Regulated Substances shall cease to do so by August 28, 1986 except as provided herein.
- c. Any facility in Zone One which is allowed to continue to store, handle or use Regulated Substances in accordance with the exemptions set forth shall obtain a Hazardous Material Wellfield License which indicates the special conditions to be instituted and the dates on which those conditions apply. Such facilities shall also comply with all Zone Two prohibitions and restrictions as set forth here and any of the conditions set forth below for Zone Two as designated in said license.

**2. Zone 2**

- a. Those facilities in Zone Two which stored, handled, used or produced any Regulated Substances on August 28, 1986, or any new facility established thereafter, may continue to do so in accordance with the provisions and exemptions set forth here upon obtaining a Hazardous Material Wellfield License. Licensed facilities in Zone Two shall be subject to the following conditions.
  - 1) A recorded inventory of all Regulated Substances shall be maintained on a form provided by the EQCB. The inventory shall list the substances and the quantities present etc. and shall be submitted with the application for the Hazardous Materials Wellfield License. Such inventory shall be updated quarterly and forwarded to EQCB.
  - 2) Containment of hazardous materials shall be in accordance with Chapter 27-12 except that it shall be of adequate size to provide not less than 100% containment for any spill. The containment devices used shall be confirmed in the license.
  - 3) Emergency Collection Devices -- Vacuum suction devices or absorbent scavenger materials shall be present on site in sufficient magnitude so as to control and collect the total quantity of hazardous materials present. Emergency containers shall be present of such capacity as to hold the total quantity of hazardous materials plus absorbent material. The presence of such emergency collection devices shall be confirmed in the Hazardous Material Wellfield License and application.
  - 4) Emergency Plan -- An emergency plan shall be prepared and filed with the Hazardous Material Wellfield License indicating the procedures which will

be followed in the event of spillage so as to control and collect all spilled material in such a manner as to prevent it from reaching any storm or sanitary drains or the ground. This is not subject to the 60 day delay of Section 27-12.082(3)(d).

- 5) **Daily Monitoring** – The emergency plan shall designate a responsible person who shall on a daily basis, five times per week, check for breakage or leakage of any container containing the Regulated Substances. Daily monitoring records shall be kept and made available to the EQCB inspector at any reasonable time for examination.
- 6) **Proper and Adequate Regular Maintenance of Containment and Emergency Equipment** – Procedures shall be established for the quarterly in-house inspection and maintenance of containment and emergency equipment. Such procedures shall be in writing; a regular schedule of maintenance shall be established; and a log shall be kept of inspections and maintenance. Such logs and records shall be available for inspection by the EQCB inspector.
- 7) **Reporting of Spills** – Any spill of a Regulated Substance in an amount greater than that indicated on Appendix "A" shall be reported to EQCB by telephone immediately upon discovery of the spill. A full written report including the steps taken to contain the spill shall be submitted to EQCB within five days of discovery of the spill.
- 8) **Monitoring for Regulated Substances in Groundwater Monitoring Wells** -- One or more groundwater monitoring wells shall be installed at the expense of the licensed facility in a manner approved by the EQCB. Certified analytical results of the quantity present in each monitoring well of each of the Regulated Substances listed in the facility's license shall be filed with EQCB by the 15th day of the month following each quarter.
- 9) **Alterations and Expansion** – EQCB shall be notified prior to the expansion, alteration or modification of a facility holding a Hazardous Material Wellfield License.  
  
Any such expansion, alteration or modification shall be in conformity with EQCB regulations. Any existing Hazardous Material Wellfield License shall be amended to reflect the introduction of new Regulated Substances resulting from the change.
- 10) **Reconstruction After Catastrophe** – If any structure or building in which there is any activity subject to the provisions of this regulation is damaged by fire, flood, explosion, collapse, wind, war or other catastrophe any reconstruction shall be in conformity with EQCB regulations.
- 11) **In the event that an accumulation of one or more of the Regulated Substances listed in the Hazardous Material Wellfield License shall appear in a potable water well at any time, then one of the following actions shall become mandatory.**
  - a) All persons who engage in nonresidential activities within the affected Zone Two who store, handle, use or produce the

Regulated Substance(s) which show evidence of accumulation shall cease to do so within three years of written notification from the County. If the source of the Regulated Substances appearing in the potable water well can be identified, then only that facility shall be subject to these mandatory actions. If the owner or operator of a facility can present acceptable technical data that substantiates it is not the source of the Regulated Substances appearing in the potable water well that facility shall not be subject to these mandatory actions.

(1) In complying with this Subsection no new Regulated Substance(s) may be introduced in the place of any Regulated Substance removed to comply with cessation.

b) The affected well(s) shall be reconfigured within three years by change of pumping rate or relocation such that the affected facility is no longer within Zone Two.

12) Monitoring of all Regulated Substances shall be an ongoing activity and in the event an accumulation, as defined in Subsection 27-12.23(2)(e) shall occur, the mandatory provisions of Subsections 27-12.23(2)(a)(11) shall apply.

13) If upon the effective date of this regulation, all the requirements for compliance necessary for the issuance of a Wellfield Protection Permit have not been completed, and the applicant had made a diligent effort to do so, a Hazardous Material Wellfield License may be issued contingent on compliance within a time certain.

b. The raw water from each well designated on the Zones of Influence maps shall be monitored on a quarterly basis for all the Regulated Substances listed in the Hazardous Materials Wellfield Licenses issued to the facilities in the Zone Two for that particular well. It shall be the responsibility of the public utility to provide for the sampling and analyses and to collect the cost which shall be borne by the licensed facilities. The quarterly analyses submitted to the Broward County Division of Water Resources Management beginning March 6, 1987 pursuant to the Wellfield Protection Ordinance (Ordinance No. 84-60) shall be incorporated into the Wellfield Protection program administered under this chapter.

c. Certified quarterly reports of the analyses for Regulated Substances shall be submitted to EQCB by the utilities for the purpose of determining the accumulation of Regulated Substances in the potable water wells. These reports will be due by the 30th day of the month following each quarter as specified below:

1st	Quarter:	January 1	to	March 31
2nd	Quarter:	April 1	to	June 30
3rd	Quarter:	July 1	to	September 30
4th	Quarter:	October 1	to	December 30

d. The presence of any of the Regulated Substances in a monitoring well shall be used to ascertain the source of any accumulation appearing in a potable water well. However, the absence of the Regulated Substances in a monitoring well shall not be used as the basis to exempt any facility from the mandatory actions

set forth in 27-12.23(2)(a)(11).

- e. The EQCB shall make a determination of the accumulation of each of the Regulated Substances in each of the potable water wells. Accumulation shall mean an average annual increase of ten percent over the amount of substance present one year earlier.

3. Zone 3

- a. Those facilities storing, handling producing, using, or manufacturing Regulated Substances in Zone Three shall require a Hazardous Material License in accordance with Part II Hazardous Material, of Chapter 27-12.
  - 1) Within thirty days of any spillage in an amount greater than that indicated in the Appendix to Chapter 27-12 of a Regulated Substance, the Hazardous Material License shall be replaced with a Hazardous Material Wellfield License which will include the conditions set forth in 27-12.23(2)(a) 1 through 7.
  - 2) If a facility in Zone Three, on its own initiative, meets the conditions of 27-12.23(2)(a) 2, 3, 4 and 6, then the Hazardous Material License shall so indicate and the conditions of Section 27-12.23(3)(a) shall not apply.

**Section 27-12.24**

**EXEMPTIONS**

1. Exemption for Public Utilities

Public utilities shall be exempt from Zone One and Zone Two prohibitions as set forth in Sections 27-12.23(1)a and b and 27-12.23(2)(a)11. However, all such utilities in Zone One and Zone Two shall comply with all provisions of Section 27-12.23(2)(b) through (d).

- a. The license exemption set forth in Section 27-12.24(8) for Regulated Substances contained in storage tanks and licensed under Chapter 27-10 of the Environmental Quality Control Board shall apply. However, compliance in Zone One and Zone Two with the requirements set forth in Chapter 27-10 shall be completed by August 28, 1988.

2. Exemption for Continuous Transit

The transportation of any Regulated Substances through Zone One shall be allowed provided the transporting vehicle is in continuous transit.

3. Exemption for Vehicular Fuel and Lubricant Use

The use of any Regulated Substances solely as fuel in a vehicle fuel tank or as lubricant in a vehicle shall be exempt from the provisions of this regulation.

4. Exemption for Use of Certain Regulated Substances

The use of certain of the Regulated Substances such as pesticides, herbicides and

fungicides in recreational, agricultural, pest control and aquatic weed control activities shall be allowed provided that:

- a. In all zones, the use is in strict conformity with the use requirements as set forth in the substances EPA registries and as indicated on the containers in which the substances are sold; and
- b. In all zones, the use is in strict conformity with the requirements as set forth in Chapters 482 and 487, Florida Statutes, and Chapters 5E-2 and 5E-9, Florida Administrative Code.
- c. In a Zone One, the use of any of the Regulated Substances shall be flagged in the records of the certified operator supervising the use. The certified operator shall provide specific notification in writing to the applicators under his or her supervision that they are working at a site located in a Zone One for which particular care is required. Records shall be kept of the date and amount of Regulated Substances used at each location.
- d. In a Zone One the Regulated Substances shall not be handled during use in a quantity exceeding seven hundred (700) gallons of formulation.
- e. All non-residential uses of Regulated Substances in Zone One and Zone Two shall comply with all the provisions of Section 27-12.23(2). The use of Regulated Substances on nonresidential landscape areas smaller than five thousand square feet shall be exempted from the provisions of this regulation. However, commercial or government services in all Zones shall not be required to obtain individual licenses for every site at which they use the Regulated Substances, and these services shall be exempt from the provisions of this regulation with regard to the sites they serve provided the use is in accordance with a, b, c and d above. However, all records for such sites as required by Chapter 482, Florida Statutes, and Chapter 10D-55, Florida Administrative Code, shall be available for inspection by EQCB.

5. Exemption for the Use of Nitrates Contained in Fertilizers

The use of fertilizers containing nitrates shall be allowed in Zone One, Zone Two and Zone Three provided that:

- a. For recreational activities the application of nitrate containing materials shall be done by a supervised applicator and the amount of fertilizer applied shall exceed neither forty pounds of nitrogen per acre per month average for the total activity nor two pounds per thousand square feet per month for any localized area within the activity.
- b. For agricultural activities the application of nitrate containing materials shall be done by a supervised applicator, and the amount of fertilizer applied shall not exceed two hundred pounds of nitrogen per acre per year.
- c. The Regulated Substances shall not be handled in a quantity exceeding seven hundred (700) gallons of formulation in Zone One.
- d. All nonresidential uses of Regulated Substances in Zone One and Zone Two shall comply with all the provisions of Section 27-12.23(2). The use of Regulated

Substances on nonresidential landscape areas smaller than five thousand square feet shall be exempted from the provisions of this regulation. However, commercial services in all Zones shall not be required to obtain individual licenses for every site at which they use the Regulated Substances, and these services shall be exempted from the provisions of this regulation. However, all records of application for such sites shall be available for inspection by EQCB.

6. Exemption for Laboratory or Instrument Use in Zone One

Regulated Substances shall be exempted from the prohibitions of Zone one if they are stored, handled or used in laboratories or instruments in a combined total quantity not to exceed two gallons or sixteen pounds. Those activities covered in this exemption shall obtain a Hazardous Material Wellfield license and so shall provide an inventory of Regulated Substances and a quarterly update.

7. Exemption for Retail Sales Activities

Retail sales establishments in all Zones of Influence that store and handle Regulated Substances for resale in their original unopened containers of two gallons or sixteen pounds, or less, shall be allowed, provided that those establishments shall obtain a Hazardous Materials Wellfield License. In order to obtain the license said establishments need only provide an inventory of Regulated Substances and a quarterly update.

8. Exemption in Zone Two for Storage Tanks

Exemption from the permitting requirements in Zone Two shall be allowed for the storage of Regulated Substances if such substances are contained in storage tanks and are licensed under the storage tanks regulations as set forth in Chapter 27-10 of the Broward County Environmental Quality Control Board Code of Regulations and said activity complies with the provisions of Section 27-12.23(2).

9. Exemption in Zone Three for Storage Tanks

Storage tanks Zone Three which are licensed under Chapter 27-10 shall be exempt from Part III of Chapter 27-12.

10. Exemption in Zone Three for Automotive Service Accessory Uses at Gasoline Service Stations.

Automotive service accessory uses at gasoline service stations in Zone Three shall be exempted from the provisions of Part III of Chapter 27-12 upon the installation of monitoring wells along the down-gradient property line of the gasoline service station. Said monitoring wells shall be monitored and recorded in the same manner as required for the monitoring wells addressed in Environmental Quality Control Board Chapter 27-10.

11. Special exemptions granted an affected person in Zone One or Zone Two by the Broward County Water Resources Management Division pursuant to the Wellfield Protection Ordinance (Ordinance 84-60, as amended) and Resolution 84-2025, as amended, from the prohibitions set out in Sections 27-12.23(1) and 27-12.23(2) shall remain in effect provided that conditions still exist at the facility as follows:

- a. That special or unusual circumstances exist which are peculiar to the particular nonresidential activity and which are different than other regulated nonresidential

activities; or

- b. That adequate technology exists which will isolate the facility or activity from the potable water supply.
- c. In renewing the special exemption the PCO may prescribe any additional appropriate conditions and safeguards which are necessary to protect the wellfields.

#### **Section 27-12.25 Determination of Location Within Wellfields**

In determining the location of properties within the zones depicted on the Zones of Influence maps, the following rules shall apply:

1. Properties located wholly within one zone reflected on the applicable Zones of Influence maps shall be governed by the restrictions applicable to that Zone.
2. Properties having parts lying within more than one Zone as reflected on the applicable Zones of Influence maps shall be governed by the restrictions applicable to the Zone in which the part of the property is located.
3. Where a travel time contour which delineates the boundary between two Zones of Influence passes through a building the entire building shall be considered to be in that zone in which more than fifty percent (50%) of the floor space of the building is situated as of August 28, 1986.

#### **Section 27-12.26 Hazardous Material Wellfield License**

1. In Zone One and Zone Two, prior to the commencement of construction, closure, alteration, replacement or operation of any facility that may cause or be a source of pollution, or that may eliminate, reduce or control pollution of the ground, groundwater or surface water, the owner shall obtain an EQCB Hazardous Material Wellfield License.

All persons who have obtained a special exemption pursuant to Section 27-12.24(11) of this regulation shall be required to comply only with the license conditions provided therein.

##### **a. Closure License**

When any activity coming under this regulation is to be or has been permanently terminated the licensee shall perform a closure of the activities that will remove all Regulated Substances from the site of the activity. Prior to performing a closure of such activity the licensee shall obtain a Closure License that contains a schedule of events for removal, inspection and certification that all Regulated Substances have been removed.

##### **2. Application for License**

Application for a license to construct or operate a facility that stores, processes, uses or manufacturers hazardous materials shall be made on EQCB forms and be accompanied by the following:

- a. A list of the Regulated Substances which are stored, handled, used or produced in the activity being permitted including their quantities.
- b. A detailed description of the activities that involve the storage, handling, use or production of the Regulated Substances indicating the unit quantities in which the substances are contained or manipulated.
- c. A description of the inventory record that will be instituted to comply with the restrictions required for Zone Two.
- d. A description of the containment and site plan, the emergency collection devices and containers and the emergency plan that will be effected to comply with the restrictions required for Zone Two as set forth above. For Zone Three this particular documentation will only be required with the application for a new Hazardous Material Wellfield license following any spillage.
- e. A description of the daily monitoring records that will be instituted to comply with the restrictions for Zones Two and Three as set forth above.
- f. A description of the proper and adequate regular maintenance of containment and emergency equipment that will be required for Zone Two as set forth above. For Zone Three this particular documentation will only be required with application for a new Hazardous Material Wellfield license following any spillage.
- g. A description of the groundwater monitoring wells that will be installed and the arrangements made for certified quarterly analyses for Regulated Substances.
- h. Evidence of arrangements made with the cognizant public utility for quarterly sampling analysis of the raw water from the potable water well.

### 3. License Conditions

- a. Any change in the facility or operating procedures that may affect the potential for discharging hazardous material shall be approved prior to implementation.
- b. The license shall specify the hazardous materials to be allowed within the facility and state that any significant additions must have prior approval if said changes could affect the requirement for storage or secondary containment.
- c. Any disposed hazardous material including recycled materials shall be reported to the EQCB on a monthly basis by the fifteenth day of the following month, and be disposed in accordance with EPA, DER and EQCB requirements.
- d. Any discharge of hazardous material shall be reported to the EQCB immediately.
- e. The Spill Contingency Plan and emergency plan shall be implemented immediately upon discharge.
- f. It is the licensee's responsibility to require that all facility personnel shall successfully complete a program of classroom instructions and/or on the job training that teaches them to perform their duties in a way that insures the facility's compliance with The Code of Regulations. The training shall include proper handling and storage of all hazardous materials used at the facility. It shall



also include training at least once a year in the Spill Contingency Plan and the emergency plan. A record of the name of each employee and the fact that the person has completed the training shall be kept on file on the premises three years after his last work day or until a facility is closed.

#### **Section 27-12.27      Fee Schedule**

**1.      Effective Date**

The fees shown hereunder shall apply to all Part III licenses issued after the effective date of Chapter 27-12, Part III.

**2.      License Application Filing Fee**

- a.      Before any application for an EQCB license required under Chapter 27-12 is accepted for review a filing fee of \$65.00 shall be delivered to EQCB.
- b.      Prior to the issuance of the EQCB license required under Chapter 27-12, the license fees prescribed in this Section reduced by the licensed application filing fee shall be delivered to the EQCB.
- c.      The license application filing fee is not refundable and may not be applied to any license application other than the one for which it was originally paid.

**3.      Transfer Fee**

Where an application is filed for a license to operate any facility by reason of change of location or transfer from one person to another, or both, and where a license has previously been granted for the facility in accordance with Chapter 27-12 and no unlicensed modifications have been made to the facility, the applicant shall pay only a filing fee of \$65.00.

**4.      Hazardous Material Wellfield License Fee**

Any proposed or existing industry or other activity that sorts, processes, manufacturers or uses hazardous materials shall be assessed a construction or operation fee in accordance with the following schedule:

QUANTITY OF HAZARDOUS MATERIAL USED ANNUALLY	LICENSE FEE
0 thru 100 Gals	\$ 65.00
More than 100 thru 500 Gals	130.00
More than 500 thru 1000 Gals	200.00
More than 100 thru 2500 Gals	260.00
More than 2500 Gals	325.00

Quantities of material reported by weight in units of pounds shall be converted to an approximate volume equivalent in units of gallons by dividing the total number of pounds by ten. The number of equivalent gallons will be added to the volume of materials reported in gallons to determine the total gallons used annually, which will then be entered in the above table to determine the license fee.

**License fees may be prorated to establish convenient expiration dates.**

**These fees shall also apply to both licenses renewals and extensions.**

**5. Hazardous Material Wellfield Closure Fee**

**The license fee for a hazardous material facility spill closure shall be \$300.00. For a closure license of the type in 27-12.26(1)(a) the fee shall be one-quarter of the operating license fee.**

**Those petroleum storage systems designated as qualified sites under the Early Detection Incentive Program, Section 376.3071 (9) Florida Statutes (1986), are exempt from the payment of this fee.**

**6. Special Exemption fee**

**Any person renewing a special exemption shall pay a fee of One Hundred Dollars (\$100.00) to defray the costs of processing the exemption request.**

**All persons who have obtained a Special Exception pursuant to Section 27-12.24(11) of this regulation shall be required to comply with the license conditions provided therein.**

APPENDIX A  
REGULATED SUBSTANCES

SUBSTANCE	EPA TOXIC POLLUTANT	EPA SIGNAL WORD	AMT REQUIRED FOR REPORTABLE SPILL	
			gallons	pounds
Acenaphthene	*		10	80
Acenaphthylene	*		10	80
Acephate		Caution (II)	50	400
Acrolein	*		10	80
Acrylonitrile	*		10	80
Aldicarb		Danger (I)	10	80
Aldrin	*	Warning (II)	10	80
Allyl alcohol		Warning (II)	10	80
Aluminum phosphide		Danger (I)	10	80
Anthracene	*		10	80
Antimony	*		10	80
Arsenic	*	Danger (I)	10	80
Asbestos (fibrous)	*		10	80
Benzene	*		10	80
Benzidine	*		10	80
Benzo(a)anthracene	*		10	80
Benzo(a)pyrene	*		10	80
3,4-Benzofluoranthene	*		10	80
Benzo(ghi)perylene	*		10	80
Benzo(k)fluoranthene	*		10	80
Beryllium(total)	*		10	80
BHC-alpha	*	Warning (II)	10	80
BHC-beta	*		10	80
BHC-delta	*		10	80
BHC(lindane)gamma	*	Warning (II)	10	80
bis(2-chloroethoxy)methane	*		10	80
bis(2-chloroethyl)ether	*		10	80
bis(2-chloroisopropyl)ether	*		10	80
bis(2-Ethylhexyl)phthalate	*		10	80
Bromoform	*		10	80
4-Bromophenyl phenyl ether	*		10	80
Butylbenzyl phthalate	*		10	80
Cadmium (total)	*		10	80
Carbaryl		Caution (III), Poison	10	80
Carbofuran		Danger (I)	10	80
Carbon tetrachloride	*		50	400
Chlordane	*	Warning (I)	10	80
Chlordecone		Warning (II)	10	80
Chlorfenvinphos		Danger (I), Poison	10	80
Chlorobenzene	*		10	80
p-Chloro-m-cresol	*		10	80
Chlorodibromomethane	*		10	80
Chloroethane	*		10	80

APPENDIX A  
REGULATED SUBSTANCES  
(continued)

SUBSTANCE	EPA TOXIC POLLUTANT	EPA SIGNAL WORD	AMT REQUIRED FOR REPORTABLE SPILL	
			gallons	pounds
2-Chloroethylvinyl ether	*		10	80
Chloroform	*		50	400
2-Chloronapthalene	*		10	80
2-Chlorophenol	*		10	80
4-Chlorophenyl phenyl ether	*		10	80
Chloropicrin		Danger (I)	10	80
Chromium (total)	*		10	80
Chromium (hexavalent)	*		10	80
Chrysene	*		10	80
Clonitralid			10	80
Copper (excluding elemental metal)	*		10	80
Cyanide (total)	*		10	80
Cycloheximide		Danger (I)	10	80
2,4-D		Warning (II)	10	80
4,4'-DDD	*	Caution (III)	10	80
4,4'-DDE	*		10	80
4,4'-DDT	*	Caution (III)	10	80
Demeton		Danger (I)	10	80
Diazinon		Warning (II)	10	80
Dibenzo(a,h)anthracene	*		10	80
1,2-Dibromo-3-chloropropane		Warning (II)	10	80
1,2-Dichlorobenzene	*		10	80
1,3-Dichlorobenzene	*		10	80
1,4-Dichlorobenzene	*		10	80
3,3'-Dichlorobenzidine	*		10	80
Dichlorobromomethane	*		10	80
1,1-Dichloroethane	*		10	80
1,2-Dichloroethane	*		50	400
1,1-Dichloroethylene	*		50	400
1,2-cis-Dichloroethene			10	80
1,2-trans-Dichloroethylene	*		10	80
2,4-Dichlorophenol	*		10	80
1,2-Dichloropropane	*		10	80
1,3-Dichloropropylene	*	Danger (I)	10	80
Dicrotophos		Danger (I), Poison	10	80
Dieldrin	*	Warning (II)	10	80
Diethyl phthalate	*		10	80
2,4-Dimethylphenol	*		10	80
Dimethyl phthalate	*		10	80
Di-n-butyl phthalate	*		10	80
4,6-Dinitro-o-cresol	*		10	80
2,4-Dinitrophenol	*		10	80

APPENDIX A  
REGULATED SUBSTANCES  
(continued)

SUBSTANCE	EPA TOXIC POLLUTANT	EPA SIGNAL WORD	AMT REQUIRED FOR REPORTABLE SPILL	
			gallons	pounds
2,4-Dinitrotoluene	*		10	80
2,6-Dinitro toluene	*		10	80
Di-n-octyl phthalate	*		10	80
Dioxathion		Danger (I), Poison	10	80
1,2-Diphenylhydrazine	*		10	80
Disulfoton		Danger (I)	10	80
Endosulfan (alpha)	*	Danger (I)	10	80
Endosulfan (beta)	*	most forms are Warning (II)	10	80
Endosulfan sulfate	*		10	80
Endothall (amine formulations)		Warning (II)	10	80
Endrin	*	Danger (I)	10	80
Endrin aldehyde	*		10	80
EPN		Danger (I)	10	80
Ethoprop		Danger (I)	10	80
Ethyl benzene	*		10	80
Ethylene dibromide			50	400
Fenamiphos			10	80
Fensulfothion			10	80
Fenthion		Warning (II)	10	80
Fluoranthene	*		50	400
Fluorene	*		50	400
Fluoracetamide-1081		Danger (I)	10	80
Fonofos		Danger (I)	10	80
Guthion		Danger (I)	10	80
Heptachlor	*	Warning (II)	10	80
Heptachlor epoxide	*		10	80
Hexachlorobenzene	*		10	80
Hexachlorobutadiene	*		10	80
Hexachlorocyclopentadiene	*		10	80
Hexachloroethane	*		10	80
Hydrocyanic Acid			10	80
Indeno (1,2,3-cd)pyrene	*		10	80
Isophorone	*		10	80
Isopropyl benzene			10	80
Lead (total)	*		10	80
Malathion		Caution (III)	10	80
Mercury (total)	*		10	80
Methamidophos		Danger (I), Poison	10	80
Methidathion		Danger (I)	10	80
Methomyl		Danger (I)	10	80

APPENDIX A  
REGULATED SUBSTANCES  
(continued)

SUBSTANCE	EPA TOXIC POLLUTANT	EPA SIGNAL WORD	AMT REQUIRED FOR REPORTABLE SPILL	
			gallons	pounds
Methoxychlor		Caution (III)	10	80
Methyl bromide	*	Danger (I)	10	80
Methyl chloride	*		10	80
Methyl parathion		Danger (I)	10	80
Methylene chloride	*		10	80
Mevinphos		Danger (I), Poison	10	80
Mirex		Warning (II)	10	80
Monocrotophos		Danger (I), Poison	10	80
Napthalene	*		50	400
Nickel (excl. elem. metal)	*		10	80
Nicotine		Danger (I)	10	80
Nitrates			50	400
Nitrobenzene	*		50	400
2-Nitrophenol	*		10	80
4-Nitrophenol	*		10	80
N-Nitrosodimethylamine	*		10	80
N-Nitrosodi-n-propylamine	*		10	80
N-Nitrosodiphenylamine	*		10	80
Oxamyl		Danger (I)	10	80
Paraquat		Danger (I), Poison	10	80
Parathion		Danger (I)	10	80
PCB-1242	*		10	80
PCB-1254	*		10	80
PCB-1221	*		10	80
PCB-1232	*		10	80
PCB-1248	*		10	80
PCB-1260	*		10	80
PCB-1016	*		10	80
Pentachlorophenol	*	Danger (I)	10	80
Phenanthrene	*		10	80
Phenol	*		50	400
Phenols (total)	*		10	80
Phorate		Danger (I), Poison	10	80
Phosacetim			10	80
Phosphamidon		Danger (I), Poison	10	80
Phosphorous			10	80
Picloram		Warning (II)	10	80
Pyrene	*		10	80
Selenium (total)	*		10	80

APPENDIX A  
REGULATED SUBSTANCES  
(continued)

SUBSTANCE	EPA TOXIC POLLUTANT	EPA SIGNAL WORD	AMT REQUIRED FOR REPORTABLE SPILL	
			gallons	pounds
Silver (exc.elem.metal)	*		10	80
Silvex		Caution (III)	10	80
Sodium fluoracetate		Danger (I)	10	80
Strychnine		Danger (I)	10	80
Styrene			50	400
Sulfotepp			10	80
TEPP		Danger (I)	10	80
Terbufos		Danger (I), Poison		
1,1,1,2-Tetrachloroethane			10	80
1,1,2,2-Tetrachloroethane	*		10	80
Thallium (total)	*		10	80
Toluene	*		50	400
Toxaphene	*	Warning (II)	10	80
1,2,4-Trichlorobenzene	*		10	80
1,1,1-Trichloroethane	*		10	80
1,1,2-Trichloroethane	*		10	80
Trichloroethylene	*		50	400
2,4,6-Trichlorophenol	*		10	80
Vinyl chloride	*		10	80
Xylene(s)			10	80
Zinc (excl. elem. metal)	*		10	80
Gasoline	(contains *)		10	80
Kerosene	(contains *)		10	80
Microbiological (including total and fecal coliform)				
Petroleum Products which are hazardous or toxic			10	80
Radionuclides				

**BROWARD COUNTY CODE**  
**Criteria for Issuance or Denial of Surface**  
**Water Management Licenses**  
**Chapter 27-14.06**  
**(1989)**

**Sec. 27-14.065. Design Criteria**

**a. Water Quantity**

\* \* \* \* \*

**b. Water Quality**

**1. Standards**

Projects shall be designed so that discharges will meet State water quality standards, as set forth in Chapter 17-3, Florida Administrative Code, and EQCB water quality standards as set forth in Chapter 27 of Broward County EQCB Code of Regulations.

**2. Retention/Detention Criteria**

- a. Retention and/or detention in an overall system, including swales, lakes, canals, greenways, etc., shall be provided for. One of the three following criteria or equivalent combinations thereof (Note: Plate WM 10.1) may be utilized where the conditions therein can be met.
  - 1. Wet detention volume shall be provided for the first inch of run-off from the developed project, or the total run-off of 2.5 inches times the percentage of imperviousness, whichever is greater,
  - 2. Dry detention volume shall be provided equal to 75 percent of the above amounts computed for wet detention, or
  - 3. Dry retention volume shall be provided equal to 50 percent of the above amounts computed for wet detention. Retention volume included in flood protection calculations requires a demonstration of guarantees of long term operation and maintenance of system bleed-down ability. This must normally consist of proof of excellent soil percolation rates (example: coastal ridge sands) or an operations entity which specifically reserves funds for operation, maintenance and replacement.
- b. Commercial or industrial zoned projects shall provide at least one half inch of dry detention or retention pretreatment as part of the required retention/detention, unless reasonable assurances can be offered that hazardous materials will not enter the project's surface water management system. Such assurances may include deed restrictions on sale property occupancy, recorded lease agreements, local government restrictive codes, ordinances, pollution control licenses or permits, engineering containment systems, etc.
- c. Systems with inlets in grassed areas will be credited with up to 0.2 inches of the required wet detention amount for the contributing areas. Full credit will be



based on a ratio of 10:1 impervious area run-off to pervious area with proportional credit granted for greater ratio.

- d. Projects having greater than 40% impervious area and which discharge directly to the following types of receiving water shall provide at least one half inch of dry retention or detention pretreatment as part of the required retention/detention. Such receiving waters are:
  - 1. Class I and II waters,
  - 2. Outstanding Florida waters,
  - 3. Water bodies within the zone of influence of a wellfield or the cone of depression of any potable water well,
- e. Water surface and roofed areas can be deducted from site areas for water quality pervious/impervious calculations.
- f. Different standards may be applied to urban public highway projects.

### 3. High Density Projects

Projects which have more than 40 percent impervious area may be required to use retention rather than detention, depending on such variables as:

- a. sensitivity of receiving water
- b. soils, and
- c. arrangement of on-site facilities.

### 4. Projects located within zones of influence of wellfields

Retention/detention area locations shall not reduce hydraulic recharge distances to public water supply wells in excess of 2 percent, nor shall wet retention/detention areas be closer to public water supply wells than 300 feet.

### 5. Solid Waste Facilities

- a. Surface water management systems for Class I and II solid waste facilities, as defined by F.A.C. 17-7, shall be so designed and constructed as to maintain the integrity of the landfill at all times (during construction, operation, closure and post closure). Applicant must provide assurances that:
  - 1. all flows will be conveyed at nonerosive velocities,
  - 2. the project is designed to minimize erosion.
- b. Design features in support of these requirements may include but are not limited to:
  - 1. slopes adequate to promote run-off but not affect slope stability,

2. intermediate benches or swales which reduce run-off velocities and limit erosion,
  3. vegetation of closed portion of landfill.
- c. Class I and II landfill projects shall provide adequate assurance that leachate will not enter the surface water management system. This assurance may be provided through affirmative demonstration that the requirements of Chapter 17-7, F.A.C. for design and emplacement of liners, leachate collection systems, and treatment and disposal of leachate will be met.
- d. Borrow pits shall not be included in the surface management system unless the applicant can affirmatively demonstrate that leachate will not enter the borrow pit, and that the provisions of Chapters 17-3 and 17-4, F.A.C. will be met.
- e. Dewatering operations at active, unlined landfills are prohibited.
- f. For Class I and II landfills there may be required one or more of the following additional Best Management Practices:
1. Detention in excess of the quantities stated in Section 27-14.065 (b) (2),
  2. Dry detention areas,
  3. Dry conveyance swales with adequate dimensions to permit maintenance,
  4. Filter mechanisms for additional water quality enhancement prior to discharge,
  5. Skimmers in front of discharge structures to restrict discharge of floatable materials,
  6. Screw gates on water control structures capable of restricting discharge of poor quality surface water, and
  7. Vegetation of appropriate portions of the water management system, including but not limited to conveyance swales.
- g. To provide information for assessing the need for Best Management Practices at a specific site, a hydrogeologic investigation will be required that should, at a minimum, provide information on:
1. the hydrogeologic properties of the formation underlying the landfill, including aquifer and characteristics, groundwater elevations and direction and rate of groundwater flow,
  2. location of existing wells within one-half mile of the site perimeter, and
  3. locations and specification of existing or proposed monitor wells.
- h. Applicants should consult with Board staff to determine the specific requirements which will apply for a particular project.

**6. Use of natural areas and existing water bodies.**

Natural areas and existing water bodies may be used for retention/detention purposes on some occasions, when not in conflict with environmental (See Sections 27-14.061(m) and 27-14.065(c) herein) or public use considerations. Candidate areas for such purposes might include:

- a. Previously degraded areas,
- b. Man made areas (borrow pits, etc.),
- c. Extensive areas which have the ability to absorb impacts easily,
- d. Areas incorporated into a system with mitigation features.

**7. Underground Exfiltration Systems**

- a. Systems shall be designed for the retention volumes specified in Section 27-14.065(b) (2) for retention systems, exfiltrated over one hour for retention purposes, prior to overflow, and based on test data for the site. (Note: such systems should not be proposed for projects to be operated by entities other than single owners or entities with full time maintenance staff).
- b. A safety factor of two or more shall be applied to the design to allow for geological uncertainties.
- c. A dry system is one with the trench bottom at least one foot above the average wet season water table.
- d. Systems located within the contour for a wellfield protection Zone 3 as defined in this Code shall incorporate pollution control devices at all inlets. See Plate WM 4.2 through WM 4.5.
- e. No system shall be allowed within the contour for a wellfield protection Zone 1 as defined in this Code.
- f. Only dry systems shall be permitted in wellfield protection Zones 2 and 3 as defined in this Code unless approved by the Board.

**8. Sewage treatment percolation ponds**

Above ground pond dikes shall not be within 200 feet of water bodies or 100 feet of dry retention/detention areas. Additional calculations in unusual cases requiring deviations from these dimensions.

**9. Detention of sheet flow**

Provision shall be made to minimize sheet flow run-off into water bodies by:

- a. a nutrient berm along top of bank (see Plates WM 6.1 and WM 6.21) or
- b. a maximum slope of 20:1 to top of bank

**c. Environmental Design Criteria**

**1. Preservation of wetlands**

Wetlands and appropriate buffer areas shall be preserved. Man-made wetlands (in on-site uplands and/or impacted wetlands) of equivalent productivity may be created to replace natural wetlands.

**2. Habitat Diversity Systems**

Natural systems composed of distinct upland/wetland systems shall be preserved where it is evident that the two are interdependent.

**3. Centralized Preservation Areas**

Small isolated wetlands may be disturbed and "traded off" in certain instances for larger combination upland/wetland systems, as provided for in Appendix 7 (Isolated Wetlands) of the Rules and Regulations of the South Florida Water Management District and Chapter 27-11 (Dredge and Fill Projects) of this Code.

**4. Lake - Wetland Separation**

Lakes which may adversely affect wetland areas shall be separated from the wetland preservation areas by a minimum distance of 200 feet unless tests, calculations or other information demonstrate deviation from this dimension is appropriate.

**d. Construction Criteria**

**1. Discharge Structures**

a. All design discharges shall be made through structural discharge facilities. Earth berms shall be used only to disperse or collect sheet flows from or to ditches, swales, etc. served by discharge structures.

b. Fixed elevation discharge structures shall normally be used when there is not a downstream control structure designed to preclude the need for individual development control structures. Whenever possible, without violating the criteria for on-site surface water quantity (including over-drainage) and quality, as stated elsewhere in these regulations, a development shall be designed to the parameters of the downstream control structure of the appropriate secondary canal system in order to preclude the necessity of a control structure between the development and the secondary canal system.

Variable elevation discharge structures are preferable to fixed elevation structures. When variable elevation discharge structures are used they shall have secure locking devices. The governmental agency or local water control district that has received permit delegation from SFWMD shall keep the keys for any such devices.

Variable elevation discharge structures, to be operated by other than permitting agencies, will be approved on a case by case basis and operating agreements regarding such structures may be required.

- c. Non-operable discharge structures shall be constructed so that they are just that. Flashboard risers should not be used for urban construction.
  - d. Discharge structures should include gratings for safety and maintenance purposes (See Plate WM 9.2 for an example of a grating detail). The use of trash collection screens is desirable.
  - e. Discharge structures shall include a "baffle" system to encourage discharge from the center of the water column rather than the top or bottom. Discharge structures from areas with greater than 50 percent impervious area or from systems with inlets in paved areas shall include a baffle, skimmer, or other mechanism suitable for preventing oil and grease from discharging to and/or from retention/detention areas (See Plate WM 4.1 through WM 4.5)
  - f. Direct discharges, such as through culverts, storm drains, weir structures, etc., will normally be allowed to receiving waters which by virtue of their large capacity, configuration, etc. are easily able to absorb concentrated discharges. Such receiving waters might include existing storm sewer systems and man-made ditches, canals and lakes.
  - g. Indirect discharges, such as overflow and spreader swales, are required where the receiving water or its adjacent supporting ecosystem might be degraded by a direct discharge. The discharge structure would therefore discharge into the overflow, spreader swale, etc., which in turn would release the water to the actual receiving water. Such receiving waters might include natural streams, lakes and marshes and land naturally receiving overland sheet flow.
  - h. Pumped systems will only be allowed for single owner or governmental agency operation entities, unless perpetual operation ability can be assured. In general, the use of pumped systems shall be discouraged.
2. Control Devices/Bleed-down Mechanisms for Detention Systems
- a. Gravity control devices shall normally be sized based on a design discharge of one half inch of the detention volume in first day. The devices should incorporate dimensions no smaller than 6 square inches of cross sectional area, two inches minimum dimension, and 20 degrees for "V" notches.
  - b. Gravity control devices shall be of a "V" or circular shaped configuration to increase detention time during minor events.
  - c. Pumped control devices shall normally be sized based on a design discharge of 20 percent of the detention volume in one day.
3. Dry Retention/Detention Areas (not applicable to natural or mitigation wetland areas)
- a. Mosquito control ditches or other appropriate feature for such purpose, shall be incorporated into the design dry retention/detention areas.
  - b. The design of dry retention/detention areas shall incorporate considerations for regular maintenance and vegetation harvesting procedures.

**4. Wet Retention/Detention Areas**

**a. Dimensional Criteria (as measured at or from the control elevation):**

- 1. Area - 0.5 acre minimum,**
- 2. Width - 100 feet minimum for linear areas in excess of 200 feet length. Irregular shaped areas may have narrower reaches but should average at least 100 feet. (Note: Area and width requirements may be waived for project to be operated by single owner entities or entities with full time maintenance staffs with an obvious interest in maintaining the areas for water quality purposes, e.g. golf courses).**
- 3. Depth - A minimum of 20 percent of the area shallower than 6 feet is required up to 2.5 percent of the project waterbody and contributing area (including side slopes), and 25 to 50 percent of the area deeper than 12 feet is desirable.**
- 4. Side Slopes - For purposes of public safety, water quality enhancement and maintenance, all water retention/detention areas should have side slopes not steeper than 4:1 (horizontal:vertical) out to a depth of two feet below the control elevation , or one (1) foot below the applicable low water level as depicted on Plate WM 3.1, whichever is deeper. See Plate WM 6.2 Side slopes should be topsoiled, etc. nurtured or planted from 2 feet below to 1 foot above control elevation to promote vegetative growth. Littoral zone vegetation growth survival shall be a consideration of operation license issuance.**
- 5. Bulkheads - Bulkheads may be allowed for no more than 40 percent of the shoreline length, but compensating littoral zone must be provided.**

**b. Support Facility Design Criteria**

- 1. Perimeter maintenance and operation easements of 20 feet (minimum preferable) width at slopes no steeper than 4:1 (horizontal:vertical) should be provided beyond the control elevation water line. Slopes of 10:1 will be required where heavy equipment operation can be expected, or as determined by the local agency responsible for the maintenance. (see Plate WM 6.1)**
- 2. Control elevations should be no higher than 2 feet below the minimum road centerline elevation in the area served by the control device in order to protect the road subgrade.**

**5. Exfiltration Systems**

- a. Pipe diameter - 12" minimum,**
- b. Trench width - 3" minimum,**
- c. Rock in trench must be enclosed in filter material, at least on the top and sides,**
- d. Maintenance sumps in inlets, unless otherwise approved by the PCO,**

- e. Catch basins with pollution retardant devices should not have sumps.
- f. See Plate WM 14.1 for typical section.

6. Excavations

- a. Entrapped salt water, resulting from inland migration of salt water during hurricane tide conditions or penetration of the freshwater salt water interface, will not adversely impact existing legal water users.
- b. The penetration of a water-bearing formation exhibiting poorer water quality, in terms of chloride concentrations, will not adversely impact existing legal water users or result in adverse environmental impacts.
- c. In the area west of the salinity barrier line depicted on Plate WM 11.1 provision shall be incorporated to prevent the lowering of the groundwater table and to prevent salt water intrusion. No controlled connections to saltwater will be allowed west of the salinity barrier line.
- d. Excavations within the vicinity of tidal canals or the salt water intrusion line shall require the installation of one or more monitoring wells to establish the chloride level at a depth 10 feet below the proposed depth of excavation. The maximum value at this depth shall be 200 ppm.

If an excavation may be expected to lower the ground water level, monitoring will be required to the base of the aquifer. If the excavation is within an area of the aquifer with semi-confined layers, monitoring may also be required at the base of each semi-confined layer.

- e. The PCO shall specify measures to be taken around excavations closer than one foot above the annual high water level to prevent oils, grease, suspended solids, hazardous or toxic material or other pollutants from entering such excavations.
- f. Excavations for the purpose of the creation of permanent water bodies in a Wellfield Protection Zone shall not reduce hydraulic recharge distances to public water supply wells in excess of 2 percent, nor shall such excavations be closer to public water supply wells than 300 feet.
- g. For excavations where depth is critical the PCO may require up to two monitoring wells. The following criteria are used to determine the location and number of pairs of observation wells required for the proposed excavation site:

Size of Proposed Excavation Area	Number of Pairs
Up to 5 acres	2
Each additional fraction of 5 acres	1

Actual location of observation wells will be determined on a site specific basis and shall be approved prior to installation. One of the each pair shall be cased to the proposed depth of the excavation, and cement grouted from the bottom of the casing to grade. The shallow well will be drilled and cased to a depth of

one foot below the existing groundwater table, and need not be grouted in place. Elevations of the top of the casing shall be recorded for each of the observation wells. This technique is used to determine the presence of a head differential between the two depths. Permission to excavate to the proposed depth will be determined by the resulting measurements.

- h. Any excavations proposed in close proximity to an existing or proposed potable water wellfield or water management structures, will be required to provide the following additional safeguards:
  - 1. Berms,
  - 2. Dry retention areas,
  - 3. Pollution abatement structures,
  - 4. Water level control structures,
  - 5. Other measures deemed necessary by the PCO.
- i. Geological testing may be required, as well as monitoring well construction, in order to establish the nature of the strata that will be penetrated by a proposed excavation. Applications for excavations into highly pervious limestone that may cause undesirable hydraulic connections between sections of the aquifer or between the aquifer and surface water may be denied.

7. Impervious Areas

Run-off shall be discharged from impervious surface through retention areas, detention devices, filtering and cleansing devices, and/or subjected to some type of Best Management Practice (BMP) prior to discharge from the project site. For projects which include substantial paved areas, such as shopping centers, large highway intersections with frequent stopped traffic, and high density developments, provisions shall be made for the removal of oil, grease and sediment from storm water discharges.

8. Stagnant Water Conditions

Configurations which create stagnant water conditions such as hydraulically dead end canals are to be avoided, regardless of the type of development.

9. Tidal Water Connections

New canals connecting to salt water will be required to have dams constructed to effectively prevent salt water encroachment upstream of the structure. The design and installation of such structures are subject to the approval of the Board. For typical installation, see Plate WM 9.1. In addition to salinity dams, it is necessary to provide facilities such as sheet piling to cut off underground flow, and to allow for a "buffer zone" between any such dams or termination of a new canal and the beginning point of any other excavation such as a canal or lake. Other control structures for conservation or to prevent over-drainage will adhere to the same requirements.



## 10. Canal Crossings

A Surface Water Management License must be obtained for all crossings of waterways controlled and operated by the County. Canal crossings shall conform to the general requirements indicated below.

### a. Utility Crossings

Gravity lines are required to run two feet under the canal design bottom elevation, whereas pressure lines may cross either over or under the canal. Overhead crossings require at least the same clearance as bridges, except in the case of exposed telephone or power lines, which require greater clearance, where applicable clearance or protection will be required for canal maintenance equipment.

### b. Culverts

Canal crossings of less than a 20 foot span will be considered as culverts. The head loss will be set at 0.25 feet per crossing at design flow, and the pipe will be sized accordingly; however, the use of smaller head loss in those cases where accumulated head losses for a given reach of canal is approaching the limit, as determined by the canal design for flood control, may be required. Pipe capacity will be based on design flow with both ends of the culvert submerged. In the design of culverts, total head loss should include entrance and exit losses as well as loss due to friction in the culvert. In special cases other losses will be considered. The minimum allowable pipe size will be 12 inches. Some slope of the culvert pipe into the downstream direction should be provided to assist in the cleaning of the pipe whenever velocities are high. In tidal areas, the pipe will be set with invert at low tide level or lower. Standard details for installations, including end walls, are shown Plates WM 8.1 through 8.6 Culverts longer than 300 feet will be designed as storm sewers and conform to the requirements of Grading and Drainage Regulations and Standards.

### c. Bridges

Drainage structures of greater than a 20 feet span will be considered as bridges with the hydraulic and navigation criteria set by the Board. Approval of the bridge design will be by the Broward County Engineering Division.

## 11. Installation of Guardrails

Installation of guardrails, or other approved protective devices, is required throughout all areas where it is impossible to meet roadway separation criteria. Separation and guardrail standards are contained in Broward County Engineering Division's "Minimum Standards Applicable to Public Right-of Way...".

## 12. Water Quality Monitoring

- a. In general, there are two reasons for requiring water quality monitoring by licensees, as follows:

1. Such data can be used to determine if the pollution abatement practices incorporated into the design for the drainage system are functioning properly.
  2. In some cases there may be a real and immediate concern regarding degradation of quality in the receiving waters, regardless of the pollutant removal efficiency of the drainage system.
- b. The reason for the monitoring requirement will normally be stated in each License. Also included in the license will be the monitoring and reporting schedules and the parameters of interest. Each monitoring program will be designed specifically for the land use or individual project in question and may include surface and/or ground water sampling. Parameters of interest will normally include but not be limited to those listed in Chapter 17-3, and the water quality standards contained in this Code.
  - c. As a general rule, monitoring required of licensees will be confined to points within their boundaries. If additional sampling is needed in order to assess off-site impacts of the projects, such sampling will normally be conducted by the County, but the costs for monitoring shall be borne by the affected parties.
  - d. Licenses issued for projects not requiring monitoring at this time will normally include a statement to the effect that water quality monitoring may be required in the future. This should not be construed as an indication that the Board is contemplating the implementation of a program of intensive water quality monitoring by all licensees. If water quality problems develop in specific areas, however, licensees are in this manner put on notice that they may have to determine the quality of the water which they are discharging.

**CORTLANDVILLE, N.Y.**  
**Article VIII-A**  
**Aquifer Protection District**  
**(1986)**

**8 A.1 Statement of Intent**

The purpose and intent of the Aquifer Protection District is, in the interest of public health, safety, and general welfare, to preserve the quality and quantity of the town's groundwater resources in order to ensure a safe and healthy drinking water supply. This is to be accomplished by regulating land uses which might contribute to the contamination of any aquifers identified as necessary for the present and future water supply of the Town of Cortlandville.

**8 A.2 Scope and Authority**

The Aquifer Protection District shall be considered as overlaying other zoning districts. Any uses permitted in the portions of the districts so overlaid shall be permitted subject to all the provisions of this district. In any cases where conflicts arise between these supplemental regulations and any other existing regulations, the more restrictive regulations shall apply.

**8 A.3 Establishment and Delineation of an Aquifer Protection District**

For the purposes of this district, there are hereby established within the Town of Cortlandville, certain aquifer protection areas which consist of any aquifer, the land above such aquifer, and the aquifer's most significant recharge areas as follows:

**(1) Area I: Primary Aquifer Area**

The Primary Aquifer Area, as delineated, shall include:

- a. Those highly permeable aquifer areas which have undergone significant development as public water supplies and which serve populations greater than 8,000 persons including municipal water systems, private water companies, water districts and water authorities but excluding individual wells.
- b. Any bodies of surface water or portions thereof, including wetlands (as defined by Article 24, Section 107 of the New York State Conservation Law) within the Primary Aquifer Area Boundaries.

**(2) Area II: Principal Aquifer Area**

The Principal Aquifer Area, as delineated, shall include:

- a. Potentially productive aquifer areas not yet intensively used as sources of public water supply but which:
  - i. are composed of moderately permeable material which may have the potential to be used as a source of public water supply;
  - ii. serve as a significant source of water for individual wells; and

- iii. have an areal extent greater than one (1) square mile;
- b. Areas which provide significant recharge to primary aquifers but which are not composed of aquifer material;
- c. Any bodies of surface water or portions thereof including wetlands (as defined by Article 24, Section 107 of the New York State Conservation Law) within the Principal Aquifer Area;

**(3) Area III: Tributary Watershed Area**

The Tributary Watershed Area, as delineated, shall include land outside the aquifer area that may contribute runoff overland and/or through surface streams for groundwater recharge.

**(4) Wellhead Protection Areas**

In addition to the aquifer protection areas described herein, boundaries for Wellhead Protection Areas (WPAs) shall be delineated by the State of New York as part of the Wellhead Protection Program required under Section 1428 of the Federal Safe Drinking Water Act Amendments of 1986. The Wellhead Protection Program, including WPA delineation, must be submitted to the United States Environmental Protection Agency (U.S. EPA) by June 19, 1989, and U.S. EPA approval or disapproval of the program shall be made within nine months of that date. Implementation of a New York State Wellhead Protection Program shall occur no later than the year 1991. Wellhead Protection Area boundaries are expected to become incorporated into Watershed Rules and Regulations under jurisdiction of the State and County Health Departments. Upon delineation of the Wellhead Protection Area boundaries for the Town of Cortlandville and subsequent EPA approval, they shall become separate Wellhead Protection Areas under this Article and shall be subject to all rules and regulations pertaining thereto.

The boundaries of the Aquifer Protection District and the aquifer protection areas reflect the best hydrogeologic information available as of the date of the map. Where these bounds are in doubt or in dispute, the burden of proof shall be upon the owner(s) of the land in question to show where the boundaries should be properly located. At the request of the owner(s), the town may engage a professional geologist, hydrogeologist, engineer, or other qualified expert trained and experienced in hydrogeology to determine more accurately the location and extent of an aquifer or recharge area, and may charge the owner(s) for the entire cost of the investigation.

**8 A.4 Permitted Uses**

The following uses are permitted within the Aquifer Protection District provided that all necessary permits, orders or approvals required by local, state, or federal law shall have been obtained:

- (1) Areas I, II, and III: Primary and Principal Aquifer Areas; Tributary Watershed Area**

All uses currently permitted under the Cortlandville Zoning Law and Map are permitted in the Aquifer Protection District subject to the provisions of this Article.

**(2) Nonconforming Uses**

Notwithstanding any other provision herein, a nonconforming use within the Aquifer Protection District may be continued and maintained so long as it remains otherwise lawful. No such use shall be enlarged, altered, extended, or operated in any way which increases its threat to groundwater quality or otherwise contravenes with the purpose and intent of this Article.

In the event that a nonconforming use has ceased for a consecutive period of one (1) year or for eighteen (18) months during any three (3) year period, such nonconforming use may not be resumed except in conformity with the provisions of all districts within which it is located.

As with the other zoning districts, all provisions of Article XIV shall apply in the same manner to the provisions of the Aquifer Protection District.

**8. A.5 Restrictions and Requirements**

**(1) Prohibited Uses and Activities**

- a. The discharge, land application or disposal of any hazardous material, toxic substance or radioactive material.
- b. The production or processing of bulk quantities of any hazardous material or toxic substance is prohibited.
- c.
  - i. The open storage of pesticides, herbicides, fungicides and artificial fertilizers within fifty (50) feet linear distance of any watercourse in Area III is prohibited;
  - ii. The open storage of pesticides, herbicides, fungicides is prohibited in Area I and II. All storage of such material is prohibited unless any necessary authorization had been obtained from the New York State Department of Environmental Conservation as provided in Article 33 of the New York State Environmental Conservation Law;
- d. The dumping or disposing of snow or ice collected offsite from roadways or parking areas into or within fifty (50) feet linear distance of any watercourse;
- e.
  - i. The open storage of coal or chloride salts within fifty (50) feet linear distance of any watercourse in Area III is prohibited;
  - ii. The bulk storage of coal or chloride salts is prohibited in Areas I and II except in a water-tight ventilated structure constructed on an impervious surface. Any outside area used for loading, handling, or mixing shall be designed so as to prevent seepage and runoff from entering the groundwater or any watercourse;
- f. Any form of underground injection of hazardous materials or toxic substances is prohibited;

- g. Gas stations, solid waste disposal facilities and junkyards are prohibited in Areas I and II;
- h. Single family houses using septic tanks on lots of less than 30,000 feet are prohibited.
- i.
  - i. Two family houses using septic tanks on lots of less than 45,000 square feet are prohibited.
  - ii. All plans for two family houses using septic tanks require the approval of the Cortland County Health Department.
- j. Multi-family houses using septic tanks are prohibited.
- k. All prohibited uses and activities associated with industrial development as per Article 12.5 of the Town Zoning Law;
- l. The use of septic system cleaners which contain toxic substances or hazardous materials.
- m. The disposal of toxic substances or hazardous materials by means of discharge to a septic system.

**(2) Other Requirements**

- a. Petroleum Bulk Storage Facilities installed above and below ground require permits and are subject to compliance with those standards described in Articles XIX, XX and XXI of the Sanitary Code of the Cortland County Health District.
- b. Bulk storage of toxic substances or hazardous materials is subject to compliance with Article XVIII of the Sanitary Code of the Cortland County Health District.
- c. Quarries, gravel mining and excavations are permitted in accordance with Article 16.3 of the Town Zoning Law except where on-site activities violate the provisions of Sections 8 A.5 and 8 A.6 herein.

Operations which commence on or after the effective date of these regulations shall install a minimum of one (1) groundwater monitoring well in a direction upgradient from on-site activities and one (1) groundwater monitoring well in a direction downgradient from on-site activities. The specific location of these groundwater monitoring wells shall be determined by a professional geologist, hydrologist, engineer, or other qualified expert trained and experienced in hydrogeology.

Frequency of required water quality sampling from monitoring wells shall be determined on a site-specific basis.

Access to monitoring wells shall be provided to employees of the Cortland County

Health Department for purposes of any additional water quality sampling deemed appropriate.

- d. Vehicular servicing, including but not limited to, automotive repair stations, body shops and rustproofing operations, is allowed within the Aquifer Protection District provided that the following requirements are met:
  - i. Floor drains must be connected to a holding tank or sanitary sewer equipped with an oil and grit separating tank. (Note: allowing expected wastewater from such facilities into sanitary sewers will contribute to treatment system upsets.)
  - ii. Wastes collected in a holding tank must be disposed of through a licensed waste hauler.
  - iii. Waste degreasing solvents must be stored in drums for disposal by a licensed waste hauler.
  - iv. Waste oil must be stored in tanks or drums for disposal by a licensed waste hauler.
  - v. Storage facilities for tanks and/or drums require coated concrete floors and dikes to retain accidental spills or leaks; a permanent roof to protect tanks or drums and to prevent precipitation from entering dikes. Drums should be sealed, and tanks and drums must be located away from floor drains.
  - vi. Large drip pans should be kept beneath drums which have spigots and are stored in horizontal position on racks.
  - vii. Potentially contaminated scrap, including but not limited to scrap parts, batteries and used filters shall be stored in proper containers to prevent environmental release of contaminants.
- e.
  - i. Application of pesticides, herbicides, fungicides, or chemical fertilizers shall be performed in accordance with the recommendations and label of the manufacturer.
  - ii. Property owners who enlist the services of a commercial pesticide, fungicide, or herbicide applicator shall ensure that the applicator is certified and licensed by the New York State Department of Conservation.
- f. Conversion of a one family house using a septic tank to a two family house using a septic tank requires the approval of the Cortland County Health Department.
- g. Site plans for all proposed industrial and commercial uses shall be accompanied by a detailed and complete description of the anticipated uses and their operation as per Article XI of the Town Zoning Law.
- h. Dry wells connected to drains from buildings require the approval of the Cortland County Health Department.

- i. Whenever there is a question as to the groundwater contamination potential of a proposed use, the expert opinion of the United States Environmental Protection Agency (U.S. EPA), the New York State Department of Environmental Conservation (NYS DEC), and the State and County Health Departments may be requested.

#### **8 A.6 Special Permits**

Any use of property within the Aquifer Protection District shall be permitted only upon obtaining a special permit from the Town Board of the Town of Cortlandville when the use:

- (1) Violates or does not meet any of the provisions of Section 8A.5 herein;
- (2) Is a development, other than residential, of real property exceeding \$150,000 in development cost;
- (3) Is a use that anticipates an average daily on site water consumption exceeding 50,000 gallons per day (gpd).

#### **8 A.7 Application for a Special Permit**

Application for a special permit to develop in the Aquifer Protection District shall submit the following:

- (1) Name, address and telephone number of the applicant
- (2) If the applicant is a corporation, the name, address and telephone number of all the corporate officers and directors.
- (3) A map and report showing the location of the premises for which the permit is sought and plans prepared by a licensed professional engineer or architect showing all features of the system necessary for the satisfactory conveyance, storage, distribution, use and disposal of sanitary wastes, storm water wastes, process wastes, toxic substances and hazardous materials, solid wastes and incidental wastes within the property boundaries of the business or commercial establishment.
- (4)
  - a. When the use of toxic substances or hazardous materials averages an amount equal to or in excess of 55 liquid gallons per month or 500 pounds dry weight per month, the applicant must provide for any design features, operating plans, and any other protection measures as the Town Board deems appropriate and sufficient to prevent and/or monitor groundwater contamination especially in the event of a potential leak or spill of these substances.
  - b. When the use of toxic substances or hazardous materials averages less than 55 liquid gallons per month or 500 pounds dry weight per month, and when the project is determined to have a potential negative impact on groundwater quality, the Town Board may demand the applicant to provide



for any and all design features, operating plans, and/or such other protection measures as per 8 A.7 (4)(a.) above.

- (5) a. When storage of toxic substances or hazardous materials at any one time is equal to or exceeds a total of 220 liquid gallons or a total of 2000 pounds dry weight, the applicant must provide for any and all design features, operating plans, and such other additional protection measures as the Town Board may require to prevent and/or monitor groundwater contamination especially in the event of a potential leak or spill of these substances.
- b. When storage of toxic substances or hazardous materials at any one time is less than a total of 220 liquid gallons or a total of 2000 pounds dry weight, the Town Board may demand the applicant to provide for any and all design features, operating plans, and such other additional protection measures as per 8 A.7 (5)(a.) above.
- (6) Such other nonproprietary information as the Town Board shall request in order to have all facts before it prior to making their decision.
- (7) Copies of any permits and applications to any other government agencies.
- (8) List of all toxic substances or hazardous materials known to be used or stored on the premises together with sufficient detail to appraise the Town Board of the method of storage and the amount of toxic substances or hazardous materials on the premises.
- (9) Method of disposal of toxic substances or hazardous materials.
- (10) A full report regarding the use and storage of all toxic substances and all hazardous materials.

#### **8 A.8 Referral and Public Hearing For A Special Permit**

The Town Board shall refer an application for such Special Permit to the Town and County Planning Boards for comments prior to the Town Board's decision.

Where appropriate and not inconsistent with this Article, the Town Board shall follow the procedures, including application fees and General and Additional Specific Requirements, set forth in Article XII of the Town Zoning Law, Conditional Permit.

A public hearing shall be held in regards to granting such Special Permit and notice of the public hearing in regard to the granting of such Special Permit shall be published in the official town newspaper not more than twenty (20) days and not less than ten (10) days before the date of such public hearing. All uses specified in Sections 8 A.5 and 8 A.6 above which would be subject to a Special Permit, except for the fact that when such uses are governmental entities, they shall nevertheless be subject to the public hearing requirements of this Section, and shall file an Environmental Assessment Form which shall be reviewed by the Town Board of the Town of Cortlandville in accordance with the provisions of the New York State Environmental Quality Review Act.

#### **8 A.9 Issuance of Special Permit**

- (1) The Town Board may grant the Special Permit, deny the Special Permit or grant the Special Permit with stated conditions.**
- (2) In the event that a Special Permit is granted or granted with stated conditions, it shall be a requirement that the applicant use the best available means to prevent the contamination of the groundwater and the aquifers of the Town of Cortlandville. This shall be a continuing requirement.**

#### **8 A.10 A Change in Use**

- (1) Where a Special Permit has been previously issued, a change in use requires application for a new Special Permit.**
- (2) In the event that a change in ownership does not result in any change in use, the Special Permit shall be automatically granted and be considered an agreement between the Town Board and the new owner that the provisions of this Article shall be adhered to.**

#### **8 A.11 Penalties**

**In accordance with Section 268. (1.) of the New York State Town Law, a violation of this Article VIII-A is hereby declared to be an offense, punishable by a fine not exceeding three hundred fifty dollars or imprisonment for a period not to exceed six months, or both for conviction of a first offense; for conviction of a second offense both of which were committed within a period of five years, punishable by a fine not less than three hundred fifty dollars nor more than seven hundred dollars or imprisonment for a period not to exceed six months, or both; and, upon conviction for a third subsequent offense all of which were committed within a period of five years, punishable by a fine not less than seven hundred dollars nor more than one thousand dollars or imprisonment for a period not to exceed six months, or both. Each week's continued violation shall constitute a separate additional violation.**

**CRAWFORD COUNTY, WISCONSIN  
Animal Waste Management Ordinance**

WHEREAS, the subject matter of this ordinance having been duly referred to and considered by the Crawford County Land Conservation Committee and after public hearing with following comment period, and

WHEREAS, the authority for these regulations is granted by Section 92.16 of Wisconsin Statutes,

NOW, THEREFORE the County Board of Supervisors of the County of Crawford does ordain as follows:

**SECTION 1 - INTRODUCTION**

**1.01 Authority**

This ordinance is adopted under authority granted by Section 92.16, Wis. Stats.

**1.02 Title**

This ordinance shall be known as, referred to, and may be cited as the Crawford County Animal Waste Management Ordinance and is hereinafter referred to as the ordinance.

**1.03 Findings and Declaration of Policy**

The Crawford County Board of Supervisors finds that storage of animal waste in earthen storage facilities not meeting technical design and construction standards may cause pollution of the surface and ground waters of Crawford County, and may result in actual or potential harm to the health of county residents and transients; to livestock, aquatic life and other animals and plants; and to the property tax base of Crawford County and,

That improper management of animal waste facilities, and utilization, including land application, of stored animal waste, may cause pollution of the surface and ground waters of Crawford County; and

The Crawford County Board of Supervisors further finds that the technical standards developed by the U.S.D.A. Soil Conservation Service and adopted by the Crawford County Land Conservation Committee provide effective, practical and environmentally safe methods of storing and utilizing animal wastes.

**1.04 Purpose**

The purpose of this ordinance is to regulate the location, design, construction, installation, alteration, and use of earthen animal waste storage facilities; in order to prevent water pollution and thereby protect the health of Crawford County residents and transients; prevent the spread of disease; and promote the prosperity and general welfare of the citizens of Crawford County. It is also intended to provide for the administration and enforcement of the ordinance and to provide penalties for its violation.

**1.05 Applicability**

This ordinance applies to the entire geographical area of Crawford County.

### 1.06 Interpretation

In their interpretation and application, the provisions of this ordinance shall be held to be minimum requirements and shall be liberally construed in favor of Crawford County, and shall not be deemed a limitation or repeal of any other power granted by the Wisconsin Statutes.

### 1.07 Severability Clause

If any section, provision, or portion of this ordinance is ruled invalid by a court, the remainder of the ordinance shall not for that reason be rendered ineffective.

### 1.08 Effective Date

This ordinance shall become effective upon its adoption by the Crawford County Board of Supervisors and publication.

## SECTION 2 - DEFINITIONS

- (1) "Animal waste" means livestock excreta and other materials such as bedding, rain or other water, soil, hair, feathers, and other debris normally included in animal waste handling operations.
- (2) "Applicant" means any person who applies for a permit under this ordinance.
- (3) "Earthen animal waste storage facility" means a facility constructed of earth dikes, pits or ponds used for temporary storage of animal waste.
- (4) "Permit" means the signed, written statement issued by the Crawford County Land Conservation Committee under this ordinance authorizing the applicant to construct, install, reconstruct, enlarge, or substantially alter an earthen animal waste storage facility, and to use or dispose of waste from the facility.
- (5) "Coordinator" means the Crawford County Land Conservation Committee Coordinator/Manager or Zoning Administrator.
- (6) "Technical Guide" means the United States Department of Agriculture, Soil Conservation Service, Field Office Technical Guide.

## SECTION 3 - ACTIVITIES SUBJECT TO REGULATION

### 3.01 General Requirement

Any person who designs, constructs, enlarges or substantially alters an earthen animal waste storage facility; or who employs another person to do the same, on land subject to this ordinance, shall be subject to the provisions of this ordinance, including the animal waste management and utilization provisions of this ordinance. The waste management only utilization provisions of this ordinance are applicable only to persons who build storage facilities approved under this ordinance.

### **3.02 COMPLIANCE WITH PERMIT REQUIREMENT**

A person is in compliance with this ordinance if her or she follows the procedures of this ordinance, applies for and receives a permit from the Coordinator before beginning activities subject to regulation under this Section, and complies with the requirements for the permit.

## **SECTION 4 - STANDARDS**

### **4.01 Standard for Earthen Animal Waste Storage Facilities**

The standards for design and construction of earthen animal waste storage facilities are those in standard 425 of the Technical Guide and are adopted by reference by the Committee, and as may be amended from time to time. (Note: In aquifer protection areas, unlined waste storage facilities may be inadequate to protect groundwater from nitrate contamination. Contact Florida Soil Conservation Service Office for copies of relevant construction standards and BMPs.)

### **4.02 Standard for Animal Waste Management and Utilization**

The technical standards for management of animal waste facilities and utilization of animal waste shall be those set forth in Standard 633 of the Technical Guide and are adopted by reference by the Committee, and as may be amended from time to time. (Note: Contact Florida Soil Conservation Service Office for copies of relevant construction standards and BMPs.)

## **SECTION 5 - APPLICATION FOR AND ISSUANCE OF PERMITS**

### **5.02 Permit Required**

No person may undertake an activity subject to this ordinance without obtaining a permit from the Coordinator prior to beginning the proposed activity.

### **5.02 Exception to Permit Requirement**

Emergency repairs such as repairing a broken pipe or equipment, leaking dikes, or the removal of stoppages may be performed without a permit. If repairs will significantly alter the original design and construction of the facility, a report shall be made to the Coordinator within one day of the emergency for a determination by the Coordinator on whether a permit will be required for any additional alteration or repair to the facility. The Coordinator's determination shall be rendered within one day of the reporting. The Coordinator shall consult with the Land Conservation Committee prior to rendering a determination.

### **5.03 Fee**

The fee for a permit under this ordinance shall be \$100.

### **5.04 Animal Waste Storage Facility Plan Required**

Each application for a permit under this section shall include an animal waste storage facility plan. Technical assistance for plan development shall be made available to applicants upon request through the Land Conservation Committee and its staff. The plan

shall specify:

- (a) the number and kinds of animals for which storage is provided.
- (b) a sketch of the facility and its location in relation to buildings within 250 feet and homes within 500 feet of the proposed facility. The sketch shall be drawn to scale, with a scale no smaller than 1 inch = 100 feet.
- (c) the structural details, including dimensions, cross sections, and concrete thickness.
- (d) the location of any wells within 300 feet of the facility.
- (e) the soil test pit locations and soil descriptions to a depth of at least three feet below the planned bottom of the facility.
- (f) the elevation of groundwater or bedrock if encountered in the soil profile and the date of any such determinations.
- (g) provisions for adequate drainage and control of runoff to prevent pollution of surface water and groundwater. If a navigable body of water lies within 500 feet of the facility, the location and distance to the body of water shall be shown.
- (h) the scale of the drawing and the north arrow.
- (i) a time schedule for construction of the facility.
- (j) plans for the utilization of the animal waste, including the amount of land available for the application of waste, identification of areas where the waste will be used, soil types, and any limitations on waste application due to soil limitations, type and proximity of bedrock or groundwater, slope of land, a proximity to surface water bodies, all in accordance with Standard 633 of the Technical Guide.

#### **5.05 Review of Application**

The coordinator shall receive and review all permit applications. The Coordinator shall determine if the proposed facility plan meets the requirements of this ordinance. In making this determination, the Coordinator shall consult with the Land Conservation Committee. Within 90 days after receiving the completed application and fee, the Coordinator shall inform the applicant in writing whether the permit application is approved or disapproved. If additional information is required, the Coordinator shall so notify the permit applicant. The Coordinator has 90 days from the receipt of the additional information in which to approve or disapprove the application. If the Coordinator fails to approve or disapprove the permit application or additional information, as appropriate, the application shall be deemed approved and the applicant may proceed as if a permit had been issued.

#### **5.06 Permit Conditions**

All permits issued under this ordinance shall be issued subject to the following conditions and requirements for earthen animal waste storage facilities:

- (a) design and construction shall be carried out in accordance with the animal waste facility plan and applicable standards specified in Section 4 of this ordinance.
- (b) the permittee shall give (2) working days notice to the Coordinator before starting any construction activity authorized by the permit.
- (c) approval in writing must be obtained from the Coordinator prior to any modifications to the approved animal waste facility plan.
- (d) the permittee and, if applicable, the contractor, shall certify in writing that the facility was installed as planned.

Activities authorized by permit must be completed within (2) years from the date of issuance after which such permit shall be void.

#### **5.07 Permit Revocation**

The Coordinator may revoke any permit issued under this ordinance if the holder of the permit has misrepresented any material fact in the permit application or animal waste facility plan, or if the holder of the permit violates any of the conditions of the permit. The Coordinator may reinstate the permit upon showing that compliance has been achieved.

### **SECTION 6 - ADMINISTRATION**

#### **6.02 Administrative Duties**

In the administration and enforcement of this ordinance, the Coordinator shall:

- (a) Keep an accurate record of all permit applications, animal waste facility plan, permits issued, inspections made, and other official actions.
- (b) Review permit applications and issue permits in accordance with Section 5 of this ordinance.
- (c) Inspect animal waste facility construction to insure the facility is being constructed according to plan specifications.
- (d) Investigate complaints relating to compliance with the ordinance.
- (e) Perform other duties as specified in this ordinance.

#### **6.03 Inspection Authority**

The Coordinator is authorized to enter upon any lands affected by this ordinance to inspect the land prior to or after permit issuance to determine compliance with this ordinance. If permission cannot be received from the applicant or permittee, entry by the Coordinator shall be according to Sections 66.122 and 66.123, Wis. Stats.

#### **6.04 Enforcement Authority**

The Coordinator is authorized to post an order stopping work upon land which has had a permit revoked or on land currently undergoing activity in violation of this ordinance. Notice is given by both posting upon the land where the violation occurs one or more copies of a poster stating the violation and by mailing a copy of the order by certified mail to the person whose activity is in violation of this ordinance. The order shall specify that the activity must cease or be brought into compliance within (1) day.

Any permit revocation or order stopping work shall remain in effect unless retracted by the Land Conservation Committee, the Coordinator, or by a court of general jurisdiction; or until the activity is brought into compliance with the ordinance. The Coordinator is authorized to refer any violation of this ordinance to the Crawford County Corporate Council for commencement of further legal proceedings.

### **SECTION 7 - VIOLATIONS**

#### **7.01 Penalties**

Any person who violates, neglects or refuses to comply with or resists the enforcement of any of the provisions of this ordinance shall be subject to a forfeiture of no less than \$100 plus costs of prosecution for each violation. An unlawful violation includes failure to comply with any standard of this ordinance or with any condition or qualification attached to the permit. Each day that a violation exists shall be a separate offense.

#### **7.02 Enforcement of Injunction**

As a substitute for or in addition to forfeiture actions Crawford County may seek enforcement of any part of this ordinance by court actions seeking injunctions or restraining orders.

### **SECTION 8 APPEALS**

#### **8.01 Authority**

Under authority of Chapter 68, Wis. Stats., the Crawford County Land Conservation Committee, created under Section 59.878, Wis. Stats., and acting as an appeal authority under Section 68.09(2), Wis. Stats., is authorized to hear and decide appeals where it is alleged that there is error in any order, requirement, decision, or determination by the Coordinator in administering this ordinance.

#### **8.02 Procedure**

The rules, procedures, duties, and powers of the Land Conservation Committee and Chapter 68, Wisconsin Statutes, shall apply to this ordinance.

#### **8.03 Who may appeal**

Appeals may be taken by any person having a substantial interest which is adversely affected by the order, requirement, decision, or determination made in the administering of this ordinance.



**DADE COUNTY CODE**  
**Protection of Public Potable Water Supply Wells**  
**Sec. 24-12.1**  
**(1990)**

- (1) **Legislative intent.** The intent and purpose of this section is to safeguard the public health, safety and welfare by providing scientifically established standards for land uses within the cones of influence thereby protecting public potable water supply wells from contamination.

The provisions of this section which impose upon land uses within the West Wellfield Interim protection area regulations which are more restrictive than those regulations applicable to the other public utility potable water supply wellfields in Dade County shall be deemed interim in nature. Said more restrictive regulations shall be reviewed by such technical review task force(s) or committee(s) as provided by the board of county commissioners or its designee upon recommendation of the director. The director shall submit to the board of county commissioners progress reports, as necessary, pertaining to said review, and recommendations necessary to protect the public health, safety and welfare arising out of said review shall be presented to the board of county commissioners. The Dade County Conflict of Interest and Code of Ethics Ordinance (section 2-11.1 of this Code) shall not be applicable to task forces or committees provided for in this section.

- (2) **Short title; applicability; construction.** This section shall be known as the "Potable Water Supply Well Protection Ordinance." The provisions of this section shall be effective in the incorporated and unincorporated areas of Dade County and shall be liberally construed to effect the purposes set forth herein.
- (3) **Maps of cones of influence and the Northwest Wellfield protection area.** The director of the department of environmental resources management or his designee, shall maintain maps of cones of influence of public utility potable water supply wells and a map(s) of the Northwest Wellfield protection area. The cone of influence maps dated December 30, 1980, as may be amended from time to time, prepared by the department of environmental resources management are incorporated herein by reference hereto. Any changes, additions or deletions to said maps shall be approved by the board of county commissioners by ordinance. The cone of influence maps of the Northwest Wellfield dated December 30, 1980, as amended effective May 31, 1985, shall hereinafter be referred to as the Northwest Wellfield protection area map(s). The Northwest Wellfield protection area map(s) dated May 31, 1985, and the West Wellfield Interim protection area map(s) dated February 28, 1989, as all of same may be amended from time to time, prepared by the department of environmental resources management, are incorporated herein by reference hereto. Any changes, additions or deletions to said Northwest Wellfield protection area map(s) or West Wellfield Interim protection area map(s) shall be approved by the board of county commissioners by ordinance.
- (4) **Septic tanks, sanitary sewers, storm water disposal, liquid waste storage, disposal or treatment and violations of this chapter within wellfield protection areas.** Notwithstanding any provisions of this Code, no county or municipal officer, agent, employee or board shall approve, grant or issue any building permit, certificate or use and occupancy (except for changes in ownership), municipal occupational license (except for changes in ownership), platting action (final plat, waiver of plat or equivalent municipal platting action) or zoning action (district boundary change, unusual use, use variance or equivalent municipal zoning

action) for any land use served or to be served by a septic tank sanitary sewer, storm water disposal method, or liquid waste storage, disposal or treatment method, and which is within the Northwest Wellfield protection area or within the West Wellfield Interim Protection area or within the maximum day pumpage wellfield protection area of the Alexander Orr Wellfield, Snapper Creek Wellfield, Southwest Wellfield, Miami Springs Lower Wellfield, Miami Springs Upper Wellfield, John E. Preston Wellfield or Hialeah Wellfield or within the basic wellfield protection area of any public utility potable water supply well, until the county or municipal officer, agent, employee or board has obtained the prior written approval of the director of the department of environmental resources management or his designee. Furthermore, notwithstanding any provision of this Code, no person shall construct, utilize, operate, occupy or cause, allow, let, permit or suffer to be constructed, utilized, operated or occupied any land use served or to be served by septic tank, sanitary sewer, storm water disposal method, or liquid waste storage, disposal or treatment method, and which is within the Northwest Wellfield protection area or within the West Wellfield Interim Protection area or within the maximum day pumpage wellfield protection area of the Alexander Orr Wellfield, Snapper Creek Wellfield, Southwest Wellfield, Miami Springs Lower Wellfield, Miami Springs Upper Wellfield, John E. Preston Wellfield or Hialeah Wellfield or within the basic wellfield protection area of any public utility potable water supply well, until the person has obtained the prior written approval of the director of the department of environmental resources management or his designee. The director or his designee shall issue his written approval only if he finds that all septic tanks, septic tank drain fields, storm water disposal methods and liquid waste storage, disposal or treatment methods will be installed upon the property as far away as is reasonably possible from all potable water supply wells, and:

- (a) **Septic tanks:** That the septic tank sewage loadings will not exceed the number of gallons per day for each unsubmerged acre of land as set forth in Tables A-1, A-2, A-3 and A-4, except that neither the director nor his designee shall issue his written approval for any land use served or to be served by a septic tank within the Northwest Wellfield protection area unless the septic tank was installed prior to the effective date of this subsection [September 30, 1983], or within the West Wellfield Interim protection area unless the septic tank was installed prior to the effective date of this ordinance [Ordinance No. 89-80], or

that the land use served or to be served by a septic tank within the Northwest Wellfield protection area or within that portion of the West Wellfield Interim protection area which is west of the Urban Development Boundary of the Comprehensive Development Master plan as may be amended from time to time, is residential or is an ancillary rockmining use necessary for extracting and processing subsurface materials and which residential or ancillary rockmining use shall not exceed a maximum sewage loading of seventy (70) gallons per day per acre and which septic tanks shall be located within an area of twenty-one thousand seven hundred eighty (21,780) square feet of unsubmerged land, or

that the property served or to be served by septic tanks is residential, uses a public waste supply, has not been the subject of any zoning action (district boundary change, unusual use, use variance, or equivalent municipal zoning action) or any platting action (final plat, waiver of plat, or equivalent municipal platting action) after March 13, 1981, and is in compliance with section 24-13, or

that the owner of the property served or to be served by septic tanks is applying for the original certificate of use and occupancy or original municipal occupational license pursuant to a valid building permit obtained prior to June 1, 1983, for

property within the basic wellfield protection area of any public utility potable water supply well, or, in the case of property within the Northwest Wellfield protection area obtained prior to September 30, 1983, or, in the case of property within the West Wellfield Interim protection area obtained prior to the effective date of this ordinance [Ordinance No. 89-80], or, in the case of property not within the basic wellfield protection area but within the maximum day pumpage wellfield protection area of the Alexander Orr Wellfield, Snapper Creek Wellfield and Southwest Wellfield, obtained prior to February 1, 1985, or, in the case of property not within the basic wellfield protection area but within the maximum day pumpage wellfield protection area of the Miami Spring Lower Wellfield, Miami Springs Upper Wellfield, John E. Preston Wellfield and Hialeah Wellfield, obtained prior to December 12, 1986, which permit has been valid and continuously in full force and effective since its issuance, or

that the owner of the property is applying for a certificate of use and occupancy or municipal occupational license for a land use served or to be served by a septic tank installed prior to March 13, 1981 for property within the basic wellfield protection area of any public utility potable water supply well, or, in the case of property within the Northwest Wellfield, protection area installed prior to September 30, 1983 or, in the case of property within the West Wellfield Interim protection area installed prior to the effective date of this ordinance [Ordinance No. 89-80] or, in the case of property not within the basic wellfield protection area but within the maximum day pumpage wellfield protection area of the Alexander Orr Wellfield, Snapper Creek Wellfield, and Southwest Wellfield, installed prior to February 1, 1985, or, in the case of property not within the maximum day pumpage wellfield protection area of the Miami Springs Lower Wellfield, Miami Springs Upper Wellfield, John E. Preston Wellfield and Hialeah Wellfield, installed prior to December 12, 1986, which uses a public water supply and which is in compliance with section 24-13.

i. Notwithstanding the provisions of (4)(a), there shall be required within the Northwest Wellfield protection area, within the West Wellfield Interim protection area, and within the maximum day wellfield protection area of all public utility potable water supply wells a minimum separation equivalent to ten (10) days travel time between any potable water supply well (other than a public utility potable water supply well) and any septic tank or septic tank drainfield.

(b) **Sanitary sewers:** That the sewage loading into sanitary sewers will not exceed the number of gallons per day for each unsubmerged acre of land as set forth in Table B-1, or that the property served or to be served by sanitary sewers is residential, uses a public water supply, has not been the subject of any zoning action (district boundary change, unusual use, use variance, or equivalent municipal zoning action) or any platting action (final plat, waiver of plat, or equivalent municipal platting action) after March 13, 1981, and is in compliance with section 21-11 (9), or

that the owner of the property served or to be served by sanitary sewers is applying for the original certificate of use and occupancy or original municipal occupational license pursuant to a valid building permit obtained prior to June 1, 1983, for property within the basic wellfield protection area of any public utility potable water supply well, or, in the case of property within the Northwest Wellfield protection area, obtained prior to September 30, 1983, for property within the Northwest Wellfield protection area, or, in the case of property within

the West Wellfield Interim protection area, obtained prior to the effective date of this ordinance, for property within the West Wellfield Interim protection area, or, in the case of property not within the basic wellfield protection area, but within the maximum day pumpage wellfield protection area of the Alexander Orr Wellfield, Snapper Creek Wellfield and Southwest Wellfield, obtained prior to February 1, 1985, or, in the case of property not within the basic wellfield protection area but within the maximum day pumpage wellfield protection area of the Miami Springs Lower Wellfield, Miami Springs Upper Wellfield, John E. Preston Wellfield and Hialeah Wellfield, installed December 12, 1986, which permit has been valid and continuously in full force and effect since its issuance.

- i. Notwithstanding the provisions of (4)(b), all sanitary sewers installed within the Northwest Wellfield protection area, or within the West Wellfield Interim protection area, or within the maximum day pumpage wellfield protection area of the Alexander Orr Wellfield, Snapper Creek Wellfield, Southwest Wellfield, Miami Springs Lower Wellfield, Miami Springs Upper Wellfield, John E. Preston Wellfield or Hialeah Wellfield or within the basic wellfield protection area of any public utility potable water supply well, after June 13, 1986, shall comply with the following standards:

**Residential land use** - No gravity sanitary sewer shall have an exfiltration rate greater than fifty (50) gallons per inch pipe diameter per mile per day. Sewer lateral lines located in the public right-of-way shall be a minimum of six (6) inches in diameter.

**Nonresidential land use** - No gravity sanitary sewer shall have an exfiltration rate greater than twenty (20) gallons per inch pipe diameter per mile per day. Sewer lateral lines located in the public right-of-way shall be a minimum of six (6) inches in diameter.

**Sanitary sewer force mains** - All sanitary sewer force mains installed within the Northwest Wellfield protection area, or within the West Wellfield Interim protection area, or within the maximum day pumpage wellfield protection area of the Alexander Orr Wellfield, Snapper Creek Wellfield, Southwest Wellfield, Miami Springs Lower Wellfield, Miami Springs Upper Wellfield, John E. Preston Wellfield or Hialeah Wellfield or within the basic wellfield protection area of any public utility potable water supply well, shall be constructed of either ductile iron or reinforced concrete pressure sewer pipe. No such ductile iron sanitary sewer force main shall, exfiltrate at a rate greater than the allowable leakage rate specified in American Water Works Association Standard C600-82 at a test pressure of one hundred (100) pounds per square inch. No such reinforced concrete pressure sanitary sewer force main shall exfiltrate at a rate greater than one-half (1/2) the allowable leakage rate specified for ductile iron pipe in American Water Works Association Standard C600-82 at a test pressure of one hundred (100) pounds per square inch.

- ii. Notwithstanding the provisions of (4)(b), all gravity sanitary sewers with invert elevations above the average surrounding water table elevation and all sanitary sewer force mains shall be tested to ensure compliance with the aforementioned exfiltration rate standards.

A registered professional engineer shall provide written certification of the exfiltration rate for all manhole/gravity sewer pipe systems installed, in equivalent gallons per inch pipe diameter per mile of pipe per day (twenty-four (24) hours), and the exfiltration rate for all sanitary sewer force mains in gallons per hour per one thousand (1,000) feet of sanitary sewer force main installed. Existing gravity sanitary sewers with pipe diameters of eight (8) inches or more shall be visually inspected by television every five (5) years by the responsible utility or property owner to ensure both structural and pipe joint integrity. Existing manholes shall be visually inspected for both structural and incoming pipe connection integrity every five (5) years.

Certified test and inspection results and repair logs shall be submitted to the department of environmental resources management within thirty (30) days after completion of the particular test, inspection, or repair.

- (c) **Storm water disposal methods:** That the storm water disposal methods utilized or to be utilized will be limited as set forth in Table C-1.

Furthermore, land uses adjacent to the Snapper Creek extension canal and secondary canals directly connected to the Snapper Creek extension canal shall provide an earth berm, or alternative structure as approved by the director of the department of environmental resources management or his designee, which shall be constructed upon the perimeter of all canals to prevent overland storm water runoff from entering the canal. The berm shall be constructed adjacent to the canal top of slope on the landward side. Said berm shall extend one foot above the canal bank elevation. The landward slope of the berm shall have a gradient not steeper than one foot vertical to four (4) feet horizontal. The canalward slope shall not be steeper than the canal slope. The construction of berming and backsloping shall be subject to the approval of the director, environmental resources management or his designee.

- (d) **Liquid waste storage, disposal or treatment methods other than septic tanks utilized for the disposal, discharge, storage or treatment of domestic sewage; sanitary sewer lift stations; and public sanitary sewers.** That liquid waste storage, disposal or treatment methods (other than septic tanks utilized for the disposal, discharge, storage or treatment of domestic sewage; sanitary sewer lift stations; and public sanitary sewers) shall be prohibited within the Northwest Wellfield protection area, the West Wellfield Interim protection area, the average day pumpage wellfield protection areas of the Alexander Orr Wellfield, Snapper Creek Wellfield, Southwest Wellfield, Miami Springs Lower Wellfield, Miami Springs Upper Wellfield, John E. Preston Wellfield or Hialeah Wellfield, and the basic wellfield protection area of any public utility potable water supply well unless, in the case of property within the Northwest Wellfield protection area, said liquid waste storage, disposal or treatment method was installed prior to September 30, 1983, or, unless, in the case of property within the West Wellfield Interim protection area, said liquid waste storage, disposal or treatment method was installed prior to the effective date of this ordinance [Ordinance No. 89-80], or, unless, in the case of property within the average day pumpage wellfield protection area but not within the basic wellfield protection area of the Alexander Orr Wellfield, Snapper Creek

Wellfield and Southwest Wellfield, said liquid waste storage, disposal or treatment method was installed prior to February 1, 1985, or, in the case of property not within the basic wellfield protection area but within the average day pumpage wellfield protection area of the Miami Springs Lower Wellfield, Miami Springs Upper Wellfield, John E. Preston Wellfield, and Hialeah Wellfield, said liquid waste, storage, disposal or treatment method was installed prior to December 12, 1986, unless in the case of property within the basic wellfield protection area of any public utility potable water supply well, said liquid waste storage, disposal or treatment method was installed prior to June 13, 1986.

- (e) **Violations of this chapter:** That the septic tank, sanitary sewer, storm water disposal method or liquid waste storage, disposal or treatment method utilized or to be utilized will serve an existing land use within the Northwest Wellfield protection area or within the West Wellfield Interim protection area or within the maximum day pumpage wellfield protection area of the Alexander Orr Wellfield, Snapper Creek Wellfield, Southwest Wellfield, Miami Springs Lower Wellfield, Miami Springs Upper Wellfield, John E. Preston Wellfield or Hialeah Wellfield or within the basic wellfield protection area of any public utility potable water supply well and which is required by the director or his designee determines that the land use will comply with all the provisions of this chapter and that the following water pollution prevention and abatement measures and practices shall be provided:

- (i) **Monitoring and detection of water pollution caused by hazardous materials, and**
- (ii) **Secondary containment of water pollution caused by hazardous materials, and**
- (iii) **Inventory control and record keeping of hazardous materials, and**
- (iv) **Storm water management of water pollution caused by hazardous materials, and**
- (v) **Protection and security of facilities utilized for the generation, storage, usage, handling, disposal or discharge of hazardous materials.**

- (5) **Prohibition of hazardous materials within wellfield protection areas.** Notwithstanding any provision of this Code, no county or municipal officer, agent, employee or board shall approve, grant or issue any building permit, certificate of use and occupancy (except for changes in ownership), municipal occupational license (except for changes in ownership), platting action (final plat, waiver of plat or equivalent municipal platting action) or zoning action (district boundary change, unusual use, use variance or equivalent municipal zoning action) for any nonresidential land use, other than a bona fide agricultural land use, a bona fide rockmining use (lake excavation), a public sewer facilities use, or a public water supply facilities use, within the Northwest Wellfield protection area or within the West Wellfield Interim protection area or within the maximum day pumpage wellfield protection area of the Alexander Orr Wellfield, Snapper Creek Wellfield, Southwest Wellfield, Miami Springs Lower Wellfield, Miami Springs Upper Wellfield, John E. Preston Wellfield or Hialeah Wellfield or within the basic wellfield protection area of any public utility potable

water supply well, without obtaining the prior written approval of the director of the department of environmental resources management or his designee. The director or his designee shall issue his written approval only if the director or his designee determines that the nonresidential land use is in compliance with subsection 24-12.1(5)(a), 24-12.1(5)(b) or 24-12.1(5)(c).

Furthermore, notwithstanding any provision of this Code, no person shall construct, utilize, operate, occupy or cause, allow, let, permit or suffer to be constructed, utilized, operated or occupied any nonresidential land use, other than a bona fide agricultural land use, a public sewer facilities use, or a public water supply facilities use, within the Northwest Wellfield protection area or within the West Wellfield Interim protection area or within the maximum day pumpage wellfield protection area of the Alexander Orr Wellfield, Snapper Creek Wellfield, Southwest Wellfield, Miami Springs Lower Wellfield, Miami Springs Upper Wellfield, John E. Preston Wellfield or Hialeah Wellfield or within the basic wellfield protection area of any public utility potable water supply well, and which uses, generates, handles, disposes of, discharges or stores hazardous materials, until the person has obtained the prior written approval of the director of the department of environmental resources management or his designee.

Pursuant to the foregoing, the director or his designee shall issue his written approval only if the director or his designee determines that all potential sources of pollution will be installed upon the property as far away as is reasonably possible from all potable water supply wells; hazardous materials will not be used, generated, handled, disposed of, discharged or stored on that portion of the property within the Northwest Wellfield protection area or within the West Wellfield Interim protection area or within the basic wellfield protection area of any public utility potable water supply well; and hazardous wastes will not be used, generated, handled, disposed of, discharged or stored on that portion of the property within the average day pumpage wellfield protection area of the Alexander Orr Wellfield, Snapper Creek Wellfield, Southwest Wellfield, Miami Springs Lower Wellfield, Miami Springs Upper Wellfield, John E. Preston Wellfield or Hialeah Wellfield.

Notwithstanding the foregoing, fuels and lubricants required for rockmining operations (lake excavations, concrete batch plants, rock crushing and aggregate plants) within the Northwest Wellfield protection area or within the West Wellfield Interim protection area; electrical transformers serving nonresidential land uses; small quantity generators of hazardous wastes as defined in this chapter, within the average day pumpage wellfield protection area but not within the basic wellfield protection area of the Alexander Orr Wellfield, Snapper Creek Wellfield, Southwest Wellfield, Miami Springs Lower Wellfield, Miami Springs Upper Wellfield, John E. Preston Wellfield, and Hialeah Wellfield and existing land uses required by the director, or his designee, to correct violations of this chapter; shall not be prohibited when the water pollution prevention and abatement measures and practices set forth in subsections (5)(a)(i), (ii), (iii), (iv), and (v) will be provided and the director or his designee has approved same.

Notwithstanding the foregoing, the use, handling or storage of factory prepackaged products intended primarily for domestic use or consumption determined by the director or his designee to be hazardous materials shall not be prohibited; provided, however, that the requirements of subsections (5)(a) (vi), (vii), (viii), and (ix) are fulfilled.

- (a) The owner of the property has submitted to the director a covenant running with the land executed by the owner of the property in favor of Metropolitan Dade County which provides that hazardous materials shall not be used, generated,

handled, disposed of, discharged or stored on that portion of the property located within the Northwest Wellfield protection area or within the West Wellfield Interim protection area or within the basic wellfield protection area of any public utility potable water supply well; and that hazardous wastes shall not be used, generated, handled, disposed of, discharged or stored on that portion of the property within the average day pumpage wellfield protection area but not within the basic wellfield protection area of the Alexander Orr Wellfield, Snapper Creek Wellfield, Southwest Wellfield, Miami Springs Lower Wellfield, Miami Springs Upper Wellfield, John E. Preston Wellfield or Hialeah Wellfield.

Furthermore, the aforesaid covenant shall provide that fuels and lubricants required for rockmining operations (lake excavations, concrete batch plants, rock crushing and aggregate plants) within the Northwest Wellfield protection area or within the West Wellfield Interim protection area; electrical transformers serving nonresidential land uses; small quantity generators of hazardous wastes as defined in this chapter, within the average day pumpage wellfield protection area but not within the basic wellfield protection area of the Alexander Orr Wellfield, Snapper Creek Wellfield, Southwest Wellfield, Miami Springs Lower Wellfield, Miami Springs Upper Wellfield, John E. Preston Wellfield or Hialeah Wellfield and existing land uses required by the director or his designee to correct violations of this chapter; shall not be prohibited when the following water pollution prevention and abatement measures and practices will be provided:

- (i) Monitoring and detection of water pollution caused by hazardous materials, and
- (ii) Secondary containment of water pollution caused by hazardous materials, and
- (iii) Inventory control and recordkeeping of hazardous materials, and
- (iv) Storm water management of water pollution caused by hazardous materials, and
- (v) Protection and security of facilities utilized for the generation, storage, usage, handling, disposal or discharge of hazardous materials.

Said water pollution prevention and abatement measures and practices shall be subject to the approval of the director or his designee.

Furthermore, the aforesaid covenant shall provide that use, handling or storage of factory pre-packaged products intended primarily for domestic use or consumption determined by the director or his designee to be hazardous materials shall not be prohibited, provided, however, that:

- (vi) The use, handling or storage of said factory prepackaged products occurs only within a building, and
- (vii) The nonresidential land use is an office building use (or equivalent municipal land use) or a business district use (or equivalent municipal land use) engaged exclusively in retail sales of factory prepackaged products intended primarily for domestic use or consumption, and



- (viii) The nonresidential land use is served or is to be served by public water and public sanitary sewers, and
- (ix) Said building is located more than thirty (30) days' travel time from any public utility potable water supply well.

Said covenants shall be in a form(s) prescribed by the director and approved by the board of county commissioners. The covenants shall be recorded in the public records of Dade County, Florida, by the department of environmental resources management at the expense of the owner of the property, or

- (b) If the director or his designee determines that the owner of the property is applying for the original certificate of use and occupancy or original municipal occupational license pursuant to a valid building permit obtained prior to June 1, 1983, for property within the basic wellfield protection area of any public utility potable water supply well, or, in the case of property within the Northwest Wellfield protection area, obtained prior to September 30, 1983, or, in the case of the West Wellfield Interim protection boundary, obtained prior to the effective date of this ordinance [Ordinance No. 89-80], or, in the case of property within the average day pumpage wellfield protection area but not within the basic wellfield protection area of the Alexander Orr Wellfield, Snapper Creek Wellfield or Southwest Wellfield, obtained prior to February 1, 1985 or, in the case of property not within the basic wellfield protection area but within the maximum day pumpage wellfield protection area of the Miami Springs Lower Wellfield, Miami Springs Upper Wellfield, John E. Preston Wellfield or Hialeah Wellfield, obtained prior to December 12, 1986 and which permit has been valid and continuously in full force and effect since its issuance, or
- (c) If the director or his designee determines:
  - i. That the application for a building permit, certificate of use and occupancy (except for changes in ownership), municipal occupational license (except for changes in ownership), platting action (final plat, waiver of plat or equivalent municipal platting action) or zoning action (district boundary change, unusual use, use variance or equivalent municipal zoning action) is for the replacement, modification or limited expansion of an existing facility, provided in no case shall such replacement, modification or limited expansion cause, permit, let, suffer or allow the use, generation, handling, disposal, discharge or storage of hazardous materials on the property to be increased by more than fifty (50) per cent over the use, generation, handling, disposal, discharge or storage of hazardous materials on the property which existed on September 30, 1983, for properties within the Northwest Wellfield protection area, or which existed on the property on the effective date of this ordinance [Ord. No. 89-80] for properties within the West Wellfield Interim protection area, or which existed on March 13, 1981 for properties within the basic wellfield protection area of any public utility potable water supply well, and
  - ii. That the proposed replacement, modification or limited expansion of the existing facility will substantially reduce the existing risk of pollution from the hazardous materials to the closest public utility potable water supply well. In determining whether there will be a substantial reduction of the existing risk of pollution as aforesaid, the director or his designee shall

consider the following factors and shall render written findings as to his assessment of each:

- a. Whether the proposed replacement, modification or limited expansion of the facility will provide adequate and increased monitoring and detection of pollution which may be or which has been caused by the hazardous materials on the property.
- b. Whether the proposed replacement, modification or limited expansion of the facility will provide adequate and increased secondary containment of pollution which may be or which has been caused by the hazardous materials on the property.
- c. Whether the proposed replacement, modification or limited expansion will provide adequate and increased inventory control and record keeping of hazardous materials on the property.
- d. Whether the proposed replacement, modification or limited expansion will provide adequate and increased storm water management of pollution which may be or which has been caused by the hazardous materials on the property.
- e. Whether the proposed replacement, modification or limited expansion will provide adequate and increased protection and security of the facilities utilized for the generation, storage, usage, handling, disposal, or discharge of hazardous materials on the property.

The director of the department of environmental resources management or his designee, shall determine that there will be a substantial reduction of the existing risk of pollution from the hazardous materials to the closest public utility potable water supply well only if the director or his designee makes affirmative findings as to all of the aforesaid factors, and

- iii. That the owner of the property has submitted to the director or his designee a covenant running with the land executed by the owner of the property in favor of Metropolitan Dade County which provides that the hazardous materials to be used, generated, handled, disposed of, discharged or stored on the property after the proposed replacement, modification or limited expansion is approved by the director or his designee, pursuant to this section, shall not be more hazardous than the hazardous materials used, generated, handled, disposed of, discharged or stored on the property at the time of the aforesaid approval and which furthermore shall require written notice by the owner of the property to the department of environmental resources management of any change in the kind of hazardous materials on the property after the aforesaid approval. Said covenants shall be in a form(s) prescribed by the director and approved by the board of county commissioners. The covenants shall be recorded in the public records of Dade County, Florida, by the department of environmental resources management at the expense of the owner of the property.

- (6) **Applicability of travel time ranges within wellfield protection area.** The director of the department of environmental resources management or his designee shall utilize the following procedures when making a determination under Tables A-1, A-2, A-3, A-4 or B-1:
- (a) Property wholly located within one travel time range having restrictions shall be governed by the restrictions under that travel time range.
  - (b) Property within two (2) or more travel time ranges having restrictions shall be governed by the total sewage loading for the property. The total sewage loading shall be derived by adding the sewage loading within each travel time range and dividing the resultant amount by the gross acreage for the property.
  - (c) Property within both restricted and unrestricted travel time ranges shall be governed in accordance with subsection (6) (b) herein except that portion of the property outside of the restricted travel time ranges shall be excluded from averaging the applicable restrictions as aforesaid. However, all septic tanks, septic tank drainfields, storm water disposal methods and liquid waste storage, disposal and treatment methods shall be installed upon the property as far away as is reasonably possible from all potable water supply wells.
- (7) **Excavations.** Notwithstanding any provision of this Code, no county or municipal officer, agent, employee or board shall approve, grant, or issue any permit, of any kind whatsoever, certificate of completion, platting action (final plat, waiver of lot or equivalent municipal platting action) or zoning action (district boundary change, unusual use, use variance or equivalent municipal zoning action) for any excavation within the Northwest Wellfield protection area, or within the West Wellfield Interim protection area, or the basic wellfield protection area of any public utility potable water supply well, or within one-quarter of a mile of the perimeter of the Dade County 58th Street landfill, United Sanitation landfill, or the resources recovery facility until the county or municipal officer, agent, employee or board has obtained the prior written approval of the director of the department of environmental resources management or his designee.

Furthermore, notwithstanding any provision of this Code, no person shall cause, allow, let, permit or suffer any excavation within the Northwest Wellfield protection area, or within the West Wellfield Interim protection area, or within the basic wellfield protection area of any public utility potable water supply well until the person has obtained the prior written approval of the director of the department of environmental resources management or his designee.

The director or his designee shall issue his written approval only if the director or his designee determines that the excavation will comply with the following:

- (a) The property upon which the excavation has occurred or will occur and that portion of the property which has not been excavated or will not be excavated shall be provided with protection and security measures to prohibit the handling, disposal of, discharge or storage of hazardous materials, solid waste, or liquid waste in the excavation or on the property which has not been excavated or will not be excavated. Said protection and security shall be subject to the approval of the director or his designee.

Furthermore, the owner of the property upon which the excavation has occurred or will occur and that portion of the property which has not been excavated or will not be excavated shall submit to the director or his designee a covenant running with the land executed by the owner of the property in favor of Metropolitan Dade County which provides that protection and security measures shall be provided subject to the approval of the director or his designee. Said covenants shall be executed by the owner of the property upon which the excavation has occurred or will occur and that portion of the property which has not been excavated or will not be excavated in form(s) prescribed by the director and approved by the board of county commissioners. The covenants shall be recorded in the public records of Dade County, Florida, by the department of environmental resources management at the expense of the owner of the property upon which the excavation has occurred or will occur and the property which has not been excavated or will not be excavated, and

- (b) The excavation will not be located within thirty (30) days' travel time from any public utility potable water supply well or within thirty (30) days' travel time from potable water supply wells as set forth on the West Wellfield Interim protection area map(s) and the excavation will not exceed a depth of forty (40) feet below existing grade within the basic wellfield protection area of any public utility potable water supply well, or
- (c) The excavation will not be located within thirty (30) days' travel time from any public utility potable water supply well and there exists property without excavation which will provide an additional thirty (30) days' travel time between the excavation and any public utility potable water supply well.

Furthermore, the owner of the property upon which the excavation is to occur shall submit to the director or his designee a covenant running with the land executed by the owner of the property in favor of Metropolitan Dade County which provides that the property without excavation aforesaid will not be subject to excavation at any time. Said covenants shall be executed by the owner of the property without excavation aforesaid and in a form(s) prescribed by the director and approved by the board of county commissioners. The covenants shall be recorded in the public records of Dade County, Florida, by the department of environmental resources management at the expense of the owner of the property upon which the excavation is to occur, or

- (d) The excavation has a valid excavation permit or equivalent municipal permit for excavation and a valid Class IV permit, if required by Article II of this chapter, which was obtained prior to September 30, 1983, which permits have been valid and continuously in full force and effect since their issuance.
- (8) **Pipelines for hazardous materials.** Notwithstanding any provision of this Code, no county or municipal officer, agent, employee or board, after July 13, 1984 shall approve, grant or issue any permit of any kind whatsoever for the installation, modification, or expansion of that portion of any pipeline used or to be used for the transmission or storage of any hazardous materials and which portion is within the Northwest Wellfield protection area or the maximum day pumpage wellfield protection area of the Alexander Orr Wellfield, Snapper Creek Wellfield or Southwest Wellfield or within the basic wellfield protection area of any public utility potable water supply well or, in the case of that portion of any any pipeline not within the basic wellfield protection area but within the maximum day pumpage wellfield protection area of the Miami Springs Lower Wellfield, Miami Springs

Upper Wellfield, John E. Preston Wellfield or Hialeah Wellfield, after December 12, 1986, or, in the case of that portion of any pipeline within the West Wellfield Interim protection area, after the effective date of this ordinance [Ordinance No. 89-80].

Furthermore, notwithstanding any provision of this Code, no person shall install, construct, utilize, operate, occupy or cause, allow, let, permit or suffer to be installed, constructed, utilized, operated or occupied any pipeline or portion of any pipeline used or to be used for the transmission or storage of any hazardous materials within the Northwest Wellfield protection area or the maximum day pumpage wellfield protection area of the Northwest Wellfield, Alexander Orr Wellfield, Snapper Creek Wellfield or Southwest Wellfield or within the basic wellfield protection area of any public utility potable water supply well, after July 13, 1984, unless said person installed, constructed, utilized, operated or occupied said pipeline used or to be used for the transmission or storage of hazardous materials before July 13, 1984, or, in the case of the West Wellfield interim protection area, no person shall install, construct, utilize, operate, occupy or cause, allow, let, permit or suffer to be installed, constructed, utilized, operated or occupied any pipeline or portion of any pipeline used or to be used for the transmission or storage of any hazardous materials within the West Wellfield Interim protection area after the effective date of this ordinance [Ordinance No. 89-80], unless said person installed, constructed, utilized, operated or occupied said pipeline used or to be used for the transmission or storage of hazardous materials prior to the effective date of this ordinance [Ordinance No. 89-80].

Furthermore, notwithstanding any provision of this Code, no person shall install, construct, utilize, operate, occupy or cause, allow, let, permit or suffer to be constructed, utilized, operated or occupied any pipeline or portion of any pipeline used or to be used for the transmission or storage of any hazardous materials within the maximum day pumpage wellfield protection area but not within the basic wellfield protection area of the Miami Springs Lower Wellfield, Miami Springs Upper Wellfield, John E. Preston Wellfield or Hialeah Wellfield after the effective date of this subsection [December 12, 1986], unless said person installed, constructed, utilized, operated or occupied said pipeline used or to be used for the transmission or storage of hazardous materials before the effective date of this subsection [December 12, 1986].

- (9) **Water conservation restrictions for the protection of the Northwest Wellfield.** The director of the department of environmental resources management or his designee shall evaluate the data from a groundwater elevation monitoring program and a groundwater quality monitoring program for the Northwest Wellfield which programs shall be conducted by the department of environmental resources management or a contractor designated by the county. If the director of the department of environmental resources management or his designee, after evaluating the aforesaid monitoring data, determines that a reduction in wellfield pumpage is necessary to prevent contamination of the Northwest Wellfield, the director of the department of environmental resources management or his designee shall impose water conservation restrictions in the unincorporated and incorporated areas of Dade County. These water conservation restrictions shall consist of one of, or any combination of, the following:

- (a) Ordering public utilities owning or operating public water systems to reduce water system pressure.
- (b) Mandatory water conservation restrictions similar to the applicable water use restrictions set forth in the rules of the South Florida Water Management District, Chapter 40E-21, Florida Administrative Code, as may be amended from time to time.

The duration of these water conservation restrictions shall be determined by the director of the department of environmental resources management or his designee after periodic evaluation of wellfield pumpage data and pertinent monitoring program data. The water conservation restrictions in effect may be subsequently changed or rescinded by the director of the department of environmental resources management or his designee after such periodic evaluation.

- (10) **Land uses within the Northwest Wellfield protection area and West Wellfield Interim protection area.** Notwithstanding any provision of this Code, no county officer, agent, employee or board shall approve, grant or issue any building permit, certificate of use and occupancy (except for changes in ownership), platting action (final plat, waiver of plat) or zoning action (district boundary change, unusual use, use variance, new use, similar use) for any land use within the Northwest Wellfield protection area, or within the West Wellfield interim protection area, without obtaining the prior written approval of the director of the department of environmental resources management or his designee. Furthermore, notwithstanding any provision of this Code, no person shall construct, utilize, operate, occupy or cause, allow, let, permit or suffer to be constructed, utilized, operated or occupied any land use within the Northwest Wellfield protection area or within the West Wellfield Interim protection area without obtaining the prior written approval of the director of the department of environmental resources management or his designee.

The director of the department of environmental resources management or his designee, shall issue his written approval only if:

- (a) The director or his designee determines that the property is within the Northwest Wellfield Subarea 1 as defined in Chapter 33 of this Code or within the West Wellfield Interim protection area and the existing land use(s) for the property or the land use(s) requested for the property is one or more of the land uses set forth in Table E-1 and the land use(s) is not a land use found exclusively in the following Metropolitan Dade County zoning classifications or that the zoning classification requested is not one or more of the following Metropolitan Dade County Zoning classifications:
- i. BU-3 (excluding those land uses permitted by BU-1, BU-1A or BU-2),
  - ii. IU-1,
  - iii. IU-2,
  - iv. IU-3,
  - v. IU-C, or
- (b) The director or his designee determines that the property is within the Northwest Wellfield Subarea 2 as defined in Chapter 33 of the Code and the existing land uses for the property or the land use(s) requested for the property is one or more of the land uses set forth in Table E-1, or
- (c) The director or his designee determines that the property is not within the Northwest Wellfield Subarea 1 and is not within the Northwest Wellfield Subarea 2 and the existing land use(s) for the property or the land use(s) requested for the property is in compliance with subsection 24-12.1 (4), (5), (7) and (8) or this chapter, or

- (d) The director or his designee determines that the land use is not listed in Table E-1, the land use(s) is not set forth as a permitted use, special exception, unusual use or conditional use in Chapter 33 of this Code, the land use(s) is not a land use(s) found exclusively in the zoning classifications listed in subsection 24.12.1 (10)(a)(i), (ii), (iii), (iv), (v), above the land use(s) is comparable to a land use(s) set forth in Table E-1, and the land use(s) will not have an adverse environmental impact of groundwater quality in the Northwest Wellfield protection area and within the West Wellfield protection area. Notwithstanding the foregoing with respect to Subarea 1, or the West Wellfield interim protection area, the director or his designee shall not determine that the land use is comparable to the land use(s) set forth in Table E-1 if the land use is permitted in one or more of the following Metropolitan Dade County zoning classifications and if the land use is not permitted in one or more Metropolitan Dade County zoning classifications which are less restrictive than the following: BU-3; IU-1; IU-2; IU-3; and IU-C.

In determining whether a land use is comparable to one or more land use(s) set forth in Table E-1, the director or his designee shall consider the following factors:

- i. The materials used, handled and stored, and the products and wastes produced;
- ii. The activities, processes and methods which are employed and utilized;
- iii. The machinery and other facilities utilized and maintenance requirements of said machinery and facilities;
- iv. Uses commonly attendant to or associated with the primary use.

In determining whether a land use does not or will not have an adverse environmental impact on the groundwater quality in the Northwest Wellfield protection area or within the West Wellfield Interim protection area, the director or his designee shall consider the following factors:

- v. The land use will not be detrimental to the public health, welfare and safety and will not create a nuisance and will not materially increase the level of water pollution within the Northwest Wellfield protection area or within the West Wellfield interim protection area;
- vi. The use, generation, handling, disposal of, discharge or storage of hazardous materials will not occur within the Northwest Wellfield protection area or within the West Wellfield Interim protection area;
- vii. The only liquid waste (excluding stormwater) which will be generated, disposed of, discharged, or stored within the Northwest Wellfield protection area or within the West Wellfield Interim protection area shall be domestic sewage discharged to a public sanitary sewer or septic tank;
- viii. Stormwater runoff shall be retained on the property and disposed of through infiltration drainage systems supplemented with seepage drainage systems, or

- (e) The director or his designee determines that: The property is within the Northwest Wellfield Subarea 2; the property is served or will be served by a public water main and public sanitary sewers no later than the effective date of this subsection; the property has not been the subject of any zoning action (district boundary change, unusual use, use variance, new use, similar use, or equivalent municipal zoning action) after the effective date of this subsection; the property has not been the subject of any platting action (final plat, waiver of plat, or equivalent municipal platting action) after the effective date of this subsection and the property is in compliance with subsections 24-12.1 (4), (5) and (6) of this Code, and was in compliance with subsections 24-12.1 (4), (5) and (6) of this Code no later than September 30, 1983, or
- (f) The director of the department of environmental resources management or his designee determines that: The property is within the Northwest Wellfield Subarea 1 or within the West Wellfield Interim protection area; the owner of the property is applying for the original certificate of use and occupancy or original municipal occupational license pursuant to a valid building permit obtained prior to December 12, 1986, in the case of the Northwest Wellfield Subarea 1, or the effective date of this ordinance [Ordinance No. 89-80], in the case of the West Wellfield interim protection area, which permit has been valid and continuously in full force and effect since its issuance; the property is served or will be served by a public water main and public sanitary sewer no later than the date that the original certificate of use and occupancy or original municipal occupational license is issued; and the property is in compliance with subsection 24-48 (5), (6) and (7), (6) and (7) of this code and was in compliance with subsections 24-48 (5), (6) and (7) of this Code no later than the date of issuance of the aforesaid valid building permit.



**TABLE E-1**

**Allowable Land Uses Within the Northwest Wellfield  
Subarea 1 or Within the Northwest Wellfield Subarea 2 of the  
Northwest Wellfield Zoning Overlay District**

**Land Use**

Abstract title  
Accounts, bookkeeping  
Actuaries  
Advertising office only; no printing  
Agricultural use  
Alcoholic beverage district, sales  
Amusement, game room  
Animals, birds, and tropical fish, retail only  
Antique shops  
Apparel sales, rentals  
Apartment house  
Appliance and fixture sales (no service)  
Appraisers (no merchandise)  
Archery range  
Art gallery  
Art goods and bric-a-brac shops  
Artist studios  
Auction sales (no hazardous materials)  
Auditoriums  
Bait and tackle shop  
Bakeries, retail  
Bakeries, wholesale  
Banks  
Barbecue restaurants, stands, pits (wood for cooking) drive in theaters  
Barber shop  
Bars  
Baseball field  
Bath and massage parlors  
Bathing beaches  
Bicycle sales (no service)  
Billiard parlor/pool hall  
Bindery (books, publications, etc.)  
Bingo  
Boat piers, docks  
Bookstore (new and used)  
Bottled gas storage (liquefied petroleum gas and natural gas only)  
Bowling Alleys  
Box lunches—Wholesale and retail with delivery trucks (no truck maintenance)  
Broadcasting studios (radio and TV, including transmitting station and tower, incidental electrical generation by LP or natural gas only)  
Business machines sales (typewriters, calculators, etc.) (no service)  
Camps  
Card club/public  
Card shops  
Carpet sales

Caterers  
Churches  
Cigar making and sales  
Cigarette vending  
Clubs (private)  
Coin laundries (no dry cleaning machines)  
Coin shops  
Cold storage warehouses and pre-cooling plants  
Colleges (no hazardous materials)  
Computer service  
Concrete, cement, clay products -- Storage and sales (no vehicle maintenance; no on-site fuel storage)  
Confectionery (and ice cream stores)  
Conservatories  
Convent  
Convention halls  
Costuming shops  
Curio stores  
Dance halls, schools, academies  
Day camp  
Day care, nursery  
Department store  
Dependent children (home for)  
Dive shop  
Docks, piers -- Boat  
Dog obedience training, training tracks, schools  
Dormitories  
Drapery stores, drapery making  
Dressed poultry and sea food stores  
Drive-through banks and restaurants  
Drug store  
Dry cleaning (no cleaning on premises)  
Dynamite storage  
Electric substations  
Electrolysis office (removal of hair by electrolytic process)  
Employment agencies  
Entrance gates  
Escort service  
Farms  
Fire station (no hazardous materials)  
Fishing camps  
Fish houses, market, smoking  
Fish, tropical, aquariums (retail sales only)  
Flea market  
Florist shops  
Flower importers  
Food distribution (no on-site vehicle maintenance)  
Food sales  
Foster home  
Fraternities  
Fruit packing, fruit stores, fruit stands  
Furniture sales, rental and storage (no restoration, no manufacturing)  
Furriers (sales and storage)

Garment manufacturing (no dyeing)  
 Gas (natural gas, LP gas including distribution system and bottling plant)  
 Gift stores  
 Glass Blowing  
 Golf course, clubhouse  
 Golf driving range  
 Grocery store  
 Gun shop  
 Haberdashery  
 Hall for hire  
 Handball court  
 Health spa  
 Homes for dependent children  
 Hotels, motels  
 Houses of worship  
 Ice cream stores  
 Ice manufacturing, distributing (emergency electrical generation by LP or natural gas only)  
 Import-export office  
 Insurance office  
 Interior decorators office, showroom  
 Jai alai  
 Jewelry sales (no manufacturing)  
 Judo and karate instructions  
 Key shop  
 Kindergartens, day care  
 Lake excavation  
 Laundries (all types, no dry cleaning)  
 Leather goods stores (retail)  
 Libraries (public)  
 Limestone quarrying, rock crushing and aggregate plants ancillary to section in connection with limestone quarrying (no on-site fuel storage except that the use of fuels and lubricants and LP and natural gas are permitted.)  
 Liquified petroleum (LP) gas  
 Liquor package stores  
 Livery stable  
 Lodges (private)  
 Lounges  
 Luggage sales  
 Lunches (packaging, catering)  
 Mail order office  
 Massage parlor  
 Meat market  
 Men's store  
 Messenger office  
 Milk store (drive-in)  
 Miniature golf course  
 Mission  
 Mobile homes  
 Mobile homes, sales (no manufacturing or repair; and no motor homes or recreational vehicles)  
 Monastery  
 Motel  
 Modeling (agencies, schools)  
 Motion picture studio (no film developing)

Motion picture theatre, indoor and outdoor  
Motion pictures and equipment, sales and rental (no equipment servicing, no film developing)  
Moving and storage company (no on-site vehicle maintenance)  
Municipal recreation building  
Museums, public  
Music stores, teaching  
Newsstand  
Night club  
Notions sales  
Office building  
Office, professional  
Open air theaters  
Optical stores  
Package stores  
Palmistry  
Paneling (wall/retail sales)  
Paper salvage  
Park or playground, public or private  
Parking lot, parking garage (no auto pound, no tow yard, no on-site vehicle repair)  
Passenger stations (railroad, bus)  
Pawn shops (swap shops)  
Pet shops, retail sales only (in air conditioned building)  
Pharmaceutical (retail)  
Photographic studio (no developing, no printing)  
Pillow renovating  
Plant sales (no propagation)  
Plaster products  
Plasterers, storage area  
Police station  
Pool rooms Post office  
Pottery (retail sales only/no manufacturing)  
Private clubs  
Produce or fruit market  
Professional and semiprofessional office (no medical laboratory or clinic)  
Public art galleries, museums  
Racquet ball clubs  
Radio, broadcasting station, studio, transmitting station/tower (emergency electrical power by LP or natural gas only)  
Railroad and bus passenger stations (no freight terminal, no vehicle maintenance)  
Real Estate office  
Recording studios  
Recreational facilities  
Rentals (household equipment, appliances, tools, hardware, etc.) (no hazardous materials)  
Residential uses  
Restaurants, including outdoor patios and service  
Retirement villages  
Rifle, pistol range  
Rock and sand yards  
Rock yards (crushing)  
Saloons and bars  
Savings and loan associations  
Schools (no hazardous materials)  
Seafood stores

Secondhand stores (inside only)  
 Shoe store (no manufacturing)  
 Shooting gallery  
 Shooting range, trap and skeet  
 Shopping center (no hazardous materials)  
 Showrooms, sales (no hazardous materials)  
 Skating rink  
 Sororities  
 Souvenir stores  
 Sporting goods stores  
 Stationery stores  
 Storage warehouses (no hazardous materials)  
 Swap shops  
 Swimming pools  
 Synagogues  
 Tailor shops  
 Tattoo parlor  
 Telegraph stations (emergency electrical power by LP or natural gas only)  
 Telephone answering service  
 Telephone exchange  
 Television (broadcasting studio)  
 Tennis courts  
 Textile sales  
 Theater  
 Tile sales (no manufacturing)  
 Tobacco stores  
 Tourist attractions (no hazardous materials)  
 Trading post  
 Trailer park  
 Travel agency  
 Upholstery shop  
 Utilities: Public and private water production, treatment and distribution facilities; and sewerage except that wastewater treatment plants are not permitted (emergency electrical power by LP or natural gas only)  
 Vegetable stands  
 Wall paper, panelling (retail sales)  
 Warehouses (storage of food, fodder, apparel, and other non-hazardous materials)  
 Watchman's quarter  
 Water tanks or towers  
 Water treatment plants (emergency electrical power by LP or natural gas only)  
 Wearing apparel stores (sales, rentals)  
 Wholesale salesrooms and attendant storage rooms (no hazardous materials)

- (11) Prohibition of resources recovery and management facility within wellfield protection areas. Notwithstanding any provision of this Code, no county or municipal officer, agent, employee or board shall approve, grant, modify or issue any permit (except for renewal of valid operating permits, issued pursuant to this chapter, no later than ninety (90) days after the effective date of this subsection, certificate of use and occupancy (except for changes in ownership), platting action (final plat, waiver of plat or equivalent municipal platting action) or zoning action (district boundary change, unusual use, use variance or equivalent municipal zoning action) for any resource recovery and management facility within the Northwest Wellfield protection area or within the maximum day pumpage

wellfield protection area of the Alexander Orr Wellfield, Snapper Creek Wellfield, Southwest Wellfield, Miami Springs Lower Wellfield, Miami Springs Upper Wellfield, John E. Preston Wellfield or Hialeah Wellfield or within the basic wellfield protection area of any public utility potable water supply well after the effective date of this ordinance, unless said resource recovery and management facility was in operation and had obtained all other applicable permits prior to June 25, 1986 and obtained a valid operating permit issued pursuant to this chapter no later than ninety (90) days after the effective date of this subsection.

Furthermore, notwithstanding any provision of this Code, no person shall construct, utilize, operate, occupy or cause, allow, let, permit or suffer to be constructed, utilized, operated or occupied any resources recovery and management facility within the Northwest Wellfield protection area or within the maximum day pumpage wellfield protection area of the Alexander Orr Wellfield, Snapper Creek Wellfield, Southwest Wellfield, Miami Springs Lower Wellfield, Miami Springs Upper Wellfield, John E. Preston Wellfield or Hialeah Wellfield or within the basic wellfield protection area of any public utility potable water supply well after the effective date of this subsection, unless said resource recovery and management facility was in operation and had obtained all other applicable permits prior to June 25, 1986 and obtained a valid operating permit pursuant to this chapter, no later than ninety (90) days after the effective date of this subsection.

**TABLE A-1**

**Residential Property Served by Septic Tank and Using Public Water Supply**

<b>Travel Time in Days or Distance in Feet from Closest Point of Property to Nearest Public Utility Potable Water Supply Well</b>	<b>Maximum Allowable Sewage Loading for Property Not Having Indigenous Sandy Substrata (Gallons Per Day Per Unsubmerged Acre)</b>	<b>Maximum Allowable Sewage Loading for Property Having Indigenous Sandy Substrata (Gallons Per Day Per Unsubmerged Acre)</b>
<hr/>	<hr/>	<hr/>
<b>More than 100 days but not exceeding 210 days</b>	<b>850</b>	<b>As allowed by Section 24- 13</b>
<b>More than 30 days but not exceeding 100 days</b>	<b>600</b>	<b>850</b>
<b>More than 10 days but not exceeding 30 days</b>	<b>350 with minimum of 24 inches of Class II Silica Sand under drainfield</b>	<b>600 with minimum of 24 inches of Class II Silica Sand or Indigenous Sand under drainfield</b>
<b>More than 100 feet but not exceeding 10 days</b>	<b>140 with minimum of 24 inches of Class II Silica Sand under drainfield</b>	<b>350 with minimum of 24 inches of Class II Silica Sand or Indigenous Sand under drainfield</b>
<b>100 feet or less</b>	<b>0</b>	<b>0</b>

**TABLE A-2**

**Residential Property Served by Septic Tank and Not Using Public Water Supply**

<b>Travel Time in Days or Distance in Feet from Closest Point of Property of Nearest Public Utility Potable Water Supply Well</b>	<b>Maximum Allowable Sewage Loading for Property Not Having Indigenous Sandy Substrata (Gallons Per Day Per Unsubmerged Acre)</b>	<b>Maximum Allowable Sewage Loading for Property Having Indigenous Sandy Substrata (Gallons per Day Per Unsubmerged Acre)</b>
<hr/> More than 100 days	750 with minimum of 24 inches of Class II Silica Sand under drainfield	750 with minimum of 24 inches of Class II Silica Sand or Indigenous Sand under drainfield
More than 30 days but not exceeding 100 days	600 with minimum of 24 inches of Class II Silica Sand under drainfield	750 with minimum of 24 inches of Class II Silica Sand or Indigenous Sand under drainfield
More than 10 days but not exceeding 30 days	350 with minimum of 24 inches of Class II Silica Sand under drainfield	600 with minimum of 24 inches of Class II Silica Sand or Indigenous Sand under drainfield
More than 100 feet but not exceeding 10 days	140 with minimum of 24 inches of Class II Silica Sand under drainfield	350 with minimum of 24 inches of Class II Silica Sand or Indigenous Sand under drainfield
100 feet or less	0	0



**TABLE A-3**

**Non-Residential Property Served by Septic Tank, Using Public Water Supply, and  
Not Using, Generating, Handling, Disposing, Discharging or Storing Hazardous Materials**

<b>Travel Time in Days or Distance in Feet from Closest Point of Property to Nearest Public Utility Potable Water Supply Well</b>	<b>Maximum Allowable Sewage Loading for Property Not Having Indigenous Sandy Substrata (Gallons Per Day Per Unsubmerged Acre)</b>	<b>Maximum Allowable Sewage Loading for Property Having Indigenous Sandy Substrata (Gallons Per Day Per Unsubmerged Acre)</b>
<hr/> More than 100 days but not exceeding 210 days	850	1500
More than 30 days but not exceeding 100 days	600	850
More than 10 days but not exceeding 30 days	350 with minimum of 24 inches of Class II Silica Sand under drainfield	600 with minimum of 24 inches Class II Silica Sand or Indigenous Sand under drainfield
More than 100 feet but not exceeding 10 days	140 with minimum of 24 inches of Class II Silica Sand under drainfield	350 with minimum of 24 inches Class II Silica Sand or Indigenous Sand under drainfield
100 feet or less	0	0

**TABLE A-4**

**Non-Residential Property Served by Septic Tank, Not Using Public Water Supply, and  
Not Using, Generating, Handling, Storing, Disposing or Discharging Hazardous Materials**

<b>Travel Time in Days or Distance in Feet from Closest Point of Property to Nearest Public Utility Potable Water Supply Well</b>	<b>Maximum Allowable Sewage Loading for Property Not Having Indigenous Sandy Substrata (Gallons Per Day Per Unsubmerged Acre)</b>	<b>Maximum Allowable Sewage Loading for Property Having Indigenous Sandy Substrata (Gallons Per Day Per Unsubmerged Acre)</b>
<b>More than 100 days</b>	<b>750 with minimum of 24 inches of Class II Silica Sand under drainfield</b>	<b>750 with minimum of 24 inches of Class II Silica Sand or Indigenous Sand under drainfield</b>
<b>More than 30 days but not exceeding 100 days</b>	<b>600 with minimum of 24 inches of Class II Silica Sand under drainfield</b>	<b>750 with minimum of 24 inches of Class II Silica Sand under drainfield</b>
<b>More than 10 days but not exceeding 30 days</b>	<b>350 with minimum of 24 inches of Class II Silica Sand under drainfield</b>	<b>600 with minimum of 24 inches of Class II Silica Sand or Indigenous Sand under drainfield</b>
<b>More than 100 feet but not exceeding 10 days</b>	<b>140 with minimum of 24 inches of Class II Silica Sand under drainfield</b>	<b>350 with minimum of 24 inches of Class II Silica Sand or Indigenous Sand under drainfield</b>
<b>100 feet or less</b>	<b>0</b>	<b>0</b>

**TABLE B-1**

**Residential Property Served by Sanitary Sewers; Non-Residential Property Served by Sanitary Sewers and Not Using, Generating, Handling, Disposing, Discharging or Storing Hazardous Materials**

<b>Travel Time in Days or Distance in Feet from Closest Point of Property to Nearest Public Utility Potable Water Supply Well</b>	<b>Maximum Allowable Sewage Loading for Property Not Having Indigenous Sandy Substrata (Gallons Per Day Per Unsubmerged Acre)</b>	<b>Maximum Allowable Sewage Loading for Property Having Indigenous Sandy Substrata (Gallons Per Day Per Unsubmerged Acre)</b>
<hr/> More than 30 days	No additional restrictions	No additional restrictions
More than 10 days but not exceeding 30 days	1600	No additional restrictions
More than 100 feet but not exceeding 10 days	850	1600
100 feet or less	0	0

**TABLE C-1**

**Allowable Stormwater Disposal Methods for Residential and Non-Residential Property**

Travel Time in Days or Distance in Feet from  
Closest Point of Property to Nearest  
Public Utility Potable Water Supply Well

Allowable Methods for Stormwater Disposal

---

More than 30 days but not exceeding 210  
days

---

Infiltration or seepage or overflow outfalls  
only

More than 10 days but not exceeding 30  
days

Infiltration or seepage only

More than 100 feet but not exceeding 10  
days

Infiltration only

100 feet or less

none

**TABLE D-1**

**Allowable Wastewater Effluents and Disposal Methods for Residential  
and Non-Residential Property**

**Travel Time in Days or Distance in Feet from  
Closest Point of Property to Nearest Public  
Utility Potable Water Supply Well**

**Allowable Wastewater Effluents and Disposal  
Methods (other than septic tanks and  
sanitary sewers)**

---

**More than 100 days but not exceeding 210  
days**

---

**Industrial or domestic effluents treated as  
required by section 24-11 and disposed by  
seepage only; non-contact cooling water  
disposed by gravity injection, infiltration or  
seepage only**

**More than 30 days but not exceeding 100  
days**

**Non-contact cooling water disposed by  
gravity injection, seepage or infiltration only**

**30 days or less**

**None**

**DADE COUNTY CODE**  
**Regulation of Underground Storage Facilities**  
**Sec. 24-12.2**  
**(1990)**

- (1) Legislative intent. The intent and purpose of this section is to safeguard the public health, safety and welfare by regulating underground storage facilities.
- (2) Short title; applicability; construction. This section shall be known as the "Underground Storage Facilities Ordinance." The provisions of this section shall be effective in the incorporated and unincorporated areas of Dade County and shall be liberally construed to effect the purpose set forth herein.
- (3) Notwithstanding any provision of this Code, no county or municipal officer, agent, employee or board shall approve, grant or issue any permit or license of any kind whatsoever for any work involving the installation, modification, repair, expansion or replacement (except the repair or replacement of a pump, line leak detector or valve) of an underground storage facility until the county or municipal officer, agent, employee or board has obtained the prior written approval of the director, environmental resources management or his designee. The director, environmental resources management or his designee, shall issue his written approval only if:
  - (a) The director, environmental resources management or his designee, determines that the work shall be performed in accordance with the standards and practices, as may be applicable, set forth in:
    - i. The South Florida Building Code,
    - ii. Publication 1615, "Installation of Underground Petroleum Storage Systems," American Petroleum Institute, November 1979, Washington, D.C.,
    - iii. NFPA 30 "Flammable And Combustible Liquids Code 1981" National Fire Protection Association, November 20, 1980, Quincy, Massachusetts, and
  - (b) The director, environmental resources management or his designee, receives and approves the following:
    - i. Plans for the proposed installation, modification, repair, expansion or replacement of the underground storage facility which are prepared by a professional engineer registered in the State of Florida and to which plans are affixed the signature, seal, and registration number of said engineer. The plans required herein shall include the following:
      - (A) For all underground storage facilities regardless of location in Dade County: Plans for a line leak detector for detection of leaks in lines between tanks and dispensers excluding vacuum lines systems. For underground storage facilities with capacity of one thousand one hundred (1,100) gallons or more, plans for a matrix of no less than four (4) monitoring wells, and for underground storage facilities with capacity of less than one thousand one hundred (1,100) gallons, plans for no less than one (1) monitoring well, of design and at locations approved by the department of environmental

resources management, based upon an assessment of the capability of the proposed monitoring wells to detect discharges of hazardous materials from the underground storage facility to the environment outside said underground storage facility. Said monitoring wells shall be designed to provide a minimum depth of three (3) feet of groundwater in the monitoring well at all times.

- (B) For underground storage facilities located within the Northwest Wellfield protection area or within the West Wellfield protection area or within the basic wellfield protection area of any public utility potable water supply other than a public water supply: Plans for a continuous automatic leak detection system which shall include a matrix of no less than four (4) monitoring wells for underground storage facilities with a capacity of one thousand one hundred (1,100) gallons or more or, no less than one (1) monitoring well for underground storage facilities with a capacity of less than one thousand one hundred (1,100) gallons, of design and location approved by the department of environmental resources management, based upon an assessment of the capability of the system to immediately detect any and all discharges of hazardous materials from the underground storage facility to the environment. In lieu of the continuous automatic leak detection system, a groundwater monitoring program may be submitted to the department of environmental resources management for review and approval. This program shall include, but not be limited to, obtaining groundwater samples from designated on-site monitoring wells, no less than once every six (6) months. Said samples shall be tested for the parameters approved by the director of the department of environmental resources management for review in accordance with the approved program.
- (C) For underground storage facilities located within the Northwest Wellfield protection area or within the West Wellfield interim protection area or within the basic wellfield protection area of any public utility potable water supply well or within the maximum day pumpage wellfield protection area of the Alexander Orr Wellfield, Snapper Creek Wellfield, Southwest Wellfield, Miami Springs Lower Wellfield, Miami Springs Upper Wellfield, John E. Preston Wellfield, or Hialeah Wellfield or within any property served or to be served by any source of potable water supply other than a public water supply: Plans for a secondary containment system approved by the department of environmental resources management, based upon an assessment of the capability of the proposed secondary containment system to prevent hazardous materials from contacting the environment outside said system for the period of time necessary to detect and recover all hazardous materials capable of being discharged from the underground storage facility.

- (ii) A written verified statement by the operator of the underground storage facility that said operator will retain the services of a professional engineer registered in the State of Florida or an underground storage facilities supervisor who shall supervise and inspect the installation, modification, repair, expansion, or replacement of the underground storage facility;

supervise the installation, testing and calibration of any monitoring equipment required by this section; and supervise the pressure testing required by this section.

- (4) No person shall be issued the operating permit required by section 24-35.1. of this Code for any underground storage facility which has been installed, modified, repaired, expanded or replaced (except the repair or replacement of a pump, line leak detector or valve) after the effective date of this section and no person shall use or operate said facility after the effective date of this section unless:
- (a) Said underground storage facility has been pressure tested at least once after each such installation, modification, repair, expansion or replacement and has been determined not to discharge, during such test, any substance in the underground storage facility to the environment outside of said facility. Said testing shall be conducted with no less than three (3) pounds of pressure per square inch for an underground storage facility which is not a pipe or other container used to transmit hazardous materials. Said testing shall be conducted with no less than one hundred fifty (150) per cent of the anticipated working pressure for an underground storage facility which is a pipe or other container used to transmit hazardous materials, and
  - (b) The testing required by 4(a) herein shall be performed according to the methods set forth in NFPA 329, "Underground Leakage of Flammable and Combustible Liquids, 1983," National Fire Protection Association, Quincy, Massachusetts, and
  - (c) The testing required by 4(a) herein has been performed by a qualified person, and
  - (d) The results of the testing required by 4(a) have been submitted to, reviewed and approved by the department of environmental resources management. The department shall approve said results only if the testing was performed in accordance with the requirements of this section and the testing affirmatively shows that the underground storage facility tested did not, during such test, discharge any substance in the underground storage facility to the environment outside of said facility, and
  - (e) The professional engineer or underground storage facilities supervisor retained by the operator pursuant to (3)(b)(ii) certifies that the underground storage facility was installed, modified, repaired, expanded or replaced, and the line leak detector, monitoring wells, continuous automatic leak detection system, or secondary containment system was installed, modified, repaired, expanded, or replaced in accordance with the plans required by (3)(b)(i) herein and said professional engineer has affixed his signature, seal and registration number to said certification and said certification has been submitted to the department.
- (5) It shall be unlawful to operate, maintain or permit, cause, allow, let or suffer the operation or maintenance of any underground storage facility with a capacity of one thousand one hundred (1,100) gallons or more regardless of location in Dade County without the following:
- (a) An operating permit as required by section 24-35.1 of this Code, and



- (b) Maintenance of a daily record and accounting of the inventory of the hazardous materials stored or transmitted within the underground storage facility, in accordance with the methods and practices set forth in Recommended Practice 1621 "Bulk Liquid Stock Control at Retail Outlets", Fourth Editions, American Petroleum Institute, December 1987, Washington, D.C. Appendix "A" of the aforesaid publication or the equivalent thereof shall be completed by the operator on a daily basis, shall be kept and maintained within Dade County by the operator of the underground storage facility, and shall be made available for inspection and copying by employees of the department of environmental resources management upon forty-eight (48) hours' notice by the department of environmental resources management to the operator, and
  - (c) A matrix of no less than four (4) monitoring wells approved by the department of environmental resources management, in accordance with the requirements set forth in (3)(b)(i)(A) herein, and
  - (d) Maintenance on site of a record of weekly visual inspections by the operator of the underground storage facility of the groundwater in each monitoring well required by this section. The weekly record shall be made available for inspection and copying upon request by the director of the department of environmental resources management, or his designee.
- (6) It shall be unlawful to operate, maintain or permit, cause, allow, let or suffer the operation or maintenance of any underground storage facility with a capacity of one thousand one hundred (1,100) gallons or more, located within the Northwest Wellfield protection area or within the West Wellfield interim protection area or within the basic wellfield protection area of any public utility potable water supply well or within any property served or to be served by any source of potable water supply other than a public water supply without the following:
  - (a) An operational continuous automatic leak detection system, or a groundwater monitoring program, approved by the department of environmental resources management in accordance with the requirements set forth in (3)(b)(i)(B) herein, and
  - (b) A secondary containment system approved by the department of environmental resources management, in accordance with the requirements set forth in (3)(b)(i)(C) herein, and
  - (c) After December 12, 1991, a secondary containment system approved by the department of environmental resources management, in accordance with the requirements set forth in (3)(b)(i)(C) herein, for any underground storage facility constructed of corrosion resistant materials installed after November 25, 1978 and prior to November 25, 1983, and
  - (d) Any underground storage facility located within the Northwest Wellfield protection area (except those underground storage facilities used exclusively for the retail sale of gasoline, gasohol or diesel fuel) shall be removed and may be replaced with the installation of a new aboveground storage facility, unless the fire department having jurisdiction deems aboveground storage to create an unacceptable risk of fire or explosion in which case the operator shall comply with the requirements of (3)(b)(i)(B) and (3)(b)(i)(C) herein, and

- (e) No later than one (1) year from the effective date of this ordinance, any underground storage facility located within the West Wellfield interim protection area (except those underground storage facilities used exclusively for the retail sale of gasoline, gasohol or diesel fuel) shall be removed and may be replaced with the installation of a new aboveground storage facility, unless the fire department having jurisdiction deems aboveground storage to create an unacceptable risk of fire or explosion in which case the operator shall comply with the requirements of (3)(b)(i)(B) and (3)(b)(i)(C) herein
- (7) It shall be unlawful to operate, maintain or permit, cause, allow, let or suffer the operation or maintenance of any underground storage facility, with a capacity of less than one thousand one hundred (1,100) gallons, located within the Northwest Wellfield protection area or within the West Wellfield interim protection area or within the basic wellfield protection area of any public utility potable water supply well or within any property served or to be served by any source of potable water supply other than a public water supply without the following:
  - (a) An operating permit as required by section 24-35.1 of this Code, and
  - (b) No less than one (1) monitoring well in accordance with the requirements set forth in (3)(b)(i)(A) herein, and
  - (c) Maintenance of a daily record and accounting of the inventory of the hazardous materials stored or transmitted within the underground storage facility, in accordance with the methods and practices set forth in Recommended Practice 1621 "Bulk Liquid Stock Control at Retail Outlets", Fourth Edition, American Petroleum Institute, December 1987, Washington, D.C. Appendix "A" of the aforesaid publication or the equivalent thereof shall be completed by the operator on a daily basis, shall be kept and maintained within Dade County by the operator of the underground storage facility, and shall be made available for inspection and copying by employees of the department of environmental resources management upon forty-eight (48) hours notice by the department of environmental resources management to the operator, and
  - (d) Any underground storage facilities located within the Northwest Wellfield protection area (except those underground storage facilities used exclusively for the retail sale of gasoline, gasohol, or diesel fuel) shall be removed and may be replaced with the installation of a new aboveground storage facility, unless the fire department having jurisdiction deems aboveground storage to create an unacceptable risk of fire or explosion in which case the operator shall comply with the requirements of (3)(b)(i)(B) and (3)(b)(i)(C) herein, and
  - (e) No later than one (1) year from the effective date of this ordinance, any underground storage facility located within the West Wellfield interim protection area (except those underground storage facilities used exclusively for the retail sale of gasoline, gasohol or diesel fuel) shall be removed and may be replaced with the installation of a new aboveground storage facility, unless the fire department having jurisdiction deems aboveground storage to create an unacceptable risk of fire or explosion in which case the operator shall comply with the requirements of (3)(b)(i)(B) and (3)(b)(i)(C) herein, and

- (f) After December 12, 1989, a secondary containment system approved by the department of environmental resources management, in accordance with the requirements set forth in (3)(B)(i)(C) herein, for any existing underground storage facility installed prior to November 25, 1968, and
  - (g) After December 12, 1991, a secondary containment system approved by the department of environmental resources management, in accordance with the requirements set forth in (3)(b)(i)(C) herein, for any underground storage facility installed on or after November 25, 1968, and
  - (h) Maintenance on site of a record of weekly visual inspections by the operator of the underground storage facility of the groundwater in each monitoring well required by this section. The weekly record shall be made available for inspection and copying upon request by the director of the department of environmental resources management, or his designee.
- (8) It shall be unlawful to replace or permit, cause, allow, let or suffer the replacement of any underground storage facility with a capacity of one thousand one hundred (1,100) gallons or more, located within the maximum day pumpage wellfield protection area and outside the average day pumpage wellfield protection area of the Alexander Orr Wellfield, Snapper Creek Wellfield, Southwest Wellfield, John E. Preston Wellfield, Miami Springs Upper Wellfield, Miami Springs Lower Wellfield or Hialeah Wellfield without installing a secondary containment system approved by the department of environmental resources management, in accordance with the requirements set forth in (3)(b)(i)(C) herein.
- (9) It shall be unlawful to operate, maintain or permit, cause, allow, let or suffer the operation or maintenance of any underground storage facility located within the average day pumpage wellfield protection area and outside the basic wellfield protection area of the Alexander Orr Wellfield, Snapper Creek Wellfield, Southwest Wellfield, John E. Preston Wellfield, Miami Springs Upper Wellfield, Miami Springs Lower Wellfield, or Hialeah Wellfield without a secondary containment system approved by the department of environmental resources management, in accordance with the requirements set forth in (3)(b)(i)(C) herein, unless the existing underground storage facility was installed after November 27, 1973 and before December 12, 1986 in which case a secondary containment system approved by the department of the environmental resources management, in accordance with the requirements set forth in (3)(b)(i)(C) herein, shall be installed within fifteen (15) years and one hundred and eighty (180) days of the date of installation of said underground storage facility.
- (10) Upon the determination by the department of environmental resources management that hazardous materials have been or may have been discharged from an underground storage facility to the environment outside of said facility, the department of environmental resources management may require immediate testing of the underground storage facility by the operator or owner thereof, or by the owner of the real property upon which said underground storage facility is located, to determine whether the underground storage facility has discharged or is discharging hazardous materials into the environment outside of said facility.
- (11) Operators of underground storage facilities as well as any persons, individually or otherwise having a legal, beneficial, or equitable interest in the underground storage facilities or in the real property upon which said underground storage facilities are located shall be jointly and severally liable and responsible for immediately accomplishing the following when the underground storage facility has discharged, is discharging or may be

discharging any hazardous materials of any quantity whatsoever into the environment outside of said facility:

- (a) Locating and determining the cause of the discharge.
  - (b) Stopping and preventing any further discharges.
  - (c) Detection, extraction, and recovery of all hazardous materials which have been discharged in accordance with the methods and practices set forth in Publication 1628, "A Guide to the Assessment and Remediation of Underground Petroleum Releases" Second Edition, August 1989, American Petroleum Institute, Washington, D.C.
  - (d) Notify the department of environmental resources management of such discharge within four (4) hours of any such discharge.
- (12) All operators of underground storage facilities shall notify, in writing, the department of environmental resources management of any loss of hazardous materials from the underground storage facility which loss cannot be attributed to either the theft of the hazardous materials or normal changes in the volume of the hazardous materials due to temperature changes. Such written notification shall be accomplished no later than twenty-four (24) hours after any such loss.
- (13) It shall be unlawful for the operator or owner of any underground storage facility to place or permit, cause, allow, let or suffer the placement of the underground storage facility temporarily out of service without capping and securing all piping and tank openings against tampering. All vent piping shall be capped.
- (14) It shall be unlawful for the operator or owner of any underground storage facility to abandon or permit, cause, allow, let or suffer the abandonment of the underground storage facility without obtaining the prior written approval of the director of the department of environmental resources management, or his designee. The director or his designee shall issue his written approval only if the following requirements are complied with:
- (a) Installing no less than one (1) monitoring well as approved by the department of environmental resources management adjacent to the underground storage facility to be abandoned. The department of environmental resources management shall be notified forty-eight (48) hours in advance to schedule an inspection of the groundwater which may include obtaining a groundwater sample(s) to assess possible groundwater contamination at the site. In the event free floating hydrocarbons are present in the groundwater the underground storage facility may be required to be removed by the director of the department of environmental resources management, or his designee, and
  - (b) Removing all flammable or combustible liquids from the tank and piping, and
  - (c) Removing all flammable vapors from the tank, and
  - (d) Disconnecting all piping, and
  - (e) Completely filling the tank with a nonshrinking inert solid material, and

- (f) Sealing all tank openings and capping or removing all piping.
- (15) It shall be unlawful for the operator or owner of any underground storage facility to remove or permit, cause, allow, let or suffer the removal of the underground storage facility without obtaining the prior written approval of the director of the department of environmental resources management, or his designee. The director or his designee shall issue his written approval only if the following requirements are complied with:
- (a) Removing all flammable or combustible liquids in the tank and piping, and
  - (b) Removing or capping all piping, and
  - (c) Prior to backfilling the tank excavation a representative of the department of environmental resources management shall be notified forty-eight (48) hours in advance to schedule an inspection of the exposed groundwater and to assess possible ground or groundwater contamination at the site. In the event the groundwater in the excavation is not exposed, a monitoring well shall be installed to provide a minimum depth of three (3) feet of groundwater in the monitoring well at all times, in a location approved by the director of the department of environmental resources management or his designee.

**DADE COUNTY CODE**  
**Liquid Waste Disposal and Potable Water Supply Systems**  
**Sec. 24-13**  
**(1990)**

- (1) Intent. The intent and purpose of this section is to safeguard the public health, safety, and welfare by regulating liquid waste storage, disposal and treatment methods other than sanitary sewers and any source of potable water supply.
- (2) No person shall discharge or cause, allow, permit, let or suffer to be discharged any liquid waste or other substance of any kind whatsoever into a septic tank other than domestic sewage.
- (3) Notwithstanding any provision of this Code, no county or municipal officer, agent, employee or board shall approve, grant or issue any building permit, certificate of use and occupancy (except for changes in ownership), municipal occupational license (except for changes in ownership), platting action (final plat, waiver of plat or equivalent municipal platting action) or zoning action (district boundary change, unusual use, use variance or equivalent municipal zoning action) for any residential land use served or to be served by a septic tank or any source of potable water supply until the county or municipal officer, agent, employee or board affirmatively determines that the residential land use will comply with one or more of the requirements as set forth in subsections 24-13(3)(a), (b), (c), (d), (e) and (f) and section 24-45(1) of this Code, and, additionally, that the property is not within a feasible distance for a public water main or public sanitary sewers.

Furthermore, notwithstanding any provision of this Code, no person shall construct, utilize, operate, occupy or cause, allow, let, permit or suffer to be constructed, utilized, operated or occupied any residential land use served or to be served by a septic tank or any source of potable water supply until the county or municipal officer, agent, employee or board affirmatively determines that the residential land use will comply with one or more of the requirements as set forth in subsections 24-13(3)(a), (b), (c), (d), (e) and (f) and section 24-45(1) of this Code, and, additionally, that the property is not within a feasible distance for a public water main or public sanitary sewers.

(a) Where public water is used:

- (i) The minimum lot size for a single-family residence shall be fifteen thousand (15,000) square feet of unsubmerged land;
- (ii) The minimum lot size for a duplex residence shall be twenty thousand (20,000) square feet of unsubmerged land;
- (iii) The maximum sewage loading for all other residential uses shall be one thousand five hundred (1,500) gallons per day per unsubmerged acre; or

(b) Where public water is not used:

- (i) The minimum lot size for a single-family residence shall be twenty thousand three hundred twenty-eight (20,328) square feet of unsubmerged land;
- (ii) The minimum lot size for a duplex residence shall be twenty-nine thousand forty (29,040) square feet of unsubmerged land;

- (iii) The maximum sewage loading for all other residential uses shall be seven hundred fifty (750) gallons per day per unsubmerged acre; or
- (c) In the case of a property owner who has requested to use a tract of land for a single-family residence or duplex residence but which tract of land fails to comply with the minimum lot size requirements of subsection (3)(a)(i) or (3)(a)(ii) hereof and a public right-of-way containing an available and operative public water main or easement containing an available and operative public water main abuts said tract of land, the director of the environmental resources management or his designee, has issued his written approval for the use of a septic tank for such single-family residence or duplex residence. The director or his designee shall issue his written approval only if he finds that said tract of land was created by deed prior to January 1, 1958, or was created by plat approved by the governmental authorities having jurisdiction prior to January 1, 1972, provided that said tract of land, as created by the originally recorded plat or originally recorded deed, has continuously remained in the same form as set forth in the originally recorded plat or deed, or
- (d) The director, environmental resources management or his designee, has issued his written approval for any residential land use served or to be served by a public water main and a septic tank. The director or his designee shall issue his written approval only if he finds the following:
  - (i) That extension of public sanitary sewers to serve the property from the nearest available point of connection to an available public sanitary sewer is not within a feasible distance for public sanitary sewers, and
  - (ii) That more than fifty (50) per cent of an area, consisting of a minimum of one-quarter (1/4) mile square extending a minimum of one-eighth (1/8) of a mile radially from the perimeter of the property, contains land uses served by septic tank(s) and a public water supply, and
  - (iii) That the property complies with the minimum lot size requirements and the maximum lot size requirements and the maximum daily domestic sewage flow (sewage loading) requirements of Chapter 10D-6 of the State of Florida Rules of the Department of Health and Rehabilitative Services as same may be amended from time to time, or has obtained a variance from the aforementioned requirements of Chapter 10D-6, and
  - (iv) The property was part of a recorded subdivision which was created by plat or deed but said subdivision has not continuously remained as a legally recorded subdivision and the size of each proposed lot is the same or larger than the lots set forth in the recorded subdivision, and
  - (v) That if the property is located within the Northwest Wellfield protection area or within the West Wellfield Interim protection area or within the basic wellfield protection area of any public utility potable water supply well, the property complies with subsection 24-12.1(4)(a) and (d) of this Code, and
  - (vi) That residential land uses other than a single family residence or a duplex residence shall be in compliance with subsections 24-13(3)(a)(iii), or

- (e) The director of the department of environmental resources management or his designee has issued his written approval for a platting action (final plat, waiver of plat, or equivalent municipal platting action) for a residential subdivision which was in existence prior to the effective date of this subsection served or to be served by a public water main and septic tanks. The director or his designee shall issue his written approval only if he finds the following:
- (i) The extension of public sanitary sewers to serve the property from the nearest available point of connection to an available public sanitary sewer is not within a feasible distance for public sanitary sewers, and
  - (ii) The original subdivision was created by deed prior to January 1, 1958, or was created by deed prior to January 1, 1972, provided that said tract of land, as created by the originally recorded plat or deed, has continuously remained in the same form as set forth in the originally recorded plat or deed, and
  - (iii) The individual lots created by the platting action fail to comply with the minimum lot size requirements of subsections (3)(a)(i) or (3)(a)(ii) hereof, and
  - (iv) The proposed subdivision of the originally recorded plat or deed will result in a subdivision containing less than or equivalent number of lots as the original subdivision described in subsection 24-13(3)(e)(ii), and
  - (v) That residential land uses other than a single-family residence or a duplex residence shall be in compliance with subsection 24-13(3)(a)(iii), or
- (f) The director of environmental resources management or his designee has issued his written approval for a platting action (final plat, waiver of plat or equivalent municipal platting action) for a residential subdivision which was not in existence prior to the effective date of this subsection which subdivision is served or to be served by a public water main and septic tanks. The director or his designee shall issue his written approval only if he finds the following:
- (i) The extension of public sanitary sewers to serve the property from the nearest available point of connection to an available public sanitary sewer is not within a feasible distance for public sanitary sewers, and
  - (ii) The number of lots in the subdivision created by the platting action is derived by dividing the gross area of the property by the minimum lot size for a single-family residence or duplex residence as set forth in subsections 24-13(3)(a)(i) and 24-13(3)(a)(ii) hereof, and
  - (iii) At least one-fourth (1/4) of the lots in the subdivision exceed the minimum lot size requirements set forth in subsections 24-13(3)(a)(i) and 24-13(3)(a)(ii) hereof and the remaining three-fourths (3/4) of the lots are equal to or exceed ninety-five (95) per cent of the lot size requirement set forth in subsections 24-13(3)(a)(i) and 24-13(3)(a)(ii).

In calculating the square footage of lots in (a), (b), (c), (d), (e) and (f) above, abutting easements and rights-of-way shall be considered to the center lines thereof.



- (4) Notwithstanding any provision of this Code, no county or municipal officer, agent, employee or board shall approve, grant or issued any building permit (except building permits for repair and maintenance of existing facilities), certificate of use and occupancy (except for changes in ownership), municipal occupational license (except for changes in ownership), platting action (final plat, waiver of plat or equivalent municipal platting action) or zoning action (district boundary change, unusual use, use variance or equivalent municipal zoning action) for any nonresidential land use served or to be served by any source of potable water supply and a septic tank without obtaining the prior written approval of the director of the department of environmental resources management or his designee.

Furthermore, notwithstanding any provision of this Code, no person shall construct, utilize, operate, occupy or cause, allow, let, permit or suffer to be constructed, utilized, operated or occupied any nonresidential land use served or to be served by any source of public water supply and a septic tank without obtaining the prior written approval of the director of the department of environmental resources management or his designee.

The director of the department of environmental resources management or his designee shall issue his written approval if the only liquid waste (excluding liquid wastes associated with the processing of agricultural produce in agricultural packing houses, storm water and water used within a self-contained water recycling car wash facility, provided said facility does not backwash the recycling filters) which shall be generated, disposed of, discharged, or stored on the property shall be domestic sewage discharged into a septic tank and additionally, that the property is not within a feasible distance for public water mains and public sanitary sewers, and only:

- (a) After the owner of the property submits to the director of his designee a covenant running with the land executed by the owner of the property in favor of Metropolitan Dade County which provides that the only liquid waste (excluding liquid wastes associated with the processing of agricultural produce in agricultural packing houses, stormwater and water used within a self-contained water recycling car wash facility, provided said facility does not backwash the recycling filters) which shall be generated, disposed of, discharged, or stored on the property shall be domestic sewage discharged into a septic tank. Said covenants shall be in a form(s) prescribed by the director and approved by the board of county commissioners. The covenants shall be recorded by the department of environmental resources management at the expense of the owner of the property; and
- (b) If the director, environmental resources management or his designee, determines that the proposed nonresidential land use is in accordance with the following:
- (i) Where public water is used the maximum allowable sewage loading shall be one thousand five hundred (1,500) gallons per day per unsubmerged acre, or
- (ii) Where public water is not used the maximum allowable sewage loading shall be seven hundred fifty (750) gallons per day per unsubmerged acre

In calculating the square footage of lots in (b) (i) and (ii) above, abutting easements and rights-of-way shall be considered to the center lines thereof; and

(c) If the director, environmental resources management or his designee, determines that the existing nonresidential land use for the property or the nonresidential land use requested for the property is served or to be served by an on site domestic well system and a septic tank and is not one or more of the following nonresidential land uses:

- (i) Establishments primarily engaged in the handling of food and drink except factory prepackaged products and agricultural crops,
- (ii) Educational institutions,
- (iii) Intermediate care facilities,
- (iv) Health care facilities.

Notwithstanding the above, director, environmental resources management or his designee, shall approve the issuance of a building permit for the repair or maintenance of existing facilities.

- (5) The following table shall be utilized to determine the maximum allowable sewage loading requirements set forth in this chapter. This table shall not be utilized for the sizing of septic tanks. Sizing of septic tanks shall be in accordance with Section 4615 of the South Florida Building Code.

**Type of Land Use, Gallons Per Day (GPD)**

**Residential Land Uses:**

Single-family residence:	350	(GPD/unit)
Townhouse residence:	250	(GPD/unit)
Apartment residence:	200	(GPD/unit)
Mobile Home residence:	300	(GPD/unit)
Duplex or twin home residence:	250	(GPD/unit)

**Commercial Land Uses:**

Barbershop:	10/100	(GPD/sq.ft.)
Beauty salon/hair boutique:	200	(GPD/chair)
Bowling alley:	100	(GPD/lane)
Dentist's Office		
(a) Per dentist:	250	(GPD/dentist)
(b) Per wet chair:	200	(GPD/chair)
Physician's Office:	250	(GPD/physician)
Full Service Restaurant:	350	(GPD minimum)
	50	(GPD/seat)
Bar or cocktail lounge:	15	(GPD/seat)
Fast food restaurant:	350	(GPD minimum)
	35	(GPD/seat)
Take-out restaurant:	350	(GPD minimum)
	50/100	(GPD/sq.ft)
Hotel or motel:	100	(GPD/room)
Office building:	10/100	(GPD/sq.ft.)

Motor vehicle serv. sta.:	10/100	(GPD/sq.ft.)
Shopping center:	10/100	(GPD/sq.ft.)
Stadium/racetrack/ballpark:	3	(GPD/seat)
Store w/o food service:	10/100	(GPD/sq.ft.)
Theatre		
(a) Indoor auditorium:	3	(GPD/seat)
(b) Outdoor drive-in:	5	(GPD/space)
Camper or trailer park:	150	(GPD/space)

**Industrial Land Uses:**

Factory without showers:	10/100	(GPD/sq.ft.)
Factory with showers:	20/100	(GPD/sq.ft.)
Airport:	5	(GPD/passenger)
	10	(GPD/employee)
House of worship:	3	(GPD/seat)
Hospital:	250	(GPD/bed)
Convalescent/Nursing Home:	150	(GPD/bed)
Park		
(a) With toilets only:	5	(GPD/person)
(b) With showers/toilets:	10	(GPD/person)
Other residential institution or facility:	100	(GPD/person)
School:	10	(GPD/person)
Public swimming facility:	10	(GPD/person)
Warehouse/industrial speculation building:	20/1000	(GPD/sq.ft.)
Storage warehouse or mini-warehouse:	10/1000	(GPD/sq.ft.)

- (6) Notwithstanding any provision of this Code, no county or municipal officer, agent, employee, or board shall approve, grant or issue any building permit, certificate of use and occupancy (except for changes in ownership), platting action (final plat, waiver of plat or equivalent municipal platting action) or zoning action (district boundary change, unusual use, use variance or equivalent municipal zoning action) for any nonresidential land use served or to be served by any liquid waste storage, disposal or treatment method other than public sanitary sewers or any source of potable water supply other than a public water main without obtaining the prior written approval of the director, environmental resources management or his designee.

Furthermore, notwithstanding any provision of this Code, no person shall construct, utilize, operate, occupy or cause, allow, let, permit or suffer to be constructed, utilized, operated or occupied any nonresidential land use served by any liquid waste storage, disposal or treatment method other than public sanitary sewers or any source of potable water supply other than a public water main without obtaining the prior written approval of the director, environmental resources management or his designee.

The director, environmental resources management or his designee, shall issue his written approval only if:

- (a) The director or his designee determines that the existing nonresidential land use for the property or the nonresidential land use for the property is a nonresidential land

use served or to be served by a public water main and is not one or more of the nonresidential land uses permitted under the following Metropolitan Dade County zoning classifications:

- (i) BU-1A (excluding those land uses by BU-1),
  - (ii) BU-2 (excluding those land uses permitted by BU-1),
  - (iii) BU-3 (excluding those land uses permitted by BU-1),
  - (iv) IU-1,
  - (v) IU-2,
  - (vi) IU-3,
  - (vii) IU-C, or
- (b) The director, environmental resources management or his designee, determines that the existing nonresidential land use for the property or the nonresidential land use requested for the property is a nonresidential land use served or to be served by an on site domestic well system and is not an establishment primarily engaged in the handling of food and drink (except factory prepackaged products), educational institutions, intermediate care facilities and health care facilities and is not one or more of the nonresidential land uses permitted under the following Metropolitan Dade County zoning classifications:
- (i) BU-1A (excluding those land uses permitted by BU-1 except an establishment primarily engaged in the handling of food and drink (except factory prepackaged products), educational institutions, intermediate care facilities and health care facilities),
  - (ii) BU-2 (excluding those land uses permitted by BU-1 except an establishment primarily engaged in the handling of food and drink (except factory prepackaged products), educational institutions, intermediate care facilities and health care facilities),
  - (iii) BU-3 (excluding those land uses permitted by BU-1 except an establishment primarily engaged in the handling of food and drink (except factory prepackaged products), educational institutions, intermediate care facilities, and health care facilities),
  - (iv) IU-1,
  - (v) IU-2,
  - (vi) IU-3,
  - (vii) IU-C,
  - (viii) Unusual uses (excluding fruit and vegetable stands (no food or drinks processing) on a seasonal basis; lake excavation; concrete batching plant; concrete block plant; rock crushing and screening plant; filling of rock pits;

rock quarries; radio and television towers and transmitting stations; trailers as watchman's quarters), or

- (c) The owner of the property submits to the director, environmental resources management or his designee, a covenant running with the land executed by the owner of the property in favor of Metropolitan Dade County which provides that prior to the approval, granting or issuance of any building permit, certificate of use and occupancy (except for changes in ownership) or municipal occupational license (except for changes in ownership) the property shall be connected to a public water main and a public sanitary sewers. Said covenants shall be in a form(s) prescribed by the director and approved by the board of county commissioners. The covenant shall be recorded in the public records of Dade County, Florida, by the department of environmental resources management at the expense of the owner of the property, or
- (d) An application has been filed for certificate of use and occupancy or municipal occupational license for a land use served or to be served by a public water main and any liquid waste storage, disposal or treatment method approved prior to September 30, 1983, or, an application has been filed for a certificate of use and occupancy or municipal occupational license for a land use served or to be served by an on site domestic well system and any liquid waste storage, disposal or treatment method other than public sanitary sewers approved prior to June 13, 1986, or
- (e) The director, environmental resources management or his designee, determines that the property is served or to be served by a public water main and is served or to be served by any liquid waste storage, disposal or treatment method other than public sanitary sewers, is in compliance with subsections 24-13(4)(a) and (b), and that the existing nonresidential land use for the property or the non residential land use requested for the property is one or more of the nonresidential land uses permitted under the Metropolitan Dade County zoning classifications set forth in subsections (6) (i) (ii), or (iii) or 3. above, and the owner of the property has executed a covenant running with the land in favor of Metropolitan Dade County which provides that the property shall only be used for those nonresidential uses permitted under metropolitan Dade County zoning classification BU-1 until such time as the property is connected to public sanitary sewers. Said covenants shall be in a form(s) prescribed by the director and approved by the board of county commissioners. The covenants shall be recorded in the public records of Dade County, Florida by the department of environmental resources management at the expense of the owner of the property, or
- (f) The director, environmental resources management or his designee, determines that the property is served or is to be served by an on site domestic well system and is served or to be served by any liquid waste storage, disposal or treatment method other than public sanitary sewers, is in compliance with subsections 24-13(4) (a), (b) and (c), and that the existing nonresidential land use for the property or the nonresidential land use requested for the property is one or more of the nonresidential land uses permitted under the Metropolitan Dade County zoning classifications set forth in subsections (6)(b) (i), (ii) and (iii) above, and the owner of the property has executed a covenant running with the land in favor of Metropolitan Dade County which provides that the property shall only be used for those nonresidential uses permitted under Metropolitan Dade County zoning classification BU-1 (excluding establishments primarily engaged in the handling of

food and drink, except factory prepackaged products, educational institutions, intermediate care facilities and health care facilities) until such time as the property is connected to a public water main and a public sanitary sewer. Said covenants shall be in a form(s) prescribed by the director and approved by the board of county commissioners. The covenants shall be recorded in the public records of Dade County, Florida, by the department of environmental resources management at the expense of the owner of the property, or

- (g) The director, environmental resources management or his designee, determines that no portion of the property is located within the Northwest Wellfield protection area or within the West Wellfield Interim protection area or within the maximum day wellfield protection area of the Alexander Orr Wellfield, Snapper Creek Wellfield, Southwest Wellfield, Miami Springs Lower Wellfield, Miami Springs Upper Wellfield, John E. Preston Wellfield or Hialeah Wellfield or within the basic wellfield protection area of any public utility potable water supply well, that the owner of the property is applying for a land use prohibited by subsection (6) (a) above, and:
- (i) That extension of public sanitary sewers to serve the property from the nearest available point of connection to an available public sanitary sewer is not within a feasible distance for public sanitary sewers, and
  - (ii) That more than fifty (50) per cent of an area, consisting of a minimum of one-quarter (1/4) mile square extending a minimum of one-eighth (1/8) of a mile radially from the perimeter of the property, contains land uses served by septic tank(s) and public water, and
  - (iii) That the property complies with subsection 24-13 (4)(a) and (b), and
  - (iv) That if the nonresidential land use will handle, use, or store hazardous materials on the property then the water pollution prevention and abatement measures and practices set forth in subsections 24-12.1(5)(a)(i), (ii), (iii), (iv), and (v) of this Code shall be provided. Said water pollution prevention and abatement measures and practices shall be subject to the approval of the director or his designee, and
  - (v) That the owner of the property submits to the director, environmental resources management or his designee, a covenant running with the land executed by the owner of the property in favor of Metropolitan Dade County which sets forth the nonresidential land uses to be allowed on the property served by septic tank(s). Said covenant shall only include the nonresidential land uses permitted by the existing Metropolitan Dade County or municipal zoning classification for the property or permitted by the Metropolitan Dade County or municipal zoning classification requested by the owner of the property and which are determined by the director, environmental resources management or his designee, to generate, dispose of, discharge, or store only domestic sewage discharged into a septic tank and not to generate, dispose of, discharge, or store any other liquid waste except storm water or water used within a self-contained water recycling car wash facility, provided said facility does not backwash the recycling filters.

Said covenants shall be in a form(s) prescribed by the director and approved by the board of county commissioners. The covenants shall be

recorded by the department of environmental resources management at the expense of the owner of the property, and

- (vi) That the property is served or is to be served by a public water supply, or
- (h) The director, environmental resources management or his designee, determines that no portion of the property is located within the Northwest Wellfield protection area or within the West Wellfield Interim protection area or within the maximum day wellfield protection area of the Alexander Orr Wellfield, Snapper Creek Wellfield, Southwest Wellfield, Miami Springs Lower Wellfield, Miami Springs Upper Wellfield, John E. Preston Wellfield or Hialeah Wellfield or within the basic wellfield protection area of any public utility potable water supply well, that the owner of the property is applying for a land use prohibited by subsection (6)(b)(i), (ii) and (iii) above, and:
  - (i) That extension of a public water main and public sanitary sewer(s) to serve the property from the nearest available point of connection to an available public water main and public sanitary sewers is not within a feasible distance for public water mains and public sanitary sewers, and
  - (ii) That the property complies with subsections 24-13 (4) (a), (b) and (c), and 24-13 (6) (g)(v), and 24-45(1),
  - (iii) That the nonresidential land use will not use, generate, handle, dispose of, discharge or store hazardous materials on the property.
  - (iv) That the nonresidential land use(s) will not have an adverse environmental impact on groundwater quality within the property.

In determining whether a land use does not or will not have an adverse environmental impact on the groundwater quality within the property, the director or his designee shall consider the following factors:

1. The land use will not be detrimental to the public health, welfare and safety and will not create a nuisance and will not materially increase the level of water pollution within the property;
  2. The use, generation, handling, disposal of, discharge or storage of hazardous materials will not occur on the property;
  3. The only liquid waste (excluding stormwater) which will be generated, disposed of, discharged, or stored on the property shall be domestic sewage discharged to a public sanitary sewer or septic tank;
  4. Stormwater runoff shall be retained on the property and disposed of through infiltration drainage systems supplemented with seepage drainage systems, or
- (i) The director or his designee determines that not portion of the property is located within the Northwest Wellfield protection area or within the West Wellfield Interim protection area or within the maximum day wellfield protection area of the Alexander Orr Wellfield, Snapper Creek Wellfield, Southwest Wellfield, Miami

**Springs Lower Wellfield, Miami Springs Upper Wellfield, John E. Preston Wellfield or Hialeah Wellfield or within the basic wellfield protection area of any public utility potable water supply well, that property is located within the boundaries of a sanitary sewer improvement district approved by the board of county commissioners or a municipal governing body, that the owner of the property is applying for a land use prohibited by subsection (6)(a) above, and**

- (i) That the property is served or will be served by a public water supply, and**
- (ii) That the property complies with the requirements of subsection 24-13(4)(b), and**
- (iii) That if the nonresidential land use will generate, handle, store or use hazardous waste on the property then the water pollution prevention and abatement measures and practices listed below shall be provided. Said water pollution prevention and abatement measures and practices shall be subject to the approval of the director or his designee.**
  - 1. Monitoring of groundwater, and**
  - 2. Secondary containment of hazardous wastes stored on the property, and**
  - 3. Disposal of hazardous wastes by a liquid waste transporter with a valid liquid waste transporters operating permit issued by the director, and**
  - 4. Inventory control and recordkeeping of hazardous wastes generated or store on the property, and**
  - 5. Stormwater management.**
- (iv) That if the nonresidential land use will generate, handle, use or store liquid wastes (excluding hazardous wastes and domestic sewage) on the property then the best management practices listed below shall be provided. Said best management practices shall be subject to the approval of the director or his designee.**
  - 1. Disposal of liquid wastes, other than domestic sewage, by a liquid waste transporter with a valid liquid waste transporter operating permit issued by the director, and**
  - 2. Inventory control and record keeping of liquid wastes, other than domestic sewage, generated and stored on the property.**
- (j) The director or his designee determines that the property is located within the maximum day wellfield protection area of Alexander Orr Wellfield, Snapper Creek Wellfield, Southwest Wellfield, Miami Springs Lower Wellfield Miami Springs Upper Wellfield, John E. Preston Wellfield or Hialeah Wellfield or within the basic wellfield protection area of any public utility potable water supply well, that the property is located within the boundaries of a sanitary sewer improvement district approved by the board of county commissioners or a municipal governing body, that the owner of the property is applying for a land use prohibited by subsection (6)(a)**



above, and

- (i) The property is served or is to be served by a public water supply, and
- (ii) That the property complies with subsection 24-13(4)(b), and
- (iii) That the property complies with the requirements of subsections 24.12.1(5)(a), (b), (c), and
- (iv) That if the nonresidential land use will handle, generate, store, or dispose of liquid wastes (excluding hazardous wastes), other than domestic sewage discharged to a septic tank, on the property, then the following best management practices shall be provided:
  - 1. Monitoring of groundwater, and
  - 2. Secondary containment of liquid wastes stored on the property, and
  - 3. Disposal of liquid wastes by a liquid waste transporter with a valid liquid waste transporter operating permit issued by the director, and
  - 4. Inventory control and recordkeeping of liquid wastes other than domestic sewage discharged to a septic tank, and
  - 5. Stormwater management.

Said best management practices shall be subject to the approval of the director or his designee, and

- (7) Notwithstanding any provision of this Code, when an approved public gravity sanitary sewer or approved sanitary sewer force main is available and operative in a public right-of-way or easement abutting the property, the use of any liquid waste storage, disposal or treatment methods shall cease within ninety (90) days of the date that the director or his designee determines that the approved public sanitary sewer is available and operative. Thereafter, all liquid wastes that are generated, handled, disposed of, discharged or stored on the property shall be discharged to an approved and operative gravity sanitary sewer or approved sewer force main except those liquid wastes, other than domestic sewage, that are permitted by this chapter to be generated, handled, treated or stored on the property.
- (8) Notwithstanding any provision of this Code, the use of any liquid waste storage, disposal or treatment methods (excluding public sanitary sewers and stormwater disposal methods) for any nonresidential land use within the Northwest Wellfield protection area or within the maximum day pumpage wellfield protection area of the Alexander Orr Wellfield, Snapper Creek Wellfield, Southwest Wellfield, Miami Springs Lower Wellfield, Miami Springs Upper Wellfield, John E. Preston Wellfield or Hialeah Wellfield or within the basic wellfield protection area of any public utility potable water supply well shall cease within six (6) months from the date that the director, environmental resources management or his designee, determines that an approved public gravity sanitary sewer has been made available and operative in any portion of the public right-of-way or easement abutting the property, or the use of any liquid waste storage, disposal or treatment methods (excluding public sanitary sewers and stormwater disposal methods) for any nonresidential land use which exceeds the maximum allowable sewage loading permitted by subsections 24-13(4)(b) of this Code, shall cease within six (6) months from the date that the director or

his designee determines that an approved public gravity sanitary sewer has been made available and operative in any portion of the public right-of-way or easement abutting the property. Thereafter, all liquid wastes that are generated, handled, disposed of, discharged or stored on the property shall be discharged to an approved and operative gravity sanitary sewer except those liquid wastes, other than domestic sewage, that are permitted by this chapter to be generated, handled, treated or stored on the property.

- (9) Interim sewage treatment plants which serve any property within one-quarter (1/4) mile from a public sanitary sewer which ultimately discharges to a regional sewage treatment plant of the Miami-Dade Water and Sewer Authority Department shall cease operation when the aforesaid public sanitary sewer is made operable and available. The sewage flowing to the aforesaid interim sewage treatment plants shall be diverted and transmitted to public sanitary sewers for ultimate discharge to a regional sewage treatment plant of the Miami-Dade Water and Sewer Authority Department. Private interim sewage treatment plants shall cease to operate within six (6) months from the date the said public sanitary sewer is made operable and available. Public interim sewage treatment plants operated by a utility shall cease to operate within two (2) years from the date the said public sanitary sewer is made operable and available. The aforesaid one-quarter (1/4) mile distance shall be measured from the closest point of any of the properties served by the aforesaid interim sewage treatment plants and the nearest available point of connection within a public right-of-way or public easement to the aforesaid public sanitary sewer.

**CITY OF DAYTON, OHIO  
Regulation of Hazardous Materials in Wellfield  
Protection Overlay Zones  
(1988)**

Supplementing the Revised Code of General Ordinances by the Enactment of Sections 150.03824 through 150.600 through 150.604, 150.610 through 150.613 and 150.620 to Create and Establish Land Use Regulations for the Well Head Operation District (WO) and the Well Field Protection Overlay District (WP). Amending the Official Zoning Map to map the Well Head Operation District (WO) and the Well Field Protection Overlay District (WP).

WHEREAS, The safety and potability of the community's water supply requires that lands proximate to the City's wellfields be subject to land use controls designed to prevent uses injurious to the public water supply; and

WHEREAS, Commercial and industrial uses if unregulated have an immediate probability of permitting the introduction of toxic substances into the water supply; now, therefore,

BE IT ORDAINED BY THE COMMISSION OF THE CITY OF DAYTON:

Section 1. That the Revised Code of General Ordinances be and it is hereby supplemented by the enactment of Sections 150.03824 through 150.03833, 150.600 through 150.604, 150.610 through 150.613 and 150.620 which shall read as follows:

**DEFINITIONS**

**150.03824 AQUIFER**

**"AQUIFER."** A glacial formation, group of glacial formations, or part of a glacial formation that contains enough saturated permeable material to yield significant quantities of water.

**150.03825 REGULATED SUBSTANCES**

**"REGULATED SUBSTANCES."** Substances to be regulated, hereinafter referred to as Regulated Substances, are chemicals and mixtures of chemicals which are health hazards. Regulated Substances include:

- (1) Chemicals for which there is scientific evidence that acute or chronic health effects may result from exposure including carcinogens, toxic and highly toxic agents, reproductive toxins, irritants, corrosives, sensitizers, hepatotoxins, nephrotoxins, neurotoxins, agents which act on the hematopoietic system, and agents which damage the lungs, skin, eyes, or mucous membranes.
- (2) Mixtures of chemicals which have been tested as a whole and have been determined to be a health hazard.
- (3) Mixtures of chemicals which have not been tested as a whole but which contain any chemical which has been determined to be a health hazard and which comprises one (1) percent or greater of the composition on a weight per unit weight basis, and mixtures of chemicals which include a carcinogen if the concentration of the carcinogen in the mixture is one tenth of one (0.1) percent or greater of the composition on a weight per unit weight basis.

- (4) Ingredients of mixtures prepared within the WO Wellhead Operation District and the WP Well Field Protection Overlay District in cases where such ingredients are health hazards but comprise less than one tenth of one (0.1) percent of the mixture (on a weight per unit weight basis) if carcinogenic, of less than one (1.0) percent of the mixture (on a weight per unit weight basis) if non-carcinogenic.
- (5) Petroleum and non-solid petroleum derivatives (except non-PCB dielectric fluids).

#### 150.03826 ONE YEAR CAPTURE AREA

**"ONE YEAR CAPTURE AREA."** The area around the public water supply wellfields delineated by the one year travel time contour.

#### 150.03827 DIRECT RECHARGE AREA.

**"DIRECT RECHARGE AREA."** That portion of a drainage basin in which water infiltrating vertically from the surface will intercept the water table.

#### 150.03828 RECHARGE LAGOON

**"RECHARGE LAGOON."** A body of water designed and maintained by man to add water to the groundwater at a rate greater than that occurring naturally.

#### 150.03829 WELL FIELD

**"WELL FIELD."** A tract of land that contains a number of wells for supplying water.

#### 150.03830 POTABLE WATER

**"POTABLE WATER."** Water that is satisfactory for drinking, culinary and domestic purposes, meeting current drinking water standards.

#### 150.03831 ZONE OF INFLUENCE

**"ZONE OF INFLUENCE."** A zone delineated by iso-travel time contours around wellfields. The zone is calculated, based on the rate of movement of groundwaters in the vicinity of wells with an allowance for the dispersion of a pollutant entering into and moving with the groundwater.

#### 150.03832 TRAVEL TIME CONTOUR

**"TRAVEL TIME CONTOUR."** A locus of points from which water takes an equal amount of time to reach a given destination such as a well or well field.

#### 150.03833 UNDERGROUND STORAGE TANK

**"UNDERGROUND STORAGE TANK."** Any one or combination of tanks (including underground pipes connected thereto) which is used to contain an accumulation of Regulated Substances and the volume of which (including the volume of underground pipes connected thereto) is ten (10) percent or more beneath the surface of the ground. Flow-through process tanks are excluded from the definition of underground storage tanks.

## **WO WELL HEAD OPERATION DISTRICT**

### **150.600 PURPOSE**

The WO Well Head Operation District is designed to safeguard the public health safety and welfare of citizens and institutions that are customers of the Dayton Water System by regulating the land use and the storage, handling, use and/or production of Regulated substances within the zone of influence. The intent of this designation is to protect the community's potable water supply against contamination. This district will be mapped on property owned by the City at the location of any presently city-owned and operated or designated future or proposed public water supply well, recharge lagoon, or other related water facility as part of the City of Dayton Master Plan for Water Supply and Treatment.

### **150.601 PERMITTED USES**

- (A) Municipal water supply and treatment facilities in accordance with the City of Dayton Master Plan for Water Supply and Treatment.
- (B) Public parks, playgrounds, golf courses and community centers.

### **150.602 CONDITIONAL USES**

- (A) Public utility uses as follows:
  - (1) Electric and telephone substations.
  - (2) Gas regulator and meter station buildings
  - (3) Police and fire stations
  - (4) Electric transmission towers and structures
- (B) Radio, television, or other transmission towers or masts, and the usual accessory buildings, only after their height and location have been approved by the government agency charged with the responsibility for maintaining air safety and provided there is a yard area with a radius of half the height of the tower or mast.

### **150.603 GROUNDWATER PROTECTION STANDARDS**

- (A) Use of Regulated Substances in conjunction with municipal water supply and treatment activities shall not be restricted by this chapter.
- (B) Use of Regulated Substances in conjunction with public parks, playgrounds, golf courses and community centers shall be in accordance with the City of Dayton Park and Recreation Management Plan for Maintenance of Sensitive Areas.
- (C) Use of Regulated Substances in conjunction with conditional uses in this district shall be limited to:
  - (1) The aggregate of Regulated Substances in use may not exceed twenty (20) gallons or one hundred and sixty (160) pounds at any time.
  - (2) The total use of Regulated Substances may not exceed fifty (50) gallons or four hundred (400) pounds in any twelve (12) month period.
- (D) A limited exclusion from the provisions of 150.603 (C) is authorized for non-routine maintenance or repair of property or equipment. The use of Regulated Substances under this exclusion shall be limited to:

- (1) The aggregate of Regulated Substances in use may not exceed fifty (50) gallons or four hundred (400) pounds at any time.
- (2) The total use of Regulated Substances may not exceed one hundred (100) gallons or eight hundred (800) pounds in any twelve (12) month period.
- (E) Storage of Regulated Substances in conjunction with municipal water supply and treatment activities shall not be restricted by this chapter.
- (F) Storage of fuel and lubricants for vehicle operations in conjunction with permitted and conditional uses in this district shall be in underground tanks placed above the floor surface of a below grade vault. Said vault shall allow access for physical inspection of the tank for leakage and the interior of the vault shall be continuously monitored and alarmed to provide for automatic and immediate detection of any release from the tank.
- (G) Notwithstanding other provisions of this chapter, nonconforming uses in this district presently utilizing underground storage tanks for fuel and lubricants for vehicle operations shall be permitted to replace existing tanks with those constructed as per the specifications of 150.603(F) above and not exceeding the capacity of existing tanks. Replacement of underground tanks for Regulated Substances other than fuel and lubricants for vehicle operations is not permitted.
- (H) Storage of Regulated Substances other than fuel and lubricants for vehicle operations in conjunction with permitted and conditional uses in this district is prohibited.
- (I) As part of the findings required under Section 150.424 (D), the Zoning Administrator shall utilize the Hazard Potential Ranking System, Section 150.620 to assist in the determination of intensity of use within this district. No substitutions of a non-conforming use shall be permitted which result in an increase of the Hazard Potential Ranking on a parcel within this district.
- (J) All uses within this district shall be connected to the public wastewater disposal system.

#### **WP WELL FIELD PROTECTION OVERLAY DISTRICT**

##### **150.610 PURPOSE**

The WP Well Field Protection Overlay District is designed to safeguard the public health, safety and welfare of citizens and institutions that are customers of the Dayton Water System by regulating the land use and the storage, handling, use and/or production of Regulated Substances within the zone described as the land area adjacent to the existing and proposed municipal water well fields, within the city, not included within the WO Well Field Operation District, which lies within the one (1) year capture area, including a one thousand (1,000) foot strip of land outside of the direct recharge area in locations where the direct recharge area within the one (1) year capture area impinges on the aquifer boundary. The intent of this designation is to protect the community's potable water supply against contamination.

#### **150.611 PERMITTED USES, BULK AND YARD REGULATIONS**

The permitted uses, bulk and yard regulations within the WP Well Field Protection Overlay District shall be those of the underlying zoning district.

#### **150.612 CONDITIONAL USES**

- (A) The conditional uses within the WP Well Field Protection Overlay District shall be those of the underlying zoning district, except as specified in 150.612(B) and 150.612(C).
- (B) Sanitary land fills, land fills composed of demolition debris and dry wells are prohibited uses in the WP Well Field Protection Overlay District.
- (C) The excavation, extraction, mining or processing of sand, gravel and limestone from the earth for resale shall remain as conditional uses in the WP Well Field Protection Overlay District subject to BZA approval of an excavation and facilities plan that includes, but is not limited to:
  - (1) an existing site plan with topographic detail at 2' contour intervals, all planimetric information, depth to ground water and flood plain characteristics where applicable
  - (2) the proposed extent and depth of excavations
  - (3) slope angle of excavation walls (any final slopes shall be at the angle of repose for the remaining material)
  - (4) use and disposition of the spoil and/or overburden materials from the excavations including a landscaping and vegetation plan to stabilize any disturbed material
  - (5) surface drainage plan
    - (a) drainage into on site excavations from proximate off site transportation facilities such as roadways and roadbeds and off site watercourses is prohibited unless the applicant provides a plan which otherwise protects the excavations from off site waterborne regulated substances.
    - (b) the final on site grading shall minimize all surface drainage into the excavations.
  - (6) a post-excavation and operation land use plan
  - (7) a security plan (unauthorized access shall be strictly prohibited as long as any excavations remain on site)

The requirements of this section shall be in addition to any applicable regulations in this chapter.

#### **150.613 GROUNDWATER PROTECTION STANDARDS**

- (A) Use of Regulated Substances in conjunction with permitted and conditional uses in

this district shall be limited to:

- (1) The aggregate of Regulated Substances in use may not exceed twenty (20) gallons or one hundred and sixty (160) pounds at any time.
  - (2) The total use of Regulated Substances may not exceed fifty (50) gallons or four hundred (400) pounds in any twelve (12) month period.
- (B) A limited exclusion from the provisions of 150.613(A) is authorized for non-routine maintenance or repair of property or equipment. The use of Regulated Substances under this exclusion shall be limited to:
- (1) The aggregate of Regulated Substances in use may not exceed fifty (50) gallons or four hundred (400) pounds at any time.
  - (2) The total use of Regulated Substances may not exceed one hundred (100) gallons or eight hundred (800) pounds in any twelve (12) month period.
- (C) A limited exclusion from the provisions of 150.613(A) is authorized for medical and research laboratory uses, provided however, Regulated Substances shall be stored, handled or used in containers not to exceed five (5) gallons or forty (40) pounds of each substance and the aggregate inventory of Regulated Substances shall not exceed two hundred and fifty (250) gallons or two thousand (2,000) pounds.
- (D) A limited exclusion from the provisions of 150.613(A) is authorized for Regulated Substances which are cleaning agents, provided however such cleaning agents are packaged for personal or household use or are present in the same form and concentration as a product packaged for use by the general public, and provided the aggregate inventory of such cleaning agents shall not exceed one hundred (100) gallons or eight hundred (800) pounds at any time. In no case shall Regulated Substances claimed under this exclusion include hydrocarbon or halogenated hydrocarbon solvents.
- (E) Storage of fuel and lubricants for vehicle operations and fuel for building and/or processing heating in conjunction with permitted and conditional uses in this district shall be in underground tanks secondarily contained and monitored in accordance with the American Petroleum Institute as published in Installation of Underground Petroleum Systems (API Recommended Practice 1615).
- (F) Notwithstanding other provisions of this chapter, nonconforming uses in this district presently utilizing underground storage tanks for fuel and lubricants for vehicle operations and fuel for building and/or processing heating shall be permitted to replace existing tanks with those constructed as per the specifications of 150.613(E) above and not exceeding the capacity of existing tanks. Replacement of underground tanks for Regulated Substances other than the above noted fuels and lubricants is not permitted.
- (G) As part of the findings required under Section 150.424 (D), the Zoning Administrator shall utilize the Hazard Potential Ranking System, Section 150.620 to assist in the determination of intensity of use within this district. No substitutions of a non-conforming use shall be permitted which result in an increase of the Hazard Potential Ranking on a parcel within the district.



#### **150.620 HAZARD POTENTIAL RANKING SYSTEM**

In order to assess the risk for potential groundwater contamination, a hazard ranking has been developed for various activities categorized by their Standard Industrial Classification (SIC) code. This ranking is based on the kind of materials commonly associated with each use looking only at the most critical hydrologic factors.

Table 1 below lists the site hazard potential by land use activity on a scale of 1 - 9, with 1 being a low hazard and 9 a very high hazard. This rating is based on the intrinsic hazards posed by different land uses and is related to the materials commonly used or stored on the site or the types and amounts of wastes commonly discharged.

Table 2 below lists the hazard potential determined on the basis of materials known to be used, stored, or disposed of at a specific site.

If the two tables referenced above indicate different site hazard potential ratings for the SIC-coded land use activity and the materials found on-site, the higher of the two scores is the rating for the site.

**TABLE 1: CONTAMINANT HAZARD POTENTIAL RANKING CLASSIFIED BY SOURCE**

<b>SIC NO:</b>	<b>DESCRIPTION OF WASTE SOURCE</b>	<b>HAZARD POTENTIAL INITIAL RATING</b>
01	Agricultural Production - Crops	1-2
02	Agricultural Production - Livestock	
021	Livestock, except Dairy, Poultry and Animal Specialties	3 (5 for Feedlots)
024	Dairy Farms	4
025	Poultry and Eggs	4
027	Animal Specialties	2 - 4
029	General Farms, Primarily Livestock	2
10	Metal Mining	
101	Iron Ores	4
102	Copper Ores	6
103	Lead and Zinc Ores	5
104	Gold and Silver Ores	6
105	Bauxite and Other Aluminum Ores	5
106	Ferroalloy Ores Except Vanadium	5
108	Metal Mining Services	4
1092	Mercury Ore	6
1094	Uranium-Radium-Vanadium Ores	7
1099	Metal Ores Not Elsewhere Classified	5
11	Anthracite Mining	7
12	Bituminous Coal and Lignite Mining	7
13	Oil and Gas Extraction	
131	Crude Petroleum and Natural Gas	7
132	Natural Gas Liquids	7
1381	Drilling Oil and Gas Wells	6
1382	Oil and Gas Field Exploration Services	1
1389	Oil and Gas Field Services Not Elsewhere Classified	Variable, Depending on Activity
14	Mining and Quarrying of Non-Metallic Minerals, Except Fuels	
141	Dimension Stone	2
142	Crushed and Broken Stone, Including Riprap	2
144	Sand and Gravel	2
145	Clay, Ceramic, and Refractory Minerals	2 - 5
147	Chemical and Fertilizer Mineral Mining	4 - 7
148	Nonmetallic Minerals Services	1 - 7
149	Miscellaneous Nonmetallic Minerals, Except Fuels	2 - 5
16	Construction Other Than Building Construction	
1629	Heavy Construction, Not Elsewhere Classified (Dredging, Especially in Salt Water)	4

SIC NO:	DESCRIPTION OF WASTE SOURCE	HAZARD POTENTIAL INITIAL RATING
20	Food and Kindred Products	
201	Meat products	3
202	Dairy Products	2
203	Canned and Preserved Fruits and Vegetables	4
204	Grain Mill Products	2
205	Bakery Products	2
206	Sugar and Confectionery Products	2
207	Fats and Oils	3
208	Beverages	2 - 5
209	Misc. Food Preparation and Kindred Products	2
22	Textile Mill Products, All Except Listings Below	
223	Broad Woven Fabric Mills, Wool (including dyeing and finishing)	6
226	Dyeing and Finishing Textiles, Except Wood Fabrics and Knit Goods	6
2295	Coated Fabrics, Not Rubberized	6
24	Lumber and Wood Products, Except Furniture	
241	Logging Camps and Logging Contractors	2
242	Sawmills and Planing Mills	2
2435	Hardwood Veneer and Plywood	4
2436	Softwood Veneer and Plywood	4
2439	Structural Wood Members, Not Classified Elsewhere (laminated wood-glue)	3
2491	Wood Preserving	5
2492	Particle Board	4
2499	Wood Products, Not Elsewhere Classified	2 - 5
26	Paper and Allied Products	
261	Pulp Mills	6
262	Paper Mills Except Building Paper Mills	6
263	Paperboard Mills	6
28	Chemicals and Allied Products	
2812	Alkalies and Chlorine	7 - 9
2813	Industrial Gases	-
2816	Inorganic Pigments	3 - 8
2819	Industrial Inorganic Chemicals, Not Elsewhere Classified	3 - 9
2821	Plastic Materials, Synthetic Resins, and Nonvulcanizable Elastomers	6 - 8
2822	Synthetic rubber (Vulcanizable Elastomers)	6 - 8
2823	Cellulose Man-Made Fibers	6 - 8
2824	Synthetic Organic Fibers, Except Cellulosic	6 - 8
2831	Biological Products	6 - 9

SIC NO:	DESCRIPTION OF WASTE SOURCE	HAZARD POTENTIAL INITIAL RATING
28	Chemical and Allied Products (continued)	
2833	Medicinal Chemicals and Botanical Products	3 - 8
2834	Pharmaceutical Preparations	6 - 9
2841	Soap and Other Detergents, Except Specialty Cleaners	4 - 6
2842	Specialty Cleaning, Polishing, and Sanitation Preparation	3 - 8
2843	Surface Active Agents, Finishing Agents, Sulfonated Oils and Assistants	6 - 8
2844	Perfumes, Cosmetics, and Other Toilet Preparations	3 - 6
2851	Paints, Varnishes, Lacquers, Enamels and Allied Products	5 - 8
2861	Gum and Wood Chemicals	5 - 8
2865	Cyclic (coal tar) Crudes, and Cyclic Intermediates, Dyes and Organic Pigments (Lakes and Toners)	6 - 9
2869	Industrial Organic Chemicals Not Elsewhere Listed	3 - 9
2873	Nitrogenous Fertilizer	7 - 8
2874	Phosphatic Fertilizer	7 - 8
2875	Fertilizer Mixing Only	5
2879	Pesticides and Agricultural Chemicals, Not Elsewhere Listed	5 - 9
2891	Adhesives and Sealants	5 - 8
2892	Explosives	6 - 9
2893	Printing Ink	2 - 5
2895	Carbon Black	1 - 3
2899	Chemicals and Chemical preparations, Not Elsewhere Listed	3 - 9
29	Petroleum Refining and Related Industries	
291	Petroleum Refining	8
295	Paving and Roofing Materials	7
299	Misc. Petroleum and Coal Products	7
30	Rubber and Miscellaneous Plastic Products	
301	Tires and Inner Tubes	6
302	Rubber and Plastic Footwear	6
303	Reclaimed Rubber	6
304	Rubber and Plastic Hose and Belting	4
306	Fabricated Rubber Products, Not Elsewhere Classified	4
31	Leather and Leather Products	
311	Leather Tanning and Finishing (Remaining Three-Digit Codes)	8 1 - 3
32	Stone, Clay, Glass, and Concrete Products	
321	Flat Glass	4
322	Glass and Glassware, Pressed or Blown	4
324	Cement, Hydraulic	3
3274	Lime	3
3291	Abrasive Products	3

SIC NO:	DESCRIPTION OF WASTE SOURCE	HAZARD POTENTIAL INITIAL RATING
3292	Asbestos	3
3293	Gaskets, Packing, and Sealing Devices	3
33	Primary Metal Industries (Except as Noted Below)	3
3312	Blast Furnaces, Steel Works, and Rolling and Finishing Mills	6
333	Primary Smelting and Refining of Nonferrous Metals	7
34	Fabricated Metal Products, Except Machinery and Transportation Equipment (Except as Noted Below)	5
347	Coating, Engraving, and Allied Services	8
3482	Small Arms Ammunition	7
3483	Ammunition, Except for Small Arms, Not Elsewhere Classified	7
3389	Ordinance and Accessories, Not Elsewhere Classified	7
349	Misc. Fabricated Metal Products	3 - 6
35	Machinery, Except Electrical	5 - 7
36	Electrical and Electronic Machinery, Equipment and Supplies (Except as Noted Below)	5 - 7
3691	Storage Batteries	8
3692	Primary Batteries, Dry and Wet	8
37	Transportation Equipment	5 - 8
38	Measuring, Analyzing, and Controlling Instruments; Photographic, Medical, and Optical Goods; Watches and Clocks (Except as Noted Below)	4 - 6
386	Photographic Equipment and Supplies	7
39	Miscellaneous Manufacturing Industries	3 - 7
49	Electric, Gas, and Sanitary Services	
491	Electric Services	3 - 5
492	Gas Production and Distribution	3
494	Water Supply	2
4952	Sewage Systems	2 - 5
4953	Refuse Systems (Landfills)	5 - 9
496	Steam Supply	2 - 4

**TABLE 2: CONTAMINANT HAZARD POTENTIAL RANKING CLASSIFIED BY TYPE**

DESCRIPTION	HAZARD POTENTIAL INITIAL READING	ID NUMBER
<b>Solids</b>		
Ferrous Metals	1-4	1100
Non-Ferrous Metals	1-7	1200
Resins, Plastics, and Rubbers	2	1300
Wood and Paper Materials (except as noted below)	2	1400
Bark	4	1401
Textiles and Related Fibers	2	1500
Inert Materials (except as noted below)	2	1600
Sulfide Mineral-Bearing Mine Tailings	6	1601
Slag and Other Combustion Residues	5	1602
Rubble, Construction, and Demolition Mixed Waste	3	1603
Animal Processing Wastes (except as noted below)	2-4	1700
Processed Skins, Hides, and Leathers	6	1701
Dairy Wastes	4	1702
Live Animal Wastes - Raw Manures (Feedlots)	5	1703
Composts of Animal Waste	2-4	1704
Dead Animals	5	1705
Edible Fruit and Vegetable Remains - Putrescables	2-3	1800
<b>Liquids</b>		
Organic Chemicals (must be chemically classified)		2000
Aliphatic (Fatty) Acids	3-5	2001
Aromatic (Benzene) Acids	7-8	2002
Resin Acids	-	2003
Alcohols	5-7	2004
Aliphatic Hydrocarbons (petroleum derivatives)	4-6	2005
Aromatic Hydrocarbons (benzene derivatives)	6-8	2006
Sulfonated Hydrocarbons	7-8	2007
Halogenated Hydrocarbons	7-9	2008
Alkaloids	7-9	2009
Aliphatic Amines and Their Salts	1-4	2010
Anilines	6-8	2011
Pyridines	2-6	2012
Phenols	7-9	2013
Aldehydes	6-8	2014
Ketones	6-8	2015
Organic Sulfur Compounds (Sulfides, Mercaptans)	7-9	2016
Organometallic Compounds	7-9	2017
Cyanides	7-9	2018
Thiocyanides	2-6	2019
Sterols	-	2020
Sugars and Cellulose	1-4	2021
Esters	6-8	2022
Inorganic Chemicals (must be chemically classified)		2100
Mineral and Metal Acids	5-8	2101

DESCRIPTION	HAZARD POTENTIAL INITIAL READING	ID NUMBER
Mineral and Metal Bases	5-8	2102
Metal Salts, Including Heavy Metals	6-9	2103
Oxides	5-8	2104
Sulfides	5-8	2105
Carbon or Graphite	1-3	2106
Other Chemical Process Wastes Not Previously Listed (must be chemically classified)		2200
Inks	2-5	2201
Dyes	3-8	2202
Paints	5-8	2203
Adhesives	5-8	2204
Pharmaceutical Wastes	6-9	2205
Petrochemical Wastes	7-9	2206
Metal Treatment Wastes	7-9	2207
Solvents	6-9	2208
Agricultural Chemicals (Pesticides, Herbicides, Fungicides, Etc.	7-9	2209
Waxes and Tars	4-7	2210
Fermentation and Culture Wastes	2-5	2211
Oils, Including Gasoline, Fuel Oil, etc.	5-8	2212
Soaps and Detergents	4-6	2213
Other Organic or Inorganic Chemicals, includes Radioactive Wastes	2-9 4-8	2214 2300
Conventional Treatment Process Municipal Sludges From Biological Sewage Treatment	4-8	2301
From Water Treatment and Conditioning Plants (must be chemically classified)	2-5	2302

\*ID Number is for identification of waste types in the Reporting Form.

1. Classification based on material in Environmental Protection Agency Publication, 670-2-75-024, pp. 79-85, prepared by Arthur D. Little, Inc., and published in 1975.

2. For individual material ranking, refer to solubility-toxicity tables prepared by Versar, Inc., for the Environmental Protection Agency (source: MDNR, June 1980).

Source: WMSRDC. A Pollutant Nature Sampling Plan for Groundwater Contamination in Region 14 (Muskegon, Mich.: West Michigan Shoreline Regional Development Commission, November 1980).

Section 2. That the district boundary lines approved by the City Plan Board on May 23, 1988, Case No. 6-88 effectuating a change of zoning for the following generally described areas:

- A. Area 1 includes the area within the City of Dayton on either side of the Mad River generally between Valley Street and Springfield Street from Findlay Street to the eastern corporation limits. The underlying zoning will remain the same and the WP Well Field Protection Overlay District shall be established, except for certain land owned by the City of Dayton which will be mapped as WO Well Head Operation District.
- B. Area 2 includes the area within the City of Dayton on either side of the Great Miami River generally between Webster Street and Troy Pike from Stanley Avenue to the northern corporation limits. The underlying zoning will remain the same and the WP Well Field Protection Overlay District shall be established, except for certain land owned by the City of Dayton which will be mapped as WO Well Head Operation District.
- C. Area 3 is a small area in the DeWeese Neighborhood within the City of Dayton in the vicinity of North Dixie Drive and Ridge Avenue. The underlying zoning will remain the same and the WP Well Field Protection Overlay District shall be established.



**CITY OF DAYTON, OHIO**  
**Revised Code of General Ordinances**  
**Chapter 53**  
**(1988)**

Supplementing the Revised Code of General Ordinances By the Enactment of Sections 53.01 Through 53.06 and 53.99 to Provide for Control of Potential Public Water Supply Pollutants and Providing Penalties for Violations Thereof.

Whereas, the ground water in the aquifer underlying the Miami Valley and the City of Dayton is the source of drinking water supply in this area and ground water is a sensitive natural resource; and

Whereas, the City desires to approach public water supply and well field protection in a rational and objective manner by instituting pollution source controls; and

Whereas, the City desires to regulate potential pollutants to the fullest extent authorized by law by enacting this legislation as a measure to ensure the protection and availability of public drinking water supplies; and

Whereas, the City desires to assume and maintain a leadership role in protection of regional drinking water resources through its own efforts and in cooperation with other local governments and state and federal agencies; and

Whereas, it is determined that such legislation is consistent with the City's policy of protecting the water resources; now, therefore,

BE IT ORDAINED BY THE COMMISSION OF THE CITY OF DAYTON:

**Section 53.01 GENERAL PROVISIONS**

(A) **PURPOSE** The purpose of Sections 53.01 through 53.06 is to safeguard the public health, safety and welfare and to provide for the protection and availability of existing and future potable water supply by instituting rational and objective requirements, standards and criteria for the control of toxic or otherwise hazardous substances within specifically defined areas in and around the City's present and future wells and well fields, thereby enhancing the protection of the public potable water supply from contamination.

(B) **SCOPE**

- (1) The provisions of Sections 53.01 through 53.06 shall be effective within the City of Dayton corporate limits, except as otherwise provided. This ordinance provides for pollution control pertaining to the public water supply.
- (2) Nothing contained in Sections 53.01 through 53.06 shall be construed so as to interface with any existing or future lawful requirements that may be, or heretofore were, imposed by any other public body authorized to enact sanitary, health or water pollution abatement restrictions so long as such requirements are consistent with, or more stringent than, the stated

purpose of this ordinance.

- (3) Nothing contained in Sections 53.01 through 53.06 shall be construed so as to interfere with the duties and powers of the Director of Water as set forth in Section 50.42 of the R.C.G.O.
- (C) ADMINISTRATION Except as otherwise provided herein, the Director of the Department of Water for the City of Dayton, or his designated agents, hereinafter referred to as Director, shall administer, implement, and enforce the provisions of Sections 53.01 through 53.06.
- (D) NOTICE OF VIOLATION
  - (1) Any person found in violation of any provision of Sections 53.01 through 53.06 or any order, requirement, rule or regulation issued under the authority of such sections will be served with a written notice stating the nature of the violation and providing reasonable time for compliance; provided however, written notice of violation may be dispensed with under the conditions described in Section 53.03(B), R.C.G.O. and provided further, that if the Director has previously promulgated a schedule of compliance or issued an order addressing the same type of or a similar violation and the time for compliance has passed, the Director may dispense with establishing another time period for compliance.
  - (2) The notice shall be served in the manner provided by law for the service of civil process. Where the address of the violator is unknown, service may be made upon the owner of the property involved at the tax-mailing address of the owner as shown on the County tax record.
- (E) INSPECTIONS Subject to applicable provisions of law, the Director or authorized designee bearing proper identification, shall be permitted to enter private property at any reasonable time, with reasonable cause or with prior notification, for such purposes as inspection, observation, measurement, sampling and records examination pertaining to the requirements of this ordinance to ensure that activities are in accordance with the provisions of Sections 53.01 through 53.06. Upon request of the entity which is the subject of the inspection and if permitted by the Ohio Public Records Law, information obtained as a result of the inspection shall be maintained as confidential. If the owner or tenant does not consent to the entry of the Director for the above stated purposes, the Director may apply to a court of competent jurisdiction for an appropriate warrant or other authority to enter said property.
- (F) VANDALISM No person shall maliciously, willfully, or negligently break, damage, destroy, uncover, deface, or tamper with any structure, appurtenance, property, or equipment which is a part of or used in conjunction with the City's water facilities, or which results in the violation of Sections 53.01 through 53.06.
- (G) SEVERABILITY A finding by any court of other jurisdiction that any part of provision of this ordinance is invalid shall not affect the validity of any other part or provision of this ordinance which can be given effect without the invalid parts or provisions.

(H) SUBJECT AREAS

- (1) Areas subject to the provisions of Section 53.01 through 53.06 shall include the Wellhead Operation District and the Well Field Protection Overlay District as shown on the official Zoning Map of the City of Dayton, Ohio.
- (2) Maps designating the Wellhead Operation District and the Well Field Protection Overlay District shall be included in The Official Zoning Map for the City of Dayton, Ohio.

- (I) DETERMINATION OF APPLICABILITY It shall be the responsibility of any person owning real property and/or owning or operating a business within the City of Dayton corporate limits to make a determination of the applicability of Section 53.01 through 53.06 as it pertains to the property and/or business under his ownership or operation and his failure to do so shall not excuse any violations of said sections.

Section 53.02 REGULATED SUBSTANCES

(A) DEFINITION

The substances to be regulated, hereinafter to as Regulated Substances, are chemicals and mixtures of chemicals which are health hazards. Regulated Substances include:

- (1) Chemicals for which there is scientific evidence that acute or chronic health effects may result from exposure including carcinogens, toxic and highly toxic agents, reproductive toxins, irritants, corrosives, sensitizers, hepatotoxins, nephrotoxins, neurotoxins, agents which act on the hematopoietic system, and agents which damage the lungs, skin, eyes, or mucous membranes.
- (2) Mixtures of chemicals which have been tested as a whole and have been determined to be a health hazard.
- (3) Mixtures of chemicals which have not been tested as a whole but which contain any chemical which has been determined to be a health hazard and which comprises one (1) percent or greater of the composition on a weight per unit weight basis, and mixtures of chemicals which include a carcinogen if the concentration of the carcinogen in the mixture is one tenth of one (0.1) percent or greater of the composition on a weight per unit weight basis.
- (4) Ingredients of mixtures prepared within the Wellhead Operation District and the Well Field Protection Overlay District in cases where such ingredients are health hazards but comprise less than one tenth of one (0.1) percent of the mixture (on a weight per unit weight basis) if carcinogenic, or less than one (1) percent of the mixture (on a weight per unit weight basis) if non-carcinogenic.
- (5) Petroleum and non-solid petroleum derivatives (except non-PCB dielectric

fluids).

**(B) MANAGEMENT**

- (1)** No person shall place, deposit, or permit to be deposited, store, process, use, produce, dispose of, transport, or discharge, hereinafter referred to as "handle," any regulated substance on public or private property within the City of Dayton, or in any area under the jurisdiction of said City, except as provided by law, statute, ordinance, rule or regulation.
- (2)** Any Violation of Division (B) (1) of this Section is hereby determined to be a nuisance.

**Section 53.03 REPORTING AND PROTECTION REQUIREMENTS**

**(A) REGULATED SUBSTANCE ACTIVITY INVENTORY**

**(1) Applicability**

- (a)** Except as provided in Section 53.03 (A)(2), any owner or occupant of any land in the Wellhead Operation District or the Well Field Protection Overlay District at the effective date of this section, shall file a Regulated Substance Activity Inventory Report with the Director. Said Report shall be filed within one hundred and eighty (180) days of the effective date of this section and at twenty-four (24) month intervals thereafter.
- (b)** Except as provided in Section 53.03(A)(2), any new owner or occupant of any land in the Wellhead Operation District or the Well Field Protection Overlay District shall file a Regulated Substance Activity Inventory Report prior to receipt of a Certificate of Occupancy and at twenty-four (24) month intervals following the date of occupancy. For purposes of this section, new shall be defined as subsequent to the effective date of this section.
- (c)** Where a person owns, operates or occupies more than one location, Regulated Substance Activity Inventory Reports shall be made for each location.

**(2) Exclusions to Activity Inventory Reporting.**

- (a)** Any exclusion set forth in this subsection shall apply provided that said exclusion does not substantially increase any risk or hazard to the public health or water supply, wells or well fields; and provided further that any spill, leak, discharge or mishandling shall be subject to the provisions of Section 53.03 (B). Any exclusions granted herein shall not remove or limit the liability and responsibility of any person or activity involved.
- (b)** A limited exclusion from Regulated Substance Activity Inventory reporting is hereby authorized for incidental uses of Regulated Substances provided the uses are limited as follows:

- (1) The aggregate of Regulated Substances in use may not exceed twenty (20) gallons or one hundred and sixty (160) pounds at any time.
  - (2) The total use of Regulated Substances may not exceed fifty (50) gallons or four hundred (400) pounds in any twelve (12) month period.
- (c) A limited exclusion from Regulated Substance Activity Inventory reporting is hereby authorized for non-routine maintenance or repair of property in the Well Field Protection Overlay District provided the uses are limited as follows:
  - (1) The aggregate of Regulated Substances in use may not exceed fifty (50) gallons or four hundred (400) pounds at any time.
  - (2) The total use of Regulated Substances may not exceed one hundred (100) gallons or eight hundred (800) pounds in any twelve (12) month period.
- (d) A limited exclusion from Regulated Substance Activity Inventory reporting is hereby authorized for Regulated Substances which are cleaning agents, provided however such cleaning agents are packaged for personal or household use or are present in the same form and concentration as a product packaged for use by the general public, and provided the aggregate Inventory of such cleaning agents shall not exceed one hundred (100) gallons or eight hundred (800) pounds at any time. In no case shall Regulated Substances claimed under the exclusion include hydrocarbon or halogenated hydrocarbon solvents.
- (e) A limited exclusion from Regulated Substance Activity Inventory Reporting is hereby authorized for medical and research laboratory uses in the Well Field Protection Overlay District, provided however, Regulated Substances shall be stored, handled or used in containers not to exceed five (5) gallons or forty (40) pounds of each substance and the aggregate inventory of Regulated Substances shall not exceed two hundred and fifty (250) gallons or two thousand (2,000) pounds.
- (f) An exclusion from Regulated Substance Activity Inventory Reporting is hereby authorized for the transportation of Regulated Substances through the Wellhead Operation District and the Well field Protection Overlay District provided that the transporting vehicle is in compliance with applicable City ordinances and Federal and Ohio laws and regulations, and provided that the regulated substance is fueling the transporting vehicle or the transporting vehicle is in continuous transit, making delivery, or is stopped for a period of time not to exceed seventy-two (72) hours.

- (g) A limited exclusion from Regulated Substance Activity Inventory Reporting is hereby authorized for owners and occupants of single or two-family residences provided, however, the storage and use of Regulated Substances are related to the maintenance of the residence or vehicles under control of the occupant and provided waste Regulated Substances are appropriately disposed of to a permitted solid waste facility or a permitted publicly owned wastewater treatment works.

**(B) SPILLS, LEAKS OR DISCHARGES**

- (1) Any person with direct knowledge of a spill, leak or discharge of a Regulated Substance within the Wellhead Operation District or the Well Field Protection Overlay District shall, if such spill, leak or discharge escapes containment, contacts a non-impervious ground surface and is not immediately and completely remediated, give notice to the Superintendent of Water Supply and Treatment, or the operator on duty at the Water Treatment facility by telephone. The notification shall include at a minimum, the location of the incident, name and telephone number, date and time thereof, type of substance(s), concentration and volume, and control or corrective action taken. Such notification shall in no way alleviate other local, state, and federal reporting obligations as required by law.
- (2) Any entity or person who spills, leaks or discharges said substance(s) shall be liable for any reasonable expense, loss or damages incurred by the City in response to such an incident, in addition to the amount of any fines imposed on account thereof under Ohio and Federal law; said entity or person shall document and maintain sufficient records so as to reflect accurately the circumstances related to any such incident and develop and implement procedures to substantially eliminate the likelihood of reoccurrence of such spills, leaks or discharges as soon as practicable following the incident, but no later than one hundred eighty (180) days after the incident.
- (3) The City of Dayton shall post signs in conspicuous places advising transporters of Regulated Substances of notification procedures in the event of a spill or accidental discharge.

**(C) UNDERGROUND STORAGE TANKS**

**(1) Definition**

An underground storage tank is any one or combination of tanks (including underground pipes connected thereto) which is used to contain an accumulation of Regulated Substances and the volume of which (including the volume of underground pipes connected thereto) is ten (10%) percent or more beneath the surface of the ground. Flow-through process tanks are excluded from the definition of underground storage tanks.

**(2) Wellhead Operation District**

- (a) No storage of Regulated Substances, other than for vehicle fuel and vehicle lubricants may occur in underground storage tank systems in the Wellhead Operation District after January Twenty-third (23rd), Nineteen Hundred and Ninety (1990).
- (b) After January Twenty-third (23rd), Nineteen Hundred and Ninety (1990), storage tank systems for vehicle fuel and vehicle lubricants in the Wellhead Operation District shall have tanks placed above the floor surface of a below grade vault. Said vault shall allow access for physical inspection of the tank for leakage and the interior of the vault shall be continuously monitored and alarmed to provide for automatic and immediate detection of any release from the tank. Piping and pumps connected to the tank shall be secondarily contained and include a line leak detector with an automatic pump shutdown feature. Plans for such a system shall be submitted to the Director for review and approval prior to installation.
- (c) Any area in which fuel or lubricants are dispensed from the tank system into vehicles, and any area in which fuel or lubricants are off-loaded from transport vehicles into the tank system, must be diked to contain any spill which may be reasonably anticipated.

(3) **Well Field Protection Overlay District**

- (a) No storage of Regulated Substances, other than for vehicle fuel and vehicle lubricants and fuel for building and/or process heating may occur in underground storage tank systems in the Well Field Protection Overlay District, five (5) years from the effective date of this ordinance.
- (b) Five (5) years from the effective date of this ordinance, underground storage tank systems for vehicle fuel and vehicle lubricants and fuel for building and/or process heating in the Well Field Protection Overlay District must be secondarily contained and monitored in accordance with the American Petroleum Institute as published in installation of Underground Petroleum Storage Systems (API Recommended Practice 1615).

(D) **FALSIFYING INFORMATION** No person shall make any false statement, representation, or certification in any report or other document filed or required to be maintained pursuant to this ordinance.

(E) **RETENTION OF RECORDS** Any reports or records compiled or submitted pursuant to this section shall be maintained by the user for a minimum of five (5) years or so long as enforcement or judicial proceedings are being pursued, whichever is longer.

**Section 53.04 PUBLIC WATER SUPPLY PROTECTION AUTHORITIES**

(A) **APPLICATION** If any activity or use of Regulated Substance is deemed by the Director to pose a real and present danger of contaminating surface and/or ground

water which would normally enter the public water supply, the Director is authorized to:

- (1) Cause cessation of said activity or use of Regulated Substance;
  - (2) Require the provision of administrative controls and/or facilities sufficient to mitigate said danger; and/or
  - (3) Cause the provision of pollution control and/or abatement activities.
- (B) CONSIDERATIONS When considering the exercise of any of the above authorities or actions, the Director shall ensure that the City's public water supply is reasonably and adequately protected from contamination for the present and the future. The Director shall make every reasonable effort to coordinate and act in concert with other regulatory entities in the exercise of the above authorities. The Director may take into consideration any evidence represented by the entity regarding cost effectiveness and the economic effectiveness and the economic impact imposed by the requirements or actions.

#### Section 53.05 WELL FIELD PROTECTION FUND

(A) ESTABLISHMENT OF THE WELL FIELD PROTECTION FUND

- (1) The Well Field Protection Fund is hereby established to remediate pollution that could affect the public water supply and/or to pay the costs of acquiring interests in property necessary to reduce the risk of pollution of the public water supply. The Well Field Protection Fund can be used only for Well Field Protection Activities within the Wellhead Operation District, the Well Field Protection Overlay District and within the one (1) year capture zones of the well fields.
- (2) The City of Dayton Water Rates shall be amended to include a Well Field Protection Charge applicable to the entire rate base. This Charge is to generate revenue for the Well Field Protection Fund.
- (3) All interest and payments resulting from Well Field Protection Fund activities will be paid to the Well Field Protection Fund. All directly related administrative costs of the Well Field Protection Fund are reimbursable from the Well Field Protection Fund.
- (4) Costs for Well Field Protection activities advanced from the Water Fund or any other City source of funds are reimbursable from the Well Field Protection Fund.

(B) WELL FIELD PROTECTION BOARD

- (1) The Well Field Protection "Board" is hereby established. The Board shall consist of the Directors of Water, Finance and Planning. The Board shall determine the Well Field Protection Charge to be part of the City of Dayton Water Rates subject to approval by the City Commission.
- (2) The Board shall reduce the Well Field Protection Charge if the Well Field Protection Fund exceeds the limitations as set forth in Section 53.05 (C,1)



subject to approval by the City Commission.

- (3) The Board shall, subject to approval by the City Commission, develop rules, regulations and procedures for the administration of the Well Field Protection Fund.

(C) LIMITATIONS

- (1) The Well Field Protection Fund shall be limited to \$10,000,000.00.
- (2) Interests in private property will not be acquired with funding under the Well Field Protection Fund in order to compensate the owner for compliance with:
  - (a) a lawful order, requirement or declaration from any regulatory agency; or
  - (b) a requirement to obtain or maintain insurance coverage.

Section 53.06 WELL FIELD PROTECTION APPEALS BOARD

- (A) APPEALS Any person may appeal an action of the Director made pursuant to Section 53.04 by filing with the City Manager a Notice of Appeal within twenty-one (21) days of said action and a statement of appeal within thirty (30) days of the date that the order being appealed was issued. A Notice of Appeal shall include as a minimum: name; address; telephone number; date; and a statement of intent to appeal. A Statement of Appeal shall include all information contained in the Notice of Appeal, a description of the nature of the appeal, and any pertinent documentation.
- (B) APPEALS BOARD The Board of Well Field Protection Appeals is hereby established. Said Board shall consist of the Director of Urban Development and four (4) designees to be named by the City Manager. Three (3) designees shall be representative of the business and environmental communities. One (1) designee shall be appointed upon the recommendation of the Priority Board Chairpersons' Council. No appointment shall be final unless approved by the Commission. The four (4) designees shall serve for a term of two (2) years. Said Board shall have the authority to take appeals, investigate matters related to said appeals, deny, uphold or otherwise modify or waive the Director's actions on a case by case basis. Said Board shall develop rules and regulations of operation consistent with its authorities, and subject to approval by the City Commission.

Section 53.99 PENALTIES FOR VIOLATIONS

- (A) VANDALISM A violation of the provisions of Section 53.01(F) shall constitute a misdemeanor of the fourth degree, punishable as provided in Section 130.99 R.C.G.O.
- (B) OTHER VIOLATIONS Any person who violates or continues to violate any

provisions other than Section 53.01 (F), or any person who violates or continues to violate any provisions other than Section 53.01 (F), beyond the time limit for compliance set forth by the Director, Notice of Violation or compliance schedule established by the Director, shall be subject to the following:

- (1) A fine in an amount not to exceed Five Hundred Dollars (\$500.00).
- (2) A subsequent violation of the same provision of this ordinance may constitute a misdemeanor of the first degree, punishable as provided in Section 130.99 R.C.G.O. by a fine of up to One Thousand Dollars (\$1,000.00) and a term of imprisonment of up to six (6) months. If the violation is a continuing one, each day of such violation shall constitute a separate violation.

**TOWN OF HOLLISTON, MASS.**  
**Aquifer Protection Overlay Bylaw**  
**(1982)**

**Aquifer Protection District**

1. Purposes -- in addition to the purpose of Section 1-A of this bylaw, the purposes of this district are:
  - A. To protect, preserve and maintain the existing and potential ground-water supply and ground-water recharge areas within the known aquifers of the town.
  - B. To preserve and protect present and potential sources of water supply for the public health and safety.
  - C. To conserve the natural resources of the town.
  - D. To protect the ground water and ground-water recharge areas of the town from adverse development of land-use practices.
2. Special Definitions -- The following definitions apply to specialized words or terms associated with this district.
  - A. Aquifer -- Geologic formation composed of rock or sand and gravel that contains significant amounts of potentially producible potable water.
  - B. Area of Influence -- The area which experiences drawdown by a pumping well as plotted on a two-dimensional (map) surface, usually ellipsoidal in shape.
  - C. Cone-of-depression -- A three-dimensional conical concavity produced in a water table by a pumping well.
  - D. Glaciofluvial -- Pertaining to an unconsolidated geologic deposit which was formed by, or in association with glacial meltwater streams, typically resulting in the deposition of sand and gravel-sized particles.
  - E. Glaciolacustrine -- Pertaining to an unconsolidated geologic deposit which was formed by, or in association with a glacial lake environment, typically resulting in the deposition of sand, silt and clay-sized particles. References to such deposits within this bylaw refer to the more coarse-grained sediments such as would be associated with a delta.
  - F. Groundwater -- The subsurface water present in aquifers and recharge areas.
  - G. Impervious Surface -- Material on the ground that does not allow significant amounts of surface water to penetrate into the soil.
  - H. Leachable Wastes -- Waste materials including solid wastes, sludge and agricultural wastes that are capable of releasing waterborne contaminants to the surrounding environment.

- I. Mining of Land -- The removal of geologic materials such as topsoil, sand and gravel, metallic ores or bedrock.
- J. Process Wastes -- Nondomestic, nontoxic, nonhazardous, liquid or solid waste by-products associated with the manufacture or preparation of a product, including but not limited to hardware, dry goods, foodstuffs and printed material.
- K. Recharge Areas -- Areas composed of permeable, porous materials that collect precipitation or surface water and transmit it to aquifers.
- L. Sanitary Waste -- Wastewater arising from ordinary domestic water use as from toilets, sinks and bathing facilities, and containing such concentrations and types of pollutants as to be considered normal wastes.
- M. Saturated Thickness -- The depth of permeable soil actually saturated with water to the capacity of the soil to contain water under normal conditions of temperature and pressure.
- N. Solid Wastes -- Any discarded solid material, putrescible or non-putrescible, consisting of all combustible and non-combustible solid material including, but not limited to, garbage and rubbish.
- O. Toxic or Hazardous Materials -- Any substance or mixture of such physical, chemical or infectious characteristics as to pose a significant actual or potential hazard to water supplies, or other hazard to human health, if such substance or mixture were discharged to land or waters of this town. Toxic or hazardous materials include, without limitation, organic chemicals, petroleum, heavy metals, radioactive or infectious wastes, acids and alkalines, and include products such as pesticides, herbicides, solvents and thinners. Also refer to Section 1-D of this bylaw.
- P. Wetlands -- As defined by M.G.L. Chapter 131, Section 40. Also refer to Section V-1 of this bylaw.

### 3. Establishment and Delineation of Aquifer Protection District

For the purpose of this district, there are hereby established within the town certain aquifer protection areas, consisting of aquifers and/or aquifer recharge areas. Aquifers and aquifer recharge areas are determined by standard geologic and hydrologic investigations which may include drilling observation wells, utilizing existing boring data and stratigraphic profiles, conducting seismic surveys or other geophysical techniques, performing pumping tests, water sampling and geologic mapping. The boundaries of this district, exclusive of C.2 which follows, are delineated on maps at a scale of 1 in. = 600 ft. entitled Aquifer Protection District, town of Holliston on file in the office of the inspector of buildings, which maps are hereby made part of this bylaw. These boundaries reflect the best hydrogeologic information available as of the date of the maps. In the event of a discrepancy between the map and the criteria of Areas 1,2 and 3, which follow, the criteria shall control. The Aquifer Protection District includes the aquifer itself, the land above the aquifer and the aquifer's significant areas of recharge consisting of:

- A. Area 1 -- Area of influence of all existing and proposed (confirming by long-term pump test) municipal wells within the town.

1. The cones-of-depression and respective areas of influence and recharge generated by the municipal wells after at least five (5) days of continuous pumping at their respective rated capacities.

**B. Area 2 – Major aquifers and primary areas of recharge.**

1. All of the four principal aquifers within the town of Holliston, including: 1) the Hopping Brook Aquifer; 2) the Jar Brook Aquifer; 3) the Lake Winthrop Aquifer; and 4) the Dopping Brook Aquifer as delineated on the town of Holliston Aquifer Protection District maps (scale: 1 in. = 600 ft.).
2. Any unconsolidated geologic deposit exhibiting an average saturated thickness of 20 ft. or greater and an average of transmissivity of 1,000 ft. squared/day or greater.

**C. Area 3 – Secondary recharge areas.**

1. All land contiguous to Area 2, above, underlain by glaciofluvial or glaciofluvial/lacustrine deposits in which the direction of ground-water flow is toward Area 2, which precedes.
2. Contiguous wetlands, water bodies, or streams which contribute surface-water flow to Area 2, which precedes.

4. Use Regulations – The Aquifer Protection District shall be considered as overlaying other zoning districts. Any uses permitted in the portions of the districts so overlaid shall be permitted subject to all the provisions of this district. Within the Aquifer Protection District, these regulations shall apply:

- A. The following uses are permitted within the Aquifer Protection District subject to 4.B hereafter, provided that all necessary permits, orders or approvals required by local, state or federal law shall have been obtained.

**1. Area 1:**

- a. nonintensive agricultural uses: pasture, light grazing, hay, gardening, nursery, conservation, forestry and harvesting provided that fertilizers, herbicides, pesticides and other leachable materials are not stored outdoors or in any other manner which would permit leakage thereof. Where the application is being made of fertilizers, pesticides, herbicides or other potential contaminants, ground-water quality monitor test wells may be installed and periodically sampled and tested at the town's expense. Test wells shall be located by a professional geologist, hydrologist or engineer trained and experienced in hydrogeology. Sampling will be conducted by an agent of the board of health;
- b. necessary public utilities/facilities designed so as to prevent contamination of ground water;

- c. residential development of single family dwellings on lots of at least 80,000 sq. ft. in area, such that no more than 5 percent of the building lot is rendered impervious and on-site domestic sewage disposal does not exceed 55 gal/day per 10,000 sq. ft. of lot area;
- d. commercial development limited to retail shopping, business or professional office or industrial development limited to storage of nontoxic, nonhazardous materials on lots of at least 80,000 sq. ft. in area such that no more than 20 percent of the building lot is rendered impervious; roof, parking and drive run-off is recharged on-site to the maximum extent practicable with parking and drive runoff discharged to oil/gas trap catch basins with appropriate sumps prior to recharge; and on-site domestic sewage disposal is less than or equal to 55 gal/day per 10,000 sq. ft. of lot area;
- e. any other use as permitted in an AR-1 or AR-2 district, subject to 4.B hereafter, with a minimum lot size of 80,000 sq. ft., maximum sewage volumes of 55 gal/day per 10,000 sq. ft. of lot area and maximum impervious cover of 5 percent;
- f. structures existing at the effective date of this bylaw may be maintained, repaired or altered, including the addition of accessory buildings or uses, provided that such alteration or addition shall not increase the total amount of impermeable surface on the lot, or the volume of on-site septic disposal by more than 50 percent beyond said amounts and volumes existing at the effective date of this bylaw.

**2. Area 2:**

- a. uses permitted in Area 1, which precedes, and the following uses to the extent permitted in the underlying district;
- b. residential development of single family dwellings on lots of at least 40,000 sq. ft. in area, such that no more than 10 percent of the building lot is rendered impervious and on-site sewage disposal is equal to or less than 110 gal/day per 10,000 sq. ft. of lot area;
- c. commercial development limited to retail shopping, business or professional office or industrial development limited to storage of nontoxic, nonhazardous materials on lots of at least 40,000 sq. ft. in area such that no more than 40 percent of the building lot is rendered impervious; roof, parking and drive run-off is recharged on-site to the maximum extent practicable with parking and drive run-off discharged to oil/gas trap catch basins with appropriate sumps prior to recharge; and on-site sewage disposal is less than or equal to 100 gal/day per 10,000 sq. ft. of lot area;
- d. any other use to the extent permitted in an underlying AR-1 or AR-2 district, subject to 4.B hereafter, with a minimum lot size of 40,000 sq. ft., maximum sewage volumes of 110 gal/day per 10,000 sq. ft. of lot area and maximum impervious cover of 10 percent.

**3. Area 3:**

- a. all uses permitted in Area 2, which precedes, and;
- b. uses permitted in the underlying districts, subject to 4.B hereafter, such that run-off waters from constructed impervious surfaces shall be treated and discharged to the ground-water system to the extent practicable. For all uses in Areas 2 and 3, installation of a private water source (i.e., on-site wells) is encouraged. Uses within Area 1 will require tie-in to the municipal water supply system where estimated water requirements exceed 500 gallons per day.

**B. The following uses are specifically prohibited:**

**1. Area 1:**

- a. disposal by any means of any waste material, solid or liquid, other than domestic sanitary wastes;
- b. outdoor or underground storage or storage otherwise permitting of leakage of leachable, potentially noxious materials including but not limited to chemicals, fertilizers, manure, petroleum products, road salt and deicing compounds;
- c. uses which, as part of normal operating or maintenance procedures, would involve the application, transfer, storage or use of toxic or hazardous materials;
- d. any use or application of toxic or hazardous materials, even in small application or as accessory to a nonrelated practice;
- e. the commercial mining of land.

**2. Area 2:**

- a. disposal of solid wastes other than brush and stumps;
- b. the disposal of liquid or leachable wastes other than sanitary domestic wastes or innocuous process wastes;
- c. storage of road salt or deicing chemicals;
- d. automotive service and repair shops, junk and salvage yards;
- e. car washes;
- f. dry-cleaning establishments;
- g. metal plating or etching;
- h. chemical and bacteriological laboratories;

- i. any other use which involves as a principal or accessory activity the manufacture, storage, use, transportation or disposal of toxic or hazardous materials.

**3. Area 3:**

- a. disposal of solid wastes other than brush and stumps;
- b. storage of road salt or deicing chemicals;
- c. any use which involves as a principal activity the manufacture, storage, use, transportation or disposal of toxic or hazardous materials.

**C.** The following uses are permitted only under the terms of a special permit issued by the Zoning Board of Appeals and subject to 4.B which precedes.

**1. Area 1:**

- a. any use involving the retention of less than 50 percent of lot area in its natural state with no more than minor removal of existing trees and ground vegetation;
- b. the mining of land strictly for on-site use, subject to the provisions of Section V-E hereof;
- c. expansion of existing nonconforming uses to the extent allowed by paragraph 3 of Section 1-C hereof;
- d. uses calling for greater impervious cover than prescribed in Section V-L, 4.A.1.c, provided that plan calls for an on-site method of recharging proposed increases in run-off waters.

**2. Area 2:**

- a. any use involving the retention of less than 30 percent of lot area in its natural state with no more than minor removal of existing trees and ground vegetation, or rendering impervious more than 40 percent of lot area;
- b. any use involving on-site disposal of process wastes from operations other than personal hygiene and food for residents, patrons and employees;
- c. any use other than a single-family dwelling with a sewage flow, as determined by Title 5 of the State Environmental Code, exceeding 110 gal/day per 10,000 sq. ft. of lot area or exceeding 15,000 gal/day regardless of lot area;
- d. expansion of existing or nonconforming uses to the extent allowed by the underlying district. The Board of Appeals shall not grant such approval unless it shall find that such expansion shall not be substantially more detrimental to the water supply than the existing



use. In no case shall such permit be issued for a prohibited use under 4.B which precedes.

3. Area 3:

- a. expansion of existing or nonconforming uses to the extent allowed by the underlying district. The Board of Appeals shall not grant such approval unless it shall find that such expansion shall not be substantially more detrimental to the water supply than the existing use. In no case shall such permit be issued for a prohibited use under 4.B.

D. Procedures of Issuance of Special Permit

1. Each application for a special permit shall be filed with the town clerk for transmittal to the Zoning Board of Appeals (ZBA) and shall be accompanied by 10 copies of the plan. Such special permit shall be granted if the ZBA determines, in conjunction with other town agencies as specified in Section D.2 which follows, that the intent of this bylaw as well as its specific criteria are met. In making such determination, the ZBA shall give consideration to the simplicity, reliability and feasibility of the control measures proposed and the degree of threat to water quality which would result if the control measures failed. The ZBA shall explain any departures from the recommendations of the other town agencies in its decision.
2. Review by other town agencies. Upon receipt of the special permit application, the town clerk shall transmit one copy each of the board of health, town engineer if any, inspector of buildings, Conservation Commission, Planning Board and water commissioners for their written recommendations. Failure to respond in writing to the clerk of the ZBA within 45 days shall indicate approval by said agencies.
3. The ZBA shall hold a hearing in conformity with the provisions of G.L. Ch. 40A, s.9, within 65 days after the filing of the application with the special permit granting authority and after the review of the aforementioned town bodies. Notice of the public hearing shall be given by publication and posting and by first-class mailings to "parties in interest" as defined in G.L. Ch. 40A, s.11. The decision of the ZBA and any extension, modification or renewal thereof shall be filed with the special permit-granting authority and town clerk within 90 days following the closing of the public hearing. Failure of the special permit granting to act within 90 days shall be deemed as a granting of the permit. However, no work shall commence until a certification is recorded as required by said s.11.
4. After notice and public hearing, and after coordinating, clarifying and weighing the comments and recommendations of the board of health, the town engineer if any, inspector of buildings, the Conservation Commission, the Planning Board, and the water commissioner, the ZBA may grant such a special permit provided that it finds that the proposed use:
  - a. is in harmony with the purpose and intent of this bylaw and will not materially adversely affect the purpose of the Aquifer Protection District;
  - b. will not, during construction or thereafter, have an adverse environmental impact on any aquifer or recharge area in the town;

- c. will not adversely affect an existing or potential water supply, and;
- d. is consistent in light of existing and probable future development of surrounding areas.

**LEE COUNTY, FLORIDA**  
**Ordinance 89-30**  
**Wellfield Protection**  
**(1989)**

AN ORDINANCE REGULATING WELLS AND THE USE, PRODUCTION, TRANSPORT OR STORAGE OF HAZARDOUS OR TOXIC SUBSTANCES IN PROTECTION ZONES ESTABLISHED AROUND CERTAIN POTABLE WATER SUPPLY WELLFIELDS IN UNINCORPORATED LEE COUNTY, FLORIDA; PROVIDING FOR A SHORT TITLE; PROVIDING FOR AUTHORITY, PROVIDING FOR AUTHORITY, INTENT, AND APPLICABILITY; PROVIDING DEFINITIONS; PROVIDING FOR THE ESTABLISHMENT OF WELLFIELD PROTECTION ZONES; PROVIDING FOR GENERAL PROVISIONS; PROVIDING A LIST OF REGULATED TOXIC OR HAZARDOUS SUBSTANCES AND THE GENERAL CHARACTERISTICS OF THOSE SUBSTANCES; PROVIDING PROHIBITED AND REGULATED LAND USES AND ACTIVITIES WITHIN PROTECTION ZONES; PROVIDING FOR EXEMPTIONS; PROVIDING REGULATIONS FOR ABANDONED WELLS; PROVIDING FOR ADMINISTRATION AND ENFORCEMENT; PROVIDING FOR PERMITS; PROVIDING FOR SPECIAL EXEMPTIONS FROM PERMIT REQUIREMENTS; PROVIDING FOR FEES; PROVIDING FOR PENALTIES; PROVIDING FOR SEVERABILITY AND CONFLICT; PROVIDING FOR INCLUSION IN CODE, SCRIVENERS ERRORS AND AN EFFECTIVE DATE.

WHEREAS, there is an urgent need to protect existing public potable water supply wells in Lee County, Florida, from the potentially irreversible and adverse effects of bacterial and chemical contamination; and

WHEREAS, the replacement cost of a major potable water wellfield is substantial; and

WHEREAS, there is a need to approach wellfield protection in a comprehensive manner by plugging abandoned wells which are sources of brackish water intrusion into wells and wellfields and by controlling the storage, handling, use or production of hazardous or toxic substances within certain distances from wellfields; and

WHEREAS, the Board of County Commissioners under Lee County Comprehensive Plan Objective 41.1 and Policies 41.1.1-41.1.3, is committed to protect the water resources of the County, which includes the potable water supply.

NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF COUNTY COMMISSIONERS OF LEE COUNTY, FLORIDA:

**SECTION ONE: OUTLINE OF CONTENTS**

**CHAPTER 1 - SHORT TITLE, AUTHORITY, INTENT AND APPLICABILITY**

- 1.01 SHORT TITLE
- 1.02 AUTHORITY
- 1.03 INTENT

**CHAPTER 2 - DEFINITIONS**

**CHAPTER 3 - ESTABLISHMENT OF WELLFIELD PROTECTION ZONES**

- 3.01 ESTABLISHMENT OF ZONES
- 3.02 PROTECTION ZONE MAPS

- A. ADOPTION OF MAPS
- B. INTERPRETATION OF ZONE DESIGNATION
- C. ANNUAL REVIEW OF MAPS

#### CHAPTER 4 - GENERAL PROVISIONS

- 4.01 SCOPE
- 4.02 APPLICABILITY
- 4.03 REGULATED HAZARDOUS OR TOXIC SUBSTANCES
- 4.04 RESTRICTIONS WITHIN WELLFIELD PROTECTION ZONES

- A. PROTECTION ZONE 1

- 1. Prohibitions
  - 2. Regulations

- B. PROTECTION ZONE 2

- 1. Prohibitions
  - 2. Regulations

- C. PROTECTION ZONE 3

- 1. Prohibitions
  - 2. Regulations

- D. PROTECTION ZONE 4

- 1. Prohibitions
  - 2. Regulations

- 4.05 EXEMPTIONS

- A. GENERAL EXEMPTION

- B. SPECIAL EXEMPTIONS

- 1. Exemption for Application of Pesticides, Herbicides, Fungicides, and Rodenticides
    - 2. Exemption for Continuous Transit
    - 3. Exemption for Fuel and Lubricant Use in Conjunction with Vehicular or Lawn Maintenance
    - 4. Exemption for Fire, Police, Emergency Medical Services, County Emergency Management Center Facilities and Public Utilities
    - 5. Exemptions for Retail Sales Activities
    - 6. Exemptions for Office uses
    - 7. Exemption for Construction Activities

- C. ADMINISTRATIVE EXEMPTIONS

- 4.06 ABANDONED WELLS

#### CHAPTER 5 - ADMINISTRATION AND ENFORCEMENT

- 5.01 ADMINISTRATION

- 5.02 DUTIES OF THE DIVISION OF WATER RESOURCES

**5.03 WELLFIELD PROTECTION OFFICER**

- A. DESIGNATION**
- B. DUTIES AND AUTHORITY**

**5.04 ENFORCEMENT**

- A. INSPECTIONS**
- B. NOTICE OF VIOLATION, NOTICE OF HEARING, AND HEARING PROCEDURE**
- C. CLEAN-UP AND REIMBURSEMENT**
- D. INJUNCTIVE RELIEF**

**5.05 TRADE SECRETS**

**5.06 APPEALS**

**CHAPTER 6 - PERMITS**

**6.01 BUILDING PERMITS AND OCCUPATIONAL LICENSES**

- A. APPLICABILITY**
- B. RECORDS**

**6.02 OPERATING PERMITS**

- A. INFORMATION REQUIRED**
- B. PERMIT CONDITIONS**
- C. ISSUANCE OF PERMIT**
- D. TRANSFERRING A PERMIT**

**6.03 CLOSURE PERMIT**

- A. INFORMATION REQUIRED**
- B. PERMIT CONDITIONS**
- C. WELL RECONFIGURATION**
- D. NOTICE REQUIREMENTS**

**6.04 MONITORING OF PUBLIC UTILITY WELLS**

- A. MONITORING FOR REGULATED SUBSTANCES IN GROUNDWATER MONITORING WELLS**
- B. EFFECT OF MONITORING**

**6.05 BOND REQUIREMENTS**

**6.06 REVOCATION OR REVISION OF PERMIT OR SPECIAL EXEMPTION**

- A. REVOCATION**
- B. REVISION**
- C. SPILLS**
- D. NOTICE**

**6.07 ALTERATIONS AND EXPANSION**

**6.08 RECONSTRUCTION AFTER CATASTROPHE**

**CHAPTER 7 - SPECIAL EXEMPTIONS**

**7.01 APPLICABILITY**

**7.02 PROCEDURE**

- A. APPLICATION REQUIREMENTS**
- B. INFORMATION REQUIRED**
- C. REVIEW OF APPLICATION**

**7.03 GRANTING OF SPECIAL EXEMPTIONS**

**CHAPTER 8 - FEES**

**8.01 PERMIT FEES**

**8.02 ADMINISTRATIVE FEES**

**CHAPTER 9 - VESTED RIGHTS**

**CHAPTER 10 - SUNSET PROVISION**

**SECTION TWO: PENALTIES**

**SECTION THREE: SEVERABILITY**

**SECTION FOUR: CONFLICT**

**SECTION FIVE: INCLUSION IN CODE, CODIFICATION, SCRIVENERS ERRORS**

**SECTION SIX: EFFECTIVE DATE**

**APPENDICES**

- A. CRITERIA FOR ESTABLISHING PROTECTION ZONES**
- B. "BEST MANAGEMENT PRACTICES" FOR THE CONSTRUCTION INDUSTRY**

## CHAPTER 1. SHORT TITLE, AUTHORITY, INTENT, AND APPLICABILITY

### 1.01 SHORT TITLE

This Ordinance shall be known as the "Lee County Wellfield Protection Ordinance."

### 1.02 AUTHORITY

Pursuant to the authority granted by Chapter 125 and Section 163. 3202(2)(c), Florida Statutes, the standards, rules and regulations set forth herein have been promulgated and approved by the Lee County Board of County Commissioners and shall apply to all abandoned wells and to certain public utility potable water supply wellfields in unincorporated Lee County.

### 1.03 INTENT

In order to properly protect certain existing potable water supply wellfields in unincorporated Lee County, the Lee County Board of County Commissioners declares that the storage, handling, use, or production of hazardous or toxic substances and the location of abandoned wells in close proximity to public utility potable water supply wells is potentially harmful to the drinking water of Lee County, and that abandoned wells and certain land uses and activities involving hazardous or toxic substances are hereby prohibited or regulated within certain defined protection zones around public utility potable water supply wellfields in unincorporated Lee County.

The intent of this Ordinance is further to safeguard the public health, safety and welfare of the residents of Lee County, Florida, by providing criteria for the regulation of activities which may allow the entrance of brackish water into identified protection zones surrounding existing wellfields, and prohibiting or regulating hazardous or toxic substances within identified protection zones surrounding such wellfields, thereby protecting existing public potable water supply wells from contamination. The provisions of this Ordinance shall apply only to the unincorporated areas of Lee County, Florida.

## CHAPTER 2. DEFINITIONS

The following definitions apply within this Ordinance:

**Abandoned well.** A well which does not have a properly functioning valve; the use of which has been permanently discontinued; that does not meet current well construction standards; that is discharging water containing greater than 500 milligrams per liter of chlorides into a drinking water aquifer; that is in such a state of disrepair that it cannot be used for its intended purpose without having an adverse impact upon an aquifer which serves as a source of drinking water or which is likely to be such a source in the future; or that does not have proper flow control on or below the land surface. [Chapter 373.203(1), Fla. Stat.]

**Aquifer.** An underground water-bearing geologic formation sufficiently permeable to yield quantities of water to wells and springs. [Rule 17 - 21.020(12) F.A.C.]

**Brackish Water.** Water with "total dissolved solids" greater than 1,000 ppm.

**Capillarity (Capillary Action).** The action by which a fluid, such as water, is drawn up (or depressed) in small intestices or tubes as a result of surface tension.

**Closure.** The termination of any regulated or prohibited nonresidential land use or activity covered by this Ordinance.

**Contaminant.** Any physical, chemical, biological, or radiological substance or matter in the water. [Sec. 403.852(9) Fla. Stat.]

**Contamination.** The presence of any harmful or deleterious substances in the water supply.

**Continuous Transit.** The nonstop movement of a mobile vehicle except for stops required by traffic laws.

**Division.** The Division of Water Resources of Lee County, and any succeeding agency authorized to perform similar functions or duties.

**Dry Retention.** A stormwater storage area with a bottom elevation at least one (1) foot above the control elevation of the area.

**EP (Extraction Procedure) Toxic Material.** A substance determined to be toxic as defined under the EPA Resource Conservation and Recovery Act criteria [40 CFR 261.24].

**EPA.** The United States Environmental Protection Agency.

**FDER.** Florida Department of Environmental Regulation.

**Ground Water.** Water below the land surface in a zone wherein all of the interstices are filled with water. [Rule 17-28.120(33) F.A.C.]

**Hazardous Substance.** A substance that has one or more of the following characteristics: ignitability, corrosivity, reactivity, EP Toxicity, or toxicity.

**Iso-Travel Time Contour.** The locus of points from which ground water takes an equal amount of time to reach a given destination such as a well or wellfield.

**Liquid Waste.** Sludge, septic or other liquid waste from waste water treatment plants, septic tanks, grease traps or sediment traps.

**Monitor Well.** A well used primarily to monitor hydrologic parameter such as a water levels or water quality. [Rule 40E-3.021 F.A.C.]

**Non-residential Land Use or Activity.** Any land use or activity regulated by this ordinance which occurs in any building, structure, or open area which is not used primarily as a private residence or dwelling. Any land use or activity which produces, stores, uses or handles more than 110 gallons or 1100 pounds of a Regulated Substance is presumed to be a non-residential land use or activity.

**Operating Permit.** Authorization to conduct an activity regulated by this Ordinance.

**Permitted Pumping Capacity.** The amount of water authorized by the South Florida Water Management District to be pumped from a well, measured in gallons per day.

**Person.** An individual, corporation, incorporated association, partnership, governmental body or officer, or any other similar entity.



**Pollutant Travel Time.** The theoretical time required by pollutants to travel from one point to another.

**Pollution.** The presence of any substance (organic, inorganic, radiological, or biological) or condition (temperature, pH, turbidity) in water which tends to degrade its quality so as to constitute a hazard or impair the usefulness of the water.

**Potable Water Sources.** Sources of water that meet county, state or federal drinking water standards and are intended for drinking, culinary and domestic purposes.

**Protection Zones.** Zones delineated by iso-travel time contours around wellfields, within which hazardous or toxic substances must be regulated to protect the quality of the ground water resource. These zones are calculated based on the rate of movement of ground water in the vicinity of wells, with an allowance for the dispersion of a pollutant entering into and moving with the ground water.

**Protection Zone Maps.** Maps showing the location on the ground of the outer limits of protection zones for present public utility potable water supply wells and wellfields which are permitted to pump 1,000,000 gallons of water per day or more. The Florida Cities-Waterway Estates Wellfield shall not be included within the protections established by this ordinance or depicted on the Protection Zone Maps.

**Public Potable Water Supply Wellfield.** With the exception of the Florida Cities-Waterway Estates Wellfield, a tract of land containing a well or group of wells for which a consumptive use permit has been issued by the South Florida Water Management District (SFWMD); which are in use and are providing water for public consumption and which are the subject of an agreement between Lee County and the public utility operating the well or group of wells whereby the utility contributes its pro rata share of the administration and enforcement costs of this ordinance. For brevity, the term "wellfield" shall refer to a public potable water supply wellfield.

**Public Utility.** A privately-owned, municipally-owned or county-owned system providing water or wastewater service to the public which has at least fifteen (15) service connections or regularly serves an average of at least twenty-five (25) individuals daily.

**Regulated Substances.** Any hazardous or toxic substance regulated under this Ordinance as described in Section 4.03.

**Solid Waste.** Garbage, rubbish, refuse, or other discharged solid or semi-solid material resulting from domestic, commercial, industrial, agricultural or governmental land uses or activities.

**Toxic Substances** Hazardous wastes as defined in Chapter 17-730, F.A.C.; hazardous substances as defined in the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, Pub. L. No. 96-510, 94 Stat. 2767; a pollutant as defined in Chapter 376, Fla. Stat.; a substance which is or is suspected to be carcinogenic, mutagenic, teratogenic, or toxic to human beings, or to be acutely toxic as defined in Rule 17-3.021(1) F.A.C.; or a substance which poses a serious danger to the public health, safety, or welfare. [Rule 17-7.510(35) F.A.C.]

**Travel Time Zones.** The area bounded by iso-travel time contours.

**Water Table Aquifer.** An aquifer with a phreatic surface, that is, a free surface where the fluid pressure equals atmospheric pressure or zero gage pressure; also known as a phreatic or unconfined aquifer, it is the uppermost aquifer and can receive direct recharge from the ground surface.

**Well.** Any excavation that is drilled, cored, bored, washed, driven, dug, jetted, or otherwise constructed when the intended use of such excavation is to conduct ground water from a source bed to the surface, by pumping or natural flow, when ground water from such excavation is used or to be used in a public utility potable water supply wellfield [Rule 17-7510(35) F.A.C.].

**Wellfield.** As used herein this term shall refer to public potable water supply wellfield as defined above.

**Wellfield Protection Officer.** The person designated and authorized under Section 5.03 to supervise the implementation and enforcement of this Ordinance.

### **CHAPTER 3. ESTABLISHMENT OF WELLFIELD PROTECTION ZONES.**

#### **3.01 ESTABLISHMENT OF ZONES**

Four types of Protection Zones have been established using scientific criteria relating to the physical characteristics of the water supply aquifer and the transport gradients caused by either natural forces or induced pumpage of the wellfields (see Appendix A). The transport times associated with the Protection Zones are designed so as to allow adequate time to carry out mitigating procedures to prevent wellfield contamination in the event of spillage of any Regulated Substance.

##### **A. PROTECTION ZONE 1:**

All land situated between the well(s) and the water table aquifer 6-month travel time zone demarcation.

##### **B. PROTECTION ZONE 2:**

All land situated between the well(s) and the planar geometric union of the largest of the following three travel time zones:

1. Water table aquifer 1-year travel time zone demarcation
2. Lower Tamiami 1-year travel time zone demarcation.
3. Sandstone 1-year travel time zone demarcation.

##### **C. PROTECTION ZONE 3:**

All land situated between the well(s) and the planar geometric union of the largest of the following three protection zones:

1. Water table 1-year travel time zone demarcation and the water table aquifer 5-year travel time zone demarcation.
2. Sandstone aquifer 1-year travel time zone demarcation and the Sandstone aquifer 5-year travel time zone demarcation.
3. Lower Tamiami 1-year travel time zone demarcation and the Lower Tamiami 5-year travel time zone demarcation.

**D. PROTECTION ZONE 4:**

All land situated between the well(s) and the planer geometric unit of the largest of the following three protection zones:

1. Water table 5-year travel time zone demarcation and the water table 10-year travel time zone demarcation.
2. Sandstone 5-year travel time zone demarcation and the Sandstone 10-year travel time zone of demarcation.
3. Lower Tamiami 5-year travel time zone demarcation and the Lower Tamiami 10-year travel time zone of demarcation.

**3.02 PROTECTION ZONE MAPS**

**A. ADOPTION OF MAPS**

The Protection Zone maps have been developed by Lee County and are hereby adopted by reference and made a part of this Ordinance. The official Protection Zone Maps shall be placed on file at the Division Office. Reproductions of the maps shall be made available for sale at Division Offices, the Office of Land Information Services or other appropriate County agency.

**B. INTERPRETATION OF ZONE DESIGNATION**

To determine the location of properties and buildings within the Protection Zones delineated on the Protection Zone maps, the following rules shall apply:

1. Properties located wholly within one (1) Protection Zone reflected on the applicable Protection Zone map(s) shall be governed by the restrictions applicable to that zone.
2. Properties having parts lying within more than one (1) Zone as reflected on the applicable Protection zone map(s) shall be governed by the restrictions applicable to the Protection Zone in which each part of the property is located.
3. Where a travel time contour which delineates the boundary between two (2) Protection Zones passes through a building, the entire building shall be considered to be in the more restrictive zone.
4. Where the building or portion thereof, is overlapped by Protection Zones of different wells or wellfields, the most restrictive regulations shall apply.
5. Where a property or portion thereof, is overlapped by Protection Zones of different wells or wellfields, the most restrictive of the regulations shall prevail over said overlapped area.

**C. ANNUAL REVIEW**

The protection zone maps shall be reviewed at least annually by the Division. Any amendments, additions or deletions to said maps shall be approved by the Board of County Commissioners of Lee County as amendments to this ordinance. Copies of said

maps shall be made available to the appropriate Divisions of the County and to the Lee County Health Department, the Southwest Florida Regional Planning Council, the South Florida Water Management District, and any other agency requesting said maps.

The basis for amending the maps may include, but is not limited to, the following:

1. Changes in the technical knowledge concerning the aquifers of Lee County.
2. Changes in pumping rate of wellfields.
3. Wellfield reconfiguration.
4. The addition of new wells to a wellfield.
5. Approval by the Board of County Commissioners of additional wellfields.

#### **CHAPTER 4. GENERAL PROVISIONS**

##### **4.01 SCOPE**

The regulations set forth herein shall apply to all areas surrounding a wellfield and designated as wellfield protection zones on the adopted Protection Zone Map(s).

##### **4.02 APPLICABILITY**

This Ordinance shall only apply to a particular land use or activity, whether that land use or activity is classified as a residential or commercial use, when:

- A.
  - 1) The aggregate sum of all quantities of any one Regulated Substance on a given parcel or in a certain building exceeds one hundred and ten (110) gallons if said substance is a liquid, or one thousand, one hundred and ten (1,110) pounds if said substance is a solid; OR
  - 2) When no single substance exceeds the above referenced limits but the aggregate sum of all Regulated Substances present on a given parcel or in a given building exceeds one hundred and ten (110) gallons if said substances are liquids, or one thousand, one hundred and ten (1,110) pounds if said substances are solids.
- B. Where Regulated Substances are dissolved in or mixed with non-Regulated Substances, only the actual quantity of the Regulated Substance present shall be used to determine compliance. Where a Regulated Substance is a liquid, the total volume of the Regulated Substance present in a solution or mixture of said substance with other substances shall be determined by volume percent composition of the Regulated Substances.
- C. This Ordinance shall apply to all storage facilities for petroleum products which are not regulated by Section 376.317, Florida Statutes, or Chapter 17-61 Florida Administrative Code. (Note: Chapter 17-61 has been superseded by Chapter 17-761, and will be superseded by Chapter 17-762, when adopted).

##### **4.03 REGULATED HAZARDOUS OR TOXIC SUBSTANCES**

Regulated substances include, but are not limited to those deleterious substances and contaminants which have one or more of the following characteristics:

1. Substances (including degradation and interaction products) which because of quality, concentration, or physical, chemical (including ignitability, corrosivity, reactivity and toxicity) infectious characteristics, radioactivity, mutagenicity, carcinogenicity, teratogenicity, bioaccumulative effect, persistence (non-degradability) in nature, or any other characteristic relevant to a particular material that may cause significant harm to human health or the environment (including surface and ground water, plants, or animals); OR
2. Those substances set forth in the lists, as amended from time to time, entitled, Lists of Hazardous Waste (40 CFR Part 261, Subpart D), 40 CFR Part 261, Appendix VIII - Hazardous Constituents, and EPA Designation Reportable Quantities and Notification Requirements for Hazardous Substances Under CERCLA (40 CFR 302); OR
3. Exhibit any of the characteristics identified in 40 CFR 261.20 through 261.24; OR
4. Are priority toxic pollutants listed in 40 CFR 122.21 by the EPA; OR
5. Contain a degradation product which is toxic, including petroleum based products; OR
6. Are restricted-use pesticides as that term is used in Chapter 487, Florida Statutes and which are listed in Chapters 5E-2 and 5E-9 F.A.C. OR
7. Contain brackish or saline water which contains total dissolved solids (TDS) in excess of 1,000 parts per million (ppm) and chlorides in excess of 500 ppm; OR
8. Are raw or partially treated sewage.

#### 4.04 RESTRICTIONS WITHIN WELLFIELD PROTECTION ZONES

##### A. PROTECTION ZONE 1

###### 1. Prohibitions

Except as provided in Sub-Section 4.05 the following land uses or activities are prohibited:

- a. The use, handling, production, or storage of Regulated Substances associated with land uses or activities regulated by this Ordinance in quantities greater than those set forth in Section 4.02.A
- b. Wastewater effluent disposal, except for public access reuse of reclaimed water and land application (under the conditions set forth and as defined in Chapter 17-610, Part III, F.A.C.). Where public access reuse is permitted the chloride content shall be no greater than 500 mg/l.
- c. Liquid waste disposal.
- d. Solid waste disposal.
- e. Earth mining within a five hundred foot (500') radius of an existing wellhead.

**2. Regulations**

Except as provided in Sub-section 4.05, all persons who engage in land uses or activities regulated under this Ordinance who store, handle, use or produce any of the Regulated Substances (excluding partially treated sewage from residential septic tank systems) within Protection Zone One (1), in quantities greater than those set forth in Section 4.02.A shall cease to do so within ninety days (90 days) of the effective date of this ordinance pursuant to the prohibitions set forth herein unless such persons obtain an operating permit authorizing the continuation of such land use or activity within the ninety day deadline. A Closure Permit (see Section 6.03) shall otherwise be obtained from the Division and a timetable for discontinuance and closure shall be submitted to the Wellfield Protection Officer in accordance with the requirements of this ordinance.

The owners of any sanitary sewer, force main, gravity sewer or lateral shall notify the Division of any break in the sewer lines within twenty-four hours of discovering such a break. The purpose of this requirement is to allow the Division to monitor repairs to the line and any necessary clean-up activities. Any stormwater or surface water discharge within this protection zone shall conform to existing S.F.W.M.D. and F.D.E.R. rules or as they may be amended or replaced.

**B. PROTECTION ZONE 2**

**1. Prohibitions**

Except as provided in Sub-Section 4.05, the following land uses or activities are prohibited:

- a. The use, handling, production, or storage of Regulated Substances associated with activities regulated by this Ordinance in quantities greater than those set forth in Section 4.02A.
- b. Wastewater effluent disposal, except that public access reuse of reclaimed water and land application (under the conditions set forth and as defined in Chapter 17-610, Part III, F.A.C.) will be permitted. Where public access reuse is permitted the chloride content shall be no greater than 500 mg/l.
- c. Liquid waste disposal.
- d. Solid waste disposal.
- e. Earth mining within a five hundred foot (500') radius of an existing wellhead.

**2. Regulations**

Except as provided in Sub-Section 4.05, all persons who engage in land uses or activities regulated under this Ordinance who store, handle, use or produce any of the Regulated Substances (excluding partially treated sewage from residential septic tank systems), or who own and/or undertake any of the activities regulated under this Ordinance shall cease to do so within ninety days (90 days) of the effective date of this ordinance pursuant to the prohibitions set forth herein unless such persons obtain an operating permit authorizing the continuation of such land

use or activity within the ninety day deadline. A Closure Permit shall otherwise be obtained from the Division and a timetable for discontinuance and closure shall be submitted to the Wellfield Protection Officer in accordance with Section 6.03. Any stormwater or surface water discharge within this protection zone shall conform to existing S.F.W.M.D. and F.D.E.R. rules or as they may be amended or replaced.

#### **C. PROTECTION ZONE 3**

##### **1. Prohibitions**

Except as provided herein the following land uses or activities are prohibited.

- a. Any activity regulated by this ordinance which stores, handles, uses, or produces any Regulated Substances in quantities greater than those set forth in Section 4.02A., which does not have a valid operating permit as set forth in Section 6.02.
- b. Wastewater effluent disposal, except that public access reuse of reclaimed water and land application (under the conditions set forth in chapter 17-610, Part III, F.A.C.) will be permitted. Where public access reuse is permitted the chloride content shall be no greater than 500 mg/l.
- c. Liquid waste disposal.
- d. Solid waste disposal.

##### **2. Regulations**

Except as provided in Sub-Section 4.05, all persons in Protection Zone Three (3) who store, handle, use or produce any Regulated Substance on the effective date of this Ordinance or any new land use or activity established thereafter, may continue to do so in accordance with the provisions and exemptions set forth herein upon obtaining an Operating Permit pursuant to Section 6.02.

Within ninety (90) days of the effective date of this Ordinance, all land uses or activities regulated by this ordinance and located within Protection Zone Three (3) shall make application for an Operating Permit from the Division in compliance with the provisions of this Ordinance. Activities requesting an Administrative Exemption (see section 4.05.C) or a Closure Permit (see Section 6.03) shall have a period of one-hundred twenty (120) days from the effective date of this ordinance to make application. If after one hundred eighty (180) days all the requirements necessary for the issuance of an Operating Permit have not been completed and the applicant has made a diligent effort to do so, an Operating Permit may be issued contingent on compliance by a date certain. All Operating Permits shall be renewed annually and shall be subject to the conditions set forth in Sub-section 6.02 of this Ordinance. Any stormwater or surface water discharged within this protection zone shall conform to existing S.F.W.M.D. and F.D.E.R. rules or as they may be amended or replaced.

#### **D. PROTECTION ZONE 4**

##### **1. Prohibitions**

Except as provided in Section 4.05, any activity regulated by this ordinance which stores, handles, uses, or produces any Regulated Substance, in quantities greater than those set forth in Section 4.02.A., which does not obtain a valid operating permit as set forth in Section 6.02 is prohibited.

## **2. Regulations**

Except as provided in Section 4.05, any land use or activity involving the storage, handling, production or use of Regulated Substances in Protection Zone Four (4) in existence on the effective date of this Ordinance, or any new land use or activity established thereafter, shall obtain an Operating Permit.

Within ninety (90) days of the effective date of this Ordinance, all persons who engage in land uses or activities regulated by this ordinance within Protection Zone Four (4) who store, handle, use or produce any Regulated Substances shall obtain an Operating Permit from the Division and shall comply with the provisions of this Ordinance and the Regulations promulgated pursuant hereto. All Operating Permits shall be renewed annually. Any stormwater or surface water discharge within this protection zone shall conform to existing S.F.W.M.D. and F.D.E.R. rules or as they may be amended or replaced.

## **4.05 EXEMPTIONS**

### **A. GENERAL EXEMPTIONS**

Certain existing or proposed public and quasi-public land uses and activities may be declared exempt from the provisions of this Ordinance by the Board of County Commissioners. This exemption shall be granted only upon a finding made by the Board in a public meeting that the existing or proposed land use or activity serves a public need which overrides the intent and purpose of this Ordinance and that it would be economically impractical or scientifically impossible for the land use or activity to comply with the requirements of this Ordinance or be relocated to an area outside of the protection zones established by this Ordinance. When declaring such an exemption, the Board of County Commissioners shall limit it to the extent necessary to enable the existing or proposed public or quasi-public land use or activity in question to be conducted within a protection zone while still serving the intent and purpose of this Ordinance to the extent which is economically practical and scientifically possible. The Board may attach any conditions to the grant of any exemption that it deems appropriate.

### **B. SPECIAL EXEMPTIONS**

The following activities or uses are exempt from the provisions of Sections 4.04.A.2, 4.04.B.2, 4.04.C.2, and 4.04.D.2

#### **1. Exemption for Application of Pesticides, Herbicides, Fungicides, and Rodenticides.**

The application of those Regulated Substances used as pesticides, herbicides, fungicides, and rodenticides in recreation, agriculture, pest control and aquatic weed control activities shall be exempt from the provisions of this Ordinance provided that:

- a. Application of the substance is in strict conformity with the use requirement as set forth in the EPA registry for that substance and as



- indicated on the containers in which the substances are sold; and
- b. The application is in strict conformity with the requirements as set forth in Chapter 5E-2 and 5E-9, Florida Administrative Code; and
- c. The application of any of the pesticides, herbicides, fungicides, and rodenticides shall be flagged in the records of the certified operator supervising the use. The certified operator shall provide specific notification in writing to the applicators under his or her supervision that they are working at a site located in Protection Zone One (1), Two (2), Three (3), or Four (4), for which particular care is required. Records shall be kept of the date and amount of those substances applied at each location and said records shall be available for inspection at reasonable times by the Division; and
- d. All non-residential applicators of pesticides, herbicides, fungicides, and rodenticides who apply those substances shall obtain an Operating Permit covering all application operations under one permit using those materials and shall comply with all the requirements as set forth in the regulations promulgated hereto.

2. Exemption for Continuous Transit.

The transportation of any Regulated Substance shall be exempt from the provisions of this Ordinance provided:

- a. The transporting motor vehicle is in continuous transit as defined in Chapter 2; OR
- b. The transport of such substances through existing permanent pipelines is in accordance with the regulations applicable to Protection Zone One (1), Two (2), and Three (3) requirements within those respective zones. In Protection Zone Four (4) such activity is exempt provided that the currently authorized use or uses are not changed and provided that leak detection and monitoring procedures as approved by the Division are employed.

3. Exemption for Vehicular and Lawn Maintenance Fuel and Lubricant Use.

The use in a vehicle, lawn maintenance or mobile construction and mining equipment of any Regulated Substance solely as fuel in the fuel tank of a vehicle or equipment or as shall be exempt from the provisions of this Ordinance. No Operating Permit is required.

4. Exemptions for Fire, Police, Emergency Medical Services, County Emergency Management Center Facilities, and Public Utilities.

Except for the maintenance and refueling of vehicles, existing fire, police, emergency medical services, County emergency management center facilities, and public utilities (as defined in Chapter 2) are exempt from the provisions of Sub-Section 4.04.A.1. and 2. provided they obtain an Operating Permit pursuant to Section 6.02. No operating permit is required in Protection Zones 3 and 4.

5. Exemption for Retail Sales Activities.

Retail sales establishments that store and handle Regulated Substances for resale in their original unopened containers shall be exempt from the prohibition in Sub-Sections 4.04.A.1. and 2. provided that those establishments obtain an Operating Permit pursuant to Section 6.02. No operating permit is required in Protection Zones 3 and 4.

6. Exemption for Office Uses.

Office uses for the storage, handling or use of Regulated Substances as provided for in applicable administrative codes, shall be exempt from the provisions of this Ordinance. No Operating Permit is required.

7. Exemption for Construction Activities.

Constructing, repairing or maintaining any facility or improvement on lands within any Protection Zone and earth mining within any Protection Zone shall be exempt from the provisions of this Ordinance provided that all contractors, subcontractors, laborers, materialmen and their employees using, handling, storing or producing Regulated Substances in any Protection Zone use the applicable Best Management Practices provided in Appendix B. No Operating Permit is required.

C. ADMINISTRATIVE EXEMPTION

Any person affected by this Ordinance may petition the Division for an Administrative Exemption from the prohibitions and monitoring requirements of this ordinance 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 an Administrative Exemption, The Division may attach any appropriate conditions and safeguards which are necessary to protect the wellfield.

4.06 ABANDONED WELLS

The Division shall initiate a program that will result in the plugging of any wells that have been abandoned and that lie within the ten (10) year travel time of any well or wellfield protection zone as well as the Mid-Hawthorne Aquifer System. The program shall include:

1. An inventory, to be conducted by the Division, of all known abandoned or out-of-use wells lying within the ten (10) year travel time of any well or wellfield regulated by this ordinance in unincorporated Lee County.
2. A procedure for notifying by registered mail the owners of properties within whose boundaries such abandoned wells are located. Said property owners shall be notified within thirty (30) days of the discovery of such wells. The letter of notification shall include, but not be limited to, the following:
  - a. Notice that an abandoned well or wells exist on his or her property and that the county plans to properly plug the well(s);
  - b. Approximate dates during which the County will plug the well and County

staff will require access to the property.

Abandoned wells on any property lying within the ten (10) year travel time zone of any well regulated by this Ordinance shall be plugged in accordance with the provisions of Lee County Ordinance 87-7 or as may be amended, renumbered or replaced.

## **CHAPTER 5. ADMINISTRATION AND ENFORCEMENT**

### **5.01 ADMINISTRATION**

The Division of Water Resources shall administer and enforce the provisions of this Ordinance.

### **5.02 DUTIES OF THE DIVISION OF WATER RESOURCES**

The Division shall:

1. The Division Director shall recommend revisions and amendments to this Ordinance as necessary.
2. Make continuing studies and periodic reports and recommendations for the improvement of wellfield protection controls throughout the unincorporated County and work in cooperation with federal, state and local agencies and groups interested in the field of wellfield protection.
3. Recommend revisions and updated to the list of hazardous and toxic substances incorporated into this ordinance and the wellfield Protection Zone maps to the Board of County Commissioners.
4. Investigate wellfield protection programs and activities in operation in other areas and make recommendations for the improvement of the regulation, administration and enforcement of wellfield protection.
5. Publicize the importance of adequate wellfield protection, participate in public hearings, discussions, forums and institutes, and arrange programs for the presentation of information by experts in the field of wellfield protection (subject to budget limitations).
6. Establish a permitting system for activities subject to these regulations.
7. Perform such other duties, functions and responsibilities related to wellfield protection that may be assigned from time to time by the County Administrator.

### **5.03 WELLFIELD PROTECTION OFFICER**

#### **A. DESIGNATION**

A Wellfield Protection Officer within the Division of Water Resources shall be designated to supervise the implementation and enforcement of this Ordinance. The Wellfield Protection Officer shall designate such inspectors as are necessary to enforce this Ordinance and shall have all necessary powers and authority of enforcement.

#### **B. DUTIES AND AUTHORITY**

The Wellfield Protection Officer's duties and responsibilities shall be to:

1. Enforce the provisions of this Ordinance.
2. Investigate alleged infractions of this Ordinance, study and observe conditions, and make recommendations as to the institution of actions necessary for the protection of potable water supply wellfields and as to the prosecution of any violations of this Ordinance.
3. Make appropriate surveys, tests and inspections of property, facilities, equipment and processes operating under the provisions of this Ordinance to determine whether the provisions of the Ordinance are being complied with; and make recommendations for methods by which wellfield protection may be enhanced.
4. Maintain, review and supervise all operating records required to be filed by persons operating facilities subject to the provisions of this Ordinance.
5. Establish technical guidelines and criteria for permitting requirements.
6. Render all possible assistance and technical advice to persons operating facilities and processes, the use of which may endanger wellfields; except that the Wellfield Protection Officer shall not design equipment or facilities for any person.
7. Publish and disseminate information to the public concerning environmental quality and recommend methods for decreasing and eliminating pollution.
8. Render all possible cooperation and assistance to federal, state and local agencies for the effective protection of potable water wellfields.
9. Enlist and encourage public support, assistance of civic, technical, scientific and educational organizations and cooperation of industrial and business enterprises and organizations.
10. Make periodic reports concerning the status of wellfield protection throughout the County.
11. Perform such other administrative duties related to wellfield protection as may be necessary.

#### **5.04 ENFORCEMENT**

##### **A. INSPECTIONS**

1. The Lee County Wellfield Protection Officer and his or her designated Inspectors are hereby authorized and empowered to make inspections at reasonable hours of all land uses or activities regulated by this Ordinance including non-residential buildings, structures and lands within Protection Zones in Lee County, Florida, in order to determine if applicable provisions of the Lee County Code of Ordinances and regulations relating to Wellfield protection are being followed.
2. A condition of every Operating Permit shall be permission for inspection of the premises by an authorized Lee County Wellfield Protection Officer or Inspector.

3. Inspections may be made without notice, and refusal to allow such an inspection shall be sufficient grounds for revocation of the Operating Permit issued by the Division.
4. In the event a person who has common authority over a building, structure or land shall not permit an inspection, such failure of such person to permit an inspection shall be sufficient grounds and probable cause for a court of competent jurisdiction to issue an administrative warrant for the purpose of inspecting, surveying or examining said premises.
5. In the event a building, structure or land appears to be vacant or abandoned, and the property owner cannot be readily contacted in order to obtain consent for an inspection, the Wellfield Protection Officer or Inspector may enter into or upon any open or unsecured portion of the premises in order to conduct an inspection thereof.
6. The Wellfield Protection Officer or Inspector shall be provided with official identification and shall exhibit such identification when making any inspection.
7. It shall be the duty of all law enforcement officers to assist in making inspections when such assistance is requested by the Wellfield Protection Officer or Inspector.

**B. NOTICE OF VIOLATION, NOTICE OF HEARING AND HEARING PROCEDURE.**

Whenever the Wellfield Protection Officer or an Inspector determines that there is a violation of this Ordinance, the Officer or Inspector shall follow the procedures established by Lee County for bringing a case before the Lee County Code Enforcement Board or any alternative code enforcement body adopted by the County or shall seek injunctive relief as provided below. A notice to cease a land use or activity, a permit, or an exemption issued under this Ordinance, shall not relieve the owner or operator of the obligation to comply with any other applicable federal, state, regional or local code, regulation, rule, ordinance or requirement. Nor shall said notice, permit, or exemption relieve any owner or operator of any liability for violation of such codes, regulations, rules, ordinances or requirements.

**C. CLEAN-UP AND REIMBURSEMENT.**

Any person subject to this Ordinance shall be liable for any damage caused by a Regulated Substance present on or emanating from the person's property, for all costs of removal or remedial action incurred by Lee County, and damages for injury to, destruction of, or loss of natural resources, including the reasonable costs of assessing such injury, destruction or loss resulting from the release or threatened release of a Regulated Substance. Such removal or remedial action by Lee County may include, but is not limited to, the prevention of further contamination of ground water, monitoring, containment, and clean-up or disposal of Regulated Substances resulting from the spilling, leaking, pumping, pouring, emitting or dumping of any Regulated Substance or material which creates an emergency hazardous situation or is expected to create an emergency hazardous situation.

**D. INJUNCTIVE RELIEF**

If any person who engages in activities regulated by this Ordinance stores, handles, uses, or produces hazardous or toxic substances regulated under this Ordinance or the Regulations promulgated pursuant hereto, without having obtained an Operating Permit as provided for herein or continues to operate in violation of the provisions of this Ordinance

or the Regulations promulgated pursuant hereto, then Lee County may file an action for injunctive relief in a Court of competent jurisdiction.

#### **5.05 TRADE SECRETS**

The Division shall not disclose any trade secrets of the permittee that are exempted from such disclosure by federal or state laws; provided, however, the burden shall be on permittee to demonstrate entitlement to such nondisclosures. Decisions by the Division as to such entitlement may be appealed as set forth in Sub-Section 5.06, APPEALS.

#### **5.06 APPEALS**

If the Division denies an exemption or the applicant disputed any final administrative determination made by the Division pursuant to this Ordinance, the applicant may file an appeal of the Division's written decision in accordance with the procedures set forth for appeals of administrative decisions in §900.02.A. Lee County Zoning Ordinance 86-17, as amended or as may be amended or replaced from time to time, and In accordance with any Lee County Administrative Codes adopted to implement the provisions of the Zoning Ordinance.

### **CHAPTER 6. PERMITS**

#### **6.01 BUILDING PERMITS AND OCCUPATIONAL LICENSES**

##### **A. APPLICABILITY**

1. The Division shall provide a list to all county agencies of potentially prohibited land uses or activities in each Protection Zone. It shall be the duty of each county agency to screen all applications for an occupational license requested by an individual or business located within any protection zone.
2. Every application for a rezoning, special exception, occupational license, change of occupancy, development order, certificate of occupancy or building permit shall indicate whether or not the property, or any portion thereof, lies within a protection zone.
3. Every application which involves property located wholly or partially within a protection zone shall be reviewed by the Division. The Division shall then issue a Notice as to whether or not the proposed land use or activity meets the applicable requirements of this ordinance.
4. No request for a rezoning, special exception, special permit, development order, certificate of occupancy, building permit, change of occupancy or occupational license for any activity regulated by this Ordinance shall be issued that is contrary to the restrictions and provisions provided in this Ordinance. Permits or occupational licenses issued in violation of this Section confer no right or privilege on the grantee and such invalid permit or licenses will not vest rights.

##### **B. RECORDS**

Copies of all Building Permits for principal buildings and all occupational licenses for land uses or activities located within the Protection Zones shall be submitted to the Division on a quarterly basis.

## **6.02 OPERATING PERMITS**

### **A. INFORMATION REQUIRED**

All applications for Operating Permits shall contain, at a minimum, the following information:

1. If the application is for an exemption, a concise statement by the applicant detailing the circumstances upon which the applicant believes they are exempt from this Ordinance pursuant to Section 4.05.
2. A list of all substances qualifying as either Regulated or Generic Substances which are to be stored, handled, used or produced in conjunction with the land use or activity being permitted and the quantity to be stored, handled, used or produced.
3. A detailed description of the activities that involve the storage, handling, use or production of the Regulated Substances indicating the unit quantities in which the substances are contained or manipulated.
4. A description of the containment, the emergency collection devices and containers and emergency plan that will be employed to comply with the restrictions required for Protection Zone Three (3) and Four (4) as set forth in Sub-Section 6.02.C.
5. A description of the daily monitoring activities that have been or will be instituted to comply with the restrictions for Protection Zones Three (3) and Four (4) as set forth in Sub-Section 6.02.C.
6. A description of the maintenance that will be provided for the containment facility, monitoring system, and emergency equipment required to comply with the restrictions of Protection Zones Three (3) and Four (4) as set forth in Sub-Section 6.02.C.
7. A description of the groundwater monitoring wells including the latitude and longitude, that have been, or will be, installed, and the arrangements made or which will be made for certified quarterly analyses for specified Regulated Substances.
8. An agreement to indemnify and hold Lee County harmless from any and all claims, liabilities, causes of action, or damages arising out of the issuance of the permit. The County shall provide reasonable notice to the permittee of any such claims.

### **B. PERMIT CONDITIONS**

#### **1. GENERAL**

The Division may place conditions on any permit so as to ensure compliance with all of the prohibitions, restrictions, and requirements set forth in this Ordinance. Such conditions may include, but are not limited to, requiring monitoring wells, periodic ground water analysis reports, and compliance schedules.

#### **2. MINIMUM CONDITIONS**

Any Operating Permit issued by the Division shall contain the following minimum

conditions:

- a. General Condition. The land use or activity must comply with the provisions of the Ordinance.
- b. Ground Water Monitoring. Every activity regulated by this Ordinance shall install one or more ground water monitoring wells as determined by and in a manner approved by the Division, at its own expense. The Division shall have the right to inspect and sample the monitoring wells. Certified analytical results of the quantity present in each monitoring well of each of the Regulated Substances listed in the regulated land use or activity's Operating Permit shall be filed quarterly with the Division. The presence of any of the Regulated Substances in a monitoring well shall be used to ascertain the source of any accumulation appearing in a potable water well. However, the absence of the Regulated Substances in a monitoring well shall not be used as the basis to exempt any regulated activity from the mandatory actions set forth in Section 6.05.C.
- c. Containment of Regulated Substances. Leak-proof trays under containers, floor curbing or other containment systems to provide secondary liquid containment shall be installed. The containment shall be of adequate size to handle 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 Regulated Substance loss to the external environment. Containment systems shall be sheltered so that the intrusion of precipitation is effectively adequate and appropriate liquid collection methods rather than sheltering only after approval of the design by the Division. (sic) These requirements shall apply to all areas of use, production, and handling, to all storage areas, to loading and off-loading areas, and to above-ground and underground storage areas. The containment devices and liquid collection systems shall be certified in the operating permit application by a Professional Engineer registered or Professional Geologist licensed in the State of Florida.
- d. Emergency Collection Devices. Vacuum suction devices, absorbent scavenger materials or other devices approved by the Division, shall be present on-site or available within two (2) hours (one hour in Protection Zones One and Two) by contract with a clean-up company approved by the Division. Devices or materials shall be available in sufficient magnitude so as to control and collect the total quantity of Regulated Substances present. To the degree feasible, emergency containers shall be present and of such capacity as to hold the total quantity of Regulated Substances plus absorbent material. The presence of such emergency collection devices shall be certified in the operating Permit application for existing activities. Such certification for new activities shall be provided by a Professional Engineer registered or Professional Geologist licensed in the State of Florida.
- e. Emergency Plan. The emergency plan prepared and filed with the Operating Permit application shall indicate the procedures which will be followed in the event of spillage of a Regulated Substance so as to control and collect all such spilled material in such a manner as to prevent it from reaching any storm or sanitary drains or the ground.



- f. Inspection. A responsible person designated by the permittee who stores, handles, uses or produces the Regulated Substance shall check, on every day of operation, for breakage or leakage of any container holding the Regulated Substances. Electronic sensing devices may be employed as part of the inspection process, if approved by the Division, and provided the sensing system is checked daily for malfunctions. The manner of daily inspection shall not necessarily require physical inspection of each container provided the location of the containers can be inspected to a degree which reasonably assures the Division that breakage or leakage can be detected by the inspection. Monitoring records shall be kept and made available to the Division at all reasonable times for examination.
- g. Maintenance of containment and emergency equipment. Procedures shall be established for the quarterly 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 for inspection by the Division.

### C. ISSUANCE OF PERMIT

- 1. Within thirty (30) working days of receipt of an application for operating permit, the Division shall inform the applicant whether such application contains sufficient information for a proper determination to be made. If the application is found to be insufficient, then the Division shall provide the applicant with a written statement, sent by certified mail or hand delivery, requesting the additional information required. The applicant shall inform the Division within ten (10) working days of the date of the written statement of his or her intent to either furnish the information or have the application processed as it stands. The Division shall have ninety (90) working days to review the application from either the date of application is deemed sufficient or the date the applicant declines to furnish additional information requested by the Division, whichever is later.
- 2. All land uses or activities owned and/or operated by one person, which are located on contiguous parcels of property may be covered under one permit. "Contiguous" for purposes of this sub-section shall mean abutting parcels and parcels which are separated by a public or private road.
- 3. An application which satisfies the requirements of the applicable Protection Zone and this Ordinance shall be approved and a permit issued. In addition to the failure to satisfy these requirements, the Division may deny a permit based on repeated violations of this Ordinance by the person applying for the permit.
- 4. An Operating Permit shall remain valid for one (1) year provided the permittee is in compliance with the terms and conditions of the permit.
- 5. The permittee shall not be required to pay annual renewal fees until September 1, 1989. Beginning September 1, 1989, all current and future permittees are subject to an annual renewal license fee.
- 6. A notarized agreement to comply with the provisions of Section 6.05 as applicable.

**D. TRANSFERRING A PERMIT**

Any permit may be transferred upon written notice to an approval by the Division. The Division shall assess a permit transfer fee as set out in the appropriate Lee County Administrative Code. The permit holder shall request transfer of the permit upon lease, sub-lease, assignment, sale or change of ownership of the entity conducting the regulated land use or activity.

**6.03 CLOSURE PERMITS**

**A. INFORMATION REQUIRED**

Closure permit applications shall provide the following information:

1. A schedule of events to complete the closure of land use or activity that does or did store, handle, use or produce Regulated Substances. As a minimum, the application shall address the following:
  - a. Disposition of all Regulated Substances and contaminated containers.
  - b. Cleanup of the activity and environs to preclude leaching of unacceptable levels of residual Regulated Substances into the aquifer.
  - c. Certification by a Professional Engineer registered or Professional Geologist licensed in the State of Florida that disposal and cleanup have been completed in a technically acceptable manner. Certification may be waived if the applicant provides evidence to the Division that all of the following conditions apply to the subject land use or activity:
    - 1) The entire operation is maintained inside the building(s) of the facility.
    - 2) The standard method of removing operating waste is not by septic tank, sewer mains, or floor drains.
    - 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 Protection Zones One (1) or Two (2).
    - 6) The applicant shall provide a sworn statement that disposal and cleanup have been completed in a technically acceptable manner.
2. An appointment for an inspection by the Division.
3. An agreement to indemnify and hold Lee County harmless from any and all claims,

liabilities, causes of action, or damages arising out of the issuance of the permit. The County shall provide reasonable notice to the permittee of any such claims.

**B. PERMIT CONDITIONS**

The Division may place conditions on any permit so as to ensure compliance with all of the prohibitions, restrictions and requirements of this ordinance. Such conditions may include but are not limited to wells, periodic ground water analysis reports, and compliance schedules. A closure permit may include conditions which require reduction of the risk in the interim of contamination of the ground waters, taking into account cost, likely effectiveness and degree of risk to the groundwater.

**C. WELL RECONFIGURATION**

Well reconfiguration shall be evaluated by the Division and the affected utility as an alternative to requiring a closure permit during the permit application process.

**D. NOTICE REQUIREMENTS**

FDER and the Lee County Public Health Unit shall be advised in writing of each Closure Permit Application.

**6.04 MONITORING OF PUBLIC UTILITY WELLS**

- A. Groundwater monitoring well(s) shall be provided at the expense of the permittee in a manner, number and location approved by the Division. Except for existing monitoring wells found by the Division to be adequate for this purpose, the required well or wells shall be installed by a Lee County licensed water well contractor or Lee County licensed monitoring well specialty contractor. Samples shall be taken by a Department of Health and Rehabilitative Services (DHRS)-approved laboratory performing the analyses. Analytical reports prepared by a DHRS approved laboratory for each monitoring well shall list the quantity of the Regulated Substances listed in the activity's Operating Permit and shall be filed at least annually. Analytical reports may be required more frequently, as determined by the Division, based upon site conditions and operations.

**B. EFFECT OF MONITORING**

Three (3) years from the effective date of this Ordinance, the Division shall make a determination as to the presence of each of the Regulated Substances in each ground water monitoring well. In the event that one or more of the Regulated Substances listed in the Operating Permit appear in a potable water well or in a monitoring well in an amount which exceeds the limits for that substance set out in the operating permit at any time, then the Division shall require one of the following mandatory actions:

1. All persons who engage in land uses or activities regulated by this ordinance within the affected Protection Zone Three (3) or Zone Four (4) who store, handle, use or produce the Regulated Substance(s) shall cease to do so within 90 days of written notification from the Division. If the responsible activity can be identified, then only that activity shall be subject to these mandatory actions. If the owner or operator of an activity can present acceptable technical data to the Division that substantiates that the activity is not the source of the Regulated Substances appearing in the potable water well or in the monitoring well in excessive amounts

that activity shall not be subject to these mandatory actions. No new Regulated Substance(s) may be introduced in the place of the Regulated Substance removed to comply with cessation, OR

2. The affected well(s) shall be reconfigured by changing the pumping rates or relocating the wells in such a way that the affected activity is no longer within the Protection Zones.

#### **6.05 BOND REQUIREMENTS**

Upon adoption of an appropriate Lee County Administrative Code no permit herein required shall be issued unless there is filed at the time of application (except in the case of an application by a political subdivision or agency of the State) a cash bond, rate bond or letters of credit with a corporate surety in an amount required by that Code to insure that:

1. The permittee will operate its activities and/or closure of such activities, as applicable, in accordance with the conditions and requirements of the Ordinance and permits issued hereunder.
2. The permittee shall reimburse Lee County for any and all expenses and costs which Lee County incurs as a result of the permittee failing to comply with the conditions and requirements of this Ordinance.
3. Before a bond or letter of credit is accepted by the Division as being in compliance with this section, the bond or letter of credit shall be reviewed and approved by the County Attorney's Office and shall be filed with the Clerk of the Board of County Commissioners.
4. The bond or letter of credit required by this Section shall be kept in full force and effect for the term of the permit and for one-year after voluntary cessation of activities permitted hereunder or expiration or revocation of the permit. Failure to keep a bond or letter of credit in full force and effect as required herein is grounds for revocation of the underlying permit or exemption.

#### **6.06 REVOCATION OR REVISION OF PERMIT OR SPECIAL EXEMPTION**

##### **A. REVOCATION**

Any permit or exemption issued under the provisions of this Ordinance shall not become vested in the permittee. The Division may revoke any permit issued by it by first issuing a written notice of intent to revoke (certified mail return receipt requested, or hand delivery) if it finds that the permit holder:

1. Has failed or refused to comply with any of the provisions of this Ordinance, including but not limited to permit conditions and bond requirements of Section 6.05 herein; or
2. Has submitted false or inaccurate information in the Operating Permit application; or
3. Has failed to submit operational reports or other information required by this Ordinance; or

4. Has refused lawful inspection under Sub-Section 5.04.A.4.; or
5. Is subject to revocation under Sub-Sections 5.03 or 6.06.

**B. REVISION**

The Division may revise any permit pursuant to Section 6.06.A. or by first issuing a written notice of intent to revise (certified mail return receipt requested, or hand delivery).

**C. SPILLS**

Any spill of a Regulated Substance as defined herein shall be reported by telephone to the Division, and to the designated public utility within one (1) hour of discovery of the spill. Clean-up shall commence immediately upon discovery of the spill. A full written report including the steps taken to contain and clean up the spill shall be submitted to the Division within fifteen (15) days of discovery of the spill. Within thirty (30) days of any spill of a Regulated Substance in Protection Zones One (1), Two (2), or Three (3), the Division shall consider revocation or revision of the permit. Upon such consideration the Division may issue a notice of intent to revoke or revise which shall be subject to the provisions of Section 5.05, or elect not to issue such notice. In consideration of whether to revoke or revise the permit, the Division may consider the intentional nature or degree of negligence, if any associated with this spill, and the extent to which containment or cleanup is possible, the nature, number and frequency of previous spills by the permittee and the potential degree of harm to the groundwater and surrounding wells due to such spill.

**D. NOTICE**

1. For any revocation or revision of an Operating Permit containing a special or administrative exemption permitting certain land uses or activities, the Division shall issue a notice of intent to revoke or revise the permit which shall state that the Division intends to revoke or revise both the Operating Permit and accompanying exemption.
2. The written notice of intent to revoke or revise shall contain the following information:
  - a. The name and address of the permittee, if any, and property owner, if different.
  - b. A description of the facility which is the subject of the proposed revocation or revision.
  - c. Location of the spill, if any.
  - d. Concise explanation and specific reasons for the proposed revocation or revision.
  - e. A statement that "Failure to file a petition with the Clerk of the Board within twenty (20) days after the date upon which permittee receives written notice of the intent to revoke to revise shall render the proposed revocation or revision final and in full force and effect".

3. Failure of permittee to file a petition as set forth above shall render the proposed revocation or revision final and in full force and effect.

#### 6.07 ALTERATIONS AND EXPANSION

The Division shall be notified in writing prior to the expansion, alteration, or modification of any land use or activity holding an Operating Permit. Such expansion, alteration, or modification may result from increased square footage of production or storage capacity, or increased quantities of Regulated Substances, or changes in types of Regulated Substances beyond those square footages, quantities, and types upon which the permit was issued.

The Division need not be notified prior to alteration or modification of changes in types of Regulated Substances used in a laboratory or laboratories designated as such in the currently valid permit which do not exceed the non-aggregate limits in Chapter 4. Should a facility add new Regulated Substances which individually are below the non-aggregate substance limits in Chapter 4, it shall notify the Division on an annual basis of the types and quantities of such substances added and the location of the use, handling, storage, and production of said substances. Should the aggregate quantity of such additions exceed the aggregate limit in Chapter 4, no notification other than the annual notification described above is required. Any such expansion, alteration or modification shall be in strict conformity with this Ordinance. Furthermore, except as provided herein, any existing Operating Permit shall be amended to reflect the introduction of any new Regulated Substances resulting from the change. However, the introduction of any new Regulated Substance shall not prevent the revocation or revision of any existing Operating Permit if, in the opinion of the Division, such introduction substantially or materially modifies, alters or affects the conditions upon which the existing Operating Permit was granted or the ability of the land use activity to continue to qualify for an exemption, if applicable, or to continue to satisfy any conditions that have been imposed as part of an exemption, if applicable. The Division shall notify the permittee in writing within sixty (60) days of receipt of the permittee's notice that the Division proposes to revoke or revise the permit and stating the grounds therefore.

#### 6.08 RECONSTRUCTION AFTER CATASTROPHE

Reconstruction of any portion of a structure or building in which there is any land use or activity subject to the provisions of this Ordinance which is damaged by fire, vandalism, flood, explosion collapse, wind, war or other catastrophe shall be in strict conformity with this Ordinance.

Within ninety (90) days of the receipt of written notice from the Division, all existing land uses or activities regulated by this Ordinance which use, handle, store, or produce Regulated Substances shall file an application for an Operating Permit. Any such land use or activity which fails to apply for an operating permit shall file for a Closure Permit or exemption within one hundred twenty (120) days of receipt of written notice from the Division. Said permit application shall be prepared and signed by a Professional Engineer registered or Professional Geologist licensed in the State of Florida. Within thirty (30) days of receipt of said notice, the owner or operator shall file with the Division proof of retention of said engineer or geologist. If application is made for an Operating Permit, such permit shall be issued or denied within sixty (60) days of filing of the completed application. If the application for an Operating Permit is denied, then the activity shall cease within twelve (12) months of the denial and an application for a Closure Permit shall be filed with the Division within one hundred twenty (120) days of the denial of the Operating Permit.

## **CHAPTER 7. SPECIAL EXCEPTIONS**

### **7.01 APPLICABILITY**

Activities with adequate technology to isolate the land use or activity from the potable water supply and protect the wellfield, may apply for a Special Exception from the operating or closure permitting requirements of this Ordinance.

### **7.02 PROCEDURE**

#### **A. APPLICATION REQUIREMENTS**

1. A Special Exception application claiming special or unusual circumstances and adequate protection technology may be filed with the Division. It shall be signed by the applicant and a Professional Engineer registered or a Professional Geologist licensed in the State of Florida.
2. Such application shall contain a concise statement by the applicant detailing the circumstances which the applicant would entitle him or her to a special exception.
3. A fee as determined by the applicable administrative code shall be filed with the application to defray the costs of processing such application.

#### **B. INFORMATION REQUIRED**

The application for a Special Exception shall contain but not be limited to the following elements:

1. A description of the situation at the site requiring isolation from the wellfield, including:
  - a. A list of the Regulated Substances in use at the site;
  - b. A site plan of the facility including all storage, piping, dispensing, shipping, etc., facilities;
  - c. A description of the operations at the facility which would involve Regulated Substances which must be isolated from the wellfields;
  - d. The location of all operations involving Regulated Substances;
  - e. A sampling and analysis of the ground water on the site of the activity seeking a Special Exception shall be performed to determine if any Regulated Substances are already present which constitute a threat to the water supply.
  - f. An analysis of the affected well showing whether or not such well is already contaminated by any Regulated Substances and the extent of such contamination.
  - g. A hydrogeologist's assessment of the site which shall address, as a minimum, soil characteristics and ground water levels, directional flow, and

quality.

2. A technical proposal to achieve the required isolation including:
  - a. Components to be used and their individual functions;
  - b. System tying the components together;
  - c. A discussion and documentation, such as published technical articles, substantiating the performance and reliability of the components individually and the system as a whole. If the system has not been field tested, a discussion and laboratory test documentation to substantiate the proposed performance and reliability of the system;
  - d. Details of the specific plans to install the system at the site.
3. If the proposed system does not have a proven history of successful in-field operation, it may still be proposed using proven components. A test plan for the system as installed shall be provided to prove that the proposed system works in the field.
4. A technical proposal for backup detection of Regulated Substances that may elude the isolation system and escape to outside a perimeter to be established by Division. Such proposal shall include emergency measures to be initiated in case of escape of Regulated Substances.
5. Site-specific, system performance criteria shall be proposed to ascertain the success of the system. Such criteria shall include but shall not be limited to:
  - a. Performance;
  - b. Reliability;
  - c. Level of maintenance;
  - d. Level of sensitivity to Regulated Substances;
  - e. Effect of rain, flood, power failure or other natural disaster.
6. Applicant shall provide information on the on-site availability of substance removal technologies sufficient to remediate any introduction of Regulated Substances into the water table at the site. Where the water is removed from on-site wells during the remedial process, a plan shall be proposed for the disposal of such water.
7. A closure plan shall be provided in the event the system does not prove successful in the testing required above.
8. Any other reasonable information deemed necessary by Division due to site-specific circumstances.

**C. REVIEW OF APPLICATION**

Within thirty (30) working days of receipt of an application for special exception, the



Division shall inform the applicant whether such application contains sufficient information for a proper determination to be made. If the application is found to be insufficient, then the Division shall provide to the applicant a written statement, by certified mail or hand delivery, requesting the additional information required. The applicant shall inform the Division within ten (10) working days of the date of the written statement of his or her intent to either furnish the information or have the application processed as it stands.

### **7.03 GRANTING OF SPECIAL EXCEPTIONS**

Any Special Exception granted by the Division shall be subject to the applicable conditions of this Ordinance and any other reasonable and necessary special conditions imposed by the Division.

An Operating Permit shall be issued by the Division with the applicable conditions of this Ordinance and any other reasonable and necessary special conditions imposed by the Division. Such Special Exceptions shall be subject to revocation or revision by the Division for violation of any condition of said Special Exception by first issuing a written notice of intent to revoke or revise, (certified mail return receipt requested or hand delivery). Upon revocation or revision, the activity will immediately be subject to the enforcement provisions of the Ordinance.

Special Exceptions for Protection Zones One (1) and Two (2) are for existing activities only. No new activity shall be permitted into Protection Zones One (1) and Two (2) after September 1, 1989 if the new activity is regulated by this Ordinance.

## **CHAPTER 8. FEES**

### **8.01 PERMIT FEES**

Prior to the issuance, renewal, or transfer of a permit or an exemption the applicant shall pay a fee as set forth in the applicable Lee County Administrative Code. Such fee shall be used to defray the cost of monitoring the compliance with this Ordinance.

### **8.02 ADMINISTRATIVE FEES**

The cost of administering and enforcing this Ordinance shall be borne by the public utility owning the public potable water wellfield protected by the provisions of this Ordinance. Each utility shall be assessed its pro rata share of the cost of administering and enforcing this ordinance. Before any wellfield shall be afforded the protections of this ordinance the utility operating such wellfield shall enter into a continuing agreement with the County providing that the utility shall pay its pro rata share.

## **CHAPTER 9. VESTED RIGHTS**

Notwithstanding any provision of this ordinance to the contrary, any proposed or existing land use or activity which has obtained County approval prior to September 1, 1989 shall be allowed to develop consistent with the development approval only after the land use or activity has obtained an operating permit. For purposes of applying this section, only the following approvals shall be considered: (1) a Final Development Order; (2) a Certificate of Occupancy; (3) a General Excavation Permit; (4) a Building Permit; or (5) a Certificate of Completion. The judicially recognized standards of equitable estoppel shall be applied to determine if a development should be allowed to develop consistent with prior development approval.

Mining operations which have received development approvals prior to the effective date of this ordinance shall be permitted to continue with the previously approved phased activities as long as

the activities are consistent with the prior approvals and no excavation shall occur within 500 feet of a wellhead. Development approvals for mining shall include having obtained zoning approval either as an IPD or as a special exception in the AG-2 zoning district in addition to any other approvals listed above.

To the extent that an approved development can obtain an operating permit consistent with this ordinance without conflicting with the specific uses or development design and construction specifications approved prior to the effective date of this ordinance, full compliance with the operating permit requirements shall be required.

## **CHAPTER 10                      SUNSET PROVISION**

The Board of County Commissioners has adopted this ordinance for the purpose of providing interim protection to existing potable water wellfields which are permitted to pump one million gallons of water or more per day. The County is engaged in the creation of a Raw Water Management Authority to insure the protection of the public potable water supply. Potable water wellfields make up a portion of the available public potable water supply. In adopting this ordinance, the Board has taken the first step toward creating such an authority and providing an overall program for the protection of the public water supply. The wellfield protection ordinance is conceived as a part of that program.

In order to insure that the wellfield protection efforts of the County are incorporated into any overall program to protect the public potable water supply this ordinance shall expire and be of no further force and effect as to any acts occurring on or after September 1, 1991.

## **SECTION TWO:                      PENALTIES**

Any person, organization, society, association or corporation, or any agent or representative thereof, who violates any provision of this Ordinance shall, upon conviction, be subject to the following penalties:

### **A.            CRIMINAL PENALTIES**

1.        A fine not to exceed Five Hundred Dollars (\$500.00); or
2.        Imprisonment in the County Jail for a term not exceeding sixty (60) days; or
3.        By both such fine and imprisonment.

### **B.            CIVIL PENALTIES**

1.        The Board of County Commissioners may institute in any Court or before any Administrative Board of competent jurisdiction action to prevent, restrain, correct or abated any violation of this Ordinance or of any order or regulations made in connection with its administration or enforcement, and the Court or Administrative Board shall adjudge such relief by way of injunction, or any other remedy allowed by law, or otherwise, to include mandatory injunction as may be proper under all the facts and circumstances of the case in order to fully effectuated the regulations adopted hereunder, or any amendment thereto, and any orders and rulings made pursuant thereto.

### **SECTION THREE: SEVERABILITY**

The provisions of this Ordinance are severable and it is the intention of the Board of County Commissioners of Lee County, Florida, to confer the whole or any part of the powers herein provided. If any of the provisions of this Ordinance shall be held unconstitutional by any court of competent jurisdiction, the decision of such court shall not affect or impair any remaining provisions of this Ordinance. It is hereby declared to be the legislative intent of the Board of County Commissioners that this Ordinance would have been adopted had such unconstitutional provisions not been included therein.

### **SECTION FOUR: CONFLICT**

Whenever the requirements or provisions of this Ordinance are in conflict with the requirements or provisions of any other lawfully adopted ordinance or statute, the most restrictive requirements shall apply.

### **SECTION FIVE: INCLUSION IN CODE, CODIFICATION, SCRIVENERS ERRORS**

It is the intention of the Board of County Commissioners that the provisions of this Ordinance shall become and be made a part of the Lee County Code; and that sections of this Ordinance may be renumbered or relettered and the word "ordinance" may be changed to "section," "article," or such other appropriate word or phrase in order to accomplish such intentions; and regardless of whether such inclusion in the Code is accomplished, Sections of this Ordinance may be renumbered or relettered, and the correction of typographical errors which do not affect the intent, may be authorized by the County Administrator, or his or her designee, without need of Public Hearing, by filling a corrected or recodified copy of same with the Clerk of the Circuit Court.

### **SECTION SIX: EFFECTIVE DATE**

This ordinance shall take effect on September 1, 1989.

The requirements and provisions of this Ordinance shall apply immediately upon the effective date of this Ordinance to all new activities regulated under this Ordinance in unincorporated Lee County. An existing activity is one for which a building permit or occupational license had been issued by the appropriate jurisdiction prior to the effective date of this Ordinance or for which a completed building permit or occupational license application had been filed and accepted with the appropriate department having jurisdiction over such matters prior to the effective date of this Ordinance. All other activities shall be deemed "new".

## **APPENDIX A**

### **CRITERIA FOR ESTABLISHING PROTECTION ZONES**

The Protection Zone maps have been developed based on steady state ground-water flow and transient contaminant transport to well/wells or wellfields regulated by this Ordinance that considers all, but not exclusively, the following factors:

- A. Mathematical solution considers three dimensional flow of a homogenous, incompressible fluid through a nonhomogeneous, anisotropic aquifer.
- B. Confined and/or unconfined aquifer flow conditions are applied as appropriate in layered aquifers calibrated to Lee County's hydro geologic conditions for steady state, regional flow.
- C. Area-specific values of hydrogeologic parameters including both horizontal and vertical hydraulic conductivity.
- D. Aquifer-specific values of contaminant transport parameters including longitudinal and transverse dispersivity coefficients, and effective porosity are used.
- E. Recharge from rainfall assigned to be zero to establish conservative calculations of the Protection Zones.
- F. Conservative contaminants that do not decay and do not absorb to the porous medium are assumed.
- G. Wellfield locations, and well locations within wellfields are specified.
- H. Wellfield pumping rates are assigned as the greater of the average annual rate permitted by SFWMD or the maximum historical average annual rate, but not more than the present estimated capacity.
- I. Pumpage is distributed among individual wells in a wellfield by prorating total pumpage based on the present estimated capacity of each well.
- J. Identification of travel time contours by determining distances where contamination would have been 6 months, 1 year, 5 and 10 years in the past if theoretical contamination appear in wells at the present. The travel time zones incorporate the influence of both the wellfield zone of influence due to pumping and the regional groundwater flow gradient.

The Protection Zones indicated on the Protection Zone maps are the planar geometric union of the largest of the Travel Time Protection Zones determined as follows:

A. Water Table (Surficial) Aquifer System:\*

1. Water Table 6-Months:

The land situated between existing public water supply well(s) and the 6-month Travel Time Contour.

**2. Water Table 1-Year:**

The land area situated between the well and the 1-year Travel Time Contour.

**3. Water Table 5-Year:**

The land area situated between the well and the 5-year Travel Time Contour.

**4. Water Table 10-Year:**

The land area situate between the well and the 10-year Travel Time Contour.

**B. Lower Tamiami (Surficial) Aquifer System:\***

**1. Lower Tamiami 1-Year:**

The land area situated between existing public water supply well(s) and the 1-year Travel Time Contour.

**2. Lower Tamiami 5-Year:**

The land area situated between the well and the 5-year Travel Time Contour.

**3. Lower Tamiami 10-Year:**

The land area situated between the well and the 10-year Travel Time Contour.

**C. Sandstone (Intermediate) Aquifer System: \***

**1. Sandstone 1-Year:**

The land area situated between existing public water supply well(s) and the 1-year Travel Time Contour.

**2. Sandstone 5-Year:**

The land area situated between the well and the 5-year Travel Time Contour.

**3. Sandstone 10-Year:**

The land area situated between the well and the 10-year Travel Time Contour.

**D. Mid Hawthorne (Intermediate) Aquifer System: \***

**1. Mid Hawthorne 10-Year:**

The land situated between existing public water supply well(s) and the 10-year travel time contour.

\* The aquifers referenced in this Ordinance are identical to those listed in the "Final Report,

Wellfield Protection Modeling, Lee County, Florida," Camp Dresser & McKee, Inc.,  
November 1987.

## **APPENDIX B**

### **"BEST MANAGEMENT PRACTICES" FOR THE CONSTRUCTION INDUSTRY**

- A. The general contractor, or if none, the property owner, shall be responsible for assuring that each contractor or subcontractor evaluates each site before construction is initiated to determine if any site conditions may pose particular problems for the handling of any regulated substances. For instance, handling regulated substances in the proximity of water bodies or wetlands may be improper.
- B. If any regulated substances are stored on the construction site during the construction process, they shall be stored in a location and manner which will minimize any possible risk of release to the environment. Any storage container of 55 gallons, or 440 pounds, or more containing regulated substances shall have constructed below them an impervious containment system constructed of material of sufficient thickness, density and composition that will prevent the discharge to the land, groundwaters, or surface waters of any pollutant which may emanate from said storage tank or tanks. Each containment system shall be able to contain 150% of the contents of all storage containers above the containment system.
- C. Each contractor shall familiarize himself with the manufacturer's safety data sheet supplied with each material containing a regulated substance and shall be familiar with procedures required to contain and clean up any releases of the regulated substance. Any tools or equipment necessary to accomplish same shall be available in case of a release.
- D. Upon completion of construction, all unused and waste regulated substances and containment systems shall be removed from the construction site by the responsible contractor and shall be disposed of in a proper manner as prescribed by law.

**MANATEE COUNTY LAND DEVELOPMENT CODE**  
**Sec. 720**  
**Groundwater/Wellhead Protection**

**SECTION 720: GROUNDWATER/WELLHEAD PROTECTION**

**720.1**        **PURPOSE.** The purpose of groundwater protection standards is to safeguard the health, safety, and welfare of the citizens of the County. This is accomplished through ensuring the protection of the principal source of water for domestic, availability of adequate and dependable supplies of good water is of primary importance to the future of Manatee County. 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 wellheads to protect water supplies from potential contamination.

**720.2**        **Standards**

**720.2.1**        All applications for development approval must specify whether major groundwater wells (those with permitted capacity of 100,000 GPD or greater) will be required to service the development. When major wells are to be required, the project applicant shall demonstrate that:

**720.2.1.1**        there will be no significant adverse impact on minimum groundwater levels, and

**720.2.1.2**        there will be no significant adverse impact from saltwater intrusion, and

**720.2.1.3**        requirements of this Code will have no adverse impact on existing land uses in the vicinity.

**720.2.2**        Wherever adverse groundwater withdrawal impacts have been identified through water quality monitoring activities, all development approvals for activities which require the use of groundwater wells shall be coordinated with the Southwest Florida Water Management District and the Manatee County Pollution Control Unit.

**720.2.3**        All site plans which accompany applications for development approval shall depict the location of all active and inactive wells. Where there are existing inactive wells, the development approvals shall be conditioned upon the submission of a management plan which provides for the proper abandonment of existing unused wells, in conformance with requirements of Manatee County Health Department and the Southwest Florida Water Management District.

**720.2.4**        Within areas of the County designated in the Comprehensive Plan as primary or secondary recharge areas or as wellhead locations, all proposed development shall prepare and submit with Groundwater/Wellhead Impact report. The purpose of this report is to provide evidence of the probable impact of the proposed development on the groundwater supply and recharge potential of the area and existing or designated wellhead



locations. The report shall meet the following requirements:

- 720.2.4.1 The area within two hundred fifty (250) feet of an existing or designated wellhead shall be a zone of exclusion, where no new development shall be permitted.
- 720.2.4.2 Within a designated zone of secondary exclusion, extending two thousand (2,000) feet from a designated wellhead, the following shall be prohibited:
  - 720.2.4.2.1 Landfills.
  - 720.2.4.2.2 Facilities for the bulk storage, handling or processing of materials on the Florida Substance List (Chapter 422, Florida Statutes).
  - 720.2.4.2.3 Activities which require the storage, use, handling, production, or transportation of restricted substance; agricultural chemical, petroleum products, hazardous/toxic wastes, industrial chemicals, medical wastes, etc. Wellhead emergency generator requirements are exempted, but require the highest level of engineering standards covering petroleum product storage and delivery.
  - 720.2.4.2.4 Feedlots or other concentrated animal facilities.
  - 720.2.4.2.5 Wastewater treatment plants, percolation ponds, and similar facilities.
- 720.2.4.3 Stormwater management practices shall not include drainage wells and sinkholes for stormwater disposal where recharge is into potable water aquifers. Where development is proposed in areas with existing wells, these wells shall be abandoned, including adequate sealing and plugging according to Chapter 17-28, F.A.C. The impact report shall clearly indicate that the proposed stormwater disposal methods meet these requirements.
- 720.2.5 A wellhead protection area is hereby established around major wellheads as defined in section 201 of this Code. This area is based upon the calculated 5-year travel time distance. Uses listed below may be allowed in this area, subject to receipt of major conditional use approval from the Board.:
  - 720.2.5.1 Sanitary Landfills;
  - 720.2.5.2 Wastewater Treatment Facilities;
  - 720.2.5.3 Commercial or industrial uses of materials covered under Chapter 442, F.S. (Florida Substance List) and Chapter 38F-41, F.A.C., unless served by approved wastewater treatment facilities;
  - 720.2.5.4 Junkyard or salvage operations;

- 720.2.5.5      Mines;**
- 720.2.5.6      Facilities for bulk storage, handling or processing of materials on the Florida Substance List;**
- 720.2.5.7      Transportation facilities including railroads, arterial and collector roads, and pipelines, which may be used to transport hazardous wastes, pollutants or contaminants;**
- 720.2.5.8      Excavation of waterways or drainage facilities which intersect the water table.**

## MODEL LOCAL GROUNDWATER PROTECTION ORDINANCE

### Title 5: Livestock Waste

#### Minnesota Project

Preston, Minn.

(1984)

#### Section 1: Findings and Declaration of Policy

The \_\_\_\_\_ County Board finds that \_\_\_\_\_ County relies on a clean supply of subsurface water to foster and promote human health and welfare and the economic and social development of the county. The soils, topography, and geology of the county are such as to lead to potential pollution of the subsurface water supply from pollution from livestock feedlots and/or manure storage facilities.

Therefore, it is declared to be the policy of \_\_\_\_\_ County to promote, preserve, and enhance the quality of the subsurface water in the county to protect human health and welfare.

These provisions are adopted for the purpose of halting the travel of pollutants to the subsurface water supply through livestock feedlots and/or manure storage facilities.

#### Comment

The purpose of Section 1 is to establish the basic rationale and legal basis for adopting this ordinance by setting forth the findings, policy, and purpose for adopting this ordinance.

#### Section 2: Definitions

When used in this ordinance the following terms have the meanings given to them.

- A. **Animal Feedlot** - A lot or building or combination of lots and buildings intended for the confined feeding, breeding, raising, or holding of animals and specifically designed as a confinement area in which manure may accumulate, or where the concentration of animals is such that a vegetative cover cannot be maintained within the enclosure. For purposes of these rules, open lots used for the feeding and rearing of poultry (poultry ranges) shall be considered to be animal feedlots. Pastures shall not be considered animal feedlots under these rules.
- B. **Animal Unit** - A unit of measure used to compare differences in the production of animal wastes that has as a standard the amount of water produced on a regular basis by a slaughter steer or heifer. For purposes of these regulations, the following equivalents apply:

	<u>Animal Units</u>
Horse	1
Slaughter steer or heifer	1
Mature dairy cow	1.4
Swine over 55 pounds	.4
Swine under 55 pounds	.1
Sheep	.1

Turkey	.018
Chicken	.01
Duck	.02
Other Animals	As may be determined by the county board

- C. **Aquifer** - A geologic unit capable of yielding usable amounts of water.
- D. **County** - \_\_\_\_\_ County Board of Commissioners.
- E. **County Feedlot Control Officer** - A county employee or officer who is knowledgeable in agriculture and who is designated by the county board to receive and process animal feedlot permit applications.
- F. **Owner of Land or Landowner** - Any person who holds title to, or is in possession of, any land lying within the county, whether as owner, lessee, renter, tenant, or otherwise.
- G. **Manure Storage Area** - An area associated with an animal feedlot where animal manure or runoff containing animal manure is stored until it can be utilized as domestic fertilizer or removed to a permitted animal manure disposal site. Animal manure packs or mounding within the animal feedlot shall not be considered to be manure storage for these regulations.
- H. **Pastures** - Areas where grass or other growing plants are used for grazing and where the concentration of animals is such that a vegetative cover is maintained during the growing season except in the immediate vicinity of temporary supplemental feeding or watering devices.
- I. **Person** - Any natural person, any state, municipality, or other governmental or other political subdivision or other public agency or instrumentality, any public or private corporation, any partnership, firm, association, or other organization, any receiver, trustee, assignee, agent, foregoing, and any other entity.
- J. **Pollutants** - Anything that, when introduced into water, alters the chemical, physical, biological, or radiological properties of water.
- K. **Sinkhole** - A surface depression that is connected to a cavernous bedrock by a channel or collapse of the overlying formation.
- L. **Subsurface Water** - Any water below the surface of the ground, including but not limited to water in the saturated and unsaturated zones.
- M. **Violator** - Any person who is determined by the county to be in violation of this ordinance.

#### **Comment**

Section 2 Definitions is necessary to define and clarify some of the terms used in this ordinance and related to confined feedlots. Several references are made to state legislation regulating animal feedlots. [Note: In Florida, the relevant administrative rule is Ch. 17-670, F.A.C.]

**Section 3: Permit and Permit Fees**

- A. Any person who owns, maintains, or operates an animal feedlot of more than \_\_\_\_\_ animal units shall obtain a permit from the county. A permit shall also be required to operate a manure storage area. If the manure storage area is part of the animal feedlot area, only one permit shall be required. However, both Sections 4 and 5 shall be applicable to the facility. The term of the permit shall be for five (5) years and is nontransferable.
- B. Each permit application shall be accompanied by a permit fee, the amount of which shall be established by the \_\_\_\_\_ County Board.
- C. The permit application shall contain the following data:
  - 1. A map indicating the location of the animal feedlot or manure storage area and the surrounding area within one-half (1/2) mile of the site showing:
    - a. General topography;
    - b. Survey boundaries and dimensions of the manure storage area or facility;
    - c. Natural streams, springs, sinkholes, swamps, mines, quarries, pits, and other natural and man-made features relevant to groundwater quality;
    - d. Roads, pipelines, and power lines;
    - e. Existing wells, test wells, excavations, monitoring wells, and other monitoring and test sites;
  - 2. A generalized geologic and hydrologic description of the site.
  - 3. A description of methods of construction and maintenance of the animal feedlot or manure storage facility.
  - 4. A description of the types and quantities of waste and the methods of handling the waste.
- D. Samples of groundwater in a number prescribed by the County Feedlot Control Officer shall be collected for background information at the proposed livestock waste facility site and chemically analyzed by the laboratory certified by the County Feedlot Control Officer. The analysis shall include, but not be limited to, identification of specific elements, chemicals, and compounds that are present or presumed to be present in the material to be stored in this livestock waste facility.
- E. The county may deny any permit application or renewal, or suspend or revoke any permit for violation of this ordinance by the applicant or permittee. If an application for a permit or permit renewal is denied, or if a permit is suspended or revoked, notice of such shall be sent by mail to the applicant or permittee. The notice shall state the reasons for denial, suspension, or revocation, state the steps to be taken by the applicant in order to secure approval or reinstatement, and inform the applicant of the applicant's or permittee's right to appeal pursuant to

## **Section 5.**

### **Comment**

This section sets forth the permit application requirements for animal feedlots and manure storage areas. The critical factor for this ordinance will be deciding what size of feedlot operation will be required to obtain the permit. The County Board will determine this by a threshold number of animals units. (Animal units are defined by Minnesota Pollution Control Agency.) Setting the threshold size will not be easy because it is not just the large commercial feedlots that cause pollution problems. Even small feedlots can pollute groundwater with livestock waste if improperly sited, designed, and managed. The application must contain information about the site, the animal facility, and waste management. Groundwater samples may be required, normally to be taken from existing water wells nearby. The process for permit denial or revocation is outlined.

## **Section 4: Animal Feedlot and Manure Storage Area Standards**

- A. The following general standards shall be applicable to animal feedlot areas:
1. No animal feedlot area shall be located within a floodplain or shoreland, or within one hundred (100) feet of a sinkhole, a naturally occurring body of water, or a well used for domestic or municipal purposes.
  2. All animal feedlot areas shall be designed to restrict infiltration or other movement of livestock wastes to the aquifer.
  3. Where practical, the landowner shall maintain a relatively impermeable surface for the floor of an animal feedlot area to minimize infiltration. The landowner, in consultation with the County Feedlot Control Officer, shall determine the type of surface that is appropriate.
  4. Animal feedlot areas shall have adequate surface drainage to prevent the accumulation of surface water in the area. The landowner shall construct embankments to prevent or significantly retard surface runoff into or out of the animal feedlot area. The inner side and upper surface of the embankment shall be lined with an impermeable substance. The animal feedlot shall not drain directly to a sinkhole or naturally occurring body of water.
  5. Waste materials removed from animal feedlot areas shall be disposed of or stockpiled pursuant to Section 5 of this ordinance.
- B. The following standards shall be applicable to manure storage areas. No manure storage permit shall be issued:
1. Where operation of the manure storage facility will increase naturally existing chemical levels in subsurface water;
  2. Where the County Board determines the information supplied in the permit application indicates any hazard to the public safety;

3. Where a holding pond or sewage lagoon is proposed for the permanent or unreasonably long storage of liquid, semi-liquid, or water-soluble solid material;
  4. Where the proposed manure storage facility will be used for the storage of water-soluble materials, unless the livestock waste facility is properly lined with a leak-proof material, or the leachate is collected and treated in a manner to meet the conditions of the permit;
  5. Where the proposed manure storage facility is within a flood plain.
- C. Following abandonment of the manure storage facility:
1. If the manure storage facility consists of a waste-holding pond, collection sump, or lagoon, the permit holder shall remove the facility and fill the excavation with compacted fill material approved by the County Feedlot Control Officer. The permit holder shall construct a drainage system, such as ditches or drainage tiles, surrounding the abandoned manure storage facility. The drainage system shall be constructed in such a manner that surface runoff will not flow through the site nor flow to adjacent drainage systems;
  2. If the manure storage facility consists of a waste pile or stockpile, the permit holder shall cover the site with compacted clay and topsoil, and see and properly drain the site.

#### **Comment**

This section sets forth the standards and requirements for animal feedlots and manure storage areas. If the feedlot and manure storage facility are part of the same area or facility, only one permit is required but the standards of both sections A and B are applicable. Also note that the standards in Section C also include procedures for dealing with abandoned manure storage areas.

#### **Section 5: Land Application of Animal Manure**

- A. Any permitted animal feedlot or manure storage area must have a manure management plan developed by either the Soil Conservation Service or Agriculture Extension Service. No person shall apply animal manure to land at rates greater than the uptake rates for plant phosphorus, potassium, or nitrogen, unless approved by the County Board after consultation with the Soil and Water Conservation District. The nutrient need for the crop to be grown shall be determined by soil testing, with credit given for contributions from preceding legumes and past animal manure applications. The amount of animal manure to meet this nutrient shall be calculated bases on the available nutrient content of the manure after it has undergone collection, storage, and treatment.
- B. The landowner should incorporate animal manure as soon as practicable after application. When irrigating manure, the land occupier should apply light applications that do not exceed the soil's capability to retain liquid.
- C. No person shall apply animal manure:

1. Within two hundred (200) feet of wells, disappearing streams and sinkholes; or on slopes greater than or equal to six percent within three hundred (300) feet of wells, disappearing streams, and sinkholes. However, this shall not apply if the animal manure is incorporated at the time of application:
2. In ponds, creeks, rivers, or floodplains;
3. On saturated solid, actively melting snow, or thawing ground on fields upslope from sinkholes, streams, and drainage ways;
4. On alfalfa fields or pasture land draining into sinkholes or disappearing streams;
5. On coarse sands and gravel that do not have fine clays or impermeable rocks underlying and separating the sands from limestone or local water tables;
6. On coarse to fine sands and loamy sands when the depth to the bedrock is less than 10 (ten) feet and on sandy loams when less than five (5) feet; and
7. On fields or portions of fields where the underlying limestone is less than two (2) feet deep.

#### **Comment**

This section deals with the procedures and standards for land application of the animal manure. The guiding policy is that manure is to be considered as a plant fertilizer, not a waste to be disposed of. In order to determine the uptake rates for the plants, the country will have to consult with soil scientists or district conservationists from the Soil and Water Conservation District.

#### **Section 6: Administrative Hearing**

- A. Any person wishing to appeal any action taken by the county pursuant to Section 3(F) may request a hearing. The appeal must be received by the county within thirty (30) calendar days, exclusive of the day of receipt of notice, after the person received notice of the action taken by the county. The request shall be in writing stating the grounds of the appeal. If a person fails to submit an appeal within the required time period, the person shall forfeit any opportunity for a hearing. The county shall schedule a hearing within thirty (30) calendar days of receipt of the notice of appeal and shall send to the appellant by mail notice of the hearing date, time, and location.
- B. The County Board shall have the power to conduct hearings pursuant to this section. If the appellant or his or her authorized representative fails to attend the hearing, the appellant shall forfeit any right to a hearing. The County Board shall send to the appellant by mail notice of the decision of the County Board within ninety (90) days after the closing of the hearing.



## **Comment**

Section 6 sets forth the procedures for appealing the decision by the county to deny or revoke an animal feedlot or manure storage permit.

## **Section 7: Enforcement**

### **A. Civil Enforcement**

1. Any person may submit to the county a verbal or written complaint alleging a violation of this ordinance.
2. Upon receipt of a complaint, the county shall conduct an investigation of the substance of the complaint.
3. Based upon a determination that there is a violation of this ordinance, the county shall conduct an informal reconciliation with the violator. As part of such informal reconciliation, the county shall:
  - a. Notify the violator by mail of the violation of this ordinance and a desire of the county to correct the violation through informal reconciliation. The statement shall also indicate that, should the violator refuse to follow the recommended corrective actions within the time set forth by the county, the county may take action to correct the violation and bill the violator for the costs of taking the corrective action.
  - b. Make a good faith effort to meet with the violator and resolve the correction of the violation.
4. If, after taking the steps above and after a period of ninety (90) days following the mailing of the notice of the violation, the county in good faith determines that the violator is unwilling to participate in informal reconciliation and take the corrective actions prescribed, the county shall notify the violator by mail of the termination of the informal reconciliation.
5. The county may take the corrective action prescribed above thirty (30) days after notifying violator by mail of the notice of termination of the informal reconciliation, and bill the violator for the reasonable cost of such action.

### **B. Criminal Enforcement**

In lieu of proceeding under Section 7A, a person who is alleged to have violated Sections 3 and 5 may be prosecuted for the commission of a crime. Violation of Sections 3 and 5 is a misdemeanor and may be punished by imprisonment of not more than ninety (90) days or imposition of a fine of not more than \$500, or both.

### **C. Injunctive Relief**

The county may institute appropriate actions or proceedings, including requesting injunctive relief to prevent, restrain, correct, or abate violations of this ordinance.

#### **Comment**

Section 7 sets forth the procedures for enforcing the ordinance and ensuring that violations of the ordinance are corrected. The ordinance provides for a process of informal reconciliation to work out a procedure to get the violator to correct any violations. However, if that process does not work and the violator refuses to take the corrective action specified by the county, the county can then, after a period of time has elapsed, take the corrective action and bill the violator for the costs of taking the corrective action.

#### **Section 8: Duties of the County**

In order to carry out the provisions of this ordinance, the county shall take the following actions upon passing the ordinance:

- A. Apply to the Minnesota Pollution Control Agency for authorization to act as an inspection agent of the commissioner to enforce the state animal feedlot provisions;
- B. Employ on a full-time or part-time basis at least one person who is deemed by the commissioner to be qualified to inspect animal feedlots and prescribe corrective and protective measures authorized by this ordinance;
- C. Disseminate information to landowners and occupiers on techniques to minimize the amount of pollutants that enter the subsurface water through animal feedlots and manure storage facilities;
- D. Randomly monitor compliance with this ordinance by visits to lands in the county for the purpose of observing the condition of animals feedlots and manure storage areas; and
- E. Prepare an annual report to the \_\_\_\_\_ County Board that includes information on the general status of animal feedlots, compliance with this ordinance, and recommendations for future county actions with respect to animal feedlots.

#### **Comment**

This section specifies certain administrative actions that the county must take in order to ensure that the ordinance is properly enforced.

**MODEL GROUNDWATER PROTECTION DISTRICT BYLAW/ORDINANCE**  
**Conservation Law Foundation of New England, Inc.**  
**(1984)**

**SECTION 1: Authority**

This bylaw/ordinance is adopted by the town/city of \_\_\_\_\_ under its home rule powers, its police powers to protect the public health, safety and welfare, and under powers authorized by Mass. Gen. Laws ch. 40A, as amended.

**SECTION 2: Purposes**

The purposes of this bylaw/ordinance are to protect public health from the contamination of existing and potential public and private water supplies and to protect the general welfare by preserving limited water supplies for present and future use.

**SECTION 3: Definitions**

- 3.1 "Animal feedlot" means a plot of land on which twenty-five or more livestock per acre are kept for the purposes of feeding.
- 3.2 "Aquifer" means a geologic formation, group of formations or part of a formation which contains sufficient saturated permeable material<sup>1</sup> to yield significant<sup>2</sup> quantities of potable groundwater to public or private wells.
- 3.3 "Disposal" means the deposit, injection, dumping, spilling, leaking, incineration or placing of any hazardous material into or on any land or water so that such hazardous material or any constituent thereof may enter the environment or be emitted into the air or discharged into any waters, including groundwater.
- 3.4 "Groundwater" means all the water beneath the surface of the ground.
- 3.5 "Hazardous materials" means any substance or combination of substances, not including any liquid petroleum product, that, because of quantity, concentration or physical, chemical or infectious characteristics, poses a significant present or potential hazard to water supplies or to human health if disposed of into or on any land or water in this town/city. Any substance deemed a "hazardous waste" in Mass. Gen. Laws ch. 21C shall also be deemed a hazardous material for purposes of this bylaw/ordinance.
- 3.6 "Impervious" means impenetrable by water.
- 3.7 "Leachable wastes" means waste materials, including solid wastes, sewage, sludge and agricultural wastes, that are capable of releasing water-borne contaminants to the surrounding environment.
- 3.8 "Mining of land" means the removal or relocation of geologic materials such as topsoil,

---

<sup>1</sup> A community may wish to broaden this definition to include bedrock aquifers.

<sup>2</sup> In lieu of this general term, a minimum numerical yield, in terms of gallons per minute, could be specified. For a municipal well, a minimum yield of approximately 100 g.p.m. would be required.

sand and gravel, metallic ores, and bedrock.

- 3.9 "Recharge area" means any area of porous, permeable geologic deposits, especially, but not exclusively, deposits of stratified sand and gravel, through which water from any source drains into an aquifer, and includes any wetland or body of surface water surrounded by or adjacent to such area, together with the watershed of any wetland or body of surface water adjacent to such area.<sup>3</sup>
- 3.10 "Solid wastes" means useless, unwanted or discarded solid materials with insufficient liquid content to be free flowing, including, for example, rubbish, garbage, scrap materials, junk, refuse, inert fill material and landscape refuse.

#### **SECTION 4: Delineation of groundwater protection district**

- 4.1 For the purpose of this bylaw/ordinance, there is hereby established within the town/city of \_\_\_\_\_ an overlay district consisting of certain groundwater protection areas, including aquifers and recharge areas,<sup>4</sup> which are delineated on a map dated \_\_\_\_\_, entitled "Groundwater Protection District, Town/City of \_\_\_\_\_" and which shall be considered as superimposed over other districts established by the zoning bylaws/ordinances of this town/city. This map, as it may be amended from time to time, is on file with the office of the town/city clerk, and, with any explanatory material thereon, is hereby made a part of this bylaw/ordinance.
- 4.2 Uses otherwise not permitted in the portions of a zoning district superimposed by this district shall not be permitted in this district.
- 4.3 Where the bounds of the Groundwater Protection District, as delineated on the Groundwater Protection District map, are in doubt or in dispute, the burden of proof shall be upon the owner(s) of the land in question to show where they should properly be located. At the request of the owner(s), the town/city may engage a professional hydrogeologist or soil scientist to determine more accurately the location and extent of an aquifer or recharge area and may charge the owner(s) for all or part of the cost of the investigation.

#### **SECTION 5: Permitted uses**

- 5.1 Within the Groundwater Protection District, the following uses are permitted, subject to the provisions of Section 6, provided that all necessary permits, orders and approvals required by local, state and federal law are also obtained:
- a. conservation of soil, water, plants and wildlife;

---

<sup>3</sup> It is important to protect such a watershed from contamination because of the risk of induced recharge into the aquifer from the adjacent body of surface water. It is also vital to maintain wetlands for their natural pollution abatement capacity.

<sup>4</sup> In municipalities that have little remaining open space or that overlie a single large aquifer, an alternative approach, of more limited scope, is to include in the Groundwater Protection District only the "zones of contribution" or "areas of influence" of existing municipal wells and of the sites of planned future wells.

- b. outdoor recreation, not involving the use of motor vehicles or motor boats, including boating, fishing, nature study and hunting where otherwise legally permitted;
- c. foot, bicycle and horse paths and bridges;
- d. maintenance and repair of any existing structure, provided there is no increase in impervious pavement;
- e. normal operation and maintenance of existing water bodies and dams, splash boards, and other water control, supply and conservation devices;
- f. residential development, permitted in the underlying district, provided that no more than 10 percent of a building lot (including the portion of any new street abutting the lot) is rendered impervious.<sup>5</sup>
- g. farming, gardening, nursery, conservation, forestry, harvesting and grazing uses, provided that fertilizers, herbicides, pesticides, manure and other leachable materials are not stored outdoors.<sup>6</sup>

#### **SECTION 6: Prohibited uses<sup>7</sup>**

**6.1 Within the Groundwater Protection District, the following uses are prohibited:**

- a. storage of liquid petroleum products of any kind except for storage in a free-standing container within a building of fuel for the heating of that building;<sup>8</sup>
- b. disposal of hazardous materials;
- c. storage of hazardous wastes, as defined in Mass. Gen. Laws ch. 21C, as amended;
- d. disposal of solid wastes other than brush or stumps;

---

<sup>5</sup> Communities should consider seriously adding a provision restricting the density of future residential development in the Groundwater Protection District to no more than one dwelling unit with on-site septic system per acre.

<sup>6</sup> Prohibition or regulation of the application of pesticides and herbicides should be considered. Local authority to regulate pesticide use is currently under review by the Massachusetts Supreme Judicial Court.

<sup>7</sup> Generally speaking, zoning bylaws cannot be applied retroactively to existing uses. See Mass. Gen. Laws ch. 40A, sec. 6, as amended.

<sup>8</sup> If the storage of petroleum products, especially underground storage, is to be permitted at all in the Groundwater Protection District, it should be allowed only by special permit and subject to special conditions recommended by the board of health or other local department exercising general regulatory authority over the underground storage of petroleum. See Section 4.5 of the Model Bylaw for Regulating Underground Petroleum Storage Tanks for a list of special conditions that may be required.

- e. disposal of leachable wastes except for subsurface waste disposal from one-family or two-family residential units;
- f. storage of road salt or other deicing chemicals;
- g. disposal of snow that contains deicing chemicals and that has been brought in from outside the District;
- h. industrial uses that discharge process wastewater on site;
- i. outdoor storage of fertilizers, herbicides and pesticides, and outdoor uncovered storage of manure;
- j. animal feedlots;
- k. dry cleaning establishments;
- l. boat and motor vehicle service, washing and repair establishments;
- m. junk and salvage yards;
- n. the rendering impervious of more than 10% of any lot; and
- o. mining of land except as incidental to a permitted use.

#### **SECTION 7: Special permit uses**

**7.1** The following uses, unless prohibited by a specific provision of Section 6, may be permitted by a special permit from the [Special Permit Authority],<sup>9</sup> under such conditions as the [SPA] may require:

- a. commercial and industrial activities permitted in the underlying district and involving the manufacture, storage, transportation or use of any hazardous material other than hazardous wastes as defined in Mass. Gen. Laws ch. 21C;<sup>10</sup>
- b. the application of pesticides for uses that are non-domestic and non-agricultural, provided that all necessary precautions shall be taken to prevent hazardous concentrations of pesticides in the water and on the land within the Groundwater Protection District as a result of such application, such precautions to include, but not to be limited to, erosion control techniques, the control of runoff water (or the use of pesticides having low solubility in water), the prevention of volatilization and redistribution of pesticides and the lateral displacement (i.e. winddrift) of pesticides; and

---

<sup>9</sup> The Special Permit Authority designated in this bylaw/ordinance may be the board of selectmen, city council, board of appeals, planning board or zoning administrator, as designated by the local zoning ordinance or bylaw. See Mass. Gen. Laws ch. 40A, sec. 1A, as amended.

<sup>10</sup> The bylaw/ordinance could also either prohibit any future commercial and industrial uses or require site plan review of any such use to prevent various forms of negative impact on the Groundwater Protection District, including not only contamination from hazardous materials but also compaction, siltation and loss of recharge.

- c. the application of fertilizers for uses that are non-domestic and non-agricultural provided that such application shall be made in a manner as to minimize adverse impacts on surface water and groundwater due to nutrient transport and deposition or sedimentation.

**7.2 Any application for a special permit shall be made, reviewed and acted upon in accordance with the following procedures:**

- a. Each application for a special permit shall be filed in writing with the [SPA] and shall contain a complete description of the proposed use, together with any supporting information and plans<sup>11</sup> which the [SPA] may require.
- b. The [SPA] shall refer copies of the application to the board of health, planning board, conservation commission and town/city engineer or department of public works, which shall review, either jointly or separately, the application and shall submit their recommendations to the [SPA].
- c. The [SPA] shall hold a public hearing on the application, in conformity with the provisions of Mass. Gen. Laws ch. 40A, within sixty-five days after filing of the application with the [SPA].
- d. After notice and public hearing, and after due consideration of the reports and recommendations of the local boards/departments, the [SPA] may grant such a special permit provided that it finds that the proposed use:
  - i. is in harmony with the purpose and intent of this bylaw/ordinance and will promote the purposes of the Groundwater Protection District;
  - ii. is appropriate to the natural topography, soils, and other characteristics of the site to be developed;
  - iii. will not, during construction or thereafter, have an adverse environmental impact on the aquifer or recharge area; and
  - iv. will not adversely affect an existing or potential water supply.

---

<sup>11</sup> If site plan review is required, the plan would be submitted, along with appropriate engineering data, to provide a basis for reviewing the impact of the proposed activity on the Groundwater Protection District.

# **MODEL INDIVIDUAL SEWAGE DISPOSAL FACILITY CONTROL ORDINANCE**

**Eastern Water Law Center  
Holland Law Center  
University of Florida  
(1978)**

## **SECTION ONE: GENERAL PROVISIONS**

### **Sec. 1.1    Problem Recognition.**

The (governing body) of (local unit) hereby recognizes the need to protect its surface and groundwaters from pollution by inadequately treated sewage. It is further recognized that large quantities of inadequately treated sewage are released from individual sewage disposal facilities as a result of the improper design, siting, construction, or maintenance of such facilities. Inadequately treated sewage endangers the health, safety, and welfare of the citizens of (local unit) and requires the expenditure of public funds to correct deficiencies.

#### **Commentary**

By identifying the problem to be solved, both the reasonableness of the exercise of regulatory authority and the intent of the local government is made clear.

### **Sec. 1.2    Objective.**

To protect the health, safety and welfare of the citizens of (local unit), to protect and maintain the chemical, physical and biological integrity of surface and ground waters in and adjacent to (local unit), and to reduce the expenditures of public funds, there is hereby established an individual sewage disposal facility control program which incorporates and supplements the minimum standards of Chapter 10D-6 of the Florida Administrative Code. This ordinance establishes minimum standards for the design, siting, construction and maintenance of individual sewage disposal facilities within (local unit).

#### **Commentary**

The language of this subsection is modeled after language in the Federal Water Pollution Control Act, P.L. 92-500. The statement of objective aids interpretation and guides discretion. Chapter 10D-6 is expressly incorporated so that an applicant clearly understands that all of its requirements remain applicable.

### **Sec. 1.3    Effective Date.**

This ordinance shall take effect on \_\_\_\_\_, 19\_\_\_\_.

### **Sec. 1.4    Scope**

All individual sewage disposal facilities within the jurisdiction of (local unit) shall be installed, modified, and maintained in accordance with the provisions of this ordinance. Where provisions of this ordinance require more stringent controls than comparable provisions in Chapter 10D-6 of the Florida Administrative Code, the provisions of this ordinance will apply.



### Commentary

Chapter 10D-6 is meant to establish minimum standards only. Where provisions of the Model Ordinance impose more stringent criteria for permit approval, they must be complied with before the local permit will be issued.

### **Sec. 1.5    When a Sewer Connection is Required.**

- (a) Every building in which plumbing fixtures are installed shall be connected to a public or private sewage collection system unless:
  - (1) no such system exists; or
  - (2) no such system is under construction and will be located within (#) feet of the building to be connected; or
  - (3) the additional wastewater that would be added to the sewage collection system by connecting the building would cause the total waste load entering the system to exceed the maximum waste load for which it was designed.
- (b) In no instance shall any individual sewage disposal facility be installed where the waste load to be received by that system exceeds (#) gallons per day.
- (c) When connection to a sewage collection system is not required by subsection 1.5(a), no wastewater may be discharged from the building in any manner other than into an individual sewage disposal facility pursuant to the provisions of this ordinance.

### Commentary

This subsection clarifies and elaborates on similar language in Rule 10D-6.21(6), Fla. Admin. Code (1978).

### **Sec. 1.6    Surface and Stormwater Disposal.**

Surface and stormwaters shall not be discharged into an individual sewage disposal facility nor in any manner which could interfere with the functioning of the facility.

### Commentary

Discharge of stormwater into an individual sewage disposal facility is likely to exceed its design capacity and would thus contribute to the malfunctioning of the system. This section is a modification of Maine Plumbing Code Part II, Sec. 4.4, Surface Water.

## **SECTION TWO: DEFINITIONS**

- (1) "Absorption Areas" -- total surface area of bottom of trenches used for absorption field.
- (2) "Absorption Field" -- a system of openjointed or perforated pipe or alternate distribution units of approved type to receive flow from septic tank and designed to distribute effluent for oxidation and absorption by the soil.

- (3) "Automatic Dosing Device" -- pumps or siphons which discharge a specific volume of wastewater into a disposal area.
- (4) "Domestic Water Supply" -- one or more sources of potable water, including facilities for conveyance thereof, such as wells, springs and pumps, on one property, other than those serving a municipality or a group of 10 or more premises of mixed ownership.
- (5) "Effluent" -- liquid flowing from a septic or treatment tank.
- (6) "Fill" -- a disturbed soil free of foreign debris which was brought in and placed over the original soil, ledge, low areas, etc. It is characterized by having no distinct horizons or color patterns, as found in naturally developed and undisturbed soils.
- (7) "Individual Sewage Disposal System" -- a privately owned and maintained system of sewage treatment and disposal facilities serving a single lot.
- (8) "Owner" -- the person in whom is vested the fee ownership, dominion, or title of property, the proprietor; this term may also include a tenant, if chargeable under his lease for the maintenance of the property, and any agent of the owner or tenant including a developer.
- (9) "Person" -- any individual firm, corporation, partnership, association or other private or governmental entity.
- (10) "Scum" -- a mass of sewage matter which flows on the surface of sewage.
- (11) "Septic Tank" -- watertight tank or receptacle used as a reservoir for receiving or disposing sewage wastes.
- (12) "Sewage" -- liquid or solid in suspension or solution, originating from toilets.
- (13) "Sludge" -- the accumulated settled solids deposited from sewage and containing more or less water to form a semi-liquid mass.
- (14) "Watercourses" -- any natural or artificial stream, river, creek channel, ditch, canal, conduit, culvert, drain, waterway, gully, ravine, street, roadway, or wash in which water flows in a definite direction or course, either continuously or intermittently, and which has a definite channel, bed or banks, and shall include any area adjacent thereto subject to inundation by reason of overflow or surface water.

#### Commentary

Many of the definitions have been taken from Rule 10D-6.22 Fla. Admin. Code. In addition, certain definitions have been adopted from L. Winneberger, Manual of Grey Water Treatment Practice 18 (1974); Wisconsin Adm. Code §62.02; and Maine Plumbing Code Part II, Subsurface Wastewater Disposal Regulations (1978).

### SECTION THREE: PERMITS FOR NEW FACILITIES

#### Sec. 3.1 Permit Requirement.

No person may obtain a building or plumbing permit from (local authority) unless that person obtains a sewage disposal permit.

**Sec. 3.2 Permit Application.**

Application for a sewage disposal permit shall be made to (local authority) on forms supplied by that office. Applications shall include:

- (a) the property owner's name and address;
- (b) the location of the property;
- (c) the existing or proposed location and size of the individual waste disposal facility;
- (d) a diagram drawn to scale which clearly indicates:
  - (1) the location of the proposed or existing individual waste disposal facility, property lines, structures and adjacent bodies of water.
  - (2) the location of any public or private water well inlets or water pipelines on the property described in the application or within (#) feet thereof.
  - (3) the groundwater level, represented by contour lines, for the wettest portion of the year.
  - (4) ground surface contours and slopes, showing direction and grade of all slopes.
  - (5) a soil profile identifying soil types to a depth of six (6) feet or the wet season water table, whichever is less, within any proposed absorption field(s) and extending (#) feet in all directions from the edges of the absorption area(s).
  - (6) any proposed or existing drainage features affecting the property described in the application, including offsite areas.
  - (7) any areas containing fill or covered with any impervious material and areas where fill or impervious surfacing is proposed.
- (e) A description of all existing or proposed sources of wastewater to be treated by the individual sewage disposal system(s) described in the application, including:
  - (1) sinks;
  - (2) toilets;
  - (3) tubs and/or showers;
  - (4) automatic dish or clothes washers; and
  - (5) garbage grinders and disposals.
- (f) Any percolation test results.
- (g) Any application fee of \$ \_\_\_\_\_.

### Commentary

The intent here is to require all of the data that are necessary to truly evaluate the application. Subpart (e) requires data not required by Ch. 10D-6 but which are important to evaluate the waste load that must be treated by the proposed system. Portions of this section have been adapted from the Maine Plumbing Code, Part II Sec. 3 (1978).

### Sec. 3.3 Issuance.

Upon satisfaction of all requirements of this ordinance, the (local authority) shall issue a sewage disposal permit to the person named in the application. The permit shall include on its face the date of issuance and expiration, and shall state that the permit is non-transferable.

## SECTION FOUR: PERMIT APPLICATION EVALUATION

### Sec. 4.1 In General.

The suitability of the land or building for the use of an individual sewage treatment facility shall be determined from results of tests and investigations performed at the expense of the owner by a registered engineer and submitted to the (local authority) with an application for a sewage disposal permit.

A sewage disposal permit shall be granted only if all minimum standards established by this ordinance are met. In addition, a permit shall be issued only if, after evaluating the application, the (local authority) is assured that with reasonable maintenance the individual sewage disposal system will function in a sanitary manner, not create a nuisance, a health hazard or contribute to the pollution of surface or groundwaters.

### Sec. 4.2 Location and Installation.

(a) Individual sewage disposal facilities shall not be located:

- (1) within [100] feet of any private or public water supply well;
- (2) uphill or at a higher elevation than water supply wells when the land is sloped;
- (3) under or within [5] feet of any building;
- (4) under or within [10] feet of water supply pipelines;
- (5) within [5] feet of any property line;
- (6) within [50] feet of the high water line of lakes, streams, canals or other waters;
- (7) in filled areas, unless thoroughly and mechanically compacted or until allowed to settle for a period of at least [6] months;
- (8) in areas where the permanent, seasonal or fluctuating water table rises or is likely to rise to within (#) inches of the ground surface at any time;

- (9) in areas subject to flooding.

Commentary

This provision is nearly identical to Rule 10 D-6.24 et. seq. but is included here so that the local authority may impose stricter criteria than are required by the State. The bracketed numbers are provided to indicate what is currently required by Ch. 10D-6, Fla. Admin. Code (1978).

Sec. 4.3 Septic Tank Sizing Criteria.

- (a) For individual sewage disposal facilities which utilize a septic tank, the tank shall be of such size that wastewater entering the tank will be detained for at least (48) hours to insure sufficient anaerobic digestion and sedimentation of organic material.
- (b) The minimum acceptable size of any septic tank shall be determined by the (local authority) based upon the estimated peak waste load which will enter the septic tank. Factors to be considered in calculating the peak waste load shall include, but are not limited to:
  - (1) the number of persons to inhabit the dwelling described in the application;
  - (2) the number of bedrooms;
  - (3) the number, and operation specifications of wastewater-producing appliances and other wastewater sources described in the application, including:
    - (i) toilets and sinks,
    - (ii) tubs and/or showers,
    - (iii) automatic dish and cloths washers,
    - (iv) garbage grinders and disposals.
- (c) If it is determined by the (local authority) that one septic tank will not be adequate to insure sufficient anaerobic digestion and sedimentation of organic material because of the number and types of wastewater-producing appliances that are to be operated in the dwelling described in the application, the (local authority) shall require the installation of two separate tanks.
- (d) In no instance shall the minimum septic tank volume be less than [750] gallons.

Commentary

Rule 10D-6.26(2)(a) provides that the number of bedrooms in a building will be the controlling factor in a determination of the proper size for the septic tank. The Model Ordinance makes this factor only one of three to be considered. A more accurate estimate of wasteload is therefore possible. Subsection 4.3 (c) incorporates the current practices of the Alachua County Health Department, Gainesville, Florida, which have been

proven effective to prevent overloading and malfunctioning of individual disposal facilities. When two septic tanks are utilized, wastewater sources can be connected in a manner which facilitates effective anaerobic digestion. Kitchen and clothes washer effluent, for example, can be routed to one tank and sanitary waste to another.

**Sec. 4.4     Absorption Field Sizing Criteria.**

- (a) For individual sewage disposal facilities which utilize an absorption field, the field shall be of such size that wastewater entering the field will receive the degree of waste stabilization that will insure it will be rendered harmless to human health and safety, not create a nuisance, and not contribute to the pollution of surface or groundwaters.
- (b) The minimum acceptable size of any absorption field shall be determined by the (local authority) based upon the following factors:
  - (1) criteria listed in Sec. 4.3(b) (1), (2), & (3);
  - (2) soil characteristics of the area designated in the permit application, including:
    - (i) soil types;
    - (ii) percolation rate;
    - (iii) ground slope degree & direction.
- (c) In no instance shall the minimum absorption field be less than (#) square feet.
- (d) Automatic dosing devices shall be installed in absorption fields which exceed 1000 square feet in area, such that septic tank effluent is delivered in a uniform manner over the entire absorption field in a pulse as opposed to a continuous flow.

**Commentary**

This subsection begins by making clear the objective of the absorption field sizing procedure. Dosing devices significantly enhance the effectiveness and operational life of the facility by avoiding overloading near the discharge point and thus make better use of the entire absorption field. Again, Ch. 10D-6 information requirements are supplemented to facilitate review of the application. The information regarding soil characteristics and absorption field sizing was adapted from the Maine Plumbing Code, Sec. 1 (1978).

**SECTION FIVE: PERMITS FOR EXISTING FACILITIES**

**Sec. 5.1     Initial Notification.**

- (a) The owner of any property upon which there already exists an individual sewage disposal facility, as of the effective date of this ordinance, is required to make application for a sewage disposal permit within (#) days from the date of notification by the (local unit) that a permit is required for the continued operation of the facility.

- (b) Notification shall be made by registered mail to the person whose name appears on the current tax roles as the owner of the property upon which the individual sewage disposal facility is located. Notification shall include an explanatory letter and a sewage disposal permit application form.
- (c) An application for a sewage disposal permit for the existing facility shall be made in accordance with Section Three of this ordinance.

Commentary

The balance of the Model Ordinance is not covered by Ch.10D-6 because the state regulations control installation only—not maintenance. Because it may not be practicable or feasible to make all existing individual sewage disposal facilities immediately subject to this Model Ordinance, the local authority could determine which areas are in greatest need of immediate regulation to prevent environmental degradation and danger to the public health. Implementation could then be undertaken step-by-step on a pre-determined time schedule until all individual sewage disposal facilities are subject to regulation under the Ordinance. The Model for Section Five was adapted from J. Gamble, O&M Costs of Wastewater Treatment Plants, in Less Costly Wastewater Treatment Systems for Small Communities at 39 (April, 1977).

Sec. 5.2 Inspection.

- (a) Within (#) days of receiving an application for a sewage disposal permit pursuant to subsection 5.1, personnel approved by (local authority) shall conduct a physical inspection of the individual sewage disposal facility described in the application.
- (b) A sewage disposal permit shall not be issued for an existing facility without the inspection certificate described in Section Seven of this ordinance.

Commentary

Unlike the inspection which must be made in conjunction with a proposed facility, this inspection is to determine whether the existing system is functioning properly under actual user conditions.

**SECTION SIX: PERMIT VALIDITY**

Sec. 6.1 Period of Validity.

A sewage disposal permit issued pursuant to this ordinance shall be valid for a period of (2) years from the date of issuance, except that all permits shall remain revocable by the (local authority) upon reasonable notice to the holder and opportunity to be heard. A permit may be revoked only when the individual sewage disposal system no longer meets the minimum standards contained in this ordinance.

Commentary

Expiration of the permit after two years allows for re-inspection of the disposal system before it can be expected to begin malfunctioning. This is a distinct advantage of the Model Ordinance over the Ch. 10D-6 program which provides no controls after installation. The two year period was chosen from J. Winneberger, Manual of Grey Water Treatment Practice 41 (1974).

**Sec. 6.2     Transfer of Property Affecting Validity of Permit.**

- (a)     When property upon which is located an individual sewage treatment facility is sold, devised, conveyed or title is otherwise transferred, the new owner must notify the (local authority) within (#) days of the date of transfer and such notification shall include the information required by subsection 4.3 (b).
- (b)     If the (local authority) determines that no alteration of the existing individual sewage disposal facility is required to ensure its proper functioning, a sewage disposal permit shall be issued to the new owner for the duration of the period for which the previous permit was issued.
- (c)     If the (local authority) determines that an alteration of the existing facility may be required due to increased peak loads that will enter the system, an inspection shall be conducted to ascertain what alterations are required before a sewage disposal permit will be issued and the new owner will be notified pursuant to subsection 7.2 of the required changes.
- (d)     A sewage disposal permit shall not be issued pursuant to this subsection without the inspection certificate described in Section Seven.

**Commentary**

This requirement is intended to account for changed conditions which are brought about by new ownership. The new owner's family may be larger and may use many more wastewater-producing appliances. Such changed conditions may require a change in the sewage disposal facility to prevent malfunctioning. It is also intended that the owner be responsible for the disposal facility and, therefore, new owners must receive a sewage disposal permit in their own names. This section was adapted from J. Gamble, O&M Costs of Wastewater Treatment Plants, in Less Costly Wastewater Treatment Systems for Small Communities at 40 (April, 1977).

**SECTION SEVEN: INSPECTION CERTIFICATION**

**Sec. 7.1     Requirement Generally.**

- (a)     An inspection certificate is required before issuance of a sewage disposal permit when:
  - (1)     an individual sewage disposal facility already exists on the effective date of this ordinance and a sewage disposal permit is required in accordance with subsection 5.2; or
  - (2)     the previous sewage disposal permit has expired in accordance with subsection 6.1; or
  - (3)     title to the property upon which the individual sewage disposal facility is located has been transferred and changed circumstances require that the facility be modified pursuant to subsection 6.2(c).
- (b)     It is the property owner's duty to ensure that reasonable access to the facility is available to the inspector so that a proper inspection may be performed. Failure to



provide reasonable access shall constitute grounds for issuance of a deficiency notice in accordance with subsection 7.2.

- (c) The inspection certificate must be signed by an inspector approved by (local authority) and must contain the following statement:

"I certify that on the \_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_, I inspected the individual waste disposal facility owned by (name) and located at (address). Upon inspection, I have determined that:

\_\_\_\_\_ All sludge and scum was pumped out of the septic tank, except for an amount of sludge appropriate for a seed culture to assure the proper performance of the tank in the future.

\_\_\_\_\_ The volume of sludge and scum was such that pumping was not required.

\_\_\_\_\_ The absorption field area is functioning adequately.

\_\_\_\_\_ All other components of the facility are adequately maintained and working properly, and there is no recognizable present or potential danger to human health or the environment.

\_\_\_\_\_ The facility was deficient for the reason(s) explained below. I further certify that corrective measures have been taken as described below, and that the facility is now working properly."

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
Signature

#### Commentary

The inspection certificate is the key to the maintenance program. Through periodic inspection the potential pollution problems which arise from inadequately treated sewage entering surface and groundwaters can be substantially eliminated. Unlike the Ch. 10D-6 program which cannot control after-installation malfunctioning due to overloading, breakage, or any number of possible circumstances, the Model Ordinance inspection requirement for operating facilities can prevent these situations from occurring or continuing. The certificate insures that the inspector understands his responsibility and provides for a description of the action taken by him. The inspection certificate was modified from a model presented by J. Gamble, O&M Costs of Wastewater Treatment Plants, in Less Costly Wastewater Treatment Systems for Small Communities at 40 (April, 1977).

#### Sec. 7.2 Deficiency Notice.

- (a) If for any reason the individual sewage disposal facility does not appear to be

operating properly, so that an inspection certificate cannot be issued, the (local authority) shall issue a written deficiency notice to the applicant.

- (b) The notice shall describe the deficiency(ies) found and shall state clearly that a sewage disposal permit will not be issued until the deficiency(ies) are corrected. The notice shall also state with particularity what remedial action(s) must be taken before a permit will be issued.
- (c) Within (#) days of receiving a deficiency notice, an applicant may demand a hearing before the (local authority) for reconsideration of the matter. If upon review, the (local authority) decides that a deficiency notice is warranted as originally issued or as modified, a new deficiency notice will be issued to the applicant must comply with the requirements of subsection 7.3

### **Sec. 7.3 Reinspection.**

Within (#) days of receiving a deficiency notice, the applicant must apply to the (local authority) for reinspection of the facility, certifying that the deficiency(ies) have been corrected. A facility for which reapplication has not been made within (#) days will be declared a public nuisance and a public health hazard. Upon such a declaration, in order to protect the public health, safety and welfare, the (local authority) shall either cause to be performed appropriate corrective measures at the cost of the applicant, or assure that the deficient system receives zero waste load, either by condemnation of the premises as a threat to public health or by assuring that all wastewater sources formerly connected to the deficient system have been disconnected and connected to a separate, approved, and properly functioning waste collection and treatment system.

### **SECTION EIGHT: SEVERABILITY**

Each separate provision of this ordinance is deemed independent of all other provisions herein so that if any provisions of this ordinance be declared invalid, all other provisions thereof shall remain valid and enforceable.

**MODEL BYLAW/ORDINANCE FOR REGULATING  
UNDERGROUND HAZARDOUS MATERIAL STORAGE**  
Conservation Law Foundation of New England, Inc.  
(1984)

**Section 1: Authority**

This bylaw/ordinance is adopted by the town/city of \_\_\_\_\_ under its home rule powers, its police powers to protect the public health, safety and welfare, and under powers authorized by Mass. Gen. Laws ch. 40, sec 21 and ch. 148, sec. 9.

**Section 2: Purposes**

The purposes of this bylaw/ordinance are, through regulation of the design, construction, installation, testing and maintenance of underground hazardous material storage facilities, to protect public health from the contamination of public and private water supplies due to leakage from such facilities, to protect the public safety from the dangers of fire and explosion associated with such leakage, and to protect the general welfare by preserving limited water supplies for present and future use.

**Section 3: Definitions**

- 3.1 "Abandoned" means being out of service for a continuous period in excess of six months, in the case of a storage facility for which a license from the local licensing authority is required under the provisions of Mass. Gen. Laws ch. 148, sec. 13, as amended, and for a period in excess of twenty-four months, in the case of any other storage facility.
- 3.2 "Cathodic protection" means a system that inhibits the corrosion of a tank or components through either the sacrificial anode or the impressed current method of creating a corrosion-inhibiting electrical current.
- 3.3 "Components" means piping, pumps and other related storage, conveyancing and dispensing elements that, together with one or more tanks and any cathodic protection or monitoring system, constitute a storage facility.
- 3.4 "Effective date" means the date on which the bylaw is approved by a town meeting, provided the bylaw thereafter becomes effective under the provisions of Mass. Gen. Laws ch. 40, sec.32, as amended; or the date on which the ordinance receives final city council approval in accordance with Mass. Gen. Laws ch. 43, sec. 23.
- 3.5 "Hazardous material" means any liquid substance which, because of its quantity, concentration, or its chemical, corrosive, flammable, reactive, toxic, infectious or radioactive characteristics, either separately or in combination with any other substance or substances, constitutes a present or potential threat to human health, safety, welfare, or to the environment, when improperly stored, treated, transported, disposed of, used, or otherwise managed, including, but not limited to, any liquid petroleum product of any kind, and any combination or mixture that includes any liquid petroleum product of any kind.<sup>1</sup>
- 3.6 "Leakage" or "leak" means any uncontrolled movement, measurable by a final or precision

---

<sup>1</sup> For a list of materials constituting hazardous wastes, see 310 CMR 30.

test<sup>2</sup> that can accurately detect a leak of 0.05 gallons per hour or less, after adjustment for relevant variables such as temperature change and tank end deflection, of hazardous material out of a tank or its components; or any uncontrolled movement of water into a tank or its components.

- 3.7 "Monitoring system" means a system installed between the walls of double-walled tanks or inside a tank or in the vicinity of a tank for the purpose of early detection of leaks.
- 3.8 "Out of service" means not in use, in that no filling or withdrawal is occurring.
- 3.9 "Operator" means the lessee of a storage facility or the person or persons responsible for the daily operation of a storage facility.
- 3.10 "Owner" means the person or persons or governments entity having legal ownership of a storage facility.
- 3.11 "Storage facility" means one or more tanks, at a particular site, together with its or their components, used, or designed to be used, for the underground storage of hazardous material, and shall include any cathodic protection or monitoring system used, or designed to be used, for inhibiting or detecting leaks of hazardous material from any element of the facility.
- 3.12 "Tank" means any structure any part of which is used, or designed to be used, for the underground storage of any hazardous material.
- 3.13 "UL-listed" means included in a current list or report of approved equipment, materials or methods published by Underwriters Laboratories, Inc.
- 3.14 "Underground storage" means storage below ground level but shall not include storage in a freestanding container within a building.
- 3.15 "Water supply" means any existing or potential source of potable water, including both groundwater and surface water.

#### **Section 4: Permits**

##### **New storage facilities**

- 4.1 Subsequent to the effective date of this bylaw/ordinance, no storage facility shall be installed unless the owner shall have first obtained a permit from the board of health. This permit shall be in addition to any license or permit required by Mass. Gen. Laws ch. 148, as amended, or by any regulations issued thereunder. The fee for this permit, payable to the town/city of \_\_\_\_\_ shall be \_\_\_\_dollars.
- 4.2 The application for a permit shall be on a form<sup>3</sup> obtained from the board of health and shall include the following information and any other information that the board may require:

---

<sup>2</sup> The criteria for a final or precision test are described in NFPA 329, published by the National Fire Protection Association.

<sup>3</sup> See the attached model permit application form.

- a. name, address and telephone numbers (day and night) of the owner;
  - b. name, address and telephone numbers (day and night) of the operator;
  - c. the number of tanks in the proposed facility and the capacity of and the specific hazardous material to be stored in each proposed tank;
  - d. the proposed type of construction and material for each tank and its piping, together with the tank's UL serial number, if any, and a description of any provisions made for cathodic protection, electrical isolation, and early detection of leaks through a monitoring system;
  - e. the depth below ground level of the lowest and highest points of each proposed tank; and
  - f. a statement that the materials of each tank and its piping are guaranteed by their manufacturers to be compatible with the specific hazardous material that the applicant proposes to store in such tank.
- 4.3 In a storage facility with more than one proposed tank, the applicant shall furnish a certificate, signed by a qualified engineer, that the proposed facility meets all the design and construction requirements of this bylaw/ordinance.
- 4.4 The applicant shall also furnish a plot plan of the site and the area surrounding it, showing the location of each proposed tank and its components and of any building on the site, and showing the approximate location of any public or private well and of any body of surface water within 500 feet of the proposed storage facility.
- 4.5 If the board of health determines that the proposed storage facility constitutes a danger to a public or private water supply, whether by reason of its proximity to a public or private well, aquifer, recharge area, or body of surface water, or for any other reason, the board may deny the permit or may grant it subject to conditions which the board determines are necessary to protect such water supply.<sup>4</sup> The conditions may include, but are not limited to, such requirements as, for example, a double-walled tank or other secondary containment system, a monitoring system, testing at more frequent intervals than would otherwise be required under Section 8, or continuing statistical analysis of daily inventory records.<sup>5</sup>

---

<sup>4</sup> A community may wish to include in the bylaw/ordinance a provision specifically prohibiting installation of any new tank for the underground storage of heating oil or other hazardous materials with a flash point of 100 degrees Fahrenheit or more, or imposing special restrictions on such tanks, such as requiring double-walled tank construction or other secondary containment system. The public safety arguments for the underground storage of heating oil and other hazardous materials with relatively high flash points are significantly weaker than those for the underground storage of gasoline and other highly flammable materials.

<sup>5</sup> A community may wish to provide for a right of appeal to the board of selectmen or city council from a decision of the board of health under this subsection.

### Existing storage facilities

- 4.6 The owner of every storage facility that has been installed prior to the effective date of this bylaw/ordinance shall apply to the board of health, within six months of the effective date of this bylaw/ordinance, for a permit to maintain the storage facility.<sup>6</sup> Application shall be made on a form obtained from the board of health and shall include, to the extent available to the owner, the following information:
- a. name, address and telephone numbers (day and night) of the owner;
  - b. name, address and telephone numbers (day and night) of the operator;
  - c. the number of tanks in the facility and the capacity of and the specific hazardous material stored in each tank;
  - d. the type of construction and material for each tank and its piping, together with a description of any provisions made for cathodic protection, electrical isolation, and early detection of leaks through a monitoring system;
  - e. the depth below ground level of the lowest and highest points of the tank;
  - f. the date of installation of the tank; and
  - g. a description of any previous leaks, including approximate dates, causes, estimated amounts, any cleanup measures taken, and any measures taken to prevent future leaks.
- 4.7 The owner shall also furnish evidence of the date of installation. Such evidence may include, but is not limited to, a copy of any license by the local licensing authority or of any permit issued by the head of the local fire department (hereinafter, the fire chief). If no substantial evidence of date of installation is supplied, the tank shall be presumed to have been installed twenty years prior to the effective date of this bylaw/ordinance.
- 4.8 The applicant shall also furnish a plot plan of the site and of the area surrounding it, showing the approximate location of each tank and its components and of any public or private well and of any body of surface water within 500 feet of the storage facility.<sup>7</sup>

---

<sup>6</sup> A community may wish to include in the bylaw/ordinance a provision authorizing the board of health to impose conditions on a permit for any existing storage facility upon determining that the storage facility constitutes a danger to a public or private water supply. Appropriate conditions for existing storage facilities might include cathodic protection, line leak detectors, a monitoring system, more frequent testing than would otherwise be required or continuing statistical analysis of daily inventory records. The provision could include a right of appeal to the board of selectmen or city council from the board of health's decision.

<sup>7</sup> In order to achieve full compliance with the permit requirements for existing tanks, a community may wish to add a provision prohibiting supply of hazardous material to any tank from which a permit has not been obtained. A metal identification tag affixed to the fill opening of each tank could provide evidence that a permit has been obtained.

#### Replacement and substantial modification

- 4.9 The term "substantial modification" shall mean any change in the specific hazardous material to be stored in any tank at a storage facility or the installation of any addition to, or change in, a storage facility that alters its onsite storage capacity, significantly alters its physical configuration, or alters its capacity to inhibit or detect leaks through the use of cathodic protection or a monitoring system or any similar device.
- 4.10 There shall be no replacement of a tank or of its components or substantial modification of any storage facility unless the owner has first applied for and obtained approval in writing from the board of health. The board shall keep a copy of its approval with the records for that storage facility.
- 4.11 Any application for approval under Subsection 4.10 shall be in writing and shall clearly describe the type of construction and material of any replacement tank or component or the modification that is proposed.
- 4.12 Any application to add cathodic protection to an existing storage facility using one or more steel tanks shall be accompanied by a design plan prepared by an engineer licensed by the National Association of Corrosion Engineers, the plan to include provisions for a test box to allow measurement of electrical potential and current flow.
- 4.13 If the board of health determines that the proposed replacement<sup>8</sup> or modification constitutes a danger to a public or private water supply, whether by reason of its proximity to any public or private well, aquifer, recharge area or body of surface water, or for any other reason, the board of health may deny the application or approve it subject to conditions that the board determines are necessary to protect such public or private water supply.<sup>9</sup>
- 4.14 No replacement or substantial modification shall be made except by a contractor who has either been licensed by state authorities for work on underground storage facilities or has been certified by the manufacturer or a storage equipment association as qualified for that purpose.<sup>10</sup>

#### Renewal of permits and changes of ownership

- 4.15 The owner of any new or existing storage facility for which a permit has been issued under this section must apply to the board of health for a renewal of the permit at five year intervals from the date on which the original permit was granted. The fee for renewal of such permit, payable to the town/city of \_\_\_\_\_ shall be \_\_\_\_\_ dollars. The application for renewal must include any changes in the information required under Subsections 4.2 and 4.6. No application for renewal may be denied except for violations of this bylaw/ordinance and in accordance with the procedural requirements of Subsection

---

<sup>8</sup> There may be instances in which replacement of one tank or its piping in a multi-tank facility may increase the danger of leakage at the facility.

<sup>9</sup> A community may wish to provide for a right of appeal to the board of selectmen or city council from a decision of the board of health under this subsection.

<sup>10</sup> State licensing, although preferable to certification by the manufacturer, is currently not provided for under Massachusetts state law.

11.2.<sup>11</sup>

- 4.16 The owner of any storage facility shall within two working days notify the board of health of any change in the name, address or telephone numbers of the owner or of the operator. In the case of any transfer of ownership, the new owner shall be responsible for notification.

#### **Section 5: Design and Construction**

- 5.1 All new and replacement tanks shall be designed and constructed to minimize the risk of corrosion and leakage, and their materials shall be guaranteed by the tank manufacturer to be compatible with the hazardous materials designated by the owner in the permit application required under Subsection 4.2 or under Subsection 4.6 or in an application filed under Subsection 4.10. Only the following tank construction systems shall be approved:
- a. UL-listed fiberglass reinforced plastic (FRP) tanks;
  - b. UL-listed steel tanks provided with cathodic protection, a coal-tar epoxy or urethane coating and electrical isolation, and equipped with a test box to allow measurement of electrical potential and current flow;
  - c. UL-listed steel tanks with bonded fiberglass coating, compatible inner corrosion-resistant lining and electrical isolation, the integrity of the outer coating to be verified by the manufacturer by electrostatic testing and guaranteed by the manufacturer;
  - d. UL-listed double-walled steel tanks with cathodic protection or bonded fiberglass coating, and with electrical isolation, a vacuum or air pressure in the interstitial space and provision for continuous monitoring of the vacuum or air pressure;
  - e. UL-listed non-conductive stainless steel tanks; and
  - f. any other "state-of-the-art" type of tank construction providing equal or better protection against leakage than the above-mentioned tanks and approved by the state fire marshal.
- 5.2 All new and replacement tanks must be equipped with a metallic or non-metallic striker plate, at least 12" X 12" in area, at least 1/4" thick, and attached to the bottom of the tank, under each opening.
- 5.3 All new and replacement piping of a storage facility shall:
- a. be protected against corrosion by use of noncorrodible materials or by use of cathodic protection, and their materials shall be guaranteed by the piping manufacturer to be compatible with the hazardous materials designated by the owner in the permit application required under Subsection 4.2 of Subsection 4.6 or

---

<sup>11</sup> A community may wish to include in the bylaw/ordinance a provision authorizing the board of health to impose conditions on a permit renewal upon determining that the storage facility constitutes a danger to a public or private water supply. Appropriate conditions for permit renewals might include cathodic protection, line leak detectors, a monitoring system, more frequent testing than would otherwise be required, or continuing statistical analysis of daily inventory records.



in an application filed under Subsection 4.10;

- b. be designed, constructed and installed so as to allow testing for tightness or replacement without the need for disturbing elements of the storage facility other than the elements that are to be tested or replaced.
- 5.4 The operator of a storage facility shall record, at least monthly, the negative voltage of every cathodic protection system equipped with a test box that is part of that facility. In addition, the owner shall have every cathodic protection system inspected and tested, by a qualified person. For purposes of this subsection, the term "adequate negative voltage" shall mean a negative voltage of at least 0.85 volts, if a copper-copper sulfate reference electrode is used; and of at least 1.95 volts if a zinc reference electrode is used. Reference electrodes shall be installed in accordance with the manufacturer's directions.
- 5.5 All new facilities with submersible pumping systems shall be equipped with a line leak detector for each delivery line; and if any such facility is used to store automotive fuel, it shall also be equipped with an emergency shut-off valve under each dispenser. The shut-off valves and leak detectors shall be tested by a qualified person upon installation and at least annually thereafter. No suction pumping system shall be equipped with any such check valve in the piping except at the tank end and any such check valve shall be so installed that it may be tested or replaced without disturbing other elements of the storage facility.
- 5.6 Every new tank shall be equipped with an overfill prevention system. If a tank is filled by gravity flow, it must be equipped with a float vent valve or other device that provides equal or better protection from overfilling. If the tank is filled under pressure, it must be equipped with a combined audible and visual high level alarm. Any such system shall be tested by a qualified person upon installation and at least annually thereafter.
- 5.7 Every monitoring system shall be installed by a qualified person. Those equipped with an automatic audible or visual alarm shall be tested by a qualified person upon installation and at least annually thereafter. Those without such an automatic alarm system shall be checked by the operator for evidence of leak at least monthly and shall be inspected by a qualified person at least annually.

#### **Section 6: Installation**

- 6.1 No new or replacement tank or component shall be installed whether it is part of a new or existing storage facility, unless the owner has given at least one week's notice of its installation to the fire chief; and no new or replacement tank or component shall be buried or concealed until it has been inspected for damage and external defects, tested for tightness under Subsection 6.5 and approved by the fire chief or the chief's designee.
- 6.2 No new or replacement tank or component shall be installed except by a contractor who has been either licensed by state authorities for that purpose or certified in writing by the manufacturer or storage equipment association as qualified for the purpose.<sup>12</sup> The contractor shall, prior to any installation, submit to the fire chief a copy of such license or certificate.

---

<sup>12</sup> State licensing, although preferable to certification by the manufacturer, is currently provided for under state law.

- 6.3 The installation of a new or replacement tank or component, including anchoring of the tank whenever water-saturation of any part of the excavation can reasonably be anticipated, shall be carried out in accordance with the manufacturer's recommendations, accepted engineering practices and the provisions of 527 CMR 9.06 (17) (b-d), as amended; provided that the backfill material for FRP tanks shall be pea gravel or crushed stone and that the backfill material under all other tanks shall be either pea gravel or clean, non-corrosive sand, free of cinders, stones and other foreign material, the material under the tank to be compacted and contoured to the shape of the tank before the tank is installed, the balance to be thoroughly compacted.
- 6.4 Any damage to the exterior of a tank or its coating shall be repaired before the tank is covered. The fire chief shall notify the board of health of such repaired damage and the board shall make note of it in its records for that tank.
- 6.5 Every new or replacement tank and its piping shall be tested, separately, at the owner's expense, prior to being buried. The tank shall be tested by air pressure at not less than 3, and not more than 5, pounds per square inch. The piping shall be tested hydrostatically to 150 percent of the maximum anticipated pressure of the system or tested pneumatically, after all joints and connections have been coated with a soap solution, to 100 percent of the maximum anticipated pressure of the system, but not less than 50 pounds per square inch at the highest point of the system. After the tank and piping have been fully buried, any paving installed and the tank filled with the hazardous material to be stored therein, the tank and its piping shall be again tested, separately, at the owner's expense, by any final or precision test; not involving air pressure, that can accurately detect a leak of 0.05 gallons per hour or less, after adjustment for relevant variables such as temperature change and tank end deflection, and that is approved by the state fire marshal. The owner shall furnish the board of health with a certified copy of the results of all testing required by this subsection, which the board of health shall keep with the records for the storage facility.

#### **Section 7: Inventory Control**

- 7.1 The provisions of this section shall apply to all tanks used for the storage of automotive fuel and to all tanks used for the storage of waste oil or other waste petroleum products.
- 7.2 The operator of every new and existing storage facility designated in Subsection 7.1 shall prepare, reconcile and maintain daily inventory control records for each tank and for each combination of interconnected tanks with a common level of product (hereinafter, a combination) for the purposes of prevention and early detection of leaks. The preparation, reconciliation and maintenance of such records shall be done in accordance with the provisions of 527 CMR 5.05(3), as amended, with the following additions and modifications:
- a. At the close of each calendar month, the operator shall determine, for that month and for each tank or combination, the number of days in which any amount of product was dispensed and the number of days in which a loss of product was recorded.
  - b. An abnormal loss of product shall mean a loss recorded on 70% or more of the days, during any calendar month, in which any amount of product was dispensed

from a tank or combination.<sup>13</sup>

- c. In the event of any abnormal loss of product, the following steps shall be taken:
- i. the operator shall, within twenty-four hours, notify the owner, the fire chief and the board of health;
  - ii. the owner shall, within three working days, have the steps taken, for that tank or combination and its components, that are outlined in Subsection 8.1; or
  - iii. The owner shall, within three working days, submit the daily inventory records of that tank or combination, for that month, for a leak detection statistical analysis by any professionally qualified person who has been approved by the board of health; and the person performing such analysis shall promptly submit certified copies of the results to the board of health and to the owner; and if the board of health, on the basis of such results, determines that there is a probability of a leak in that tank or combination, or in its components, the board shall, within three working days, have the steps taken that are outlined in Subsection 8.1 with respect to that tank or combination and its components.
- d. An abnormal gain of water shall be a gain in the water level inside any tank of more than one (1) inch in a twenty-four hour period during which no product has been added.
- e. In the event of any abnormal gain of water, the owner shall, at the owner's expense, have the water removed from the tank and disposed of in a manner approved by the Department of Environmental Quality Engineering (DEQE) and have the water level checked twenty-four hours later, during which time no product shall be added. If there is again an abnormal gain of water, the owner shall promptly have the steps taken that are outlined in Subsection 8.1.
- f. Apart from abnormal gains of water, the owner of any tank in which water has accumulated to a depth of three (3) inches or more, shall, at the owner's expense, have the water removed and disposed of in a manner approved by DEQE.
- g. For every storage facility covered by the inventory control requirements of this section, the owner shall, at least annually and at the owner's expense, submit the daily inventory records of the most recent calendar month for a leak detection statistical analysis by any professionally qualified person who has been approved by the board of health for that purpose. The person performing such an analysis shall promptly submit certified copies of the results of that analysis to the owner and to the board of health. The board shall keep its copy with the records of that facility. If the board determines, on the basis of that analysis, that there is a probability of a leak from any tank or its components in that facility, the owner shall, within three working days, take the steps outlined in Subsection 8.1 with respect to that tank and its components; or, in the case of a combination, with respect to each tank and its components.

---

<sup>13</sup> For identifying a pattern of product loss, this measure is more useful than the traditional measure of 0.5% of the volume of product dispensed over a designated period of time.

- h. The board of health, in addition to the fire chief and state public safety officials, shall have access to all inventory records required by this section.

#### **Section 8: Testing for Tightness**

- 8.1 If the probability of a leak is indicated by inventory control procedures under Section 7 or by a monitoring system or by a line leak detector or by the malfunctioning of a suction pump or by the presence of hazardous material or hazardous material fumes in the surrounding area, or otherwise, the owner shall, within three working days, have the following steps taken, at the owner's expense:
  - a. have the readily accessible physical facilities on the premises carefully inspected for evidence of leakage;
  - b. if the inspection does not confirm a leak, and if the piping can be tested without the need for excavation, have the piping tested in accordance with the provision of Subsection 8.10-8.11;
  - c. if that testing fails to confirm a leak or if the piping cannot be tested without excavation, have the tank tested in accordance with the provisions of Subsections 8.10-8.11; and
  - d. if that testing fails to confirm a leak, excavate and have the piping tested in accordance with the provisions of Subsection 8.10-8.11.

If the inspections and testing outlined above fail to confirm a leak and if there is continuing evidence of a probable leak, the board of health may order the owner and operator to take the steps outlined in Section 9.

In the case of a combination of interconnected tanks, each tank and its components shall be tested separately.

- 8.2 If any of the testing specified in Subsection 8.1 discloses a leak, the operator and owner shall comply immediately with the requirements of Section 9, and the board of health may direct the owner, at the owner's expense, to have all other tanks on the premises and their components tested in the same manner.
- 8.3 The provisions of Subsections 8.4-8.7 shall not be applicable to any storage facility to which the inventory control provisions of Section 7 are applicable and shall not be applicable to any other storage facility consisting exclusively of one or more double-walled tanks, each equipped with a monitoring system, together with an automatic audible or visual alarm between the two walls.
- 8.4 The owner of every existing storage facility that does not satisfy the design requirements of Section 5 shall have each tank and its piping tested, at the owner's expense, during the tenth, fifteenth, eighteenth and twentieth years after installation and annually thereafter.
- 8.5 If the owner of any existing storage facility, pursuant to the provisions of Subsections 4.9-4.14, provides cathodic protection and electrical isolation for each tank in the facility, subsequent testing requirements shall be in accordance with the provisions of Subsection 8.6.

- 8.6. The owner of every kind of new tank permitted under Subsection 5.1 and the owner of every existing tank that satisfies all of the design requirements of Section 5 shall have the tank and its piping tested, at the owner's expense, during the fifteenth and twentieth years following the date of installation and at two years intervals thereafter.
- 8.7 The board of health may postpone the required testing of a tank and its piping, as required under Subsections 8.4 and 8.6, until the fifth year prior to the mean age to leak as established to the board's satisfaction by a method of predictability analysis that is based upon, at a minimum, the following factors: soil resistivity; soil pH; soil moisture; tank depth; and the presence or absence of sulfides in the soil. After the initial testing, the tank and its piping shall be tested at two year intervals, at the owner's expense.
- 8.8 With respect to any tank to which the inventory control requirements of Section 7 are applicable, the board of health shall require the owner to have it and its piping tested promptly, at the owner's expense, whenever the operator fails to maintain the daily inventory records properly or fails to perform the required monthly calculations of abnormal loss, or whenever the owner fails to comply with the annual leak detection statistical analysis requirement under paragraph (g) of Subsection 7.2.
- 8.9 The board of health may require the owner of any existing tank to have it and its piping tested, at the owner's expense, in any case in which the owner has failed to make timely application for a permit as required under Section 4.
- 8.10 Except for testing performed on a tank and its piping prior to their being covered, a tank shall be tested by any final or precision test, not involving air pressure, that can accurately detect a leak of 0.05 gallons per hour or less, after adjustment for relevant variables such as temperature change and tank end deflection, and that is approved by the state fire marshal. Piping shall be tested hydrostatically to 150 percent of the maximum anticipated pressure of the system.
- 8.11 All tests shall be administered by qualified persons approved by the board of health, and any such person shall notify the board of health prior to administering a test.
- 8.12 The person performing any test under this section shall promptly supply the owner, the board of health and the fire chief with certified copies of all test results for a tank and its piping. The board shall keep its copy with the records of that storage facility.

#### **Section 9: Response to Leaks**

- 9.1 In the event of a leak, whether determined by testing or otherwise, the following steps shall be taken:
- a. the operator shall immediately notify the owner, the fire chief and the Office of Incident Response of the Department of Environmental Quality Engineering (OIR-DEQE);
  - b. the owner shall promptly verify that the fire chief and OIR-DEQE have been notified and shall notify the board of health;
  - c. if testing has confirmed that the source of the leak is the piping for a particular tank, the operator shall take that tank out of service immediately;

- d. if testing has confirmed that the source of the leak is a particular tank, the operator shall within twenty-four hours cause that tank to be emptied of all its contents;
- e. if testing has failed to determine the source of the leak within a storage facility, the operator shall within twenty-four hours cause the entire storage facility to be emptied of its contents.

9.2 Until the arrival of a representative of OIR-DEQE, the fire chief shall take charge of all emergency procedures<sup>14</sup> and shall verify that all steps required under Subsection 9.1 have been taken.

9.3 The owner, the fire chief and the board of health shall cooperate with OIR-DEQE in all efforts to identify the source of the leak, to contain it, and to restore the environment, including any groundwater or surface water that may have been contaminated by the leak, to a condition and quality acceptable to DEQE.

9.4 The board of health shall determine whether any tank or its components that have been identified as the source of a leak shall be removed and replaced or may be repaired, and shall notify the owner and the fire chief of its decision. In making its decision, the board shall consider all factors affecting the degree of risk to public health and safety from a subsequent leak, including, but not limited to, the location of the tank and the specific nature of the contents. The board shall also be governed by the following conditions on the repair, by relining, of any steel tank:

- a. it must have a minimum design shell thickness of 0.18" (7 gauge);
- b. it must have no open seam or split;
- c. it must have less than 10 holes with none larger than one-half inch in diameter and no more than 2 within a 1-foot radius; and
- d. it must meet all the standards of the lining manufacturer for structural soundness.

Adherence to the above conditions shall be determined after the interior surface of the tank has been peened by a hammer.

9.5 If the board permits the repair of any leaking tank, the board shall require that the tank and its piping be tested at the owner's expense and in accordance with the provisions of Subsections 8.10-8.11, prior to being restored to service, at two year intervals for ten years and annually thereafter.

9.6. Any repair of a tank or replacement or repair of components shall be performed by qualified technicians, following the manufacturer's directions and, in the case of relining of a steel tank, following the recommendations of American Petroleum Institute Publication #1631 First Edition, 1983 or any subsequent edition as it may appear.

9.7 If the board of health determines that a tank and its components shall be removed, the owner shall first obtain a permit from the fire chief, pursuant to Mass. Gen. Laws, ch.

---

<sup>14</sup> There should be written emergency procedures to address immediate threats to public health and safety as well as containment of the leaking material.

148, sec. 38A, as amended. Any removal shall be completed within ninety days after the board of health has notified the owner of its decision.

- 9.8 The owner shall be responsible for all costs of reclaiming, recovering and properly disposing of any hazardous material that has leaked and for all costs of restoring the environment, including any groundwater or surface water that has been contaminated, to a condition and quality acceptable to DEQE.

#### **Section 10: Tanks Abandoned or Temporarily Out of Service**

- 10.1 If the owner of a tank, which either is located under a building and cannot be removed from the ground without first removing the building or is so located that it cannot be removed from the ground without endangering the structural integrity of another tank, decides to abandon it, the owner shall promptly notify the fire chief and the board of health of this decision and, subject to the directions of the fire chief, have all the hazardous material removed from the tank, by hand pump if necessary, and the tank filled with sand or other inert material prescribed by the fire chief.
- 10.2 Except as provided in Subsection 10.1, no tank may be abandoned in place. Any owner of a tank who has decided to abandon it and any owner of a tank that has in fact been out of service for a period of time constituting abandonment, as defined in Subsection 3.1, shall immediately obtain a permit from the fire chief pursuant to Mass. Gen. Laws ch. 148, sec. 38A, as amended, and, subject to the directions of the fire chief, have any hazardous material removed from the tank, all tank openings properly secured and the tank removed from the ground. The hazardous material and tank shall be disposed of, at the owner's expense, as directed by the fire chief.
- 10.3 The owner of a tank that is licensed under Mass. Gen. Laws ch. 148, as amended, and that the owner has decided to take out of service for a period of less than six months shall promptly notify the fire chief and the board of health of the decision and, subject to the directions of the fire chief, all tank openings properly secured and the tank filled with water. Before any such tank may be restored to service, the owner shall notify the fire chief and the board of health and have the water removed and disposed of in a manner approved by DEQE. The board of health may require that the owner have the tank and its piping tested, at the owner's expense, in accordance with the provisions of Subsection 8.10-8.11.

#### **Section 11: Enforcement**

- 11.1 Any owner or operator who violates any provision of this bylaw/ordinance shall be subject to a fine of three hundred dollars for each offense. Each day during which such violation continues shall constitute a separate offense. This bylaw/ordinance may be enforced pursuant to Mass. Gen. Laws ch. 40, sec. 21D, as amended, by a local police officer or any other officer having police powers. Upon request of the board of health, the board of selectmen/city counsel shall take such legal action as may be necessary to enforce this bylaw/ordinance.
- 11.2 In the event of any violation of this bylaw/ordinance by the owner or operator of a storage facility, the board of health, instead of or in addition to requesting enforcement under Subsection 11.1, may revoke or suspend the owner's permit or may require more frequent testing than would otherwise be required under Section 8; and if a permit is revoked or if a storage facility has been installed or maintained without a permit, the board may order

that the storage facility be removed from the ground. Before revoking or suspending an owner's permit, or requiring removal of a storage facility from the ground, the board shall hold a public hearing on the proposed action; shall give the owner at least ten (10) days notice of the hearing by certified mail; and shall make its decision in writing with a brief statement of the reasons for its decision.

#### **Section 12: Variance**

- 12.1 The board of health may, after a public hearing, vary the application of any provision of this bylaw/ordinance, unless otherwise required by law, when, in its opinion, the applicant has demonstrated that an equivalent degree of protection will still be provided to the public and private water supplies and to the public health and public safety. Notice of the hearing shall be given by the board, at the applicant's expense, at least ten (10) days prior thereto, by certified mail to all abutters to the property at which the owner's storage facility is located and by publication in a newspaper of general circulation in the town or city. The notice shall include a statement of the variance sought and the reasons therefor. Any grant or denial of a variance shall be in writing and shall contain a brief statement of the reasons for the grant or denial.

#### **Section 13: Severability**

- 13.1 The invalidity of any provision of this bylaw/ordinance shall not affect the validity of the remainder.



## Model Permit Application Form

Board of Health

Town/City of \_\_\_\_\_

Check one: New Facility \_\_\_\_\_ Existing Facility \_\_\_\_\_ Permit Renewal \_\_\_\_\_

*For permit renewals, indicate only changes in information since permit issued or since most recent renewal*

Owner of storage facility

Name:  
Address:  
Day Telephone #:  
Night (Emergency) Telephone #:

Operator of storage  
facility  
(if different from Owner)

Name:  
Address:  
Day Telephone #:  
Night (Emergency) Telephone #:

Description of storage  
facility

Tanks:  
Provide the following information about *each* tank in your proposed or existing facility. On items 9-12, answer yes or no.

A      B      C      D

1. Type of construction material
2. Type of tank coating, if any
3. UL Serial #
4. Capacity (gal.)
5. Contents
6. Date of installation
7. Depth of tank top below ground level
8. Depth of tank bottom below ground level
9. Equipped with striker plate under each opening?
10. Electrically isolated from piping?

11. Equipped with overflow prevention system? \_\_\_\_\_
12. Cathodically protected? \_\_\_\_\_
13. Describe overflow prevention system, if any:  
\_\_\_\_\_  
\_\_\_\_\_
14. Describe cathodic protection system, if any (e.g. impressed current or sacrificial anodes): \_\_\_\_\_  
\_\_\_\_\_
15. Is a test box installed or to be installed to measure the negative voltage of the cathodic protection system? \_\_\_\_\_

**Piping:**

1. Type of construction material \_\_\_\_\_
2. Is the piping cathodically protected? \_\_\_\_\_
3. What type of cathodic protection? \_\_\_\_\_
4. Is a test box installed to measure the negative voltage of the cathodic protection system? \_\_\_\_\_

**Pumps:**

1. Are they: submersible? \_\_\_\_\_ suction? \_\_\_\_\_
2. If submersible, is *each* equipped with:  
an emergency shut-off valve under each dispenser? \_\_\_\_\_  
a delivery line leak detector? \_\_\_\_\_
3. If suction, indicate the locations of any check valves in the piping:  
\_\_\_\_\_

**Leak detection  
monitoring systems**

**Tanks:**

1. Type of monitoring system (include name of manufacturer and model number): \_\_\_\_\_
2. Location of system (e.g. inside tanks or between tank walls or outside tanks): \_\_\_\_\_
3. Is system equipped with an audible or visual alarm? \_\_\_\_\_
4. Is system connected with a centralized data recording system? \_\_\_\_\_

**Piping:**

1. Type of monitoring system (include name of manufacturer and model number): \_\_\_\_\_
  2. Location of system: \_\_\_\_\_
  3. Is system equipped with an audible or visual alarm? \_\_\_\_\_
  4. Is system connected with a centralized data recording system? \_\_\_\_\_
- 

**Tightness testing**

(for *existing* facilities and *permit renewals* only)

1. Were your tanks and piping tested for tightness at the time of installation?  
\_\_\_\_\_
  2. What were the results? \_\_\_\_\_
  3. Has there been any subsequent tightness testing of your tanks and piping?  
\_\_\_\_\_
    - a. Identify the tank(s) or piping tested (e.g. piping of tank C): \_\_\_\_\_
    - b. Date of testing: \_\_\_\_\_
    - c. Type of test: \_\_\_\_\_
    - d. Test results: \_\_\_\_\_
- 

**Previous leaks**

(for *existing* facilities and *permit renewals* only)

1. Identify the source of the leak (e.g. tank B): \_\_\_\_\_
2. Approximate date(s) of leak: \_\_\_\_\_
3. Cause of leak (e.g. corrosion): \_\_\_\_\_
4. Estimated amount (gal.) \_\_\_\_\_
5. Cleanup measures taken: \_\_\_\_\_
6. Has the leaking tank or piping been: replaced? \_\_\_\_\_ repaired? \_\_\_\_\_
7. Has the leaking tank or piping been tested for tightness subsequently? \_\_\_\_\_  
Type of test: \_\_\_\_\_ Results: \_\_\_\_\_

---

**Certificate of owner  
operator**

**I/We certify that the above information is true to the best of my/our knowledge and understanding.**

**Dated:** \_\_\_\_\_

\_\_\_\_\_  
**Signature of Owner**

**Dated:** \_\_\_\_\_

\_\_\_\_\_  
**Signature of Operator (if different)**

---

**Certificate of  
registered engineer  
(Required for new  
multi-tank facilities)**

**I certify that the proposed storage facility meets all of the design and construction requirements for this bylaw/ordinance.**

**Dated:** \_\_\_\_\_

\_\_\_\_\_  
**Signature of Registered Engineer**

---

**Board of Health  
Town/City of**  
\_\_\_\_\_

**The permit for this facility is:**

**granted** \_\_\_\_\_

**denied** \_\_\_\_\_

**granted subject to the following conditions:**

1. \_\_\_\_\_
2. \_\_\_\_\_

**Dated:** \_\_\_\_\_ **(Signatures of Board Members)**

**PALM BEACH COUNTY, FLORIDA**  
**Ordinance No. 88-7**  
**Wellfield Protection**  
**(1988)**

**TABLE OF CONTENTS**

Section 1.	SHORT TITLE; APPLICABILITY; CONSTRUCTION
Section 2.	LEGISLATIVE INTENT
Section 3.	DEFINITIONS
Section 4.	MAPS OF ZONES OF INFLUENCE
Section 5.	RESTRICTIONS WITHIN ZONES OF INFLUENCE
Section 6.	PERMITS
Section 7.	GROUNDWATER AND NATURAL RESOURCES PROTECTION BOARD
Section 8.	APPEALS FROM INTENT TO REVOKE OR REVISE AN OPERATING PERMIT AND A SPECIAL OR GENERAL EXEMPTION; APPEALS FROM PERMIT CONDITIONS AND DENIAL OF PERMIT OR APPLICATION FOR GENERAL EXEMPTION; APPEALS FROM DENIAL OF NON-DISCLOSURE OR DENIAL OF TRADE SECRETS AND APPEALS FOR SPECIAL EXEMPTION
Section 9.	PROTECTION OF FUTURE WELLFIELDS
Section 10.	DETERMINATION OF LOCATION WITHIN ZONES
Section 11.	APPLICATIONS TO NEW ACTIVITIES AND RESTRICTIONS ON ISSUANCE OF BUILDING PERMITS AND OCCUPATIONAL LICENSES
Section 12.	GENERAL EXEMPTIONS
Section 13.	SPECIAL EXEMPTIONS
Section 14.	PETITION FOR COMPENSATION
Section 15.	TRANSFER
Section 16.	TRADE SECRETS
Section 17.	VIOLATIONS, ENFORCEMENT, PENALTIES
Section 18.	ENFORCEMENT PROCEEDINGS BEFORE THE GROUNDWATER AND NATURAL RESOURCES PROTECTION BOARD

- Section 19. REPEAL OF LAWS IN CONFLICT
- Section 20. SEVERABILITY
- Section 21. INCLUSION IN THE CODE OF LAWS AND ORDINANCES
- Section 22. EFFECTIVE DATE
- EXHIBIT A GENERIC SUBSTANCES LIST
- EXHIBIT B OPERATING AND CLOSURE PERMIT BONDS
- EXHIBIT C FEE SCHEDULE
- EXHIBIT D "BEST MANAGEMENT PRACTICES" FOR THE CONSTRUCTION INDUSTRY
- EXHIBIT E PRIORITY POLLUTANTS
- EXHIBIT F SUGGESTED PIPE, FITTINGS, COATING AND TESTING

**Ordinance No. 88-7**

WHEREAS, most of Palm Beach County's potable water supply is obtained from localized shallow aquifer sources, and

WHEREAS, it is acknowledged that inappropriate development and land use contributes to degradation of groundwater quality, and

WHEREAS, there is a need to protect the existing and future potable water supply sources of Palm Beach County from degradation and from the intentional or unintentional introduction of deleterious substances into such sources, and

WHEREAS, it is the intent and policy of the Board of county Commissioners of Palm Beach County, to ensure under this Ordinance, the continued health, safety, welfare and quality of environment for the residents of and visitors to Palm Beach County, and

WHEREAS, the Board of County Commissioners has the authority under the Palm Beach County Charter to adopt a countywide ordinance relating to the protection of wells and wellfields by providing criteria for regulating and prohibiting the use, handling, production and storage of certain deleterious substances which may impair present and future public potable water supply wells and wellfields.

**Section 1. SHORT TITLE; APPLICABILITY; CONSTRUCTION.**

- 1.01 This Ordinance shall be known as the "Palm Beach County Wellfield Protection Ordinance."
- 1.02 All provisions of this Ordinance shall be effective within the incorporated and

unincorporated areas of Palm Beach County, Florida, and shall set restrictions, constraints and prohibitions to protect present and future public potable water supply wells and wellfields from degradation by contamination of deleterious substances.

1.03 This Ordinance shall be liberally construed to effectuate the purposes set forth herein.

**Section 2. LEGISLATIVE INTENT.**

2.01 The intent and purpose of this Ordinance is to protect and safeguard the health, safety, and welfare of the residents and visitors of Palm Beach County, Florida by providing criteria for regulating and prohibiting the use, handling, production and storage of certain deleterious substances which may impair present and future public potable water supply wells and wellfields.

2.02 The Generic Substance List attached hereto and incorporated herein as Exhibit A, is provided for informational purposes and may be revised from time to time by the Department without further action by the County Commission. Persons using, handling, producing or storing a substance on the generic list may be using, handling producing or storing a Regulated Substance as defined by this Ordinance and, therefore, may be subject to the requirements of this Ordinance. Persons unsure as to whether they are subject to this Ordinance may wish to consult with the Department.

**Section 3. DEFINITIONS.**

3.01 The following definitions apply within this Ordinance:

- a. Aquifer. A groundwater bearing geologic formation, or formations, that contain enough saturated permeable material to yield significant quantities of water.
- b. Closure Permit. That permit required by activities which must cease operation pursuant to the provisions of Section 5 of this Ordinance, the criteria for which are set forth under Section 6 of this Ordinance.
- c. Completed Application. An application which includes all materials and documents which are necessary to support the application and which has been accepted as complete by the Department.
- d. Cone of Depression. An area of reduced water levels which results from the withdrawal of groundwater from a point of collective source such as a well, wellfield, dewatering site or quarry. The areal extent and depth of the depression is a function of the hydraulic properties of the aquifer, the pumpage rates and recharge rates.
- e. Department. Palm Beach County Department of Environmental Resources Management, charged by the Board of County Commissioners with responsibility for administering activity is located.
- f. Designated Public Utility. That public utility which operates a well or wells for which the zones of influence include part or all of the property on which the nonresidential activity is located.
- g. Emergency hazardous situation. Exists whenever there is an immediate and substantial danger to human health, safety, or welfare or to the environment.

- h. **EPA.** United States Environmental Protection Agency.
- i. **Exfiltration System.** Any gallery, perforated or "leaky" pipe or similarly designed structure which is used to dispose of untreated stormwater by allowing the routed water to percolate by subsurface discharge directly or indirectly into the groundwater.
- j. **Facility.** Main structures, accessory structures and activities which store, handle, use or produce Regulated Substances. Where contiguous facilities exist and such facilities are separate in the nature of the businesses, they shall remain separate under this Ordinance.
- k. **Generic Substance List.** Those general categories of substances set forth in Exhibit A attached hereto and incorporated herein.
- l. **Groundwater.** Water that fills all the unblocked voids of underlying material below the ground surface, which is the upper limit of saturation, or water which is held in the unsaturated zone by capillarity.
- m. **Groundwater and Natural Resources Protection Board.** That Board designated by the Palm Beach County Board of County Commissioners to hear appeals and applications pursuant to Section 8 of this Ordinance and to hear alleged violations of this Ordinance and other state and local laws protecting the natural resources of the County.
- n. **Laboratory.** A designated area or areas used for testing, research, experimentation, quality control, or prototype construction, but not used for repair or maintenance activities (excluding laboratory equipment), the manufacturing of products for sale, or pilot plant testing.
- o. **Nonresidential Activity.** Any activity which occurs in any building, structure or open area which is not used primarily as a private residence or dwelling.
- p. **One Foot Drawdown Contour.** The locus of points around a well or wellfield where the free water elevation is lowered by one (1) foot due to a specified pumping rate of the well or wellfield.
- q. **Operating Permit.** The permit required of certain activities under Section 5 of this Ordinance to operate, the criteria for which are set forth under Section 6 of this Ordinance.
- r. **Person.** Any natural person, individual, public or private corporation, firm, association, joint venture, partnership, municipality, governmental agency, political subdivision, public officer, owner, lessee, tenant or any other entity whatsoever or any combination of such, jointly or severally.
- s. **Potable Water.** Water that is intended for drinking, culinary or domestic purposes, subject to compliance with County, State or Federal drinking water standards.
- t. **Public Utility.** Any privately-owned, municipally-owned, County-owned, special district-owned, or State-owned system providing water or wastewater service to the public which has at least fifteen (15) service connections or regularly serves at



least twenty-five (25) individuals daily for at least sixty (60) days of the year.

u. Regulated Substances.

1. Those deleterious substances and contaminants, including degradation and interaction products which, because of quality, concentration, or physical, chemical (including ignitability, corrosivity, reactivity and toxicity), or infectious characteristics, radioactivity, mutagenicity, carcinogenicity, teratogenicity, bioaccumulative effect, persistence (non-degradability) in nature, or any other characteristic, may cause significant harm to human health and environment (including surface and ground water, plants, and animals).
2. Regulated Substances shall include, but are not limited to, those substances set forth in the lists, as amended from time to time, entitled, Lists of Hazardous Wastes (40 CFR Part 261, Subpart D), 40 CFR, Part 261, Appendix VIII - Hazardous Constituents, and EPA Designation Reportable Quantities and Notification Requirements for Hazardous Substances Under CERCLA (40 CFR 302, effective July 3, 1986); provided, however, that this Ordinance shall only apply whenever the aggregate sum of all quantities of any one time exceeds five (5) gallons where said substance is a liquid, or twenty-five (25) pounds where said substance is a solid.

The Ordinance shall also apply if no single substance exceeds the above reference limits but the aggregate sum of all Regulated Substances present at one facility/building at any one time exceeds one hundred (100) gallons if said substances are liquids, or five hundred (500) pounds if said substances are solids.

Where Regulated Substances are dissolved in or mixed with other non-Regulated Substances, only the actual quantity of the Regulated Substance present shall be used to determine compliance with the provisions of this Ordinance. Where a Regulated Substance is a liquid, the total volume of the Regulated Substance present in a solution or mixture of said substance with other substances shall be determined by volume percent composition of the Regulated Substance, provided that the solution or mixture containing the Regulated Substance does not itself have any of the characteristics described in Section 3.01(u)(1) above.

3. This Ordinance shall apply to all underground storage facilities for petroleum products which are not regulated by Section 376.317, Florida Statutes, and Chapter 17-61, Florida Administrative Code. [Note: Chapter 17-61, F.A.C. has been superseded by Chapter 17-761, F.A.C.]
- v. Spill. The unpermitted release or escape of a Regulated Substance, irrespective of the quantity thresholds in Section 3.01(u)(2), directly or indirectly to soils, surface waters or groundwaters.
- w. Utility. A public utility, power company or telephone company which serves the general public.
- x. Well. Any excavation that is drilled, cored, bored, washed, driven, dug, jetted, or

otherwise constructed when the intended use of such excavation is to conduct groundwater from a source bed to the surface by pumping, natural flow or other method.

- y. Wellfield. An area of land which contains one or more than one well for obtaining water.
- z. Zones of Influence. Zones delineated by iso-travel times contours and the one (1) foot drawdown contour within cones of depression of wells which obtain water from the unconfined or surficial aquifer system. These zones are calculated, based on the rate of movement of groundwaters in the vicinity of wells at a specified pumping rate.
- aa. Zones of Influence Maps. Aerial photographs at scales determined by the Department showing the location on the ground of the outer limits of Zones of Influence for present and future public potable water supply wells and wellfields of permitted for 100,00 gallons per day or more.

#### **Section 4. MAPS OF ZONES OF INFLUENCE.**

- 4.01 The Zones of Influence Maps developed as described in subsection 4.02, Zone One (1) being completed on February 19, 1988, and Zones Two (2) and Three (3) being completed in May, 1988, are incorporated herein and made a part of this Ordinance. These Maps shall be on file and maintained by the Department. Any amendments, additions or deletions to said Maps shall be approved by the Board of County Commissioners of Palm Beach County following written notice, by the Department, to property owners within the area covered by the amendment, addition, or deletion, and after public hearing. Written notice as provided herein shall be at least thirty (30) days prior to the public hearing on the amendment, addition or deletion. Said maps shall be provided to the Palm Beach County Planning, Zoning and Building Department, the Groundwater and Natural Resources Protection Board and any other agency requesting said maps.
- 4.02 The Zones of Influence maps are based upon travel time contours and one foot drawdown contours. They are generated using a contaminant transport computer model that simulates pollutant movement using particles released around wells in an inverted head/velocity field. The head/velocity field is calculated by using finite difference computer modeling techniques that incorporate the effects of an extensive canal system and Year 2010 build out pumpage rates. The pumping rates were determined by first projecting population figures for the year 2010 for each public utility service area and multiplying this by a per capita consumption rate determined by the South Florida Water Management District and by consultation with public utilities regarding wellfield expansion and development.
- 4.03 The Zones of Influence Maps shall be reviewed at least on an annual basis. However, failure to conduct said review shall not affect the validity of the existing approved Maps. The basis for updating said Maps may include, but is not limited to the following:
  - a. Changes in the technical knowledge concerning the applicable aquifer.
  - b. Changes in pumping rate of wellfields.
  - c. Wellfield reconfiguration.

- d. Designation of new wellfields.

4.04 The Zones of Influence indicated on the Zones of Influence Maps are as follows:

- a. Zone One (1): The land area situated between the well(s) and the thirty (30) day travel time contour.
- b. Zone Two (2): The land area situated between the thirty (30) day and the two hundred ten (210) day travel time contours.
- c. Zone Three (3): The land area situated between the two hundred ten (210) day and the five hundred (500) day travel time contours.
- d. Zone Four (4): The land area situated beyond the five hundred (500) day travel time contour and within the one (1) foot drawdown contour.

#### **Section 5. RESTRICTIONS WITHIN ZONES OF INFLUENCE.**

- 5.01 Zone One (1): The use, handling, production, and storage of Regulated Substances associated with nonresidential activities is prohibited in Zone One (1), except as provided under the General Exemptions and Special Exemptions provisions of this Ordinance. All existing nonresidential activities within Zone One (1) which store, handle, use or produce any Regulated Substances shall cease to do so within one year from the date of notification under this Ordinance, except as provided in this Section. The owners or operators of such activities within Zone One (1) shall be notified in writing, by certified mail, or hand delivery by the Department, within sixty (60) days of the effective date of this Ordinance as to the requirement to cease the use, handling, storage, and production of Regulated Substances. A Closure Permit application, General Exemption application if the activity is claimed to be exempted under the provisions of Sections 12.02, 12.03, or 12.07 of the Ordinance, or a Special Exemption application prepared and signed by a Professional Engineer registered or Professional Geologist licensed in the State of Florida shall be submitted to the Department within 120 days receipt of the notice to cease. Within 30 days of receipt of said notice, the owner or operator shall file with the Department proof of retention of said engineer or geologist.

Any nonresidential activity in Zone One (1) which is allowed to continue in accordance with the General Exemptions or Special Exemptions set forth in this Ordinance shall obtain an Operating Permit, unless expressly not required by this Ordinance, which shall indicate the special conditions to be instituted and the dates on which such conditions shall be instituted. Such activities shall comply with all Zone Two (2) requirements unless otherwise provided herein. No expansions, modifications or alterations which would increase the storage, handling, use or production of Regulated Substances shall be permitted in Zone One (1). An owner or operator that is denied a Special Exemption shall be issued a Closure Permit as part of the denial process. Any operating permit application required herein shall be filed with the applications for General Exemption or Special Exemption.

- 5.02 Zone Two (2): All nonresidential activities within Zone Two (2) which store, handle, use or produce any Regulated Substance are prohibited from doing so unless they qualify as a General Exemption, obtain a Special Exemption, or receive an Operating Permit from the Department which complies with the following conditions:

- a. Containment of Regulated Substances. Leak-proof trays under containers, floor curbing or other containment systems to provide secondary liquid containment shall be installed. The containment shall be of adequate size to handle 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 Regulated Substance loss to the external environment. Containment systems shall be sheltered so that the intrusion of precipitation is effectively prevented. The owner/operator may choose to provide adequate and appropriate liquid collection methods rather than sheltering only after approval of the design by the Department. These requirements shall apply to all areas of use, production, and handling, to all storage areas, to loading and off-loading areas, and to above-ground and underground storage areas. The containment devices and liquid collection systems shall be certified in the operating permit application by the Professional Engineer registered or Professional Geologist licensed in the State of Florida.
- b. Emergency collection devices. Vacuum suction devices, absorbent scavenger materials or other devices approved by the Department, shall be present on-site or available within two (2) hours (one hour in Zone One) by contract with a clean up company approved by the Department, in sufficient magnitude so as to control and collect the total quantity of Regulated Substances present. To the degree feasible, emergency containers shall be present and of such capacity as to hold the total quantity of Regulated Substances plus absorbent material. The presence of such emergency collection devices shall be certified in the Operating Permit application for existing activities. Such certification for new activities shall be provided to the Department prior to the presence of Regulated Substances on the site. Certification shall be provided by a Professional Engineer registered or geologist certified in the State of Florida.
- c. Emergency plan. An emergency plan shall be prepared and filed with the Operating Permit application indicating the procedures which will be followed in the event of spillage of a Regulated Substance so as to control and collect all such spilled material in such a manner as to prevent it from reaching any storm or sanitary drains or the ground.
- d. Inspection. A responsible person designated by the permittee who stores, handles, uses or produces the Regulated Substances shall check on every day of operation, for breakage or leakage of any container holding the Regulated Substances. Electronic sensing devices may be employed as part of the inspection process, if approved by the Department, and provided the sensing system is checked daily for malfunctions. The manner of daily inspection shall not necessarily require physical inspection of each container provided the location of the containers can be inspected to a degree which reasonably assures the Department that breakage or leakage can be detected by the inspection. Monitoring records shall be kept and made available to the Department at all reasonable times for examination.
- e. Proper and adequate Regular Maintenance of containment and emergency equipment. Procedures shall be established for the quarterly in-house inspection and maintenance of containment and emergency equipment. Such procedure 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 available for inspection by the Department.

- f. Reporting of spills. Any spill of a Regulated Substance in excess of the non-aggregate quantity thresholds in Section 3.01(u)(2) shall be reported by telephone to the Palm Beach County Health Unit and designated public utility within one (1) hour, and the Department within twenty-four (24) hours of discovery of the spill. Clean-up shall commence immediately upon discovery of the spill. A full written report including the steps taken to contain and clean up the spill shall be submitted to the Department within fifteen (15) days of discovery of the spill.
- g. Monitoring for Regulated Substances in the potable water well. Arrangements shall be made with the designated public utility to establish a semi-annual schedule of raw analysis unless sampling results indicate contamination, in which case the Department shall require an increased sampling schedule. The analysis shall be for all substances which are listed on the Operating Permit. The analytical reports shall be prepared by a State of Florida certified laboratory, certified for the applicable analyses. It shall be the responsibility of the designated public utility to provide for the sampling and analyses but the cost shall be borne by the permittee or those permittees on a pro-rata basis as to the same substances listed on the permits of those permittees in Zones of Influence of the subject well. Samples shall be taken by the State certified laboratory performing the analyses, or its authorized representative. A reference set of raw water analyses shall be completed for each well for which a Zone of Influence Map has been established. Said analyses shall be completed within one-hundred-eighty-five (185) days after the effective date of this Ordinance, and a copy shall be forwarded to the Department within fourteen (14) days of completion. Said analyses shall address inorganic priority pollutants as listed in Exhibit E and organic priority pollutants as listed in Chapter 17-22 F.A.C., as amended from time to time, and as shown in Exhibit E, and the cost shall be borne by the utility. The analytical reports shall be prepared by the State of Florida certified laboratory, certified for the applicable analyses. Samples shall be taken by the State certified laboratory performing the analyses, or its authorized representative.
- Semi-annual reports prepared by a State of Florida certified laboratory of the analyses for Regulated Substances shall be submitted to the Department for the purpose of determining the presence of Regulated Substances in each well for which a Zone of Influence Map has been established.
- h. Monitoring for Regulated Substances in groundwater monitoring wells. Groundwater monitoring well(s) shall be provided at the expense of the permittee in a manner, number and location approved by the Department. Except for existing wells found by the Department to be adequate for this provision, the required well or wells shall be installed by a State of Florida licensed water well contractor. Samples shall be taken by the State certified laboratory performing the analyses, or its authorized representative. Analytical reports prepared by a State of Florida certified laboratory of the quantity present in each monitoring well of the Regulated Substances listed in the activity's Operating Permit shall be filed at least annually, or more frequently, as determined by the Department, based upon site conditions and operations.
- i. Alterations and expansion. The Department shall be notified in writing prior to the expansion, alteration or modification of an activity holding an Operating Permit. Such expansion, alteration, or modification may result from increased square footage of production or storage capacity, or increased quantities of Regulated Substances, or changes in types of Regulated Substances beyond those square

footages, quantities, and types upon which the permit was issued. Excluded from notification prior to alteration or modification are changes in types of Regulated Substances used in a laboratory or laboratories designated as such in the currently valid permit which do not exceed the non-aggregate limits in Section 3.01(u)(2) and which are within the Generic Substances listed in said permit based upon the Generic Substance List attached hereto and incorporated herein as Exhibit A. Should a facility add new Regulated Substances which individually are below the non-aggregate limits in Section 3.01(u)(2), it shall notify the Department on the annual basis of the types and quantities of such substances added and the location of the use, handling, storage, and production of said substances. Should the aggregate quantity of such additions exceed the aggregate limit in 3.01(u)(2), no notification other than the annual notification described above is required. Any such expansion, alteration or modification shall be in strict conformity with the Ordinance. Further, except as provided herein, any existing Operating Permit shall be amended to reflect the introduction of any new Regulated Substances resulting from the change. However, the introduction of any new Regulated Substance shall not prevent the revocation or revision of any existing Operating Permit if, in the opinion of the Department, such introduction substantially or materially modifies, alters or affects the conditions upon which the existing Operating Permit was granted or the ability to remain qualified as a General Exemption, if applicable, or to continue to satisfy any conditions that have been imposed as part of a Special Exemption, if applicable. The Department shall notify the permittee in writing within sixty (60) days of receipt of the permittee's notice that the Department proposes to revoke or revise the permit and stating the grounds therefore.

- j. Reconstruction after catastrophe. Reconstruction of any portion of a structure or building in which there is any activity subject to the provisions of this regulation which is damaged by fire, vandalism, flood, explosion, collapse, wind, war, or other catastrophe shall be in strict conformity with this Ordinance.
- k. All existing nonresidential activities in Zone Two (2) which use, handle, store, or produce Regulated Substances shall file an application for an Operating Permit within ninety (90) days or a Closure Permit application or Special Exemption application within one hundred twenty (120) days of the receipt of written notice from the Department. Said permit application shall be prepared and signed by a Professional Engineer registered or Professional Geologist licensed in the State of Florida. Within thirty (30) days of receipt of said notice, the owner or operator shall file with the Department proof of retention of said engineer or geologist. If application is made for an Operating Permit, such a permit shall be issued or denied within Sixty (60) days of the filing of the completed application. If the application for an Operating Permit is denied, then the activity shall cease within twelve (12) months of the denial and an application for a Closure Permit shall be filed with the Department within one hundred twenty (120) days of the denial of the Operating Permit.

5.03 Zone Three (3): All nonresidential activities within Zone Three (3) which store, handle, produce or use any Regulated Substances are prohibited unless they qualify as a General Exemption, obtain a Special Exemption or receive an Operating Permit which complies with the following conditions:

- a. Those conditions set forth in Subsections 5.02(a), (c), (d) and (f).

- b. Within thirty (30) days of acquiring knowledge of any spill of a Regulated Substance the Department shall consider revocation of the permit or revision of it to comply with some or all the other conditions set forth in Subsections 5.02(a) through (j), in addition to those required by Section 5.03(a) above. In consideration of whether to revoke or revise the permit, the Department may consider the intentional nature or the degree of negligence, if any, associated with the spill, the extent to which containment or cleanup is possible, the nature, number and frequency of previous spills by the permittee and the potential degree of harm to the groundwater and surrounding wells due to such spill.
- c. If a nonresidential activity in Zone Three (3), on its own initiative, has a facility meeting the conditions of Section 5.02(a) through (j), then its Zone Three (3) Operating Permit shall so indicate and the conditions of Section 5.03(b) shall not apply.
- d. Operating permits required by this section shall be applied for and processed in accordance with Section 5.02(k).

**5.04 Zone Four (4):** All nonresidential activities within Zone Four (4) which store, handle, produce or use any Regulated Substances are prohibited unless they qualify as a General Exemption, obtain a Special Exemption or receive an Operating Permit which complies with the following conditions:

- a. Those conditions set forth in Subsections 5.02(d) and (f).
- b. Within thirty (30) days of acquiring knowledge of any spill of a Regulated Substance the Department shall consider revocation of the permit or revision of it to comply with some or all the other conditions set forth in Subsections 5.02(a) through (j), in addition to those required by Section 5.04(a) above. In consideration of whether to revoke or revise the permit, the Department may consider the intentional nature or the degree of negligence, if any, associated with the spill, the extent to which containment or cleanup is possible, the nature, number and frequency of previous spills by the permittee and the potential degree of harm to the groundwater and surrounding wells due to such spill.
- c. If a nonresidential activity in Zone Four (4), on its own initiative, has a facility meeting the conditions of Section 5.02(a) through (j), then its Zone Four (4) Operating Permit shall so indicate and the conditions of Section 5.04(b) shall not apply.
- d. Operating permits required by this section shall be applied for and processed in accordance with Section 5.02(k). However, a nonresidential activity in Zone Four (4) is not required to retain an engineer or geologist to prepare the operating permit, providing that Section 5.04(b) or (c) does not apply.

**5.05 Other Requirements and Liabilities.** A notice to cease, a permit or exemption issued under this Ordinance shall not relieve the owner or operator of the obligation to comply with any other applicable federal, state, regional or local regulation, rule, ordinance or requirement. Nor shall said notice, permit, or exemption relieve any owner or operator of any liability for violation of such regulations, rules, ordinances or requirements.

**5.06 Requirements for Sanitary Sewers and Exfiltration Systems.**

- a. All new or replacement installations of sanitary sewer mains in Zone One (1) or Zone Two (2) of a public drinking water wellfield shall be constructed to force main standards. Standards for installation are shown in Exhibit F and shall be enforced by the Palm Beach County Public Health Unit through the permit process.
- b. No new exfiltration system shall be constructed in Zone One (1) or Zone Two (2) of a public drinking water wellfield.

## **Section 6. PERMITS**

### **6.01 Wellfield Protection Permits.**

- a. This section provides the requirements and procedures for the issuance by the Department of Operating and Closure Permits required by this Ordinance.
- b. An application which satisfies the requirements of the applicable Zone of Influence and Section 6.02 and, if applicable, Section 12, shall be approved and a permit issued. In addition to the failure to satisfy these requirements, the Department may deny a permit based on repeated violations of this Ordinance.
- c. An Operating Permit shall remain valid provided the permittee is in compliance with the terms and conditions of the permit.
- d. Permittees shall not be required to pay annual renewal fees until October 1, 1990. Beginning October 1, 1990, all current and future permittees are subject to an annual renewal license fee as stated in Exhibit C. Notification to the Department under Section 5.02(i) is due with the renewal fee.
- e. The Department shall have the right to make inspections of facilities at reasonable times to determine compliance with this Ordinance.
- f. All of the facilities owned and/or operated by one person when these structures and activities are located on contiguous parcels of property even where there are intervening public or private roads, may be covered under one permit.

### **6.02 Permit applications.**

- a. Operating Permit. All applications, as a minimum, shall provide the following information:
  - 1. A list of all Regulated Substances and substances on the Generic Substance List which are to be stored, handled, used or produced in the nonresidential activity being permitted including their quantities.
  - 2. A detailed description of the nonresidential activities that involve the storage, handling, use or production of the Regulated Substances indicating the unit quantities in which the substances are contained or manipulated.
  - 3. A description of the containment, the emergency collection devices and containers and emergency plan that will be employed to comply with the restrictions required for Zones Two (2) and Three (3) as set forth above. For Zone Four (4) this particular documentation will only be required if a



permit revision is required pursuant to Subsection 5.04(b).

4. A description of the daily monitoring activities that have been or will be instituted to comply with the restrictions for Zones Two (2), Three (3) and Four (4) as set forth above in Section 5.02.
  5. A description of the maintenance that will be provided for the containment facility, monitoring system, and emergency equipment required to comply with the restrictions of Zones Three (3) and Four (4) as set forth above. For Zone Four (4) this particular documentation will only be required for a revised Operating Permit as required by Subsections 5.03(b) and 5.04(b).
  6. A description of the groundwater monitoring wells that have been or will be installed, other pertinent well construction information, and the arrangements which have been made or which will be made for certified analyses for specified Regulated Substances. For Zones Three (3) and Four (4) this particular documentation will only be required for a revised Operating Permit as required by Subsections 5.03(b) and 5.04(b).
  7. Evidence of arrangements made with the appropriate designated public utility for sampling analysis of the raw water from the potable water well. For Zones Three (3) and Four (4) this particular documentation will only be required for a revised Operating Permit as required by Subsections 5.03(b) and 5.04(b).
  8. An agreement to indemnify and hold Palm Beach County harmless from any and all claims, liabilities, causes of action, or damages arising out of the issuance of the permit. The County shall provide reasonable notice to the permittee of any such claims. For Zone Four (4) this particular documentation will only be required for a revised Operating Permit as required by Subsection 5.04(b).
  9. The application for the Operating Permit shall be filed with the Department within ninety (90) days of receipt of written notification from the Department.
- b. Closure Permit. Closure permit applications shall provide the following information:

1. A schedule of events to complete the closure of an activity that does or did store, handle, use, or produce Regulated Substances. As a minimum, the following actions shall be addressed:
  - a) Disposition of all Regulated Substances and contaminated containers.
  - b) Cleanup of the activity and environs to preclude leaching of unacceptable levels of residual Regulated Substances into the aquifer.
  - c) Certification by a Professional Engineer registered or Professional Geologist licensed in the State of Florida that disposal and cleanup have been completed in a technically acceptable manner. The requirement for certification by a Professional Engineer or Geologist

may be waived if the applicant provides evidence to the Department that all of the following items are applicable:

- 1) The entire operation is maintained inside the building(s) of the facility.
  - 2) The standard method of removing operating waste is not by septic tank, sewer mains, or floor drains.
  - 3) There is no evidence of spills permeating floors or 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 the facility in Zone 1.
  - 6) The applicant shall provide a sworn statement that disposal and cleanup have been completed in a technically acceptable manner.
- d) An appointment for an inspection by the Department.
  - e) An agreement to indemnify and hold Palm Beach County harmless from any and all claims, liabilities, causes of action, or damages arising out of the issuance of the permit. The County shall provide reasonable notice to the permittee of any such claims.
2. The issue of well reconfiguration shall be evaluated by the Department and the affected public utility as an alternative to a closure permit during the permit application process. Should a utility notify the Department in writing that it intends to reconfigure a wellfield and said configuration no longer subjects a facility to Zone One (1) or Zone Two (2) requirements, the Department may issue an Operating Permit providing conditions under which said facility may continue to operate.
  3. The Department of Environmental Regulation and the Palm Beach County Public Health Unit shall be advised in writing of each Closure Permit application.
- c. Permit conditions. The permit conditions shall ensure compliance with all the prohibitions, restrictions, and requirements as set forth in this Ordinance. Such conditions may include, but not be limited to, monitoring wells, periodic groundwater analysis reports, and compliance schedules. Said conditions may also include requirements in a closure permit to reduce the risk in the interim of contamination of the groundwaters, taking into account cost, likely effectiveness and degree of risk to the groundwater.
  - d. Bond required. Except as provided in Section 6.02(d)(5), no permit herein required shall be issued unless there is filed at the time of application, except in the case of an application by a political subdivision or agency of the State, a cash bond, permit bond with a corporate surety, or letter of credit in the amount required by

Exhibit B, attached hereto and incorporated herein, to insure that:

1. The permittee will operate its nonresidential activities and/or closure of such nonresidential activities, as applicable, in accordance with the conditions and requirements of this Ordinance and permits issued hereunder.
  2. The permittee shall reimburse Palm Beach County in accordance with Subsection 6.02(a)(8), (b)(1)e) and (e) of this Ordinance for any and all expenses and costs which Palm Beach County incurs as a result of the permittee failing to comply with the conditions and requirements of this Ordinance.
  3. Before a bond or letter of credit is accepted by the Department as being in compliance with this Section, the bond or letter of credit shall be reviewed and approved by the Palm Beach County Attorney's Office and shall be filed with the Clerk of the Board of County Commissioners. A corporate bond shall be executed by a corporation authorized to do business in the State of Florida as a Surety. A cash bond shall be deposited with the Department, who shall give receipt therefore.
  4. The bond or letter of credit required by this Section shall be kept in full force and effect for the term of the permit and for one-year after voluntary cessation of activities permitted hereunder, expiration, or revocation of the permit.
  5. No bond or letter of credit is required for issuance of a permit for the following:
    - a) Pesticide applicators, as described in Section 12.06, unless the pest control facility is located in Wellfield Zone One (1), Two (2), or Three (3).
    - b) Closure of a facility, provided that the conditions listed in Section 6.02(b)(1)c) for waiver or certification by an engineer or geologist are applicable.
    - c) A facility in Zone Four (4), unless the Department has determined that revision of the permit is appropriate under the conditions described in Section 5.04(b).
- e. Clean-Up and Reimbursement. Any person subject to regulation under this Ordinance shall be liable with respect to Regulated Substances emanating on or from the person's property for all costs of removal or remedial action incurred by Palm Beach County and damages for injury to, destruction of, or loss of natural resources, including the reasonable costs of assessing such injury, destruction or loss resulting from the release or threatened release of a Regulated Substance as defined in this Ordinance. Such removal or remedial action by Palm Beach County may include, but is not limited to, the prevention of further contamination of ground water, monitoring, containment, and clean-up or disposal of Regulated Substances resulting from the spilling, leaking, pumping, pouring, emitting, or dumping of any Regulated Substance or material which creates an emergency hazardous situation or is expected to create an emergency hazardous situation.

**6.03 Fee Schedule.**

- a. **Operating Permit fee.** The fee for an Operating Permit under this regulation shall be as shown in Exhibit C, attached hereto and incorporated herein. A late fee of Twenty-Five Dollars (\$25.00) shall be charged if application for a permit or renewal is late. The Operating Permit fee shall be used to defray the cost of monitoring compliance with this Ordinance.
- b. **Closure Permit Fee.** The fee for a Closure Permit under this regulation shall be one-half of the fee for the Operating Permit.
- c. **Permit transfer fee.** The fee for transfer of an Operating Permit or Closure Permit shall be Twenty-Five Dollars (\$25.00) to defray the cost of processing the transfer. Application for Transfer Permit is to be made within sixty (60) days of transfer of ownership of the activity.

**6.04 Revocation or Revision of Permit or General or Special Exemption.**

- a. Any permit issued under the provisions of this Ordinance shall not become vested in the permittee. The Department may revoke any permit issued by it by first issuing a written notice of intent to revoke (certified mail return receipt requested, or hand delivery) if it finds that the permit holder:
  - 1. Has failed or refused to comply with any of the provisions of this Ordinance, including but not limited to permit conditions and bond requirements of Section 6.02(d) herein; or
  - 2. Has submitted false or inaccurate information in this application; or
  - 3. Has failed to submit operational reports or other information required by this Ordinance; or
  - 4. Has refused lawful inspection under Section 6.01(e); or
  - 5. Is subject to revocation under Section 5.02(i), 5.03(b) or 5.04(b).
- b. The Department may revise any permit pursuant to Section 5.02(i), 5.03(b) or 5.04(b) by first issuing a written notice of intent to revise (certified mail return receipt requested, or hand delivery.)
- c. In addition to the provisions of Section 6.04, Subsections (a) and (b), within thirty (30) days of any spill of a Regulated Substance in Zones One (1), Two (2), or Three (3), the Department shall consider revocation or revision of the permit. Upon such consideration the Department may issue a notice of intent to revoke or revise which shall be subject to the provisions of Section 8, or elect not to issue such notice. In consideration of whether to revoke or revise the permit, the Department may consider the intentional nature or degree of negligence, if any, associated with this spill, and the extent to which containment or cleanup is possible, the nature, number and frequency of previous spills by the permittee and the potential degree of harm to the groundwater and surrounding wells due to such spill.

- d. For any revocation or revision by the Department of a Special Exemption or General Exemption that requires an Operating Permit as provided under the terms of this Ordinance, the Department shall issue a notice of intent to revoke or revise which shall contain the intent to revoke or revise both the applicable exemption and the accompanying Operating Permit.
- e. The written notice of intent to revoke or revise shall contain the following information:
  - 1. The name and address of the permittee, if any, and property owner, if different.
  - 2. A description of the facility which is the subject of the proposed revocation or revision.
  - 3. Location of the spill, if any.
  - 4. Concise explanation and specific reasons for the proposed revocation or revision.
  - 5. A statement that "Failure to file a petition with the Clerk of the Board within twenty (20) days after the date upon which permittee receives written notice of the intent to revoke or revise shall render the proposed revocation or revision final and in full force and effect".
- f. Failure of permittee to file a petition under Section 8.01 shall render the proposed revocation or revision final and in full force and effect.
- g. Nothing in this section shall preclude or be deemed a condition precedent to the Department seeking a temporary or permanent injunction.

**Section 7. GROUNDWATER AND NATURAL RESOURCES PROTECTION BOARD.**

**7.01 Qualifications and Terms of Office.** The Board of County Commissioners shall appoint a five (5) member Groundwater and Natural Resources Protection Board to hear appeals and applications as provided in Section 8 and to hear alleged violations of this Ordinance. The members of the Groundwater and Natural Resources Protection Board shall have the following qualifications and terms of office:

- a. Members shall be residents of Palm Beach County and shall serve three (3) year terms. However, the first term of the biologist or chemist shall be for one (1) year and the first term of the businessperson and hydrogeologist shall be for two (2) years. Said terms shall be for three (3) years thereafter.
- b. If any member fails to attend two (2) of three (3) successive meetings without providing notice prior to the meeting of said member's absence from the meeting to the Department of Environmental Resources Management or to the Chairperson of the Groundwater and Natural Resources Protection Board, the Groundwater and Natural Resources Board may declare the member's position vacant. The Board of County Commissioners shall promptly fill such vacancy. Members of the Groundwater and Natural Resources Protection Board may be suspended or removed for cause. Appointments to fill vacancies shall comply with the membership requirements set forth in Subsections (a) and (c). Any member may

be reappointed upon approval of the Board of County Commissioners as provided herein.

- c. The membership shall be as follows:
  - 1. A professional engineer registered by the State of Florida;
  - 2. An attorney licensed by the Florida Bar;
  - 3. A hydrogeologist;
  - 4. A chemist or biologist;
  - 5. A citizen possessing expertise and experience in managing a business;

**7.02 Organization and Procedure.**

- a. The members of the Groundwater and Natural Resources Protection Board shall elect a Chairperson and a Vice-Chairperson. The presence of three or more members shall constitute a quorum of the Board.
- b. Hearings may be called by the chairman or by written notice signed by at least three members of the Groundwater and Natural Resources Protection Board may continue a hearing to another date certain or set a future hearing date.
- c. Minutes shall be kept of all hearings. The Groundwater and Natural Resources Protection Board shall keep accurate records of its public hearings, which shall be filed, together with its minutes, with the Department.
- d. The Board of County Commissioners shall provide adequate and competent clerical and administrative personnel as may be required by the Groundwater and Natural Resources Protection Board for the proper performance of its duties.

**Section 8. APPEALS FROM INTENT TO REVOKE OR REVISE AN OPERATING PERMIT AND A SPECIAL OR GENERAL EXEMPTION; APPEALS FROM PERMIT CONDITIONS AND DENIAL OR PERMIT OR APPLICATION FOR GENERAL EXEMPTION; APPEALS FROM DENIAL OR NON-DISCLOSURE OR DENIAL OF TRADE SECRETS AND APPEALS FOR SPECIAL EXEMPTION.**

**8.01 Written Petition for Review; Matters for Review and Time For Filing.** Any person may appeal to the Groundwater and Natural Resources Protection Board for the following reasons:

- a. To appeal the Department's permit conditions, denial of a permit, General Exemption or non-disclosure of a trade secret.
- b. To appeal an intent to revoke or revise an Operating permit and a General or Special Exemption.
- c. To request a Special Exemption.  
Written petitions for relief shall be filed with the Clerk of the Groundwater and Natural Resources Protection Board, setting forth the specific relief requested and the factual basis for the relief requested. Said petitions shall include all materials

and documents which are necessary to support petitioner's request. Except in the case of an application for Special Exemption, a written request for relief shall be filed with the Clerk of the board within twenty (20) days after the date upon which the petitioner receives a permit, General Exemption, or written notice that the application for a permit, General Exemption, or trade secret protection has been denied. Failure to file within twenty (20) days shall constitute a waiver of the person's right to an administrative hearing. The filing of a petition authorized by this section shall stay all proceedings with respect to the matters that are contained in the petition until there is a final decision of the Groundwater and Natural Resources Protection Board, as provided herein.

**8.02 Hearing Date.**

- a. All appeals and applications shall be heard within forty-five (45) days of the date from which the petition and supporting data are filed with the Clerk of the Groundwater and Natural and Natural Resources Protection Board. An extension of time for the hearing may be granted by the Board for good cause shown.
- b. Notice of hearing shall be served upon the applicant or permittee and property owner, if different, by hand delivery or by certified mail, return receipt requested, no less than ten (10) days prior to the hearing. When the owner or responsible individuals are not present or are avoiding service of the notice of hearing in a conspicuous place on the premises of the facility that is the subject of the appeal.

**8.03 Contents of Notice of Hearing.**

- a. Name an address of the petitioner and property owner, if different;
- b. Description of the facility;
- c. Ordinance section or regulation section alleged to have been the basis of the denial or proposed revocation or revision;
- d. Time, date and place of the hearing;
- e. A statement that "Failure to attend may result in an order being issued adverse to your interest";
- f. A statement that all parties shall be given the opportunity to present witnesses and evidence in support of their position; and
- g. A statement reflecting the requirements of Chapter 286, Florida Statutes, regarding a verbatim record of the proceedings.

**8.04 Computation of Time.** In computing the period of time within which an appeal must be taken from the permit conditions, denial of a permit, General Exemption or application for non-disclosure or from intent to revoke or revise a permit, General Exemption or Special Exemption, the day of receipt of notice of said denial or intent to revoke or revise shall not be included. In computing the period of time in which the Groundwater and Natural Resources Protection Board must set a hearing date, the day on which the Clerk of the Board receives the written petition and accompanying information shall not be included. In computing the period within which notice shall be provided prior to the hearing, the date of the hearing shall not be included. The last day of any period of time herein provided

shall be counted, unless it is a Saturday, Sunday or a legal holiday, in which event the period shall run until the end of the next day which is neither a Saturday, Sunday or legal holiday. Intermediate Saturdays, Sundays and legal holidays shall be excluded in the computation when any period of time prescribed in the Ordinance is less than ten (10) days; where said period is ten (10) days, or greater Saturday, Sunday and legal holidays shall be included.

**8.05 Hearing Procedure.**

- a. All testimony shall be under oath and shall be recorded.
- b. If there is a proper notice of hearing as provided in Section 8.02(b), the hearing may proceed in the absence of the alleged petitioner and property owner, if different.
- c. Irrelevant, immaterial, or unduly repetitious evidence shall be excluded, but all other evidence of a type commonly relied upon by reasonably prudent persons in the conduct of their affairs shall be admissible, whether or not such evidence shall be admissible in a trial in the courts of Florida. Any part of the evidence may be received in written form. Hearsay evidence may be used for the purpose of supplementing or explaining other evidence, but it shall not be sufficient in itself to support a finding unless it would be admissible over objection in civil actions.
- d. Documentary evidence may be received in the form of a copy or excerpt if the original is not readily available.
- e. The rules of privilege shall be effective to the same extent that they are now or hereafter may be recognized in civil actions.
- f. Each party shall have the following rights:
  1. To be represented by counsel;
  2. To call and examine witnesses;
  3. To introduce exhibits;
  4. To cross examine opposing witnesses on any relevant matter, even though the matter was not covered under direct examination;
  5. To impeach any witness regardless of which party called the witness to testify;
  6. To rebut the evidence.
- g. Any interested party or person whose substantial interests are affected may make application, and upon good cause shown, may be allowed by the Groundwater and Natural Resources Protection Board to intervene in a pending proceeding.
- h. In an appeal of an intent to revoke or revise a Special Exemption or General Exemption that also requires an Operating Permit under the terms of this Ordinance, the appeal of both the intent to revoke or revise the applicable exemption and the accompanying permit shall be consolidated into one hearing.



- 8.06 Decisions by the Groundwater and Natural Resources Protection Board. At all hearings, the Groundwater and Natural Resources Protection Board shall hear and consider all facts material to the appeal or application for Special Exemption and shall thereafter issue a decision based on the greater weight of the evidence. Such decision may affirm, reverse or modify the action or proposed action of the Department.
- 8.07 Review. The decision of the Groundwater and Natural Resources Protection Board, or the Board of County Commissioners under Section 14, as applicable, shall be final administrative action on behalf of the Department and the County. Any person who is a party to the proceeding before the Groundwater and Natural Resources Protection Board or Board of County Commissioners under Section 14, if applicable, may appeal to the Circuit Court of Palm Beach County in accordance with applicable Florida Appellate Rules.

**Section 9. PROTECTION OF FUTURE WELLFIELDS.**

The prohibitions and restrictions set forth in this Ordinance and in regulations promulgated pursuant hereto shall apply to any sites officially designated by the Board of County Commissioners as future wellfields. Such prohibitions and restrictions shall become effective upon approval by the Board of County Commissioners of the Zones of Influence maps for the designated future wellfield. Prior to final action by the Board of County Commissioners in designating a future wellfield or approving the Zones of Influence maps for those wellfields, all property owners and discernable operating activities within the area affected shall receive written notice at least thirty (30) days prior to the proposed public hearing at which the action shall be considered.

**Section 10. DETERMINATION OF LOCATION WITHIN ZONES.**

- 10.01 In determining the location of properties and facilities within the zones depicted on the Zones of Influence maps, the following rules shall apply:
- a. Properties located wholly within one (1) Zone reflected on the applicable Zones of Influence maps shall be governed by the restrictions applicable to that Zone.
  - b. To the extent Section 10.01 (c) does not apply, properties having parts lying within more than one (1) Zone reflected on the applicable Zones of Influence maps shall be governed by the restrictions applicable to the zone in which the part of the property is located.
  - c. Where a travel time contour which delineates the boundary between two (2) Zones of Influence passes through a facility, the entire facility shall be considered to be in the more restrictive zone.
  - d. Where the facility, or portion thereof, is overlapped by Zones of Influence of different wells or wellfields, the stricter zones shall apply.

**Section 11. APPLICATIONS TO NEW ACTIVITIES AND RESTRICTIONS ON ISSUANCE OF BUILDING PERMITS AND OCCUPATIONAL LICENSES.**

- a. No building permit or occupational license for any nonresidential activity shall be

issued by the County or any city located within Palm Beach County that would allow development or construction in Zones One (1), Two (2), Three (3), Four (4), that is contrary to the restrictions and provisions provided in this Ordinance. Permits or occupational licenses issued in violation of this Section confirm no right or privilege on the grantee and such invalid permit or licenses will not vest rights.

- b. The requirements and provisions of this Ordinance shall apply immediately upon the effective date of this Ordinance to all new nonresidential activities. An existing activity is one for which a building permit or occupational license had been issued by the appropriate jurisdiction prior to the effective date of this Ordinance and which had not expired on or before the effective date of this Ordinance, or for which a completed building permit or occupational license application had been filed and accepted with the appropriate jurisdiction prior to the effective date of this Ordinance. All other activities shall be deemed "new".
- c. Any application for a nonresidential or residential development greater than twenty-five (25) units for a building permit or nonresidential development subject to review by an advisory planning body and approval by the local governing authority or zoning board of appeals that includes property wholly or partially within Zone One (1), Two (2), Three (3), or Four (4), of a wellfield shall include requirements of the Department. These requirements shall be as follows:
  - 1. Notification by the local governing authority of the location of the property in Zone One (1), Two (2), Three (3), or Four (4) and notarized letter from applicant admitting acceptance of notification. Notification shall be prepared by the Department providing details of Zones, prohibitions, and measures required for compliance; or
  - 2. Submittal of application to the Department for notification.
- d. Any application submitted for an occupational license for any use within Zone One (1), Two (2), Three (3), or Four (4) of an incorporated or unincorporated area shall require certification by the Department that the use meets the applicable requirements of this Ordinance.
- e. It shall be the duty of each local agency to screen all applications for Zone One (1), Two (2), Three (3), Four (4) occupational licenses.
- f. The Department shall provide a list to all local agencies of potentially prohibited operations in Zone One (1).
- g. Copies of Building Permits of residential activities larger than twenty-five (25) units, all nonresidential projects, and all occupational licenses issued for Zone One (1), Two (2), Three (3), or Four (4) shall be submitted to the Department on a weekly basis.

## **Section 12. GENERAL EXEMPTIONS.**

### **12.01 Activities Claiming General Exemption.**

- a. A General Exemption application and Operating Permit pursuant to the provisions of Section 5.02 shall be required for any nonresidential activity claiming a General

Exemption under Sections 12.02, 12.03, or 12.07 and shall be filed with the Department. No new nonresidential facilities shall be permitted into Zone One (1) after the effective date of this Ordinance if the new non-residential facility stores, handles, produces or uses any Regulated Substance.

- b. Such application shall contain a concise statement by the applicant detailing the circumstances upon which the applicant believes would entitle him or her to an exemption pursuant to Section 12.01(a) above.
- c. A one hundred dollar (\$100.00) fee shall be filed with the application to defray the costs of processing such application.
- d. Within thirty (30) working days of receipt of an application for General Exemption, the Department shall inform the applicant whether such application contains sufficient information for a proper determination to be made. If the application is found to be insufficient, then the Department shall provide to the applicant a written statement by certified mail or hand delivery requesting the additional information required. The applicant shall inform the Department within ten (10) working days of the date of the written statement of his or her intent to either furnish the information or have the application processed as it stands. The Department shall have ninety (90) working days from either the rendering of a sufficiency determination or receipt of additional information making an application sufficient to make a decision.

**12.02 Exemptions for fire, police, emergency medical services and County emergency management center facilities.**

Existing fire, police, emergency medical services and County emergency management center facilities are exempt from Zone 1 prohibitions as set forth in Section 5.01. However, an Operating Permit shall be obtained pursuant to Section 5.01.

**12.03 Exemptions for Utilities in Zones One (1).**

Utilities as defined herein shall be exempt, except for the maintenance and refueling of vehicles, from Zone One (1) prohibitions as set forth in Section 5.01. However, an Operating Permit shall be obtained pursuant to Section 5.01.

**12.04 Exemption for Continuous Transit.**

The transportation of any Regulated Substance throughout Zones One (1), Two (2), or Three (3) shall be exempt from the provisions of this Ordinance provided the transporting motor vehicle is in continuous transit. The transport of such substances through existing permanent pipelines is also exempt provided that the currently authorized use or uses are not changed and provided that leak detection and monitoring as approved by the Department are employed. No General Exemption or Operating Permit application is required except that an Operating Permit is required to establish the leak detection and monitoring requirements for said existing pipelines.

**12.05 Exemption for Vehicular and Lawn Maintenance Fuel and Lubricant Use.**

The use in a vehicle or lawn maintenance equipment of any Regulated Substance solely as fuel in that vehicle or equipment fuel tank or as lubricant in that vehicle or equipment shall be exempt from the provisions of this Ordinance. No General Exemption or Operating

Permit application are required.

**12.06 Exemption for Application of Pesticides, Herbicides, Fungicides, and Rodenticides.**

The application of those Regulated Substances used as pesticides, herbicides, fungicides, and rodenticides in recreation, agriculture, pest control and aquatic weed control activities shall be exempt from the provisions of this Ordinance provided that:

- a. In all Zones, the application is in strict conformity with the use requirement as set forth in the substances EPA registries and as indicated on the containers in which the substances are sold; and
- b. In all Zones, the application is in strict conformity with the use requirement as set forth in Chapter 482 and 487, Florida Statutes, and Chapter 5E-2 and 5E-9, Florida Administrative Code.
- c. In all Zones, the application of any of the pesticides, herbicides, fungicides, and rodenticides shall be noted in the records of the certified operator. Records shall be kept of the date and amount of these substances applied at each location and said records shall be available for inspection at reasonable times by the Department.
- d. In Zones One (1), Two (2), Three (3), or Four (4), the pesticides, herbicides, fungicides, and rodenticides shall not be handled during application in a quantity exceeding seven hundred (700) gallons of formulation.
- e. All nonresidential applicators of pesticides, herbicides, fungicides, and rodenticides who apply those substances in Zone One (1), Two (2), Three (3), or Four (4) shall obtain an Operating Permit and shall comply with operations using these materials under one permit and shall comply with all the requirements of Section 5.02(c-f).

This exemption applies only to the application of pesticides, herbicides, fungicides, and rodenticides.

**12.07 Exemption for Retail/Wholesale Sales Activities.**

Retail/wholesale sales establishments in Zone (1) that store and handle Regulated Substances for resale in their original unopened containers shall be exempt from the prohibition in Zone One (1) provided that those establishments obtain an Operating Permit pursuant to the provisions of Section 5.02. Items in Section 5.02 (g) and (h) are not required for facilities in Zone One (1) or Zone (2), provided no individual container of Regulated Substances exceeds five (5) gallons, if liquid, or twenty-five (25) pounds, if solid.

**12.08 Exemptions for Office Uses.**

Offices uses, except for the use of Regulated Substances for the maintenance and cleaning of office buildings, shall be exempt from the provisions of this Ordinance. No General Exemption of Operating Permit applications are required.

**12.09 Exemption for Construction Activities.**

The activities of constructing, repairing or maintaining any facility or improvement on lands

within Zones One (1), Two (2), Three (3), or Four (4) use those applicable Best Management Practices set forth in Exhibit D, attached hereto and incorporated herein. No General Exemption or Operating Permit applications are required.

**Section 13. SPECIAL EXEMPTIONS.**

**13.01** An affected person in Zone One (1), Zone Two (2), Zone Three (3) or Zone Four (4) may petition the Groundwater and Natural Resources Protection Board for a Special Exemption from the prohibitions and monitoring requirements set out in Sections 5.01, 5.02, 5.03, and 5.04. In order to obtain such an exemption such person must demonstrate by a preponderance of competent, substantial evidence that:

- a. Special or unusual circumstances and adequate technology exists to isolate the facility or activity from the potable water supply.
- b. In granting the Special Exemption, the Groundwater and Natural Resources Protection Board may prescribe any additional appropriate conditions and safeguards which are necessary to protect the wellfield.

**13.02** Activities claiming Special Exemption with adequate technology to isolate the facility or activity from the potable water supply and protect the wellfield.

- a. A Special Exemption application claiming special or unusual circumstances and adequate protection technology shall be filed with the Department. It shall be signed by the applicant and Professional Engineer registered or Professional Geologist licensed in the State of Florida.
- b. Such application shall contain a concise statement by the applicant detailing the circumstances which the applicant feels would entitle him or her to an exemption pursuant to Section 13.01(a) above.
- c. A two hundred dollar (\$200.00) fee shall be filed with the application to defray the costs of processing such application.
- d. The application for Special Exemption shall contain but not be limited to the following elements:
  - 1. A description of the situation at the site requiring isolation from the wellfield, including:
    - a) A list of the Regulated Substances in use at the site;
    - b) A site plan of the facility including all storage, piping, dispensing, shipping, etc., facilities;
    - c) What operations at the facility involve Regulated Substances which must be isolated from the wellfields;
    - d) The location of all operations involving Regulated Substances.
    - e) A sampling and analysis of the groundwater on the site of the activity seeking a Special Exemption shall be performed to

determine if any Regulated Substances are already present which constitute a threat to the water supply.

- f) An analysis of the affected well showing whether or not such well is already contaminated by any Regulated Substances and the extent of such contamination.
  - g) A hydrogeologic assessment of the site which shall address, as a minimum, soil characteristics and groundwater levels, directional flow, and quality.
- 2. A technical proposal to achieve the required isolation including:
  - a) Components to be used and their individual functions;
  - b) System tying the components together;
  - c) A discussion and documentation, such as published technical articles, substantiating the performance and reliability of the components individually and the system as a whole. If the system has not been field tested, a discussion and laboratory test documentation to substantiate the proposed performance and reliability of the system;
  - d) Details of the specific plans to install the system at the site.
- 3. Testing procedures. If the proposed system does not have a proven history of successful in-field operation, it may still be proposed using proven components. A test plan for the system as installed shall be provided to prove that the proposed system works in the field.
- 4. A technical proposal for backup detection of Regulated Substances that may elude the isolation system and escape to outside a perimeter to be established by Department. Such proposal shall include emergency measures to be initiated in case of escape of Regulated Substances.
- 5. Criteria for success. Site-specific, system performance criteria shall be proposed to ascertain the success of the system. Such criteria shall include but shall not be limited to:
  - a) Performance;
  - b) Reliability;
  - c) Level of maintenance;
  - d) Level of sensitivity to Regulated Substances;
  - e) Effect of rain, flood, power failure or other natural disaster.
- 6. Precautions in event of failure. Applicant shall provide information on the on-site availability of substance removal technologies sufficient to remediate any introduction of Regulated Substances into the water table at

the site. Where water is removed from on-site wells during the remedial process a plan shall be proposed for the disposal of such water.

7. A closure plan shall be provided in the event the system does not prove successful in the testing required by Section 13.02(d)(3) above.
  8. Any other reasonable information deemed necessary by Department due to site-specific circumstances.
- e. Within thirty (30) working days of receipt of an application for Special Exemption, the Department shall inform the applicant whether such application contains sufficient information for a proper determination to be made. If the application is found to be insufficient, then the Department shall provide to the applicant a written statement by certified mail or hand delivery requesting the additional information required. The applicant shall inform the Department within ten (10) working days of the date of the written statement of his or her intent to either furnish the information or have the application processed as it stands. At the end of said ten (10) day period the Department shall have seven (7) days to inform the Groundwater and Natural Resources Protection Board of said application and shall transfer all information accompanying the application to the Groundwater and Natural Resources Protection Board who shall then proceed with the hearing procedures or provided as provided under Section 8.

#### **13.03 Granting of Special Exemptions.**

- a. Any Special Exemption granted by the Groundwater and Natural Resources Protection Board shall be subject to the applicable conditions of Sections 5.01, 5.02, 5.03, and 5.04 of the Ordinance and any other reasonable and necessary special conditions imposed by the Groundwater and Natural Resources Protection Board.

An Operating Permit shall be issued by the Department with the applicable conditions of Sections 5.01, 5.02, 5.03, and 5.04, and any other reasonable and necessary special conditions imposed by the Groundwater and Natural Resources Protection Board. Such Special Exemptions shall be subject to revocation or revision by the Department for violation of any condition of said Special Exemption by first issuing a written notice of intent to revoke or revise (certified mail return receipt requested or hand delivery). Upon revocation or revision, the activity will immediately be subject to the enforcement provisions of the Ordinance.

- b. Special Exemptions for Zone One (1) are for existing nonresidential activities only. No new nonresidential activity shall be permitted into Zone One (1) after the effective date of this Ordinance if the new nonresidential activity stores, handles, produces or uses any Regulated Substance.

#### **Section 14. PETITION FOR COMPENSATION.**

- a. Parties affected by the requirements of this Ordinance may petition the Board of County Commissioners for a determination as to the effect of said Ordinance on those activities and the issue of compensation.
- b. Such petition shall be filed with the Department.

- c. Such petition shall contain, as applicable, the following:
1. A copy of the closure permit required by Section 5.01 of this Ordinance of the required operations permit showing the change in operation.
  2. An analysis of the need to cease, move, or change operations including a summary of alternatives investigated and estimated costs of those alternatives.
  3. A list of all previously-issued notices of violation by the Department, Department of Environmental Regulation or the Environmental Protection Agency regarding use of Regulated Substances including a description of any corrective action taken or pending.
  4. Detailed specification of the amount for which compensation is being requested.
  5. The Department shall review all petitions for compensation and make recommendations to the Board of County Commissioners regarding the reasonableness of any amounts requested by the petitioner, whether the facility may potentially qualify for an exemption under Section 13.02. Based upon such recommendations, the Board of County Commissioners may deny such petition.
- d. As soon as practicable after submission of a petition for compensation, but no later than ninety (90) days, by an owner or operator of an activity, the Board of County Commissioners shall hold a hearing to determine the eligibility of the activity for compensation pursuant to this Section. Petitioner shall be given written notice by certified mail or hand delivery of such hearing at least thirty (30) days prior to the hearing. Formal Rules of Evidence shall not apply to such hearing, but fundamental due process shall be observed and shall govern the proceedings. Petitioner and the County shall have the right to:
1. Call and examine witnesses;
  2. Introduce exhibits;
  3. Cross-examine witnesses on any relevant matter;
  4. Rebut the evidence; and
  5. Be represented by Counsel.
- e. Criteria for determination of eligibility for cessation or moving of operations. In determining whether petitioner is eligible for compensation, the Board of County Commissioners shall consider:
1. Whether a reasonable, cost effective alternative to cessation or moving of operations exists for complying with this Ordinance, including reconfiguring of the wellfield. Applicant, with the cooperation of the Department and the affected public utility, shall address the issue of reconfiguration;
  2. Whether the requirements of this Ordinance were the sole reason for



cessation of the operation;

3. Past environmental record;

4. Efforts to mitigate financial impact of this Ordinance and these corresponding regulations.

f. Criteria for determination of eligibility for compensation for change in operations. In deciding whether petitioner is eligible for compensation for a change in operations, the Board of County Commissioners shall consider:

1. Whether the proposed change is a reasonable, cost effective method for complying with this Ordinance and

2. Whether the requirements of this Ordinance were the sole reason for the change in the operation.

g. Classes of impact for which compensation may be granted.

1. Actual Reasonable Relocation Expenses.

a) The owner or operator of an affected activity may be paid the actual reasonable cost of a relocation within Palm Beach County. Such amount to include the cost of:

1) dismantling operation;

2) actual moving;

3) reassembling equipment;

4) installation of equipment;

5) internal connection of utilities to equipment;

6) minor modification of site to accommodate operation, specifically excluding structural changes to the building or paving and drainage requirements at the site;

7) the additional costs which would have to be incurred to move the activity due to changed circumstances or applicable laws, ordinances, or regulations;

8) any losses caused by the necessity of termination a lease, such compensation not to exceed three (3) months' rent. Landlord and tenant are required to make a bona fide effort to mitigate this loss. This compensation shall be paid to either the landlord or the tenant, to be decided by agreement between the landlord and tenant.

b) The costs in a)1-7) above shall be supported by two (2) itemized and sealed bids and a detailed listing of the items. The amount to be paid shall not exceed the lower of the two (2) bids. In order to

verify such information, the Department shall have the right to enter the activity's premises at reasonable times. Such bids and detailed listing of the cost shall be verified by the Department.

- c) **Self-Moves.** In the case of a self-move the owner of a relocated activity may be paid the lower of two (2) sealed and itemized bids from licensed moving companies based on a detailed listing of the cost.

**2. Actual Reasonable Modification of Operation Expenses.**

The owner or operator of an affected activity may be paid the actual reasonable expense to modify the operation of the activity in order to comply with this Ordinance. Such amount to include the cost of:

- a) modification of machinery;
- b) dismantling and moving unusable machinery;
- c) unsalvageable inventory per Section 14(g)(3) below;
- d) moving equipment out of a Zone One (1) on the activity's property per Section 14(g)(3) below;

**3. Actual Direct Losses of Tangible Personal Property.**

Actual direct losses of tangible personal property are allowed when a person closes or relocated an activity. Payment may only be made after a diligent effort is made by the owner to sell the item(s) involved.

- a) If the activity is to be re-established and an item of property to be used therewith is not moved but promptly replaced with a comparable item at the new site, reimbursement shall be either:
  - 1) Replacement cost, taking into account depreciation, less the proceeds of the sale. Present value based on accepted standards in the related business community may be substituted for net proceeds of a sale where applicable, or
  - 2) Estimated cost of moving the item to the replacement site within the geographic boundaries of Palm Beach County.
- b) If a process at the activity is being discontinued or an existing item is not to be replaced in a re-established business, payment will be either:
  - 1) The difference between fair market value as evidenced by two (2) written appraisals of the item for continued use at its prior location less its net proceeds at the sale, or
  - 2) The estimated cost of moving the item to the replacement site within the geographic boundaries of Palm Beach County.

- c) If a sale is not effected because no offer is received and the item is abandoned, payment for the loss may be its fair market value for continued use at its existing location plus the costs of the attempted sale, less the equipment's salvage value.

4. In lieu of Actual Moving Expenses.

In lieu of the payments described in Section 14(g) (1-3) an owner of a discontinued activity may be eligible to receive a payment equal to seventy-five percent (75%) of the estimated reasonable cost of moving the activity within Palm Beach County, except that such payment shall not be more than the lower of two (2) sealed and itemized bids, provided the following requirements are met:

- a) For the owner of an affected activity to be entitled to this payment, the County or its designee must determine that the business cannot be relocated without a substantial loss of its existing patronage. Such determination shall be made by the County or its designee only after consideration of all pertinent circumstances, including but not limited to the following factors:
  - 1) The type of business conducted by the displaced activity.
  - 2) The nature of the clientele of the displaced activity.
  - 3) The relative importance of the present location to the displaced activity.
  - 4) The additional costs which would have to be incurred to move the activity due to changed circumstances or applicable laws, ordinances, or regulations.
- b) Owner or Operator Must Provide Information. For the owner or operator of an affected activity to be entitled to his or her payment, information must be provided to support the estimated moving costs. Such proof shall consist of two (2) sealed bids from licensed moving companies based on a detailed inventory of the items which would be moved.

5. Exclusions on Moving Expenses and Losses.

The following expenses are considered ineligible for payment as "actual" moving expenses:

- a) Additional expenses incurred because of moving to and living in a new location including search cost for finding a new dwelling.
- b) Cost of moving structures, improvements or other real property in which the displaced activity reserved ownership.
- c) Significant changes in building structure but not including minor

electrical, plumbing or carpentry work.

- d) Cost of improvement to activity made after such activity was on notice that it is affected by this Ordinance and would have to cease or alter an operation in Zone One.
  - e) Interest on loans to cover moving expenses.
  - f) Loss of goodwill.
  - g) Loss of business or profits or both.
  - h) Loss of employees.
  - i) Cost of preparing the petition for compensation.
6. Palm Beach County shall disperse eighty-five percent (85%) of the compensation to be paid as determined by the Board of County Commissioners in advance of any move or change of operation. Palm Beach County shall retain fifteen percent (15%) of the monies authorized as compensation for economic impact of this Ordinance until such time as the affected activity has carried out the procedures outlined in its petition for compensation and provides evidence of such expenditures.
7. Upon receipt of payment of compensation as provided in this Ordinance, the recipient shall execute a release in favor of Palm Beach County from any further obligation to the recipient with regard to the economic impact of this Ordinance on the recipient or activity.

**Section 15. TRANSFER.**

In the event there is a change of ownership, a new lease, or an assignment of a lease, a sublease or any other change in regard to the person conducting the operation regulated, the Department shall be notified upon payment of the appropriate fee and completion of processing of an application by the Department, the Wellfield Protection Operating Permit shall be transferred.

**Section 16. TRADE SECRETS.**

The Department shall not disclose any trade secrets of the applicant or permittee that are exempted from such disclosure by federal or state law; provided, however, the burden shall be on the applicant or permittee to demonstrate entitlement to such nondisclosure. Decisions by the Department as to such entitlement shall be subject to challenge by the applicant or permittee by filing a petition with the Groundwater and Natural Resources Protection Board pursuant to Section 8.

**Section 17. VIOLATIONS, ENFORCEMENT, PENALTIES.**

Failure to comply with the requirements of this Ordinance or any permit, exemption, or approval granted or authorized hereunder shall constitute a violation of this Ordinance. Violations for the provisions of this Ordinance shall upon conviction, be punished by a fine not to exceed five hundred dollars (\$500.00) or by imprisonment in the County jail not to exceed sixty (60) days or by both fine and imprisonment pursuant to the provisions of Section 125.69, Florida Statutes. In addition to the sanctions contained herein, the County may take any other appropriate legal

action, including but not limited to, administrative action and requests for temporary and permanent injunctions, to enforce the provisions of this Ordinance. It is the purpose of this Ordinance to provide additional cumulative remedies.

**Section 18. ENFORCEMENT PROCEEDINGS BEFORE THE GROUNDWATER AND NATURAL RESOURCES PROTECTION BOARD.**

**18.01 Jurisdiction and Authority**

- a. The Groundwater and Natural Resources Protection Board appointed pursuant to Section 7 of this Ordinance shall have the jurisdiction and authority to hear and decide alleged violations of this Ordinance pursuant to Section 162.03, Florida Statutes, if there has been a failure to correct a violation or if the same violation had been repeated.
- b. The Board shall have the following powers:
  1. To adopt rules for the conduct of its hearings;
  2. To subpoena witnesses to its hearings. Subpoenas may be served by the Sheriff of the County or Police Department of the Municipality.
  3. To subpoena evidence;
  4. To issue orders requiring any action which would eliminate the violation;
  5. To issue orders imposing a fine not exceeding two hundred fifty (\$250.00) for each day of violation.

**18.02 Enforcement Procedure; Hearing**

- a. An alleged violation of this Ordinance may be filed with the Department by members of the public or by those administrative officials who are responsible for enforcing the provisions of the Ordinance. If a violation(s) is found, the Department shall issue a Notice of Violation specifying a reasonable time to correct the violation(s). Should the violation(s) continue beyond the time specified for correction, or should a violation be repeated, the Department shall give notice to the alleged violator that the Groundwater and Natural Resources Protection Board will conduct a hearing concerning the alleged violation(s) for which a Notice of Violation was issued. The notice shall state the time and place of the hearing and the alleged violation(s).
- b. At the hearing, the Department shall have the burden of proof by a preponderance of the evidence that the violation(s) was not corrected or the violation(s) was/were repeated. If proper notice has been made to the alleged violator, as provided in paragraph (c) below, the hearing may proceed in the absence of the alleged violator.
- c. Proper notice may be presumed if a Notice of Violation has been hand delivered or has been mailed to the alleged violator by certified mail and the alleged violator, an agent, or other person in the household or business has accepted the Notice of Violation.

- d. All testimony shall be under oath and shall be recorded. Formal rules of evidence shall not apply but fundamental due process shall be observed and govern all proceedings. Upon determination of the Chairperson, irrelevant, immaterial or unduly repetitious evidence may be excluded, but all other evidence of a type commonly relied upon by reasonable prudent persons in the conduct of their affairs shall be admissible, whether or not such evidence would be admissible in a trial in the courts of Florida.
- e. Any member of the Groundwater and Natural Resources Protection Board, or the attorney representing the Board, may inquire of or question any witness before the Board. An alleged violator, the attorneys, and/or code inspectors shall be permitted to inquire of any witness before the Board. The Board may consider testimony presented by code inspectors, the alleged violator or any other witnesses.
- f. At the conclusion of the hearing, the Enforcement Board shall orally render its decision (order) based on evidence in the record. The decision shall be by motion approved by the affirmative vote of a majority of those members present and voting. The presence of three (3) or more members shall constitute a quorum and three members of the Board must vote for the action to be official. The Board's decision shall then be transmitted to the respondent in the form of a written order, including finding of facts and conclusions of law consistent with the record. The order shall be transmitted by certified mail or hand delivery to the respondent within ten (10) days after the hearing.

18.03. The Director of the Department or his designee may record a certified copy of any order imposing a fine in the public records in the office of the Clerk of the Circuit Court in and for Palm Beach County, Florida. Once recorded, the certified copy of an order shall constitute a lien against the land on which the violation(s) exists, or if the violator does not own the land, upon any other real or personal property owned by the violator; and it may be enforced in the same manner as a court judgment, including levy against the personal property. Once recorded, the lien shall be superior to any mortgage, liens, or other instruments recorded subsequent to the filing of the Board lien.

## EXHIBIT "A"

### Generic Substances List

Acid and basic cleaning solutions	Solders and fluxes
Antifreeze and coolants	Stripping compounds
Arsenic and arsenic compounds	Tanning industry chemicals
Bleaches, Peroxides	Transformer and capacitor oils/fluids
Brake and transmission fluids	Water and wastewater treatment chemicals
Brine solution	
Casting & Foundry chemicals	
Caulking agents and sealants	
Cleaning solvents	
Corrosion and rust prevention solutions	
Cutting fluids	
Degreasing solvents	
Disinfectants	
Electroplating solutions	
Explosives	
Fertilizers	
Fire extinguishing chemicals	
Food processing wastes	
Formaldehyde	
Fuels and additives	
Glues, adhesives and resins	
Greases	
Hydraulic fluid	
Indicators	
Industrial and commercial janitorial supplies	
Industrial sludges and stillbottoms	
Inks, printing and photocopying chemicals	
Laboratory chemicals	
Liquid storage batteries	
Medical, pharmaceutical, dental, veterinary and hospital solutions	
Mercury and mercury compounds	
Metals finishing solutions	
Oils	
Paints, primers, thinners, dyes, stains, wood preservatives, varnishing and cleaning compounds	
Painting solvents	
PCB's	
Pesticides and herbicides	
Plastic resins, plasticizers and catalysts	
Photo development chemicals	
Poisons	
Polishes	
Pool chemicals	
Processed dust and particulates	
Radioactive sources	
Reagents and standards	
Refrigerants	
Roofing chemicals and sealers	
Sanitizers, disinfectants, bactericides and algaecides	
Soaps, detergents and surfactants	

## EXHIBIT "B"

### Operating and Closure Permits\*

	<u>Zone 1</u>	<u>Zone 2</u>	<u>Zone 3</u>
Cash Bond	\$20,000	\$10,000	\$5,000
Permit Bond with Corporate Surety	\$20,000	\$10,000	\$5,000
Letter of Credit	\$20,000	\$10,000	\$5,000

- \* Amounts reflected in this table are for each Operating and Closure Permit issued and may be adjusted by the Palm Beach County Risk Management Department upon further risk analysis.

## EXHIBIT "C"

### Fee Schedule

1. **FILING FEE** -- All applicants for a Wellfield Protection Operating or Closure Permit shall pay a non-refundable filing fee of Twenty-five Dollars (\$25.00). The filing fee shall be applied against other fees prescribed for the issuance of a permit. The filing fee shall be paid prior to acceptance of the permit application for review.
2. **WELLFIELD PROTECTION OPERATING PERMIT FEE** -- The fee for a Wellfield Protection Operating Permit under this regulation shall be Five Dollars (\$5.00) per each one thousand (1,000) square feet or fraction thereof of the occupied space in which the activity is taking place with a maximum fee of Five Hundred Dollars (\$500.00) and a minimum fee of Twenty-Five Dollars (\$25.00). The Wellfield Protection Operating Permit fee shall be used to defray the cost of administering this Ordinance.
3. **CLOSURE PERMIT FEE** -- The fee for a Closure Permit under this regulation shall be one-half (1/2) of the fee for the Wellfield Protection Operating Permit.
4. **PERMIT TRANSFER FEE** -- The fee for transfer of a Wellfield Protection Operating Permit shall be Twenty-Five Dollars (\$25.00) to defray the cost of processing the transfer.
5. **SPECIAL EXEMPTION FEE** -- Any person seeking a special exemption shall pay a fee of Two Hundred Dollars (\$200.00) to defray the cost of processing the transfer.
6. **ANNUAL RENEWAL LICENSE FEE** -- Beginning October 2, 1990, an annual renewal license fee shall be collected to defray costs of the administering of this Ordinance. The fee shall be one-half (1/2) of the Operating Permit Fee, but no less than Twenty-Five Dollars (\$25.00) per year. All permits issued prior to September 30, 1990 are subject to the



annual fee by October 1, 1990.

7. **GENERAL EXEMPTION FEE** – Any person seeking a general exemption shall pay a fee of One Hundred Dollars (\$100.00) to defray the cost of processing the exemption request.

**EXHIBIT "D"**

**"Best Management Practices" for the Construction Industry**

- A. The general Contractor, or if none, the property owner, shall be responsible for assuring that each contractor or subcontractor evaluates each site before construction is initiated to determine if any site conditions may pose particular problems for the handling of any Regulated Substances. For instance, handling Regulated Substances in the proximity of water bodies or wetlands may be improper.
- B. If any regulated substances are stored on the construction site during the construction process, they shall be stored in a location and manner which will minimize any possible risk of release to the environment. Any storage container of 55 gallons, or 440 pounds, or more containing Regulated Substances shall have constructed below it an impervious containment system constructed of materials of sufficient thickness, density and composition that will prevent the discharge to the land, groundwaters, or surface waters, of any pollutant which may emanate from said storage container or containers. Each containment system shall be able to contain 150% of the contents of all storage containers above the containment system.
- C. Each contractor shall familiarize him/herself with the manufacturer's safety data sheet supplied with each material containing a Regulated Substance and shall be familiar with procedures required to contain and clean up any releases of the Regulated Substance. Any tools or equipment necessary to accomplish same shall be available in case of a release.
- D. Upon completion of construction, all unused and waste Regulated Substances and containment systems shall be removed from the construction site by the responsible contractor and shall be disposed of in a proper manner as prescribed by law.

EXHIBIT "E"

1) Priority Pollutants Referred to in Section 5.02(g) of This Ordinance Referencing 17-22 F.A.C.

Trichloroethylene	Acenaphthene	Aldrin
Tetrachloroethylene	Acenaphthylene	a-BHC
Carbon Tetrachloride	Anthracene	b-BHC
Vinyl Chloride	Benzo(a)anthracene	g-BHC
1,1,1-Trichloroethane	Benzo(b)fluoranthene	d-BHC
1,2-Dichloroethane	Benzo(k)fluoranthene	Chlordane
Benzene	Benzo(a)pyrene	4,4'-DDD
Ethylene Dibromide	Benzo(g,h,i)perylene	4,4'-DDE
Acrolein		4,4'-DDT
Acrylonitrile	Benzidine	Dieldrin
Bromodichloromethane	Bis(2-chloroethyl)ether	Endosulfan I
Bromoform	Bis(2-chloroethoxy)methane	Endosulfan II
Bromomethane	Bis(2-ethylhexyl)phthalate	Endosulfan Sulfate
Chlorobenzene	Bis(2-chloroisopropyl)ether	Ethion
Chloroethane	4-Bromophenyl phenyl ether	
2-Chloroethylvinyl Ether	Butyl benzyl phthalate	Trithion
Chloroform	2-Chloronaphthalene	o,p-DDT, DDE and DDD
Chloromethane	4-Chlorophenyl phenyl ether	Tedion
Dibromochloromethane	Chrysene	Endrin Aldehyde
Dichlorodifluoromethane	Dibenzo(a,h)anthracene	Heptachlor
1,1-Dichloroethane	Di-n-butylphthalate	Heptachlor Epoxide
1,1-Dichloroethene	1,3-Dichlorobenzene	Toxaphene
trans-1,3-Dichloropropene	1,4-Dichlorobenzene	PCB-1016

1,2-Dichloroethene	1,2-Dichlorobenzene	PCB-1221
1,2-Dichloropropane		PCB-1232
cis-1,3-Dichloropropene	3,3-Dichlorobenzidine	PCB-1242
Ethylbenzene	Diethylphthalate	PCB-1248
Methylene Chloride	Dimethylphthalate	PCB-1254
1,1,2-Trichloroethane	2,4-Dinitrotoluene	PCB-1260
Trichlorofluoromethane	2,6-Dinitrotoluene	Aldicarb (non-extractable)
Toluene	Dioctylphthalate	Diazinon
Xylene	1,2-Diphenylhydrazine	Malathion
	Fluoranthene	Parathion
Styrene	Fluorene	Guthion
Dichlorobenzene	Hexachlorobenzene	Kelthane (Dicofal)
1,2-Dibromo-3-Chloropropane	Hexachlorobutadiene	
1,1,2,2-Tetrachloroethane	Hexachloroethane	
4-Nitrophenol	Hexachlorocyclopentadiene	
Pentachlorophenol	Indeno (1,2,3-cd) pyrene	
Phenol	Isophorone	
2,4,6-Trichlorophenol	Naphthalene	
2-Chlorophenol	Nitrobenzene	
2,4-Dichlorophenol	N-Nitrosodimethylamine	
2,4-Dimethylphenol	N-Nitrosodi-n-propylamine	
2,4-Dinitrophenol	N-Nitrosodiphenylamine	
2-Methyl-4,6-Dinitrophenol	Phenanthrene	
	Pyrene	
	2,3,7,8-Tetrachlorodibenzo-p-dioxin (Dioxin)	
	1,2,4-Trichlorobenzene	

2) Inorganic Priority Pollutants referred to in Section 5.02(G) of this ordinance

Mercury  
Cadmium  
Chromium  
Nickel

Lead  
Arsenic  
Selenium  
Cyanide

EXHIBIT "F"

**SUGGESTED PIPE, FITTINGS, COATINGS, AND LEAKAGE TESTING:**

**A. Ductile Iron Pipe and Fittings for Sewer Force Main Application:**

1. Ductile iron pipe shall conform to the requirements of ANSI/AWWA C151/A21.51-86 unless otherwise noted on the plans. The pipe shall be Class 50 thickness for pipe 6 in. or larger in size and Class 51 for pipe smaller than 6 in. Glands for mechanical joints shall be of ductile iron or cast iron.
2. Fittings shall conform to the requirements of ANSI/AWWA C110/A21.10-87. Fittings 12-in. and smaller shall have a 250 psi minimum working pressure.
3. Flanged ductile iron pipe shall be Class 53. Flanged ductile iron pipe and fittings shall have threaded flanges, unless otherwise noted on the drawings, and shall conform to ANSI/AWWA C115/A21.15-83. All flanges shall be Class 1560, ANSI B16.5. All above grades flanges shall be flat faced unless they are mating up to existing, or otherwise specified, raised face flanges. All gaskets shall be full faced 1/8" red rubber.
4. Joints shall conform to the requirements of ANSI/AWWA C111/A21.11-85.

**B. Polyvinyl Chloride Pipe (PVC) and Fittings for Water Distribution or Sewer Force Main Applications:**

1. Gasketed Joint Pipe:
  - a. Pipe 4 in. or larger in diameter shall conform to the requirements as set forth in AWWA C900-81 with dimension ration DR 18. Provisions must be made for contraction and expansion at each joint with a rubber ring and an integral bell as part of each joint, or by a rubber ring sealed coupling. Clean, reworked material generated from the manufacturer's own pipe production may be used. Fittings shall be cast or ductile iron. Pipe shall have cast iron pipe equivalent outside dimensions.
  - b. Pipe smaller than 4 in. in diameter shall conform to Commercial

**Standard CS 256 and ASTM D-22141.**

**Provisions shall be made for contraction and expansion at each joint with a rubber ring, and an integral bell as part of each joint, or by a rubber ring sealed coupling. Pipe shall be made from SDR 21, 200 psi clean, virgin NSF approved Type I, Grade 1 PVC conforming to ASTM D-1784. Clean reworked material generated from the manufacturer's own pipe production may be used. Fittings for pipe smaller than 4 in. in diameter shall be PVC.**

- C. Coatings: The lining material for pipe and fittings shall be virgin polyethylene complying with ANSI/ASTM D1428, compounded with an inert filler and with sufficient carbon black to resist ultraviolet rays during aboveground storage of the pipe and fittings. The polyethylene shall be bonded to the interior of the pipe or fitting by heat.**
- D. Leakage Tests: The test shall be of twenty-four (24) hour duration. During the test, the pipe being tested shall be maintained at a pressure of not less than 150 psi. Leakage is defined as the quantity of water added to the pipe being tested during the test period. No pipe installation will be accepted if the leakage exceeds the quantities specified in AWWA C-600, Section 4.2.. No more than 500 feet of line shall be tested at one time.**

**PINELLAS COUNTY**  
**Ordinance No. 90-2**  
**Wellhead Protection**  
**(1990)**

**TABLE OF CONTENTS**

**SECTION**

Section 1	<u>AUTHORITY</u> .....
Section 2	<u>PURPOSE AND INTENT</u> .....
Section 3	<u>DEFINITIONS</u> .....
Section 4	<u>MAPS DELINEATING THE ZONE OF PROTECTION</u> .....
Section 5	<u>CONDITIONS OF PERMITTING, PLANNING, AND ZONING</u> <u>WITHIN THE ZONE OF PROTECTION</u> .....
5.01	Discharges prohibited within the Zone of Protection.....
5.02	Discharges allowed within the Zone of Protection.....
5.03	Other requirements and liabilities.....
Section 6	<u>PERMITS</u> .....
6.01	Permit Conditions.....
6.02	Change of Ownership.....
6.03	Wellhead protection permits.....
6.04	Permit requirements and liabilities.....
6.05	Permit applications.....
6.06	Fee schedule.....
6.07	Revocation or revision of permit, general exemption, or special exemption.....
Section 7	<u>POWERS/DUTIES OF THE COUNTY ADMINISTRATOR</u> <u>OR THE ADMINISTRATOR DESIGNEE</u>
7.01	Administration and enforcement.....
7.02	Inspections.....
Section 8	<u>PROTECTION OF FUTURE WELLFIELDS</u> .....
Section 9	<u>DETERMINATION OF LOCATIONS WITHIN THE ZONE</u> <u>OF PROTECTION</u> .....
9.01	Appeal.....
9.02	Written petition for review, matters for review, and time for filing.....
9.03	Hearing date.....
9.04	Contents of notice of hearing.....
9.05	Computation of time.....
9.06	Hearing procedure.....
9.07	Hearing decision by the Board of County

	Commissioners.....
9.08	Final administration action.....
Section 10	<u>GENERAL EXEMPTIONS</u>
10.01	Facilities claiming a general exemption.....
10.02	Exemptions for fire, police, emergency medical services and county emergency management center facilities.....
10.03	Exemptions for utilities in the Zone of Protection.....
10.04	Exemption for continuous transit.....
10.05	Exemption for residential vehicular and lawn maintenance fuel and lubricant use.....
10.06	Exemption for application of pesticides, herbicides, fungicides and rodenticides.....
10.07	Exemption for retail sales activities.....
10.08	Exemption for office uses.....
10.09	Exemption for construction activities.....
Section 11	<u>SPECIAL EXEMPTION</u> .....
11.01	Affected person.....
11.02	Activities claiming special exemption.....
11.03	Granting special exemption.....
Section 12	<u>TRADE SECRETS</u> .....
Section 13	<u>VIOLATION, ENFORCEMENT, PENALTIES</u> .....
Appendix A	General Substances List
Appendix B	Operating and Closure Permits Bonds
Appendix C	Fee Schedule
Appendix D	"Best Management Practices" for the Construction Industry
Appendix F	Tank Pits
Appendix G	Observation and Monitoring Wells

WHEREAS, Section 163.3161 et seq., Florida Statutes (1988) establishes the Local Government Comprehensive Planning and Land Development Regulation Act; and

WHEREAS, Chapter 163 (Intergovernmental Programs), Part II, (Local Government Comprehensive Planning and Land Development Regulation Act) of Florida Statutes provides that counties shall have power and responsibility to plan comprehensively for their future development and growth, including the adoption and implementation of appropriate land development regulations which are necessary or desirable to implement a comprehensive plan, as provided in Section 163.3202(2)(g) of Florida Statutes; and

WHEREAS, the Local Government Comprehensive Planning and Land Development Act, as amended, Section 163.3161, et seq., Florida Statutes, requires each local government in the State of Florida to adopt a Comprehensive Plan to guide and control future development, and authorizes and requires the adoption of land development regulations; and

WHEREAS, the Provisions of Ordinance #89-32 establish the minimum requirements necessary to maintain, through orderly growth and development, the character and stability of present and future land and development in Pinellas County; and

WHEREAS, Pinellas County Ordinance #89-32 provides that the Pinellas County Board of County Commissioners retains the power and authority to enact ordinances, rules or regulations that are more restrictive than those adopted at the time of the adoption of the Comprehensive Plan; and

WHEREAS, the primary source of potable water supply in Pinellas County is artesian wells which draw water from the Floridan Aquifer; and

WHEREAS, it is evident that there exists no continuous confining stratum separating the surficial aquifer from the potable water source of the underlying Floridan Aquifer, rendering it exposed to pollution; and

WHEREAS, it is acknowledged that inappropriate development and land use contributes to degradation of groundwater quality; and

WHEREAS, the land use plan designations for upland acreage within the Zone of Protection were generally amended to low density residential, suburban low density residential, residential conservation, and rural residential, which permit up to 5 units per acre, 2.5 units per acre, 1.0 units per acre, and 0.5 unit per acre respectively. In addition, the major wetland system were amended to preservation; and

WHEREAS, there is a need to protect the existing and future potable water supply sources of Pinellas County from degradation in quality and from the intentional or unintentional introduction of deleterious substances into such sources; and

WHEREAS, within one year after submission of the revised comprehensive plan for review, Pinellas County must adopt and enforce land development regulations which are consistent with and implement the adopted comprehensive plan and must at a minimum "provide for the protection of potable water wellheads" (Section 163.3202, Florida Statutes); and

WHEREAS, it is the intent and policy of the Board of County Commissioners of Pinellas County, to ensure under this Ordinance, the continued health, safety, welfare and quality of environment for the residents of and visitors to Pinellas County; and



WHEREAS, the Board of County Commissioners has the authority under the Pinellas County Charter to adopt an ordinance relating to the protection of wells by providing criteria for regulating and prohibiting the use, handling, production and storage of certain deleterious substances which may impair present and future public potable water supply wells.

NOW THEREFORE BE IT ORDAINED, by the Board of County Commissioners of Pinellas County, Florida, that the following provisions are hereby enacted and do hereby become the Wellhead Protection Ordinance of Pinellas County, Florida.

## **SECTION 1 - AUTHORITY**

- 1.01 This Ordinance is adopted in compliance with, and pursuant to, the Local Government Comprehensive Planning and Land Development Regulation Act, Section 163.3184, et. seq., Florida Statutes. This Ordinance is adopted pursuant to the Constitutional and Home Rule Powers of Article VIII Florida Constitution, Section 125 Florida Statutes, and Article II of the Pinellas County Home Rule Chapter.
- 1.02 All provisions of this Ordinance shall be effective within the incorporated and unincorporated areas of Pinellas County, Florida, and shall set restrictions, constraints and prohibitions to protect present and future public potable water supply wells and wellfields from degradation by contamination from regulated substances.

All provisions of this Ordinance shall be effective outside Pinellas County when, pursuant to a development order under Chapter 380.06 F.S., the developer has agreed to be bound by the provisions of a local wellhead protection ordinance.

## **SECTION 2 - PURPOSE AND INTENT**

- 2.01 In order to properly protect existing and future potable water supply sources within the Zone of Protection area, the Pinellas County Board of County Commissioners declares that the storage, handling, use, disposal, or production of hazardous or toxic substances in close proximity to public potable water supply wells is potentially harmful to the drinking water of Pinellas County, and that certain land uses and activities involving regulated or generic substances are hereby prohibited or regulated within the defined Zone of Protection area.

Therefore, the intent of this Ordinance is to protect and safeguard the health, safety, and welfare of the residents and visitors of Pinellas County, Florida by providing criteria for regulating and prohibiting the use, handling, production, disposal, and storage of certain regulated substances which may impair present and future public potable water supply wells and wellfields.

It is the intent of the Pinellas County Board of County Commissioners to augment the policies within the adopted Comprehensive Plan that protect the wells and wellfields through land use controls and environmental regulations. It is essential to protect the environmentally sensitive area adjacent to wells and wellfields from disruption and encroachment in order to preserve vital natural functions relating to water quality, water quantity and other elements of aquatic ecosystems.

- 2.02 It is the intent of Pinellas County to enter into interlocal agreements with Pasco County and Hillsborough County to exercise jointly any power, privilege or authority to protect

from degradation all potable water wells within the Zone of Protection. The agreements shall be construed as accomplishing a joint use of powers subject to the terms and conditions stated in this ordinance, in addition to any ordinance and regulations of Pasco and/or Hillsborough County if the development proposal lies within their jurisdiction.

The agreement shall at a minimum include provisions for administration and enforcement of label development regulations within any area of the Zone of Protection and shall be undertaken by the jurisdiction within whose boundaries that area is located. With respect to the issuance of any development order or development permit within the Zone of Protection, the nonjurisdictional counties shall receive notice prior to any decision or determination on an application for development with adequate time for the nonjurisdictional counties to review and comment on the development permit application.

- 2.03 The Generic Substance List attached hereto and incorporated herein as Appendix A, is provided for informational and regulatory purposes and may be amended from time to time by the Board of County Commissioners. Persons using, handling, producing or storing a substance on the generic list may be using, handling, producing or storing a Regulated Substance as defined by this Ordinance. Persons unsure as to whether they are subject to this Ordinance may wish to consult with the Pinellas County Water Department.

### **SECTION 3 - DEFINITIONS**

- 3.01 The following definitions apply within this Ordinance:

- A) Aquifer. A groundwater bearing geologic formation, or formations, that contains enough saturated permeable material to yield a minimum of 100 gallons per minute quantities of water.
- B) Board. Pinellas County Board of County Commissioners.
- C) Classification of Groundwater, Usage, Reclassification.
- 1) All ground water of Pinellas County is classified by the Pinellas Board of County Commissioners according to designated uses as follows:
- |             |   |
|-------------|---|
| CLASS G-I   | Potable water use, groundwater in aquifers which has a total dissolved solids content of less than 3,000 mg/L in an unconfined or leaky confined aquifer and is restricted to zones of protection around major public community drinking water supplies, and has been classified as G-1 by the Board of County Commissioners. |
| CLASS G-II  | Potable water use, groundwater in aquifers which has a total dissolved solids content of less than 10,000 mg/L, unless otherwise classified by the Board.   |
| CLASS G-III | Non-potable water use, groundwater in unconfined aquifers which has a total dissolved solids content of 10,000 mg/L or greater, or which has total dissolved solids of 3,000 - 10,000 mg/L and which has been classified by the Board as having no  |

reasonable potential as a future source of drinking water, or has been designated by the Pinellas County Water System as an exempted aquifer using the standards contained in Section 17-28.130(C), F.A.C.

**CLASS G-IV**

Non-potable water use, groundwater in confined aquifers which has a total dissolved solids content of 10,000 mg/L or greater.

- D) Closure Permit. That permit required by activities which must cease operation pursuant to the provisions of Section 5 of this Ordinance, the criteria for which are set forth under Section 6 of this Ordinance.
- E) Completed Application. An application which includes all materials and documents which are necessary to support the application and which has been accepted as complete by the Pinellas County Water Department.
- F) County Administrator. The County Administrator of Pinellas County or the Administrator Designee.
- G) Designated Public Utility. That public utility which has been designated by federal, state, regional or local law, regulation, resolution, rule, ordinance or requirement as having jurisdiction to provide potable water or residential wastewater service to the property on which the nonresidential activity is located.
- H) Discharge to Groundwater shall mean treated or untreated wastewater, stormwater leachate, leachate from a solid waste facility, or leaked product generated by the construction or operation of an installation and discharging directly or indirectly to ground water.
- I) Emergency Hazardous Situation. Exists whenever there is an immediate and substantial danger to human health, safety, or welfare or to the environment.
- J) EPA. United States Environmental Protection Agency.
- K) Facility. Main structures, accessory structures and activities which store, handle, use or produce Regulated Substances. Where contiguous facilities exist and such facilities are separate in the nature of the businesses, they shall remain separate under this Ordinance.
- L) FDER. Florida Department of Environment Regulation.
- M) Generic Substance List. Those general categories of substances set forth in Appendix A attached hereto and incorporated herein. This list is equivalent to the Regulated Substances.
- N) Groundwater. Water that fills all the unblocked voids of underlying material below the ground surface, which is the upper limit of saturation, or water which is held in the unsaturated zone by capillarity.

- O) **Laboratory.** A designated area or areas used for testing, research, experimentation, quality control, or prototype construction, but not used for repair or maintenance activities (excluding laboratory equipment), the manufacturing of products for sale, or pilot plant testing.
- P) **Major Public Community Drinking Water Supply** shall mean those community water systems as defined in Section 17-550.200(7), F.A.C., that are permitted by consumptive use permit to withdraw an average daily amount of 100,000 gallons or greater of ground water.
- Q) **New Discharge.** For the purpose of the Zone of Protection, a discharge from a new installation, or a discharge for which a permit is required which is significantly different and causing a negative impact on groundwater, from the permit conditions as of the effective date of the Zone of Protection classification for the chemical, microbiological, physical quality, quantity, or point of discharge.
- R) **New Installation** shall mean, for the purpose of the Zone of Protection, facilities located in areas receiving protection through classification by the Board within the Zone of Protection that have neither filed a complete permit application nor received an appropriate permit prior to the effective date of classification.
- S) **Nonresidential Activity.** Any activity which occurs in any building, structure or open area which is not used primarily as a private residence or dwelling.
- T) **Open Interval of a Well** shall mean the uncased or screened length of the well within the saturated zone of an aquifer.
- U) **Operating Permit.** The permit required of certain activities under Section 5 of this Ordinance to operate, the criteria for which are set forth under Section 6 of this Ordinance.
- V) **Person.** Any natural person, individual, public or private corporation, firm, association, joint venture, partnership, municipality, governmental agency, political subdivision, public officer, owner, lessee, tenant or any other entity whatsoever or any combination of such, jointly or severally.
- W) **Potable Water.** Water that is intended for drinking, culinary or domestic purposes, subject to compliance with County, State or Federal drinking water standards.
- X) **Public Utility.** Any privately-owned, municipally-owned, county-owned, special district-owned, or state-owned system providing water or resident wastewater service to the public which as at least fifteen (15) service connections or regularly serves at least twenty-five (25) individuals daily for at least sixty (60) days of the year.
- Y) **Regulated Substance.**
- 1) Those deleterious substances, contaminants, priority pollutants (in accordance with Chapter 17-22 F.A.C.), and potable water quality

primary and secondary standards parameters (in accordance with Chapter 17-3, Part 4 F.A.C. and Appendix A and E) which, because of quality, concentration, or physical, chemical (including ignitability, corrosivity, reactivity, synergistic, and toxicity), or infectious characteristics, radioactivity, mutagenicity, carcinogenicity, teratogenicity, bioaccumulative effect, persistence (non-degradability) in nature, or any other characteristic, may cause significant harm to human health and environment (including surface and ground water, plants, and animals).

- Z) Spill. The unpermitted release or escape of a Regulated Substance directly or indirectly to soils, surface waters or groundwaters.
- AA) Underground Facilities for Transportation of Wastewater of Industrial Chemical Products. Underground facilities for transportation of waste effluent of industrial chemical products include piping, sewer lines, and ducts or other conveyances designed to transport industrial pollutants as defined in Section 376.301(12), F.S., and contaminants as defined in Section 403.031(1), F.S.
- BB) Underground Storage Facility. An underground storage facility includes any enclosed structure, container, tank or other enclosed stationary devices used for storage or containment of pollutants as defined in Section 376.301(12), F.S., or any contaminant as defined in Section 403.031(1), F.S. Nothing in this paragraph is intended to include septic tanks, enclosed transformers or other similar enclosed underground facilities.
- CC) Utility. A public utility (power company or telephone company) which serves the general public.
- DD) Water Table. The surface between the vadose zone and the groundwater, that surface of a body of unconfined groundwater at which the pressure is equal to that of the atmosphere.
- EE) Well. A pit or hole sunk into the earth to reach a resource of potable supply, such as water, to be used for domestic purposes by municipalities. Irrigation wells and privately owned wells for domestic consumption are not included in the wellhead protection ordinance.
- FF) Wellfield. An area of land which contains more than one well for obtaining water.
- GG) Zone of Protection is the total area contributing water to a well under a given set of circumstances. This area changes over time in response to changes in the water table or potentiometric surface, well pumpage, and other withdrawals in the vicinity. It is determined by the construction of a flow net, based on potentiometric surface contours.
- HH) Zone of Protection Map. Zone of Protection map at the scale determined by the County Administrator showing the location on the ground of the outer limits of the Zone of Protection for present and future public potable water supply wells and wellfields of 100,000 gallons per day or more. This zone is described in Section 4 of this ordinance.

#### **SECTION 4- MAPS DELINEATING THE ZONE OF PROTECTION**

- 4.01 The Zone of Protection Maps developed as described in subsection 4.02 are incorporated herein and made a part of this Ordinance. These maps shall be on file and maintained by the County Administrator's designated departments. Any amendments, additions or deletions to said maps shall be approved by amendment to this Ordinance pursuant to the provisions established by Chapter 125.66(5) Florida Statutes.
- 4.02 The Zone of Protection map is developed by the following procedure:
- A. The historic water level data is obtained for each of the U.S. Geological Survey and Pinellas County Water System Floridan monitor wells shown on the Zone of Protection map listed in Appendix I.
  - B. The average water level is calculated for each well for the period of record available for each well.
  - C. Potentiometric surface contours are then constructed based on these average water levels.
  - D. A flow net is then constructed across the potentiometric contours by constructing flow lines perpendicular to potentiometric contours.
  - E. The Zone of Protection is delineated by extending a line along the convergence of those flow lines that enter the wells or wellfields (flow lines converge in areas of discharge and diverge in areas of recharge).
  - F. As additional Floridan monitor wells are constructed in the map area, this additional water level data will be incorporated into the Zone of Protection map. Accumulated annual water level data may be evacuated annually and adjustments to the Zone of Protection will be made as the data dictates.
  - G. Measurement of the zone around a wellfield will be established for the entire wellfield by calculating the Zone of Protection for the well field as a whole. In the case of unclustered wells, individual zones of protection around each well will be calculated.
  - H. Rebuttable presumption - affected parties wanting to challenge the County's determination of the Zone of Protection may do so during the public hearings by generating more precise site specific data concerning potentiometric levels that would allow more accurate calculations of the zone.
  - I. The County Administrator may change the Zone of Protection based on reconfiguration of a wellhead or wellfield, changes in open interval, proper abandonment of a well pursuant to Rule 17-522, F.A.C., or permitted increase in the permitted average daily pumping rate. Such changes in the Zone of Protection shall follow the requirements as described in Section 4.03. The Zone of Protection may be established for newly approved/permitted well(s) or wellfield(s), after the appropriate hydrogeologic testing and impact analyses have been performed in accordance with Southwest Florida Water Management District permitting consumptive use from the wells or wellfields.

4.03 The Zone of Protection Maps may be reviewed at least on an annual basis. However, failure to conduct said review shall not affect the validity of the existing approved map. The basis for updating said Map may include, but is not limited to, the following:

- A. Changes in the technical knowledge concerning the applicable aquifer.
- B. Changes in pumping rates of wellfields.
- C. Wellfield reconfiguration.
- D. Designation of new wellfields.

4.04 In determining the location of properties and facilities within the zones depicted on the Zone of Protection Map, the following rules shall apply:

- A. Properties located wholly within the Zone of Protection reflected on the applicable Zone of Protection maps shall be governed by the restrictions applicable to that zone.
- B. Where a Zone of Protection contour passes through a facility, the entire facility shall be considered to be in the more restrictive zone.

#### **SECTION 5 - CONDITIONS OF PERMITTING, PLANNING AND ZONING WITHIN THE ZONE OF PROTECTION**

The use, handling, production, disposal, and storage of regulated substances associated with non-residential activities is prohibited in the Zone of Protection, except as provided under the General Exemptions and Special Exemptions provisions of this Ordinance. All existing non-residential activities within the Zone of Protection which store, handle, use, dispose, or produce any Regulated Substance shall cease to do so within one year from the date of notification under this Ordinance, except as provided in this section. The owners or operators of such activities within the Zone of Protection shall be notified in writing, by certified mail, or hand delivery, within ninety (90) days of the effective date of this Ordinance as to the requirements to cease the use, handling, storage, disposal, and production of Regulated Substances. A Closure Permit application, General Exemption application if the activity is claimed to be exempted under the provisions of Sections 11.02 and 11.03 of this Ordinance, or a Special Exemption application prepared and signed by a professional registered engineer and a geologist certified in the State of Florida shall be submitted to the County Administrator within 90 days of receipt of the notice to cease. Within 30 days of receipt of said notice, the owner or operator shall file with the County Administrator proof of retention of said engineer and geologist.

Any nonresidential activity in the Zone of Protection which is allowed to continue or commence in accordance with the General Exemptions or Special Exemptions set forth in this Ordinance shall obtain an Operating Permit which shall indicate the special conditions to be instituted and the dates on which such conditions shall be instituted. No expansions, modifications or alterations which would increase the storage, handling, use or production of Regulated Substances shall be permitted in the Zone of Protection. An owner or operator that is denied a Special Exemption shall be issued a Closure Permit as part of the denial process. Any operating permit required herein shall be filed with the applications for General Exemption or Special Exemption.

5.01 All new nonresidential discharges, new nonresidential activities, and installations shall be prohibited within the Zone of Protection subject to the following conditions:

- A. No nonresidential installation shall discharge into groundwater, either directly or indirectly, any contaminant that causes a violation in the water quality standards and criteria for the receiving groundwater as established in Chapter 17-3, Part IV, F.A.C.
- B. Discharges through natural or man-made conduits, such as wells and sinkholes, that allow direct contact with Class G-1 and Class G-2 groundwater are prohibited, except for projects designed to recharge aquifers with surface water of comparable quality, or projects designed to transfer water across or between aquifers of comparable quality for the purpose of storage or conservation, or residential stormwater discharging through wet retention/detention ponds.
- C. Industrial stormwater discharges to retention/detention ponds are prohibited.
- D. New discharge to groundwater of industrial waste that contains hazardous constituents listed in the Department of Environmental Regulations publication, G-1, Modified Hazardous Constituents List (December 1, 1986) hereby adopted and incorporated by reference, shall be prohibited.
- E. There will be no new industrial land use zoning within the Zone of Protection.
- F. Construction and operation of new sanitary landfills shall be prohibited. Operation of all existing sanitary landfills will be terminated within one year and a permanent leachate monitoring system installed to monitor movement of leachate.
- G. Commercial or industrial septic tank disposal systems are prohibited in the Zone of Protection.
- H. Construction of interstate highway systems is prohibited for construction within 1/2 mile of public supply wells, unless stormwater drainage is collected and piped beyond the 1/2 mile radius of the wellhead. There will be no stormwater retention within this 1/2 mile radius around the zone of the wellhead.

5.02 New and existing nonresidential discharge to groundwater within the Zone of Protection shall comply with the primary and secondary standards (Chapter 17-3, Part IV) at the end of the discharge pipe. Additionally, more stringent monitoring requirements than the existing state law may be implemented. More stringent monitoring requirements may include increased monitoring frequency, increased number of parameters, or increased number of monitoring wells. Such determinations will be made by the County on a case-by-case basis by considering soil conditions, quality and volume of the waste stream, and the point of discharge.

- A. Stormwater discharge within the Zone of Protection: Direct and indirect discharge from new stormwater facilities serving an area ten acres or larger with a forty percent impervious surface excluding building tops shall be required to monitor the discharge to groundwater according to Section 17-28.700(6), F.A.C. Such facilities may be required to implement more stringent monitoring requirements which may include increased monitoring frequency, increased number of parameters, or increased number of wells. Such determination will be made by the County Administrator on a case-by-case basis by considering soil conditions, quality and volume of the waste stream, and the point of discharge.
- B. Commercial stormwater runoff will be required to have a double pond



detention/retention system for new facilities. The first pond will be off line and lined to prevent leakage and be designed to hold the first inch of runoff. Sludge from the first pond will be disposed of in accordance with FDER rules and regulations. The second retention pond will accept overflow from the detention pond. Existing facilities will be required to obtain an operating permit and perform groundwater quality monitoring for groundwater pollution.

- C. New underground storage facilities within the Zone of Protection shall meet the following requirements:
  - 1. Double-walled tank and piping with a continuous leak detection system in between the walls, or
  - 2. An impervious secondary containment having monitoring well(s) or detector located therein; and
  - 3. For each of the above options, it is required that the facility install, maintain, and monitor a groundwater program approved by the County.
- D. Existing underground storage facilities within the Zone of Protection, not meeting the construction retrofit requirements of Chapter 17-61, F.A.C., on the effective date of aquifer classification as Class G-1 by the Board shall be retrofitted in accordance with Chapter 17-61, F.A.C., and shall also meet the requirements for new facilities under (C) above. [Note: Ch. 17-61, F.A.C. has been superceded by Ch. 17-761, F.A.C.]
- E. Existing underground storage facilities within the Zone of Protection meeting the construction retrofit requirements of Chapter 17-61, F.A.C., on the effective date of aquifer classification within the Zone of Protection by the Board are exempt from the requirements above, with the exception of being required to increase their groundwater monitoring programs. Nothing herein shall be construed to relieve facilities subject to Chapter 17-61, F.A.C. requirements from complying with the requirements of that chapter. [Note: Ch. 17-61, F.A.C. has been superceded by Ch. 17-761, F.A.C.]
- F. New underground facilities for transportation of domestic raw wastewater within the Zone of Protection shall be constructed not to allow leakage of more than 25 gallons per inch of pipe diameter per mile per day into the soil or groundwater. These facilities, however, shall not cause violations of groundwater quality standards (as referenced in Section 17-3.404, F.A.C.)
- G. New underground facilities for transportation of chemical products within the Zone of Protection shall be constructed to ensure no leakage into the soil or groundwater.
- H. Discharge to groundwater from the Florida Department of Environmental Regulation approved remedial corrective actions for contaminated sites located within the Zone of Protection shall not be subject to the G-1 discharge criteria.
- I. New discharge to groundwater of treated domestic waste effluent meeting domestic wastewater plant Class I reliability as described in the manual referenced in Section 17-6.040(4)(m), F.A.C.; daily monitoring to assure proper treatment plant process control; and 24-hour-a-day attendance by a wastewater operator as

required by Chapter 17-16, F.A.C., and under the general supervision of a Class A certified wastewater operator., shall be allowed to operate provided that the discharge from such plant shall meet the groundwater criteria as specified in Section 17-3.404, F.A.C., prior to contact with groundwater (end of pipe). Treated domestic waste effluent discharge employing land application shall be restricted to slow-rate infiltration methods. At no time will effluent disposal area be within 500 feet of potable supply wells.

- J. New single family residential septic tanks will be exempt from this ordinance provided they meet the minimum criteria of one unit per two acres.

- 5.03 A notice to cease, a permit or exemption issued under this Ordinance shall not relieve the owner or operator of the obligation to comply with any other applicable federal, state, regional or local regulation, rule, ordinance or requirement. Nor shall said notice, permit, or exemption relieve any owner or operator of any liability for violation of such regulations, rules, ordinances or requirements.

## **SECTION 6 - PERMITS**

The permit conditions shall ensure compliance with all the prohibitions, restrictions, and requirements as set forth in this Ordinance. Such conditions may include, but are not limited to, monitoring wells, periodic groundwater analysis reports, and compliance schedules. Said conditions may also include requirements in a closure permit to reduce the risk in the interim of contamination of the groundwaters, taking into account cost, likely effectiveness and degree of risk to the groundwater.

### **6.01 Permit Requirements.**

- A. No site plan approval, building permit, occupational license, or certificate of occupancy for any nonresidential activity shall be issued by the County or any city located within Pinellas County that would allow development or construction in the Zone of Protection, that is contrary to the restrictions and provisions provided in this Ordinance. Permits or occupational licenses issued in violation of this Section confirm no right or privilege on the grantee.
- B. The requirements and provisions of this Ordinance shall apply immediately upon the effective date of this Ordinance to all new nonresidential activities.
- C. An existing activity is one for which a building permit or occupational license had been issued by the appropriate jurisdiction prior to the effective date of this Ordinance and which had not expired on or before the effective date of this Ordinance, or for which a completed building permit or occupational license application had been filed and accepted with the appropriate jurisdiction prior to the effective date of this Ordinance. All other activities shall be deemed "new".
- D. Any application for a nonresidential or residential development greater than twenty-five (25) units for a site plan approval, building permit or nonresidential development subject to review by an advisory planning body and approval by the local governing authority or zoning board of appeals that includes property wholly or partially within the Zone of Protection of a wellfield shall include the following:
  - (1) Notification by the local governing authority of the location of the property in the Zone of Protection and notarized letter from applicant admitting acceptance of

notification. Notification shall be prepared by the County Administrator providing details of Zones, prohibitions, and measures required for compliance; or

(2) Any application submitted for an occupational license, site plan approval, or certification of occupancy for any use within the Zone of Protection shall require certification by the County Administrator that the use meets the applicable requirements of this Ordinance.

- E. It shall be the duty of each local agency to screen all applications for the Zone of Protection occupational licenses or site plans.
- F. The County Administrator shall provide a list to all local agencies of potentially prohibited operations in the Zone of Protection.
- G. Copies of Building Permits of residential activities larger than twenty-five (25) units, all nonresidential projects, and all occupational licenses, site plans, or nonresidential certificates of occupancy issued for the Zone of Protection shall be submitted to the County Administrator on a weekly basis.

#### **6.02 Change of Ownership**

In the event there is a change of ownership, a new lease, or an assignment of a lease, a sublease or any other change in regard to the person conducting the operation regulated, the County Administrator shall be notified by the property owner upon payment of the appropriate application fee and completion of processing of an application. In the event of leasing of space, the lessee will obtain the permit, but the property owner will be liable for the on-site activities relative to the conditions of the permit. The property owner will be notified by the County Administrator, regarding the permit application or condition.

#### **6.03 Wellhead Protection Permits**

- A. An application which satisfied the requirements of the applicable Zone of Protection Section 5 and Section 6 and, if applicable, Section 4, shall be approved and a permit issued. In addition to the failure to satisfy these requirements; the County Administrator may deny a permit based on repeated violations of this Ordinance.
- B. An Operating Permit shall remain valid provided the permittee is in compliance with the terms and conditions of the permit.
- C. Permittees shall not be required to pay annual renewal fees until March 1, 1991. Beginning March 1, 1991, all current and future permittees are subject to an annual renewal license fee as adopted by the Board of County Commissioners.
- D. The County Administrator shall have the right to make inspections of facilities at reasonable times to determine compliance with this Ordinance.
- E. All of the facilities owned and/or operated by one person when these structures and activities are located on contiguous parcels of property owned where there are intervening public or private roads, may be covered under one permit.

#### **6.04 Permit Requirements and Liabilities**

- A.** Leak-proof trays under containers, floor curbing or other containment systems to provide secondary liquid containment shall be installed. The containment shall be of adequate size and design (no less than 150% of container volume) to handle 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 Regulated Substance loss to the external environment. Containment systems shall be sheltered so that the intrusion of precipitation is effectively prevented. The owner/operator may choose to provide adequate and appropriate liquid collection methods rather than sheltering only after approval of the design by the County Administrator. These requirements shall apply to all areas of use, production, and handling, to all storage areas, to loading and off-loading areas, and to aboveground and underground storage areas. The containment devices and liquid collection systems shall be certified in the operating permit application by the professional engineer certified in the State of Florida.
- B.** Vacuum suction devices, absorbent scavenger materials or other devices approved by the County Administrator, shall be present on-site or available within four (4) hours in the zone of protection 24 hours per day and seven days per week by contract with a cleanup company approved by the Department, in sufficient magnitude so as to control and collect the total quantity of Regulated Substances present. To the degree feasible, emergency containers shall be present and of such capacity as to hold the total quantity of Regulated Substances plus absorbent material. The presence of such emergency collection devices shall be certified annually in the Operating Permit application for existing activities. Such certification for new activities shall be provided to the Department prior to the presence of Regulated Substances on the site. Certification shall be provided by a professional registered engineer certified in the State of Florida.
- C.** An emergency plan shall be prepared and filed with the Operating Permit application indicating the procedures which will be followed in the event of spillage of a Regulated Substance so as to control and collect all such spilled material in such a manner as to prevent it from reaching any storm or sanitary drains or the ground.
- D.** A responsible person designated by the permittee who stores, handles, uses or produces the Regulated Substances shall check on every day of operation, for breakage or leakage or any container holding the Regulated Substances. Electronic sensing devices may be employed as part of the inspection process, if approved by the County Administrator, and provided the sensing system is checked daily for malfunctions. The manner of daily inspection shall not necessarily require physical inspection of each container provided the location of the containers can be inspected to a degree which reasonably assures the County Administrator that breakage or leakage can be detected by the inspection. Monitoring records shall be kept, submitted quarterly, and made available to the County Administrator within 24 hours, upon request. Quarterly, each facility will be inspected, its monitoring procedures reviewed, and quality water samples taken.
- E.** Procedures shall be established for the quarterly 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 available for inspection by the County Administrator.

- F. Any spill of a Regulated Substance shall be reported by telephone to the Pinellas County Health Unit and designated public utility within one (1) hour, and the County Administrator within one (1) hour of discovery of the spill. Clean-up shall commence immediately upon discovery of the spill. A full written report including the steps taken to contain and clean up the spill shall be submitted to the County Administrator within fifteen (15) days of discovery of the spill.
- G. Arrangements shall be made with the Pinellas County Water System to establish a semi-annual schedule of raw water analysis unless sampling results indicate contamination, in which case the County Administrator shall require an increased sampling schedule. The analysis shall be for all substances which are listed on the Operating Permit. The analytical reports shall be prepared by the Pinellas County Water System's State of Florida certified laboratory, certified for the applicable analyses. It shall be the responsibility of the Pinellas County Water System to provide for the sampling and analyses but the cost shall be borne by the permittee or those permittees on a pro-rata basis as to the same substances listed on the permits of those permittees in Zones of Protection of the subject well. Samples shall be taken by the Pinellas County Water System certified laboratory performing the analyses, or its authorized representative. A reference set of raw water analyses shall be completed for each well for which a Zone of Protection Map has been established. Said analyses shall be completed within one hundred-twenty (120) days after the effective date of this Ordinance, and a copy shall be forwarded to the County Administrator within fourteen (14) days of completion. Said analyses shall address priority pollutants as listed in Chapter 17-22 F.A.C., as amended from time to time, and as shown in Exhibit E, and the cost shall be borne by the utility. The analytical reports shall be prepared by the Pinellas County Water System's State of Florida-certified laboratory.
- H. Groundwater monitoring well(s) shall be provided at the expense of the permittee in a manner, number and location approved by the County Administrator as shown in Appendix G, Exhibit A. Except for existing wells found by the County Administrator to be adequate for this provision, the required well or wells shall be designed by a State Certified Geologist, and installed by a State of Florida-licensed water well contractor under the supervision of a State Certified Geologist. On completion of well construction, a report will be submitted by the Geologist to the County Administrator detailing final well construction geology and a map of the facility showing well location. Quarterly, water quality samples shall be taken by the Pinellas County Water System's State of Florida certified laboratory performing the analyses, or its authorized representative during the quarterly inspection of each facility. Analytical reports prepared by the Pinellas County Water System certified laboratory of the quantity present in each monitoring well of the Regulated Substances listed in the activity's Operating Permit shall be filed at least annually, or more frequently as determined by the County Administrator, based upon site conditions and operations.
- I. The County Administrator shall be notified in writing prior to the expansion, alteration or modification of a business or individual holding an Operating Permit. Such expansion, alteration, or modification may result from increased square footage of production or storage capacity, or increased quantities of Regulated Substances, or changes in types of Regulated Substances beyond those square footages, quantities, and types upon which the permit was issued. Excluded from

notification prior to alteration or modification are changes in types of Regulated Substances used in a laboratory or laboratories designed as such in the currently valid permit and which are within the Generic Substances listed in said permit based upon the Generic Substance list attached hereto and incorporated herein as Exhibit A. Should a facility add new Regulated Substances, it shall notify the County Administrator on the quarterly basis of the types and quantities of such substances added and the location of the use, handling, storage, and production of said substances. Any such expansion, alteration or modification shall be in strict conformity with this Ordinance. Further, except as provided herein, any existing Operating Permit shall be amended to reflect the introduction of any new Regulated Substances resulting from the change. However, the introduction of any new Regulated Substance shall not prevent the revocation or revision of any existing Operating Permit if, in the opinion of the County Administrator, such introduction substantially or materially modifies, alters or affects the conditions upon which the existing Operating Permit was granted or the ability to remain qualified as a General Exemption, if applicable, or to continue to satisfy any conditions that have been imposed as part of a Special Exemption, if applicable. The County Administrator shall notify the permittee in writing within sixty (60) days of receipt of the permittee's notice that the County Administrator proposes to revoke or revise the permit and stating the grounds therefore.

- J. Reconstruction of any portion of a structure or building in which there is any substance or facility subject to the provisions of this regulation which is damaged by fire, vandalism, flood, explosion, collapse, wind, war or other catastrophe shall be in strict conformity with this Ordinance.
- K. All existing non-residential activities in the Zone of Protection which use, handle, store, dispose, or produce Regulated Substances shall file an application for an Operating Permit within ninety (90) days or a Closure Permit application, General Exemption application or Special Exemption application within ninety (90) days of the receipt of written notice from the County Administrator. Said permit application shall be prepared and signed by a professional registered engineer and geologist certified in the State of Florida. Within thirty (30) days receipt of said notice, the owner or operator shall file with the County Administrator proof of retention of said engineer or geologist in accordance with DER statutes. If application is made for an Operating Permit, such a permit shall be issued or denied within sixty (60) days of the filing of the completed application. If the application for an Operating Permit is denied, then the activity shall cease within one (1) year of the denial and an application for a Closure Permit shall be filed within one hundred twenty (120) days of the denial of the Operating Permit.

#### **6.05 Permit applications.**

- A. Operating permit applications, as a minimum, shall provide the following information:
  - 1. A list of all Regulated Substances and substances on the Generic Substance List which are to be stored, handled, used, disposed, or produced in the non-residential activity being permitted including their quantities.
  - 2. A detailed description of the non-residential activities that involve the storage, handling, use, disposal, or production of the Regulated Substances

- indicating the unit quantities in which substances are contained or manipulated.
3. A description of the containment, the emergency collection devices and containers and copy of the emergency plan that will be employed to comply with restrictions required for the Zone of Protection.
  4. A description of the daily monitoring activities that have been or will be instituted to comply with the restrictions for the Zone of Protection.
  5. A description of the maintenance that will be provided for the containment facility, monitoring system, and emergency equipment required to comply with the restrictions of the Zone of Protection.
  6. A description of the groundwater monitoring wells, including the latitude and longitude, location map, construction design, geology log and water quality analysis that have been or will be installed and the arrangements made or which will be made for certified quarterly analyses for specified Regulated Substances in the Zone of Protection.
  7. Evidence of arrangements made with the appropriate designated public utility for sampling analysis of the raw water from the potable water well.
  8. An agreement to indemnify and hold Pinellas County harmless for any and all claims, liabilities, causes of action, of damages arising out of the issuance of the permit. The County shall provide reasonable notice to the permittee of any such claims.
  9. The application for the Operating Permit shall be filed with the County Administrator within ninety (90) days of receipt of written notification from the County Administrator of the requirement for the facility to obtain an operating permit.
    - a. No permit herein required shall be issued unless there is filed at the time of application, except in the case of an application by a political subdivision or agency of the State, a cash bond, rate bond or letters of credit with a corporate surety in the amount required by Appendix B, attached hereto and incorporated herein, to insure that:
      - 1) The permittee will operate its non-residential activities and/or closure of such non-residential activities, as applicable, in accordance with the conditions and requirements of this Ordinance and permits issued hereunder.
      - 2) Before a bond or letter of credit is accepted by the County Administrator as being in compliance with this section, the bond or letter of credit shall be reviewed and approved by the Pinellas County Insurance and Risk Management Department and the County Attorney's Office and shall be filed with the Clerk of the Board of County Commissioners. A corporate bond shall be executed by a corporation authorized to do business in the State of Florida as a

**Surety. A cash bond shall be deposited with the Clerk of the Board of County Commissioners who shall give receipt therefore.**

- 3) The bond or letter of credit required by this Section shall be kept in full force and effect for the first year of the permit. In the event of verification of groundwater contamination at a facility within the Zone of Protection, the Board of County Commissioners will have the option of requiring the bond or letter of credit to be reinstated.**

- b. Any person subject to regulation under this Ordinance shall be liable with respect to Regulated Substances emanating on or from the person's property for all costs of removal or remedial action incurred by Pinellas County and damages for injury to, destruction of, or loss of natural resources, including the reasonable costs of assessing such injury, destruction or loss resulting from the release or threatened release of a Regulated Substance as defined in this Ordinance. Such removal or remedial action by Pinellas County may include, but is not limited to, the prevention of further contamination of groundwater, monitoring, containment, clean-up or disposal of Regulated Substances resulting from the spilling, leaking, pumping, pouring, emitting or dumping of any Regulated Substances or material which creates an emergency hazardous situation or is expected to create an emergency hazardous situation.**

**B. Closure permit applications shall provide the following information:**

- 1. A schedule of events to complete the closure of a facility that does or did store, handle, use, dispose, or produce Regulated Substances. As a minimum, the following actions should be addressed:**
  - a. Disposition of all Regulated Substances and contaminated containers.**
  - b. Cleanup of the activity and environs to preclude leaching of unacceptable levels or residual Regulated Substances into the aquifer.**
  - c. Certification by a professional registered engineer or a geologist, certified in the State of Florida that disposal and cleanup have been completed in a technically acceptable manner.**
    - 1) The entire operation is maintained inside the building(s) of the facility.**
    - 2) The standard method of removing operating waste is not by septic tank, sewer mains, or floor drains.**
    - 3) There is no evidence of spills permeating floors or 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 the facility in the Zone of Protection.
  - 6) The applicant shall provide a sworn statement that disposal and cleanup have been completed in a manner acceptable to the County Administrator.
- d. An appointment for an inspection by the County Administrator.
  - e. An agreement to indemnify and hold Pinellas County harmless from any and all claims, liabilities, causes of action, or damages arising out of the issuance of a permit. The County shall provide reasonable notice to the permittee of any such claims.
2. The issue of well reconfiguration shall be evaluated by the County Administrator and the affected public utility as an alternative to a closure permit during the permit application process.
  3. The Pinellas Water System, and the Pinellas County Environmental Management shall be advised in writing of each Closure Permit application.

#### **6.06 Fee Schedule**

- A. The fee for an operating Permit under this regulation shall be as shown in Appendix C, attached hereto and incorporated herein. A late fee shall be charged if application for a permit or renewal is late. The Operating Permit fee shall be used to defray the cost of monitoring compliance with this Ordinance.
- B. The fee for a Closure permit under this regulation shall be one-half of the fee for the Operating Permit.
- C. The fee for a transfer of an Operating Permit or Closure Permit shall be in accordance with the attached fee schedule (Appendix C) to defray the cost of processing the transfer. Application for Transfer Permit is to be made within sixty (60) days of transfer of ownership of the activity.
- D. The fee schedule may be revised from time to time by resolution of the Board of County Commissioners.

#### **6.07 Revocation or Revision of Permit, General Exemption or Special Exemption.**

- A. Any permit issued under the provisions of this Ordinance shall not become vested in the permittee. The County Administrator will revoke any permit; first issuing a written notice of intent to revoke (certified mail return receipt requested, or hand delivery) if it finds that the permit holder:
  1. Has failed or refused to comply with any of the provisions of this Ordinance, including but not limited to permit conditions and bond requirements herein; or
  2. Has submitted false or inaccurate information in this application; or

3. Has failed to submit operational reports or other information required by this Ordinance; or
  4. Has refused lawful inspection; or
  5. Is subject to revocation.
- B. The County Administrator may revise any permit by first issuing a written notice of intent to revise (certified mail return receipt requested, or hand delivery.)
- C. In addition to the provisions of Section 6.07, subsections A. and B., within thirty (30) days of any spill of a Regulated Substance in the Zone of Protection, the County Administrator shall consider revocation or revision of the permit or revise the bond amount. Upon such consideration the County Administrator may issue a notice of intent to revoke or revise which shall be subject to the provisions of Section 9, or elect not to issue such notice. In consideration of whether to revoke or revise the permit, the County Administrator may consider the intentional nature or degree of negligence, if any, associated with this spill, and the extent to which containment or cleanup is possible, the nature, number and frequency of previous spills by the permittee and the potential degree of harm to the groundwater and surrounding wells due to such spill.
- D. For any revocation or revision, by the County Administrator, of a Special Exemption or General Exemption that requires an Operating Permit as provided under the terms of this Ordinance, the County Administrator shall issue a notice of intent to revoke or revise which shall contain the intent to revoke or revise both the applicable exemption and the accompanying Operating Permit.
- E. The written notice of intent to revoke or revise shall contain the following information:
1. The name and address of the permittee, if any, and property owner, if different.
  2. A description of the facility which is the subject of the proposed revocation or revision.
  3. Location of the spill, if any.
  4. Concise explanation and specific reasons for the proposed revocation or revision.
  5. A statement that "Failure to file a petition within thirty (30) days after the date upon which permittee receives written notice by certified or registered letter to the lessor and land owner of the intent to revoke or revise shall render the proposed revocation or revision final and in full force and effect."
- F. Failure of permittee to file a petition shall render the proposed revocation or revision final and in full force and effect.
- G. Nothing in this section shall preclude or be deemed a condition precedent to the

County Administrator seeking a temporary or permanent injunction.

**SECTION 7 - POWERS/DUTIES OF THE COUNTY ADMINISTRATOR OR THE ADMINISTRATOR DESIGNEE**

**7.01** The County Administrator of the administrator designee shall have the following powers and duties:

- A.** Administer and enforce the provisions of this Ordinance.
- B.** Investigate complaints, study, and observe pollution conditions and make recommendations as to the institution of action necessary to abate nuisances caused by pollution, and as to prosecution of any violation of this Ordinance.
- C.** Make appropriate surveys, tests, and inspections of property, facilities, equipment, and processes operating under the provisions of this Ordinance to determine whether the provisions of this Ordinance are being complied with; interact with the Florida Department of Environmental Regulation, and make recommendations for methods by which pollution may be reduced or eliminated. Inspections shall be conducted in accordance with subsection 7.02.
- D.** Maintain, review, and supervise all operating records required to be filed with the County Administrator by persons operating facilities subject to the provisions of this Ordinance.
- E.** Render all possible assistance and technical advice to persons owning and/or operating regulated facilities, except that the County Administrator and/or its employees shall not design the facility systems for any person.
- F.** Perform such other administrative duties as may be assigned by the Board of County Commissioners.
- G.** To issue or deny permits.

**7.02** Inspections shall be conducted as follows:

- A.** Any duly authorized representative of the County Administrator may, at any reasonable time, enter and inspect for the purpose of ascertaining the state of compliance with this ordinance any property, premises, or place, except a building which is used exclusively for a private residence, on or at which a regulated facility is located or is being constructed or installed or where records which are required under this Ordinance are kept.
- B.** Any duly authorized representative may, at reasonable times, have access to and copy any records required under this ordinance; inspect any monitoring equipment or method; sample for any hazardous material which the owner or operator of such source may be discharging or which may otherwise be located on or underlying the owner's or operator's property; and obtain any other information necessary to determine compliance with permit conditions or other requirements of this ordinance.

- C. No person shall refuse reasonable entry or access to any authorized representative of the County Administrator who requests entry for purposes of inspection and who presents appropriate credentials; nor shall any person obstruct, hamper or interfere with any such inspection. The owner or operator of the premises shall receive a report, if requested, setting forth all facts found which relate to compliance status.
- D. Install and sample monitor wells in facilities suspected of causing groundwater pollution. All costs associated with these activities will be born by the facility if they are proved to be the source of pollution, or the facility is in noncompliance with its operating permit.

#### **SECTION 8 - PROTECTION OF FUTURE WELLFIELDS**

The prohibitions and restrictions set forth in this Ordinance and in regulations promulgated pursuant hereto shall apply to any sites officially designated by the Board of County Commissioners as future wellfields. Such prohibitions and restrictions shall become effective upon approval by the Board of County Commissioners of the Zone of Protection maps for the designated future wellfield. Prior to final action by the Board of County Commissioners in designating a future wellfield or approving the Zone of Protection map for those wellfields, all property owners and discernable operating activities within the area affected shall receive notice pursuant to the provisions established by Chapter 125.66(5) F.S.

#### **SECTION 9 - APPEAL PROCEDURES**

- 9.01 Any appeal procedures affected by a decision of the County Administrator in the enforcement or interpretation of any of the terms or provisions of this Ordinance may appeal such decision to the Board of County Commissioners. Such appeal shall be taken by filing written notice thereof with the Clerk of the Board of County Commissioners, within twenty (20) days after the decision of the County Administrator. Each such appeal shall be accompanied by a payment in sufficient amount to cover the cost of publishing and mailing notices of hearing or hearings.
- 9.02 Any person may appeal to the Board of County Commissioners for the following reasons:
  - A. To appeal the County Administrator's permit conditions, denial of a permit, General Exemption or non-disclosure of a trade secret.
  - B. To appeal an intent to revoke or revise an Operating Permit and a General or Special Exemption.
  - C. To request a Special Exemption, written petitions for relief shall be filed with the Clerk of the Board of County Commissioners and the factual basis for the relief requested. Said petitions shall include all materials and documents which are necessary to support Commissioners setting forth the specific relief requested by petitioner's request. Except in the case of an application for Special Exemption, a written request for relief shall be filed with the Clerk of the board within twenty (20) days after the date upon which the petitioner receives a permit; General Exemption, or trade secret protection has been denied. Failure to file within twenty (20) days shall constitute a waiver of the person's right to an administrative hearing. The filing of a petition authorized by this section shall stay

all proceedings with respect to the matters that are contained in the petition until there is a final decision of the Board of County Commissioners as provided herein.

**9.03 Hearing Date:**

- A. All appeals and applications shall be heard within forty-five (45) days of the date from which the petition and supporting data are filed with the Clerk of the Board of County Commissioners. An extension of time for the hearing may be granted by the Board for good cause shown.
- B. Notice of hearing shall be served upon the applicant or permittee and property owner, if different, by hand delivery or by certified mail, return receipt requested, no less than ten (10) days prior to the hearing. When the owner or responsible individuals are not present or are avoiding service of the notice of hearing, service shall be accomplished by posting copies of the notice of hearing in a conspicuous place on the premises of the facility that is the subject of the appeal.

**9.04 Contents of Notice of Hearing:**

- A. Name and address of the petitioner and property owner, if different;
- B. Description of the facility;
- C. Ordinance section or regulation section alleged to have been the basis of the denial or proposed revocation or revision;
- D. Time, date and place of the hearing;
- E. A statement that "Failure to attend may result in an order being issued adverse to your interest";
- F. A statement that all parties shall be given the opportunity to present witnesses and evidence in support of their position; and
- G. A statement reflecting the requirements of Chapter 286, Florida Statutes, regarding a verbatim record of the proceedings.

- 9.05** In computing the period of time within which an appeal must be taken from the permit conditions, denial of a permit, General Exemption or application for non-disclosure or from intent to revoke or revise a permit, General Exemption or Special Exemption, the day of receipt of notice of said denial or intent to revoke or revise shall not be included. In computing the period of time in which the Board of County Commissioners must set a hearing date, the date on which the Clerk of the Board receives the written petition and accompanying information shall not be included. The last day of any period of time herein provided shall be counted, unless it is a Saturday, Sunday or a legal holiday, in which event the period shall run until the end of the next day which is neither a Saturday, Sunday or a legal holiday. Intermediate Saturdays, Sundays and legal holidays shall be excluded in the computation when any period of time prescribed in the Ordinance is less than ten (10) days; where said period is ten (10) days or greater, Saturday, Sunday and legal holidays shall be included.

**9.06 Hearing Procedure:**

- A. All testimony shall be under oath and shall be recorded.**
- B. If there is a proper notice of hearing as provided in Section 9.03,B. the hearing may proceed in the absence of the alleged petitioner and property owner, if different.**
- C. Irrelevant, immaterial, or unduly repetitious evidence shall be excluded, but all other evidence of a type commonly relied upon by reasonably prudent persons in the conduct of their affairs shall be admissible, whether or not such evidence shall be admissible in a trial in the courts of Florida. Any part of the evidence may be received in written form. Hearsay evidence may be used for the purpose of supplementing or explaining other evidence, but it shall not be sufficient in itself to support a finding unless it would be admissible over objection in civil actions.**
- D. Documentary evidence may be received in the form of a copy or excerpt if the original is not readily available.**
- E. The rules of privilege shall be effective to the same extent that they are now or hereafter may be recognized in civil actions.**
- F. Each party shall have the following rights:**
  - 1. To be represented by counsel;**
  - 2. To call and examine witnesses;**
  - 3. To introduce exhibits;**
  - 4. To cross examine opposing witnesses on any relevant matter, even though the matter was not covered under direct examination;**
  - 5. To impeach any witness regardless of which party called the witness to testify;**
  - 6. To rebut the evidence.**
- G. Any interested party or person whose substantial interests are affected may make application, and upon good cause shown, may be allowed by the Board of County Commissioners to intervene in a pending proceeding.**
- H. In an appeal of an intent to revoke or revise a Special Exemption or General Exemption that also requires an Operating Permit under the terms of this Ordinance, the appeal of both the intent to revoke or revise the applicable exemption and the accompanying permit shall be consolidated into one hearing.**

**9.07 At all hearings, the Board of County Commissioners shall hear and consider all facts material to the appeal or application for Special Exemption and shall thereafter issue a decision based on the competent and substantial evidence presented at the hearing. Such decision may affirm, reverse or modify the action or proposed action of the County Administrator.**

- 9.08 The decision of the Board of County Commissioners, as applicable, shall be the final administrative action on behalf of the Department and the County. Any person who is a party to the proceeding before the Board of County Commissioners, if applicable, may appeal to the Circuit Court of Pinellas County, in accordance with applicable Florida Appellate Rules.

#### **SECTION 10 - GENERAL EXEMPTIONS**

- 10.01 Facilities and activities qualifying for a general exemption include public utilities, residential homes, lawn and golf courses, maintenance of office facilities, and retail sales.
- A. A General Exemption application and Operating Permit in compliance with the provisions of Section 5.02 shall be required for any non-residential activity claiming a General Exemption under this Section and shall be filed with the County Administrator.
  - B. Such application shall contain a concise statement by the applicant detailing the circumstances upon which the applicant believes would entitle him or her to an exemption.
  - C. A fee (as listed in Exhibit C) shall be filed with the application to defray the costs of processing such application.
  - D. Within thirty (30) working days of receipt of an application for General Exemption, the County Administrator shall inform the applicant whether such application contains sufficient information for a proper determination to be made. If the application is found to be insufficient, then the County Administrator shall provide to the applicant a written statement by certified mail or hand delivery requesting the additional information required. The applicant shall inform the County Administrator within ten (10) working days of the date of the written statement of his or her intent to either furnish the information or have the application processed as it stands. The County Administrator shall have ninety (90) working days from either the rendering of a sufficiency determination or receipt of additional information making an application sufficient to make a decision.
- 10.02 Existing fire, police, emergency medical services and County emergency management center facilities are required to obtain an operating permit and special exemption.
- 10.03 Utilities as defined herein shall be exempt from the Zone of Protection prohibitions as set forth in Section 5.01. However, an Operating Permit and Special Exemption shall be obtained pursuant to Section 5.02 for the refueling facilities within the Zone of Protection.
- 10.04 The transportation of any Regulated Substance through the Zone of Protection shall be exempt from the provisions of this Ordinance provided the transporting motor vehicle is in continuous transit. The transport of such substances through existing permanent pipelines is also exempt provided that the currently authorized use or uses are not changed and provided that leak detection and monitoring as approved by the County Administrator are employed. No General Exemption or Operating Permit application is required except that an Operating Permit is required to establish the leak detection and monitoring requirements for said existing pipelines.

- 10.05 The use in a residential vehicle, commercial lawn service vehicle or residential lawn maintenance equipment of any Regulated Substance solely as fuel in that vehicle or equipment fuel tank or as lubricant in that vehicle or equipment shall be exempt from the provisions of this Ordinance. No General Exemption or Operating Permit application is required.
- 10.06 The commercial or residential application on residential lawns or commercial landscaping of those Regulated Substances used as pesticides, herbicides, fungicides, and rodenticides in recreation, agriculture, pest control and aquatic weed control activities shall be exempt from the provisions of this Ordinance provided that:
- A. In the Zone of Protection, the application is in strict conformity with the use requirement as set forth in the substances EPA registries and as indicated on the containers in which the substances are sold; and
  - B. In the Zone of Protection, the application is in strict conformity with the requirements as set forth in Chapter 482 and 487, Florida Statutes, and Chapters 5E-2 and 5E-9, Florida Statutes, and Chapters 5E-2 and 5E-9, Florida Administrative Code.
  - C. In the Zone of Protection, the application of any of the pesticides, herbicides, fungicides, and rodenticides shall be flagged in the records of the certified operator supervising the use. The certified operator shall provide specific notification in writing to the applicators under his or her supervision that they are working at a site located in the Zone of Protection for which particular care is required. Records shall be kept of the date and amount of these substances applied at each location and said records shall be available for inspection at reasonable times by the County Administrator.
  - D. In the Zone of Protection, the pesticides, herbicides, fungicides, and rodenticides for lawn, golf courses or agricultural application shall not be handled during application in a quantity exceeding seven hundred (700) gallons of formulation.
  - E. All nonresidential applicators of pesticides, herbicides, fungicides, and rodenticides who apply those substances within the Zones of Protection shall obtain an Operating Permit covering all application operations under one permit using these materials and shall comply with all the requirements of Section 5.
- This exemption applies only to the application of pesticides, herbicides, fungicides, and rodenticides.
- 10.07 Retail sales establishments in Zone of Protection that store and handle Regulated Substances for resale in their original unopened containers shall be exempt from the prohibition in the Zone of Protection provided that those establishments obtain an Operating Permit pursuant to the provisions of Section 5.02.
- 10.08 Office uses, including the use of Regulated Substances for the maintenance and cleaning of office buildings in volumes less than 10 gallons, shall be exempt from the provisions of this Ordinance. No General Exemption or Operating Permit applications are required.
- 10.09 The activities of constructing, repairing or maintaining any facility or improvement on lands within the Zone of Protection shall be exempt from the provisions of this Ordinance provided that all contractors, subcontractors, laborers, material men and their employees



when using, handling, storing or producing Regulated Substances in the Zone of Protection use those applicable Best Management Practices set forth in Appendix D, attached hereto and incorporated herein. No General Exemption or Operating Permit applications are required.

## **SECTION 11 - SPECIAL EXEMPTIONS**

**11.01** An affected person in the Zone of Protection may petition the Board of County Commissioners for a Special Exemption from the prohibitions and monitoring requirements set out in Sections 5.01, 5.02, and 5.03. In order to obtain such an exemption such person must demonstrate by a preponderance of competent, substantial evidence that:

- A.** Special or unusual circumstances and adequate technology exists to isolate the facility or activity from the potable water supply.
- B.** In granting the Special Exemption, the Board of County Commissioners may prescribe any additional appropriate conditions and safeguards which are necessary to protect the wellfield.

**11.02** Activities claiming Special Exemption with adequate technology to isolate the facility or activity from the potable water supply and protect the wellfield must submit:

- A.** A special exemption application claiming special or unusual circumstances and adequate protection technology shall be filed with the County Administrator. It shall be signed by the applicant and professional engineer and certified geologist registered in the State of Florida.
- B.** Such application shall contain a concise statement by the applicant detailing the circumstances which the applicant feels would entitle him or her to an exemption pursuant to Section 11.01(A) above.
- C.** A non-refundable fee as listed in Exhibit C shall be filed with the application to defray the costs of processing such application.
- D.** The application for Special Exemption shall contain but not be limited to the following elements:
  - 1.** A description of the situation at the site requiring isolation from the wellfield, including:
    - a.** A list of the Regulated Substances in use at the site;
    - b.** A site plan of the facility including all storage, piping, dispensing, shipping, etc., facilities;
    - c.** What operations at the facility involve Regulated Substances which must be isolated from the wellfields;
    - d.** The location of all operations involving Regulated Substances.
    - e.** A sampling and analysis of the groundwater on the site of the activity seeking a Special Exemption shall be performed to the

satisfaction of the County to determine if any Regulated Substances are already present which constitute a threat to the water supply.

- f. An analysis of the affected well showing whether or not such well is already contaminated by any Regulated Substances and the extent of such contamination.
  - g. A hydrogeologic assessment of the site which shall address, as a minimum, soil characteristics and ground water levels, directional flow, and water quality and performed by a registered geologist, certified by the State of Florida.
- 2. A technical proposal to achieve the required isolation including:
  - a. Components to be used and their individual functions;
  - b. Systems tying the components together;
  - c. A discussion and documentation, such as published technical articles, substantiating the performance and reliability of the components individually and the system as a whole. If the system has not been field tested, a discussion and laboratory test documentation to substantiate the proposed performance and reliability of the system;
  - d. Details of the specific plans to install the system at the site.
- 3. Testing procedures. If the proposed system does not have a proven history of successful in-field operation, it may still be proposed using proven components. A test plan for the system as installed shall be provided to prove that the proposed system works in the field.
- 4. A technical proposal for backup detection of Regulated Substances that may elude the isolation system and escape to outside a perimeter to be established by the County Administrator. Such proposal shall include emergency measures to be initiated in case of escape of Regulated Substances.
- 5. Criteria for success. Site-specific, system performance criteria shall be proposed to ascertain the success of the system. Such criteria shall include but shall not be limited to:
  - a. Performance;
  - b. Reliability;
  - c. Level of maintenance;
  - d. Level of sensitivity to Regulated Substances;
  - e. Effect of rain, flood, power failure or other natural disaster.
- 6. Precautions in event of failure. Applicant shall provide information on the

on-site availability of substance removal technologies sufficient to remediate any introduction of Regulated Substances into the water table at the site. Where water is removed from on-site wells during the remedial process a plan shall be proposed for the disposal of such water.

7. A closure plan shall be provided in the event the system does not prove successful in the testing required by Section 11.02(D)(3) above.
  8. Any other reasonable information deemed necessary by Department due to site-specific circumstances.
- E. Within thirty (30) working days of receipt of an application for Special Exemption, the County Administrator shall inform the applicant whether such application contains sufficient information for a proper determination to be made. If the applicant is found to be insufficient, then the Department shall provide to the applicant a written statement by certified mail or hand delivery requesting the additional information required. The applicant shall inform the County Administrator within ten (10) working days of the date of the written statement of his or her intent to either furnish the information or have the application processed as it stands. At the end of said ten (10) day period the County Administrator shall have fourteen (14) days to inform the Board of County Commissioners of said application and shall transfer all information accompanying the application to the Board of County Commissioners who shall then proceed with the hearing procedures as provided under Section 8.

#### **11.03 Granting Special Exemptions**

- A. Any Special Exemption granted by the Board of County Commissioners shall be subject to the applicable conditions of Section 5 and 6 of the Ordinance and any other reasonable and necessary special conditions imposed by the Board of County Commissioners. An Operating Permit shall be issued by the Department with the applicable conditions of Sections 5 and 6 and any other reasonable and necessary special conditions imposed by the Board of County Commissioners. Such Special Exemptions shall be subject to revocation or revision by the Department for violation of any condition of said Special Exemption by first issuing a written notice of intent to revoke or revise (certified mail return receipt requested or hand delivery). Upon revocation or revision, the activity will immediately be subject to the enforcement provisions of the Ordinance.
- B. Special Exemptions for the Zone of Protection are for existing nonresidential facilities only. No new nonresidential activity shall be permitted into the Zone of Protection after the effective date of this Ordinance if the new nonresidential facility stores, handles, produces, disposes, or uses any Regulated Substance.

#### **SECTION 12 - TRADE SECRETS**

The Department shall not disclose any trade secrets of the permittee that are exempted from such disclosure by federal or state law; provided, however, the burden shall be on the permittee to demonstrate entitlement to such nondisclosure. Decisions by the County Administrator as to such entitlement shall be subject to challenge by the permittee by filing a petition with the County Administrator pursuant to Section 8.

### **SECTION 13 - VIOLATIONS, ENFORCEMENT, PENALTIES**

Failure to comply with the requirements of this Ordinance or any permit, exemption or approval granted or authorized hereunder shall constitute a violation of this Ordinance. Violations of the provisions of this Ordinance shall upon conviction be punished by a fine not to exceed five hundred dollars (\$500.00) per day or by imprisonment in the County Jail not to exceed sixty (60) days or by both fine and imprisonment pursuant to the provisions of Section 125.69, Florida Statutes. In addition to the sanctions contained herein, the County may take any other appropriate legal action, including but not limited to, emergency injunctive action, to enforce the provisions of this Ordinance.

### **SECTION 14 - SEVERABILITY**

If any section, paragraph, sentence, clause, phrase, or word of this Ordinance is for any reason held by the Court to be unconstitutional, inoperative or void, such holding shall not affect the remainder of this Ordinance.

## APPENDIX A

### GENERIC SUBSTANCES LIST

Regulated substances include the generic items listed below and by-products, reaction products, and waste products generated from the use, handling, storage, or production of these items.

- Acid and basic cleaning solutions
- Antifreeze and coolants
- Arsenic and arsenic compounds
- Bleaches, peroxides
- Brake and transmission fluid
- Brine solution
- Casting and foundry chemicals
- Caulking agents and sealants
- Cleaning solvents
- Corrosion and rust prevention
- Cutting fluids
- Degreasing solvents
- Disinfectants
- Electroplating solutions
- Explosives
- Fertilizers
- Fire extinguishing chemicals
- Food processing wastes
- Formaldehyde
- Fuels and additives
- Glues, adhesives, and resins
- Greases
- Hydraulic fluid
- Indicators
- Industrial and commercial janitorial supplies
- Industrial sludges and stillbottoms
- Inks, printing, and photocopying chemicals
- Laboratory chemicals
- Liquid storage batteries
- Medical, pharmaceutical, dental, veterinary, and hospital solutions
- Mercury and mercury compounds
- Metal finishing solutions
- Oils
- Paints, primers, thinners, dyes, stains, wood preservatives, varnishing and cleaning compounds
- Painting solvents
- PCB's
- Pesticides and herbicides
- Plastic resins, plasticizers, and catalysts
- Placticizers
- Photo development chemicals
- Poisons
- Polishes
- Pool chemicals
- Processed dust and particulates

- Radioactive sources
- Reagents and standards
- Refrigerants
- Roofing chemicals and sealers
- Sanitizers, disinfectants, bacteriacides, and algaecides
- Soaps, detergents, and surfactants
- Solders and fluxes
- Stripping compounds
- Tanning industry chemicals
- Transformer and capacitor oils/fluids
- Water and wastewater treatment chemicals

## APPENDIX B

### OPERATING AND CLOSURE PERMITS\*

#### Zone of Protection

Cash Bond	\$20,000
Rate Bond	\$20,000
Letters of Credit	\$20,000

- \* Amounts reflected on this table are for each Operating and Closure Permit issued and may be adjusted by the Pinellas County Risk Management Department upon further risk/loss analysis.

## APPENDIX C

### FEE SCHEDULE

1. FILING FEE - All applicants for a Wellhead Protection Operating permit shall pay a nonrefundable filing fee of Twenty-Five Dollars (\$25.00). The filing fee shall be applied against other fees prescribed for the issuance of a permit. The filing fee shall be paid prior to acceptance of the permit application for review.
2. WELLHEAD PROTECTION OPERATING PERMIT FEE - The fee for a Wellhead Protection Operating Permit under this regulation shall be twenty-five dollars (\$25.00). The Wellhead Protection Operating Permit fee shall be used to defray the cost of administering this Ordinance.
3. CLOSURE PERMIT FEE - The fee for a Closure Permit under this regulation shall be one-half (1/2) of the fee for the Wellhead Protection Operating Permit.
4. PERMIT TRANSFER FEE - The fee for transfer of a Wellhead Protection Operating Permit shall be Twenty-Five Dollars (\$25.00) to defray the cost of processing the transfer.
5. SPECIAL EXEMPTION FEE - Any person seeking a special exemption shall pay a fee of Two-Hundred Dollars (\$200.00) to defray the cost of processing the exemption request.
6. ANNUAL RENEWAL LICENSE FEE - Beginning March 1, 1991, an annual renewal license fee shall be collected to defray costs of the administering of this Ordinance. The fee shall be one-half (1/2) of the Operating Permit Fee, but no less than Twenty-Five Dollars (\$25.00) per year.
7. GENERAL EXEMPTION FEE - Any person seeking a general exemption shall pay a fee of One-Hundred Dollars (\$100.00) to defray the cost of processing the exemption request.
8. SAMPLING FEE - The required quarterly and biannual groundwater quality sampling of permitted facilities within Zones 1 and 2 will be assessed a fee of \$50.00/sample by the

Environmental Management Department to withdraw and transport each groundwater sample. The cost of the sampling will be assessed to the permittee.

9. WATER QUALITY ANALYSIS FEE - The Environmental Management Department will deliver all groundwater samples to the Pinellas County Water System chemistry laboratory for priority pollutant analysis. The cost of case analysis to be borne by the permittee, will be Seven-Hundred Dollars (\$700)/sample.

#### APPENDIX D

##### "BEST MANAGEMENT PRACTICES" FOR THE CONSTRUCTION INDUSTRY

- A. The general contractor, or if none, the property owner, shall be responsible for assuring that each contractor or subcontractor evaluates each site before construction is initiated to determine if any site conditions may pose particular problems for the handling of any regulated substances. For instance, handling regulated substances in the proximity of water bodies or wetlands may be improper.
- B. If any regulated substances are stored on the construction site during the construction process, they shall be stored in a location and manner which will minimize any possible risk of release to the environment. Any storage container of 30 gallons, or 250 pounds, or more containing regulated substances shall have constructed below them an impervious containment system constructed of material of sufficient thickness, density and composition that will prevent the discharge to the land, groundwaters, or surface waters of any pollutant which may emanate from said storage tank or tanks. Each containment system shall be able to contain 150% of the contents of all storage containers above the containment system.
- C. Each contractor shall familiarize himself with the manufacturer's safety data sheet supplied with each material containing a regulated substance and shall be familiar with procedures required to contain and clean up any releases of the regulated substance. Any tools or equipment necessary to accomplish same shall be available in case of a release.
- D. Upon completion of construction, all unused and waste regulated substances and containment systems shall be removed from the construction site by the responsible contractor and shall be disposed of in a proper manner as prescribed by law.



APPENDIX E

PRIORITY POLLUTANTS REFERRED TO IN SECTION 5.02(G) OF THIS ORDINANCE:

REFER TO:

- 1.) CHAPTER 17-22, FLA. ADMIN. CODE
- 2.) DER'S MODIFIED HAZARDOUS CONSTITUENTS LIST
- 3.) DER'S G-1 MODIFIED STANDARD INDUSTRIAL CODE

## APPENDIX F

### TANK PITS

#### A SAFEGUARD TO PREVENT CONTAMINATION OF WATER SUPPLY AQUIFER BY CHEMICAL SPILLS

1. Pits constructed of concrete for portable or future tank installations shall have a certifiable dead load of sufficient weight to prevent floatation (Exhibit A) or a combined thickness of floor and roof equal to 73% of the inside depth of the pit or 73% of the distance from finished ground level to tank floor (Exhibit B) whichever is the lesser.
2. Pits constructed with the tank in place and anchored to the floor shall have a combined dead load of pit and empty tank equal to the weight of the volume of water displaced by that part of the pit below finished grade.
3. Pit shall be of sufficient size to retain all contents of the tank plus a 12-inch free board. A minimum clearance of 24 inches shall be provided on all sides of the tank and its supports. Floor shall have 1/4 inch per foot fall to an 18" x 18" x 6" sump (centered under an access on covered pits for pumping equipment).
4. Covered pits subject in any part to vehicular traffic shall be designed to sustain an H-20 loading. Covers shall be removable (Exhibit C).
5. Open pits shall extend 12 inches above the highest point of the finished grade at the pit.
6. Pit walls shall be constructed of water-proofed reinforced concrete or reinforced hollow unit masonry with all cells grout-filled. Pit cover (where used) and floor shall be constructed of water-proofed, reinforced concrete. All concrete shall have a minimum compressive strength of 3000 psi in 28 days. Working stresses for reinforced masonry shall conform to SB CC Standard Building Code. Plans and specifications shall be prepared and sealed by an Engineer or Architect registered in the State of Florida. Upon completion of construction, the Engineer/Architect shall certify in writing to the City Building and Zoning Department that the construction conforms to these requirements.
7. Vents for covered pits shall have the same venting system as required for the tank placed in the pit - both as to capacity, location and arrangement.
8. Pit openings other than vents shall be liquid-tight, and every connection through which liquid can normally flow shall have a valve located as close as possible to the pit.
9. Vent, fill and withdrawal piping shall not pass through floor or walls of pit, and connections shall be made to preclude breakage from settlement, vibration or contraction.
10. Paint interior of concrete pit (both sides of masonry walls if used) with two coats of a water proofing compound inert to the storage tank contents.
11. Leakage shall be monitored weekly, and a log recording the inspection results shall be maintained. Report leakage and spills to the Pinellas County Water Director and Environmental Director, and in the case of flammable and combustible liquids, also report to the Fire Department. Do not pump pits! Wait for disposal instructions.

12. Open tank inspections may be visual. Covered tanks may have a manual gauge, magnetic, hydraulic or hydrostatic remote reading device, or a sealed float gauge.
13. Other containment devices may be submitted for consideration provided that the tank is restrained from floatation under all conditions, that the containing membrane is inert to the liquid stored, that the containing device permits inspection, and if required - withdrawal of the spill without removal of tank.
14. In all instances the regulations of the National Fire Protection Association as administered by the Pinellas County Fire Department shall prevail.

#### EXHIBIT A

#### FLOTATION PREVENTION

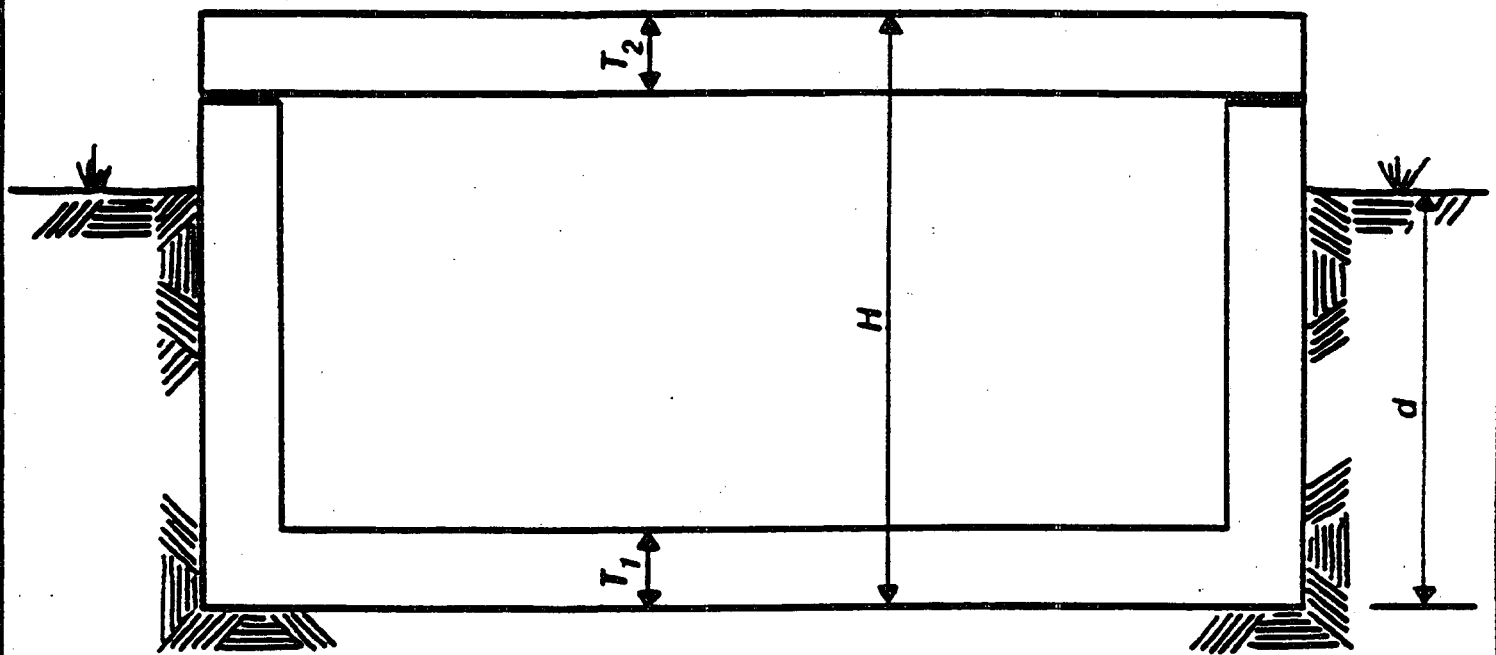
Pit Dead Load must equal Buoyance

Pit Dead Load lbs.\* = 144 (Vol. cubic feet roof + walls + floor)

\*Add weight of empty tank if permanently anchored.

Buoyance lbs. = 62.35 x Out to Out area of floor x least depth to finished grade. (all measurements in feet)

Exhibit B  
**FLOTATION PREVENTION**  
 (Alternate Calculation)



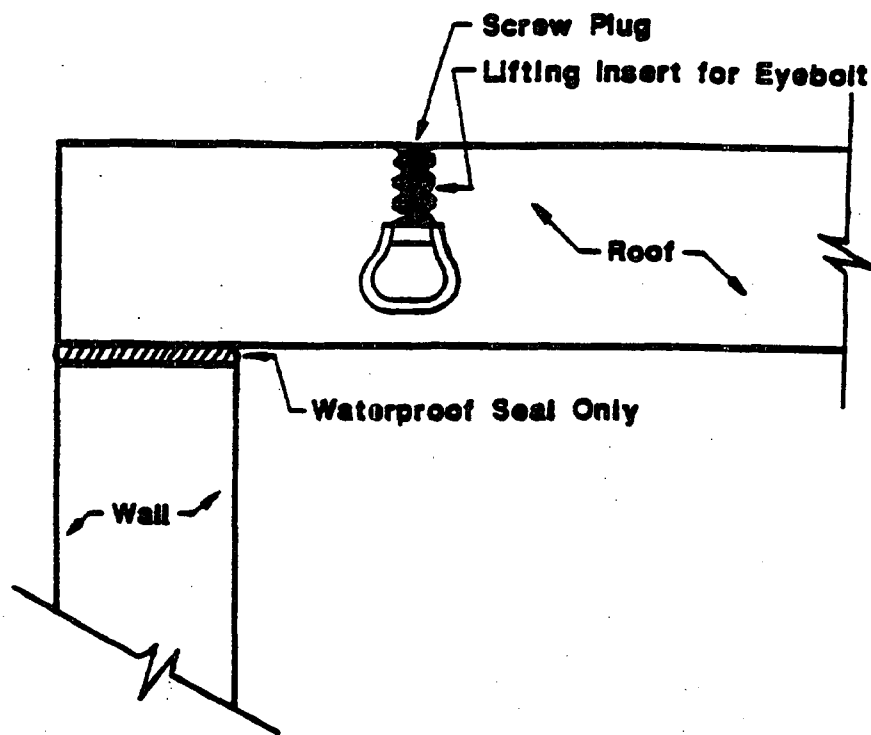
$$d_{\text{max.}} = H$$

$$T_1 + T_2 = 0.73d \quad \text{Covered Pit}$$

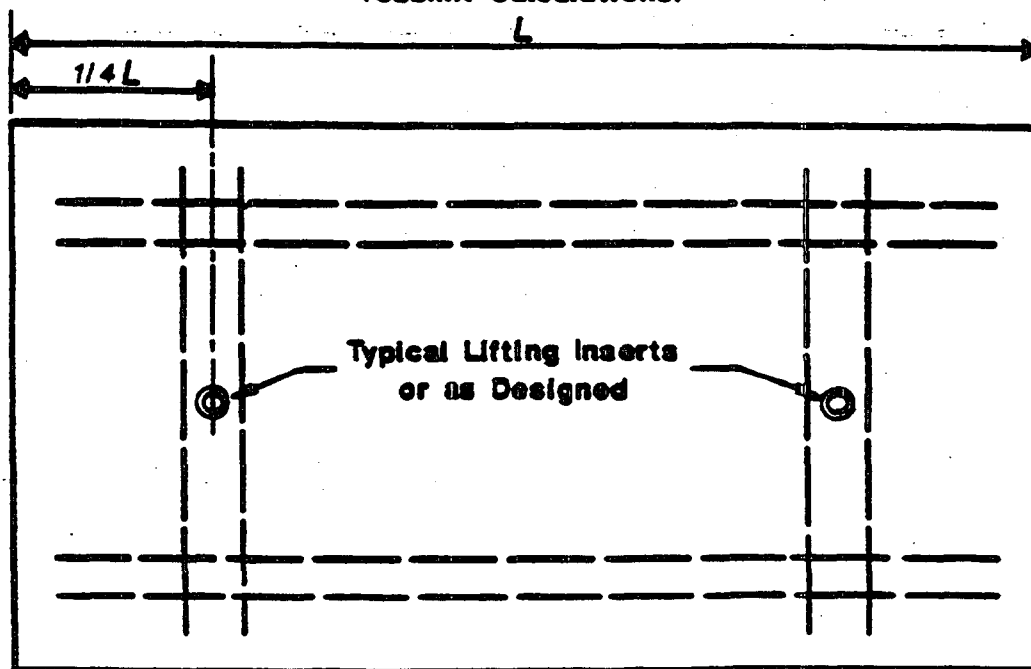
$$T_1 = 0.73d \quad \text{Open Pit}$$

Exhibit C

# REMOVABLE ROOF SLABS - COVERED PITS



## Removable Pit Cover Lifting Inserts (Submit Calculations)



## APPENDIX G

### OBSERVATION AND MONITORING WELLS

Observation wells, located in tank excavations and collection sumps of secondary containment systems, typically extend two feet below the level of the land or hold-down pad. Monitoring wells, located outside of the tank excavations, enable sampling groundwater in areas with permeable soil, where the water table is below the bottom of the tanks but within forty feet of the surface.

#### Comments:

- a) The size, number, and location of wells is largely dictated by building codes and physical conditions.
- b) Wells should be constructed of factory perforated or slotted PVC, galvanized or coated metallic pipe with .020 inch openings and permeable backfill material to permit water or released product to flow freely into the well.
- c) Access covers and well construction should restrict infiltration of surface water.
- d) Wells should be clearly marked with a black equilateral triangle on a white background and a durable label, warning against the accidental or intentional introduction of petroleum products into the well.

**PANHANDLE HEALTH DISTRICT NO. 1**  
**Environmental Health Code**  
**Coeur d'Alene, Idaho**  
**Rathdrum Prairie Sewage Disposal Regulations**  
**(1983)**

**Preamble**

The board has determined that extensive use of subsurface wastewater disposal on the Rathdrum Prairie presents a threat to the public health by contamination of the Rathdrum Aquifer, which is a drinking water source. It is the intent of the board to adopt rules and regulations to govern subsurface sewage disposal on the Rathdrum Prairie.

**Title**

These rules and regulations hereinafter shall be known and cited as the "Rathdrum Prairie Sewage Disposal Regulations."

**Scope**

The provisions of these regulations shall apply to subsurface sewage disposal systems installed on the Rathdrum Prairie, which is defined as the area described below.

**Definitions**

- (a) "Industrial Plat or Building" shall mean a proposed land-based manufacturing, processing, fabrication, reduction, milling, or production operation or structure used for such purposes.
- (b) "Commercial Plat or Building" shall mean a proposed structure for business enterprise, selling of goods or services, storage of goods or equipment, or amusements.
- (c) "Multi-Unit Dwellings" shall mean a building containing two or more independent family dwelling units, which may be provided with joint services.
- (d) "Public Building" shall mean a building belonging to the public, a nonprofit corporation, or governmental unit used for the transactions of public and quasi-public business, such as, but not limited to churches, schools, government facilities, etc.
- (e) "Rathdrum Prairie" shall mean that area of land situated in Kootenai County and more particularly described as that enclosed area of Kootenai County as defined by the USGS map describing the boundaries of the Rathdrum Prairie Aquifer.
- (f) "Approved Subdivision" shall mean a legally platted parcel of land that has been signed and approved prior to the effective date of these regulations by the Panhandle Health District I as meeting the requirements of the Environmental Health Code.
- (g) "Plan" shall mean a sewage management plan or a method of action, procedure, or arrangement approved by the Panhandle Health District I describing how collection, treatment, and disposal of sewage shall be addressed.

## **Regulations**

### **Industrial, Commercial, and Multifamily Buildings**

- (a) No building or place intended for industrial, manufacturing, commercial, multifamily, or public purposes shall hereafter be constructed or altered until owner, builder, or agent thereof shall have been issued a permit to construct a subsurface sewage disposal system. Said permit is to be issued by the Panhandle Health District I, and other disposal systems shall be approved by the state department of health and welfare.
- (b) The permit application to the Panhandle Health District I shall disclose the composition and quality of wastewater effluent from the operations conducted within the proposed building.
- (c) All proposed industrial, commercial, and multifamily sewage and waste facilities shall comply with applicable state and federal laws and regulations, including those pertaining to waste discharge, permits, and effluent quality standards issued by the Idaho Department of Health and Welfare of the Environmental Protection Agency.
- (d) The best practical technology shall be utilized in any sewage disposal system proposed under this regulation.

### **Subsurface Sewage Disposal Systems**

- (a) All installations of subsurface sewage disposal systems must be made in compliance with the Environmental Health Code of the Panhandle Health District I and the rules and regulations of the Idaho Department of Health and Welfare.
- (b) A subsurface sewage disposal system for individual dwellings may be installed without requirements other than subparagraph (a), if the system is on a single parcel of land of five acres or larger in surface area where no other subsurface sewage disposal system has previously been installed within that same five acres, except where one system is replacing another.
- (c) No subsurface sewage disposal system shall be installed on any parcel of land of less than five acres in surface area except under the following conditions:
  - (i) The parcel of land is located within the existing city limits of Coeur d'Alene and will be hooked up to the municipal sewage disposal plant; or
  - (ii) The parcel of land is located within the existing city limits of Post Falls, which has adopted by action of the city council a plan approved by the Panhandle Health District I Board of Health that will result in the construction and operation of a central sewage treatment plant within five years from date of approval; or
  - (iii) The parcel of land is located within the boundaries of a public sewer district or municipality where the governing board has adopted a plan approved by the Panhandle Health District I Board of Health and the state department of health and welfare as to result in the construction and operation of, or connection to, a central sewage treatment plant, and, further, that the proposed plan of construction is at the time of approval



designed and intended to serve that specific parcel of land; and

- (iv) **Parcels of unplatted land less than five acres in size and acquired or established prior to December 20, 1977, will be considered acceptable for subsurface sewage disposal systems for a single-family dwelling equivalent, provided such parcels meet all other regulations governing individual and subsurface sewage disposal systems.**
- (d) **Any parcel of land located within the boundaries of a subdivision or planned unit development where the owner or developer has proposed construction of a collection and treatment facility must be approved as to construction, operation, and maintenance by the Panhandle Health District I Board of Health, and construction plans must be approved by the state department of health and welfare. The collection and treatment facility will be placed in operation prior to the time any residential hookups are made.**
- (e) **At any time that the city council or the governing body of the sewer district desires to annex any additional property, which would increase the number of subsurface sewage disposal systems, such application for annexation shall be referred to the Panhandle Health District I Board of Health for review and comment. The board may advise the owner or developer of the property that the parcels of land contained therein may not be served under the provisions of subparagraph (c)(i), (ii), (iii), or (iv).**
- (f) **On all systems subject to the provisions of subparagraph (c) above, the subsurface sewage disposal system shall have the dry or wet sewer system with necessary laterals installed on the parcel. All installations shall be done in coordination with local government planning.**
- (g) **Applications for permits to install subsurface sewage disposal systems may be approved on any parcel of land if such parcel is part of a subdivision that has been approved by the Panhandle Health District I and platted prior to October 11, 1977, and the requirements of the Environmental Health Code and state health regulations are met.**
- (h) **The owner of any parcel of land utilizing a subsurface sewage disposal sewage disposal shall disconnect such system from any buildings on his parcel of land and shall connect the building sewer from the buildings to a collection and treatment system whenever it becomes available for service to his parcel.**

**SPOKANE COUNTY CODE (WASH.)**  
**Chapter 15**  
**Critical Materials Storage**  
**(1988)**

**Sections:**

3.15.000	Purpose and Intent
3.15.010	Objectives
3.15.020	Reserved
3.15.030	Critical Materials - Definition
3.15.040	Administrative Guides for Implementation
3.15.060	Designation of Critical Materials Use Activities
3.15.070	Critical Materials List
3.15.075	Critical Materials Use Activity List
3.15.080	Application of Critical Materials Standards
3.15.090	Underground Storage Tanks Defined
3.15.100	Standards for New Storage Facilities Associated with Non-Residential Uses
3.15.110	Existing Underground Tanks: Purpose and Application
3.15.120	Permit and Approval Tag Required
3.15.130	Permit and Approval Tag - Issuance - Duration
3.15.140	Permit Conditions - Fees - Expenses
3.15.150	Approval Tag - Conditions
3.15.160	Revocation of Approval Tag and Permit
3.15.170	Inventory Records
3.15.180	Reporting Failures, Leaks, and Leak Risks
3.15.190	Spill Prevention and Protection
3.15.200	Maximum Useful Life
3.15.210	Categories of Use
3.15.220	Safeguarding
3.15.230	Change in Use Category - Approval - Exemptions
3.15.240	Unused Tanks - Requirements
3.15.250	Authority of Fire Marshal
3.15.260	Violations
3.15.270	Pre-Emption - Severability

**3.15.000 Purpose and Intent.** The purpose and intent of this chapter is to provide supplemental development regulations within the Aquifer Sensitive Area (ASA) to protect the source of metropolitan Spokane's water supply from additional long-term contamination originating from man's activity on the earth's surface. This Chapter applies to any person, firm or corporation which establishes, or proposes to establish, a land use or activity which involves the storage or use of critical materials within the A.S.A.

**3.15.010 Objectives.**

A. The objectives of this chapter are:

- (1) To allow use, handling, or storage of critical materials where adequate protection of the Aquifer resource can be, or is, assured;
- (2) To establish strict performance standards for use, handling, or storage facilities associated with critical materials so as to preclude their introduction into the Aquifer;

- (3) To prohibit disposal of critical materials within the A.S.A.

**3.15.030 Critical Materials - Definition.**

- A. "Critical Materials" is defined as any substance stored, used, or handled within the Aquifer Sensitive Area that is listed on the Critical Materials List (Section 3.15.070) and is present in a quantity equal to or greater than that included on the list.

**3.15.040 Administrative Guides for Implementation.**

- A. The geographic extent of the Aquifer Sensitive Area (A.S.A.) is delineated on maps, as now or hereafter updated and supplemented, which are on file at the offices of the County Planning Department and the County Utilities Department. These maps are adopted by reference.
- B. The Critical Materials Handbook is an administrative tool for implementation of this overlay zone.
- (1) The Handbook Contains:
- (a) Suggested design and management solutions to achieve the performance standards contained within this chapter;
  - (b) The Critical Materials List which identifies the chemical name and quantity of materials which, when used or stored within the A.S.A., constitute a critical materials activity;
  - (c) The Critical Materials Activity List which will include:
    - i) Common land use activities listed by name, and Standard Industrial Classification Code, if applicable;
    - ii) The names of chemicals generally associated with the activity, including waste chemicals;
    - iii) The amounts of each such chemical commonly used;
    - iv) The method of storage; and,
    - v) Any other pertinent information.
- (2) The Critical Materials Handbook may be updated as new means of handling critical materials are developed and new information on chemical use in Spokane is obtained.
- (3) The Critical Materials Handbook is on file.
- (4) A fee may be charged for copies of the Handbook sufficient to cover its cost.

### 3.15.060 Designation of Critical Materials Use Activities.

- A. The Director of the Department of Building and Safety, hereinafter referred to as the Director, may require that the application for any non-residential building permit be accompanied by a list of chemicals to be maintained on site.
- B. Any non-residential land use which has on site, for storage, sale, use in manufacturing or other purpose, any material listed as a Critical Material in Section 3.15.070 in a quantity equal to or greater than included on the list shall be considered a Critical Materials Use Activity.

**3.15.070 Critical Materials List.** The Critical Materials List is to be used in the process of designating Critical Materials Use Activities. Any activity which involves the use, handling or storage of a critical quantity of any material on the list shall be designated a Critical Materials use Activity and is subject to the provisions of this Code.

Both The EPA hazardous waste identification number and the Washington Department of Ecology hazardous waste designation have been listed in order to relate this list to regulations governing waste disposal. The chemical class is an attempt to provide the lay user with a general idea of what types of chemicals are associated with the sometimes complex chemical names. The references identify the sources of the water quality criteria concentrations used to calculate critical quantities. The details of the procedure used to calculate critical quantities are included in the "Critical Materials Handbook."

(Note: Complete critical materials listing not available; see Section 3.15.070, Spokane County Code.)

**3.15.075 Critical Materials Activity List.** The following types of business activity have been found to use, handle or store Critical Materials in the Spokane area. For the purpose of administering this ordinance, proposed activities falling into one of the following types of business or having one of the specified Standard Industrial Classification Codes, should be considered a critical materials use activity. This list is not inclusive. In some cases a business may have chemicals other than those listed on site. In other cases a business may not have some of the chemicals listed. The quantity of material at each site may vary considerably. The SIC codes listed are appropriate for the businesses with which they are tabulated. However, there may be businesses with other SIC codes that use critical materials.

If the proponent can show that the proposal under consideration is an exception to this rule due to the type or quantity of chemical on site, a deviation from the aquifer protection requirements of this chapter may be allowed. For any proposal where such a deviation is granted, that proposal shall be conditioned with an agreement that the standards be met if the type or quantity of materials on site is changed to the critical material level.

Type of Business	SIC Codes	Possible Critical Material	Critical Quantity
Agricultural Chemical	5191	Ammonium	1600 lbs as NH <sub>4</sub> NO <sub>3</sub>
Warehousing and	2873	Nitrate	370 lbs as NH <sub>4</sub> NO <sub>3</sub>
Distribution	2874	Sulfate	3000 lbs as (NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub>
	2875	Chloride	1200 lbs as KCl
	2879	Pesticides	0 - 300 lbs

Type of Business	SIC Codes	Possible Critical Material	Critical Quantity
Aluminum Rolling Mills	3353	Hydrocarbon solvents Methyl Ethyl ketone 1,1,1-Trichloroethane Gasoline/Diesel	110 gal 105 gal 13 lbs 110 gal
Aluminum Reduction	3334 3341	Gasoline/Diesel Chloride Salts Fluoride Salts Chromium Salts Fluoride/Cyanide Waste	110 gal 1000 lbs as NaCl 300 lbs as AlF3 90 lbs as Na3Cr207
Building Materials Production	2435 2436 2439 2491 2492	Pentachlorophenol Copper Salts Chromium Salts Phenolic Resin Glue Caustic Soda (NaOH)	500 gal, 5% soln. 90 lbs as CuSO4 90 lbs as Na2Cr207 15 lbs (Formaldehyde) 850 lbs
Chemical Manufacturing	2813 2816 2819	All types of chemicals may be on site	
Chemical Warehousing and Distribution	5161	All types of chemicals may be on site	
Cleaning Supplies Manufacturing and Distribution	2841 2869 5087	Isopropyl Alcohol Chlorinated phenols Dibutyl phthalate	110 gal 5 lbs 3000 lbs
Drycleaning Facilities	7215 7217	Trichloroethene Tetrachloroethene 1,1,1-Trichloroethane Hydrocarbon solvents	0.25 gal 0.25 gal 13 gal 110 gal
Educational Institutions	8221 8222		
Electrical and Electronic Products Manufacturing	3612 3641 3662 3674 3677 3679 3825 3993	Metal salts (Cu, Ni & Zn) Cyanide salts Methylene chloride 1,1,1-Trichloroethane Acetone Methyl ethyl ketone Formaldehyde	90 lbs 150 gal, 10% NaCN soln. 10 gal 13 gal 60 gal 105 gal 1 gal
Electroplating Operations	3471	Metal salts (Cr, Cu, Ni & Zn) Cyanide salts	90 lbs 150 gal, 10% NaCN soln.

Type of Business	SIC Codes	Possible Critical Material	Critical Quantity
		Sodium phosphate	300 gal, 30% soln.
		Trichloroethene	0.25 gal
		Tetrachloroethene	0.25 gal
		Xylene	45 gal
		Hydrocarbon solvents	110 gal
Foundaries	3321	Metal salts (Cr, Cu, Ni & Zn)	90 lbs
	3322	Cyanide salts	150 gal, 10% NaCN soln.
	3325	Trichloroethene	0.25 gal
	3361	Isopropyl alcohol	110 gal
	3362	Caustic soda cleaning	
	3369	solution	250 gal, 35% soln.
Furniture Refinishing	7641	Methylene chloride	10 gal
		1,1,1-Trichloroethane	13 gal
		Acetone	60 gal
		Methyl ethyl ketone	105 gal
		Xylene	45 gal
		Toluene	2000 gal
		Hydrocarbon solvents	110 gal
Medical facilities	0742	Mono and Poly-cyclic aromatic hydrocarbons	1 gal
	8062		
	8069		
	8071	Perscription drugs	
		Biological contaminants	
		Lab quantities of many other chemicals	
Paint Manufacturing and Wholesale Distribution	2816	Metal salts (Cr, Pb, Sb & Cr)	90 lbs
	2851	Phthalate esters	
	2865	Methylene chloride	10 gal
	5198	Acetone	60 gal
		Methyl ethyl ketone	105 gal
		Xylene	45 gal
		Toluene	2000 gal
		Ethylene glycol	7.5 gal
		Hydrocarbon solvents	110 gal
Paint/auto Body Shops	7535	Hydrocarbon solvents	110 gal
		Methylene chloride	10 gal
		Xylene	45 gal
		Other paint products	
Petroleum products production and storage:	2992	Gasoline	110 gal
	5171	Diesel and heating oil	110 gal

Type of Business	SIC Codes	Possible Critical Material	Critical Quantity
Bulk storage of petroleum products	5172	Lubricating oil Ethylene glycol Methyl alcohol	110 gal 7.5 gal 60 gal
Photo Processing	7333 7395	Silver salts Phenols Cyanide salts Aromatic hydrocarbons	50 lbs as AgNO3 10 lbs 125 lbs as NaCN 0.5 gal as benzene
Plastics and Fiberglass		Acetone Methyl ethyl ketone Aromatic hydrocarbons Hydrocarbon solvents Methylene chloride	60 gal 105 gal 0.5 gal as benzene 110 gal 10 gal
Printing Establishments	2711 2751 2752 2761	Silver salts Phenols Cyanide salts Aromatic hydrocarbons Tetrachloroethene Hydrocarbon solvents	50 lbs as AgNO3 10 lbs 125 lbs as NaCN 0.5 gal as Benzene 0.25 gal 110 gal
Gasoline Distribution	5541	Gasoline Diesel Lubricating oil Ethylene glycol Methyl alcohol	110 gal 110 gal 110 gal 7.5 gal 60 gal
Metal Fabrication	3441 3442 3443 3444	Metal salts (Cr, Cu, Ni & Zn) Cyanide salts Hydrochloric acid Sulfuric acid Caustic soda (NaOH) Caustic soda cleaning solution Sodium phosphate Xylene Hydrocarbon solvents	90 lbs 150 gal, 10% NaCN soln. 200 gal 95 gal 110 gal 250 gal, 35% soln. 300 gal, 30% soln. 45 gal 110 gal
Secondary Metals Refining	3341	Metal salts (Al, Cr, Cd, Zn etc.) Chloride salts Sulfate salts	90 lbs 1000 lbs as NaCl 3000 lbs as (NH4)2SO4

Type of Business	SIC Codes	Possible Critical Material	Critical Quantity
Seed Cleaning and Treating	0721	Hexachlorobenzene Other pesticides	1 gal 0 - 300 lbs
Solvent Recycling	2911	Trichloroethene Tetrachloroethene  1,1,1-Trichloroethane Hydrocarbon solvents	0.25 gal 0.25 gal  13 gal 110 gal
Trucking Companies	4171 4172 4231	Gasoline/Diesel Lubricating oil Ethylene glycol Hydrocarbon solvents Caustic soda cleaning solution	110 gal 110 gal 7.5 gal 110 gal 250 gal, 35% soln.

### 3.15.080 Application of Critical Materials Standards.

- A. Plans submitted to the Spokane County Department of Building and Safety shall show appropriate safeguards included in the design of newly constructed or remodeled buildings, including the installation of underground storage tanks, such that the performance criteria of Section 3.15.100 are met.
- B. When the occupancy of a building changes, any new commercial or industrial occupants shall not operate without a certificate of occupancy issued by the Spokane County Department of Building and Safety; such certificate of occupancy is subject to review pursuant to Section 3.15.080(D) of this code.
- C. Prior to issuance of a certificate of occupancy for a change in building use, the Department of Building and Safety shall determine that all critical materials associated with the activity are stored or used in such a manner that the performance criteria of Section 3.15.100 are satisfied.
- D. The design standards of this chapter shall apply to all activities designated by the process in Section 3.15.060 as Critical Materials Use Activities.
- E. In addition to the requirements of this chapter agencies may have special requirements for Critical Materials Use Activities. These may include:
  - (1) Appropriate standards for approval as applied to new zone reclassification requests, conditional uses, special permits, variances, binding site plans, etc., shall be the responsibility of the Planning Department, Planning Commission, Hearing Body, and/or the Board of County Commissioners as otherwise described in agency rules.
  - (2) Site planning and other considerations for areas outside of buildings shall be the responsibility of the appropriate office or agency as may be elsewhere described.



- (3) Appropriate sanitary, industrial and solid waste disposal practices employed shall be the responsibility of the County Utilities Department, the Spokane County Health District, or other appropriate agency, e.g., D.S.H.S., D.O.E.

**3.15.090 Underground Storage Tank Defined.** "Underground storage tank," or "UST," has the meaning as defined in 42 U.S.C. 6991(1). This section, by reference, also incorporates other portions of 42 U.S.C. 6991; except that for purposes of this Chapter "regulated substance," referred to in 42 U.S.C. 6991(2), means "critical materials."

**3.15.100 Standards for Non-Residential Uses.**

- A. All activities designated as Critical Materials Use Activities shall only be approved as conditioned so that:
  - (1) Facilities will be designed so that any spilled or leaked materials are contained onsite;
  - (2) Facilities will be designed so that any spilled or leaked materials cannot infiltrate into the ground; and,
  - (3) No permanent disposal of any waste containing critical materials shall be allowed on any site within the A.S.A.
- B. When underground storage for any critical materials is included in the design of any facility, the storage vessel and associated piping and transfer equipment shall be protected by a secondary containment system.
  - (1) In addition to any product inventory monitoring program the tank owner may institute, the interstitial space between primary and secondary containment shall be monitored on a schedule approved by the Building Official.
  - (2) Monitoring records shall be available for a two year period for inspection by the Department. Records for the latest six month period shall be available on 24 hour notice. Those older than six months shall be available within five working days.
  - (3) Underground tanks installed solely for the purpose of containing spills or leaks are exempt from secondary containment requirements.

**3.15.110.Existing Underground Tanks: Purpose and Application.**

- A. This Chapter addresses specific regulatory requirements applicable to underground storage tanks and associated piping and installations. It is supplemental to any other requirements of Chapter 3.15 or applicable local, state, or federal requirements. Features of this Chapter have been developed considering other governmental regulatory programs, particularly Subchapter IX, Regulation of Underground Storage Tanks, of "The Hazardous and Solid Waste Amendments of 1984" (Sec. 1, P.L. 98-616; 42 U.S.C. 6991-6991(ii)). These amendments are part of 42 U.S.C. 6901, et seq., which may also be cited as the "Resource Conservation and Recovery Act of 1976."

- B. The regulatory program developed in this Chapter is the product of recommendations developed with the input of study and discussions by a regional underground storage tank committee, which includes representatives of state and local governments and the regulated businesses. Its provisions of this program are intended to apply to all tanks.

**3.15.120 Permit and Approval Tag Required.**

- A. No person may own or maintain an underground storage tank (UST) installation, unless the same is registered and approved pursuant to a permit and a current approval tag has been issued under the authority of this Chapter and it otherwise complies with this chapter, except where exempted by use in Section 3.15.230.
- B. A person "maintains" an UST under this section by doing so directly or, by action or inaction, permitting another to own or maintain an UST on the premises under the person's ownership or control.
- C. At his discretion, prior to further enforcement action, the building official may give prior written notice when a person's involvement is indirect, such as in the case of a landlord only. This section does not limit emergency enforcement powers or liabilities of any party.

**3.15.130 Permit and Approval Tag - Issuance - Duration.**

- A. The building official issues all permits and approval tags required by this Chapter. Permits are valid for five years from the date of issuance but an approval tag must be obtained for each permit year. The building official may adjust the date of issuance and length of a permit or approval tag to accommodate inspection schedules and administrative convenience.
- B. The building official may prorate on a monthly basis or otherwise adjust permit and approval tag fees when he adjusts their date of issuance but not in a case where the applicant fails to apply in a timely fashion.

**3.15.140 Permit Conditions - Fees - Expenses.**

- A. To obtain an UST permit, the applicant must:
- (1) Pay to the department the fees specified in Section 3.08.060.
  - (2) Demonstrate that the UST passed a precision leak test as approved by the Department.
    - (a) Any leak test method capable of statistically reliable measurement, down to five hundredths of a gallon per hour, including temperature compensation, or in accordance with the latest recommendations of the National Fire Protection Association may be approved.
    - (b) To be considered, leak test results must be less than six months old.
    - (c) A leak test is not required for tanks with approved secondary

containment (see Section 3.15.100(B)).

- (3) Designate in writing and implement a leak monitoring method approved by the Building Official.
  - (a) Selected methods may be changed upon advance written approval of the department.
  - (b) The department will maintain a list of approved options but, in addition, an applicant or permittee may propose a new method for approval. The list will include but not be limited to ground water monitoring, soil vapor monitoring and in tank leak monitors.
- B.
  - (1) Paragraph A(2) shall not take effect until January 1, 1990.
  - (2) Paragraph A(3) shall not take effect until January 1, 1991.
  - (3) Paragraph A(3) shall not apply to tanks forty or more years old at the time subsection 3.15.200B becomes effective (five years after the effective date of this Chapter) in contemplation that such tanks will have been removed or converted to new tank standards by that time.
- C. In addition to permit and approval tag fees, the department has authority to set inspection fees and fees for other services, return trips and additional administrative, personnel, or equipment charges, and to recover expenses related to permit issuance and other enforcement of this Chapter.
- D. Permit transfers allowing a new owner to benefit from a current tank test may be approved if the transferee shows a willingness and ability to comply with the conditions imposed and accepts the responsibilities of the former permit holder.

**3.15.150 Approval Tag - Conditions.**

- A. Upon issuance of a permit, the first annual approval tag shall be issued. The permittee must affix and continuously display the tag to the fill pipe of the tank or other conspicuous location as approved by the department. The permittee is responsible to immediately report to the department a lost or missing tag and obtain a replacement.
- B. Renewal approved tags are conditioned upon:
  - (1) Payment of the approval tag inspection fee provided in subsection 3.08.060;
  - (2) Passage of an approved leak test and designation of an approved monitoring method as required in Section 3.15.140; and,
  - (3) Holding a current valid permit.
- C. A list of persons qualified to serve as leak test inspectors, approved to certify to the County the results of any leak test or other technical testing required under this chapter may be maintained by the Department.

- D. Cancellation, revocation, or expiration of a permit automatically cancels any approval tag and the holder must remove said tag and not display it.

**3.15.160 Revocation of Approval Tag and Permit.**

- A. A permit and/or approval tag are automatically revoked where:
  - (1) The permittee does not pay all fees required under this Chapter or any check or other form of payment tendered is dishonored or otherwise ineffective as payment.
  - (2) The permittee fails to obtain, prior to a current approval tag's expiration, a new approval tag during the permit period.
- B. In addition, and not by way of limitation, a permit or approval tag may be revoked, suspended, or further conditioned, by order of the building official upon a determination:
  - (1) That a violation of the permit or any provision of this Chapter or regulation hereunder has occurred, or circumstances exist which make it difficult or impossible to monitor compliance; or
  - (2) The permittee has failed to act or refrain from an action in compliance with an order of the building official.
- C. Upon cancellation, expiration, revocation, or suspension of any permit or approval tag, the same must be immediately surrendered to the building official.

**3.15.170 Inventory Records.**

- A. Permittees must maintain and reconcile UST inventory records with accurate, updated information. Unless exempted below, this obligation applies on a daily basis, except on weekends and legal holidays. The records must include the following information:
  - (1) Type of product received, stored, or delivered;
  - (2) Volume thereof; and,
  - (3) Name and address of vendor of product.
- B. Records required hereunder shall be made available by permittees, at the time of request for inspection by the building official or other law enforcement personnel, except that records involving transactions over six months old need only be available within five working days of request. All records required under this Chapter must be retained by permittee for two years.
- C. Records affecting USTs holding substances not intended for resale or transfer to a third party may be reconciled on a weekly basis rather than daily if, and only if:
  - (1) Individual or aggregate UST (connected hydraulically) capacity is less than one thousand, one hundred gallons (1,100); or,

- (2) Weekly volume exchange is less than five percent of tank capacity. Exchanges within a system of tanks not involving exterior product release or receipt are not considered volume exchanges for purposes of this provision.

D. As used herein, "reconcile" means any method approved by the department wherein the beginning and ending tank volumes are compared to logs or reliable records of vehicles or other vessels transferring product in or out of the subject tank, to verify said product in the tank is accounted for. Where the department determines, based upon reasonable business practice, that a permittee should be exempt from complete reconciliation requirements (e.g., approved UST with output metering), he may, in lieu of reconciliation, impose other additional monitoring or testing obligations.

#### 3.15.180 Reporting Failures, Leaks and Leak Risks.

- A. Within three business days, permittees must report to the department, regardless of cause or fault:
- (1) A failure to perform accurate records reconciliation procedures required;
  - (2) A reconciliation discrepancy, irregularity, or apparent loss or gain of product not explained as normal variation in permittee's inventory records. The burden of establishing "normal variation" shall rest with the permittee.
  - (3) A loss or destruction of records or information needed to accomplish reconciliation or otherwise required to be kept hereunder; and/or,
  - (4) Failure of any monitoring method to function or otherwise confirm tank safety.
- B. In addition, discovery of a leak or circumstances indicating possibility of a leak of a UST shall immediately be reported to the department. This obligation is not limited to permittees, and shall include product vendors and repair or testing personnel.

#### 3.15.190 Spill Prevention and Protection.

- A. The options in subsection B of this section shall apply whenever the Building Official finds:
- (1) A violation of this Chapter;
  - (2) Reasonable cause exists to believe a spill or seepage is occurring (3.15.180A(2));
  - (3) A leak test failure for a UST (3.15.140);
  - (4) A selected monitoring method is either not effectively monitoring leaks or discloses a leak or possible leak; or,
  - (5) Other environmental risk.
- B. Under any condition provided in subsection A, the department may order any or all

of the following:

- (1) Further approved leak testing;
  - (2) Implementation of additional approved monitoring methods;
  - (3) Removal of UST contents;
  - (4) Cleanup of spills or seepage;
  - (5) UST reinforcement, modification, repair, or replacement in accord with approved County standards;
  - (6) Prohibit further usage;
  - (7) Revoke or suspend a permit or impose restrictions or conditions on permit privileges; and,
  - (8) Any other measure deemed reasonably necessary to protect the public health and safety or accomplish the purpose of this chapter.
- C. Additionally, when the department determines a need, the top of the UST installation may be ordered exposed to check for leakage. If the leak is easily repairable (e.g., tightening bungs, repairing fill pipe, etc.), and the Building Official determines it does not appear to be caused by corrosion, tank failure, or other problems requiring major repairs, the repair may be allowed. The department official may require such further testing, monitoring, certification, or proof as he deems needed to verify the source of a leak or leak potential is corrected.
- D. If, in the opinion of the department, a leak or leak risk is created by corrosion or some other unknown cause, the tank and associated structures may be ordered removed from service and/or otherwise safeguarded or abandoned.
- E. Underground storage tanks and associated underground piping shall be permitted to be repaired only once, in accord with standards established consistent with the purpose of this chapter by the department. Thereafter, said UST installation must be either replaced or abandoned, in accord with standards established pursuant to this chapter.

#### 3.15.200 Maximum Useful Life.

- A. All existing single-walled UST installations (tanks and associated piping) without secondary containment shall be conclusively presumed to have a maximum useful life of forty years. The presumption is not rebuttable for purposes of this section.
- B. On or before the fifth anniversary of the effective date of this Chapter, all single-walled UST installations forty years old or older as of said effective date, and without secondary containment, shall have been withdrawn from operation and either physically removed or converted to satisfy abandoned status, according to the department requirements.
- C. A repaired, expanded, or remodeled UST shall not extend a forty year life.

- D. Nothing in this section shall extend the time for any installation otherwise required to be repaired or replaced. This section sets a maximum time only.
- E. "Secondary containment" herein is a means of spill or leak containment involving a second tank or barrier apart from and outside the UST and associated piping, approved by the department.

**3.15.210 Categories of Use.**

- A. "Active Use" UST: A UST in actual use for receipt, storage, or delivery of substances, as a UST, within any ninety day period.
- B. "Short-term Out of Service" UST: A UST not in Active Use within any ninety day period. UST's in this category must be safeguarded as required under 3.15.220.
- C. "Long-term Out of Service" UST: A UST not in Active Use within any one-year period or longer. UST's in this category must satisfy the requirements under 3.15.240.
- D. "Abandoned in Place" UST: A UST permanently prepared for non-use and left in place. UST's in this category must satisfy requirements under 3.15.240.
- E. For the purposes of Sections 3.15.210 through 3.15.240, aggregates of tanks hydraulically connected are considered as one tank.

**3.15.220 Safeguarding.**

- A. Out-of-service tanks, as provided in subsection 3.15.210(B), shall be safeguarded in accordance with Section 79.114 of the Uniform Fire Code.

**3.15.230 Change in Use Category-Approval-Exemptions.**

- A. UST's accrue a use category upon fulfillment of the conditions set forth in 3.15.240. Additionally, where approval is required under 3.15.240, a permittee may apply to the department for a change in use.
- B. No permit or approval tag is required for UST's where such UST's are approved as "Long-term Out of Service" or "Abandoned in Place" under 3.15.240, so long as conditions of approval remain satisfied.

**3.15.240 Unused Tanks - Requirements.** Before a UST remains out of "Active Use" status for one year, a person required to obtain a permit or approval tag must do one of the following:

- A. Obtain Long-term Out of Service status approval and comply with requirements established therefor;
- B. Obtain Abandoned in Place status approval and comply with requirements established therefor; or,
- C. Physically remove the UST from the ground in an approved manner.

**3.15.250 Authority of Department.**

- A. The Building and Safety Department of the County of Spokane, as provided in Section 3.02.020 of the County Code, interprets and enforces this Chapter. Any approval, action, permit, or other item accomplished under the authority of this Chapter is subject to modification, or imposition of additional conditions or exemption from conditions, all in the department's discretion guided by the purpose of this Chapter.
- B. Fees and expenses of compliance shall be the obligation of parties required to comply, but in specific circumstances the department may designate another responsible party or may apportion expenses and responsibilities among parties determined to be at fault.
- C. Any final written order issued by the department under the authority of this Chapter may be appealed under the provisions of Section 3.06.010(a.)(2) of the County Code.
- D. This Chapter shall not limit any municipal right or remedy pursuant to contract, statute, or common law.

**3.15.260 Violations.** In addition to the violations specified elsewhere, it is a violation of this Chapter for any reason for any person to, or permit another to:

- A. Submit false, incomplete, or inaccurate permit application or test information, or fail to correct any such error immediately when it is or should have been known;
- B. Without approval by the department, tamper with or fail to display any approval tag lawfully issued, or to display any invalid, expired, or revoked tag or facsimile;
- C. Fill any UST to which a current, valid approval tag is not conspicuously affixed. This provision applies specifically to all parties including the tank owner and any vendor of products encompassed in this Chapter;
- D. Alter, tamper with, obscure, destroy, or fail to maintain updated, accurate inventory records or any other records or information required hereunder;
- E. Falsify, misstate, conceal, or withhold information regarding product delivery, date, amount or tank capacity, or any other records or information required hereunder;
- F. Fail to comply with any regulation or order adopted under the authority of this Chapter.
- G. Penalties for violation of this Chapter shall be as stipulated in Section 3.02.030 of the County Code.

**3.15.270 Pre-Emption - Severability.**

- A. This Chapter intends to establish a municipal regulatory program to be adopted and administered in coordination with other developing federal, state and local programs.
- B. In case of pre-emption, this Chapter shall be interpreted and applied consistent with the pre-emptive law. In case of direct conflict or invalidity of any portion of



this Chapter or regulation promulgated under its authority, the remainder of the Chapter or regulation is not affected, to the extent permitted by law.

**SANTA CRUZ COUNTY CODE (CALIF.)**  
**Chapter 11.37 (Draft #3)**  
**Hazardous Materials**  
**(1985)**

**PART I**  
**GENERAL PROVISIONS**

- 11.37.010 Findings and Intent
- 11.37.020 Purpose
- 11.37.030 General Obligation - Safety and Care
- 11.37.040 Specific Obligation
- 11.37.050 Definitions
- 11.37.060 Designation of a Hazardous Materials User
- 11.37.070 Professional Assistance for County Determinations

**PART II**  
**MATERIALS REGULATED**

- 11.37.100 Materials Regulated
- 11.37.110 Exclusions

**PART III**  
**STORAGE OF HAZARDOUS MATERIALS**

- 11.37.200 Containment of Hazardous Materials
- 11.37.210 New Storage Facilities
- 11.37.220 Other Storage Facilities
- 11.37.230 Variance
- 11.37.240 Abandoned Storage Facilities

**PART IV**  
**HAZARDOUS MATERIALS MANAGEMENT PLAN**

- 11.37.300 The Hazardous Materials Management Plan
- 11.37.310 Standard Form Hazardous Materials Management Plan
- 11.37.320 Short Form Hazardous Materials Management Plan

**PART V**  
**HAZARDOUS MATERIALS DISCLOSURE FORM**

- 11.37.400 Filing a Hazardous Materials Disclosure Form
- 11.37.410 Content of the Disclosure Form
- 11.37.420 Exemption to Disclosure
- 11.37.430 Trade Secrets and Exemptions from Public Disclosure

**PART VI**  
**RESPONSIBILITIES**

- 11.37.500 The Hazardous Materials Permit
- 11.37.510 The Hazardous Materials Management Plan
- 11.37.520 Unauthorized Releases - Reporting

- 11.37.530 Unauthorized Releases - Repair
- 11.37.540 Unauthorized Releases - Cleanup Responsibility
- 11.37.550 Unauthorized Releases - Indemnification
- 11.37.560 Handling, Emergency Procedures and Access

**PART VII  
INSPECTIONS AND RECORDS**

- 11.37.600 Inspections - Authority
- 11.37.610 Inspections
- 11.37.620 Maintenance of Records - County
- 11.37.630 Maintenance of Records - Applicants

**PART VIII  
PERMIT PROCESS**

- 11.37.700 Requirement for Permit
- 11.37.710 Required Information for Permit Application
- 11.37.720 Permit Issuance, Amendment and Transfer
- 11.37.730 Fees for Permit
- 11.37.740 Appeal Procedure

**PART IX  
ENFORCEMENT**

- 11.37.800 Revocation or Suspension
- 11.37.810 Criminal Penalties
- 11.37.820 Civil Penalties
- 11.37.830 Citizens Right to Act
- 11.37.840 Civil Action for Retaliation
- 11.37.850 Remedies Not Exclusive

**PART X  
MISCELLANEOUS**

- 11.37.900 Duties are Discretionary
- 11.37.910 Disclaimer of Liability
- 11.37.920 Regulations
- 11.37.930 Conflict with Other Laws
- 11.37.940 Severability
- 11.37.950 Initial Compliance Schedule

**PART I  
GENERAL PROVISIONS**

**11.37.010 FINDINGS AND INTENT.** The County Board of Supervisors finds and declares:

- a. Hazardous materials present in the community may pose acute and chronic health hazards to individuals who live and work in this County, and who are exposed to such substances as a result of fires, spills, industrial accidents, or other types of releases or emission.

Additionally, many hazardous materials present a serious health risk, even when emitted in low levels over long periods of time.

- b. Mishandling of small amounts of many of these substances has resulted in widespread and serious contamination of soil, air and groundwater.
- c. The cleanup of soil and groundwater contaminated with toxic chemicals can cost 100 times more than the original cost of properly containing and handling the hazardous materials responsible for the pollution.
- d. It is the responsibility of all businesses to protect their workers and the public from hazardous materials they use.
- e. It is technically and economically feasible to design manufacturing and commercial facilities that eliminate or minimize the release of hazardous contaminants.
- f. Aggressive efforts to control hazardous materials will enable companies to reduce technological obsolescence and eliminate the need to undertake expensive retrofit projects to comply with new regulations.
- g. Many state and federal programs have solved one type of toxic pollution problem by redirecting the contamination to another part of the environment, rather than eliminating the hazard. The County, however, has the responsibility and the authority pursuant to the County's Environmental Guidelines to plan to protect human health and the environment from all significant adverse effects resulting from the use and handling of hazardous materials.
- h. It is the intent of the County Board of Supervisors that this Chapter shall recognize the County's responsibilities, its right to act to protect public health, life, and the environment from toxic contamination. It is the intent of the Board of Supervisors that the Chapter shall foster the best available industrial processes and best practical control technology to minimize potential contamination. This ordinance shall condition the use of hazardous materials by placing an obligation on the users to strictly control their emissions, discharges and releases.
- i. It is further the intent of the County Board of Supervisors to require that hazardous materials users monitor their emissions into the environment and keep records on the effectiveness of their hazardous materials management practices as a means of enforcing their obligation.
- j. The people who live and work in this County have a right and need to know of the use and potential hazards of hazardous materials in the community in order to plan for and respond to potential exposure to such materials.
- k. Basic information on the location, type and health risks of hazardous materials used or stored in the County should be available to firefighters, health officials, planners, elected officials or residents.
- l. It is the intent of the County Board of Supervisors that this Chapter shall recognize the community's right to know basic information on the use of storage of hazardous materials in the County and that it shall establish an orderly system for the provision of such information.

- m. It is further the intent of the County Board of Supervisors that the system of the disclosure set forth in this Chapter shall provide the information essential to firefighters, health officials, planners, elected officials, and residents in meeting their responsibilities for the Health and welfare of the community in such a way that any statutory privilege of trade secrecy is not abridged.
- n. The Board of Supervisors hereby finds and determines, on the facts relevant to disclosure of the precise location within a facility where hazardous materials are stored or handled, that the public interest served by not disclosing such information to the public clearly outweighs the public interest served by disclosure of such information.

**11.37.020 PURPOSE.** The purpose of this Chapter is the protection of health and life, the environment, and property by placing on the users of hazardous materials the obligation to control releases, emissions or discharges of all hazardous materials, to properly handle all hazardous materials and to disclose their whereabouts.

**11.37.030 GENERAL OBLIGATION - SAFETY AND CARE.**

- a. No person or business shall cause, suffer, or permit the use, handling, or storage of hazardous materials in any of the following ways:
  - 1. In a manner which violates any provision of this Chapter or any other local, federal, or state statute, code, rule, or regulation relating to hazardous materials;
  - 2. In a manner which harms or poses a significant risk of harm to the public health or adverse impact on the environment; or,
  - 3. In an manner which causes an unauthorized discharge of hazardous materials or poses a significant risk of such unauthorized discharge.
- b. The Health Officer shall have discretion to require an applicant to meet additional, modified or reduced requirements, where such action would be appropriate and consistent with achieving the general obligation of this Chapter for protecting public health, safety, and welfare.

**11.37.040 SPECIFIC OBLIGATION.**

- a. Any person or business which handles or stores or intends to handle or store a hazardous material shall obtain and keep current a Hazardous Materials Permit pursuant to the provisions of this Chapter, unless otherwise excluded by Part II of this Chapter.
- b. All such hazardous materials shall be contained in conformity with Part III of this Chapter.
- c. All such hazardous materials shall be disclosed in conformity with Part V of this Chapter.

**11.37.050 DEFINITIONS.** Unless otherwise expressly stated, whenever used in this Chapter, the following terms shall have the meanings set forth below:

- a. "Abandoned" when referring to a storage facility, means out of service and not safeguarded in compliance with this Chapter.
- b. "Active ingredient" means any compound included in a substance which is not classified as inert.

- c. **"Business"** means an employer, self-employed individual, trust, firm, joint stock company, corporation, partnership, association, city, county, district, and the state, or any department or agency thereof to the extent allowed by law. For the purpose of this Chapter, a business shall include both for profit and nonprofit business.
- d. **"Carcinogen"** means a substance or agent which can cause cancer. Carcinogens are chemicals for which there is sufficient evidence of carcinogenicity as specified in guidelines prepared by the International Agency for Research on Cancer and updated by the Hazard Evaluation System and Information Service of the Department of Health Services.
- e. **"CAS number"** means the unique identification number assigned by the Chemical Abstracts Service to specific chemical substances.
- f. **"Chemical name"** means the scientific designation of a substance in accordance with the system developed by the Chemical Abstracts Service.
- g. **"Common name"** means any designation of identification such as code name, code number, trade name, or brand name used to identify a substance other than by its chemical name.
- h. **"Control"** means to prevent, mitigate, pretreat, remove or otherwise lessen the impact of an emission, discharge or release of a hazardous material into the environment.
- i. **"Disclosure form"** means the written request for information prepared by the County Health Officer pursuant to Part V of this Chapter.
- j. **"Discharge"** includes, but is not limited to, any spilling, leaking, pumping, pouring, emitting, emptying, or dumping of a hazardous material into the environment.
- k. **"Economic poison"** means any spray adjuvant, or any substance, or mixture of substances which is intended to be used for defoliating plants, regulating plant growth, or for preventing, destroying, repelling or mitigating any and all insects, fungi, bacteria, weeds, rodents, predatory animals, or any other form of plant or animal life which is a pest which may infect or be detrimental to vegetation, man, animal, or household, or be in any environment whatsoever.
- l. **"Emit"** means to discharge or release into the atmosphere, or through the atmosphere, into the environment.
- m. **"Environmental audit"** means the efforts undertaken to outline the handling of each hazardous material pursuant to Part IV of this Chapter.
- n. **"Environmental Health Appeals Commission"** means that body created by Chapter 3.67 of the Santa Cruz County Code.
- o. **"EPA waste stream code"** means the identification number assigned pursuant to the regulations of the U.S. Environmental Protection Agency to specific types of hazardous waste.
- p. **"Facility"** means a building or buildings, appurtenant structures, and surrounding land used by a person or business at a single location or site.

- q. **"Handle"** means to generate, treat, manufacture, produce, store, use, discharge, release, or emit a hazardous material in any fashion.
- r. **"Hazard class"** means Explosives A, Explosives B, Explosives C, Blasting agents, Flammable liquids, Combustible liquids, Flammable solids, Oxidizers, Organic peroxides, Corrosive materials, Flammable gases, Nonflammable gases, Poisons A, Poisons B, Irritating materials, Etiologic agents, Radioactive materials, Other Regulated Materials (ORM) A, B, C, D and E.
- s. **"Hazardous material" or "hazardous substance"** means any material which is subject to regulation pursuant to Part II of this Chapter. A mixture shall be deemed to be a hazardous material or substance if it either is a waste and contains any material regulated pursuant to Part II of this Chapter, or is a nonwaste and contains one percent (1%) by volume or more of any material regulated pursuant to Part II of this Chapter.
- t. **"Hazardous Materials Advisory Commission"** means that body created by Chapter 3.78 of the Santa Cruz County Code.
- u. **"Health Officer"** means the health officer of Santa Cruz County or his/her representative or designee.
- v. **"Monitor"** means to perform a test, sample or otherwise check a release, emission, discharge or handling activity to ensure compliance with standards set pursuant to any provision of this ordinance or any other law regarding the handling of hazardous materials.
- w. **"MSDS"** means a Material Safety Data Sheet prepared pursuant to Section 6390 of the California Labor Code or pursuant to the regulations of the Occupational Safety and Health Administration of the U.S. Department of Labor.
- x. **"Owner"** means the owner of a storage tank or facility.
- y. **"Operator"** means the operator of a storage tank or facility.
- z. **"Permit"** means any Hazardous Materials Permit issued pursuant to this Chapter, as well as any additional approvals, amendments or revisions thereto.
- aa. **"Permit quantity limit"** means the maximum amount of hazardous material that can be stored in a storage facility. Separate permit quantity limits will be set for each storage facility for which a permit is obtained in accordance with the requirements of this Chapter.
- bb. **"Pipe"** means any pipeline or system of pipelines which is used in connection with the storage of hazardous substances and which is not intended to transport hazardous substances in interstate or intrastate commerce or to transfer hazardous materials in bulk to or from a marine vessel.
- cc. **"Primary containment"** means the first level of containment, i.e., the inside portion of that container which comes into immediate contact on its inner surface with the hazardous material being contained.
- dd. **"Product-tight"** means impervious to the substance which is contained, or is to be contained, so as to prevent the seepage of the substance from the primary containment. To be product-tight, the tank shall not be subject to physical or chemical deterioration by

the substance which it contains over the useful life of the tank.

- ee. **"Property"** means any land or improvements owned, leased, possessed or under the direct control of the user.
- ff. **"Release"** means any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping or disposing of a hazardous material into the environment.
- gg. **"Remove"** means the cleanup or removal of released hazardous materials or environmental media contaminated by released hazardous materials; such actions as may be necessary to monitor, assess or evaluate the release of hazardous materials; or the taking of such actions as may be necessary to mitigate damage to the public health and the environment.
- hh. **"Reproductive toxin"** means a substance or agent which can affect reproductive functions causing birth defects, spontaneous abortions, impaired spermatogenesis, reduced fertility and/or intrauterine growth retardation as specified in guidelines prepared by the Hazard Evaluation System and Information Service of the Department of Health Services.
- ii. **"Secondary containment"** means the level of containment external to and separate from the primary containment.
- jj. **"SIC code"** means the identification number assigned by the Standard Identification Classification code to specific types of businesses.
- kk. **"Significant change"** means a need to have on site more than the quantity of hazardous material disclosed pursuant to Part V.
- ll. **"Single-walled"** means construction with walls made of but one thickness of material. Laminated, coated, or clad materials shall be considered as single-walled.
- mm. **"Special inspector"** means a professional engineer registered pursuant to Business and Professional Code, who is qualified to attest, at a minimum, to structural soundness, seismic safety, the compatibility of construction materials with contents, cathodic protection, and the mechanical compatibility of the structural elements.
- nn. **"Standard temperature and pressure"** (STP) means a temperature of zero degrees centigrade and a pressure of one atmosphere.
- oo. **"Storage"** or **"store"** means the containment, handling or treatment of hazardous substances, either on a temporary basis or for a period of years.
- pp. **"Storage facility"** means 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 materials at a facility.
- qq. **"Tank"** means a device designed to contain an accumulation of hazardous materials or substances which is constructed primarily of nonearthen materials (e.g. wood, concrete, steel, plastic) which provides structural support.
- rr. **"UN/NA numbers"** means United Nations/North American identification numbers assigned to hazardous materials.



- ss. "Unauthorized release" means any release, discharge, or emission of any hazardous substance which does not conform to the provisions of this Chapter.
- tt. "Underground storage tank or facility" means any one or combination of tanks, including pipes connected thereto, which is used for the storage of hazardous materials and which is substantially or totally beneath the surface of the ground. "Underground storage tank or facility" does not include tanks used for the storage of hazardous materials which are for the control of external parasites of cattle and subject to the supervision of the County Agricultural Commissioner provided the County Agricultural Commissioner determines, by inspection prior to use, that the tank provides a level of protection equivalent to that required by Section 25291 of the State Health and Safety Code if the tank was installed after June 30, 1984, or protection equivalent to that provided by Section 25292 of the State Health and Safety Code if the tank was installed on or before June 30, 1984.
- uu. "Use" means to generate, produce, manufacture, treat, or store hazardous material(s).
- vv. "User" means any person or business which handles a hazardous material.

**11.37.060 DESIGNATION OF A HAZARDOUS MATERIALS USER.** A person or business handling a hazardous material in a manner, or in a sensitive location, such as to pose a present or potential harm to human health and life, or the environment, is a hazardous materials user, in addition to those persons or businesses defined as hazardous materials users in Section 11.37.050.

**11.37.070 PROFESSIONAL ASSISTANCE FOR COUNTY DETERMINATIONS.** Whenever the approval or satisfaction of the Health Officer may be required in this Chapter for the design, monitoring, testing or other technical submittal by an applicant or permittee, the Health Officer may, in his/her discretion, rely on properly certified data, facts, documents and/or other evidence provided by the applicant, or may, at such applicant's or permittee's sole cost or expense, retain a suitably qualified independent engineer, chemist, toxicologist or industrial hygienist, or other appropriate professional consultant, acceptable to the Health Officer and the applicant or permittee, for the purposes of this Chapter. The Health Officer shall be entitled to rely on and shall give due weight to such evaluation and/or opinion of such engineer, chemist, toxicologist or industrial hygienist or other appropriate consultant in asking the relevant determinations provided for in this Chapter.

## **PART II**

### **MATERIALS REGULATED**

**11.37.100 MATERIALS REGULATED.** All of the following liquid, solid and gaseous substances are subject to regulation by this Chapter as hazardous materials:

- a. Any substance or product for which the manufacturer or producer is required to prepare a Material Safety Data Sheet for the substance or product pursuant to the Hazardous Substances Information, and Training Act (commencing with Section 6360, Chapter 2.5, Part 1 of Division 5 of the California Labor Code) or pursuant to any applicable Federal law or regulation;
- b. Any substance or product which is listed as a radioactive material set forth in Chapter 1, Title 10, Appendix B, maintained and updated by the Nuclear Regulatory Commission;
- c. Any substance or product which is a "hazardous waste" or an "extremely hazardous waste" as defined by Sections 25115 and 25117 of the California Health and Safety Code;

- d. Substances on the list prepared by the Director of the Department of Industrial Relations pursuant to Section 6382 of the Labor Code;
- e. Hazardous substances, as defined in Section 25316 of the Health and Safety Code;
- f. Any material which is classified by the National Fire Protection Association (NFPA) as a flammable liquid, a class II combustible liquid, or a class III-A combustible liquid;
- g. The comprehensive master list of hazardous materials compiled by the State Department of Health Services pursuant to Health and Safety Code Section 25281;
- h. Any material which has been determined to be hazardous based on any appraisal or assessment by or on behalf of the party storing the material in compliance with the requirements of the EPA or the California Department of Health Services, or which should have been, but was not, determined to be hazardous due to the deliberate failure of the party storing the material to comply with the requirements of the EPA and/or the Department of Health Services;
- i. Any material which has been determined by the party storing it, through testing or other objective means, to be likely to create a significant potential or actual hazard to public health, safety or welfare. This subsection shall not establish a requirement to test for the purposes of this Chapter;
- j. Any material determined to be hazardous by the Health Officer, subsequent to a review by the Hazardous Materials Advisory Commission after public notice and a public hearing, based on a finding that the material, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the community.

#### 11.37.110 EXCLUSIONS.

- a. Hazardous materials contained solely in consumer products packaged for distribution to and used by the general public shall be exempt from this Chapter unless the Health Officer has provided notice that the storage of certain quantities of specified consumer products requires compliance with this Chapter to protect the public health.
- b. The Health Officer shall exempt any material from the requirements of this Chapter where it has been demonstrated to the satisfaction of the Health Officer that the material in the quantity and/or solution stored and/or used does not present a significant actual or potential hazard to the public health, safety and welfare.

### **PART III**

#### **STORAGE OF HAZARDOUS MATERIALS**

#### 11.37.200 CONTAINMENT OF HAZARDOUS MATERIALS.

- a. No person or business shall store any hazardous materials in storage tanks regulated by this Chapter until a Hazardous Materials Permit has been issued pursuant to this Chapter. No permit shall be granted pursuant to this Chapter unless the Permit applicant demonstrates to the satisfaction of the Health Officer by the submission of appropriate

plans and other information, that the design and construction of the storage facility will result in a suitable manner of storage for the hazardous material or materials to be contained therein.

- b. All installation, construction, repair or modification, closure, and removal of hazardous materials storage tanks shall be to the satisfaction of the Health Officer. The Health Officer shall have the discretion to impose reasonable additional or different requirements in order to better secure the purpose and general obligation of this Chapter for protection of public health, safety, and welfare.

**11.37.210 NEW STORAGE FACILITIES.** Every underground storage tank installed after January 1, 1984, and every other storage tank installed after the effective date of this Chapter shall meet the following requirements:

- a. The storage facility shall be designed and constructed to provide primary and secondary levels of containment of the hazardous substances stored in them in accordance with the following performance standards:
  - 1. Primary containment shall be product-tight.
  - 2. Secondary containment shall be constructed to prevent structural weakening as a result of contact with any released hazardous substances and also shall be capable of storing the hazardous substances for the maximum anticipated period of time necessary for the recovery of any released hazardous substance.
  - 3. In the case of an installation with one primary container, the secondary containment shall be large enough to contain at least 110 percent of the volume of the primary tank.
  - 4. In the case of multiple primary tanks, the second container shall be large enough to contain 150 percent of the volume of the largest primary tank placed in it, or 10 percent of the aggregate internal volume of all primary tanks, whichever is greater.
  - 5. If the storage facility is open to rainfall, then the secondary containment must be able to additionally accommodate the volume of a 24-hour rainfall as determined by a 100-year storm history. Secondary containment for storage facilities for materials which react with water to produce hazardous gas or vapor shall not be open to rainfall.
  - 6. Single-walled containers do not fulfill the requirement of a storage tank providing for both a primary and a secondary containment.
- b. The storage facility shall be designed and constructed with a monitoring system capable of detecting the entry of the hazardous material stored in the primary containment into the secondary containment. If water could intrude into the secondary containment, a means of monitoring for water intrusion and for safely removing the water shall also be provided.
- c. When required by the Health Officer, a means of overfill protection shall be provided for any primary tank, including an overfill prevention device or an attention-getting higher level alarm, or both. Primary tank filling operations of storage tanks containing a motor vehicle fuel which are visually monitored and controlled by a storage facility operator satisfy the requirements of this paragraph.

- d. Different substances that in combination may cause a fire or explosion, or the production of flammable, toxic, or poisonous gas, or the deterioration of a primary or secondary container, shall be separated in both the primary and secondary containment so as to avoid potential intermixing.
- e. If water could enter into the secondary containment by precipitation or infiltration, the storage facility shall contain a means of removal by the owner or operator. This removal system shall also prevent uncontrolled removal of this water and provide for a means of analyzing the removed water for hazardous substance contamination and a means of disposing of the water, if so contaminated, at an authorized disposal facility, or in an otherwise authorized manner.
- f. In addition to the requirements set forth in subsections (a) through (e) of Section 11.37.210, underground storage facilities shall meet the following requirements:
  - 1. Before an underground storage tank is covered, enclosed, or placed in use, the standard installation testing for requirements for underground storage systems specified in Section 2-7 of the Flammable and Combustible Liquids Code, adopted by the National Fire Protection Association, (NFPA 30) as amended and published in the respective edition of the Uniform Fire Code, shall be followed.
  - 2. Before an underground storage tank is placed in service, the underground storage system shall be tested in operating condition using a precision test as defined in National Fire Protection Association Pamphlet 329, "Recommended Practice for Handling Underground Leakage of Flammable and Combustible Liquids", as amended for proving the integrity of an underground storage tank.
  - 3. If an underground storage tank is designed to maintain a water level in the secondary containment, the tank shall be equipped with a safe method of removing any excess water to a holding facility and the owner or operator shall inspect the holding facility monthly for the presence of excess water overflow. If excess water is present in the holding facility, the permittee shall provide a means to analyze the water for hazardous substance contamination and a means to dispose of the water, if so contaminated, at an authorized disposal facility.

**11.37.220 OTHER STORAGE FACILITIES.** For every underground storage tank installed on or before January 1, 1984, and every other storage tank installed before the effective date of this Chapter, and used for the storage of hazardous substances the following actions shall be taken on or before January 1, 1986 for every underground storage tank and on or before January 1, 1987 for every other storage tank:

- a. The owner shall outfit the storage facility with a monitoring system capable of detecting unauthorized releases of any hazardous substances stored in the storage facility, and thereafter, the operator shall monitor each storage facility, based on materials stored and the type of monitoring installed.
- b. Provide a means for visual inspection of the tank, wherever practical, for the purpose of the monitoring required by Section 11.37.220(a). Alternative methods of monitoring the tank on a monthly, or more frequent basis, may be required by the Health Officer. The alternative monitoring methods include, but are not limited to the following methods:
  - 1. For underground tanks, precision testing as defined in National Fire Protection

Association Pamphlet 329, "Recommended Practice for Handling Underground Leakage of Flammable and Combustible Liquids", as amended, for proving the integrity of an underground storage tank and piping system at time intervals specified by the Health Officer.

2. A groundwater monitoring well or wells which are downgradient and adjacent to the storage tank or facility, vapor analysis within a well where appropriate, and analysis of soil borings at the time of initial installation of the well. The Health Officer shall approve the location and number of wells, the depth of wells, and the sampling frequency, pursuant to regulations promulgated by the Health Officer.
3. A continuous leak detection and alarm system which is located in monitoring wells adjacent to the storage tank or facility and which is approved by the Health Officer.
4. For monitoring tanks containing motor vehicle fuels, daily gauging and inventory reconciliation by the operator, if all of the following requirements are met:
  - i. Inventory records are kept on file for one year and are reviewed quarterly.
  - ii. If a pressurized pump system is connected to the tank, the system has a leak detection device to monitor for leaks in the piping.
  - iii. For underground tanks, testing is conducted using the precision test as defined by the National Fire Protection Association Pamphlet 329, "Recommended Practice for Handling Underground Leakage of Flammable and Combustible Liquids", as amended, for proving the integrity of an underground storage tank at time intervals specified by the Health Officer and whenever there is a shortage greater than the amount which the Health Officer shall specify by regulation.

**11.37.230 VARIANCE.**

- a. A variance from the requirement for secondary containment for a storage facility may be granted upon a written finding by the Health Officer issuing the permit, which has been reviewed and approved by the Environmental Health Appeals Commission, that based on the special circumstances:
  1. The requirement of secondary containment creates an unusual and particular hardship; and
  2. An equivalent degree of protection is provided by the proposed alternative; and
  3. The proposed alternative has been appropriately certified by a "special inspector".
- b. The Environmental Health Appeals Commission shall consider the variance, at a public meeting, at which oral or written presentation on the matter may be made. A notice which includes a statement that a variance from secondary containment for hazardous materials will be considered, and which specifies the address of the facility seeking the variance, and time and place of the meeting shall be given in the following manner:
  1. The Environmental Health Appeals Commission shall cause a copy of the notice to be published once in a newspaper of general circulation in the County, not less

than ten days prior to the meeting; and

2. The Environmental Health Appeals Commission shall cause a copy of the notice to be mailed at least ten days prior to the meeting to any party who files a written request with the Environmental Health Appeals Commission, for mailed notice of meetings at which any variance is to be considered. Such written request for notice shall be valid for one year from the date on which it is filed unless a renewal request is filed. Renewal request for such mailed notices shall be filed on or before April 1st of each year.
3. The Environmental Health Appeals Commission shall cause a copy of the notice to be mailed at least ten days prior to the meeting to the Hazardous Materials Advisory Commission.
4. The Environmental Health Appeals Commission shall cause a copy of the notice to be mailed at least ten days prior to the meeting to the owners of property within 300 feet of the variance site.

c. The action of the Environmental Health Appeals Commission shall be final.

#### 11.37.240 ABANDONED STORAGE FACILITIES.

- a. No person or business shall abandon a hazardous materials storage facility or close or temporarily cease operating a hazardous materials storage facility without first obtaining a permit or approval pursuant to 11.37.240(b) from the Health Officer. The Health Officer shall provide a form which requests the information demonstrating that the requirements of this section will be met.
- b. Any storage facility may be temporarily taken out of service due to an emergency upon the approval of the Health Officer.
- c. A storage facility which is temporarily taken out of service, but which the operator intends to return to use, shall continue to be subject to all the permit, inspection, and monitoring requirements of this Chapter, unless the operator complies with the provisions of subdivision (d) for the period of time the facility is not in use.
- d. No person or business shall permanently close a storage facility unless the person or business undertakes all of the following actions:
  1. Demonstrates to the Health Officer that all residual amounts of the hazardous substance or hazardous substances which were stored in the facility prior to its closure have been removed, properly disposed of, and neutralized.
  2. Adequately seals any storage tank which is to remain in place in a manner to minimize any threat to the public safety and the possibility of water intrusion into, or runoff from, the tank.
  3. Provides for, and carries out, the maintenance of the facility as the Health Officer determines is necessary, for the period of time the Health Officer determines is necessary, for the period of time the Health Officer requires or until it has been demonstrated to the satisfaction of the Health Officer that all residual amounts of hazardous substances have been removed, properly disposed of, and neutralized.

4. Demonstrates to the Health Officer that there has been no significant soil contamination resulting from a discharge in the area surrounding the storage facility.
- e. Any storage facility out of service for a period of one year shall be deemed to be permanently closed and subject to the requirements of 11.37.240(d) unless the facility is removed in accordance with the requirements of Uniform Fire Code, Section 79.113(e).

#### PART IV

#### HAZARDOUS MATERIALS MANAGEMENT PLAN

**11.37.300 THE HAZARDOUS MATERIALS MANAGEMENT PLAN.** Each applicant for a Permit pursuant to this Chapter shall file a written plan, for the Health Officer's approval, to be known as a Hazardous Materials Management Plan (HMMP), which shall demonstrate the safe handling and control of hazardous materials. The HMMP may be amended at any time with the consent of the Health Officer. Those hazardous materials users that frequently initiate significant changes, as defined in Section 11.37.050 and referred to in Section 11.37.400, in handling of hazardous materials should indicate that information in the plan, or file an amended plan. The HMMP shall be a public record, except for items designated as trade secrets in accordance with the provisions of Section 11.37.430 and except for information contained in the General Facility Description and the Facility Storage map or line drawing of the facility, as herein provided.

**11.37.310 STANDARD FORM HMMP.** The standard Form HMMP shall consist of the following:

a. Facility Information:

1. General Information. The Standard Form HMMP shall contain the name and address of the facility and business phone number of applicant, the name and titles and emergency phone numbers of the primary response person and two alternates, the number of employees, number of shifts, hours of operation, and principal business activity.
2. General Facility Description.
  - i. The Standard Form HMMP shall contain a map drawn at a legible scale and in a format and detail determined by the Health Officer. It shall show the location of all buildings and structures, chemical loading areas, parking lots, internal roads, storm and sewer drains, and shall specify the uses of adjacent properties.
  - ii. The Health Officer may also require information as to the location of wells, flood plains, earthquake faults, surface water bodies, and/or general land uses (schools, hospitals, institutions, residential areas) within one mile of the facility boundaries.
3. Facility Storage Map.
  - i. The Standard Form HMMP shall contain a Facility Storage Map at a legible scale for licensing and enforcement purposes. The information in this section is provided for purposes of ensuring the suitable and secure storage of hazardous materials and for the protection and safety of emergency

response personnel.

- ii. The Facilities Storage Map shall indicate the location of each hazardous materials storage facility, including all interior, exterior, and underground storage facilities, and access to such storage facilities. In addition, the map shall indicate the location of emergency equipment related to each storage facility, and the general purpose of the other areas within each facility.
- iii. For each storage facility, the map shall contain information as prescribed below:
  - 1) A floor plan to scale and the permit quantity limit.
  - 2) For each hazardous material the general chemical name, common/trade name, major constituents for mixtures, United Nations (UN) or North American (NA) number, if available, and physical state.
  - 3) For all hazardous materials, including wastes, stored in each storage facility, the hazard class or classes and the quantity for each such class.
  - 4) For tanks, the capacity limit of each tank, and the hazardous material contained in each tank by general chemical name, common/trade name, major constituents for mixtures, United Nations (UN) or North American (NA) number, if available, and physical state. The Facility Storage Map shall be updated annually or whenever an additional approval is required for the facility.

b. An Environmental Audit. Hazardous materials users shall provide the Health Officer, and themselves, with an environmental audit of each process using a hazardous material or materials. The environmental audit shall include:

1. A list of all hazardous materials that will be stored, produced or used in production, assembly and cleaning processes (a copy of the Hazardous Materials Disclosure Form as provided in Part IV herein may satisfy the requirements of this subparagraph);
2. Diagrams showing the flow of all hazardous materials through each step of these processes;
3. Diagrams and descriptions of all processes that produce wastewaters, air emissions, or hazardous wastes;
4. Diagrams and descriptions of all treatment processes for hazardous materials, including information on their efficiency in removing or destroying hazardous contaminants;
5. Estimates of the type and volume of hazardous materials that will be incorporated into final products, discharged into the sewer, released into the air, or transformed into hazardous wastes; and



6. A description of the methods to be utilized to ensure separation and protection of stored hazardous materials from factors which may cause a fire or explosion, or the production of a flammable, toxic, or poisonous gas, or the deterioration of the primary or secondary containment.
- c. Control of Emissions, Discharges and Releases. The Standard Form HMMP shall indicate the measures employed to control emissions, discharges and releases of each hazardous material, by:
1. Showing that the user has a permit or license from the appropriate regulatory agency.
  2. Explaining how the user adheres to existing laws, statutes, standards or regulations that do not require a permit or license, but do specifically cover the handling of each hazardous material and specifically require its control.
  3. Documenting measures that will be employed to control the hazardous material in such a manner as to present the least acute or chronic hazard or risk to public health, and/or least damage to the environment, including, but not limited to:
    - i. The best available control technologies, practicable, or
    - ii. Changes in process and manufacturing strategies to reduce handling of the hazardous material.
  4. Demonstrating the adequacy of:
    - i. Contingency plans for spills and unauthorized emissions, discharges and releases of the hazardous material; and,
    - ii. Employee training and equipment for proper handling of hazardous materials, and in response to all emergencies involving the hazardous material.
  5. Upon a showing the environmental fate of the hazardous material handled is such that it presents no harm or potential of harm to human health or to the environment, the HMMP need not indicate the measures employed to control emissions, discharges, and releases of each hazardous material.
- d. Monitoring Plan. For each hazardous material used, the user shall document the efforts to verify that the hazardous materials are controlled in accordance with all other elements of the HMMP:
1. These efforts shall include, but are not limited to:
    - i. Sampling of emissions discharges and releases;
    - ii. Self-inspections of storage, manufacturing, and transportation operations; and
    - iii. Testing of emergency procedures.
  2. These efforts shall take place in such a manner as to:

- i. Include sampling, self-inspections and monitoring at those times during the production process when the highest volume discharges and the highest probable concentrations of hazardous materials are likely to occur;
  - ii. Monitor, inspect or sample all hazardous materials used in the manufacturing process which have any potential for appearing in wastewater discharge; and,
  - iii. Include periodic random sampling, monitoring or inspection.
- e. **Recordkeeping Forms.** The Standard Form HMMP shall contain an inspection check sheet or log designed to be used in conjunction with routine inspections. The check sheet or log shall provide for the recording of the date and time of inspection and, for monitoring activity, the date and time of any corrective action taken, the name of the inspector, and the countersignature of the designated safety manager for the facility or the responsible official as designated in the HMMP.

#### **11.37.320 SHORT FORM HMMP.**

- a. Any user handling an aggregate amount of less than 500 pounds of solids or 55 gallons of liquids or 200 cubic feet of a gaseous material at standard temperature and pressure, whichever is lesser, of a product or formulation containing a hazardous material may opt to file the Short Form HMMP unless the Health Officer has provided notice that he or she has lowered the weight or volume limits for a specific hazardous material to protect the public health.
- b. The Short Form HMMP shall consist of the following:
  - 1. The Short Form HMMP shall contain the name and address of the facility and business phone number of applicant, the name and titles and emergency phone numbers of the primary response person and two alternates, the number of employees, number of shifts, hours of operation, and principal business activity.
  - 2. The Short Form HMMP shall contain a simple line drawing of the facility showing the location of the use or storage facilities and indicating the hazard class or classes and physical state of the hazardous materials being used or stored and whether any of the material is a waste.
  - 3. The Short Form HMMP shall also indicate the use and/or storage of any quantity of any carcinogen or reproduction toxin as defined in this Chapter.
  - 4. Information indicating that the hazardous materials will be stored in a suitable manner and that they will be appropriately contained, separated and monitored.
  - 5. Description of adequate contingency plans for spills and unauthorized emissions, discharges, and releases of the hazardous material, and employee training and equipment for proper handling of hazardous materials, and in response to all emergencies involving the hazardous material.
  - 6. Assurance that the disposal of any hazardous materials will be in an appropriate manner.

## **PART V**

### **HAZARDOUS MATERIALS DISCLOSURE FORM**

#### **11.37.400 FILING OF A HAZARDOUS MATERIALS DISCLOSURE FORM.**

- a. Any user operating within the unincorporated areas of the County and handling hazardous materials shall submit a completed disclosure form to the Health Officer by January 1 of each year.
- b. In addition, any user shall file an amended disclosure form detailing the handling and other information requested on the form within 60 days of any:
  1. Significant change in the handling of a hazardous material;
  2. New handling of a previously undisclosed hazardous material;
  3. Change of business address;
  4. Change of business ownership; or
  5. Change of business name.

#### **11.37.410 CONTENT OF THE DISCLOSURE FORM.**

- a. The disclosure form shall include the following:
  1. Identification information, including but not limited to name, address and assessor's parcel number.
  2. A copy of the MSDS for every hazardous material used by the person of business completing the disclosure; unless the MSDS had been previously filed pursuant to the requirements of this ordinance or does not exist.
  3. A listing of the chemical name, any common names, hazard class and the CAS number and/or UN/NA number of every hazardous material handled by the person or business completing the disclosure form;
  4. The EPA waste stream code, if available, of every hazardous waste handled by the person or business completing the disclosure form;
  5. The estimated maximum amount of each hazardous material disclosed in either subsection 2 or 3 which is handled at any one time by the user over the course of the year;
  6. Sufficient information on how and where the hazardous materials disclosed in subsections 2 and 3 are handled by the user to allow fire and safety personnel to prepare adequate emergency responses to potential releases of the hazardous materials;
  7. The SIC code of the business, if applicable; and

8. The names and phone numbers of at least three persons representing the person or business and able to assist emergency personnel in the event of an emergency involving the person or business during nonbusiness hours.
- b. In an emergency, all users must immediately provide upon request information beyond that specifically required in the disclosure form to the agency of jurisdiction during the emergency if that agency has determined that such information is necessary to protect health and safety of the environment.

#### 11.37.420 EXEMPTION TO DISCLOSURE.

- a. Fuel products that are regulated by the Uniform Fire Code shall be exempt from disclosure under Part V.
- b. A substance designated as a hazardous material by this Chapter solely by its presence on the Nuclear Regulatory Commission list of radioactive materials shall be exempt from the requirement that an MSDS be submitted with the disclosure form.

#### 11.37.430 TRADE SECRETS AND EXEMPTIONS FROM PUBLIC DISCLOSURE.

- a. If a user believes that a request for information contained in the disclosure form or the HMMP involves the release of a trade secret, the user shall complete the documents nonetheless, but shall notify the Health Officer in writing of that information in the documents that the user believes involves the release of a trade secret. As used herein, trade secret shall have the meaning given to it by Section 6254.7 of the Government Code and Section 1060 of the Evidence Code.
- b. Subject to the provisions of this Chapter, the Health Officer shall exempt from public disclosure any and all information coming into his or her possession which is claimed to involve the release of a trade secret, pursuant to subsection (a).
- c. Subject to the provisions of this Chapter, the Health Officer shall also exempt from public disclosure that portion of a Hazardous Materials Disclosure Form, the HMMP or other record on file which states the precise location where hazardous materials are stored or handled.
- d. Any information reported to or otherwise obtained by the Health Officer, or any of his or her representatives or employees, which is exempt from disclosure pursuant to subsections (b) or (c) shall not be disclosed to anyone except:
  1. An officer or employee of the County, the State of California, or the United States of America, in connection with the official duties of such officer or employee under any law for the protection of health, or to contractors with the County and their employees if in the opinion of the Health Officer such disclosure is necessary and required for the satisfactory performance of a contract of work, or to protect the health and safety of the employees of the contractor; or
  2. To a physician when the Health Officer determines that such information is necessary for the medical treatment of the physician's patient.
- e. For the purpose of this section, fire and emergency response personnel and County health personnel operating within the jurisdiction of the County shall be considered employees of the County.

- f. Information claimed as a trade secret must be disclosed to a physician by the Health Officer for the purpose of treating a patient. Any physician who, by virtue of his or her treating a patient has possession of or access to information the disclosure of which is prohibited on this section, and who, knowing that disclosure by this information is prohibited, knowingly and willfully discloses the information in any manner to any person not entitled to receive it, shall be guilty of a misdemeanor.
- g. Any officer or employee of the County or former officer or employee who, by virtue of such employment or official position has possession of or access to information the disclosure of which is prohibited by this section, and who, knowing that disclosure of the information is prohibited, knowingly and willfully discloses the information in any manner to any person not entitled to receive it, shall be guilty of a misdemeanor. Any contractor with the County and any employee of such contractor, who has been furnished information as authorized by this section, shall be considered to be an employee of the County for purposes of this Section.
- h. Information certified by appropriate officials of the United States, as necessarily kept secret for national defense purposes, shall be accorded the full protection against disclosure as specified by such official or in accordance with the laws of the United States.
- i. Upon receipt of a request for the release of information to the public which includes information which the user has notified the Health Officer is a trade secret pursuant to subsection (a) of this section, the Health Officer shall notify the user in writing of said request by certified mail. The Health Officer shall release the information, forty-five (45) days after the day of mailing said notice unless, prior to the expiration of said forty-five (45) days, the user institutes an action in an appropriate court for a declaratory judgement that such information is subject to protection under subsection (b) of this section and obtains a temporary restraining order or preliminary or permanent injunction prohibiting disclosure of said information to the general public.

## PART VI

### RESPONSIBILITIES

**11.37.500 THE HAZARDOUS MATERIALS PERMIT.** Any person or business which is a hazardous material user within the unincorporated areas of the County shall obtain and keep current a Hazardous Materials Permit, hereinafter referred to as a Permit, which may include but is not limited to the following elements:

- a. A Hazardous Materials Management Plan.
- b. A Hazardous Materials Disclosure Form.

**11.37.510 THE HAZARDOUS MATERIALS MANAGEMENT PLAN.**

- a. All Permittees shall handle, control and store hazardous materials in accordance with the provisions of the Hazardous Materials Management Plan (HMMP) approved by the Health Officer.
- b. Records of monitoring, inspections, and sampling results produced pursuant to a

Monitoring Plan that is part of a HMMP approved by the Health Officer shall be kept and made available to the Health Officer for inspection at all times.

**11.37.520 UNAUTHORIZED RELEASES - REPORTING.**

- a. Any unauthorized release from the primary containment which the operator is able to clean-up within eight hours after the release was detected or should reasonably have been detected and which does not escape from the secondary containment, does not increase the hazard of fire or explosion, and does not cause any deterioration of the secondary containment of the storage tank, shall be recorded on the operator's monitoring reports. Such unauthorized release shall be reported to the Health Officer within five business days.
- b. Any unauthorized release which escapes from the secondary containment, or from the primary containment, if no secondary containment exists, increases the hazard of fire or explosion, or causes any deterioration of the secondary containment of the tank shall be reported by the operator to the Health Officer immediately after the release has been detected or should have been detected under the provisions of the permittee's HMMP. Any unauthorized release which is not cleaned up within eight hours after the release was detected or should reasonably have been detected, shall be reported by the operator to the Health Officer immediately. A full written report shall be transmitted by the owner or operator of the storage tanks within five working days of the occurrence of the release.
- c. Whenever a material balance or other inventory record, employed as a monitoring technique under the HMMP, indicates a loss of hazardous material, and no authorized discharge has been confirmed by other means, the permittee shall have five working days to determine whether there has been an unauthorized discharge. If before the end of such period, it is determined that there has been no authorized discharge, an entry explaining the occurrence shall be made in permittee's monitoring records. Where permittee has not been able, within such period, to determine that there has been no unauthorized discharge, and unauthorized discharge is deemed confirmed and permittee shall proceed in accordance with Section 11.37.520(b).
- d. Whenever any tests results suggest a possible unauthorized discharge, and no unauthorized discharge has been confirmed by other means, the permittee shall have five working days to retest. If second test results obtained within that period establish that there has been no unauthorized discharge, the results of both tests shall be recorded in permittee's monitoring records. If it has not been established within such period that there has been no unauthorized discharge, an unauthorized discharge is deemed confirmed and permittee shall proceed in accordance with Section 11.37.520(b)
- e. Any person in charge of a storage facility or responsible for emergency response for a storage facility, who has knowledge of an unauthorized discharge of a hazardous material which is a gas at STP, must immediately report such discharge to the Health Officer if such discharge presents a threat of imminent danger to public health and safety.
- f. The Health Officer shall review the permit whenever there has been an unauthorized release or when the Health Officer determines that the storage tank is unsafe. In determining whether to modify or terminate the permit, the Health Officer shall consider the age of the tank, the methods of containment, the methods of monitoring, the feasibility of any required repairs, the concentration of the hazardous substances stored in the tank, the severity of potential unauthorized releases, and the suitability of any long-term preventive measures which would meet the requirements of this Chapter.

**11.37.530 UNAUTHORIZED RELEASES - REPAIRS.** If there has been any unauthorized release, as defined in Section 11.37.520 (a) and (b), from an underground storage tank containing motor vehicle fuel not under pressure, the permittee may repair the tank once by an interior-coating process if the tank meets all of the following requirements:

- a. An ultrasonic test, or comparable test, has been conducted to determine the thickness of the storage tank. If the result of the test indicates that a serious corrosion problem exists with regard to the tank, as determined by the person conducting the test, the Health Officer may require additional corrosion protection for the tank or may deny the authorization to repair.
- b. A hydrostatic test is an alternative to the ultrasonic test in Section 11.37.530(a). If the result of the test indicates that a serious problem exists with regard to the integrity of the tank, as determined by the person conducting the test or the Health Officer, the Health Officer may require additional protection for the tank or may deny authorization for the repair.
- c. Following the repair, a vacuum test has been conducted with a result indexed at not more than 5.3 inches of mercury. This requirement shall be inapplicable if technology is not available for testing the tank on-site using accepted engineering practices.
- d. Following the repair, the standard installation testing for requirements for underground storage tanks specified in Section 2-7.3 of the Flammable Combustible Liquids Code, adopted by the National Fire Protection Association on November 20, 1981 (NFPA 30-1981), and published in the 1982 edition of the National Fire Code shall be followed.
- e. The material used to repair the tank by an interior-coating process is compatible with the motor vehicle fuel that is stored, as approved by the State Water Resources Control Board by regulation.
- f. The material used to repair the tank by an interior-coating process is applied in accordance with nationally recognized engineering practices such as the American Petroleum Institute's recommended practice No. 1631 for the interior lining of existing underground storage tanks.
- g. Any regulations developed by the State Water Resources Control Board, in consultation with the State Fire Marshal, for the repair of underground storage tanks, and the standards in this section shall remain in effect until the adoption of regulations pursuant to Section 11.37.920.

**11.37.540 UNAUTHORIZED RELEASES - CLEANUP RESPONSIBILITY.**

- a. Any person or business responsible for using or storing a hazardous material shall institute and complete all actions necessary to remedy the effects of any unauthorized release, whether sudden or gradual. In the event of an unauthorized release, the Health Officer may require:
  - 1. that the hazardous materials user conduct monitoring to establish whether there is environmental contamination as a result of the release;
  - 2. removal of the hazardous material and contaminated environmental media; and/or

3. that the hazardous material user pay the costs of a consultant of the County's choosing to evaluate testing and removal activities.
- b. The Health Officer may undertake any and all actions necessary to remedy the effects of such unauthorized release if he or she determines that it is reasonable under the circumstances for the County to do so. The responsible party shall be liable to reimburse the County for all costs incurred by the County in remedying the effects of such unauthorized release, including the costs of fighting fires to the extent allowed by law. This responsibility is not conditioned upon evidence of willfulness or negligence of the party storing the hazardous material(s) in causing or allowing such release.
- c. Any responsible party who undertakes action to remedy the effects of any unauthorized release shall not be barred by this Chapter from seeking to recover appropriate costs and expenditures from other responsible parties unless otherwise excluded by this Chapter of State law.

**11.37.550 UNAUTHORIZED RELEASES - INDEMNIFICATION.** As a condition of the issuance of a Permit under this Chapter, the Health Officer may require the permittee to agree in writing to indemnify, hold harmless and defend the County against any claim, cause of action, disability, loss, liability, damage, cost or expense, however so arising, which occurs by reason of an unauthorized discharge in connection with permittee's operations under this Permit, except as arise from County's sole willful act or sole active negligence.

**11.37.560 HANDLING, EMERGENCY PROCEDURES AND ACCESS.**

- a. Dispensing and mixing of hazardous materials must not be done in such a manner as to substantially increase the risk of an unauthorized discharge. When hazardous materials are moved into or out of a storage facility, they shall remain in the travel path only for the time reasonably necessary to transport the hazardous material and such movement shall be in a manner which will not result in an unauthorized discharge.
- b. Access to the storage facilities shall be secured by means of fences and/or locks or some other reasonable means as determined by the Health Officer. The access to areas containing storage facilities shall be kept securely locked when unattended.
- c. Emergency equipment shall be provided which is reasonable and appropriate for potential emergencies presented by the stored hazardous materials. Such equipment shall be regularly tested and adequately maintained.
- d. Simplified emergency procedures shall be posted conspicuously in locations where hazardous materials are stored.

**PART VII**

**INSPECTIONS AND RECORDS**

**11.37.600 INSPECTION - AUTHORITY.**

- a. The Health Officer may conduct inspections, at his/her discretion, for the purpose of ascertaining compliance with this Chapter, and causing to be corrected any conditions which constitute any violations of this Chapter, or of any other statute, code, rule or



regulation affecting the use and handling of hazardous materials.

- b. For the purpose of investigating or enforcing the provisions of this Chapter, the Health Officer may enter the facilities or premises of a hazardous materials user at all reasonable times to inspect the same; provided that if the facilities or premises are occupied, the Health Officer shall first present proper credentials and request entry, and further provided, that if such facility or premises is unoccupied, the Health Officer shall first make a reasonable effort to contact the user and request entry, except in emergency circumstances. If such entry is refused, the Health Officer shall have recourse to every remedy provided by law to secure entry.
- c. In order to carry out the purposes of this Chapter, the Health Officer has the authority specified in Health and Safety Code Section 25185 with respect to any place where hazardous materials are located, and in Health and Safety Code Section 25185.5 with respect to real property which is within 2,000 feet of any place where hazardous materials are located.

#### 11.37.610 INSPECTIONS.

- a. The Health Officer shall inspect every storage tank within its jurisdiction at least once every three years. The purpose of the inspection is to determine whether the tank complies with design and construction standards, whether the operator has monitored and tested the tank as required by the permit, and whether the tank is in a safe operating condition. After an inspection, the Health Officer shall prepare a compliance report detailing the inspection and shall send a copy of this report to the permittee.
- b. In addition to, or instead of, the inspections specified in Section 11.37.610(a), the Health Officer may require the permittee to employ, periodically, special inspectors to conduct an audit or assessment of the permittee's storage facility to determine whether the storage facility complies with the factors specified in Section 11.37.610(a) and to prepare a special inspection report with recommendations concerning the safe storage of hazardous materials at the storage facility. The report shall contain recommendations consistent with the provisions of this Chapter, where appropriate. A copy of the report shall be filed with the Health Officer at the same time the inspector submits the report to the permittee. Within 30 days after receiving this report the permittee shall file with the Health Officer, a plan to implement all recommendations contained in the report or shall demonstrate to the satisfaction of the Health Officer why these recommendations should not be implemented.
- c. All other inspections specified herein shall be at the discretion of the Health Officer, and nothing in this Chapter shall be construed as requiring the Health Officer to conduct any such inspection, nor shall any actual inspection made imply a duty to conduct any other inspection.
- d. In addition to the inspections specified above, the Health Officer may require the employment by the user of special inspectors or consultants to conduct an environmental audit, monitoring or to otherwise determine compliance with the provisions of this Chapter.
  - 1. The special inspector or consultant shall be a qualified person or firm who shall demonstrate expertise to the satisfaction of the County.
  - 2. The report of the special inspection shall include an evaluation of the facility, and recommendations consistent with the provisions of this Chapter, where

appropriate. A copy of the report shall be filed with the Health Officer at the same time that it is submitted to the permittee.

3. The permittee shall, within 30 days of the report, file with the County a plan to implement all recommendations, or demonstrate to the satisfaction of the Health Officer why such recommendations shall not be implemented.
- e. Nothing in this Chapter shall be construed to hold the County, or any officer, employee or representative of the County responsible for any damage to persons or property by reason of making an inadequate or negligent inspection, or by reason of any failure to make an inspection or reinspection.
- f. The permittee shall pay for each inspection a fee as established by resolution of the Board of Supervisors.

#### **11.37.620 MAINTENANCE OF RECORDS - COUNTY.**

- a. The Health Officer shall maintain active files of all HMMPs, disclosure forms and reports of unauthorized releases received for a period of three (3) years. HMMPs, disclosure forms and reports of unauthorized releases which are more than three years old shall be placed in inactive files and the information retained for a period of thirty (30) years.
- b. The Health Officer shall index disclosure forms by street addresses and parcel numbers, and shall cross reference them by business name, and by the SIC code numbers, the CAS numbers, UN/NA numbers, hazard class and EPA waste stream codes listed on the disclosure forms.
- c. The Health Officer shall maintain and be responsible for the security information which constitutes a trade secret as provided in Section 11.37.430 or which relates to the precise location where hazardous materials are stored or handled as provided in Section 11.37.300, 11.37.310, 11.37.320, and provided in Sections 11.37.410 which information shall be kept in separate files labelled "Confidential" and shall not be disclosed to the public.
- d. In situations involving non-imminent public health concerns, or requests for large amounts of information, the Health Officer shall provide the information within a reasonable period of time, given the nature and extent of the request. The Health Officer may collect fees to recover costs for providing information under this subsection.

**11.37.630 MAINTENANCE OF RECORDS - APPLICANT.** All records required by this Chapter shall be maintained by the permittee for a period of not less than five (5) years. These records shall be made available to the Health Officer during normal working hours and upon reasonable notice. Nothing in this Section alters or lessens the responsibility to maintain records required under other laws.

### **PART VIII**

#### **PERMIT PROCESS**

**11.37.700 REQUIREMENT FOR PERMIT.** No person, business or owner shall use, handle or store any hazardous material unless a Hazardous Materials Permit has been issued by the Health Officer to the person, business or owner.

**11.37.710 REQUIRED INFORMATION FOR PERMIT APPLICATION.**

- a. An application for a Permit, or for renewal of the Permit, shall be made by the user or owner on a standardized form prepared by the County and provided by the Health Officer and shall be accompanied by the appropriate fee.
- b. The application form for a Permit shall include, but not be limited to, the following information:
  - 1. The name of the person making the application.
  - 2. The address of the facility at which the hazardous material is handled or stored.
  - 3. The names and phone numbers of at least three persons representing the person or business and able to assist emergency personnel in the event of an emergency involving the business person or during nonbusiness hours.
  - 4. A list of all the hazardous substances which are or will be stored in the facility.
  - 5. The name and address of the person or business which handles the hazardous materials or which owns the storage facility and, if different, the name and address of the person or business who operates each storage tank.
  - 6. If the handler of a hazardous material or the owner or operator of a storage tank or facility is a public agency, the application shall include the name of the supervisor of the division, section or office which handles the hazardous material or operates the tank or facility.
- c. The Health Officer shall store application information for the purpose of managing and appropriately cross-referencing and indexing the data.
- d. No permit or change in a Permit shall be granted pursuant to this Chapter unless the applicant has completed:
  - 1. Hazardous Materials Management Plan pursuant to Part IV.
  - 2. Hazardous Materials Disclosure Form pursuant to Part V.
- e. As a condition of any permit, the permittee shall complete an annual report on a form prepared by the Health Officer which details any changes in the usage or storage of hazardous materials, including the use or storage of new hazardous materials, changes in monitoring procedure, and any unauthorized release occurrences.

**11.37.720 PERMIT ISSUANCE, AMENDMENT AND TRANSFER.**

- a. Within forty-five (45) business days after receipt of a completed application, the Health Officer shall either grant, provisionally grant, conditionally grant, or deny the Permit. This time limit may be extended by mutual agreement between the Health Officer and applicant.
- b. One such Permit shall be issued for a single facility.

- c. A new or amended Permit shall be obtained for any new hazardous material handled; or for a significant change resulting or potentially resulting in increases or changes in the types or volumes of storage, uses, releases, emissions or discharges of hazardous materials; or for any storage facility thereafter connected, installed, constructed, repaired, substantially modified, closed or removed.
- d. Within twenty (20) business days after receipt of a written request for an amendment to an existing permit, the Health Officer shall either grant, provisionally grant, conditionally grant, or deny the amendment to the Permit. This time limit may be extended by mutual agreement between the Health Officer and applicant.
- e. If the Health Officer finds that the application does not completely conform to the provisions of this Chapter, the Health Officer may issue a provisional Permit, subject to conditions to be imposed by the Health Officer, when such a provisional Permit is feasible, and does not appear to be detrimental to the public interest. Any provisional permit shall be valid for a time specified by the Health Officer, not to exceed one year. The applicant must be informed in writing of the reasons why a full-term permit was not issued.
- f. If the Health Officer denies the Permit application, the applicant must be so informed in writing and provided the reasons why the Permit was not issued.
- g. A Permit may be transferred to another person, business, or new owner only if the person, business, or new owner affirms to the Health Officer his/her intent to comply with the terms of the Permit at the time of the transfer, and documents the transfer on a form provided by the Health Officer.
- h. The term of a Permit shall be one (1) year. At the end of the term, the Health Officer may:
  - 1. Require another application before granting a new Permit;
  - 2. Accept amendments to the previous Permit;
  - 3. Require additional conditions on a Permit; or
  - 4. Extend the term of the Permit for another one (1) year, if:
    - i. There have been no valid complaints lodged against the hazardous materials user for failure to comply with any provision of this Chapter, or any other laws, standards or regulations regarding the use of hazardous materials; and,
    - ii. There have been no major changes in the handling of hazardous materials at the facility for which the permit was issued.
- i. At any time during the term of the Permit, the Health Officer may require amendments to the Permit.

#### 11.37.730 FEES FOR PERMIT.

- a. A fee shall be paid to the County by each person or business who submits an application for a Permit or to renew or amend a Permit. The Board of Supervisors shall adopt a fee schedule at a level sufficient to pay the necessary and reasonable costs incurred in

administering this Chapter, including but not limited to, permitting and inspection responsibilities.

- b. The fee for a Permit to operate an underground storage facility shall include a surcharge, the amount of which shall be determined by the Legislature annually to cover the costs of the State Water Control Board in carrying out its responsibilities under State law.
- c. A fee shall be paid to the County by each person or business who submits an application to abandon or close an underground storage tank. The Board of Supervisors shall adopt a fee schedule at a level sufficient to pay the necessary and reasonable costs incurred in administering the requirements for tank abandonment or closure.

**11.37.740 APPEAL PROCEDURE.** An applicant for a Permit under this Chapter whose application has been denied or issued provisionally or conditionally by the Health Officer, or whose permit once issued has been revoked or suspended and who believes that his application and HMMP and/or use, handling storage satisfy the criteria set forth in this Chapter, may appeal to the Environmental Health Appeals Commission under the following conditions:

- a. A written request for hearing, accompanied by the appeal fee as established by resolution of the Board of Supervisors, is filed with the Clerk of the Board within thirty (30) days after receipt of notice of the Health Officer's decision.
- b. The written request specifies in detail the reasons that the applicant believes the Permit should have been granted and/or that the applicant clearly meets all of the standards of this Chapter and any regulations adopted thereto.
- c. The Health Officer shall notify the Hazardous Materials Advisory Commission of any such request for a hearing and the time and place of any hearing on such request.
- d. The Environmental Health Appeals Commission, upon review of the relevant documents, determines to grant the applicant a hearing. The Commission shall have discretion to accept or reject any request for hearing filed pursuant to this section. Upon granting a hearing, the Commission may affirm, modify or reverse the decision of the Health Officer.
- e. The action of the Environmental Health Appeals Commission on any matter appealed to the Commission shall be final.

## **PART IX**

### **ENFORCEMENT**

#### **11.37.800 REVOCATION OR SUSPENSION.**

- a. A permit issued pursuant to the provisions of this Chapter may be amended, revoked, or suspended by the Health Officer, as hereinafter provided, if he or she determines that a violation of this Chapter exists, that written notice has been directed to permittee specifying the violation and that the permittee has failed or neglected to make the necessary adjustment within thirty (30) days after receiving such notice.
- b. A permit may also be so revoked or suspended by the Health Officer if he or she determines at a hearing held by the Health Officer that the person or business to whom any permit was issued pursuant to this Chapter has obtained the same by fraud or

misrepresentation, provided that notice of the time, place, and purpose of such hearing is given to the permittee at least five (5) days prior thereto.

- c. The amendment, suspension or revocation of any permit shall not be effective until notice thereof in writing is mailed to the permittee.
- d. A person or business whose permit has been amended, revoked or suspended may file an appeal of such revocation or suspension pursuant to the procedures set forth in Section 11.37.740.

11.37.810 CRIMINAL PENALTIES. Any person or business who violates any provision of this Chapter is guilty of a misdemeanor.

11.37.820 CIVIL PENALTIES.

- a. Any person or business which negligently violates any provision of this Chapter shall be liable to the County in a sum not to exceed \$250.00 per day for each day in which such violation occurs, and, if such violation results in or significantly contributes to an emergency, including a fire, that person or business shall be assessed the full costs incurred by all public agencies which responded to such emergency, as well as the cost of cleaning up and disposing of such hazardous materials.
- b. Any person or business which intentionally violates any provision of this Chapter shall be liable for a civil penalty to the County for a sum not less than \$500.00 nor more than \$5,000.00 for each day in which such violation occurs, and shall have its operating permit/business license revoked, and, if such violation results in or significantly contributes to an emergency, including fire, that person or business shall be assessed the full costs incurred by all public agencies which responded to such emergency, as well as the cost of cleaning up and disposing of such hazardous materials.
- c. Any civil action filed pursuant to this Chapter shall be brought in the name of the people by the District Attorney. In any civil action filed pursuant hereto in which the County prevails, the person or business shall also be liable for reasonable expenses, including attorney's fees, as determined by the Court, incurred by the County in the investigation and prosecution of the action.
- d. In determining both the civil and criminal penalties imposed pursuant to this Part, the court shall consider all relevant circumstances, including, but not limited to, the extent of harm or potential harm caused by the violation, the nature of the violation and the period of time over which it occurred, the frequency of past violations, and the corrective action, if any, taken by the person or business who holds the permit.

11.37.830 CITIZENS RIGHT TO ACT.

- a. Whenever a citizen has a concern that a hazardous materials user is improperly handling a hazardous material, the citizen shall make a report to the Health Officer, indicating:
  - 1. The signs, evidence or other indications of improper handling of hazardous materials;
  - 2. The date, or approximate date of improper handling of a hazardous material;
  - 3. The impact, if known, of the mishandling of the hazardous material;

4. The name of the user, or location of the use; and,
  5. The name of the person reporting the mishandling and such information as is necessary to contact them to report action taken.
  6. The Health Officer shall make an initial determination as to the validity of the complaint and whether it should be further investigated.
- b. Within 45 days of a valid report of mishandling of a hazardous material, the Health Officer shall:
1. Require the hazardous materials user to respond to the reported information of mishandling;
  2. Required the hazardous materials user to come into compliance with the provisions of the HMMP accepted for the issuance of a Permit;
  3. Require the hazardous materials user to apply for a Permit; and/or
  4. Take any enforcement action against the hazardous materials user, as provided for in Part IX; and,
  5. Notify, in writing, the person making the complaint of the actions taken and the reasons.
- c. The Health Officer shall keep the name of the informant confidential.

**11.37.840 CIVIL ACTION FOR RETALIATION.** A civil action may be instituted against any employer by any employee who has been discharged, demoted, suspended, or in any other manner discriminated against in terms or conditions of employment, or threatened with any such retaliation, because such employee has in good faith, made an oral or written report or complaint related to the enforcement of this Chapter to any company official, public official or union official, or has testified in any proceeding in any way related thereto. In addition to any actual damages which may be awarded, damages shall include costs and attorney's fees. The court may award punitive damages in a proper case.

**11.37.850 REMEDIES NOT EXCLUSIVE.** Remedies under this Part are in addition to and do not supersede or limit any and all other remedies, civil or criminal.

## **PART X**

### **MISCELLANEOUS**

**11.37.900 DUTIES ARE DISCRETIONARY.** Subject to the limitations of due process, notwithstanding any other provision of this code whenever the words "shall" or "must" are used in establishing a responsibility or duty of the County its elected or appointed officers, employees, or agents, it is the legislative intent that such words are directory only and do not establish a mandatory duty.

**11.37.910 DISCLAIMER OF LIABILITY.** The degree of protection required by this Chapter is considered reasonable for regulatory purposes. The standards set forth herein are minimal standards and this Chapter does not imply that compliance will ensure that there will be no unauthorized discharge of hazardous materials. This Chapter shall not create liability on the part of the County, any officer or employee thereof for any damages that result from reliance in this Chapter or any administrative decision lawfully made thereunder. All persons handling, storing, using, processing, and disposing of hazardous materials within the County should be and are advised to determine their own satisfaction the level of protection in addition to that required by this Chapter necessary or desirable to ensure that there is no unauthorized discharge of hazardous materials or risk of damage to public health or safety or the environment.

**11.37.920 REGULATIONS.**

- a. The Health Officer shall develop procedures implementing Part III of this Chapter. These regulations shall be promulgated by the Health Officer by October 1, 1985.
- b. In order to carry out the purposes and intent of this Chapter, the Health Officer, with the approval of the Board of Supervisors, is hereby authorized to adopt such regulations as are necessary to give effect to the terms of this Chapter. The substance of such regulations shall be in accordance with the intent and purpose of this Chapter, and with any state and federal laws, regulations shall be in accordance with the intent and purpose of this Chapter, and with any state and federal laws, regulations, and standards concerning sewage disposal systems. Such regulations may be amended from time to time. The Health Officer shall consult with the Hazardous Materials Advisory Commission prior to the final adoption of such regulations.
- c. The Health Officer who is responsible for the execution of the provisions of this Chapter shall maintain at all times on file in his or her office for public inspection a current copy of both this Chapter and the regulations promulgated pursuant thereto.

**11.37.930 CONFLICT WITH OTHER LAWS.** Notwithstanding any other provision of this Chapter:

- a. Whenever any provision of this Chapter conflicts with any state or federal regulations of storage facilities, the stricter provision shall prevail.
- b. Whenever any provision of this Chapter conflicts with the Fire Code as adopted by the County, the stricter provision shall prevail.

**11.37.940 SEVERABILITY.** If any section, subsection, subdivision, paragraph, sentence, clause, or phrase of this ordinance is for any reason held to be invalid or unconstitutional by a decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of the ordinance. The County Board of Supervisors hereby declares that it would have passed this ordinance and each and every section, subsection, subdivision, paragraph, sentence, clause, or phrase not declared invalid or unconstitutional without regard to whether any portion of the ordinance would be subsequently declared invalid or unconstitutional.

**11.37.950 INITIAL COMPLIANCE SCHEDULE.**

- a. As of the effective date of this Chapter, a Permit shall be required for any new facility where hazardous materials will be used, handled or stored prior to the construction of the facility. The HMMP shall be filed at the time of the application for a permit. A new facility is one which is constructed after the effective date of this Chapter and does not include any existing facility which had been in service within one (1) year prior to the



effective date of this Chapter.

- b. If a person or business changes its operations and commences the use of a new or different hazardous material, or if a person or business using hazardous materials occupies a facility where such materials were not previously used, the person or business shall, within ten (10) days of said change, file an application for a Permit with an appropriate HMMP.
- c. Except as provided in subsections (a) and (b) of 11.37.950, any hazardous material user who has a current underground storage permit and/or submitted a current Hazardous Materials Disclosure Form shall be required to comply with the provisions of this Chapter within six (6) months from the effective date of this Chapter.
- d. Notwithstanding subsection (c) of Section 11.37.950, any hazardous materials user already operating a facility on the effective date of this Chapter, shall be required to file a HMMP and otherwise comply with the provisions of this Chapter upon written notification that the Health Officer considers the handling of hazardous materials at the facility to present a risk of potential hazard to public health or safety, or damage to the environment. The user shall have up to sixty (60) days to apply for a Permit upon receipt of the written notice.
- e. Notwithstanding, Section 11.37.700, the requirement to apply for a permit or to comply with any of the provisions of this Chapter is subject to the compliance schedule specified in Section 11.37.950.

**SUFFOLK COUNTY SANITARY CODE (N.Y.)**  
**Article 12**  
**Toxic and Hazardous Materials Storage and Handling Controls**  
**(1986)**

**Table of Contents**

**Section**

- Section 1201. Declaration of Policy**
- Section 1202. Statement of Purpose**
- Section 1203. Definitions**
- Section 1204. Powers of the Commissioner**
- Section 1205. Prohibited Discharges, Transporting  
and Disposal**
- Section 1206. Construction and Modification Permits**
- Section 1207. Permits to Operate**
- Section 1208. Exemptions**
- Section 1209. Transfer of Permits Prohibited**
- Section 1210. Underground Storage Facilities**
- Section 1211. Outdoor Aboveground Storage Facilities**
- Section 1212. Piping, Fittings, Connections**
- Section 1213. Transfer of Toxic or Hazardous  
Materials**
- Section 1214. Indoor Storage Facilities**
- Section 1215. Portable Containers and Tanks**
- Section 1216. Bulk Storage of Toxic or Hazardous  
Materials**
- Section 1217. Reporting; Records; Clean-up**
- Section 1218. Confidentiality of Records**
- Section 1219. Posting and Labeling**
- Section 1220. Waivers**

## **Section 1201. Declaration of Policy**

The designated best use of all groundwaters of Suffolk County is for public and private water supply, and of most surface waters for food production, bathing and recreation. The federal government has officially designated the aquifer below Suffolk County as a sole-source for water supply. Therefore, it is hereby declared to be the policy of the County of Suffolk to maintain its water resources as near to their natural condition of purity as reasonably possible for the safeguarding of the public health and, to that end, to require the use of all available practical methods of preventing and controlling water pollution from toxic and hazardous materials.

## **Section 1202. Statement of Purpose**

It is the intent and purpose of this article to safeguard the water resources of the County of Suffolk from toxic or hazardous materials pollution by controlling or abating pollution from such sources in existence when this article is enacted and also by preventing further pollution from new sources under a program which is consistent with the above-stated Declaration of Policy.

## **Section 1203. Definitions**

Whenever used in the article, unless otherwise expressly stated, or unless the context or subject matter requires a different meaning, the following terms shall have the respective meanings set forth or indicated:

- a. **Aboveground**, when referring to tanks, means more than 90 percent exposed above the final ground elevation.
- b. **Bulk Storage** means the loose or bagged storage of dry or semi-dry materials.
- c. **Commissioner** means the Commissioner of the Suffolk County Department of Health Services.
- d. **Discharge** means to release by any means or to relinquish control in a manner that could result in a release to the surface waters, groundwater, surface of the ground or below ground. Discharge includes but is not necessarily limited to the following, either singly or in any combination:
  - 1. leaks from the failure of a storage facility;
  - 2. spills during transport or transfer of toxic or hazardous materials;
  - 3. disposal or storage of soils, sand or debris containing toxic or hazardous materials;
  - 4. disposal to: storm drains, cooling water, roof drains, sanitary systems, or any other drainage system or leaching system of toxic or hazardous materials;
  - 5. burial, land-spreading or dumping anywhere of toxic or hazardous materials, including but not limited to landfill and scavenger facilities, notwithstanding that the material so buried, spread or dumped was containerized at the time of said burial, spreading or dumping;
  - 6. passing of toxic or hazardous waste materials to any person;
  - 7. abandonment of containers, tanks, pipes, vehicles or premises containing toxic or

hazardous materials or residues. For the purpose of this subdivision, abandonment shall mean:

- i. substantially empty and unattended, or
  - ii. the relinquishment or termination of possession, ownership or control without full disclosure to the new owner thereof of containers, tanks, pipes, vehicles or premises containing toxic or hazardous materials or residues, whether by vacating or by disposition thereof, and shall not depend on a mere lapse of time.
- e. **Double-Walled** means constructed with more than one containment layer with space between the layers sufficient to allow monitoring of any leakage into or out of the space.
- f. **Impervious** means a layer of natural and/or man-made material of sufficient thickness, density and composition as to prevent the discharge into the underlying groundwater or adjacent surface waters of any toxic or hazardous substances for a period of at least as long as the maximum anticipated time during which the toxic or hazardous substances will be in contact with the material, and sufficient to allow complete recovery of the spilled product with minimum disturbance of the containment material.
- g. **New York State Discharge Standards** means standards of quality and purity and special standards, and groundwater quality standards and effluent standards, and/or limitations as found in Title 6, Parts 701-703 of the Official New York Compilation of Codes, Rules and Regulations.
- h. **Pollution** means the presence in the environment of conditions and/or contaminants in quantities or characteristics, which are or may be injurious to human, plant or animal life or to property, or which unreasonably interfere with the comfortable enjoyment of life and property throughout such areas of the county as shall be affected thereby.
- i. **Product-tight** means impervious to the material which is or could be contained therein so as to prevent the detectable seepage of the product through the container. To be product-tight, the container shall be made of a material that is not subject to physical or chemical deterioration by the product being contained.
- j. **Properly Registered Industrial Waste Scavenger** means a person in the business of collecting industrial wastes who carries a current, valid industrial waste collector registration issued by the New York State Department of Environmental Conservation.
- k. **Substantial Modifications** shall mean the construction of any additions to an existing storage facility as defined under Section 1203(m), or restoration, refurbishment or renovation which:
  - 1. increases or decreases the in-place storage capacity of the facility;
  - 2. alters the physical configuration; or
  - 3. impairs or affects the physical integrity of the facility or its monitoring systems.
- l. **Single-Walled** means constructed with walls made of but one thickness of material. Laminated, coated, or clad materials shall be considered as single-walled.

- m. **Storage Facility** means tanks, pipes, vaults, buildings, yards, pavements or fixed containers used or designed to be used, either singly or in any combination thereof, for the storage and/or transmission of toxic or hazardous materials or for the storage of portable containers containing toxic or hazardous materials.
- n. **Toxic or Hazardous Materials** means any substance, solution or mixture which, because of its quality, quantity, concentration, physical, chemical or infectious characteristics, or any combination of the foregoing, presents or may present an actual or potential hazard to human health or to the drinking water supply if such substance, solution, mixture or combination thereof is discharged to the land or waters of the County of Suffolk. Toxic or Hazardous Materials shall include:
1. each and every substance, material or waste found listed in either or both Part 116 and Part 261, Title 40 of the Code of Federal Regulations; or Title 6, Part 366, of the New York State Codes, Rules and Regulations;
  2. acids and alkalies beyond the pH range of 4 to 10;
  3. heavy metal sludges, mixtures and solutions in excess standards;
  4. petroleum products, including fuels and waste oils;
  5. organic solvents, including petroleum solvents, halogenated and non-halogenated hydrocarbons;
  6. any material listed in Schedule I, Part 703.6 of the Official Compilation of New York Codes, Rules and Regulations, in excess of the concentration standards thereof, except for iron, manganese, foaming agents and pH unless otherwise provided elsewhere in this article;
  7. any substance not included within subdivisions one through six above subsequently declared to be a Toxic or Hazardous Material by the commissioner;
  8. any solid or semi-solid material which, if left to stand or if exposed to water will leach out or wholly or partially dissolve forming a Toxic or Hazardous Material as defined in subdivisions one through seven above.

All Toxic or Hazardous Materials are hereby declared to also be offensive materials for the purposes of Article VB.

o. **Toxic or Hazardous Wastes** mean:

1. Toxic or Hazardous Materials as defined in subdivision (n) above, generated by or as the result of operations in or the existence of any manufacturing or other industrial or commercial establishment, which toxic or hazardous materials are not actually used in a final product for sale, and shall include those toxic or hazardous materials retained as byproducts of the operations within such manufacturing or other industrial or commercial establishment for the purpose of recouping salvage value; or
2. Toxic or Hazardous Materials generated by one in possession or control of any residential premise, for which materials disposal is intended, and which waste is not domestic wastewater without the admixture of non-sewage wastewater from

any industrial process.

3. All toxic and hazardous wastes are Toxic and Hazardous Materials.

p. Underground, when referring to tanks, means 10 percent or more below the final ground elevation.

#### **Section 1204. Powers of the Commissioner**

- a. The commissioner may make, or cause to be made, any investigation or study which, in his opinion, is desirable for enforcing this article or controlling or reducing the potential for contamination of the waters of the county from toxic or hazardous materials.
- b. The commissioner may order the owner or any other person in possession or control of any land, structure or equipment, or agent of such owner or other person, to take whatever action is necessary in the opinion of the commissioner to bring said land, structure or equipment into compliance with the provisions of this article and any standards or regulations promulgated thereunder. Such action may include but is not necessarily limited to the following, either singly or in any combination thereof:
  1. ordering tank-testing or the testing of the physical integrity of pipes or any other part of a storage facility or ordering the physical testing of the integrity of an entire storage facility;
  2. ordering the removal of the contents of a tank, portable container, storage facility or any part thereof;
  3. ordering the removal or abandonment or reconstruction of any installation, tank, storage facility or any part thereof installed in contravention of any of the requirements of this article or any standards or regulations promulgated thereunder;
  4. ordering that physical improvements be performed on any tank, storage facility or part thereof before permitting it to be returned to service including such improvements as tank lining removal and replacement, bottom and structural repairs;
  5. ordering the drafting of and/or implementation of contingency plans if there is evidence that such plans may be necessary to protect the public from toxic or hazardous materials stored at any particular facility;
  6. ordering the posting of a performance bond or other undertaking either prior to or subsequent to the construction or operation of a storage facility within Suffolk County on a case-by-case basis if evidence indicates such may be necessary to protect the public from the effects of operating or closing such a facility.
- c. Notwithstanding any other provision of this article, if the commissioner finds a condition which has the potential for contaminating the waters of the county with toxic or hazardous materials, or which otherwise constitutes an immediate danger to public health, and determines that it could appear prejudicial to the public interest to delay action, the commissioner may serve an order upon the permit holder, or if there is no permit upon the person in charge of the facility or site, citing such conditions and specifying the corrective action to be taken and a time period of less than fifteen (15) days within which such action shall be taken.

Such order may state that a permit is immediately suspended and/or that all operations are to be discontinued forthwith.

Any order requiring certain action or the cessation of certain activities immediately or within a specified period of less than fifteen (15) days shall provide such person an opportunity to be heard, which hearing shall be scheduled for a time no more than fifteen (15) days after the date the order is served.

#### **Section 1205. Prohibited Discharges, Transporting and Disposal**

- a. It shall be unlawful for any person to discharge toxic or hazardous materials in Suffolk County, unless such discharge is specifically in accordance with a State Pollutant Discharge Elimination System (S.P.D.E.S.) Permit or other permit issued by or acceptable to the commissioner for that purpose.
- b. It shall be unlawful for any person to pick up, transport or dispose of toxic or hazardous waste materials in Suffolk Count without having a valid and appropriate New York State industrial waste collector registration.
- c. It shall be unlawful for any industrial waste collector with a registration issued by the New York State Department of Environmental Conservation to fail to maintain a copy thereof on each vehicle operated by said collector at all times.

#### **Section 1206. Construction and Modification Permits**

- a. It shall be unlawful for any person to construct, install or substantially modify a storage facility, or part thereof, without a valid permit therefore issued by or acceptable to the commissioner.
- b. It shall be unlawful for any person in possession of or acting pursuant to a permit issued under this section to act, allow or cause any act in contravention of any provision of the permit.
- c. Any permit issued pursuant to this section shall be effective for the specified duration of time indicated thereon, not to exceed one year from the effective date thereof.

#### **Section 1207. Permits to Operate**

- a. It shall be unlawful for any person to use, cause to be used, maintain, or fill or cause to be filled with toxic or hazardous materials any storage facility or part thereof without having registered all the tanks at the facility on forms provided by the commissioner, and without having obtained a valid permit to operate such storage facility or part thereof issued by or acceptable to the commissioner.
- b. It shall be unlawful for any person in possession of or acting pursuant to a permit issued pursuant to this section to act, permit or cause any act in contravention of any provision of the permit.
- c. No permit to operate a storage facility as required pursuant to this section shall be issued by the commissioner or shall be satisfactory to the commissioner unless and until the prospective permittee:
  1. has provided a listing to the commissioner of all the toxic or hazardous materials to

be stored at the storage facility; and

2. has demonstrated that said storage facility complies with all of the provisions of this article and all regulations and standards promulgated pursuant to it applicable to said storage facility based upon submission of such written proof as is required by the commissioner.

- d. Any permit issued pursuant to this section shall be effective only for the specified duration of time indicated thereon, not to exceed five (5) years from the effective date thereof.

#### **Section 1208. Exemptions**

- a. All storage facilities which meet all of the following criteria shall be exempt from all provisions of this article except those contained in Sections 1203 - Definitions; 1204 - Powers of the Commissioner; 1205 - Prohibited Discharges; 1208 - Exemptions; 1210(a) - New Storage Facilities; 1210(e) - General Provisions and Requirements; 1210(g) - Overfill Protection; 1211(a)(4) - Overfill Detection; 1211(d)(1) and (2) - Leaks; Repairs; 1213(b)(1) and (4) - Transfer Operations; and 1220 - Waivers.
  1. the materials so stored are not toxic or hazardous wastes; and
  2. the volume of the storage facility is less than 1,100 gallons; and
  3. the facility is intended solely for the storage of kerosene, number 2 fuel oil, number 4 fuel oil, number 6 fuel oil, diesel oil or lubricating oil; and
  4. the intended use of the product stored is solely for on-site heating, or intermittent stationary power production such as stand-by electricity generation or irrigation pump power; and
  5. the materials stored are not intended for resale.
- b. All storage facilities which meet the following criteria shall be exempt from the provisions of this article contained in Sections 1210(b), 1212(b), 1214, 1219, and any regulations or standards promulgated thereunder:
  1. the materials so stored are not toxic or hazardous wastes; and
  2. the volume of the storage facility is greater than 1,100 gallons; and
  3. the facility is intended solely for the storage of kerosene, number 2 fuel oil, number 4 fuel oil, number 6 fuel oil, diesel oil, or lubricating oil; and
  4. the intended use of the product stored is solely for on-site heating, or intermittent stationary power production such as stand-by electricity generation or irrigation pump power; and
  5. the materials stored are not intended for resale.
- c. All storage facilities no longer receiving the benefit of any exemption but which were previously exempted from any or all provisions of this article shall be required to appropriately conform to all of the provisions of this article and all regulations and standards promulgated pursuant thereto by November 1, 1983.



- d. Tanks for the storage of number 6 fuel oil, or other petroleum products of equivalent viscosity, are exempt from the internal inspection and tank lining requirements. Further, storage facilities for these products are exempted from the impervious dike and enclosure around the tank requirements if, in the opinion of the commissioner, the location of the facility is so situated that a spill could not run off into storm drains or surface waters.
- e. All storage of toxic or hazardous materials in containers of five-gallon capacity or smaller where the total capacity stored at any time does not exceed 250 gallons or where the dry storage in bags, bulk, or small containers does not exceed 2,000 pounds is exempt from all portions of this article unless specifically ruled otherwise by the commissioner on a case-by-case basis.

#### **Section 1209. Transfer of Permits Prohibited**

It shall be unlawful for any person to transfer a permit issued pursuant to Sections 1206 and 1207 of this article from one location to another, from one storage facility to another, or from one person to another. Any permit transferred in violation of this section shall be deemed null and void and without any effect whatsoever as of the date of said unlawful transfer.

However, upon making proper application, a new owner of a facility which was previously operating under a valid permit may continue operation under the terms of the old permit until such time as the new permit is issued or denied.

#### **Section 1210. Underground Storage Facilities**

##### **a. New Storage Facilities**

- 1. All new storage facilities used or to be used for the underground storage of toxic or hazardous materials shall be designed and constructed in a manner which will, in the opinion of the commissioner, provide the maximum reasonable protection available against leakage or spillage from the facility due to corrosion, breakage, structural failure, or other means. Double-walled or equivalent facilities are required for all toxic or hazardous materials except those with a specific gravity of less than one and which are only slightly soluble in water such as oils and gasoline. For these floatable materials, acceptable designs for tank construction include cathodically protected steel; glass fiber reinforced plastic; steel clad with glass fiber reinforced plastic; double-walled steel or plastic; or other equivalent design approved by the commissioner. [Note: This section allows the use of single-wall tanks for underground gasoline storage tanks.]
- 2. Approval of design by the commissioner is required before installation, and the determination of equivalency or adequacy lies with the commissioner.
- 3. Design, construction, fabrication, and installation of new underground storage facilities shall be in accordance with regulations and standards as they may be adopted by the commissioner under this article from time to time.
- 4. A new storage facility for all facilities not previously covered by this section is one for which construction actually begins on or after November 1, 1982; subject however to the exemptions contained in Section 1208(a).

5. It shall be unlawful for any person to sell for use in Suffolk County, install, use, put into service or maintain the existence of any new underground storage facility or part thereof after November 1, 1982, if said new storage facility or part thereof fails to conform to all of the provisions of subsections (1), (2), and (3) above, and all regulations and standards promulgated thereunder; subject however to exemptions contained in Section 1208(a).

b. Existing Storage Facilities

1. An existing underground storage facility is one for which construction actually begins prior to November 1, 1982.
2. It shall be unlawful for any person to substantially modify or cause the substantial modification of any existing underground storage facility or part thereof without complying with the provisions of subdivision (a) above and all regulations and standards promulgated thereunder.
3. It shall be unlawful to use, or maintain the existence of any existing underground storage facility beyond January 1, 1990, which is intended for use with toxic or hazardous materials with a specific gravity of less than one and which are only slightly soluble in water such as oils and gasoline, without modifying said storage facility so as to comply with all of the provisions of subdivision (a) above and all regulations and standards promulgated thereunder.
4. It shall be unlawful to use or maintain the existence of any existing underground storage facility beyond January 1, 1987, which is intended for use with any toxic or hazardous materials other than those with a specific gravity of less than one and which are only slightly soluble in water such as oils and gasoline, without modifying said storage facility so as to comply with all of the provisions of subdivision (a) above and all regulations and standards promulgated thereunder.

c. Abandonment

1. It shall be unlawful for any person to use or maintain the existence of an abandoned underground storage facility or part thereof.
2. It shall be unlawful for anyone to sell or transfer to another an improperly abandoned underground storage facility or land containing an improperly abandoned underground storage facility if there exists any reasonable evidence of the existence of such a facility, unless the purchasing party has been made fully aware of the presence of such facility or evidence.
3. It shall be unlawful for any person to repair, alter or prepare for use any abandoned storage facility without first obtaining a permit to construct from the commissioner.
4. It shall be unlawful for the owner or other person in possession or control of any real property, building or place or vehicle to fail to immediately empty of all toxic or hazardous materials and to completely fill with sand or concrete or permanently remove an abandoned storage facility or part thereof within ninety (90) days of the discovery thereof on or in said real property, building or place pursuant to the provisions of subdivision (h) below unless approval is granted by the commissioner to do otherwise.

5. For the purposes of this section, an abandoned storage facility or part thereof means one which has remained out of service for two (2) years or more, or which has been declared by the owner to be abandoned.
6. For the purposes of this section, out of service means substantially empty, meaning five (5%) percent or less filled; or not in use, meaning no regular filling or drawing; or not being maintained, meaning lacking adherence to the requirements of this article; or uncontrolled, meaning not attended or secured; or any combination thereof.
7. For the purposes of this section, discovery means either actual discovery or knowledge of the existence of the abandoned storage facility or part thereof or possession of sufficient knowledge of the facts and circumstances involved so that the existence of the abandoned storage facility or part thereof should have been discovered or known of.

d. **Testing and Inspection**

1. All existing underground storage facilities or parts thereof which do not meet the construction standards in subdivision (a) above, must be tested and inspected in accordance with the schedule set forth below. It shall be unlawful for any existing underground storage facility owner, operator or lessee to fail to test his tanks and file an acceptable certificate of test completion with the commissioner in accordance with the following schedule:

# **TESTING SCHEDULE FOR EXISTING UNDERGROUND TANKS**

## **AGE OF SYSTEM BY 1980 (in years)**

	<u>1 - 4</u>	<u>5 - 9</u>	<u>10-14</u>	<u>15-19</u>	<u>20 or more</u>
1980					
1981					X
1982				X	
1983			X		X
1984		X			
1985	X			X	X
1986			X		

(All tanks covered by section 1208(b) by virtue of the 1986 amendment shall be initially tested in 1986 if the tank is ten (10) years or older, and/or all tanks shall be tested on their tenth anniversary and every five (5) years thereafter until permanently closed.)

## **FULL COMPLIANCE FOR ALL FACILITIES EXCEPT THOSE DESCRIBED IN 1210(b)(3)**

1987				X	X
1988		X			
1989					

1990                      **FULL COMPLIANCE FOR ALL FACILITIES**

2. If for any reason testing satisfactory to the commissioner cannot be performed, the tank must be removed from service or brought up to the standards of subsection (a) by the first scheduled test date.
3. The Final Test of the National Fire Protection Association (NFPA), Recommended Practice No. 329 or other test of equivalent or superior accuracy as approved by the commissioner must be used to comply with the testing and inspection requirement of Section 1210(d)(1).
4. Any test and inspection as required by this subdivision shall be performed by a person whose qualifications are acceptable to the commissioner for performing such tests. Certificates of test completion containing the results of such tests as performed shall be prepared by the tester and shall be filed with the commissioner within thirty (30) days after completion of the testing of the storage facility. No certificate of test completion shall be acceptable to the commissioner to indicate satisfactory compliance with the testing requirements of this subdivision if the qualifications of the tester have not been accepted by the commissioner prior to the test. No certificate of test completion shall be acceptable to the commissioner if the test and inspection were not performed in accordance with subsection (3) of this subdivision and in accordance with any regulations and standards which may be promulgated pursuant thereto.
5. The certificate of Test Completion shall be filed on a form provided by the commissioner and a copy of such form, completed, shall be kept by the storage facility owner, operator or lessee and by the tester for a period of not less than five (5) years from the date of its issuance. It shall be unlawful for the storage facility owner, operator or lessee and for the tester thereof to fail to keep a copy of the Certificate of Test Completion for the required five (5) year period.
6. Certificates of Test Completion shall contain a legally authorized form notice to the effect that false statements made knowingly therein are punishable pursuant to Section 210.45 of the Penal Law.
7. A Certificate of Test Completion not properly completed and/or not subscribed by the tester shall not be acceptable to the commissioner.

e. General Provisions and Requirements

1. When an underground storage facility or part thereof is found to be leaking, the portion containing the leak must be immediately emptied of all contents therein and removed from service. It shall be unlawful to cause or permit a leaking underground storage facility or part thereof to remain in service or to continue to retain its toxic or hazardous contents after the owner, operator or lessee of said storage facility or part thereof knows or should have know of the existence of the leak therein.
2. It shall be unlawful for any person to repair or to permit the repair, in place, of any underground storage facility or part thereof which has leaked or has otherwise failed, for the purpose of reusing said storage facility, unless:
  - i. such repair will result in the storage facility or part thereof complying with the requirements of subdivision (a) above and all regulations and standards promulgated thereunder; and unless

- ii. such repair occurs pursuant to plans therefor previously submitted to and approved by the commissioner.

3. It shall be unlawful for any person to replace or cause the replacement of any underground storage facility or part thereof for any reason if the replacement facility does not meet the requirements of subdivision (d) above and regulations and standards promulgated thereunder.
4. It shall be unlawful for any person to use, maintain, or put into service any underground storage facility or part thereof without first complying with the testing and inspection requirements of subdivision (a) above and all regulations and standards promulgated thereunder.

f. **Monitoring and Leak Detection**

1. All underground storage facilities or parts thereof must be equipped with means of calculating product delivery and consumption. Accurate records must be kept of all deliveries and consumption and the figures reconciled daily in an approved manner unless a less frequent schedule is allowed by the commissioner.
2. All underground storage facilities or parts thereof must be provided with a means of monitoring frequently and accurately for any leakage and spillage that might occur. All leak detection systems and tanks shall be monitored by the facility operator at least on a weekly basis and the results recorded and kept with the product records. Leak detection and monitoring can be provided by an electrical continuous leak detection system; visually operated or float operated alarms for tanks in pits; pressure, vacuum or fluid level detectors for double-walled facilities; observation wells and collection barriers or membranes for use in high groundwater areas; for gasoline and oil facilities a perforated, properly designed U tube installation is acceptable, or other equivalent design approved by the commissioner. Permanent records of all monitoring shall be kept for a period of five (5) years.
3. It shall be unlawful for the owner or other person in possession or control of a storage facility or part thereof to fail to comply with any of the requirements of this subdivision and of any of the requirements of this subdivision and of any regulations and standards promulgated pursuant thereto.

g. **Overfill Protection**

1. A means of overfill protection shall be provided for all new underground storage facilities or parts thereof and for all replacement underground storage facilities or parts thereof. Overfill protection shall consist of either an overfill prevention device or a product-tight containment capable of intercepting and preventing the release to the ground or groundwater of an overfill spill.
2. It shall be unlawful for the owner, operator or lessee to fail to provide satisfactory overfill protection for any new underground storage facility or part thereof in accordance with the provisions of this subdivision and any regulations and standards promulgated pursuant thereto.

**h. Removal of Underground Storage Facilities From Service**

- 1. It shall be unlawful for the owner or any other person in possession or control of an underground storage facility or part thereof, to remove it from service unless:**
  - i. said storage facility or part thereof is declared abandoned, emptied immediately and removed within ninety (90) days of so declaring, and is disposed of as junk by first rendering it vapor-free and by sufficiently perforating it so as to render it unfit for further use; or**
  - ii. said storage facility or part thereof is declared abandoned, emptied immediately and removed within ninety (90) days for reuse for the storage of toxic or hazardous materials after having met all of the requirements of subdivision (a) and all regulations and standards promulgated pursuant thereto; or**
  - iii. said storage facility or part thereof is declared abandoned, emptied immediately and removed within ninety (90) days for the storage of other than toxic and hazardous materials in which case the facility shall be emptied, cleaned of all residue, and made safe and vapor free; or**
  - iv. said storage facility is declared temporarily out of service and maintained in accordance with subdivision (3) of this section;**
  - v. said storage facility or part thereof is declared abandoned, emptied immediately and made inert by completely filling with sand or concrete within ninety (90) days;**
  - vi. said storage facility is declared to be suspected of leaking and maintained in accordance with Section 1210(e).**
- 2. Any declaration of facility abandonment or of taking a facility temporarily out of or returning a facility to service, must be made to the commissioner in writing.**
- 3. It shall be unlawful for the owner or any other person in possession or control of any underground storage facility or part thereof to render it temporarily out of service unless said storage facility or part thereof is planned to be returned to active service within two (2) years of the placement of it temporarily out of service, and it is returned to active service within said two (2) years, it is emptied of its contents immediately, and the fill line, gauge opening and pump suction are capped and secured against tampering, and the vent line is left open. No facility in a temporarily out of service condition shall be returned to use prior to notification to the commissioner and prior to the successful completion of any tightness testing due under Section 1210(d).**
- 4. It shall be unlawful for anyone to place toxic or hazardous materials in a facility which is temporarily out of service.**

**Section 1211. Outdoor Aboveground Storage Facilities**

**a. New Storage Facilities**

- 1. For the purpose of this subdivision, a new aboveground storage facility shall be**

one for which construction actually begins on or after November 1, 1982.

2. It shall be unlawful to fabricate, construct, install, use or maintain any new aboveground storage facility or part thereof in a manner which will allow the discharge of a toxic or hazardous material to the ground, groundwaters, or surface waters of Suffolk County.
3. It shall be unlawful to fabricate, construct, install, use or maintain any new aboveground storage facility or part thereof without having constructed around and under it an impervious containment and dike enclosing the storage facility or part thereof, conforming to the following requirements:
  - i. The volume of the diked area shall be at least 110% of the volume of the largest tank contained therein excluding the volume below the dike level occupied by other tanks. Additional volume up to 10% of the total volume of all other tanks or vessels contained in the diked area may be required if the configuration, arrangement and spacing of the tanks and dikes do not meet National Fire Protection Association standards.
  - ii. The dikes and the entire area enclosed by the dikes including the area under the tanks shall be made permanently impervious to the types of products expected to be stored in the tanks. A tank cannot be switched from one product to another unless the barrier is impervious to the new material stored.
  - iii. Drainage of precipitation from within the diked area shall be controlled in a manner that will prevent any toxic or hazardous material from entering the ground, groundwaters or surface waters of Suffolk County.
4. It shall be unlawful to construct, fabricate, install, use or maintain any new aboveground storage facility without providing a positive means of detecting an overfilling condition therein before any spillage can occur, which detection system shall include, but shall not necessarily be limited to, both visual and audible alarms at a point on the storage facility most frequently manned. The overflow point must be clearly visible to the operator filling the facility or the operator at the receiving facility where possible. If not possible, adequate means must be provided to immediately detect an overflow.
5. It shall be unlawful to fabricate, construct, install, use or maintain any new aboveground storage facility or part thereof without conforming to all regulations and standards promulgated pursuant to this section relating to such new storage facilities.
6. It shall be unlawful to fabricate, construct, install, use or maintain any new aboveground storage facility sitting on the ground and making contact therewith or partially buried in the ground and making contact therewith or part thereof, unless and until the exterior surface of the areas in contact with the ground are cathodically protected in conformance with a design approved by the commissioner.

b. Existing Storage Facilities

1. An existing aboveground storage facility is one for which construction actually



begins prior to November 1, 1982.

2. Commencing January 1, 1990, it shall be unlawful for any person to use, maintain or fill with toxic or hazardous materials any existing aboveground storage facility or part thereof without conforming to all of the requirements of subdivision (a) above and all regulations and standards promulgated pursuant thereto, with one exception. It will not be required to place an impervious barrier directly beneath an existing tank that is sitting on or partially in the ground and is too large to be moved. In this case, the interior bottom of the tank shall be coated with a glass fiber reinforced epoxy coating or approved equivalent. In achieving the above compliance, the following schedule shall be adhered to:

By January 1, 1985, all interior coating of facilities shall be completed.

By January 1, 1985, all facilities shall be protected against overflow.

By January 1, 1987, installation of cathodic protection shall be completed on all facilities in contact with the ground which were built prior to 1967.

By January 1, 1988, installation of cathodic protection shall be completed on all facilities in contact with the ground which were built between 1967 and 1972.

By January 1, 1989, installation of cathodic protection shall be completed on all facilities in contact with the ground which were built between 1972 and 1977.

3. It shall be unlawful for any person to use, maintain or fill with toxic or hazardous materials an existing aboveground storage facility or part thereof without complying with the following inspection schedule and all regulations and standards promulgated pursuant thereto, and without submitting to the commissioner a statement of Proof of Inspection.
  - i. Any owner or other person in possession or control of an aboveground storage facility or part thereof shall have said tanks and vessels inspected and shall file a Proof of Inspection with the commissioner by January 1, 1985. Where interior coating has not yet been applied, such inspection will be performed before coating.
  - ii. For the purpose of this section, inspection means the inspection of all aboveground tanks and other vessels for the storage of toxic or hazardous materials constituting an aboveground storage facility or part thereof.
  - iii. Any inspection of an existing aboveground storage facility of greater than 10,000 gallon capacity or part thereof as required by this subdivision shall be performed in accordance with a written protocol submitted to and approved by the commissioner by an authorized tank inspection firm or person or by a professional engineer licensed to practice professional engineering in the State of New York, and it shall be performed in compliance with any regulations and standards promulgated pursuant to this section relating to such inspections.
  - iv. Aboveground storage facilities or parts thereof sitting on the ground and in contact therewith or partially buried in the ground and in contact therewith, shall be emptied and cleaned to facilitate inspection of portions thereof not

accessible from the outside.

- v. Proofs of Inspection must be filed with the commissioner on a form provided by the commissioner or one acceptably equivalent thereto within thirty (30) days of each inspection and before the tank is refilled, and a copy of such form shall be kept and maintained by both the owner or other person in possession or control of the aboveground storage facility or part thereof and the inspector for a period of not less than five (5) years from the date of the inspection. The Proof of Inspection form shall be subscribed by both the owner or other person in possession or control of the aboveground storage facility inspected and the inspector. This Proof of Inspection form shall contain a legally authorized form notice to the effect that false statements made knowingly therein are punishable pursuant to Section 210.45 of the Penal Law.

- 4. It shall be unlawful for any person to substantially modify or cause the substantial modification of any aboveground storage facility or part thereof without complying with the provisions of subdivision (a) above and all regulations and standards promulgated pursuant thereto.

c. General Provisions

- 1. It shall be unlawful for any person to abandon an aboveground storage facility or part thereof without first cleaning out all residue, venting it until dry and safe and leaving all of the hatches open or with all connections severed and valves blank flanged. For the purpose of this subdivision, an abandoned aboveground storage facility or part thereof means one that has remained substantially empty and unattended for one (1) year or more without being declared temporarily out of service, or has been temporarily out of service for two (2) years or more.
- 2. It shall be unlawful for the owner or other person in possession or control of an aboveground storage facility or part thereof to remove it from service unless:
  - i. said storage facility or part thereof is disposed of as junk by first rendering it vapor-free and by sufficiently perforating it so as to render it unfit for further use, and demolishing it and removing it from the site; or
  - ii. said storage facility or part thereof is demolished for sale or use elsewhere in which case it must be first cleaned and made vapor-free to be safe in transit, and such reuse shall be in accordance with all pertinent portions of this article if relocation is to be within Suffolk County; or
  - iii. said storage facility is declared abandoned; or
  - iv. said storage facility is declared temporarily out of service; and
  - v. the commissioner has been notified of the intended status of removal from service.
- 3. It shall be unlawful for the owner or other person in possession or control of an aboveground storage facility or part thereof to render it temporarily out of service unless said storage facility or part thereof is planned to be returned to active service within two (2) years of its placement temporarily out of service, and it is

returned to active service within said two (2) years pursuant to the provisions of subsections (c)(6) and (7) following, and it is drained of all liquid and the fill line, gauge opening and discharge line are capped and blind flanged and secured against tampering, and the vent is left open.

4. It shall be unlawful for any person to place toxic or hazardous materials in an abandoned or temporarily out of service aboveground storage facility.
5. It shall be unlawful for any person to bring an abandoned aboveground storage facility back into service without meeting all of the requirements of subsection (a) above. No abandoned facility shall be brought back into service without a complete inspection acceptable to the commissioner.
6. It shall be unlawful for any person to bring a temporarily out of service facility back into use after January 1, 1990, without first meeting all the requirements of subsection (a) above.
7. An aboveground storage facility properly declared to be temporarily out of service may be returned to service prior to 1990 by written notification to the commissioner if the requirements of Section 1211(b) (2) have been met.
8. It shall be unlawful for the owner or other person in possession or control of an aboveground storage facility or part thereof to fail to empty, clean, and inspect pursuant to subsection (b)(3)(iii) above, to file Proof of Inspection pursuant to subsection (b)(3)(v) above, to leak test, and/or to recoat if necessary every seven (7) years each tank or vessel for the storage of toxic or hazardous materials within the said storage facility or part thereof.
9. It shall be unlawful for any person to replace or cause the replacement of any aboveground storage facility or part thereof for any reason without complying with the new storage requirements of subdivision (a) above and without complying with the inspection and Proof of Inspection requirements of subsections (b)(3)(iii) and (b)(3)(v), respectively.
10. It shall be unlawful for any person to use, maintain, construct, fabricate, modify or install any aboveground storage facility or part thereof without conforming to all plans and specifications submitted to and approved by the commissioner prior to such use, maintenance, construction, fabrication, modification or installation.

d. Leaks; Repairs

1. When an aboveground storage facility or part thereof is found to be leaking, it must immediately be emptied of all contents therein contained and removed from service unless approval is specifically granted by the commissioner to do otherwise.
2. It shall be unlawful for the owner or other person in possession or control of a leaking aboveground storage facility or part thereof to cause or permit it to remain in service or to continue to retain its toxic or hazardous contents after said owner or other person knows or should have known of the existence of the leak.
3. It shall be unlawful for any person to reuse and repair or cause the reuse and repair of an aboveground storage facility or part thereof which is leaking or which

has leaked without:

- i. performing or having said repairs performed in accordance with a written protocol submitted to and approved by the commissioner prior to said repairs; and
- ii. inspecting or having said leaking storage facility or part thereof inspected by a person whose qualifications are acceptable to the commissioner, with such inspection in accordance with subsection (b)(3)(iii) above filing a Proof of Inspection in accordance with subsection (b)(3)(v) above, with such inspection performed and Proof of Inspection filed prior to reuse of the storage facility or part thereof or filling it with a toxic or hazardous material but after repairs have been effected.

## **Section 1212. Piping, Fittings, Connections**

### **a. New Installations**

1. For the purpose of this section, new installations means piping, pipelines, fittings, connections for use with toxic or hazardous materials for which installation or construction actually begins on or after November 1, 1982.
2. All new installations shall
  - i. be fabricated, constructed and installed in a manner that will prevent the escape of the toxic or hazardous materials contained therein to the ground, groundwater or surface waters of Suffolk County; and
  - ii. be protected against corrosion by the use of non-corrosive materials, cathodic protection with coatings approved by the commissioner or the functional equivalent of the foregoing options approved by the commissioner; and
  - iii. be designed, constructed and installed with access points as required by the commissioner to permit periodic pressure testing of all underground piping without the need of extensive excavation; and
  - iv. be designed, constructed and installed with a simple, effective, reliable means of monitoring the new installation for leakage including a warning device to indicate the presence of a leak, spill or the failure or breach of integrity for piping installed underground or in areas where piping is not clearly visible; and
  - v. be constructed of double-walled pipe or be constructed in product-tight trenches or galleries where the piping is buried or below grade except that single-walled piping will be allowed for facilities containing products with a specific gravity less than one and only slightly soluble in water such as gasoline and fuel oil. [Note: This section allows the use of single-walled piping for gasoline lines. Most leaks from storage tanks systems are associated with the integral piping for such systems.]
3. It shall be unlawful for any person to fabricate, construct, install, use or maintain or to cause the fabrication, construction, installation, use or maintenance of any

new substantial installation or part thereof for use with toxic or hazardous materials:

- i. without previously having submitted plans therefor to the commissioner, and without having received approval of said plans; and
- ii. without complying with the plans submitted to and approved by the commissioner as required in subsection (a)(3)(i) above; and
- iii. without complying with the provisions of subsections (a)(1) and (a)(2) above and any regulations and standards promulgated thereunder.

b. Existing Installations

1. For the purpose of this section, existing installations shall mean piping, fittings and connections for use with toxic or hazardous materials for which installations or construction actually begins prior to November 1, 1982.
2. Commencing January 1, 1990, it shall be unlawful to use or maintain any existing installation or part thereof in association with any underground storage facility or part thereof unless said existing installation complies with all of the provisions of subdivision (a) above and all regulations and standards promulgated pursuant thereto.
3. It shall be unlawful for the owner or other person in possession or control of any existing piping installation or part thereof associated with any underground storage facility or part thereof to fail to pressure test said existing piping or part thereof whenever the associated underground storage facility or part thereof is tested.
4. It shall be unlawful for the owner or other person in possession or control of an existing installation or part thereof when testing or contracting to test said installation or part pursuant to subsection (b)(3) above:
  - i. to fail to test or have said installation or part thereof tested by a person whose qualifications are acceptable to the commissioner; and
  - ii. to fail to test or have tested said installation in a manner acceptable to the commissioner; and
  - iii. to fail to test or have installation tested in accordance with a written protocol submitted to and approved by the commissioner prior to said test; and
  - iv. to fail to test or have tested said installation in accordance with any regulations or standards which may be promulgated under this subdivision relating to said testing; and
  - v. to fail to submit to the commissioner within thirty (30) days of said test a completed Certificate of Test Completion form, pursuant to Section 1210(d)(3-6) and any regulations and standards promulgated thereunder.

**c. General Provisions**

1. Notwithstanding the requirements of subsection (b)(3) above, it shall be unlawful for the owner or other person in possession or control of a new or existing installation or part thereof not to test said installation or part in accordance with the procedures set forth in subsection (b)(3) above and in all regulations and standards promulgated thereunder whenever the commissioner has determined that such a test is necessary, or whenever the commissioner has ordered that such a test be performed.
2. Whenever an existing or new installation or part thereof is found to be leaking, it must immediately be emptied of all contents therein contained and removed from service.
  - i. It shall be unlawful for the owner or other person in possession or control of said leaking installation or part thereof to cause or permit it to remain in service or to continue to retain its toxic or hazardous contents after said owner or other person knows or should have known of the existence of the leak.
  - ii. It shall be unlawful for any person to repair or cause the repair of any new or existing installation or part thereof which has leaked or otherwise failed without performing said repairs or having said repairs performed in a manner approved by the commissioner.
  - iii. It shall be unlawful for any person to reuse or cause the reuse of any new or existing installation or part thereof which had leaked or otherwise failed without repairing said installation pursuant to the provisions of subsection (c)(2)(ii) above and all regulations and standards promulgated thereunder.
  - iv. It shall be unlawful for any person to reuse or to cause the reuse of any new or existing installation or part thereof which had leaked or otherwise failed without repairing said installation or part so as to conform to the requirements of subdivision (a) above and all regulations and standards promulgated thereunder.
  - v. It shall be unlawful for any person to reuse or cause the reuse of any new or existing installation or part thereof which had leaked or otherwise failed without inspecting or having said installation or part inspected subsequent to the completion of any repairs but prior to said reuse by a person whose qualifications are acceptable to the commissioner in accordance with Section 1211 (b)(3)(iv) and any regulations and standards promulgated thereunder and without filing with the commissioner a Proof of Inspection prior to said reuse in accordance with Section 1211(b)(3)(v) and any regulations and standards promulgated thereunder.

**Section 1213. Transfer of Toxic or Hazardous Materials**

**a. Transfer Facilities**

1. Transfer facilities means truck fill stands and/or any other facility for the loading or unloading of toxic or hazardous materials.

2. It shall be unlawful for any person to fabricate, construct or install a transfer facility or part thereof:
  - i. without first submitting plans therefor to the commissioner and without first obtaining the commissioner's approval thereof; and
  - ii. without fabricating, constructing and installing said transfer facility or part thereof in accordance with the plans submitted and approved pursuant to subsection (a)(2)(i) above; and
  - iii. without providing a simple, effective, reliable means of monitoring the transfer facility or part thereof for leakage or spillage, including a warning device; and
  - iv. without providing a level of spill protection equivalent to that provided by a fill stand area completely paved and curbed with an impervious material and drained to a holding tank of adequate size to contain any spill that could reasonably be expected to occur from the normal operation of the facility, and roofed so as to exclude precipitation which would otherwise tend to fill the holding tank.
3. It shall be unlawful for any person to operate, maintain or use a transfer facility or part thereof so as to permit the escape therefrom of toxic or hazardous materials to the ground, groundwaters or surface waters of Suffolk County. All holding tanks associated with spill control shall be maintained in an empty condition at all times to provide maximum storage capacity at the time of a spill.
4. It shall be unlawful for any person to fabricate, construct, install, use, operate or maintain any transfer facility or part thereof without doing so in accordance with all regulations and standards pertaining thereto which may be promulgated by the commissioner.

**b. Transfer Operations**

1. It shall be unlawful for any person to transfer, cause the transfer or permit the transfer of toxic or hazardous materials to or from a storage facility, part thereof or vehicle, where conditions at the transfer facility are inadequate at the time of said transfer to ensure a safe transfer operation without the occurrence of spills, leaks or accidents.
2. Failure of a transfer facility to conform and comply with the provisions of subdivision (a) and all regulations and standards promulgated thereunder shall constitute a rebuttable presumption that conditions at said transfer facility are inadequate for the purposes of subsection (b)(1) above.
3. The transfer of toxic or hazardous materials to any storage facility or part thereof which does not comply with all provisions of this article applicable thereto and any regulations and standards promulgated under this article applicable thereto, shall constitute a rebuttable presumption that conditions at said transfer facility are inadequate for the purposes of subdivision (b)(1) above.
4. Conditions at the transfer facility shall be deemed to be inadequate at the time of a transfer if:

- i. the transfer facility is constructed so that all possible points of overflow are not visible from the loading and unloading locations; or
- ii. the truck, storage facility or part thereof being delivered to does not have adequate capacity to contain the amount of toxic or hazardous material being transferred or to be transferred, or if a person performing or causing said transfer does not insure by some reliable means that the truck, storage facility or part thereof has adequate capacity to contain the amount of toxic or hazardous material being transferred or to be transferred.

#### **Section 1214. Indoor Storage Facilities**

- a. An indoor storage facility is specifically intended to include within its meaning all tanks, vessels and appurtenant plumbing which contain or are to contain or be used for the transmission of toxic or hazardous materials regardless of the volume of said tanks and vessels and regardless of the duration of time said tanks and vessels may contain the toxic or hazardous material and regardless of their use.
  1. All processing baths and tanks including dip tanks and rinse tanks and tanks associated with wastewater treatment located indoors shall constitute an indoor storage facility or part thereof.
  2. All portable containers and tanks with an individual volume of greater than 80 gallons, stored or located indoors and used to contain toxic or hazardous material, shall be deemed to be an indoor storage facility or part thereof and shall be subject to all of the provisions of this section and any regulations and standards promulgated pursuant hereto, and not the provisions of Section 1215 and the regulations and standards created thereunder.
- b. **New Storage Facilities**
  1. A new indoor storage facility or part thereof is one for which construction, fabrication or installation actually begins on or after November 1, 1982, or one consisting of portable containers and/or tanks each with an individual volume in excess of 80 gallons, for which indoor storage of said portable containers and/or tanks containing toxic or hazardous materials actually begins on or after November 1, 1982.
  2. It shall be unlawful to fabricate, construct or install a new indoor storage facility or part thereof unless:
    - i. plans and specifications for said storage facility have been first submitted to and approved by the commissioner; and unless
    - ii. said fabrication, construction or installation is accomplished in accordance with the approved plans and specifications submitted pursuant to subsection (b)(2)(i) above; and unless
    - iii. said fabrication, construction or installation is accomplished in accordance with all regulations and standards which may be promulgated under this subdivision; and unless
    - iv. the fabrication, construction or installation provides for impervious



secondary containment for the new storage facility or part thereof equal to or greater than 110% of the entire volume to be contained; and unless

- v. said storage facility or part thereof is fabricated, constructed or installed in a manner which will prevent the release into the ground, groundwaters or surface waters of Suffolk County of any toxic or hazardous materials; and unless
- vi. any open tanks or vessels containing or to contain toxic or hazardous materials within the storage facility or part thereof in a building equipped with a sprinkler system are provided with head deflectors or automatic covers or the equivalent thereof acceptable to the commissioner to prevent the overflow of the tanks by reason of flow from the sprinkler system; and unless
- vii. high level alarms or other adequate means of detecting an impending overfill condition have been provided for all tanks not readily visible by the operator controlling filling.

3. It shall be unlawful to operate, maintain or use a new indoor storage facility or part thereof unless:

- i. said storage facility or part thereof has been fabricated, constructed and installed in accordance with all of the provisions of subdivision (b) above and any regulations and standards promulgated thereunder; and unless
- ii. said storage facility or part thereof has been inspected prior to said operation, maintenance or use pursuant to the provisions of Section 1211(b)(3)(iii) and any regulations and standards promulgated thereunder; and unless
- iii. Proof of Inspection is filed with the commissioner within thirty (30) days of the inspection conducted pursuant to subsection (b)(3)(ii) above and such filing occurs prior to said operation, maintenance or use, and said Proof of Inspection conforms to all of the provisions of Section 1211(b)(3)(v) and any regulations and standards promulgated thereunder; and unless
- iv. said storage facility or part thereof is operated, used or maintained in a manner which will prevent the discharge of toxic or hazardous materials therefrom into the ground, groundwaters or surface waters of Suffolk County.

4. It shall be unlawful to repair and reuse a new indoor storage facility or part thereof without complying with all of the provisions of subsection (b)(2) above and all regulations and standards promulgated pursuant thereto.

c. Existing Storage Facilities

- 1. An existing indoor storage facility includes all indoor storage facilities or parts thereof as described in subdivision (a) above, not within the class of storage facilities described in subsection (b)(1) above as new indoor storage facilities.
- 2. Commencing November 1, 1982, it shall be unlawful to fabricate, construct, install, modify, operate, maintain or use any indoor storage facility or part thereof

which does not conform to all of the provisions of subdivision (b) above and all regulations and standards promulgated thereunder.

3. It shall be unlawful for any person to operate, maintain or use an existing indoor storage facility or part thereof in a manner which will allow the discharge of toxic or hazardous materials therefrom into the ground, groundwaters or surface waters of Suffolk County.

#### **Section 1215. Portable Containers and Tanks**

##### **a. Storage Facilities**

1. It shall be unlawful to fabricate, construct, install or otherwise create a storage facility or part thereof for portable containers and tanks in excess of 250 gallons total capacity containing toxic or hazardous materials if the facility has to be used for more than thirty (30) days without:
  - i. first having submitted satisfactory plans and specifications therefor to the commissioner; and without
  - ii. constructing, installing, fabricating or otherwise creating said storage facility in accordance with the reports and plans submitted pursuant to subsection (a)(1)(i) above; and without
  - iii. constructing, installing, fabricating or otherwise creating said storage facility so as to prevent the discharge of any of the toxic or hazardous contents of the portable containers therein to the ground, groundwaters or surface waters of Suffolk County; and without
  - iv. providing a chemically resistant pad on which to place the portable containers or tanks, impervious to the toxic or hazardous materials being stored in said containers and tanks; and without
  - v. providing a complete impervious containment of the storage facility or part thereof sufficient to contain at least thirty (30%) percent of the volume to be stored; and without
  - vi. constructing, fabricating, installing or otherwise creating a storage facility or part thereof in accordance with all regulations and standards promulgated under this subdivision.
2. It shall be unlawful for any person to use, maintain or operate a storage facility containing portable containers or tanks for the storage of toxic or hazardous materials without:
  - i. preventing the discharge of any of the toxic or hazardous contents of the portable containers or tanks to the ground, groundwaters or surface waters of Suffolk County; and without
  - ii. properly securing the portable containers or tanks containing toxic or hazardous materials so as to protect them from vandalism, unauthorized access and damage by traffic, machinery or falling objects; and without

- iii. storing the portable containers and tanks containing toxic or hazardous materials indoors except where such storage is prevented by fire regulations, or where sufficient evidence is presented that physical or financial constraints of the facility make indoor storage impractical. Waiver of the indoor storage requirement shall be only by permission of the commissioner; and without
- iv. protecting any outdoor storage of portable containers or tanks containing toxic or hazardous materials from damage from heat, cold, rust and other weather-related conditions; and without
- v. complying with all regulations and standards promulgated relating to the maintenance, use or operation of a storage facility containing portable containers containing toxic or hazardous materials; and without
- vi. complying with all of the provisions of subdivision (b) below and any regulations and standards promulgated thereunder.

**b. Handling of Portable Containers or Tanks**

It shall be unlawful for the owner or other person in possession or control of a storage facility containing portable containers or tanks which contain toxic or hazardous materials:

- 1. to stack said portable containers or tanks more than two (2) high without using a properly designed storage rack for that purpose, or to attempt any stacking without adequate equipment; and
- 2. to store said portable containers or tanks in a manner so as to prevent all sides thereof from being available for inspection; and
- 3. to fail to maintain current inventory records indicating deliveries, consumption, sale and final disposal of all toxic or hazardous materials stored in portable containers or tanks and to maintain said records for five (5) years from the occurrence recorded; and
- 4. to fail to handle the said portable containers or tanks in accordance with any regulations and standards promulgated pursuant to this subdivision; and
- 5. to store said portable containers in numbers in excess of the maximum allowed by the approved design of the storage facility.

**c. Inspections**

- 1. It shall be unlawful for the owner or other person in possession or control of a storage facility containing portable containers or tanks for the storage of toxic or hazardous materials to fail to have said facility or part thereof containing said portable containers or tanks inspected:
  - i. prior to application for the renewal of a permit to operate a storage facility issued pursuant to Section 1207; and
  - ii. subsequent to any substantial modification of the storage facility or part thereof containing said portable containers or tanks, and prior to the using

or putting into service a storage facility or part thereof; and

- iii. prior to the using or putting into service said storage facility or part thereof after repairs had been performed on it.
- 2. It shall be unlawful to fail to have the inspections required by subsection (c)(1) above performed in accordance with the provisions of Section 1211 (b)(3)(iii) and all regulations and standards promulgated pursuant thereto and those promulgated under this subdivision.
- 3. It shall be unlawful to fail to file a Proof of Inspection with the commissioner within thirty (30) days of the performance of an inspection required by subsection (c)(1) above complying with the provisions of Section 1211 (b)(3)(v) and any regulations and standards promulgated pursuant thereto.
- d. It shall be unlawful for any person to repair or modify or to cause or permit said repairs or modifications of a storage facility or part thereof containing portable containers or tanks for the storage of toxic or hazardous materials without performing said repairs or modifications or having them performed pursuant to a written protocol previously submitted to and approved by the commissioner.
- e. At the discretion of the commissioner, Sections 1215 (a)(1)(iv),(v),(vi), and 1215(c), may be waived for temporary facilities such as spill cleanup operations.

#### **Section 1216. Bulk Storage of Toxic or Hazardous Materials**

- a. It shall be unlawful for any person to fabricate, construct, install, repair or modify any bulk storage facility or part thereof without doing so in accordance with a written protocol previously submitted to and approved by the commissioner.
- b. It shall be unlawful for any person to fabricate, construct, install, modify, repair, use, maintain or operate any bulk storage facility or part thereof without:
  - 1. doing so in a manner that will prevent the toxic or hazardous materials contained therein from coming into contact with precipitation or other sources of moisture unless there is provision made for collecting and treating the leachate and runoff generated so as to prevent a discharge of toxic or hazardous materials to the ground, groundwaters or surface waters of Suffolk County and so as to prevent the development of an explosive, incendiary or other hazardous or dangerous condition; and without
  - 2. providing for the segregation of and without segregating potentially reactive chemicals which are toxic or hazardous materials or which may react so as to form toxic or hazardous materials, which reaction may present or cause a hazardous or dangerous condition; and without
  - 3. providing for and storing bagged toxic or hazardous materials on pallets, and within a roofed structure which prevents precipitation from reaching the bags; and
  - 4. in the case of an indoor bulk storage facility, without providing for and providing an impervious floor without floor drains with a surrounding impervious dike so as to provide containment for hazardous or toxic materials generated from firefighting within the building; and without

5. providing for and providing adequate security so as to protect the storage facility and toxic or hazardous contents therein from vandalism and accident; and without
  6. complying with any regulations and standards which may be promulgated pursuant to this section.
- c. Road deicing salt and other deicing materials are toxic or hazardous materials. In addition to the foregoing provisions of this section, road deicing salt may be stored near the shore or other areas where no adverse environmental impact will occur without brine control so long as the commissioner's approval for such a storage facility has been applied for and received in advance.

#### **Section 1217. Reporting; Records; Clean-Up**

- a. It shall be unlawful for the owner or other person in possession or control of any storage facility or part thereof to fail to report any unauthorized discharge, spill, leak or recognizable loss of toxic hazardous materials therefrom or the failure of said storage facility to the commissioner within two (2) hours of the time such owner or other person had sufficient evidence that he knew or should have known of said unauthorized discharge, spill, leak, loss or failure.
1. A report to the commissioner shall not be deemed compliance with any reporting requirement of any other federal, state or local law.
- b. It shall be unlawful for the owner or other person in possession or control of any storage facility or part thereof to fail to keep records in writing reflecting the types and amounts of toxic or hazardous materials stored in the said storage facility or part thereof at any given time.
1. It shall be unlawful for the owner or other person in possession or control of any storage facility or part thereof to fail to keep records of the disposal or other transfer in or out of the said storage facility or part thereof, such records reflecting the types and amounts of toxic or hazardous materials involved in the transfer. The name and vehicle license and registration numbers of the transporter, and the intended destination must also be included if the material is waste.
  2. It shall be unlawful for any person required to keep records by any provision of this article to fail to maintain said records available for inspection by the commissioner for at least five (5) years from the date of the event, occurrence or transaction recorded. Copies shall be provided by the owner or operator for the commissioner if requested.
  3. It shall be unlawful for any person required to keep records by any provision of this article to fail to keep, record and maintain said records in accordance with any regulations and standards promulgated pursuant to this section.
- c. It shall be the responsibility and obligation of any person who discharges, or causes or permits the discharge of any toxic or hazardous material to the ground, groundwaters or surface waters of Suffolk County to cease said discharge, to reclaim, recover and/or properly dispose of the discharged toxic or hazardous material and any other substance contaminated therefrom, to restore the environment to a condition and quality acceptable to the commissioner, and to repair any damages caused thereby, all to the satisfaction of

the commissioner.

1. It shall be unlawful for the owner or any other person in possession or control of any source discharging toxic or hazardous materials to the ground, groundwaters or surface waters of Suffolk County to fail to cease said discharge immediately upon obtaining knowledge or notice of its existence.
2. It shall be unlawful for the owner or any other person in possession or control of any source discharging toxic or hazardous materials to the ground, groundwater or surface waters of Suffolk County to fail to reclaim, recover and/or dispose of the discharged toxic or hazardous materials. Where time permits, cleanup shall be in accordance with a written protocol previously submitted to and approved by the commissioner.
3. It shall be unlawful for the owner or other person in possession or control of any premises or place to fail to reclaim, recover and/or otherwise dispose of any toxic or hazardous materials discharged thereto, in accordance with a written protocol previously submitted to and approved by the commissioner, in the event the persons described in subsection (c)(2) above are not ascertainable or otherwise fail to comply with the provisions of subsection (c)(2). This provision shall not abridge any existing right of action in any person.
4. It shall be unlawful for the owner or any person in possession or control of any source which has discharged toxic or hazardous materials to the ground, groundwaters or surface waters of Suffolk County to fail to restore the environment contaminated or damaged, repairing any damages caused thereby in accordance with a written protocol previously submitted to and approved by the commissioner.
5. It shall be unlawful for any person required by this article or by any order of the commissioner to reclaim, recover or otherwise dispose of discharged toxic or hazardous materials and other substances contaminated therefrom and/or to restore the environment to the condition that existed prior to the discharge of toxic or hazardous materials thereto, to fail to perform said required acts pursuant to any regulations and standards promulgated pursuant to this subdivision.

#### **Section 1218. Confidentiality of Records**

- a. Any information relating to secret processes, or methods of manufacture or production, obtained in the course of an inspection or investigation, or submitted to the department, shall be kept confidential except for the use and purpose of the department in the enforcement of this article and the rules and regulations promulgated thereunder.
- b. In the event that a person claims to be unable to file complete reports and/or plans and specifications on the grounds that it relates to and is part of a secret process or method of manufacture or production, an affidavit signed by an authorized person must be filed with the commissioner, stipulating:
  1. location of process or equipment, specifying the building and the section or part of the building in which it is located;
  2. in general terms, the name of the process equipment;

3. means to be employed for the control of water contaminants;
4. nature and estimated rate of discharge of contaminants to the ground or surface waters;
5. authority of the person signing the affidavit;
6. a statement that the installation is related to a secret process or method of manufacture or production.

In the event any such affidavit is filed, the commissioner shall determine the extent to which an exemption should be granted. Any information relating to secret processes, methods of manufacture or production which may be required, ascertained or discovered by the commissioner shall not be disclosed and shall be kept confidential.

#### **Section 1219. Posting and Labeling**

- a. It shall be unlawful for the owner or other person in possession or control of any place, building, land, vehicle or thing to store toxic or hazardous materials therein without conspicuously posting a notice thereat or thereon warning of the presence of such materials and providing any safety information necessary to protect the public and assist emergency response personnel in carrying out their responsibilities.
- b. It shall be unlawful for any person to use, maintain or operate any storage facility or part thereof:
  1. without clearly labeling the specific contents of each portable container conspicuously on said container; and
  2. without clearly labeling the specific contents of each indoor and aboveground tank or vessel conspicuously thereon; and
  3. without clearly labeling the specific actual, intended and possible contents of piping associated with any storage facility or part thereof at or near the points of filling or drawing; and
  4. without conspicuously posting any permit issued pursuant to this article.
- c. It shall be unlawful for any person to falsely post or label container or storage facility or to post an invalid permit.
- d. It shall be unlawful for any person to use, maintain or operate any storage facility or part thereof without complying with all regulations and standards promulgated pursuant to this section.

#### **Section 1220. Waivers**

Any requirement, mandate, prohibition or time limitation imposed by this article or any regulation, standard or order generated hereunder, may be waived or modified by order of the commissioner.

**TEMPLE TERRACE CODE  
Land Development  
(1990)**

**SECTION 25.730      WELLFIELD PROTECTION.**

**SECTION 25.730.1    PURPOSE.**

The purpose of this Section is to protect wellfields through the establishment of land use and development regulations and standards consistent with the need to provide for appropriate balance and growth in the maintenance and development of the community.

It is intended that this Section be considered to present minimum standards and be interpreted strictly to ensure protection of the public health, safety, and welfare of the inhabitants of the City of Temple Terrace. It is further intended, however, that this Section shall not be applied so strictly as to deny the reasonable and beneficial use of land by property owners within the community.

**SECTION 25.730.2    DEFINITIONS.**

**Hazardous substance** - Any hazardous or toxic substance (including degradation and interaction products) which, because of quality, concentration, or physical, chemical (including ignitability, corrosivity, reactivity, and toxicity), and/or infectious characteristics, radioactivity, mutagenicity, carcinogenicity, teratogenicity, bioaccumulative effect, persistence (non-degradability) in nature, or any other characteristic relevant to a particular material that may cause significant harm to human health or the environment (including surface and ground water, plants, or animals.)

**Regulated hazardous substance or regulated substance** - Any hazardous substance found in quantities greater than the following:

- (1) The aggregate sum of all quantities of any one hazardous substance on a single parcel (if stored out of doors) or in a single building (if stored indoors) exceeds one hundred and ten (110) gallons if the substance is a liquid, or one thousand one hundred (1,100) pounds if the substance is a solid; OR
- (2) When no single substance exceeds the above referenced limits but the aggregate of all hazardous substances present on a single parcel or in a single building exceeds one hundred and ten (110) gallons if the substance is a liquid, or one thousand one hundred (1,100) pounds if the substance is a solid.

**Sinkhole** - An area of subsidence caused by subsurface geological conditions and which results in increased opportunity for migration of surface water and ground water from the surficial aquifer to lower aquifers, and as shown on a map entitled "Wellfield Protection Zone Map" adopted pursuant to Section 25.730.4.

**Wellfield** - An area containing one or more wells used, whether on a continuous, intermittent, or occasional basis, for public water supply, and including any area designated for future development of such wells by the City Council.

**Wellfield protection zone** - An area surrounding a wellfield, based on measurement of a prescribed distance from the individual well locations within the wellfield, and as shown on a map entitled



"Wellfield Protection Zone Map" adopted pursuant to Section 25.730.4.

**SECTION 900.7160.3 APPLICABILITY AND EXCEPTIONS**

- (a) Effective upon the date set forth herein, no person shall construct, abandon, or plug any well or undertake any development or operate a use or activity regulated by this ordinance within a wellfield protection zone in the City except as provided herein.
- (b) This Section shall not be constructed to prohibit any activity by the City or other unit of government, undertaken by that unit or on its behalf and under its direction, which activity is undertaken to address an immediate threat to the public health and safety or to protect and maintain operation of public services and facilities in the face of an immediate threat to the continued operation of such facilities. Where the responsible administrative official of the relevant unit of government determines that emergency action is necessary and such emergency action is taken, that official shall, subsequent to taking such action, apply for an operating permit pursuant to the provisions of Section 25.730.8, and shall undertake such further action or mitigation as may be directed.
- (c) Where a public agency proposes to undertake uses or activities which would otherwise be prohibited by this Section and where no emergency action is involved, but where the general health, safety, and welfare of the public will be benefited by the action taken, and where no reasonable alternative is available, the City Council may grant a limited waiver of the provisions of this Section, subject to the issuance of an operating permit as provided in Section 25.730.8.
- (d) Where a property owner can show that the intent and purpose of this Section can be accomplished and the standards of this Section can be accomplished through the application of technology, but which would otherwise be in conflict with the specific regulations of this Section, the Director may permit use of such alternative technology in lieu of the restrictions herein, subject to the issuance of an operating permit as provided in Section 25.730.8.

**SECTION 25.730.4 WELLFIELD PROTECTION ZONE MAP.**

- (a) The Wellfield Protection Zone Map is hereby adopted and made a part of this Section. The purpose of the map shall be to depict all areas affected by the provisions of Section 25.730.5. It is the intent of this Section that the initial Wellfield Protection Zone Map shall identify the following areas for application of this Section:
  - (1) all land located within one thousand (1,000) feet of the active wells located within the Whiteway wellfield;
  - (2) all lands located within one thousand (1,000) feet of the active wells located within the Old City Hall wellfield; and
  - (3) all land located within one thousand (1,000) feet of an active sinkhole.

Where there appears to be a discrepancy between these criteria and the actual areas designated on the Wellfield Protection Zone Map, the areas designated on the map shall prevail.

- (b) The official map shall be maintained by the Director of Community Development, and the Director may make copies of all or portions of the map available for distribution to the public. For convenience of use, the map may be made a part of the Zoning Map of the City of Temple Terrace, Florida.
- (c) The Director shall be responsible for the interpretation of the boundaries shown on the Wellfield Protection Zone Map. In interpreting these boundaries, the following rules shall apply:
  - (1) Properties located wholly within the wellfield protection zone shall be governed by the restrictions set out in Section 25.730.5.
  - (2) Where a portion of a property is located within the wellfield protection zone, the restrictions of Section 25.730.5 shall be applied only to that portion of the property.
  - (3) Where the boundary of the wellfield protection zone passes through a building or a portion of the property used as a single or unified use area, the entire building or use area shall be subject to the restrictions.
- (d) The Director shall review the boundaries shown on the Wellfield Protection Zone Map at least annually and shall report the need for changes in the map to the City Council. In doing this, the Director shall consult with the Hillsborough County Health Department, the Hillsborough County Environmental Protection Commission, the Florida Department of Environmental Regulation, the Southwest Florida Water Management District, and such other agencies as he deems appropriate. In considering the need for changes to the map, consideration shall be given to: the addition of new wells or wellfield, the abandonment of wells or wellfields, changes in pumping volumes at individual wells, changes in the technical knowledge concerning aquifers and groundwater flow characteristics, and the identification of future wellfield sites by the City Council.
- (e) The Wellfield Protection Zone Map may be amended from time to time by the City Council. The process for amending the map shall be as is set forth in Chapter 166.041(3)(c), Florida Statutes. Prior to making any change in the map, the Director shall refer copies of the proposed change to the Hillsborough County Health Department, the Hillsborough County Environmental Protection Commission, the Florida Department of Environmental Regulation, and the Southwest Florida Water Management District. The Director shall request that any comments or recommendations, or an indication there will be no comments or recommendations, be returned within twenty (20) working days. Failure of any agency to respond within the twenty-day period shall be construed as an indication that there are no comments. The Director shall provide all comments and recommendations to the Development Review Committee (DRC), who shall make any comments or recommendations of its own. The Director shall then make a report to the City Council and shall include all comments and recommendations, as well as his own recommendations. In taking action on a change in the Wellfield Protection Zone Map, the City Council shall consider the report of the Director and the comments and recommendations of the various agencies.

**SECTION 25.730.5     REGULATIONS WITHIN WELLFIELD PROTECTION ZONES.**

- (a) The following uses and activities shall be prohibited within wellfield protection zones:

  - (1) The use, handling, production, or storage of regulated hazardous substances, where such activity is not more specifically included under an exempt activity (See subsection (c) of this Section) or under a permitted but regulated activity (see subsection (b) of this Section).
  - (2) Wastewater effluent disposal, except for land application reuse of treatment wastewater, as defined and as subject to the conditions set forth in 17-610, Part III, Florida Administrative Code.
  - (3) Waste disposal, including both liquid and solid wastes.
  - (4) Earth mining as a principal activity (i.e., not including grading of land for development or construction purposes.)
- (b) The following uses and activities shall be permitted within wellfield protection zones, subject to the approval of an operating permit as provided in Section 25.730.8:

  - (1) Storage of regulated hazardous substances in their original, unopened containers for the purpose of storage and/or wholesale distribution, where the use and disposal of the substance does not take place within a wellfield protection zone.
  - (2) Storage and handling of a regulated hazardous substance in connection with the operation of an automobile service station or similar facility, provided that all bulk storage or motor fuel and lubricants shall be in double walled tanks, or tanks installed with other secondary containment and where adequate provisions are made for monitoring both inside and outside the secondary containment zones to detect any contamination. Monitoring shall mean installation of monitoring wells and collection and testing of samples pursuant to requirements of the Florida Department of Environmental Regulation.
- (c) The following uses and activities shall be exempt from the restrictions in Sections 25.730.5(a) and (b) above:

  - (1) Storage of regulated hazardous substances in their original, unopened containers for the purpose of retail sale, where the use and disposal of the substance is not intended to take place within a wellfield protection zone.
  - (2) Transportation of regulated hazardous substances through a wellfield protection zone between origin and destination points outside the zone, subject to all applicable laws and regulations governing the transportation of such substance. This includes transportation by motor vehicle, barge, or pipeline.
  - (3) The use of regulated hazardous substances in motor vehicles or motorized equipment as a motor fuel or lubricant, provided that the operation of a

facility to fuel or lubricate a motor vehicle shall not be exempted.

- (4) Storage and/or use of small quantities of regulated hazardous substances as cleaning agents, lawn or garden fertilizers or pesticides, or for other purposes where such use is a normal activity in connection with a household or business use, and where such activity is conducted in accordance with applicable regulations and manufacturers guidelines.
- (5) Approved wastewater reuse systems, such as for irrigation.

**SECTION 25.730.6 NONCONFORMING USES AND ACTIVITIES**

- (a) Where a prohibited use or activity identified in 25.730.5(a) exists within a wellfield protection zone on the effective date of this Section, such use or activity shall be discontinued not later than April 1, 1993, and the abandoned site made to comply with the provisions of this Section (c). As an alternative, the owner and operator of the use or activity may apply for and obtain an operating permit pursuant to Section 25.730.8, provided that such operating permit is issued not later than July 1, 1990. Where a prohibited use or activity is abandoned or ceases to operate for more than ninety (90) days, such use shall not be resumed and the abandoned site shall be made to comply with the provisions of (c) of this Section. No prohibited use or activity shall be expanded or enlarged.
- (b) Where a regulated use or activity identified in Section 25.730.5(b) exists within a wellfield protection zone on the effective date of this Section, such use or activity shall be discontinued not later than April 1, 1995, and the abandoned site made to comply with the provisions of Section 25.730.7(c) of this Section. As an alternative, the owner and operator of the use or activity may apply for and obtain an operating permit pursuant to Section 25.730.8 provided that such operating permit is issued not later than October 1, 1990.
- (c) Where any use or activity identified in Section 25.730.5(a) or (b), whether or not such use or activity was in existence prior to the effective date of this Section, is discontinued or abandoned, the owner and operator shall be responsible for obtaining an operating permit to address the abandonment and closure of the use or activity. An operating permit issued to regulate the closure of an activity or a site shall include conditions necessary, at a minimum, to assure the following:
  - (1) monitoring of the site to determine that there is no pollution generated by the site after closure, and that the monitoring program is designed and operated under the direction of a Professional Engineer who shall periodically certify the results of tests to the Director;
  - (2) provisions for cleanup of pollution and pollution sources if the site produces pollution after the closure;
  - (3) completion of final site grading, final drainage, and establishment of permanent cover vegetation for those areas where new construction is not contemplated;
  - (4) posting of adequate notices and recording of appropriate documentation in the land records to identify previous uses and location of possible buried hazardous materials; and

- (5) availability of funds to adequately support required postclosure activities.

**SECTION 25.730.7 WELLS.**

- (a) All irrigation wells constructed after the effective date of this Section shall be properly constructed to ensure a tight seal at the point where the well passes from the surficial aquifer into the deep aquifer from the City's potable water supply is drawn, and shall be grouted to ensure that surface contaminants do not travel down along the outside of the well casing. Construction specifications and inspection standards shall be as established by the City with technical assistance from the Southwest Florida Water Management District, the Hillsborough County Health Department, and/or other agencies with oversight responsibility for well constructing methods.
- (b) The City shall conduct a survey to identify all wells located within the wellfield protection zone and to classify each such well as abandoned, in use but deteriorated or improperly constructed, or in use and not presenting a problem.
- (c) When wells which have been improperly constructed and/or which have deteriorated in such a way as to allow expedited travel of contaminants into the deeper aquifer are identified, the owner of the property on which said well is located shall be notified by certified mail and instructed to abandon and plug the well. Failure to plug the well within sixty (60) days shall be a violation of this Section. Prior to plugging such well, any required permits shall be obtained.
- (d) Any well located within a wellfield protection zone and which is abandoned for a period of two years shall be plugged. When such a well has been identified, the property owner shall be notified by certified mail and instructed to abandon and plug the well. Failure to plug the well within sixty (60) days shall be a violation of this Section. Prior to plugging such well, any required permits shall be obtained.
- (e) All well plugging activities shall be coordinated with the Southwest Florida Water Management District and the Hillsborough County Health Department, and shall be undertaken under their direction or under the direction of a Professional Engineer or Professional Geologist.

**SECTION 25.730.8 OPERATING PERMITS.**

- (a) Where this Section requires the issuance of an operating permit to undertake or to continue a regulated activity or to abandon and close a regulated activity, the following procedures shall apply:
  - (1) An application, together with plans, maps, and other documents necessary to support the amendment shall be made to the Director. The number of copies of plans and other supporting documents and the required content of submitted materials shall be as prescribed by the Director.
  - (2) The Director shall review the application for completeness and shall advise the applicant in writing within ten (10) working days as to whether or not the application is complete and ready for processing. Determination that the application is complete shall not prevent the Director from requesting additional information, nor shall it prevent the applicant from voluntarily submitting additional information at a later stage.

- (3) The Director shall refer copies of the application and supporting documentation to the Hillsborough County Health Department, the Hillsborough County Environmental Protection Commission, the Florida Department of Environmental Regulation, the Southwest Florida Water Management District and such other agencies as may from time to time request to be provided the copies of applications for operating permits. The Director shall request comments and recommendations, or an indication that there will be no comments, within twenty (20) working days. Failure to respond within the twenty-day period shall be construed as being an indication of no comment.
- (4) The Director may make a formal site inspection to gather information relevant to the consideration of the issuance of a permit and/or appropriate permit conditions. If the Director makes such a formal inspection, the applicant and all agencies which have received copies of the application for reference shall be advised at least five (5) working days prior to the time and meeting place. These provisions regarding a formal inspections, either formal or informal, for data collection or enforcement purposes.
- (5) The Development Review Committee shall review the application and supporting materials along with the results of field investigations and comments and recommendations received from other agencies and shall make its recommendations regarding the issuance or denial of the application and appropriate conditions which may be attached to the issuance of an operating permit.
- (6) It is the intent of this Section that, where the use or activity under consideration for an operating permit is concurrently subject to consideration for a final site plan or final plat approval, consideration of the application for an operating permit shall be given concurrently with the consideration of the final site plan or final plat by the City Council. In these cases, the City Council shall, following review of the report by the Development Review Committee and the recommendation of the Director, issue or deny the application, and may attach such conditions as are appropriate to fulfill the purposes of this section and to ensure compliance with the standards set forth in Section 25.730.8. In cases where no application for final site plan or final plat approval is pending before the City Council, the Director shall review the report of the Development Review Committee and shall issue or deny the application, and may attach such conditions as are appropriate to fulfill the purposes of this Chapter and to ensure compliance with the standards set forth in Section 25.730.8(b).
- (7) Whenever a decision on an application is made by the Director, that decision may be appealed to the City Council which shall review the reports and recommendations and take final action.
- (8) Any operating permit which is approved shall contain a condition giving the date of expiration of the permit, which shall be not later than five years after the date of issuance.

- (b) The following standards, at a minimum, shall apply to uses and activities for which an operating permit is required:
- (1) Interior storage locations shall be completely enclosed and designed to prevent any drainage of accidentally spilled materials through surface drainage or floor drains. A berm or curb shall be incorporated into the design of any storage area sufficient to contain the maximum volume of materials handled within the storage area.
  - (2) Exterior storage areas shall be enclosed and secured and shall be designed to prevent any drainage of accidentally spilled materials through surface drainage. A berm or curb shall be incorporated into the design of the storage area sufficient to contain the maximum volume of materials handled within the storage area.
  - (3) Areas where materials are handled or processed shall be designed to prevent any drainage of accidentally spilled materials through surface drainage or floor drains. A berm or curb shall be incorporated into the design of any materials handling area (indoors or out) sufficient to contain spilled materials.
  - (4) Exterior surface drainage areas located where spills might overflow shall be designed with sufficient retention capacity to retain the first one inch of rainfall or the maximum amount of materials handled, whichever is greater.

An applicant for an operating permit shall provide a certification by a Professional Engineer that the design for any containment area is adequate to detain any spilled materials and prevent contamination of surface or groundwater.

**SECTION 25.730.9 ADMINISTRATION AND APPEALS**

- (a) The principal authority for the administration of this Section shall be delegated to the Director of Community Development.
- (b) The Director shall have the following duties and responsibilities:
  - (1) Review all permit applications for uses and activities within the City to determine if special measures will be required to comply with provisions of this Section. In reviewing land uses and activities and/or specific materials involved in such activities, the Director shall utilize the assistance of the Waste Management Program operated by the Hillsborough County Environmental Protection Commission;
  - (2) Review and process applications for operating permits, including compilation of comments and recommendations made by other agencies or by the DRC, and issue or deny such permit applications;
  - (3) Where a decision on the issuance or denial of a permit, or on the nature of permit conditions is appealed, make recommendations to the City Council on the consistency of such applications with the provisions of this Section and on any conditions or modifications which may be required to ensure compliance with this Section;

- (4) Review and inspect uses and land development activities, including uses of activities which are abandoned, to ensure compliance with the conditions of operating permits and/or the provisions of this Section;
  - (5) Maintain the Wellfield Protection Zone Map, make interpretations of map boundaries, and process proposed changes to the map;
  - (6) Conduct surveys and other research necessary to identify the location of abandoned wells and cable tooled wells and carry out procedures necessary to ensure compliance with the plugging requirements of this Section; and
  - (7) Coordinate with appropriate agencies in meeting the requirements of this Section.
- (c) In performing any of his duties, the Director may request the assistance of other governmental agencies, including, but not limited to, the Hillsborough County City-County Planning Commission, the Hillsborough County Health Department, the Hillsborough County Environmental Protection Commission, the Florida Department of Environmental Regulation, and the Southwest Florida Water Management District. The Director may also request the assistance of other City agencies. All City agencies shall be responsible for providing assistance as needed.
- (d) Any decision of the Director may be appealed to the Board of Adjustment as provided in Article III of this Chapter. Matters subject to appeal include, but are not necessarily limited to: interpretations of the meaning of provisions of this Chapter and interpretations of boundaries shown on the Wellfield Protection Zone Map. Decisions in matters which are subject to the jurisdiction of the City Council may not be appealed to the Board of Adjustment.



**WINTER PARK CODE**  
**Chapter 23A**  
**Stormwater Management**  
**(1988)**

**Article I. IN GENERAL**

**Sec. 23A-1 Short Title**

- 1) This chapter shall be known and cited as the Winter Park Stormwater Management Ordinance.

**Sec. 23A-2 Application of Regulations**

- 1) The provisions of this chapter shall apply to all lands, public and private within the City of Winter Park, but shall not apply to road or railroad public rights-of-way.

**Sec. 23A-3 Purpose and Intent**

- 1) The City of Winter Park finds that the uncontrolled drainage of developed land has a significant adverse impact upon the health, safety and welfare of the city by increasing the siltation and pollution of ground and surface water, by accelerating the eutrophication of receiving waters, by diminishing groundwater recharge and by increasing the incidence and severity of flooding. In order to minimize these detrimental effects of stormwater runoff, the following stormwater management regulations are enacted to provide for the mitigation of stormwater impacts from new development and from the redevelopment of existing properties.

**Article II. STORMWATER MANAGEMENT REQUIREMENTS**

**Sec. 23A-4 Performance Standards for New Development**

- 1) In order to achieve the benefits of stormwater management, the City of Winter Park shall require the provision of on-site stormwater retention for all new construction of buildings and parking lots.
- 2) The stormwater management requirement for new development shall be the retention on-site of the first inch of runoff from all impervious surfaces.
- 3) The stormwater retention requirements of this section shall be achieved through the retention of stormwater runoff in surface retention facilities, such as grassed swales or retention ponds.
- 4) The above performance standards shall apply to all new non-residential and multi-family residential building projects on vacant land, or land made vacant after the demolition of existing structures. These requirements shall also apply to all building projects whose construction value exceed fifty (50%) percent of the assessed value of the improvements detailed on the most current property tax assessment role. Building renovations phased over a two year period shall be combined to determine applicability of the fifty (50%) percent threshold criteria.

**Sec. 23A-5 Performance Standards for the Retrofit of Existing Development**

- 1) In order to achieve the benefits of stormwater management on non-residential and multi-family residential properties undergoing redevelopment, renovation or additions, the city shall require the provision of on-site stormwater retention.
- 2) The stormwater management requirement for the redevelopment, renovation or additions to existing buildings shall be the retention on-site of the first one-half (1/2) inch of stormwater runoff from all impervious surfaces.
- 3) The stormwater retention requirements of this section shall be accomplished by utilizing surface stormwater facilities.
- 4) These stormwater performance standards for the retrofit of existing development shall apply to all building projects whose construction value exceeds twenty-five (25%) percent of the assessed value of the improvements detailed on the most current property tax assessment role. Building renovations or additions phased over a two year period shall be combined to determine when the twenty-five (25%) percent threshold criteria has been achieved.
- 5) These stormwater management requirements for the retrofit of existing development do not allow properties constructed in conformance with the requirements for the first inch of retention to revert to a lesser requirement.

**Sec. 23A-6 Performance Standards for Properties Within the Central Business (C-2) District and Public, Quasi-Public (P.Q.P.) District**

- 1) In recognition of the existing developed density of properties within the Central Business District, special stormwater retention requirements are provided for the development or redevelopment of these properties.
- 2) On properties within these districts the stormwater retention requirement shall be either:
  - a) The provision of on-site stormwater retention of the first one-half (1/2) inch from all impervious surfaces into surface or subsurface facilities, or
  - b) The payment to the city of a fee in lieu of stormwater management to be equal to the cost of providing subsurface stormwater retention facilities. These fees are to be utilized by the city for the construction and improvement to capital facilities of the off-site stormwater management system within the same drainage basin. Such cost estimates shall be certified by a registered engineer. The Stormwater Board of Appeals shall act to resolve any conflicts or disputes regarding the appropriate fee in lieu of stormwater management.

**Sec. 23A-7 Performance Standards for Properties Within Single Family Zoning Districts**

- 1) In recognition that single family properties have limitations on the percentage of impervious surfaces allowed, there are qualitative rather than quantitative stormwater retention requirements for these building projects.
- 2) The stormwater management requirement for development and redevelopment on properties within single family districts shall include some method or methods of on-site retention for the building, parking, and driveway areas. These methods shall include, but

not be limited to, the provision of swales or other retention areas, the sloping of parking areas and drives to landscaped areas versus directly to the street, the guttering of building runoff to landscaped open areas where setbacks limit the amount of pervious area available and other such methods which provide opportunities for the percolation of stormwater.

#### **Sec. 23A-8 Stormwater Management Technical Standards**

- 1) It is the responsibility of the applicant to submit sufficient information for the Building Official and Public Works Director or their designees, to determine whether the requirement of this stormwater management code are being met. The Public Works Department may from time to time issue design guidelines that are to be followed in meeting the requirements of this code.
- 2) Submittal information should detail elevations or contours, direction of flow, and other grading or fill information. Submittals should also detail the computations and calculations utilized to demonstrate satisfaction of the retention requirements. Submittals should also detail the type of soil conditions present and the depth to the water table. A soils report and/or survey may be required to verify the conditions represented on the plan.
- 3) It shall be the duty of the property owner to provide proper maintenance of the stormwater management system so that the system continues to meet the requirements of this code. The city shall have the power to inspect stormwater management systems and facilities and to require such maintenance, repair, and replacement of facilities as necessary. Necessary maintenance and repair shall be made within a time period not to exceed thirty (30) days after notification by the city of the problem and required corrective action.

#### **Sec. 23A-9 Surface Stormwater System Standards**

- 1) Surface stormwater systems utilized to accomplish the stormwater retention and percolation requirements shall be designed so as to be readily accessible from rights-of-way, parking lots, court yards, or other open areas so that maintenance and clean-out of these areas can be easily accomplished.
- 2) The side slopes and bottoms of all retention areas shall have a grass or other landscape material cover. The maximum depth of retention areas shall be four (4) feet from the surrounding average grade. The maximum side slopes of retention areas shall not exceed three to one.
- 3) Spillways or other entrance channels to retention areas shall be designed to prevent the flushing of these retention areas by heavy rains.
- 4) Retention areas shall be designed and function such that all retained water is removed after the third day. If this is not accomplished by percolation and evaporation, the retention area must be improved to include an underdrain system or other bottom materials that will accomplish this requirement.

#### **Sec. 23A-10 Underground Stormwater System Standards**

- 1) Underground stormwater seepage systems may be permitted in the central Business District or by the Stormwater Board of Appeals to accomplish a portion of the stormwater retention and percolation requirements provided those systems are designed for the

prevention of clogging by fine material and for ease of cleaning with conventional sewer cleaning equipment. This may include, but not necessarily be limited to, the wrapping of the perforated pipe and seepage trench with an appropriate fabric and the provision of sufficient clean-outs for the system.

- 2) Underground stormwater seepage systems shall be designed so as to accept the peak runoff from a storm of five year frequency and twenty minute time of concentration in addition to retaining the required volume of stormwater runoff as set forth previously in this code.
- 3) Pipes utilized shall be of material acceptable to the City Engineer or Public Works Director. The minimum diameter of any pipe utilized for any portion of an enclosed storm drainage system shall be fifteen (15) inches.

**Sec. 23A-11 Disposition of Stormwater Runoff**

- 1) All stormwater systems shall include a method for the disposition of excess stormwater runoff. This disposition is to be into rights-of-way of the city with storm drainage facilities.
- 2) In cases where the disposition of stormwater runoff is other than to rights-of-way with storm drainage facilities, the approval of the City Engineer or Public Works Director shall be required for the design and disposition of stormwater runoff into other areas such as lakes, ponds, streams, canals, wetlands, or rights-of-way without storm drainage facilities.

**Article III. STORMWATER BOARD OF APPEALS**

**Sec. 23A-12 Stormwater Board of Appeals; Establishment and Procedure**

- 1) There is hereby established a stormwater Board of Appeals which shall consist of five (5) members appointed by the Mayor and confirmed by the City Commission. All members shall be residents of the city of Winter Park. The City Commission shall select the members from the current membership of the Lakes and Waterways Board and the Environmental Review Board.
- 2) The members of the Stormwater Board of Appeals shall be appointed for terms of two (2) years. In the first instance two (2) members shall be appointed for one (1) year and three (3) members for two (2) years. Thereafter, all members shall be appointed for two (2) years. Vacancies shall be filled by appointment for the unexpired term only. Members of the Stormwater Board of Appeals may be removed for cause by a majority vote of the City Commission.
- 3) The Stormwater Board of Appeals shall annually select a chairman and vice-chairman from among its members. The Public Works Director or their designee shall serve as secretary to the Board. The secretary shall not be entitled to vote, but shall be empowered to present staff recommendations on each variance, interpretation or appeal.
- 4) The Stormwater Board of Appeals shall adopt rules for the governance of its proceedings and shall keep a record of attendance of its members at meetings, resolutions transactions, findings and determinations showing the vote of each member on each question requiring a vote, or if absent or abstaining from voting indicating such fact. The

- 5) Variances granted by the Stormwater Board of Appeals are approved for a specific property and a specific development plan. The Building Official is empowered to enforce the conditions attached to any variance as well as the development plan details as part of the building permit and shall insure conformance to and implementation of all required improvements prior to issuance of a final certificate of occupancy.
- 6) Variances granted by the Stormwater Board of Appeals are not transferable to other development plans significantly different from that originally approved.
- 7) Applicants for variances shall pay to the city a fee prescribed by the City Commission to cover the administrative costs of the appeal. Applicants shall also provide at their expense, sufficient number of plans and other information necessary for review by the staff and board members.
- 8) The Stormwater Board of Appeals is authorized to make recommendations to the City Commission on amendments to this code or other codes of the city which will further the purposes of these regulations, or improve the administrative enforcement of these regulations.
- 9) The Stormwater Board of Appeals shall also make recommendations on questions of interpretation of the meaning, intent or application of these regulations. Such recommendations on questions of interpretation of these regulations or appeals of the these regulations or appeals of the enforcement of these regulations shall be transmitted to the City Commission for final decision at a public hearing. The administrative procedure, submittals and fees prescribed for variances shall also apply to interpretation questions or appeals.

#### **Article IV. STORMWATER MANAGEMENT COMPLIANCE**

##### **Sec. 23A-14 Stormwater Management Compliance**

- 1) In order to achieve the benefits of stormwater management in a substantially developed community such as Winter Park, there is a public need for a compliance program for stormwater management that does not utilize building permits as the mechanism for achieving compliance with these stormwater management regulations. Since building permits for the redevelopment of properties is estimated to take some twenty years to achieve compliance, the present condition and water quality of Winter Park's lakes and receiving waters dictate an accelerated program of compliance and retrofitting of private and public properties.
- 2) All non-residentially zoned properties within the city and all residentially zoned properties greater than one-half acre in size shall come in compliance with the stormwater management requirements of this chapter within five (5) years of the effective date of this ordinance.
- 3) As part of this program for compliance with these stormwater management requirements, the city shall require all non-residentially zoned properties within the city, and all residentially zoned properties greater than one-half acre in size that are not in compliance, to provide a plan and work schedule for such compliance, within four (4) years of the effective date of this ordinance.

---

## ***Appendix B: Planning & Technical References***

## ***APPENDIX B***

### **PLANNING AND TECHNICAL REFERENCES**

- Aller, L., et. al., DRASTIC: A Standard System for Evaluating Ground Water Pollution Potential Using Hydrogeologic Settings, EPA/600/2-85/018, Washington, D.C. (1985).
- American Society of Agricultural Engineers, Safety Devices for Applying Liquid Chemicals Through Irrigation Systems, Irrigation Management Committee (proposed ASAE Engineering Practice) (1980).
- Ayres Associates, On-Site Sewage Disposal System Research in Florida: Progress Report, Florida Department of Health and Rehabilitative Services (July 1989).
- Ayres Associates, The Impact of Florida's Growth on the Use of Onsite Sewage Disposal Systems, Florida Department of Health and Rehabilitative Services (October 1987).
- Beck, B., "Conduit Flow Characteristics and Contaminant Transport in Karstic Conduits in Tertiary Limestones," Florida Sinkhole Research Institute, University of Central Florida (Florida Water Resources Research Center, University of Florida, Gainesville, Fl., 1990).
- Benedict, B., Movement of Salt and Hazardous Contaminants in Groundwater Systems, Report No. 71, Florida Water Resources Research Center, University of Florida, Gainesville, Fl. (1983).
- Blandford & Huyakorn, A Modular Semi-Analytical Model for the Delineation of Wellhead Protection Areas, U.S. Environmental Protection Agency, Office of Ground-Water Protection, Washington, D.C. (1990) (includes computer software).
- Blatt, "From the Groundwater Up: Local Land Use Planning and Aquifer Protection," 2 J. Land Use & Envtl. L. 107 (1986).
- Blodgett & Clark, Fertilizers, Nitrates, and Groundwater: An Overview, National Research Council and The Conservation Foundation, Washington, D.C. (1985).
- Born, Yangen & Zaporozec, A Guide to Groundwater Quality Planning and Management for Local Governments, Special Report No. 9, Wisconsin Geological and Natural History Survey, Madison, Wi. (1987).
- Bottcher & Baldwin, "BMP Selector: General Guide for Selecting Agricultural Water Quality Practices," Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida, Gainesville, Fl. (1987).
- Bottcher & Graham, "Fate of Conventional and Chemigation Applied Pesticides in the Plant Canopy and Upper Root Zone," Agricultural Engineering, and Florida Water Resources Research Center, University of Florida, Gainesville, Fl. (1990).
- Bouma, Rao & Brown, "Basics of Soil-Water Relationships--Parts I, II and III, (Soil as a Porous Medium, Retention of Water, Movement of Water)," Soil Science Fact Sheet, Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida, Gainesville, Fl. (1982).

- CH2M Hill, Local Government Model Ordinances and Technical Manual Outline for Stormwater Management, South Florida Water Management District, West Palm Beach, Fl. (June 1990).
- Caldwell, Barrett & Chang, "Ranking System for Releases of Hazardous Substances," in Proceedings of the National Conference on Management of Uncontrolled Hazardous Waste Sites, Hazardous Materials Control Research Institute, Silver Spring, Md. (1981).
- Canter & Knox, Septic Tank Effects on Ground Water Quality, Lewis Publishers, Chelsea, Mi. (1985).
- Canter, Knox & Fairchild, Ground Water Quality Protection, Lewis Publishers, Chelsea, Mi. (1988).
- Carsel, Smith, Mulkey, Dean & Jowise, Users Manual for the Pesticide Root Zone Model (PRZM), EPA-600/13-84-100, U.S. Environmental Protection Agency, Office of Research and Development, Athens, Ga. (1984).
- City of Tacoma Planning Department, General Guidance and Performance Standards for the South Tacoma Groundwater Protection District, Tacoma, Wa. (1988).
- Claiborne, Embry, Hoy, Welden & Wilson, "Bibliography of U.S. Geological Survey Reports on the Water Resources of Florida, 1886-1986," Open-File Report 85-424, U.S. Geological Survey, Tallahassee, Fl. (1987).
- Conservation Foundation, Groundwater Protection, Conservation Foundation, Washington, D.C. (1987).
- Conservation Law Foundation, Underground Petroleum Storage Tanks: Local Regulation of a Groundwater Hazard, Conservation Law Foundation of New England, Inc., Boston, Ma. (1984).
- Dade County, Department of Environmental Resources Management, Protection of Potable Water Supply Wells Program, Miami, Fl. (1980).
- Department of Environmental Regulation, A Manual of Reference Management Practices for Agricultural Activities, Florida Department of Environmental Regulation, Tallahassee, Fl. (1978).
- \_\_\_, Florida State of the Environment: Ground Water Quality Monitoring Network, Florida Department of Environmental Regulation, Tallahassee, Fl. (undated).
- \_\_\_, Silviculture Best Management Practices Manual, Florida Department of Environmental Regulation, Tallahassee, Fl. (1979).
- \_\_\_, Nonpoint Source Management Section, The Florida Development Manual: A Guide to Sound Land and Water Management, Florida Department of Environmental Regulation, Tallahassee, Fl. (1988).
- DeWalle, Kalman, Norman, Sung & Plews, Determination of Toxic Chemicals in Effluent from Household Septic Tanks, EPA/600/2-85/050, U.S. Environmental Protection Agency, Washington, D.C. (1985).



- Duerr, Hunn, Lewelling & Trommer, "Geohydrology and 1985 Water Withdrawals of the Aquifer Systems in Southwest Florida, With Emphasis on the Intermediate Aquifer System," Water-Resources Investigations Report 87-4259, U.S. Geological Survey, Tallahassee, Fl. (1988).
- Dyer, Riddle, Mills & Precourt, Inc., Orlando Urban Storm Water Management Manual (Vol.2), Orlando, Fl. (undated).
- Fernald & Patton (eds.), Water Resources Atlas of Florida, Institute of Science and Public Affairs, Florida State University, Tallahassee, Fl. (1984).
- Florida Geological Survey, "List of Publications," Information Circular 87, Florida Department of Natural Resources, Division of Resource Management, Tallahassee, Fl. (1990).
- Frahm, "Groundwater Supply Protection," Technical Information Planning Series #88-4, Southwest Florida Water Management District, Brooksville, Fl. (Jan. 1989).
- Gain & Miller, "Processes Affecting Retention of Water-Quality Constituents in a Detention Pond-Wetland System," in Water: Laws and Management, American Water Resources Association (Sept. 1989).
- German, E., "Quantity and Quality of Stormwater Runoff Recharged to the Floridan Aquifer System Through Two Drainage Wells in the Orlando, Florida Area," U.S. Geological Survey Water-Supply Paper 2344, Tallahassee, Fl. (1989).
- Goforth, G., Long-Term Performance of Stormwater Detention Facilities: A Comparison of Design Methodologies, Report No. 58, Florida Water Resources Research Center, University of Florida, Gainesville, Fl. (June 1981).
- Graetz, D., "Crop Fertilization and Its Relation to Ground Water Quality in Florida," Soil Fact Sheet 7, Florida Cooperative Extension Service, University of Florida, Gainesville, Fl. (1975).
- Hagerty, Pavoni, & Heer, Jr., Solid Waste Management, Van Nostrand Reinhold, N.Y. (1973).
- Hall, Watson, Schwartz, Bryson & Davis, Superfund Manual: Legal and Management Strategies, Government Institutes, Inc., Rockville, Md. (3d ed. 1988).
- Hantzsche & Franzini, "Utilization of Infiltration Basins for Urban Stormwater Management," in Proceedings of the International Symposium on Urban Storm Runoff, University of Kentucky, Lexington, Ky. (1980).
- Heaney & Knowles, Microcomputer-based Spreadsheet and CAD System for Inventory and Analysis of Small-Quantity Generators of Hazardous Wastes, Report No. 102, Florida Water Resources Research Center, University of Florida, Gainesville, Fl. (1988).
- Heath, R., Basic Groundwater Hydrology, U.S. Geological Survey Water Supply Paper 2220, Reston, Va. (1983).
- Hochmuth, G., "Commercial Vegetable Fertilization Guide," Florida Cooperative Extension Service, Circular 225C, Institute of Food and Agricultural Sciences, University of Florida, Gainesville, Fl. (1988).

- Hochmuth, G., (ed.), "Nitrogen Management in Vegetable Production for Groundwater and Health Protection," Florida Cooperative Extension Service, Special Series Report SSVEC 940,, Institute of Food and Agricultural Sciences, University of Florida, Gainesville, Fl. (undated).
- Hochmuth & Hanlon, "Commercial Vegetable Crop Nutrient Requirements," Florida Cooperative Extension Service, Circular 806, Institute of Food and Agricultural Sciences, University of Florida, Gainesville, Fl. (1989).
- Holman, D., "A Ground-Water Pollution Potential Risk Index System," in Proceedings of a National Symposium on Local Government Options for Ground Water Pollution Control, Environmental and Ground Water Institute, University of Oklahoma, Norman, Ok. (1986).
- Holman, D., "Ground Water Protection Alternative for Pesticides and Fertilizers Based on Local Information and Comparable Potential Risk Index for Rock County, Wisconsin," in Proceedings of a National Symposium on Local Government Options for Ground Water Pollution Control, Environmental and Ground Water Institute, University of Oklahoma, Norman, Ok. (1986).
- Hopkins, L., "Methods for Generating Land Suitability Maps: A Comparative Evaluation," American Institute of Planners Journal 386-400 (October 1977).
- Hornsby, A., "Pollution and Public Health Problems Related to Irrigation," 1173 Irrigation of Agricultural Crops, Agronomy Monograph no. 30, Madison, Wi. (1990).
- Hrezo & Nickinson, Protecting Virginia's Groundwater: A Handbook for Local Government Officials, Virginia Water Resources Center, Virginia Polytechnic Institute and State University, Blacksburg, Va. (1986).
- Jackson, Keeney & Curwen, Agricultural Management Practices to Minimize Groundwater Contamination, Environmental Resources Center, University of Wisconsin-Extension, Madison, Wi. (1987).
- Jaffe, M., "Local Government Management and Control Options," in Proceedings of a National Symposium on Local Government Options for Ground Water Pollution Control, Environmental and Ground Water Institute, University of Oklahoma, Norman, Ok. (1986).
- Jaffe & DiNovo, Local Groundwater Protection, American Planning Association, Washington, D.C. (1987).
- Kirkner & Associates, Risk Assessment of Onsite Sewage Disposal Systems for Selected Florida Hydrologic Regions, Florida Department of Health and Rehabilitative Services, Tallahassee, Fl. (October 1987).
- Kovach, S., "Injection of Fertilizers into Drip Irrigation Systems for Vegetables," Circular 606, Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida, Gainesville, Fl. (October 1984).
- Kufs, C., et.al., "Rating the Hazard Potential of Waste Disposal Facilities," in Proceedings of the National Conference on Management of Uncontrolled Hazardous Waste Sites, Hazardous Materials Control Research Institute, Silver Spring, Md. (1980).

- Kusler, J., A Guidebook: Regulating Sensitive Lands, Environmental Law Institute, Washington, D.C (1980).
- LeGrand, H., "System of Reevaluation of Contamination Potential of Some Waste Disposal Sites," 56 Journal American Water Works Association (August 1964).
- LeGrand, H., A Standard System for Evaluation Waste-Disposal Sites, National Water Well Association, Worthington, Oh. (1983).
- Logan, T., "Agricultural Best Management Practices and Groundwater Protection," 45 J. of Soil and Water Conservation 201 (March-April 1990).
- Maas, Dressing, Spooner, Smolen & Humenik, Best Management Practices for Agricultural Non-point Source Control Pesticides, Biological and Agricultural Engineering Department, North Carolina State University, Raleigh, N.C. (1984).
- Maiello, T., "Developing an Underground Storage Tank Management System within an Existing Governmental System," in Proceedings of a National Symposium on Local Government Options for Ground Water Pollution Control, Environmental and Ground Water Institute, University of Oklahoma, Norman, Ok. (1986).
- Maloney, Hamann & Canter, "Stormwater Runoff Control: A Model Ordinance for Meeting Local Water Quality Management Needs," 20 Nat. Res. J. (1980).
- Marks, T., "Toward a National Groundwater Act: Current Contamination and Future Courses of Action," 61 Fla. Bar J. (April 1987).
- Marsh & Hill-Rowley, Water Quality, "Stormwater Management and Development Planning on the Urban Fringe," 35 J. Urb. & Contemp. L. 3 (1989).
- McPherson, Coffey, & Easley, Model Land Development Code for Florida Cities and Counties, Florida Department of Community Affairs, Tallahassee, Fl. (December 1980).
- Meyer, F., "Subsurface Storage of Liquids in the Floridan Aquifer System in South Florida," U.S. Geological Survey Open-File Report 88-477, Tallahassee, Fl. (1989).
- Miles, S., Heuristic Method for the Design of Stormwater Drainage Systems Using Lotus 1-2-3, Report No. 104, Florida Water Resources Research Center, University of Florida, Gainesville, Fl. (1988).
- Millwe, "Safe Drinking Water Act," Environmental Law Handbook, 8th ed., (1985).
- Murphy, "The Potential for Legislative Choice Concerning Groundwater and Aquifers," 4 J. Land Use & Envtl. L. 23 (1988).
- National Research Council, Ground Water Quality Protection: State and Local Strategies, National Academy Press, Washington, D.C. (1986).
- New York State, Department of Environmental Conservation, Administrative and Legal Options for Storing Hazardous Substances: A Guide for Local Officials, Albany, NY (1984).

- Office of Technology Assessment, Protecting the Nation's Groundwater from Contamination, Vol. 1, U.S. Congress, Washington, D.C. (1984).
- Office of Technology Assessment, Beneath the Bottom Line: Agricultural Approaches to Reducing Agrichemical Contamination of Groundwater, Report F-117 or Summary Report F-118 U.S. Congress, Washington, D.C. (forthcoming).
- Orlando Area Chamber of Commerce, Storm Water Quality Control Seminar: Symposium Proceedings, Orlando Area Chamber of Commerce, Orlando, Fl. (1981)
- Page (ed.), Planning for Groundwater Protection, Academic Press, Inc., San Diego, Ca. (1987).
- Phillips, Nathwani & Mooj, "Development of a Soil-Waste Interaction Matrix for Assessing Land Disposal of Industrial Wastes," 11 Water Research (November 1977).
- Preston & Maurer, "Lust in the Heart of Florida: Regulation of Pollutant Storage Tanks," 1 J. Land Use & Envtl. L. 321 (1985).
- Quinlan & Ewers, "Ground Water Flow in Limestone Terrains: Strategy Rationale and Procedure for Reliable, Efficient Monitoring of Ground Water Quality in Karst Areas," in Proceedings of the Fifth National Symposium and Exposition on Aquifer Restoration and Ground Water Monitoring, National Water Well Association, Worthington, Oh. (1985).
- Randazzo, A., Geohydrologic Model of the Floridan Aquifer in the Southwest Florida Water Management District, Report No. 46, Florida Water Resources Research Center, University of Florida, Gainesville, Fl. (1980).
- Rao, Hornsby & Nesheim, "Regulation of Pesticide Use," Soil Science Fact Sheet SL 53, Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida, Gainesville, Fl. (March 1988).
- Rao, Mansell, Baldwin & Laurent, "Pesticides and Their Behavior in Soil and Water," Soil Science Fact Sheet SL 40 (revised), Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida, Gainesville, Fl. (1983).
- Rao, M. & Rao, P., "Organic Pollutants in Groundwater: 1. Health Effects," Soil Science Fact Sheet SL 54, Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida, Gainesville, Fl. (March 1988).
- Roberts & Butler, "Information for State Groundwater Quality Policymaking," 24 Nat. Resources J. 1015 (1984).
- Robinson, Yanggen & Bern, An Annotated Bibliography of Local Groundwater Management Publications, University of Wisconsin-Extension, Madison, Wi. (Nov. 1985).
- Rushton, Hull & Dye, "Discharge Water Quality of Permitted Wet Detention Systems," in Water: Laws and Management, American Water Resources Association (September 1989).
- Sartain, J., "Fertilizers and Fertilization," Bulletin 183-D, Florida Cooperative Extension Service, University of Florida, Gainesville, Fl. (August 1989).

- Schepers & Hay, "Impacts of Chemigation on Groundwater Contamination," in Rural Groundwater Contamination, D'Irti and Wolfson (eds.), Lewis Publishers, Chelsea, Mi. (1987).
- Schiffer, D., "Effects of Three Highway-Runoff Detention Methods on Water Quality of the Surficial Aquifer System in Central Florida," Water-Resources Investigations Report 88-4170, U.S. Geological Survey, Tallahassee, Fl. (1989).
- Schiffer, D., "Effects of Highway Runoff on the Quality of Water and Bed Sediments of Two Wetlands in Central Florida," Water-Resources Investigations Report 88-4200, U.S. Geological Survey, Tallahassee, Fl. (1989).
- Sherry, S., High Tech and Toxics: A Guide for Local Communities, Conference on Alternative State and Local Policies, Washington, D.C. (1985).
- Sherry, S., Community Right to Know: Hazardous Materials Disclosure Information Systems, Conference on Alternative State and Local Policies, Washington, D.C. (1983).
- Siemon, "Of Regulatory Takings and Other Myths," 1 J. Land Use & Envtl. L. 105 (1985).
- Silka, L., A Manual for Evaluating the Contamination Potential of Surface Impoundments, EPA/570/9-78-003, Washington, D.C. (June 1978).
- Smajstrla, A., "Backflow Prevention Requirements for Irrigation Systems Using Municipal Water Supplies," Bulletin 248, Florida Cooperative Extension Service, University of Florida, Gainesville, Fl. (March 1988).
- Smajstrla, Harrison & Becker, "Chemigation Safety," Agricultural Engineering Fact Sheet AE-58, Florida Cooperative Extension Service, University of Florida, Gainesville, Fl. (1989).
- Smajstrla, Harrison, Becker, Zazueta & Haman, "Backflow Prevention Requirements for Florida Irrigation Systems," Bulletin 217, Florida Cooperative Extension Service, University of Florida, Gainesville, Fl. (1988).
- Smajstrla, Zazueta & Haman, "Potential Impacts of Improper Irrigation System Design," Agricultural Fact Sheet AE 73, Florida Cooperative Extension Service, University of Florida, Gainesville, Fl. (1989).
- Soil and Water Conservation Society, "Rural Groundwater Quality Management: Emerging Issues and Public Policies for the 1990s," (Special Issue) 45 J. of Soil & Water Conservation No. 2, Ankeny, Iowa (March-April 1990).
- Southeast Michigan Council of Governments, Local Programs for Groundwater Protection: A Background Report, Southeast Michigan Council of Governments, Detroit, Mi. (1984).
- St. Johns River Water Management District, "Draft Applicant's Handbook: Karst Sensitive Areas," Department of Resource Management, St. Johns River Water Management District, Palatka, Fl. (1988).
- Stewart, Duerr & Fernandez, "Hydrogeology and Water Quality of Six Landfill Sites in Hillsborough County, Florida," Water-Resources Investigations Report 83-4180, U.S. Geological Survey, Tallahassee, Fl. (1983).

- Subcommittee on Oversight, Committee on Natural Resources, "A Review of Florida's Underground Injection Control Program," Florida House of Representative, Tallahassee, FL. (1983).
- Syvertsen, J., "Nitrogen and Ground Water Quality in Florida Citrus Production," Institute of Food and Agricultural Sciences, and Florida Water Resources Research Center, University of Florida, Gainesville, FL. (1990).
- Tourbier & Westmacott, Water Resources Protection Technology: A Handbook of Measures to Protect Water Resources in Land Development, Urban Land Institute, Washington, D.C. (1981).
- University of Wisconsin-Extension, Nutrient and Best Management Practices for Wisconsin Farms, University of Wisconsin-Extension, Wisconsin Department of Agriculture, Trade and Consumer Protection, Technical Bulletin ARM-1, Madison, WI. (1989).
- URS Company, Stormwater Management Procedures and Methods: A Manual of Best Management Practices, Snohomish County and King County, WA. (Sept. 1977).
- U.S. Congress, Office of Technology Assessment, Protecting the Nation's Groundwater from Contamination, Volume I, Washington, D.C. (Oct. 1984).
- U.S. Department of Agriculture, Soil Conservation Service, Wisconsin, "Technical Guide Standard 424, Waste Storage Pond," U.S.D.A., Soil Conservation Service, Wisconsin (1983).
- \_\_\_\_\_, \_\_\_\_\_, "Technical Guide Standard 633, Waste Utilization," U.S.D.A., Soil Conservation Service, Wisconsin (1987).
- U.S. Environmental Protection Agency, Chemical and Physical Effects of Municipal Landfills on Underlying Soils and Groundwater, Washington, D.C. (1978).
- \_\_\_\_\_, Design Manual: On-Site Wastewater and Disposal Systems, Washington, D.C. (Oct. 1980).
- \_\_\_\_\_, Surface Impoundment Assessment National Report, Washington, D.C. (1983).
- \_\_\_\_\_, "A Ground-Water Protection Strategy for the Environmental Protection Agency," Washington, D.C. (1984).
- U.S. Environmental Protection Agency, Office of Ground-Water Protection, An Annotated Bibliography on Wellhead Protection Programs, Washington, D.C. (1987).
- \_\_\_\_\_, \_\_\_\_\_, Developing a State Wellhead Protection Program: A User's Guide to Assist State Agencies Under the Safe Drinking Water Act, Washington, D.C. (1988).
- \_\_\_\_\_, \_\_\_\_\_, EPA Activities Related to Sources of Ground-Water Contamination, Washington, D.C. (1987).
- \_\_\_\_\_, \_\_\_\_\_, Guide to Ground-Water Supply Contingency Planning for Local and State Governments: Technical Assistance Document, Washington, D.C. (May 1990).
- \_\_\_\_\_, \_\_\_\_\_, Guidelines for Delineation of Wellhead Protection Areas, Washington, D.C. (1987).

- \_\_\_\_, \_\_\_\_ Hydrogeologic Mapping Needs for Ground-Water Protection and Management: Workshop Report, Washington, D.C. (1988).
- \_\_\_\_, \_\_\_\_ Hydrogeologic Mapping Needs for Ground-Water Protection and Management: Discussion Guide, Washington, D.C. (1988).
- \_\_\_\_, \_\_\_\_ Local Financing for Wellhead Protection, Washington, D.C. (June 1989).
- \_\_\_\_, \_\_\_\_ Model Assessment for Delineating Wellhead Protection Areas, U.S. Environmental Protection Agency, Washington, D.C. (1988).
- \_\_\_\_, \_\_\_\_ Pesticides in Ground Water: Background Document, U.S. Environmental Protection Agency, Washington, D.C. (1986).
- \_\_\_\_, \_\_\_\_ Protecting Ground Water: Pesticides and Agricultural Practices, Washington, D.C. (1988).
- \_\_\_\_, \_\_\_\_ Septic Systems and Ground-Water Protection: A Program Manager's Guide and Reference Book, Washington, D.C. (July 1986).
- \_\_\_\_, \_\_\_\_ Wellhead Protection Programs: Tools for Local Governments, Washington, D.C. (April 1989).
- \_\_\_\_, Office of Underground Storage Tanks, Musts for USTs, Washington, D.C. (Sept. 1988).
- U.S. Geological Survey, Hydrologic Almanac of Florida, Open-File Report 81-1107, U.S. Geological Survey, Tallahassee, Fl. (1981).
- U.S. Weather Bureau, "Rainfall Maps for 24-Hour Rainfall Amounts for the Conterminous United States," Technical Paper 40, Washington, D.C.
- Walker, Bridgeman, Cox & Hrezo (eds.), Legal and Administrative Systems for Water Allocation and Management: Options for Change, Virginia Water Resources Research Center, Virginia Polytechnic Institute and State University (1984).
- Wamsley, M.A. (ed.), "Applying Pesticides Correctly: A Guide for Private and Commercial Applicators," Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida, Gainesville, Fl. (132 pp.).
- Wanielista, M., Stormwater Management: Quantity and Quality, Ann Arbor Science Publishers, Ann Arbor, Mi. (1973).
- Wanielista & Yousef, Hydrology and Stormwater Management, John Wiley and Sons, New York (1988).
- Wanielista & Yousef, "Designs and Analysis of Stormwater Retention Basins Using Quality and Quantity Criteria," available through Department of Civil Engineering and Environmental Sciences, University of Central Florida, Orlando, Fl. (Sept. 1985).
- Wanielista, Yousef & Avellaneda, "Alternatives for the Treatment of Groundwater Contaminants: Infiltration Capacity of Roadside Swales," Florida Department of Transportation, Tallahassee, Fl., and National Technical Information Service, Springfield, Va. (April 1988).

- Wanielista, Yousef & Boss, "Alternatives for the Treatment of Groundwater Contaminants: A Detention Pond with Groundwater Inflow," Florida Department of Transportation, Tallahassee, Fl., and National Technical Information Service, Springfield, Va. (Dec. 1988).
- Wanielista, Yousef & Harper, "Stormwater Management: An Update," University of Central Florida Publication No. 85-1, Orlando, Fl. (July 1985).
- Wanielista, Yousef, Van de Graaff & Kuo, "Best Management Practices: Enhanced Erosion and Sediment Control Using Swale Blocks," Department of Civil Engineering and Environmental Sciences, University of Central Florida, Orlando, Fl. (Sept. 1985).
- Ward, Giger & McCarty, Ground Water Quality, John Wiley and Sons, Inc., NY (1985).
- Warman (ed.), Ground Water Management: Proceedings of a Southeast Regional Conference, Water Resources Research Institute, Auburn, Al. (1981).
- West Michigan Shoreline Regional Development Commission, A Pollution Nature Sampling Plan for Groundwater Contamination in Region 14, Muskegon, Mi. (1980).
- Whalen, P. & Cullum, M., "An Assessment of Urban Land Use/Stormwater Runoff Quality Relationships and Treatment Efficiencies of Selected Stormwater Management Systems," Technical Publication No. 88-9, South Florida Water Management District, West Palm Beach, Fl. (1988).
- Wicks & Erickson, Septic Tank Water Quality Impact Study, Lake County Department of Pollution Control, Florida Department of Environmental Regulation, Tallahassee, Fl. (1982).
- Wisconsin, University of, Nutrient and Pesticide Best Management Practices for Wisconsin Farms, Environmental Resources Center, University of Wisconsin Extension, University of Wisconsin, and Wisconsin Department of Agriculture, Trade and Consumer Protection, Madison, Wi. (1987).
- Wood & Stewart, The Geophysical and Geologic Characteristics of Fracture Zones in The Carbonate Floridan Aquifer, Report No. 88, Florida Water Resources Research Center, University of Florida, Gainesville, Fl. (1985).
- Woods, P. & Webster, D., "Underground Storage Tanks: Problems, Technology, and Trends," Pollution Engineering (July 1984).
- Yanggen & Amrhein, "Groundwater Quality Regulation: Existing Governmental Authority and Recommended Roles," 14 Colum. J. Envtl. L. 1 (1989).
- Yanggen & Webendorfer, "Groundwater Protection Through Local Land Use Controls," University of Wisconsin Extension Publication G3341 (draft), Madison, Wi. (1984).
- Yates, M., Septic Tank Siting to Minimize the Contamination of Ground Water by Microorganisms, Office of Ground Water Protection, U.S. Environmental Protection Agency, Washington, D.C. (June 1986).
- Yousef, Hvitved-Jacobsen, Harper & Yin, "Heavy Metal Accumulation and Transport Through Detention Ponds Receiving Highway Runoff," Department of Civil Engineering and Environmental Sciences, University of Central Florida, Orlando, Fl. (1990).



Yousef, Wanielista, Harper & Hvitved-Jacobsen, "Best Management Practices: Effectiveness of Retention/Detention Ponds for Control of Contaminants in Highway Runoff," Florida Department of Transportation, Tallahassee, Fl., and National Technical Information Service, Springfield, Va. (Aug. 1986).

Yousef, Wanielista, Harper, Pearce & Tolbert, "Best Management Practices: Removal of Highway Contaminants by Roadside Swales," Florida Department of Transportation, Tallahassee, Fl., and National Technical Information Service, Springfield, Va. (July 1985).

Zaporozec, A. (ed.), Groundwater Protection Principles and Alternatives for Rock County, Wisconsin, Special Report No. 8, Wisconsin Geological and Natural History Survey, Madison, Wi. (Sept. 1985).

---

## ***Appendix C: Sources of Information***

## **APPENDIX C**

### **SOURCES OF INFORMATION**

#### **I. ENVIRONMENTAL PROTECTION AGENCY**

Office of Ground-Water Protection  
U.S. EPA (WH-550G)  
401 M. Street, S.W.  
Washington, DC 20460  
(202) 382-7077

Office of Ground-Water  
Water Management Division  
U.S. EPA, Region IV  
345 Courtland Street, N.E.  
Atlanta, GA 30365  
(404) 347-3866

#### **II. U.S. GEOLOGICAL SURVEY**

The USGS has a District Office in Tallahassee and suboffices in Jacksonville, Miami, Orlando, Tallahassee, Tampa and Fort Myers. The Survey has collected a highly diversified data base on Florida's water resources ranging from hydrologic records networks to interpretive investigations of water resources.

Most reports by the U.S. Geological Survey on the water resources of Florida may be inspected in the District office of the Survey in Tallahassee, at its suboffices in Jacksonville, Miami, Orlando, Tallahassee, Tampa, and Fort Myers; at headquarters offices of the Water Management Districts in Florida at Brooksville, Havana, Live Oak, Palatka, and West Palm Beach; at libraries of the State University System in Boca Raton, Gainesville, Jacksonville, Miami, Orlando, Pensacola, Tallahassee (2), and Tampa; and at other depository libraries.

##### **A. USGS Offices**

District Office  
Suite F-240  
325 John Knox Road  
Tallahassee, FL 32303  
Telephone: (904) 386-7145

Suite 106  
4415 Beach Boulevard  
Jacksonville, FL 32207  
Telephone: (904) 791-2934

Suite 110  
7815 Coral Way  
Miami, FL 33155  
Telephone: (305) 350-5382

Suite 216  
80 North Hughey Avenue  
Orlando, FL 32801  
Telephone: (305) 420-6191

Suite L-103  
325 John Knox Road  
Tallahassee, FL 32303  
Telephone: (904) 386-2180

Suite B-5  
4710 Eisenhower Blvd  
Tampa, FL 33614  
Telephone: (813) 228-2124

Room 307, Federal Building  
First Street  
Fort Myers, FL 33901  
(813) 334-7787

Suite 10, Federal Building  
308 Tequesta Drive  
Jupiter, FL 33458  
Telephone: (305) 116-7680

Room 242, Federal Building  
207 NW 2nd Street  
Ocala, FL 32670  
(904) 629-8931

Suite 108, Federal Building  
111 South Orange Avenue  
Sarasota, FL 33577  
Telephone: (813) 955-9388

## **B. USGS Depository Libraries**

Florida Institute of Phosphate Research (FIPR)  
Library  
Bartow, Florida

Florida Atlantic University Library  
Boca Raton, Florida

Cocoa Public Library  
Cocoa, Florida

University of Miami Library  
Coral Gables, Florida

Nova University Library  
Dania, Florida

Pasco-Hernando County Community College  
Library  
Dade City, Florida

Museum of Arts & Sciences Library  
Daytona Beach, Florida

Walton-DeFuniak Library  
DeFuniak Springs, Florida

Stetson University Library  
Deland, Florida

Broward County Library System  
Ft. Lauderdale, Florida

University of South Florida - Ft. Myers  
Campus  
Ft. Myers, Florida

St. Lucie County Library  
Ft. Pierce, Florida

University of Florida Library  
Gainesville, Florida

Jacksonville Public Library  
Jacksonville, Florida

Jacksonville University - Swisher Library  
Jacksonville, Florida

University of North Florida Library  
Jacksonville, Florida

Archbold Biological Station Library  
Lake Placid, Florida

Lakeland Public Library  
Lakeland, Florida

Florida International University Library  
Miami, Florida

Miami-Dade Public Library  
Miami, Florida

Florida International University - Bay Vista  
Campus  
North Miami, Florida

Ocala Public Library  
Ocala

Orange County Library District  
Orlando, Florida

University of Central Florida Library  
Orlando, Florida

Bay County Public Library  
Panama City, Florida

University of West Florida  
Pensacola, Florida

Eckerd College Library  
St. Petersburg, Florida

St. Petersburg Public Library  
St. Petersburg, Florida

University of South Florida - Sarasota  
Campus  
Sarasota, Florida

Florida State University Library  
Tallahassee, Florida

State Library of Florida  
Tallahassee, Florida

Tallahassee Community College Library  
Tallahassee, Florida

Tampa-Hillsborough County Library  
Tampa, Florida

University of South Florida Library  
Tampa, Florida

West Palm Beach Public Library  
West Palm Beach, Florida

Rollins College Library  
Winter Park, Florida

#### **C. U.S. Geological Survey Publications Series**

##### **Series**

Professional Papers  
Bulletins  
Water-Supply Papers  
Journal of Research  
Techniques of Water-Resources  
Investigations  
Hydrologic Investigations Atlases  
Miscellaneous Investigations  
Series maps  
Circulars

Open-File Reports  
Water-Resources Investigations  
Water-Data Reports

##### **Office to Contact**

Branch of Distribution  
U.S. Geological Survey  
1200 South Eads Street  
Arlington, VA 22202

Florida District Office  
U.S. Geological Survey  
Suite F-240  
325 John Knox Road  
Tallahassee, FL 32303

The U.S. Geological Survey also issues a monthly list of "New Publications of the Geological Survey." For free subscriptions to this nationwide listing of new reports, write to:

U.S. Geological Survey  
329 National Center  
Weston, VA 22092

For copies of Professional Papers, Bulletins, Water-Supply Papers, Techniques of Water-Resources Investigations, or Circulars, write to:

U.S. Geological Survey  
Books and Open-File Reports  
Federal Center, Box 25425  
Denver, CO 80225

For additional information, write to:

District Chief  
U.S. Geological Survey  
Suite 3015  
227 North Bronough St.  
Tallahassee, FL 32301

### III. FLORIDA GEOLOGICAL SURVEY

The Florida Geological Survey has published the results of numerous water resources investigations, many of a local nature.

#### Series

Information Circulars  
Map Series  
Report of Investigators

#### Office to Contact

Florida Geological Survey  
Florida Department of Natural Resources  
903 West Tennessee Street  
Tallahassee, FL 32304

### IV. WATER MANAGEMENT DISTRICTS

The location of headquarters for the five Water Management Districts are listed. The WMD's have broad responsibilities in protecting Florida's water resources and conducting scientific investigations in addition to implementing certain types of regulatory programs.

Northwest Florida  
Water Management District  
Rt. 1, Box 3100  
Havana, FL 32333  
(904) 539-5999

Southwest Florida  
Water Management District  
2379 Broad Street  
Brooksville, FL 34609-6899  
(904) 796-7211

Suwannee River  
Water Management District  
Rt. 3, Box 64  
Live Oak, FL 32060  
(904) 362-1001

St. Johns River  
Water Management District  
P.O. Box 1429  
Palatka, FL 32178  
(904) 329-4500

South Florida  
Water Management District  
P.O. Box 24680  
West Palm Beach, FL 33416  
(407) 686-8800

## V. FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION

In addition to its permitting responsibilities, DER is actively involved in water resources management, both surface water and groundwater. Various forms of technical assistance are available. Office and various department locations are listed.

Florida Dept. of Environmental Regulation  
Office of Planning and Research  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

South Florida District Manager  
2269 Bay St.  
Fort Myers, FL 33901-2896  
(813) 332-2667/S.C. 721-7900

Florida Dept. of Environmental Regulation  
Stormwater Management Section  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400  
(904) 488-0782/S.C. 278-0782

Southwest Florida District Branch Office  
7451 Golf Course Blvd.  
Punta Gorda, FL 33982-9359  
(813) 639-4967/S.C. 721-7636

Northwest District Office  
160 Governmental Center  
Pensacola, FL 32501-5791  
(904) 436-8300/S.C. 695-8300

South Florida District Branch Office  
11400 Overseas Highway  
Suites 219-224  
Marathon, FL 33050  
(305) 743-5955/4334/S.C. 451-5091

Northwest District Branch Office  
340 W. 23rd Street, Suite E  
Panama City, FL 32405  
(904) 872-4375/S.C. 777-4375

Southwest District Satellite Office  
970 E. Main Center, Suite A  
Bartow, FL 33830  
(813) 534-7080

Northwest District Branch Office  
2600 Blair Stone Road  
Tallahassee, FL 32308-4419  
(904) 488-3704/S.C. 278-3704

Northwest District Satellite Office  
P.O. Box 9  
Apalachicola, FL 32320  
(904) 653-8165

Environmental District Center  
Highway 90 E & County Rd. 49  
Rt.3 Box 64  
Live Oak, FL 32060  
(904) 362-1001/S.C. 860-1001

Northeast District Manager  
7825 Bay Meadows Way, Suite B-200  
Jacksonville, FL 32256-7577  
(904) 448-4300/S.C. 888-4300

Southwest District Manager  
4520 Oak Fair Blvd.  
Tampa, FL 33610-7347  
(813) 623-5561/S.C. 552-7612

Northeast District Branch Office  
5700 S.W. 34th Street  
Suite 1204  
Gainesville, FL 32608  
(904) 336-2095/S.C. 625-2095

Central Florida District Manager  
3319 Maquire Blvd. Suite 232  
Orlando, FL 32803-3767  
(305) 894-7555/S.C. 325-1011

Central Florida Satellite Office  
13 East Melbourne Ave.  
Melbourne, FL 32901  
(305) 768-7611

Southeast Florida District Manager  
1900 S. Congress Ave., Suite A  
West Palm Beach, FL 33406  
(305) 964-9668/S.C. 221-5005

Southeast Florida District Branch Office  
2745 S.E. Morningside Blvd.  
Port St. Lucie, FL 34952  
(305) 878-3890 335-4310/S.C. 221-5053



## VI. REGIONAL PLANNING COUNCILS

The location of each Regional Planning Council is listed. Several RPC's have been active in the development and implementation of local 208 Water Management Plans. All serve as clearinghouses of planning information and technical assistance.

West Florida  
Regional Planning Council  
Post Office Box 486  
Pensacola, FL 32593-0486  
(904) 444-8910/S.C. 693-8910

Apalachee  
Regional Planning Council  
314 E. Central Ave. Rm. 119  
Blountstown, FL 32424  
(904) 674-4571/S.C. 771-4417

North Central Florida  
Regional Planning Council  
235 S. Main St., Suite 205  
Gainesville, FL 32601-6521  
(904) 336-2200/S.C. 625-2200

Northeast Florida  
Regional Planning Council  
9143 Phillips Highway  
Suite 350  
Jacksonville, FL 32256  
(904) 363-6350/S.C. 874-6350

Withlacoochee  
Regional Planning Council  
1241 S.W. 10th Street  
Ocala, FL 32674-2798  
(904) 732-1315/S.C. 667-1315

East Central Florida  
Regional Planning Council  
1011 Wymore Road  
Suite 105  
Winter Park, FL 32789  
(407) 623-1075/S.C. 334-1075

Central Florida  
Regional Planning Council  
Post Office Drawer 2089  
Bartow, FL 33830  
(813) 534-7130/S.C. 549-7130

Southwest Florida  
Regional Planning Council  
P.O. Box 3455  
North Ft. Myers, FL 33918-3455  
(813) 995-4282/S.C. 721-7290

Tampa Bay  
Regional Planning Council  
9455 Koger Boulevard, Suite 219  
St. Petersburg, FL 33702-2491  
(813) 577-5151/S.C. 586-3217

Treasure Coast  
Regional Planning Council  
Post Office Box 1529  
Palm City, FL 34990-0396  
(407) 221-4060/S.C. 269-4060

South Florida  
Regional Planning Council  
3440 Hollywood Blvd.  
Suite 140  
Hollywood, FL 33021  
(305) 961-2999 (Dade)  
(305) 620-4266 (Broward)

## **VII. U.S.D.A - SOIL CONSERVATION SERVICE**

The SCS has offices in almost every county in Florida. It provides technical assistance, conservation planning and implementation services to local landowners. SCS publishes detailed soil surveys which identify soil types and characteristics, and locate vegetation and water bodies. The state office published a directory with the addresses of local offices:

USDA - Soil Conservation Services  
State Office  
401 SE 1st Avenue  
P.O. Box 1208  
Gainesville, FL 32601

## **VIII. PROFESSIONAL ASSOCIATIONS**

American Institute of Professional  
Geologists  
P.O. Box 957  
Golden, CO 80401

Association of Engineering Geologists  
8310 San Fernando Way  
Dallas, TX 75218

National Society of Professional  
Engineers  
2029 K Street, N.W.  
Washington, D.C. 20006

National Water Well Association  
500 W. Wilson Bridge Road  
Worthington, OH 43085

American Water Resources Association  
5410 Grosvenor Lane, Suite 220  
Bethesda, MD 20814

## **IX. UNIVERSITY RESEARCH CENTERS**

Florida Water Resources Research  
Center  
424 Black Hall  
University of Florida  
Gainesville, FL 32611

Florida Cooperative Extension Service  
Institute of Food and Agricultural  
Sciences  
University of Florida  
Gainesville, FL 32611

Florida Sinkhole Research Institute  
Research Building A  
University of Central Florida  
Orlando, FL 32816