# JACKSONVILLE ENVIRONMENTAL PROTECTION BOARD

# RULE 8 GROUNDWATER RESOURCE MANAGEMENT

History:

Adopted Sep 1990 Amended May 13, 1991 Amended Dec 14, 1992 Amended Jul 11, 1994, Effective August 8, 1994 Amended June 12, Effective July 3, 1995 Amended May 9, 2005, Effective June 1, 2005 Amended October 10, 2005, Effective November 22, 2005 Amended May 8, 2006, Effective June 1, 2006 Amended February 14, 2011, Effective March 10, 2011

# RULE OF THE JACKSONVILLE ENVIRONMENTAL PROTECTION BOARD RULE 8 GROUNDWATER RESOURCE MANAGEMENT

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Part XII Effective Date – DELETED	Part XII PART DELETED

# JACKSONVILLE ENVIRONMENTAL PROTECTION BOARD RULE 8 GROUNDWATER RESOURCE MANAGEMENT

# PART I GENERAL PROVISIONS

# Specific Authority

The Jacksonville Environmental Protection Board adopts this rule with the specific Authority found in Sections 73.102, 360.108 and 366.201, Ordinance Code.

[History: New 2/14/11, Effective 3/10/11

# 8.101 Specific Rule Intent

It is the intent of the Board to create herein a Groundwater Resource Management Program Rule that will implement the policies stated in Section 366.101, Ordinance Code, effect the purposes contained in Section 366.102, Ordinance Code. Chapter 366, Ordinance Code, establishes the Department as the agency that will effectively and efficiently administer this program. The purpose of this rule is to:

- A. Establish wellhead protection policies to provide maximum protection from contamination of public water systems and primary water sources. These policies shall ensure the City's comprehensive plan goals and objectives regarding wellhead protection and related City ordinances are implemented;
- B. Enforce SJRWMD water shortage orders or SJRWMD water shortage emergency orders affecting the water use within the City, in accordance with the provisions of Chapter 40C-21, FAC;
- C. Assist the SJRWMD in the protection of groundwater resources within the County by providing data and analysis relevant to Consumptive Use Permit applications under review by the SJRWMD when the Department concludes it has pertinent information.
- Require studies and encourage other agencies to conduct studies to develop methods that more fully define and protect all groundwater resources within the County;
- E. Develop rules to ensure proper and safe construction of wells, to minimize interaquifer contamination hazards to public and private wells, and to administer any program or rule enforcement authority under Chapters 40C-3, 62-532, and 62-555, FAC, delegated by or authorized by the SJRWMD or FDEP, that regulates the construction, repair and abandonment of water wells within the geographical boundaries of the City, except for the following wells, which are permitted by SJRWMD or FDEP;
  - 1. wells within a Chapter 62-524, FAC, delineated area;
  - 2. Florida Department of Environmental Protection public water supply wells;

- 3. wells with diameters of 6 inches or more; or
- 4. ganged wells with combined diameters of 6 inches or more.
- F. Require that wells in the County are properly constructed, repaired or abandoned, and that appropriate well inventories and well construction, repair and abandonment permitting programs are established and maintained;
- G. Inform and educate the public about groundwater resource management practices, aquifer conditions, and water supply options that encourage:
  - 1. the reasonable beneficial use of water in accordance with Chapter 373 Florida Statutes, (F.S.), and regulations promulgated by the SJRWMD;
  - 2. the maximum reuse of water where feasible, and cost effective, and consistent with the policies and regulations of the Florida Department of Environmental Protection and the SJRWMD;
  - 3. the use of suitable water sources that are more quickly replenished over those that are less quickly replenished;
  - 4. the use of water sources of no higher quality than that needed for the intended use;
  - 5. all water users to install, maintain and use equipment, facilities and best management practices that represent current environmental technology to protect the resource and prevent waste.
- H. Establish rules that protect against groundwater resource degradation, such as salt water intrusion and man-induced groundwater contamination, other than that caused by water use.
- I. Establish a technical information clearinghouse and coordination body for groundwater related data, studies, condition and issues.

[History: Amended 2/14/11, Effective 3/10/11]

# 8.102 Definitions

The following definitions shall apply throughout this rule unless specifically defined elsewhere. When consistent with the context, words used in the present tense include the future, words in the plural number include the singular and words in the singular number include the plural. The word "shall" is always mandatory and not merely directive.

- A. Abandoned Well: A well, the use of which has been permanently discontinued or which is in such a state of disrepair, as determined by a representative of the SJRWMD or the Department, that its continued use for the purpose of obtaining groundwater or disposing of water or liquid wastes is impracticable, is considered to be abandoned.
- B. Abandonment of Water Wells: The act of plugging a water well in accordance with Department and SJRWMD rules.

- C. Aquifer: A hydrologic unit which consists of a related group of earth materials or only a part of earth materials, which is saturated with water and capable of transmitting usable quantities of water to wells or springs.
- D. Artesian Well: A well that penetrates a confined aquifer where the water level rises above the top of that aquifer.
- E. **Board:** The Jacksonville Environmental Protection Board.
- F. City: The consolidated City of Jacksonville, Duval County, Florida.
- G. **Conservation:** Actions which result in a reduction of water demand or result in the protection or preservation of the quality of the water supply source.
- H. Contractor: A water well contractor as defined in Rule 62-532.200, FAC.
- I. County: Duval County, Florida.
- J. **Department:** Environmental and Compliance Department, City of Jacksonville.
- K. **Director:** The Director of the Department or their authorized representative who shall be an employee or agent of the City.
- L. **Division:** Environmental Quality Division.
- M. **DOH:** Florida Department of Health Duval County Health Department.
- N. **Domestic Use or Domestic consumption:** The use of water for the individual personal household purposes of drinking, bathing, cooking, or sanitation. All other uses shall not be considered domestic.
- O. **FDEP:** Florida Department of Environmental Protection.
- P. **Field Logs:** An accurate, written documentation of all construction activities needed to fill out well completion reports.
- Q. Floridan Aquifer: Those earth materials first penetrated at varying depths greater than 250 feet (76.2m) below the ground surface in Duval County and that compose one or more of the following stratigraphic formations: limestones of the Ocala Group, Avon Park Limestone, Lake City Limestone or Oldsmar Limestone. The approximate depth to the top of the Floridan Aquifer is shown in Water Resources Investigation 77-144 by the United States Geological Survey (USGS), 1978 or as revised.
- R. Groundwater: Water beneath the surface of the ground, whether or not flowing through known definite channels.
- S. Groundwater Resource Management: All those actions which are necessary to accomplish the objectives of Sections 366.101 through 366.103, Ordinance Code, but specifically excluding water use regulation.
- T. Grout: A mixture of water and either Portland cement, (American Concrete Institute Type I, Type II, Type III, or any other types of cement approved by the

SJRWMD) or Bentonite and acceptable additives approved by the SJRWMD.

- U. **Grouting:** Filling the annular space around a well casing or closed loop with a suitable slurry of Portland cement or Bentonite.
- V. Heat Pump Systems:
  - 1. Closed Loop Heat Pump System a heat pump system that withdraws water from well or surface water supply, passes it once through a heat exchanger and returns the water to that source.
  - 2. Earth Coupled Closed Loop a closed tube heat exchanger installed in the ground either vertically or horizontally and filled with International Ground Source Heat Pump Association (IGSHPA) approved fluid circulating under pressure between the loop and the heat pump.
  - 3. Open-Loop Heat Pump System a heat pump system that withdraws water from a well or surface water supply, passes it once through a heat exchanger, and discharges the water to a surface water body, land surface, storm or sanitary sewer system.
- W. Industrial Process Water Supply Well: A well that includes those many uses wherein the water serves the purposes of manufacturing, commerce, trade or industry.
- X. **Injection Well:** A well into which fluids are being or will be injected by gravity flow or under pressure.
- Y. **Irrigation:** The methods of artificially applying water to plant growth media or directly to living plant material.
- Z. **JEA**: The main public utility of Jacksonville, Florida which provides electric generation, potable drinking water, and sanitary sewage services (formerly Jacksonville Electric Authority).
- AA. **Monitoring Well:** A well constructed according to SJRWMD and/or FDEP specifications, which is only used for locating, sampling, and/or characterizing the groundwater.
- BB. **Non-Potable Water:** Water which is not approved as meeting health standards suitable for potable use.
- CC. Ordinance Code: City of Jacksonville Ordinance Code.
- DD. Well Permit Applicant: The property owner or the owner's authorized agent, as designated in writing by the property owner, which may or may not be the contractor performing work for the property owner.
- EE. **Person:** Has the meaning given to it in Section 1.102(II), Ordinance Code, and in addition includes any officer, employee, agent, department or instrumentality of the Federal Government, any state, municipality, or political subdivision of the state, or of any foreign government.

- FF. **Potable Water:** Water used for drinking, culinary purposes, personal hygiene or other domestic purposes which is approved as meeting the standards contained in Chapters 64E-8, 62-524, 62-532, 62-550, 62-555, or 40C-3, FAC.
- GG. **Public Potable Water Well:** For the purposes of the wellhead protection program, means any water well completed into the Floridan Aquifer which supplies potable water to a community water system or to a non-transient, non-community water system, as those terms are defined in Rule 62-521.200, FAC.
- HH. **Public Water System or "PWS"**: Shall mean a system for the provision to the public of water for human consumption through pipes or other constructed conveyances, if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.
- II. **Public Water Supply System:** Any water system meeting the requirements of either Chapters 62-550, 62-555 or 62-560, FAC, for "community or non-community" category, or meeting the requirements of Chapter 64E-8, FAC, for "other public" category.
- JJ. **Public Water Supply Utility or "Utility"**: Means the owner of a public potable water well or wellfield.
- KK. **Public Water Supply Well:** A well that is constructed for the purpose of supplying water to a public water system, as permitted under Chapters 62-532, 62-550, 62-555, 62-560 and 64E-8, FAC.
- LL. **Reasonable Beneficial Use:** The use of water in accordance with Chapter 373 Florida Statutes, (F.S.), and rules promulgated by the SJRWMD.
- MM. **Resource Conservation:** Those actions necessary to protect water supply sources such as, but not limited to:
  - Wellhead protection;
  - Identification of, and protection from groundwater contamination or degradation such as salt water intrusion;
  - Development of alternative water supply sources and encouraging their use.
- NN. SJRWMD: St. Johns River Water Management District.
- OO. Service Connection: A single service line, which supplies potable or reclaimed water to consumers from a public water supply system.
- PP. Test Hole or Exploratory Well: Any temporarily cased or uncased hole drilled, bored, cored, washed, or jetted, the intended use of which includes obtaining data for engineering or for geophysical or geological exploration, prospecting for minerals or products of mining or quarrying, but not for the purposes of producing, disposing of, or searching for water.
- QQ. Waste: Causing, suffering, or permitting any water flowing from, or being pumped from, an artesian well to run into any river, creek, or other natural watercourse or channel, or into any bay or pond (unless used thereafter for the beneficial purposes of irrigation of land, mining, or other industrial purposes or domestic use), or into any street, road or highway, or upon the land of any person, or upon the public lands of the United States or of the state, unless it is

used thereon for the beneficial purposes of the irrigation thereof, industrial purposes, domestic use, or the propagation of fish. The use of any water flowing from an artesian well for the irrigation of land shall be restricted to a minimum by the use of proper structural devices in the irrigation system.

- RR. Water Cooled Heat Pumps or Water Source Heat Pump: Single or reverse cycle mechanical devices for heating or cooling which require the use of water as a medium for heat transfer.
- SS. Water Well or Well: A well as defined in F.S. 373.303(7) which is any excavation that is drilled, cored, bored, washed, driven, dug, jetted, or otherwise constructed when the intended use of such excavation is for the location, acquisition, development, or artificial recharge of groundwater. This does not include any well for the purpose of obtaining or prospecting for oil, natural gas, minerals, or products of mining or quarrying; for inserting media to dispose of oil brines or to re-pressure oil-bearing or natural gas-bearing formation; for storing petroleum, natural gas or other products; or for temporary dewatering of subsurface formations for mining, quarrying or construction purposes.
- TT. Well Construction: All acts necessary to obtain groundwater by wells, including the location, excavation and sealing of the well, but excluding the installation of pumps and pumping equipment.
- UU. **Well Diameter:** The internal casing diameter of the well measured at its opening in the water-bearing zone if known or the diameter of the well at the land surface.
- VV. Well Abandonment Plugging a well in accordance with SJRWMD or FDEP rules.
- WW. **Well Repair:** Any action, including rehabilitation, which involves the physical alteration or replacement of any portion of a well which is below land surface.
- XX. Well Seal: A device, technique, or method to prevent contaminants from entering the well.
- YY. **Wellfield**: More than one public potable water well owned by a public water supply utility in close proximity to each other.
- ZZ. Wellhead Protection Area: An area consisting of a 750' radial setback distance around a public potable water well where stringent measures are provided to protect the ground water source from contamination and includes the surface and subsurface area surrounding the well.
- AAA. Wellhead Protection Area Map: A map showing the location of the boundary of each of the wellhead protection areas.

[History: Amended 2/14/11, Effective 3/10/11]

# 8.103 Severability

The provisions of these rules are severable. If one or more of the provisions are invalidated, the Board intends that the other portions should become effective or remain in effect.

[History: Amended 2/14/11, Effective 3/10/11]

# 8.104 Variances

A variance from the Rules of the Board may be requested as provided in Sections 360.111, and 366.203, except that variances from Section 366.504, Ordinance Code, landscape irrigation restrictions, shall only be granted in accordance with Section 366.506, Ordinance Code.

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[History: New 2/14/11, Effective 3/10/11]
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## 8.105 Appeals

Appeals shall be in accordance with Section 360.112 and Chapter 360, Part 4, Ordinance Code.

[History: New 2/14/11, Effective 3/10/11]

#### 8.106 Penalties and Damages

Penalties for violations of this Rule shall be in accordance with Chapter 362, Part 1, Chapter 360, Part 5, and Chapter 366, Part 2, Ordinance Code.

[History: New 2/14/11, Effective 3/10/11]

#### 8.107 Enforcement

Enforcement of violations of this Rule shall be in accordance with Chapter 360, Part 4, and Chapter 366, Part 2, Ordinance Code.

[History: New 2/14/11, Effective 3/10/11]

#### PART II WELLHEAD PROTECTION

#### 8.201 Wellhead Protection and Regulation Program

The wellhead protection area maps used by the Division in the wellhead protection program are adopted and incorporated by reference in this section. The maps are listed by rule number, which is also the map number, with the subject, title, and effective date. Wellhead protection area maps 8.201 (1) - (66) are available and may be obtained in person or by writing to the Environmental Quality Division, 407 N. Laura Street, Third Floor, Jacksonville, Florida 32202.

- (1) Wellhead Protection Area Map for Marietta. (Effective 05-09-05).
- (2) Wellhead Protection Area Map for Main Street. (Effective 10-10-05).
- (3) Wellhead Protection Area Map for Hendricks Avenue No. 1 (Effective 10-10-05).
- (4) Wellhead Protection Area Map for Hendricks Avenue No. 2 (Effective 10-10-05).
- (5) Wellhead Protection Area Map for Hendricks Avenue No. 3 (Effective 10-10-05).
- (6) Wellhead Protection Area Map for River Oaks No. 1 (Effective 10-10-05).
- (7) Wellhead Protection Area Map for River Oaks No. 2 (Effective 10-10-05).
- (8) Wellhead Protection Area Map for Norwood No. 1 (Effective 5-08-06).
- (9) Wellhead Protection Area Map for Norwood No. 2 (Effective 5-08-06).
- (10) Wellhead Protection Area Map for Lakeshore No. 1 (Effective 5-08-06).
- (11) Wellhead Protection Area Map for Lakeshore No. 2 (Effective 5-08-06).
- (12) Wellhead Protection Area Map for Lovegrove (Effective 5-08-06).
- (13) Wellhead Protection Area Map for Arlington No 1 (Effective 5-08-06).
- (14) Wellhead Protection Area Map for Arlington No. 2 (Effective 5-08-06).
- (15) Wellhead Protection Area Map for McDuff No. 1 (Effective 5-08-06).
- (16) Wellhead Protection Area Map for McDuff No. 2 (Effective 5-08-06).
- (17) Wellhead Protection Area Map for Groff Apts. (Effective 3-05-07).
- (18) Wellhead Protection Area Map for Happy Acres Ranch (Effective 3-05-07).
- (19) Wellhead Protection Area Map for Mayport (Effective 3-05-07).
- (20) Wellhead Protection Area Map for Ridenour (Effective 3-05-07).
- (21) Wellhead Protection Area Map for Brierwood (Effective 3-05-07).
- (22) Wellhead Protection Area Map for Community Hall No. 1 (Effective 3-05-07).
- (23) Wellhead Protection Area Map for Community Hall No. 2 (Effective 3-05-07).
- (24) Wellhead Protection Area Map for Fairfax (Effective 3-05-07).
- (25) Wellhead Protection Area Map for Beacon Hills (Effective 8-01-07).
- (26) Wellhead Protection Area Map for Beauclerc Bay Apts (Effective 8-01-07).
- (27) Wellhead Protection Area Map for Cecil Commerce Ctr (Effective 8-01-07).
- (28) Wellhead Protection Area Map for Crystal Springs Estates (Effective 8-01-07).
- (29) Wellhead Protection Area Map for Deerwood I (Effective 8-01-07).
- (30) Wellhead Protection Area Map for Deerwood III (2 pages) (Effective 8-01-07).
- (31) Wellhead Protection Area Map for Highlands (Effective 8-01-07).
- (32) Wellhead Protection Area Map for Hope Chapel/Trout River MHP (Effective 8-01-07).
- (33) Wellhead Protection Area Map for Leon Rd Mobile Home Park (Effective 8-01-07).
- (34) Wellhead Protection Area Map for Montgomery Correctional (Effective 8-01-07).
- (35) Wellhead Protection Area Map for Oak Ridge (Effective 8-01-07).
- (36) Wellhead Protection Area Map for Royal Court MHP (Effective 8-01-07).
- (37) Wellhead Protection Area Map for Royal Lakes (Effective 8-01-07).
- (38) Wellhead Protection Area Map for Shady Oaks/Briarwood Estates (Effective 8-01-07).
- (39) Wellhead Protection Area Map for Silver Dolphin MHP (Effective 8-01-07).
- (40) Wellhead Protection Area Map for Southwest (Effective 8-01-07).
- (41) Wellhead Protection Area Map for Westlake (Effective 8-01-07).
- (42) Wellhead Protection Area Map for Woodmere (Effective 8-01-07).

(43) Wellhead Protection Area Map for Blair Rd Apts (Effective 1-16-08). (44) Wellhead Protection Area Map for City of Atlantic Beach (Effective 1-16-08). (45) Wellhead Protection Area Map for Country Roads MHP (Effective 1-16-08). (46) Wellhead Protection Area Map for Dagail Apartments (Effective 1-16-08). (47) Wellhead Protection Area Map for Daniel Memorial Hospital (Effective 1-16-08). (48) Wellhead Protection Area Map for Dinsmore Community Corr (Effective 1-16-08). (49) Wellhead Protection Area Map for 1st United Pentecostal Church (Effective 1-16-08). (50) Wellhead Protection Area Map for Grazing Meadows/Circle (Effective 1-16-08). (51) Wellhead Protection Area Map for JHP-Spanish Oaks Apts (Effective 1-16-08). (52) Wellhead Protection Area Map for Jacksonville University (Effective 1-16-08). (53) Wellhead Protection Area Map for Cobblestone (Effective 8-04-08). (54) Wellhead Protection Area Map for Monument Road (Effective 8-04-08). (55) Wellhead Protection Area Map for Southeast (Effective 8-04-08). (56) Wellhead Protection Area Map for Maxville Community Center (Effective 8-04-08). (57) Wellhead Protection Area Map for Neighborhood Utilities (Effective 8-04-08). (58) Wellhead Protection Area Map for Normandy Utilities (Effective 8-04-08). (59) Wellhead Protection Area Map for Old Plank Road Baptist Church (Effective 8-04-08). (60) Wellhead Protection Area Map for USN NAS Cecil Field (Effective 8-04-08). (61) Wellhead Protection Area Map for USN NAS Jacksonville (Effective 8-04-08). (62) Wellhead Protection Area Map for USN NS Mayport (Effective 8-04-08). (63) Wellhead Protection Area Map for Yukon Station Community (Effective 8-04-08). (64) Wellhead Protection Area Map for Ridenour (Effective 10-5-09). (65) Wellhead Protection Area Map for Oakridge (Effective 10-5-09). (66) Wellhead Protection Area Map for Juvenile Detention Facility (Effective 10-5-09).

[History: Amended 2/14/11, Effective 3/10/11]

# PART III WATER SHORTAGE PLAN

### 8.301 Monitoring and Enforcement

- A. If SJRWMD has declared a water shortage warning or water shortage emergency, the public water suppliers may submit the monitoring information required in Rule 40C-21.401, FAC, to the Department. Additional information may be requested by the Department as needed.
- B. The Board may request the assistance of the Jacksonville Sheriff's Office and the Police Departments of the other municipalities within the County to enforce a SJRWMD declared water shortage order or water shortage order emergency.

# PART IV STUDIES REQUIRED

## 8.401 Inventory Required

- A. The Department shall conduct or cause to be conducted, an inventory of all wells within the County including those that have been abandoned. The Department shall request from each property owner information pertaining to water production, consumption and conservation. At a minimum, property owners shall be responsible for providing the following information to the Department:.
  - 1. Location of the well, by reference to the most detailed and exact property description possible, including but not limited to lot, block, subdivision and/or real estate assessment number, latitude and longitude coordinates, or street address;
  - 2. Name and address of the owner, occupant or tenant of the property on which the well is located;
  - 3. Depth and diameter of the well, if available;
  - 4. Flow rate/capacity (gallons per minute), If available;
  - 5. Uses to which the water from the well is being put, the place or places using the water and any known limitations on water use, or if the well is no longer being used, when such use stopped; and
  - 6. Static and pumping water levels, if available.
- B. The well inventory shall be updated and maintained on an on-going basis. Floridan Aquifer wells and wells within 500 feet of known or suspected contamination sites shall be given priority.
- C. The Department shall assemble and publish an inventory of wells within the County containing such factual and statistical data and information as the Department considers necessary to aid in construction of water management models on an as needed basis. This well inventory shall be presented to the Board upon request and maintained in a current status by the addition of new wells, abandoned wells, and plugged wells.
- D. The Department shall annually verify the accuracy of the well inventory by conducting verification audits. The Department may conduct, or cause to be conducted, such supplemental inventories of the wells within the County if it considers this action is necessary to check the accuracy of the inventory.
- E. Upon notice by the Department, all persons owning or occupying any real property in the County which contain wells, are responsible for reporting the existence of all wells on their property and providing the information, if available, required in Board Rule 8.401.A to the Department.

# 8.402 Logs and Reports

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To ensure data is available for inventory, water well contractors shall submit to the Department copies of all well applications not otherwise reviewed or processed by the Department and all well permits not otherwise issued by the Department. Upon request by the Department or as otherwise required by this Rule, water well contractors shall submit all field logs and water well completion reports for wells in Duval County, pursuant to Section 366.302, Ordinance Code.

# PART V WATER WELLS

#### 8.501 Well Construction

- A. Wells shall be located, constructed, cased, grouted, plugged, capped, or sealed to prevent uncontrolled surface flow, uncontrolled movement of water from one aquifer or water bearing zone to another, contamination of groundwater or surface water resources, or other adverse impacts, and shall be in compliance with the minimum standards set forth in the Chapter 40C-3, FAC, Chapters 62-532, 62-550, 62-555 and 62-560, and Chapter 64E-8, FAC, and Board Rule 8.501, whichever are more stringent.
- B. The following additional local standards are adopted:
  - 1. Within contaminated areas, construction materials used in well casing or water distribution lines shall be capable of withstanding, or encased in materials capable of withstanding, the destructive or corrosive properties of the contaminant encountered at a site;
  - 2. Unless exempt from permitting under Board Rule 8.503, all wells shall be permitted by the Department, excluding wells that are:
    - a. Within a Chapter 62-524, FAC, delineated area;
    - b. Florida Department of Environmental Protection public water supply wells;
    - c. 6 inches or more in diameter; or
    - d. Ganged wells with combined diameters of 6 inches or more.
- C. Well Setback Distances:
  - 1. All new wells to be constructed shall be separated from existing or potential sources of contamination based upon the distances established in FAC Chapter 62-532, Table 1.
  - 2. New wells must not be placed on a property line.
  - 3. In the event that a proposed well will not be able to meet the applicable setback requirements as described in Board Rule 8.501.C.1, above, the provisions of Rules 64E-8.009 and 40C-1.1003, FAC, may be applicable. The Department will consider any variances granted by DOH or SJRWMD if submitted with the well permit application.
  - 4. The owner or water well contractor may propose alternative construction criteria to DOH, SJRWMD and/or FDEP. The Department will review and provide comments to DOH, SJRWMD, and/or FDEP on any proposed alternative construction criteria. A variance from the Rules of the Board may be requested in accordance with Board Rule 8.104.

# 8.502 Well Construction Information Required

- A. Copies of the state well completion reports and any well construction permits and certifications required by any state agency or the SJRWMD shall be submitted by the permittee or water well contractor to the Department not later than 30 days after well completion, pursuant to Section 366.602, Ordinance Code.
- B. Any person intending to drill a well in the County that requires a well construction permit by any state agency, including the SJRWMD, must obtain the well construction permit prior to the well being drilled and provide a copy of the permit to the Department.

[History: Renumbered and Amended 2/14/11, Effective 3/10/11]

# 8.503 Permit Requirements

- A. Unless expressly exempted by Florida Statutes or Chapter 40C-3, FAC, a well construction permit must be obtained from the Department prior to the construction, repair or abandonment of all wells less than six (6) inches in diameter. Specifically, this includes the following classes of wells:
  - 1. Any well less than six (6) inches in diameter including, but not limited to, private domestic water supply wells, irrigation wells, industrial process wells, or monitoring wells;
  - 2. Any injection well less than six (6) inches diameter;
  - 3. Limited Use wells as defined in Chapter 64E-8, FAC, which are less than six (6) inches in diameter;
  - 4. Well abandonments for all wells less than six (6) inches in diameter;
  - 5. Other wells as delegated to the Department by the SJRWMD.
- B. In addition to wells exempted by Florida Statutes or Chapter 40C-3, FAC, the following are exempted from the requirements of Board Rule 8.503:
  - 1. Wells within a Chapter 62-524, FAC, delineated area;
  - 2. Florida Department of Environmental Protection public water supply wells;
  - 3. Wells with diameters of 6 inches or more; or
  - 4. Ganged wells with combined diameters of 6 inches or more.
- C. Any allowable wells to be constructed on a Superfund or ash site subject to an EPA Consent Decree or on a site with institutional controls shall, at a minimum, meet Chapter 62-524, FAC, and Rule 8.501 construction requirements. Specific construction standards may be required on a case-by-case basis. All soil cuttings from allowable wells within Superfund, ash, or institutional control sites shall be containerized and properly disposed of offsite.
- D. No exploration or boring hole shall be converted to a water well until a well construction permit is obtained.

- E Any person wishing to apply for a permit must submit a completed permit application to the Department on forms supplied by the Department. The permit is not valid until properly signed by an authorized representative of the Department and shall be available at the well site during all well construction, repair or abandonment activities.
- F. The following activities are exempt from the permitting requirements of this Rule:
  - 1. Wells which require a well construction permit issued by any state agency, including the SJRWMD;
  - 2. Wells that are within a Chapter 62-524, FAC, delineated area;
  - 3. Wells with diameters of 6 inches or more; and
  - 4. Ganged wells with combined diameters of 6 inches or more.
- G. Those persons constructing, repairing or properly abandoning wells, as defined in Board Rule 8.503.D, shall report information to the Department as described in Board Rule 8.502.A.
- H. Any person constructing an exempt well shall comply with the construction standards of Board Rule 8.501.

### 8.504 Permit Applications

Applications for well permits for construction, abandonment, or repair of a well shall be made on forms issued or approved by the Department. Permit applications must be submitted by the property owner, on whose property the well will be located, or the owner's agent. All permit applications shall contain the following information:

- A. The name and address of the applicant, who shall be the owner of the property, or their agent, upon which the well is or will be located. If the applicant is other than the property owner, written authorization from the property owner designating an authorized agent to apply for said permit shall be required;
- B. The name, address, telephone number, signature and state license number of the well contractor who is to perform the work;
- C. The location of the well (to the nearest one-quarter section, or latitude and longitude to the nearest second, or state plane coordinates to the nearest one hundred feet), and a site map of the well location depicting landmarks and possible sources of contamination, and providing a scale;
- D. The expected depth of the well;
- E. The proposed use of the well;
- F. The desired flow rate and the estimated average daily production volume of the proposed well;

- G. The proposed well construction, including the proposed construction, repair or abandonment method and construction specifications including, but not limited to:
  - 1. Diameter of drill bit(s), auger(s) or other drilling tool(s) proposed for use;
  - 2. Casing material types, diameters, and depths;
  - 3. Open hole or screened intervals and diameter;
  - 4. Screen slot size;
  - 5. Proposed grouting materials;
- H. The proposed pump size;
- I. The signature of the owner, or his authorized agent and the licensed well contractor who is to perform the work;
- J. For potable, domestic, irrigation or public use, a copy of the water availability determination, including reuse or reclaimed water supplied by a serving utility or similar statement from the appropriate community public water system indicating that the public water system does not abut the site or that the serving utility is unable or unwilling to provide water to this site for the purposes intended; and
- K. The Real Estate (RE) number of the parcel issued by the Duval County Property Appraiser's Office.

# 8.505 Permit Fee

- A. Application for a well construction permit shall be accompanied by an application fee as required under Chapter 123, Ordinance Code.
- B. No permit fee is required for well abandonments.

[History: Renumbered and Amended 2/14/11, Effective 3/10/11]

#### 8.506 Permit Duration

A permit for well construction, repair or abandonment shall be valid for a period of 1 year from the date of permit issuance.

[History: Renumbered and Amended 2/14/11, Effective 3/10/11]

#### 8.507 Criteria for Permit Issuance, Denial or Revocation

- A. A permit issued by the Department shall not become a vested right. The Department may deny or revoke a well permit issued by the Department for the following reasons:
  - 1. The property owner, well permit applicant or contractor has submitted false or inaccurate information in his application; or

- 3. The property owner, well permit applicant or contractor has failed to submit reports or other information required by this rule; or
- 4. The property owner, well permit applicant or contractor\_has refused lawful inspection of the well under this Rule or Chapter 366, Ordinance Code; or
- 5. The property owner, well permit applicant or contractor has not properly completed the well application with the information required in Board Rule 8.504; or
- 6. The property owner, well permit applicant or contractor installed a well which substantially deviated from what was indicated on the well permit application; or
- 7. The property owner is using a well permitted by the Department in a manner different from its intended or permitted purpose as indicated on the well permit application or in violation of well construction standards in Chapters 62-532 and 40C-3, FAC, and this rule.
- B. A permit shall be issued or denied within timeframes allowed by Chapter 120, F.S.
- C. Incomplete permit applications will not be processed until all required information is submitted to the Department. The Department shall request additional information within 30 days after receipt of a permit application. The property owner or applicant must submit a response within 30 days of notification by the Department or the permit may be denied.
- D. If the Department discovers any violations of the requirements in this Rule, the Department may require the well to be properly abandoned or plugged, brought into compliance or refer the matter to SJRWMD for action if required. If abandonment is required, the property owner or applicant must properly abandon the well within 30 days of notification by the Department.

# 8.508 Permit Denial or Revocation Procedures

A permit may be denied or revoked by the Department in accordance with the procedures below:

- A. The notice of intent to deny or revoke shall be accompanied by written notice citing the specific rule the permittee is alleged to have violated in Board Rule 8.507;
- B. Upon receipt of said written notice, the construction or use of the well shall cease. The property owner or applicant shall respond to the notice in writing within 10 days, specifying the date that construction or use ceased. The property owner or applicant may propose, in writing, corrective action for approval by the Department; or within 10 working days of receipt of the notice, the property owner or applicant may request a hearing before the Board.

- C. Board hearings for well permit denials or revocations shall be conducted in accordance with Part 4, Chapter 360, Ordinance Code;
- D. Following the hearing, the Board may deny the permit issuance or revoke the issued permit.

#### 8.509 Inspections

- A. Inspection of well construction, repair and abandonment will be conducted by the Department. Upon Department request, the property owner, well permit applicant or the contractor shall advise the Department of best estimates of the date(s) and time(s) when the contractor will begin work at a site. In addition, if requested by the Department, a contractor shall provide to the Department the location and current status of any well construction, repair or abandonment in progress.
- B. The property owner or authorized agent must notify the Department at least one working day prior to the construction, repair or abandonment of any of a public water supply well less than six (6) inches in diameter, and not covered or included in the Florida Safe Drinking Water Act (Chapter 64E-8, FAC, list of wells).
- C. If during construction, a condition is discovered which was unforeseen prior to the beginning of work, and if said condition is unique and of a nature to indicate that special construction techniques should be considered, the condition shall be reported by the property owner or authorized agent immediately upon discovery to the Department.
- D. Upon completion of well construction, but prior to installation of any pumping related items or other well or site changes that might limit access to the well, the property owner or authorized agent shall notify the Department and may be required to make the well available for down hole logging or other testing by the Department or its representatives, if requested.

#### PART VI DRILLERS AND CONTRACTORS

#### 8.601 Registration Required

- A. Any well contractor who constructs, repairs, alters or properly abandons wells or test holes of any size in the County shall be required to register with the Department. Registration shall occur annually by filing a copy of the current State Water Well Contractor license and/or certification with the Department, on or before October 1 of each year. In addition, the registration filed with the Department must have the well contractor's current address, e-mail address and phone number.
- B. There is no fee for registration.
- C. Exemptions Persons exempt from the SJRWMD and state water well contractor licensure requirements are also exempted from the contractor registration requirements of this Rule.

#### PART VII GROUNDWATER RESOURCE MANAGEMENT REQUIREMENTS

## 8.701 Goal

The purpose of this Part is to provide practical steps to implement the groundwater resource management objectives of Chapter 366, Ordinance Code.

[History: New 2/14/11, Effective 3/10/11]

## 8.702 Groundwater Resource Management Program

Within 30 days of a request by the Department, all Consumptive Use Permit (CUP) holders shall provide to the Department such data as may be necessary to assess groundwater conditions and to work with other agencies to protect groundwater resources.

[History: Renumbered and Amended 2/14/11, Effective 3/10/11]

### 8.703 Groundwater Resource Management Plan

- A. The Department shall establish legal descriptions and mapping for SJRWMD delineated "Floridan Aquifer Recharge Areas" following SJRWMD determination that such areas are in the County. The legal descriptions and mapping shall be updated as new data becomes available.
- B. The City shall request SJRWMD to identify areas of critical concern considering regional groundwater flow for areas containing:
  - 1. Aquifer recharge:
  - 2. Aquifer contamination; and
  - 3. Aquifer saltwater intrusion.
- C. The Department shall review State and SJRWMD Groundwater Resource Management plans and regulations, such as the "District Water Management Plan" and "Aquifer Protection Plan", on an ongoing basis. Based on these reviews and working with the Planning and Development Department and other agencies, the Department will propose to the Board and/or Mayor's office, draft revisions to the Ordinance Code needed to improve the protection of groundwater resources within the County. Issues that might be addressed include land use, drainage, and development standards. The objective is to protect groundwater aquifer recharge areas and areas of critical groundwater concern.
- D. The Department may develop an aquifer recharge plan for principal aquifers which protects and/or enhances the contributory water quality and maintains or increases the volume of fresh water available for recharge on an ongoing basis.

# 8.704 Floridan Aquifer Water Quality Protection Program

In certain areas of the County, while a particular withdrawal of a quantity of water from the Floridan Aquifer may have no significant adverse impact on present legal users, the immediate localized impact, caused by the drawdown of the well, may present a significant danger to the aquifer because of chloride or salt water intrusion. To protect the Floridan Aquifer from damage, dependent on the location of the well, water quality protection measures are hereby established:

- A. The Department shall provide information to SJRWMD when it believes amounts a user may withdraw water from the Floridan Aquifer could damage the quality of the Floridan Aquifer.
- B. Water Quality Protection Area Designation (WQPA). A WQPA is an area which requires enhanced protection. The Department shall propose to the Board areas that require such a designation and the Board shall determine whether a designation is appropriate based on:
  - 1. Existing water quality, e.g., where natural conditions yield poor water quality;
  - 2. Potential water quality problems, e.g. areas where there is some indication of salt water intrusion (i.e., chlorides exceeding 50 mg/l);
  - 3. Areas within major cones of depression as identified from potentiometric maps;
  - 4. Areas of existing high pumpage, e.g., Arlington wellfields and Mandarin wellfields; and
  - 5. The presence of contamination sites regulated by the U.S. Environmental Protection Agency or FDEP and/or Board-designated contamination sites.

Such a designation is to be used to determine priority for monitoring and investigation by the Department and for necessary studies of water quality within the County.

- C. The following special requirements shall apply to owners of Floridan Aquifer wells which meet or exceed the SJRWMD Consumptive Use Permitting thresholds:
  - 1. At least 24 hours prior to new well construction, SJRWMD permittees or contractors shall provide a copy of SJRWMD Well Construction Permit and the Consumptive Use Permit to the Department;
  - 2. Within 30 working days of a request from the Department, all owners of Floridan Aquifer wells applying for, or currently under, a Consumptive Use Permit with the SJRWMD shall provide the Department with copies of all Consumptive Use Permit-related reports and information supplied to the SJRWMD, including hydrogeologic and monitoring reports.
  - 3. If a SJRWMD permittee is required to submit a plan for SJRWMD approval to abate an impact caused by saline water intrusion, a copy of the plan

must also be submitted to the Department within 10 days of submittal of the plan to the SJRWMD.

[History: Renumbered and Amended 2/14/11, Effective 3/10/11]

#### 8.705 Groundwater Quality Standards

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Rules 62-520.400 through 62-520.520, FAC, are hereby adopted and incorporated by reference as the City's ambient water quality standards for ground waters.

[History: Renumbered and Amended 2/14/11, Effective 3/10/11]

#### 8.706 Groundwater Clean Up Target Levels

Chapter 62-777, Table I, FAC, is hereby adopted and incorporated by reference as the City's Groundwater Clean Up Target Levels.

[History: New 2/14/11, Effective 3/10/11]

## PART VIII PROTECTION AGAINST GROUNDWATER DEGRADATION

# 8.801 Goal

The goal of this Part is to protect the groundwater from degradation by:

- A. Facilitating conservation and waste reduction;
- B. Encouraging the lowest quality and quantity of groundwater necessary to satisfy a given use;
- C. Protecting aquifers against the inter-aquifer and intra-aquifer transfer of pollutants due to the following;
  - 1. Failed well casings;
  - 2. Improper well construction, repair and abandonment;
  - 3. Improper water-cooled heat pump construction; or
  - 4. Improper operation and construction of drainage, absorption, and injection wells; and
- D. Encouraging the use of lowest quality water or reuse water when applicable.

[History: Renumbered and Amended 2/14/11, Effective 3/10/11]

# 8.802 Irrigation Wells

- A. The Department will encourage that groundwater used for irrigation purposes should be limited to only that necessary for efficient utilization and be from the lowest quality water source. Specifically:
  - 1. Lowest groundwater quality should be the lowest quality compatible with irrigation use, but should not be of a quality to cause harm or damage to plants, vegetation or other property;
  - 2. Sufficient water quantity should be the minimum amount of water needed to support plant growth and propagation.
- B. Approved backflow prevention devices shall be installed between the wellhead and any permanently installed irrigation distribution system. The backflow prevention device shall be maintained in operable condition at all times.
- C. The Department will encourage that irrigation wells should not be drilled on property adjacent to any reuse line or reuse system willing and able to serve that site.
- D. Irrigation well permits issued by the Department shall be subject to the following provisions:
  - 1. If the irrigated site is included in a designated water reuse zone in the

future or a reuse line becomes available adjacent to the site and the existing well fails, the owner may be required, pursuant to other City ordinances and regulations, including Chapter 752, Ordinance Code, to connect to the reuse line;

- 2. Use of the well shall be subject to all applicable water shortage restrictions pursuant to a Water Shortage Declaration issued by the SJRWMD; and
- 3. All irrigation systems shall meet or exceed the standards and specification as set forth in the latest editions of the Florida Building Code-Plumbing section, and the Florida Irrigation Society's Standards and Specifications for Turf and Landscape Irrigation Systems.
- E. Landscape irrigation, whether by irrigation well or other water supply, must comply with the requirements set forth in Chapter 366, Part 5, Ordinance Code, unless specified otherwise by SJRWMD permit, variance, water shortage order or emergency order.

[History: Renumbered and Amended 2/14/11, Effective 3/10/11]

# 8.803 Waste Discouraged

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Pursuant to Board Rule 3.101H, the use of Floridan Aquifer water to create or maintain surface water level or quality, i.e., to feed lakes, ponds, streams and fountains is discouraged. Further, the Board specifically adopts the requirements of Section 373.213, F.S.

[History: Renumbered and Amended 2/14/11, Effective 3/10/11]

#### 8.804 Well Abandonment Requirements

- A. All well abandonments regulated by the Department under this Rule shall be done in accordance with the standards and requirements of Rules 62-532.440 and 40C-3.531, FAC.
- B. If the requirements of Board Rule 8.804.A are not met and a well is determined to pose a threat to County groundwater resources, the Department shall have the authority to require proper abandonment or repair.

[History: Renumbered and Amended 2/14/11, Effective 3/10/11]

# 8.805 Water Cooled Heat Pumps (Geothermal Heat Pump Systems)

- A. The Department will encourage that groundwater used for heat pump purposes should be from the lowest usable quantity and quality water source. Specifically:
  - Users are encouraged to use the lowest groundwater quality compatible with heat pump system use, but should not be of a quality to cause harm or damage to the heat pump system;
  - 2. Users are encouraged to use the minimum amount of water needed for use by the heat pump system.
- B. Heat Pump injection wells are prohibited on a Superfund or ash site subject to an EPA Consent Decree or on a site with institutional controls where the use of

groundwater or the installation of wells is restricted.

- C. Injection wells shall be no closer than 50 feet from any potential source of contamination such as a septic tank or drainfield and shall not adversely impact the operation of on-site waste treatment or drainage systems.
- D. Closed loop boreholes shall be sealed with grout or other approved materials approved by SJRWMD or the Department.
- E. No substances shall be introduced into closed loop installations other than IGSHPA approved fluids.
- F. The Department encourages meetings to discuss water needs and other technical issues with heat pump systems prior to applying for well construction permits.

[History: Renumbered and Amended 2/14/11. Effective 3/10/11]

### 8.806 Injection Wells

- A. Construction of injection wells is prohibited except:
  - 1. Drilling injection wells deeper than 35 feet is permitted if the well is part of a heat pump system, or a component of a plan, approved by a federal, state or local environmental regulatory agency, to remediate contaminated soil or impacted groundwater; or a permitted aquifer storage and recovery well; or
  - 2. For wells utilized for remediation of soil and groundwater contamination.
- B. A well construction permit shall be required for all injection wells.

[History: Renumbered and Amended 2/14/11, Effective 3/10/11]

# 8.807 Cross Connections

Cross connection control is required and shall be in accordance with the current Florida Building Code, Plumbing requirements, and City Ordinance Code requirements.

[History: Renumbered and Amended 2/14/11, Effective 3/10/11]

#### 8.808 Contamination and Remediation

Wells used in site characterization and remediation shall require a well construction permit.

## 8.901 Establishment

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- A. The Technical Advisory Committee (TAC) is herein established and will consist of representatives from the following member entities:
  - 1. Department's Technical Services Branch Manager or his representative, who shall be the Chair of the TAC;
  - 2. Florida Ground Water Association;
  - 3. Duval County Agriculture Extension Service;
  - 4. SJRWMD;
  - 5. Natural Resources Conservation Service;
  - 6. FDEP;
  - 7. U.S. Geological Survey (USGS);
  - 8. Planning and Development Department;
  - 9. Florida Engineering Society;
  - 10. Professional Geologist (Hydrogeologist) in private practice;
  - 11. DOH;
  - 12. Northeast Florida Regional Planning Council (NEFRPC);
  - 13. Board member;
  - 14. JEA
  - 15. Florida Association of Professional Geologists (FAPG); and
  - 16. Other members recommended by TAC and approved by the Board.

[History: Renumbered and Amended 2/14/11, Effective 3/10/11]

# 8.902 Meetings

- A. The TAC shall normally meet upon the call of the Chair. A quorum shall consist of nine (9) members being present. The concurrence of the majority of the members present shall be necessary to decide any question.
- B. Procedures of the Board shall apply to all meetings of the TAC.

# 8.903 Advisory Role

The TAC shall provide technical and expert advice and information to the Department and to the Board concerning groundwater resources.

yes:

## 8.1001 Water Conservation Planning

The Director shall cooperate with SJRWMD and all utilities located in Duval County in water conservation planning for Duval County, pursuant to Sections 366.102 and 366.501, Ordinance Code, through the following:

- A. Investigation of all practical means of supplying adequate water supply, including, groundwater, demineralization, renovated wastewater, surface water conservation and peak shaving.
- B. Implementation, where appropriate, of the supply means found practical.
- C. Acquisition or control of land for potential wellfield for future municipal use at sites selected to produce the highest quality and quantity of water with the least impact to the resource.
- D. A long range capital improvement program to provide for production, treatment, and distribution of water within the county.
- E. A county-wide wastage and leakage reduction regulatory program.
- F. An automated data program to optimize water production efficiency.
- G. A public education program.

[History: New 2/14/11, Effective 3/10/11]

# 8.1002 Wastage and Leakage

The waste of water from any well, plant, or system due to a failure to properly maintain any well, plant or system is discouraged in accordance with Section 366.307(a), Ordinance Code.

[History: New 2/14/11, Effective 3/10/11]

# 8.1003 Water Conservation Measures

Water conservation refers to water use practices and technologies that provide the services desired by water users while using less water. It is the Department's goal to inform and educate the public about groundwater resource management practices, aquifer conditions, and water supply options that encourage:

- A. The maximum reuse of water where feasible, and cost effective, and consistent with the policies and regulations of FDEP and the SJRWMD;
- B. The use of suitable water sources that are more quickly replenished over those that are less quickly replenished;
- C. The uses of water sources of no higher quality than that needed for the intended use; and
- D. All water users to install and use equipment, facilities and best management

practices that represent current environmental technology to protect the resource and prevent waste and unreasonable water use.

[History: New 2/14/11, Effective 3/10/11]

**DONE AND ORDERED** This <u>14</u> day of <u>february</u>, 2011, at the regular meeting of the Environmental Protection Board, City of Jacksonville.

# ENVIRONMENTAL PROTECTION BOARD

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BY: sources WERS, M.D. GÁRY CHAIRMAN

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