

MEMORANDUM

TO: Governing Board Members

FROM: Sharon M. Trost, P.G., AICP, Director of Regulation Division

DATE: June 20, 2012

SUBJECT: **Adopt amendment to: Rules 40E-3.021, 40E-3.036, 40E-3.038, 40E-3.101, 40E-3.411, 40E-3.507, 40E-3.512, 40E-3.517, and 40E-3.521, F.A.C.; create new rules, Rule 40E-3.600, F.A.C., Scope of Part VI, and Rule 40E-3.601, F.A.C., General Permit for Water Wells within a Portion of Southern Miami-Dade County, in order to incorporate construction standards and forms adopted by the Florida Department of Environmental Protection; and repeal Chapter 40E-30, F.A.C., as duplicative and unnecessary once the no-notice permit is consolidated with Chapter 40E-3, F.A.C.**

Recommendation

Staff recommends adoption of the amendment to Rules 40E-3.021, 40E-3.036, 40E-3.038, 40E-3.101, 40E-3.411, 40E-3.507, 40E-3.512, 40E-3.517, and 40E-3.521, F.A.C., and the creation of new rules, Rule 40E-3.600, F.A.C., Scope of Part VI, and Rule 40E-3.601, F.A.C., General Permit for Water Wells within a Portion of Southern Miami-Dade County, in order to incorporate construction standards and forms adopted by the FDEP, and the repeal of Chapter 40E-30, F.A.C.

Background

The South Florida Water Management District (District) has been delegated responsibility for implementing the water well permitting and water well contractor licensing programs set forth in Part III, Chapter 373, F.S. However, the Florida Department of Environmental Protection (FDEP) prescribes the minimum standards governing the location, construction, repair, and abandonment of water wells. Section 373.337, F.S., requires the District to adopt these minimum standards and forms.

On October 7, 2010, the FDEP amended Chapter 62-532, F.A.C. The amendments changed various construction standards and the Construction/Repair/Abandonment and Well Completion Report Forms. FDEP worked closely with the water well contracting industry, water management districts, and various stakeholders to revise the criteria and forms. The District must now adopt the revised standards and new forms developed in accordance with Section 373.337, F.S., and the 2004 Interagency Agreement between the FDEP, District, and Department of Health.

The District's rulemaking effort also includes the repeal of various provisions identified as duplicative and unnecessary in the District's rule review. The District is moving the general permit by rule for agricultural wells that are 25 feet or less in depth in a specified

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portion of southern Miami-Dade County from Chapter 40E-30, F.A.C., to Chapter 40E-3, F.A.C., and repealing the remainder of Chapter 40E-30, F.A.C.

This rulemaking effort was included in the Annual Regulatory Plan submitted to OFARR. The adoption and incorporation of the rules and forms will ensure consistency between the FDEP, the District, and the local agencies to which the District has delegated implementation of the water well permitting program.

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THE FULL TEXT OF THE PROPOSED RULE IS:

40E-3.021 Definitions.

When used in this chapter:

~~(1) “Abandoned Well” means a well, the use of which has been permanently discontinued. Any well which is in such a state of disrepair that its continued use for the purpose of obtaining groundwater, or disposing of water or liquid wastes, or for observation, is impractical, shall be deemed to be abandoned.~~

~~(1)(2) “Annulus” or “Annular Space” means any artificially created void existing between a well casing or liner pipe and a borehole wall, or between two casings, or between tubing and the casing for liner pipes.~~

~~(3) “Aquifer” means a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield useful quantities of groundwater to wells, springs, or surface water.~~

~~(4) “Bentonite Grout” means a pumpable grouting material, consisting of high solid sodium montmorillonite, used for plugging or sealing water wells.~~

~~(2)(5) “Casing Diameter” or “Diameter of Casing” means the largest nominal permanent water bearing casing. For the purpose of this chapter, the diameter of the casing at the upper terminus will be presumed to be the diameter for the entire length, unless the well owner or contractor can demonstrate that the well has a smaller diameter permanent water bearing casing below the upper terminus.~~

~~(3)(6) “Consolidated” means a geologic stratum, which is cemented with a binding substance commonly derived from within the deposit containing that stratum.~~

~~(4)(7) “Consumptive Use Permit” or “Water Use Permit” means a Water Use Permit issued under Chapter 40E-2 or 40E-20, F.A.C.~~

~~(8) “Department” means the Florida Department of Environmental Protection (FDEP).~~

~~(5)(9) “Dewatering” means the use of wells or other such equipment to temporarily lower a water level as may be necessary during construction activities.~~

~~(6)(10) “Driller” means a person licensed by the water management district or a person working under the direct supervision of a licensed water well contractor who actually constructs the well.~~

~~(11) “Driven Casing” means well casing installed by the percussion drilling method, in which the well casing is advanced into a borehole that is less than the nominal outside diameter of the casing.~~

~~(12) “Drive Shoe” means any device specifically designed, fabricated, and installed to protect the bottom end of a water well casing or liner pipe from collapse or other damage while the casing or liner pipe is being driven into place in a water well.~~

~~(7)(13) “Field Log” means a log with accurate, written documentation of all construction activities needed to fill out well completion reports.~~

~~(8)(14) “Filter Pack” means sand or gravel that is uniform, clean, and siliceous. It is placed in the annulus of the well between the borehole wall and the well screen.~~

~~(15) “Grout” or “Neat Cement Grout” means a mixture consisting of water and Portland cement (American Concrete Institute Types I, II, or III, or other types of cement and acceptable amounts of those additives approved for use in cement grouts by the District), also Bentonite grout as defined by subsection 62-532.200(4), F.A.C.~~

~~(9)(16) “Inspection Port” means any opening not less than three-quarters (3/4) inch in diameter through which unobstructed access to the inside of the casing can be~~

obtained for measuring water levels. Inspection ports shall be threaded openings temporarily sealed with a removable watertight plug.

~~(10)~~(17) "Jetted Well" or "Sand Point Well" means a pipe with an attached well point or open-ended screen. The well is installed in unconsolidated formations by the washing action of a water jet.

~~(18)~~ "Liner" means a ~~metallic or nonmetallic pipe, which is installed within the permanent water bearing casing to improve, repair, or protect the casing or is installed below and separate from the casing to seal off casing material which may be encountered in the open hole of the well.~~

~~(11)~~(19) "Monitoring Well" or "Observation Well" means a well used primarily to monitor hydrologic parameters such as water levels or water quality.

~~(20)~~ "Nominal" means the standard size of the well casing and may be less than or greater than the number indicated. Nominal, when referring to the grouting annulus, means either the available void thickness between the telescoped casings or the average available void thickness between the borehole and the outside wall of the casing at any point.

~~(12)~~(21) "Packer" means a device placed within a well casing that seals the annulus between two pieces of casing, between the casing and the screen, between one formation or water bearing strata and another, or between the formation and the casing.

~~(13)~~(22) "Public Water Supply Well" means a well constructed for the purpose of supplying water to a public water system, as permitted under Chapters 62-550, 62-555, 62-560, 62-524, and 64E-8, F.A.C.

~~(23)~~ "Public Water System" means a system for the provision to the public of piped water for human consumption through pipes or other constructed conveyances, if such a 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.

~~(24)~~ "Telescoped casing" means an interior well casing extending below an exterior casing.

~~(14)~~(25) "Test Hole" means any temporarily cased or uncased hole drilled, bored, cored, washed, or jetted, for the intended use of obtaining data for engineering, geophysical or geological exploration, and/or prospecting for minerals or products of mining or quarrying, and not for the purposes of either producing, disposing of, or searching for water.

~~(15)~~(26) "Upper Terminus" means that portion of a well casing ending at land surface or within an approved depth below land surface. Land surface is considered to be the ground elevation of the finished grade at the well.

~~(16)~~(27) "Water Test Well" means a temporary water well for the purpose of obtaining data to determine aquifer properties or water quality. Water test wells are typically drilled prior to applying for a water use permit. Water test wells must either be abandoned or converted to a water well or monitoring well within 30 days of completion of testing.

~~(28)~~ "Water Use Permit" means a permit issued under Chapter 40E-2 or 40E-20, F.A.C.

~~(29)~~ "Water Well" means a well as defined in Section 373.303(7), F.S., which includes 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 ground water. This term does not include any well constructed for the purpose of obtaining or prospecting for oil, natural

gas, or products of mining or quarrying, for disposing of oil brine or re-pressuring oil bearing or natural gas-bearing formations, for storing petroleum, natural gas or other products, or for temporary dewatering of subsurface formations for mining, quarrying or construction purposes.

~~(17)~~~~(30)~~ “Water Well Contractor” means an individual who is responsible for the location, construction, repair, or abandonment of a water well and who is licensed under Chapter 62-531, F.A.C., to engage in the business of construction, repair, or abandonment of water wells.

~~(18)~~~~(31)~~ “Well Casing” means a metallic or non-metallic pipe installed in a borehole or driven to prevent caving, provide structural strength, seal off zones of poor water quality, or prevent the interchange of waters between aquifers.

~~(19)~~~~(32)~~ “Well Completion Report” means the form, supplied or approved by the District, that is completed and signed by the licensed water well contractor.

(20) All definitions contained in Section 373.303, F.S., and Chapters 62-531 and 62-532, F.A.C., adopted and incorporated by reference in paragraphs 40E-3.036(1)(a) and (c), F.A.C., respectively.

Rulemaking Authority 373.044, 373.113, 373.171 FS. Law Implemented 373.019, 373.106, 373.303, 373.306 FS. History—New 1-1-85, Amended 12-19-89, 3-16-05,

40E-3.036 Rules and Publications Incorporated by Reference.

(1) The following Department rules and publications are incorporated by reference into this rule and shall apply to the well contractor licensing program administered by the District and to all wells constructed, repaired, or abandoned in the District.

(a)~~(4)~~ Chapter 62-531, F.A.C., Well Contractor Licensing Requirements (11-25-07), <http://www.flrules.org/Gateway/reference.asp?No=Ref-00573>. ~~(12-25-02)~~

(b)~~(2)~~ The Department’s Water Well Contractor Disciplinary Guidelines and Procedures Manual (October 2002), <http://www.flrules.org/Gateway/reference.asp?No=Ref-00581>, and the Department’s Florida Unified Citations Dictionary for Well Construction (October 2002), <http://www.flrules.org/Gateway/reference.asp?No=Ref-00580>.

(c)~~(3)~~ Chapter 62-532, F.A.C., Water Well Permitting and Construction Requirements (10-07-10), <http://www.flrules.org/Gateway/reference.asp?No=Ref-00574>. ~~(3-28-03)~~

(d)~~(4)~~ Chapter 62-555, F.A.C., Construction of Public Supply Water Wells (4-10-03), <http://www.flrules.org/Gateway/reference.asp?No=Ref-00575>.

(e)~~(5)~~ Chapter 62-524, F.A.C., Construction of Water Wells in Delineated Areas (6-27-00), <http://www.flrules.org/Gateway/reference.asp?No=Ref-00572>.

(2) The following Department forms are incorporated by reference into this chapter and shall apply to the well contractor licensing program administered by the District and to all wells constructed, repaired, or abandoned in the District:

(a) State of Florida Permit Application to Construct, Repair, Modify, or Abandon a Well, DEP Form 62-532.900(1), incorporated by reference in subsection 40E-3.101(1), F.A.C.

(b) State of Florida Well Completion Report, DEP Form 62-532.900(2), incorporated by reference in subsection 40E-3.411(1), F.A.C.

(c) Application for a State of Florida Water Well Contractor's License, Form 0186, incorporated by reference in subsection 40E-3.038(3), F.A.C.

(3) Copies of these publications and forms can be obtained at no cost by contacting the South Florida Water Management District Clerk's Office, 3301 Gun Club Road, West Palm Beach, FL 33406, (800) 432-2045, ext. 6436 or (561) 682-6436, and the delegated permitting authorities' offices.

Rulemaking Authority 373.044, 373.113, 373.171 FS. Law Implemented 373.103, 373.308, 373.309, 373.323, 373.324, 373.326, 373.329, 373.333 FS. History—New 3-16-05, Amended_____.

40E-3.038 Violations of Contractor Licensing and Well Construction Requirements.

(1) Applications for a water well contractor license shall be filed with the District on Form 0186, (____-2012), "Application for a State of Florida Water Well Contractor License", incorporated by reference herein: <http://www.flrules.org/Gateway/reference.asp?No=Ref-00607>. Form 0186 is available at no cost by contacting the South Florida Water Management District Clerk, 3301 Gun Club Road, West Palm Beach, FL 33406, (800) 432-2045, ext. 6436 or (561) 682-6436, and the delegated permitting authorities' offices.

(2) Each well contractor meeting the licensing requirements set forth in Chapter 62-531, F.A.C., incorporated by reference in paragraph 40E-3.036(1)(a), F.A.C., will be assigned a permanent license number and shall be issued a certificate with that number.

(3)(1) Violations of the contractor licensing requirements and well construction requirements are provided by Chapter 373, F.S., and Chapter 62-531, F.A.C.

(4)(2) The licensed contractor must submit any change of address to the District within 30 days.

Rulemaking Authority 373.044, 373.113, 373.171, 373.333 FS. Law Implemented 373.323, 373.326, 373.333, 373.336 FS. History—New 12-19-89, Amended 3-16-05,_____.

40E-3.101 Content of Application.

(1) All applications shall be submitted to the permitting authority by the owner or by the water well contractor on behalf of the owner. All applications shall be submitted on DEP Form 62-532.900(1), (10-07-10), <http://www.flrules.org/Gateway/reference.asp?No=Ref-00576>, the form entitled "State of Florida Permit Application to Construct, Repair, Modify, or Abandon a Well," incorporated by reference herein and available at no cost by contacting the South Florida Water Management District Clerk, 3301 Gun Club Road, West Palm Beach, FL 33406, (800) 432-2045, ext. 6436 or (561) 682-6436, and the delegated permitting authorities' offices.

(2) All applications shall be submitted with the required non-refundable fee pursuant to Rule 40E-1.607, F.A.C., or the fee schedule established by the agency to which permitting authority has been delegated shall be submitted with the permit application.

(3) Applications for permits required by this chapter shall be filed with the District or the entity to which the authority to issue a permit has been delegated. The application for the construction, repair or abandonment of water wells shall contain:

(a) The name, address, telephone number, license number and signature of the licensed contractor who will be constructing the well, except in the case of a state agency or political subdivision that needs an indication of approval from the District in order to obtain financing to construct a well. In this case, the District will take action on the application for a permit not signed by a licensed water well contractor with the following condition: "Prior to well construction, a copy of the original application, signed by the licensed water well contractor chosen to construct the well, will be submitted to the District",

(b) The name, address, telephone number and signature of the property owner or his agent, if applicable, on whose property the well is being drilled,

(c) Written authorization from the owner designating the authorized agent, if any,

(d) The location of the well (to the nearest one-quarter-quarter section, or latitude and longitude to the nearest second, or Florida State Planar Coordinates to the nearest one hundred feet), and property site map of the well location, depicting land marks and providing a scale,

(e) The expected cased depth and total depth of the well,

(f) The proposed use of the well,

(g) The proposed grouting interval,

(h) The specification for well construction including the size(s) of the casing to be used, the proposed construction, repair or abandonment methods, specifications including casing types, casing diameters; open hole or screened intervals, sizes and screen openings; and proposed grouting materials;

(i) The proposed method of construction and completion of the well, or the method of plugging and abandoning of the well,

(j) The anticipated starting date to begin drilling,

(k) The District water use permit number, the water use application number, and the well number from the water use permit Table A, if applicable,

(l) A well completion report and/or lithologic or cuttings log for any test hole or water test well and testing results, which is being requested to be converted to a water well,

(m) Applications for public supply wells shall include: the name and address of the water system; the number of persons the well is intended to serve; and ~~three copies of a~~ scaled map showing the well location, property boundaries, existing buildings or physical features, the location of all known and proposed sources of contamination within a 500 feet radius of the proposed well location, and

(n) Applications for water test wells must be accompanied by a description of the proposed test. The description at a minimum shall include:

1. Purpose of the test, a brief description of the testing method, and a summary of the results to be provided to the District within 30 days of completion of the testing.

2. Name, address, and telephone number of the person or consulting firm performing the test.

3. A site map showing the location of the water test well and any observation wells.

(4) In addition to the information required to be submitted on the District form, the District staff may specifically request such reasonable additional information as may be necessary to evaluate the hydrologic impacts of the withdrawal to ensure that the impacts will not be harmful to the water resource of the District as set forth in Chapter 40E-2, F.A.C., and that the withdrawals are in compliance with statutory and rule requirements. Pursuant to Section 373.314, F.S., the District will cite a specific rule

when requesting such additional information. Such requests for additional information will be made in compliance with Section 120.60, F.S., and Chapter 40E-1, F.A.C.

Rulemaking Authority 373.044, 373.113, 373.171 FS. Law Implemented 373.308, 373.309, 373.313, 373.326, 373.342 FS. History—New 1-1-85, Amended 12-19-89, 11-8-99, 3-16-05,_____.

40E-3.411 Well Completion Reports.

(1) The water well contractor shall complete and submit a fully completed well completion report (Form 0124) [DEP Form 62-532.900\(2\)](http://www.flrules.org/Gateway/reference.asp?No=Ref-00578), (10-07-10), <http://www.flrules.org/Gateway/reference.asp?No=Ref-00578>, "State of Florida Well Completion Report," incorporated by reference herein, to the District and delegated agency for the construction, repair or abandonment of all wells, regardless of whether a permit is required under Rules 40E-3.101 and 40E-3.600, F.A.C. Well completion reports shall be filed with the District and delegated agency within 30 days of the completion of the work, using [DEP Form 62-532.900\(2\)](http://www.flrules.org/Gateway/reference.asp?No=Ref-00578). Copies of DEP Form 62-532.900(2) are available at no cost by contacting the South Florida Water Management District Clerk, 3301 Gun Club Road, West Palm Beach, FL 33406, (800) 432-2045, ext. 6436 or (561) 682-6436, and the delegated permitting authorities' offices.

(a) ~~Well completion reports for sites controlled by Chapter 62-761, F.A.C., Underground Storage Tank Systems, may include all monitoring wells for the same site on a single form.~~

(b) ~~Computer generated completion reports developed by the contractor may be used in place of District supplied forms.~~

(2) The water well contractor shall keep or cause to be kept by a person in his employ an accurate field log of all well construction, repair or abandonment activities performed under each permit. Such logs shall be available for inspection at the site during all times when work is in progress.

(3) If no work is performed or if the well is not completed, a report shall be filed within 30 ~~thirty~~ days of the expiration of the permit stating that no well construction was performed under the permit or outlining the status of the incomplete well.

(4) For water test wells, a report on the test results shall be submitted to the District within 30 days of completion of the testing. The report shall also include a request and a proposed schedule to either abandon the water test well or convert the water test well to a production well or monitoring well.

Rulemaking Authority 373.044, 373.113, 373.171 FS. Law Implemented 373.308, 373.309, 373.313, 373.326, 373.342 FS. History—New 1-1-85, Amended 3-16-05,_____.

40E-3.507 Casing and Liner Pipe Standards.

(1)(a) ~~Well casing, liner pipe, and well screen shall be new or in like new condition. Such well casing, liner pipe, and well screen shall not be used unless free of breaks, corrosion, and dents, straight and true, and not out of round. Welded or seamless black or galvanized steel pipe or casing, or stainless steel pipe or casing, or approved types of nonmetallic pipe shall be used for well casing or liner pipe.~~

(b) All well casing shall conform to the standards identified in subsection 62-532.500(1), F.A.C., incorporated by reference in paragraph 40E-3.036(1)(c), F.A.C.

(2) Wells constructed using telescoping casings shall be considered as a continuous casing provided the following conditions are met:

(a) Any annular space including the overlapped section shall be grouted in accordance with subparagraph ~~62-532.500(3)(i)(4)~~ ~~62-532.500(2)(f)4~~, F.A.C., incorporated by reference in paragraph 40E-3.036(1)(c), F.A.C. The grout shall extend from the bottom of the casing to the top of the innermost casing. The use of lead packers is prohibited.

(b) The bottom end of the casing shall extend to or below the water level of the aquifer intended to supply water to the well.

(c) All casing zones below the uppermost consolidated unit shall be cased.

(d) A minimum of 10 feet overlap is required for non-public supply wells. One casing centralizer shall be used within the overlapped section.

(e) A minimum of 20 feet overlap is required for public supply wells. Two casing centralizers shall be used within the overlapped section.

~~(3) Steel well casing and liner pipe shall be joined in a watertight manner by threaded couplings, electrical welding methods, or other methods approved by the District which provide equivalent protection. PVC pipe shall be joined by solvent bonded couplings, threaded couplings, heat welding, or other methods approved by the District which provide equivalent protection.~~

~~(4) Nonmetallic and stainless steel well casing or liner pipe shall not be installed by driving unless prior approval is obtained from the District based on a demonstration that the integrity of the well casing or liner pipe will be maintained.~~

~~(a) For well casing or liner pipe installed by driving, the casing or pipe shall not butt together inside threaded couplings unless the joint is electrically welded so as to be completely watertight.~~

~~(b) A drive shoe is required for use on casing or pipe installed by driving unless prior approval is obtained from the District based on a demonstration that a drive shoe is not necessary to maintain the integrity of the casing or pipe.~~

Rulemaking Authority 373.044, 373.171, 373.309 ~~373.171~~, FS. Law Implemented 373.113, 373.306, 373.308, 373.309 FS. History—New 1-1-85, Amended 3-16-05,_____.

40E-3.512 Well Construction Requirements.

~~(1) In the construction of a well, reasonable caution shall be taken to maintain the work site so as to minimize the entrance of contaminants into the water resource.~~

~~(1)(a) Materials used in construction shall be reasonably free of contamination.~~

~~(b) Water used during construction shall be supplied from a potable well or potable water supply. If the well or water supply is a known source of contamination or is within a known area of contamination, it shall not be used to provide water for well construction.~~

~~(2)(a) All water wells which penetrate multiple aquifers or water bearing zones shall be properly designed and constructed to prevent an interchange of water between water bearing zones which may result in deterioration of the quality of water in one or more water bearing zones, or will result in a loss of artesian pressure.~~

~~(b) If a well cannot be properly completed to prevent an unauthorized interchange of water between water bearing zones or to prevent a loss of artesian pressure, the well shall be abandoned and plugged in accordance with subsection 40E-3.531(3), F.A.C.,~~

or other instructions from the District, which are appropriate for the geological conditions encountered.

~~(3)~~ For wells obtaining water from unconsolidated earth materials, casing shall extend from the upper terminus of the well to the well screen.

~~(a)~~ The well screen shall be attached to the casing with a watertight seal;

~~(2)(a)(b)~~ The well shall be constructed to prevent caving or pumping of sand. A filter pack shall be installed around the screened portion of the well;

~~(b)(c)~~ The well shall be adequately developed until clear of any drilling fluids, particulate material and turbidity.

~~(3)(4)~~ For wells obtaining water from consolidated earth materials, a continuous casing shall extend from the upper terminus of the well to the top of the uppermost consolidated unit.

~~(4)(5)~~ For artesian wells, the casing shall penetrate the entire thickness of the overlying formation above the aquifer. The District may grant waivers for seating of casing within the confining zone above an artesian aquifer provided that:

(a) The casing extends a sufficient distance into the confining zone so as to prevent movement of water from the artesian aquifer to overlying aquifers;

(b) The District determines that such construction will not harm the water resources.

Rulemaking Authority 373.044, 373.171, 373.309 FS. Law Implemented 373.113, 373.306, 373.308, 373.309 FS. History—New 1-1-85, Amended 3-16-05,_____.

40E-3.517 Grouting and Sealing.

Wells shall be grouted and sealed in accordance with paragraph 62-532.500~~(3)(i)(2)(f)~~, F.A.C., incorporated by reference in paragraph 40E-3.036(1)(c), F.A.C., and this section to protect the water resource from degradation caused by movement of waters along the well annulus either from the surface to the aquifer or between aquifers, and to prevent loss of pressure in artesian aquifers.

(1) All wells that are constructed in a manner which creates an annular space between the casing and the naturally occurring geologic formations shall be grouted and sealed in accordance with the methodologies listed in paragraph 62-532.500~~(3)(i)(2)(f)~~, F.A.C., incorporated by reference in paragraph 40E-3.036(1)(c), F.A.C. and this section.

~~(2)~~ For any part of a well casing with an outside diameter of four inches or larger intended to be installed in a bore hole which is larger in diameter than the outside diameter of the casing, the annular space shall be filled from bottom to top with not less than a nominal two inch thickness of neat cement grout.

~~(3)~~ For any part of a well casing with an outside diameter of less than four inches intended to be installed in a bore hole which is larger in diameter than the outside diameter of the casing, the annular space shall be filled from bottom to top with not less than a nominal one inch thickness of neat cement grout minimum.

~~(2)(4)~~ Wells obtaining water from unconsolidated formations, using a method other than jetting or driving a casing, and creating an annular space, shall be grouted from no more than ten (10) feet above the top of the screen to the upper terminus. Borehole cuttings shall not be reintroduced into the annular space.

~~(3)(5)~~ For jetted wells or sand point wells obtaining water from an unconsolidated formation of a naturally caving nature in which the annular space is completely filled with formation material, only the upper three (3) feet shall be grouted to provide protection from possible contaminated surface water.

~~(4)~~(6) For jetted wells or sand point wells circulating drilling fluids to the surface, and obtaining water from a consolidated formation, shall be grouted bottom to top prior to being seated into water bearing formation.

~~(5)~~(7) For wells constructed by driven casing, dry bentonite, with an average mesh size of between 4 and 20 U.S. standard sieve size or grain size between 5mm and .85mm, must be added to the continuous casing string at land surface at the beginning and during construction of the well.

~~(6)~~(8) All other wells shall be grouted from the bottom of the casing to land surface.

~~(7)~~(9) Unless a variance has been granted by the District, grouting and sealing of water wells shall be accomplished in the following manner:

(a) The grout mixture shall consist of either Portland Cement or a natural bentonite slurry for wells and boreholes meeting the requirements in subsection 40E-3.512(7), F.A.C. The mixture shall consist of 5.2 to 5.5 gallons of water per sack of Portland Cement or a mixture of 6.0 gallons of water per sack of Portland Cement with 3 to 7.5 pounds of Bentonite, not to exceed 8% by weight.

(b) The minimum set time for grouting of casing using either Portland Cement or Bentonite before drilling operations may continue is 12 hours.

~~(c) The casing shall be centered in the borehole prior to grouting and sealing.~~

~~(d) Grouting of the annular space shall be completed using the tremie pipe, forced pressure, or other equivalent method approved by the District. In all cases, grout will be introduced into the annular space from bottom to top.~~

~~(e) In those cases where, during grouting operation, circulation of the grout is lost so that the annular space being grouted cannot be filled in one continuous operation, a tremie pipe shall be installed in the annular space to a point immediately above the zone of lost circulation. The annulus shall be bridged at that point by sand or other approved material introduced through the pipe. Grouting or sealing of the annular space shall be completed using the tremie pipe or other approved methods.~~

~~(8)~~(10) Water wells constructed using Bentonite grouts shall meet all the following requirements:

(a) The slurry grout mixture shall be introduced into the annular space from bottom to top. The casing seat must be clean, allowing the casing to set at the total depth bored in a hole reasonably free of drill cuttings;

(b) A formation packer or a 5-foot neat cement plug must be installed at the casing seat;

(c) Neat cement must be placed in the upper ten (10) feet of the annular space to prevent deterioration of, or damage to, the bentonite seal; and

(d) Bentonite grout may be used only on monitor, domestic, irrigation, water source, or ground source heat pump installations with a nominal casing diameter of five (5) inches or less. Use of bentonite grout is not allowed on public supply wells, wells in delineated areas, wells where artesian flow occurs, in any identified contamination sites where the contaminants will prevent an adequate seal, or in wells with the water quality concentrations exceeding 10,000 milligrams per liter total dissolved solids.

(e) Bentonite grout may be used for abandonment purposes for any well. However, it cannot be used to abandon a dry well, or a well which flows to surface and cannot be placed any higher in the well than the height of the static water level. Any unsealed remainder above the height of the static water level must be filled with neat cement.

(f) Bentonite chips or pellets used for abandonment purposes may not be placed in any well casing or hole less than three inches in diameter or for sealing the annular space of any well.

(g) In all circumstances, the manufacturer's mixing instructions shall be followed.

Rulemaking Authority 373.044, 373.171, 373.309 FS. Law Implemented 373.113, 373.306, 373.308, 373.309 FS. History—New 1-1-85, Amended 3-16-05,_____.

40E-3.521 Well Seals.

Wells shall be covered and sealed in accordance with paragraph 62-532.500(4)(a), F.A.C., incorporated by reference in paragraph 40E-3.036(1)(c), F.A.C.

~~(1) Temporary Well Seals.~~

~~(a) Whenever there is a temporary interruption in work on the well during construction, repair or abandonment, the well opening shall be sealed with a tamper resistant cover.~~

~~(b) Except in areas designated by the Department with the concurrence of the District, any well in which pumping equipment is installed seasonally or periodically shall, whenever pumping equipment is not installed, be capped with steel or reinforced concrete cover, or valve.~~

~~(2) Permanent Well Seals.~~

~~(a) Wells shall be properly sealed to prevent the movement of contaminants and surface water into the well.~~

~~(b) The top of the well casing shall at a minimum extend 12 inches above land surface and if practical, 12 inches above the 100-year flood elevation.~~

~~(c) Any cased well equipped with permanently installed pumping equipment shall have that pumping equipment and any necessary piping installed through a well seal.~~

~~(d) Any unused well shall be capped in a watertight manner with a threaded, welded, or bolted cover or valve. The top of the well casing shall at a minimum extend 12 inches above land surface.~~

Rulemaking Authority 373.044, 373.171, 373.309 FS. Law Implemented 373.113, 373.306, 373.308, 373.309 FS. History—New 3-16-05, Amended _____.

40E-3.600 Scope of Part VI

(1) This Part grants a general permit for certain specified well construction, repair or abandonment activities which have been determined by the District to exist in unique geographic areas.

(2) The District reserves the right to require permits under Parts I and II of this Chapter if the proposed construction, repair or abandonment of the well does not comply with the provisions of this Part or may be harmful to the water resources of the District, inconsistent with the intent and purpose of Part III of Chapter 373, Florida Statutes, or with the overall objectives of this rule or may be otherwise contrary to the public interest.

(3) The construction, repair or abandonment of wells in accordance with Rule 40E-30.302, F.A.C., are authorized subject to the requirements of this Part.

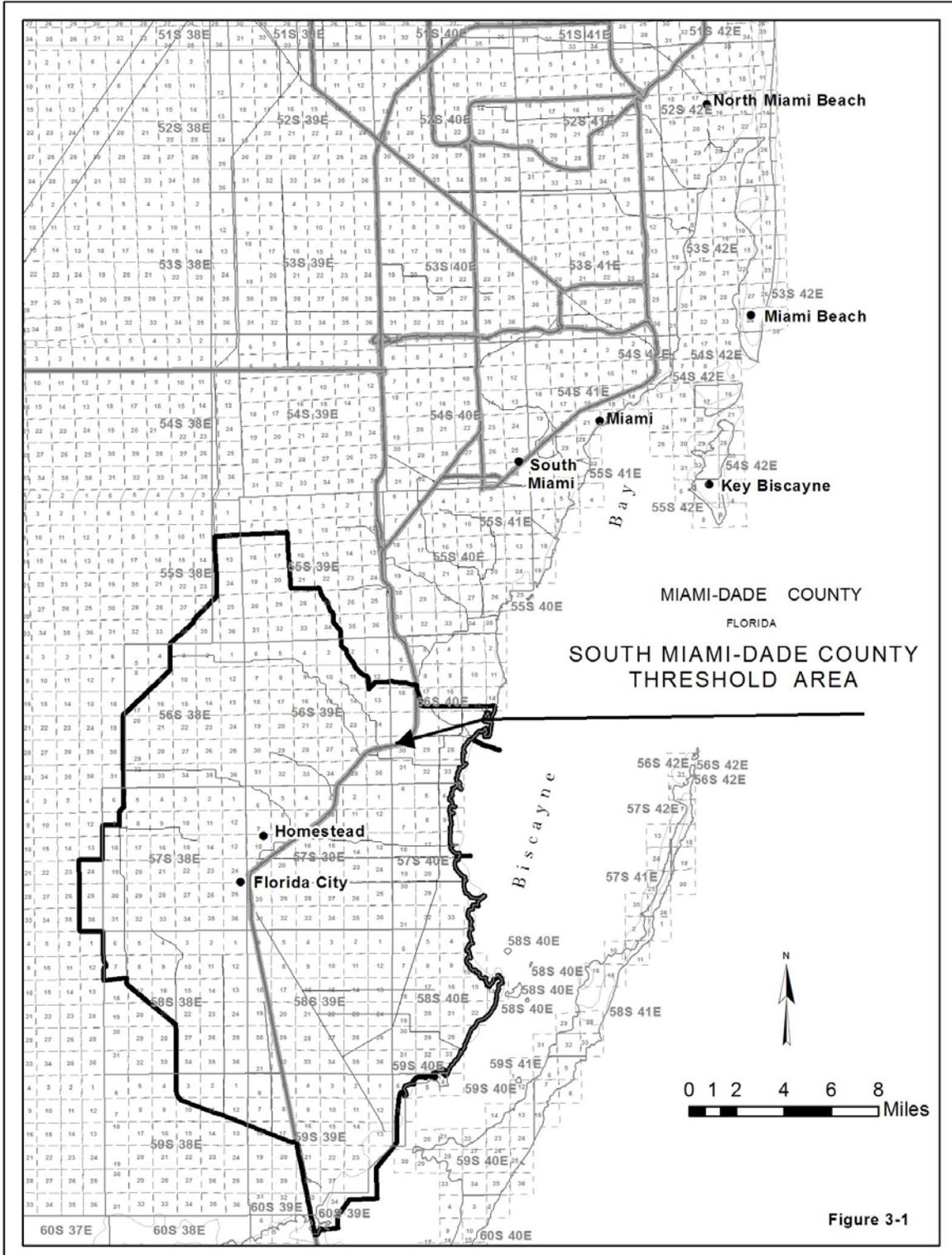
Rulemaking Authority 373.044, 373.113, 373.171, 373.309, F.S. Law Implemented, 373.113, 373.306, 373.308, 373.309, 373.342, FS. History-New _____.

40E-3.601 General Permit for Water Wells within a Portion of Southern Miami-Dade County.

(1) It is determined that compliance with Rules 40E-3.101, 40E-3.201, 40E-3.301, 40E-3.321, 40E-3.411, 40E-3.507, 40E-3.512, 40E-3.517 and 40E-3.531, F.A.C., will create an undue hardship to those persons proposing to construct, repair or abandon wells used for agricultural water use within south Miami-Dade County. It is further determined that the continued existence of these wells and method of well construction has not been shown to impair the ground water resources. However, if the continued existence of the rule is determined in any way to impair the purpose and intent of Part III of Chapter 373, Florida Statutes, adversely impact the water resources, not be in the public interest, or for any other reason the District may delete the General Permit threshold at any time in accordance with applicable law.

(2) A general permit is granted to those wells intended for agricultural use which do not exceed 25 feet in depth and which are located within the area depicted on Figure 3-1 and described as follows:

BEGINNING at the intersection of the centerline of South Florida Water Management District's Levee 31 West and the south line of Section 7, Township 58 South, Range 38 East; Thence, Easterly along the south line of said Section 7 to the centerline of South Florida Water Management District's Canal 111; Thence, Southeasterly, Southerly and Southeasterly along said centerline of Canal 111 to the centerline of State Road 5 (U.S. Highway 1); Thence, Southerly along said centerline of State Road 5 (U.S. Highway 1) to the Dade-Monroe County line and Florida Bay; Thence, Northeasterly along the Dade-Monroe County line to the Western shore of Little Card Sound; Thence, Northeasterly and Northerly along the Western shore of Little Card Sound and Biscayne Bay to the south line of Section 14, Township 56 South, Range 40 East; Thence, Westerly along the section lines to the centerline of State Road 821; Thence, Northerly along said centerline of State Road 821 to the South line of the North one-half of Section 17, Township 56 South, Range 40 East; Thence, Westerly along the one-quarter section lines to the Southwest corner of the Northwest one-quarter of said Section 18; Thence, Northerly to the Southeast corner of Section 12, Township 56 South, Range 39 East; Thence, Westerly along the south line of said Section 12 to the Southwest corner of said Section 12; Thence, Northerly along the West line of said Section 12 to the centerline of South Florida Water Management District's Canal 1 West; Thence, Northwesterly and Westerly along said centerline of Canal 1 West and its Westerly Extension to the centerline of South Florida Water Management District's Levee 31 North; Thence, Southerly along the centerline of said Levee 31 North and the centerline of South Florida Water Management District's Levee 31 West to the POINT OF BEGINNING.



Rulemaking Authority 373.044, 373.113, FS. Law Implemented 373.309, 373.313, 373.326, 373.342 FS. History-New

CHAPTER 40E-30

GENERAL PERMIT FOR WATER WELLS

- 40E-30.011 General Permit for Wells
- 40E-30.031 Implementation
- 40E-30.042 General Permit for Construction, Repair or Abandonment of Wells
- 40E-30.112 Notice of Intent
- 40E-30.141 Request for Additional Information
- 40E-30.302 Thresholds for South Dade County

40E-30.011 General Permit for Wells.

Specific Authority 373.044, 373.113 FS. Law Implemented 373.309, 373.113, 373.326, 373.342 FS. History—New 1-10-85, Repealed _____.

40E-30.031 Implementation.

Specific Authority 373.044, 373.113 FS. Law Implemented 373.309, 373.313, 373.326, 373.342 FS. History—New 1-10-85, Repealed _____.

40E-30.042 General Permit for Construction, Repair or Abandonment of Wells.

Specific Authority 373.044, 373.113 FS. Law Implemented 373.309, 373.313, 373.326, 373.342 FS. History—New 1-10-85, Repealed _____.

40E-30.112 Notice of Intent.

Specific Authority 373.044, 373.113 FS. Law Implemented 373.309, 373.313, 373.326, 373.342 FS. History—New 1-10-85, Repealed _____.

40E-30.141 Request for Additional Information.

Specific Authority 373.044, 373.113 FS. Law Implemented 373.309, 373.313, 373.326, 373.342 FS. History—New 1-10-85, Repealed _____.

40E-30.302 Thresholds for South Dade County.

Specific Authority 373.044, 373.113 FS. Law Implemented 373.309, 373.313, 373.326, 373.342 FS. History—New 1-10-85, Repealed _____.

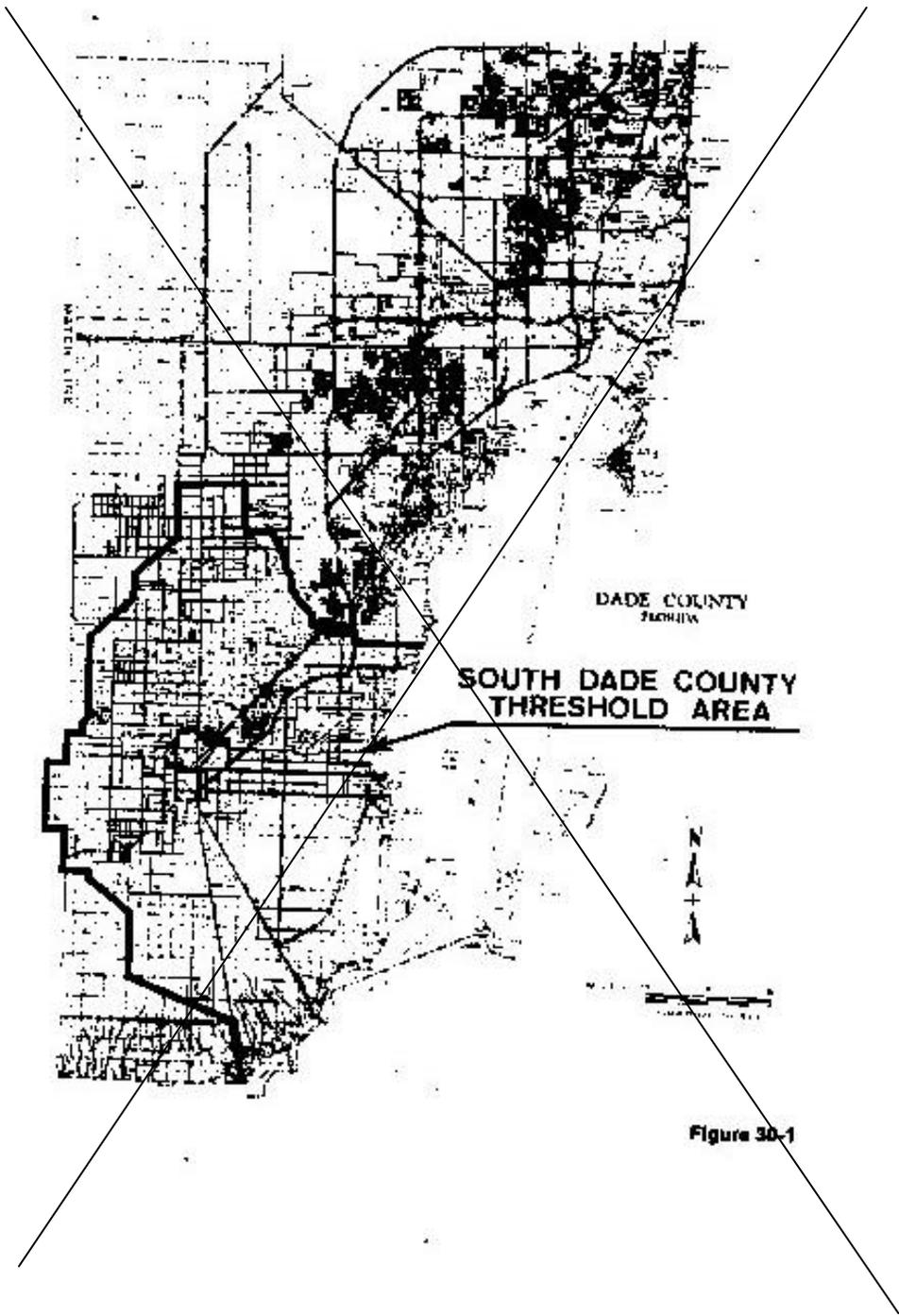


Figure 30-1