FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
CENTRAL DISTRICT
3319 MAGUIRE BOULEVARD, SUITE 232
ORLANDO, FLORIDA 32803-3767

RICK SCOTT
GOVERNOR

CARLOS LOPEZ-CANTERA
LT. GOVERNOR

JONATHAN P. STEVERSON
SECRETARY

March 16, 2015

Mr. Norton Bonaparte, City Manager
City of Sanford
300 N. Park Avenue
Sanford, FL 32772-1718
Norton.Bonaparte@sanfordfl.gov

Re: City of Sanford/Art Lane Landfill
SW ID 26191
Permit #SF59-0173598-002
Termination of Long-term Care Monitoring

Dear Mr. Bonaparte:

The Department conducted a detailed review of the long-term care documentation for the above referenced facility. Based on this review and changes to Chapter 62-701, F.A.C., that occurred after the facility entered long-term care, we have decided to no longer require the long-term care activities at the facility.

Art Lane Landfill is located east of Art Lane, approximately 1200 feet north of Lake Mary Boulevard Sanford, Seminole County, Florida. The official date of closure and the commencement of long-term care was August 22, 2002. At the time the initial permit was issued, Chapter 17-701 (now 62-701), F.A.C., a Class III landfill permit was required for operation of yard trash facilities. Therefore, the facility closed as a Class III landfill which has a 30-year long-term care period. However, based on changes to the definition of construction and demolition debris (C&D), vegetative waste is now considered to be C&D waste. C&D disposal facilities are only required to have a 5-year long term acre period. Long-term care at this facility consisted of semi-annual groundwater monitoring, quarterly gas monitoring, maintenance, and financial assurance mechanism for the long-term care.

The ground water monitoring results indicated that ammonia exceeded the ground water cleanup target level (GCTL) of 2.8 mg/L (Chapter 62-777, F.A.C.). For many years the ammonia GCTL was used to determine if the ammonia should be a concern. On December 3, 2012, DEP Division of Waste Management issued a memorandum regarding ammonia in groundwater at solid waste disposal facilities. If the groundwater ammonia would not impact a surface water body, then ammonia was not considered a chemical of concern. (The policy memo can be found at: http://www.dep.state.fl.us/waste/quick_topics/publications/shw/solid_waste/policymemos/SWM-13-10.pdf). Based on the Department's review of the results and DEP policies, the ammonia results are not considered to be violations of water quality standards.

Historically, iron has exceeded the groundwater standard of 300 ug/l and not met the pH the standard of 6.25- 8.5 standard units. (However, iron and pH are secondary drinking water standards, not primary, that

is, health related, standards.) Although the water quality monitoring data indicates that the landfill might have impacted the ground water, continued water quality monitoring will not provide any useful or additional information. Also, the iron concentration is not high enough and the pH level is not low enough to warrant further action.

As part of the long-term care, the facility was required to conduct quarterly gas monitoring at the facility. The results of the monitoring indicated that 0 % (percentage) for methane for the past two years.

This facility has completed approximately 12 years of long-term care with no significant changes. Taking into consideration that yard trash can now be disposed of in a Construction and Demolition Debris (C&D) disposal facility and the long-term care period for a C&D facility is 5 years, the Department terminates all the requirement for long-term care activities at the facility as of the date of this letter.
Due to the termination of long-term care, financial assurance is no longer required. You may contact the Financial Coordinator, Tallahassee Office at 850 245-8745, or by email at Solid.Waste.Financial.Coordinator@dep.state.fl.us, regarding the return of the City's financial assurance.

A total of 8 groundwater monitoring wells were installed at the facility. These wells must be properly abandoned by a licensed water well contractor. As required by Rule 62-532.400, F.A.C., you must request a permit from the St. John's Water Management District (SJWMD). Well abandonment documentation must be completed and submitted to the SJWMD on Form 62-532.900(2), within 30 days after the wells have been properly abandoned (Rule 62-532.410, F.A.C.). Please copy the Central District when you submit the well abandonment documents to SFWMD.

If you have any questions or need additional information regarding this matter, please contact Gloria-Jean DePradine by telephone at (407) 897-4312 or by email at Gloriajean.Depradine@dep.state.fl.us

Sincerely,

F. Thomas Lubozynski, P.E.
Environmental Administrator
Waste and Air Resource Programs

FLT/gnd

Attachments (3)
1. Form 62-532.900(1) Permit application for well abandonment
2. Form 62-532.900(2) well completion report
3. Chapter 62-532, F.A.C.

cc: Susan F. Eldredge, FDEP, Susan.F.Eldredge@dep.state.fl.us
Bilal Iftikhar, Director Public Works, City of Sanford, Bilal.Iftikhar@sanfordfl.gov
Gloria DePradine, FDEP

STATE OF FLORIDA PERMIT APPLICATION TO CONSTRUCT, REPAIR, MODIFY, OR ABANDON A WELL

☐ Southwest
☐ Northwest
☐ St. Johns River
☐ South Florida
☐ Suwannee River
☐ DEP
☐ Delegated Authority (If Applicable) _____

PLEASE FILL OUT ALL APPLICABLE FIELDS
(*Denotes Required Fields Where Applicable)

The water well contractor is responsible for completing this form and forwarding the permit application to the appropriate delegated authority where applicable.

Permit No.
Florida Unique ID _____
Permit Stipulations Required (See Attached)
_____
62-524 Quad No. _____ Delineation No. _____
CUP/WUP Application No. _____

ABOVE THIS LINE - FOR OFFICIAL USE ONLY

1. _____ _____
*Owner, Legal Name if Corporation *Address *City *State *ZIP Telephone Number

2. _____
*Well Location - Address, Road Name or Number, City

3. _____ _____ _____ _____
*Parcel ID No. (PIN) or Alternate Key (Circle One) Lot Block Unit

4. _____ _____ _____ _____ _____ Check if 62-524: ☐ Yes ☐ No
*Section or Land Grant *Township *Range *County Subdivision

5. _____ _____ _____ _____
*Water Well Contractor *License Number *Telephone Number E-mail Address

6. _____ _____ _____ _____
*Water Well Contractor's Address City State ZIP

7. *Type of Work: ☐ Construction ☐ Repair ☐ Modification ☐ Abandonment _____
*Reason for Repair, Modification, or Abandonment

8. *Number of Proposed Wells _____

9. *Specify Intended Use(s) of Well(s):

☐ Domestic ☐ Landscape Irrigation ☐ Agricultural Irrigation ☐ Site Investigations
☐ Bottled Water Supply ☐ Recreation Area Irrigation ☐ Livestock ☐ Monitoring
☐ Public Water Supply (Limited Use/DOH) ☐ Nursery Irrigation ☐ Test
☐ Public Water Supply (Community or Non-Community/DEP) ☐ Commercial/Industrial ☐ Earth-Coupled Geothermal
☐ Class I Injection ☐ Golf Course Irrigation ☐ HVAC Supply
☐ HVAC Return

Class V Injection: ☐ Recharge ☐ Commercial/Industrial Disposal ☐ Aquifer Storage and Recovery ☐ Drainage
Remediation: ☐ Recovery ☐ Air Sparge ☐ Other (Describe) _____
☐ Other (Describe) _____

Date Stamp

Official Use Only

10. *Distance from Septic System if ≤ 200 ft. _____ 11. Facility Description _____ 12. Estimated Start Date _____

13. *Estimated Well Depth _____ft. *Estimated Casing Depth _____ft. Primary Casing Diameter _____in. Open Hole: From _____To _____ft.

14. Estimated Screen Interval: From _____ To _____ ft.

15. *Primary Casing Material: Black Steel Galvanized PVC Stainless Steel
Not Cased Other: _____

16. Secondary Casing: Telescope Casing Liner Surface Casing Diameter _____ in.

17. Secondary Casing Material: Black Steel Galvanized PVC Stainless Steel Other _____

18. *Method of Construction, Repair, or Abandonment: Auger Cable Tool Jetted Rotary Sonic
Combination (Two or More Methods) Hand Driven (Well Point, Sand Point) Hydraulic Point (Direct Push)
Horizontal Drilling Plugged by Approved Method Other (Describe) _____

19. Proposed Grouting Interval for the Primary, Secondary, and Additional Casing:
From _____ To _____ Seal Material (Bentonite Neat Cement Other _____)
From _____ To _____ Seal Material (Bentonite Neat Cement Other _____)
From _____ To _____ Seal Material (Bentonite Neat Cement Other _____)
From _____ To _____ Seal Material (Bentonite Neat Cement Other _____)

20. Indicate total number of existing wells on site _____ List number of existing unused wells on site _____

21. *Is this well or any existing well or water withdrawal on the owner's contiguous property covered under a Consumptive/Water Use Permit (CUP/WUP) or CUP/WUP Application? Yes No If yes, complete the following: CUP/WUP No. _____ District Well ID No. _____

22. Latitude _____ Longitude _____

23. Data Obtained From: GPS Map Survey Datum: _____NAD 27 _____NAD 83 _____WGS 84

I hereby certify that I will comply with the applicable rules of Title 40, Florida Administrative Code, and that a water use permit or artificial recharge permit, if needed, has been or will be obtained prior to commencement of well construction. I further certify that all information provided in this application is accurate and that I will obtain necessary approval from other federal, state, or local governments, if applicable. I agree to provide a well completion report to the District within 30 days after completion of the construction, repair, modification, or abandonment authorized by this permit, or the permit expiration, whichever occurs first.

I certify that I am the owner of the property, that the information provided is accurate, and that I am aware of my responsibilities under Chapter 373, Florida Statutes, to maintain or properly abandon this well; or, I certify that I am the agent for the owner, that the information provided is accurate, and that I have informed the owner of their responsibilities as stated above. Owner consents to allowing personnel of this WMD or Delegated Authority access to the well site during the construction, repair, modification, or abandonment authorized by this permit.

_____ _____ _____ _____
*Signature of Contractor *License No. *Signature of Owner or Agent *Date

BELOW THIS LINE - FOR OFFICIAL USE ONLY

Approval Granted By _____ Issue Date _____ Expiration Date _____ Hydrologist Approval _____ Initials

Fee Received $_____ Receipt No. _____ Check No. _____

THIS PERMIT IS NOT VALID UNTIL PROPERLY SIGNED BY AN AUTHORIZED OFFICER OR REPRESENTATIVE OF THE WMD OR DELEGATED AUTHORITY. THE PERMIT SHALL BE AVAILABLE AT THE WELL SITE DURING ALL CONSTRUCTION, REPAIR, MODIFICATION, OR ABANDONMENT ACTIVITIES.

Permit No. _____

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT
2379 BROAD STREET, BROOKSVILLE, FL 34604-6899
PHONE: (352) 796-7211 or (800) 423-1476
WWW.SWFWMD.STATE.FL.US

ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
4049 REID STREET, PALATKA, FL 32178-1429
PHONE: (386) 329-4500
WWW.SJRWMD.COM

NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT
152 WATER MANAGEMENT DR., HAVANA, FL 32333-4712
(U.S. Highway 90, 10 miles west of Tallahassee)
PHONE: (850) 539-5999
WWW.NWFWMD.STATE.FL.US

SOUTH FLORIDA WATER MANAGEMENT DISTRICT
P.O. BOX 24680
3301 GUN CLUB ROAD
WEST PALM BEACH, FL 33416-4680
PHONE: (561) 686-8800
WWW.SFWMD.GOV

SUWANNEE RIVER WATER MANAGEMENT DISTRICT
9225 CR 49
LIVE OAK, FL 32060
PHONE: (386) 362-1001 or (800) 226-1066 (Florida only)
WWW.MYSUWANNEERIVER.COM

Comments:

_____

_____

_____

_____

_____

***General Site Map of Proposed Well Location**

Identify known roads and landmarks. Give distances from all reference points or structures, septic systems, sanitary hazards, and contamination sources, if applicable.

STATE OF FLORIDA WELL COMPLETION REPORT

Southwest
Northwest
St. Johns River
South Florida
Suwannee River
DEP
Delegated Authority (If Applicable) _____

PLEASE, FILL OUT ALL APPLICABLE FIELDS
(*Denotes Required Fields Where Applicable)

Date Stamp

Official Use Only

1.*Permit Number _____ *CUP/WUP Number_____ *DID Number_____ 62-524 Delineation No. _____

2.*Number of permitted wells constructed, repaired, or abandoned _____ *Number of permitted wells not constructed, repaired, or abandoned _____

3.*Owner's Name _____ 4.*Completion Date _____ 5. Florida Unique ID _____

6. _____
*Well Location - Address, Road Name or Number, City, ZIP

7.*County _____ *Section_____ Land Grant _____ *Township_____ *Range_____

8. Latitude _____ Longitude _____

9. Data Obtained From: ☐ GPS ☐ Map ☐ Survey Datum: _____NAD 27 _____ NAD 83 _____ WGS 84

10.*Type of Work: ☐ Construction ☐ Repair ☐ Modification ☐ Abandonment

11.*Specify Intended Use(s) of Well(s)

☐ Domestic
☐ Bottled Water Supply
☐ Public Water Supply (Limited Use/DOH)
☐ Public Water Supply (Community or Non-Community/DEP)
☐ Class I Injection
☐ Landscape Irrigation
☐ Recreation Area Irrigation
☐ Agricultural Irrigation
☐ Livestock
☐ Nursery Irrigation
☐ Commercial/Industrial
☐ Golf Course Irrigation
☐ Site Investigations
☐ Monitoring
☐ Test
☐ Earth-Coupled Geothermal
☐ HVAC Supply
☐ HVAC Return

Class V Injection: ☐ Recharge ☐ Commercial/Industrial Disposal ☐ Aquifer Storage and Recovery ☐ Drainage

Remediation: ☐ Recovery ☐ Air Sparge ☐ Other (Describe) _____

☐ Other (Describe) _____

12. *Drill Method ☐ Auger ☐ Cable Tool ☐ Rotary ☐ Combination (Two or More Methods) ☐ Jetted ☐ Sonic
☐ Horizontal Drilling ☐ Hydraulic Point (Direct Push) ☐ Other _____

13.*Measured Static Water Level _____ ft. Measured Pumping Water Level_____ ft. After_____ Hours at_____ GPM

14.*Measuring Point (Describe) _____ Which is _____ ft._____ Above_____ Below Land Surface *Flowing: ☐ Yes ☐ No

15.*Casing Material: ☐ Black Steel ☐ Galvanized ☐ PVC ☐ Stainless Steel ☐ Not Cased ☐ Other _____

16.*Total Well Depth _____ ft. Cased Depth _____ ft. *Open Hole: From _____ To _____ ft. *Screen: From _____ To _____ ft. Slot Size _____

17.*Abandonment: ☐ Other (Explain) _____

From _____ ft. To_____ft. No. of Bags_____ Seal Material (Check One): ☐ Neat Cement ☐ Bentonite Other _____
From _____ ft. To_____ft. No. of Bags_____ Seal Material (Check One): ☐ Neat Cement ☐ Bentonite Other _____
From _____ ft. To_____ft. No. of Bags_____ Seal Material (Check One): ☐ Neat Cement ☐ Bentonite Other _____
From _____ ft. To_____ft. No. of Bags_____ Seal Material (Check One): ☐ Neat Cement ☐ Bentonite Other _____
From _____ ft. To_____ft. No. of Bags_____ Seal Material (Check One): ☐ Neat Cement ☐ Bentonite Other _____

18.*Surface Casing Diameter and Depth:

Dia _____ in. From_____ft. To_____ft. No. of Bags_____ Seal Material (Check One): ☐ Neat Cement ☐ Bentonite ☐ Other_____
Dia _____ in. From_____ft. To_____ft. No. of Bags_____ Seal Material (Check One): ☐ Neat Cement ☐ Bentonite ☐ Other_____

19.*Primary Casing Diameter and Depth:

Dia _____ in. From_____ft. To_____ft. No. of Bags_____ Seal Material (Check One): ☐ Neat Cement ☐ Bentonite ☐ Other_____
Dia _____ in. From_____ft. To_____ft. No. of Bags_____ Seal Material (Check One): ☐ Neat Cement ☐ Bentonite ☐ Other_____
Dia _____ in. From_____ft. To_____ft. No. of Bags_____ Seal Material (Check One): ☐ Neat Cement ☐ Bentonite ☐ Other_____
Dia _____ in. From_____ft. To_____ft. No. of Bags_____ Seal Material (Check One): ☐ Neat Cement ☐ Bentonite ☐ Other_____
Dia _____ in. From_____ft. To_____ft. No. of Bags_____ Seal Material (Check One): ☐ Neat Cement ☐ Bentonite ☐ Other_____

20.*Liner Casing Diameter and Depth:

Dia _____ in. From_____ft. To_____ft. No. of Bags_____ Seal Material (Check One): ☐ Neat Cement ☐ Bentonite ☐ Other_____
Dia _____ in. From_____ft. To_____ft. No. of Bags_____ Seal Material (Check One): ☐ Neat Cement ☐ Bentonite ☐ Other_____
Dia _____ in. From_____ft. To_____ft. No. of Bags_____ Seal Material (Check One): ☐ Neat Cement ☐ Bentonite ☐ Other_____

21.*Telescope Casing Diameter and Depth:

Dia _____ in. From_____ft. To_____ft. No. of Bags_____ Seal Material (Check One): ☐ Neat Cement ☐ Bentonite ☐ Other_____
Dia _____ in. From_____ft. To_____ft. No. of Bags_____ Seal Material (Check One): ☐ Neat Cement ☐ Bentonite ☐ Other_____
Dia _____ in. From_____ft. To_____ft. No. of Bags_____ Seal Material (Check One): ☐ Neat Cement ☐ Bentonite ☐ Other_____

22. Pump Type (If Known):
☐ Centrifugal ☐ Jet ☐ Submersible ☐ Turbine
Horsepower _____ Pump Capacity (GPM) _____
Pump Depth _____ ft. Intake Depth _____ ft.

23. Chemical Analysis (When Required):
Iron _____ ppm Sulfate _____ppm Chloride _____ ppm
☐ Laboratory Test ☐ Field Test Kit

24. Water Well Contractor:

*Contractor Name _____ *License Number_____ E-mail Address _____

*Contractor's Signature _____ *Driller's Name (Print or Type) _____
(I certify that the information provided in this report is accurate and true.)

*Permit No._____

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT
2379 BROAD STREET, BROOKSVILLE, FL 34604-6899
PHONE: (352) 796-7211 or (800) 423-1476
WWW.SWFWMD.STATE.FL.US

ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
4049 REID STREET, PALATKA, FL 32178-1429
PHONE: (386) 329-4500
WWW.SJRWMD.COM

NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT
152 WATER MANAGEMENT DR., HAVANA, FL 32333-4712
(U.S. Highway 90, 10 miles west of Tallahassee)
PHONE: (850) 539-5999
WWW.NWFWMD.STATE.FL.US

SOUTH FLORIDA WATER MANAGEMENT DISTRICT
P.O. BOX 24680
3301 GUN CLUB ROAD
WEST PALM BEACH, FL 33416-4680
PHONE: (561) 686-8800
WWW.SFWMD.GOV

SUWANNEE RIVER WATER MANAGEMENT DISTRICT
9225 CR 49
LIVE OAK, FL 32060
PHONE: (386) 362-1001 or (800) 226-1066 (Florida only)
WWW.MYSUWANNEERIVER.COM

***DRILL CUTTINGS LOG** (Examine cuttings every 20 ft. or at formation changes. Note cavities and depth to producing zone. Grain Size: F=Fine, M=Medium, and C=Coarse)

From_____ ft. To_____ft. Color _____ Grain Size (F, M, C) _____ Material _____

Comments: _____

*Detailed Site Map of Well Location

CHAPTER 62-532
WATER WELL PERMITTING AND CONSTRUCTION REQUIREMENTS

62-532.200 Definitions for Water Well Permitting and Construction
62-532.400 Permit for Water Well Construction, Repair, or Abandonment
62-532.410 Water Well Completion Report
62-532.420 Emergency Water Well Permits
62-532.430 Intent to Deny a Water Well Construction Permit
62-532.440 Abandonment of Water Wells (Repealed)
62-532.500 Water Well Construction Standards
62-532.510 Water Well Inspections
62-532.600 Enforcement of Water Well Permitting and Construction Requirements
62-532.610 Penalties for Violation of Water Well Permitting and Construction Requirements
62-532.900 Forms (Repealed)

62-532.200 Definitions for Water Well Permitting and Construction.

The following words and phrases, when used in this chapter, shall have the following meaning, except where the context clearly indicates a different meaning:

(1) “Abandoned Well” means a well the use of which has been permanently discontinued or which is in such a state of disrepair that it cannot be used for its intended purpose or for observation purposes.

(2) “Annulus” or “Annular Space” means any artificially created void existing between a well casing or liner pipe and a bore hole wall or between two casings or between tubing and casing or liner pipe.

(3) “Aquifer” means a geologic formation, group of formations, or part of a formation capable of yielding a significant amount of ground water to wells, springs or surface water.

(4) “Bentonite” means a pumpable grouting material used for plugging or sealing water wells, consisting of a high solid sodium montmorillonite. The grout shall yield solids ranging from 20 to 30 percent, with a minimum density equal to or greater than 9.4 pounds per gallon, and a permeability of approximately 1x10-7 centimeters per second or less, or shall be dry non-treated, high swelling sodium montmorillonite. High swelling is defined as having a minimum swell index of 18 cubic centimeters as determined by ASTM standard D-5890-95.

(5) “Bottled water” means water that is intended for human consumption and that is sealed in bottles or other containers.

(6) “Bottled water plant” means a food establishment, regulated by the Florida Department of Agriculture and Consumer Services, in which bottled water is prepared for sale.

(7) “Construction of Water Wells” means all parts and acts necessary to obtain ground water by wells, including the location and excavation of the well, but excluding the installation of pumps and pumping equipment.

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

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

(10) “District” means a water management district created pursuant to Chapter 373, F.S.

(11) “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.

(12) “Driven Casing” means casing that has been installed by driving where the bore hole is equal to or smaller in diameter than the nominal outside diameter of the casing.

(13) “Geothermal well” means a type of well used for the purpose of developing ground water as a medium for thermal heat exchange.

(14) “Limited use commercial public water system” means a public water system not covered or included in the Florida Safe Drinking Water Act, which serves one or more nonresidential establishments and provides piped water.

(15) “Limited use community public water system” means a public water system not covered or included in the Florida Safe Drinking Water Act, which serves five or more private residences or two or more rental residences, and provides piped water.

(16) “Liner” means a metallic or nonmetallic pipe which is installed either within the outer casing to improve, repair, or protect the outer casing or below the outer casing to seal off caving material which may be encountered in the open hole of the well.

(17) “Multifamily water system” means a water system that provides piped water for three to four residences, one of which may

be a rental residence.

(18) “Neat Cement Grout” means a mixture of water and Portland cement (American Concrete Institute Type I, Type II, or Type III); or a mixture of water and Portland cement of a type or kind approved by the permitting authority; or a mixture of water, Portland cement of a type or kind approved by the permitting authority, and an amount of those additives approved for use in cement grouts and approved by the permitting authority.

(19) “Nominal” means those standard sizes of pipe from one-eighth inch to 12 inches, specified on the inside diameter, which may be less than or greater than the number indicated. When referred to the grouting annulus, nominal means either the available void thickness between telescoped casing varying less than 0.20 inches below standard where one inch of grout is required and 0.35 inches below standard where two inches of grout is required, or the average available void thickness between the borehole and outside wall of the casing.

(20) “Permitting Authority” means the Department or any district, or political subdivision that has been delegated the authority to issue permits under Chapter 373, Part III, F.S.

(21) “Potable water” means water that is satisfactory for human consumption, dermal contact, culinary purposes, or dishwashing.

(22) “Private water system” means a water system that provides piped water to one or two residences, one of which may be a rental residence.

(23) “Public water system” means 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.

(24) “Repair” means any action which involves the physical alteration or replacement of any part of a well, but does not include the alteration or replacement of any portion of a well which is above ground surface.

(25) “Telescoping Casing” means an interior casing extending below and sealed within an exterior casing.

(26) “Water Well” or “Well” means 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, but such term does not include any well for the purpose of obtaining or prospecting for oil, natural gas, minerals, or products of mining or quarrying; for inserting media to dispose of oil brines or to repressure oil-bearing or natural gas-bearing formation; for storing petroleum, natural gas, or other products; or for temporary dewatering of subsurface formations for mining, quarrying, or construction purposes.

(27) “Water Well Contractor” means an individual who is responsible for the 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 wells.

(28) “Well Seal” means an approved arrangement or device to prevent contaminants from entering the well at the upper terminal.

Rulemaking Authority 373.309 FS. Law Implemented 373.303, 381.0062, 403.852 FS. History–New 8-17-74, Amended 7-16-81, Formerly 17-21.02, 17-21.020, Amended 7-30-89, 3-11-92, Formerly 17-532.200, Amended 3-28-02, 10-7-10.

62-532.400 Permit for Water Well Construction, Repair, or Abandonment.

(1) After the effective date upon which a district implements a permit system pursuant to Chapter 373, Part III, F.S., a permit shall be required before beginning construction, repair, or abandonment of any water well within such area. The permit shall be obtained from the permitting authority by making written application on Form Number 62-532.900(1), State of Florida Permit Application to Construct, Repair, Modify, or Abandon A Well, adopted and incorporated herein, and available as described in Rule 62-532.900, F.A.C. The application shall be made and submitted to the permitting authority by the owner or by the water well contractor on behalf of the owner. Any required fee shall be submitted with the permit application.

(2) Permit issuance shall require that:

(a) The application is in the proper form and contains the required information; provided that the proposed construction, repair, or abandonment will not violate applicable laws, rules, or orders of the permitting authority.

(b) Additional information shall be required by the permitting authority if needed to assess site specific conditions. Such information includes geophysical logs, geologic samples and logs, and well pumping tests.

(3) Receipt of the permit by the applicant shall constitute permission to begin well construction, repair, or abandonment.

(4) The permit shall be available for inspection at the site of the well during construction, repair, or abandonment of the well.

(5) Any permittee who desires to change the location of a well before the start of construction or before construction is completed shall apply to the permitting authority for an amendment to the well construction permit. When a permit fee was required to obtain the original permit no additional fee shall be charged to amend the permit. As a condition to approving an amended permit, the permitting authority shall require the sealing or plugging of any incomplete well.

(6) Each permit shall be valid for a period of one year. In the event construction, repair, or abandonment is not completed within that time, the permitting authority shall extend the time limit upon written request by the permittee or require the applicant to obtain a new permit before continuing construction, repair, or abandonment of a water well.

(7) Water wells shall be located to comply with the setback distances in Table I at the end of this chapter.

(8) A drinking water supply well installed by an installation used to serve that installation's operation is exempt from meeting the 500-foot setback distance from on-site slow rate and rapid rate land application flow systems, domestic wastewater residuals land application, phosphogypsum stack systems, and solid waste disposal facilities if reasonable assurance is provided by the installation owner that the ground water and drinking water source are protected. Reasonable assurance shall be demonstrated if:

(a) The planned withdrawal from the drinking water supply well will not cause the discharge from the operation to be captured by the well, or

(b) The drinking water supply well is withdrawing from a confined aquifer, or

(c) Additional monitoring of the ground water and the drinking water is provided to ensure that contaminants are not reaching the drinking water supply well and a commitment is made to treat the drinking water supply if a contaminant is detected or to provide an alternate drinking water supply, and

(d) The setback distances from sanitary hazards as provided in Table I shall apply.

Rulemaking Authority 373.309 FS. Law Implemented 373.306, 373.308, 373.309, 373.316, 403.862 FS. History–New 8-17-74, Amended 9-10-78, Formerly 17-21.04, 17-21.040, Amended 7-30-89, 3-11-92, Formerly 17-532.400, Amended 3-28-02, 10-7-10.

62-532.410 Water Well Completion Report.

Within 30 days after completion of the construction, repair, or abandonment of any water well, a written report shall be filed with the permitting authority on Form Number 62-532.900(2), State of Florida Well Completion Report, adopted and incorporated herein, and available as described in Rule 62-532.900, F.A.C.

Rulemaking Authority 373.309 FS. Law Implemented 373.309 FS. History–New 8-17-74, Formerly 17-21.05, 17-21.050, Amended 7-30-89, Formerly 17-532.410, Amended 10-7-10.

62-532.420 Emergency Water Well Permits.

(1) Permission to begin construction, repair, or abandonment of any well may be applied for by telephone when emergency conditions exist that justify such a request. The permitting authority shall grant an emergency permit to avert an imminent and substantial danger to the public health, safety, or welfare.

(2) The applicant for an emergency permit shall reduce his application to writing in accordance with the provisions of Rule 62-532.400, F.A.C., and submit it within ten days. All other provisions of this chapter shall remain applicable.

Rulemaking Authority 373.309 FS. Law Implemented 373.306, 373.309, 373.313, 373.326 FS. History–New 8-17-74, Formerly 17-21.06, 17-21.060, Amended 7-30-89, Formerly 17-532.420, Amended 10-7-10.

62-532.430 Intent to Deny a Water Well Construction Permit.

(1) The permitting authority shall issue an intent to deny whenever it determines that an application for a permit under Rule 62-532.400, F.A.C., fails to meet the requirements of Chapter 373, F.S., or any rule, order, or standard adopted pursuant thereto, or that the proposed well will be harmful to the water resources of the State.

(2) The intent to deny shall:

(a) State the grounds for denial, and

(b) Be served in writing upon the owner and user by registered or certified mail.

(3) Any person receiving an intent to deny may petition for hearing by filing a written petition with the permitting authority within 30 days of the receipt of the intent. The hearing shall be conducted pursuant to Chapter 120, F.S.

Rulemaking Authority 373.309 FS. Law Implemented 373.306, 373.309, 373.313, 373.333, 373.342 FS. History–New 8-17-74, Formerly 17-21.07, 17-21.070, Amended 7-30-89, Formerly 17-532.430.

62-532.440 Abandonment of Water Wells.

Rulemaking Authority 373.309 FS. Law Implemented 373.306, 373.309, 373.313, 373.316, 373.333 FS. History–New 8-17-74, Formerly 17-21.09, 17-21.090, Amended 7-30-89, Formerly 17-532.440, Repealed 10-7-10.

62-532.500 Water Well Construction Standards.

The following minimum standards shall apply to the construction, repair, and abandonment of water wells in the State unless exempted by a water management district rule with the concurrence of the Department. Operation requirements for public water systems are included in Chapter 62-555, F.A.C., and operation requirements for limited use public water systems, multifamily water systems, and private water systems are included in Chapter 64E-8, F.A.C.

(1) Well Casing, Liner Pipe, Coupling, and Well Screen Requirements.

(a) Well casing, liner pipe, coupling, and well screen shall be new or in like new condition. Such well casing, liner pipe, coupling, or well screen shall not be used unless free of breaks, corrosion and dents, is 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. All well casing shall conform to one of the following standards: American Society for Testing and Materials (ASTM) A53/A53M-99b (1999), A135-01 (2001), A252-98 (1998), A589-96 (1996), or American Petroleum Institute (API) 5L-2000 (2000). Well casing that conforms to any of the aforementioned ASTM or API standards shall also conform to the 2000 American National Standard Institute for Welded and Seamless Wrought Steel Pipe (ANSI/ASME B36.10M-2000). All well casing shall be stenciled with the applicable standard, or proper documentation of manufacturer specifications must be supplied to the permitting authority upon request. Copies of these standards may be obtained from the American Society for Testing and Materials, 100 Barr Harbor Drive, P. O. Box C700, West Conshohocken, PA 19428-2959; the American Petroleum Institute, 1220 L Street NW, Washington, DC 20005-4070; and the American National Standards Institute, 1819 L Street NW, Washington, DC 20036, respectively.

(b) Black or galvanized steel casing installed by driving shall not have less than the dimensions and weights specified below.

Nominal Size (in.)	Outside Diameter (in.)	Wall Thickness (in.)	Plain End Weight (lbs./ft.)
1.25	1.660	.140	2.27
1.5	1.900	.145	2.72
2	2.375	.154	3.65
3	3.5	.216	7.58
3.5	4.000	.226	9.11
4	4.5	.237	10.79
5	5.563	.258	14.62
6	6.625	.280	18.97
8	8.625	.277	24.70
10	10.750	.307	34.24
12	12.750	.330	43.77
14-30		.375	
more than 30		.500	

Note: A 4 inch nominal size casing with a wall thickness of .188 inches and a plain end weight of 8.66 pounds/foot may be used if it conforms to standard API 5L-2000, Grade B, 60 KSI tensile strength. Other casing that meets these minimum tensile strength standards shall be acceptable. For example, A53/A53M-99b, Grade B, may also be substituted.

(c) Black or galvanized steel casing or liner pipe set into place without driving shall not have less than the dimensions and weights specified below.

Nominal Size (in.)	Outside Diameter (in.)	Wall Thickness (in.)	Plain End Weight (lbs./ft.)
1.25	1.660	.140	2.27
1.5	1.900	.145	2.72
2	2.375	.154	3.65
2.5	2.875	.203	5.79
3	3.500	.188	6.65
3.5	4.000	.188	7.65
4	4.500	.188	8.66
5	5.500	.188	10.79
6	6.625	.188	12.92
8	8.625	.188	16.94
10-16		.250	
>16		.375	

(d) Stainless steel pipe used for casing or liner pipe shall be Schedule 10S of the American National Standards Institute (ANSI/ ASME B36.19M-1985), or stronger classification.

(e) Polyvinyl Chloride (PVC) pipe may be used for well casing, liner pipe, and well screens. Any PVC pipe used for well construction or repair shall at a minimum meet the specifications for Schedule 40 or Standard Dimension Ratio (SDR) 21. The appropriate water management district shall require the use of stronger PVC casing if necessary to protect the integrity of the well.

(f) The Department shall approve a well casing or liner pipe not otherwise specified in paragraphs 62-532.500(1)(a) through (e), F.A.C., if the applicant makes a showing, certified by a professional engineer, to justify that such use would provide an equivalent material strength and durability. The following material has been approved pursuant to this procedure: DNS Well-Cor, Allied Tube and Conduit, A Division of Grinnel Corporation, 1440 Massaro Boulevard, Tampa, Florida, 33619.

Nominal Size (in.)	Outside Diameter (in.)	Wall Thickness (in.)
1.25	1.638	.085
2	2.360	.095
4	4.466	.150

(g) Well casing, liner pipe, coupling, and well screens used for potable water well construction or repair shall conform to 2008 NSF International Standard/American National Standard NSF/ANSI 14-2008e, Plastics Piping System Components and Related Materials, or NSF International Standard/American National Standard NSF/ANSI 61-2008, Drinking Water System Components – Health Effects, both of which are adopted and incorporated by reference herein. Copies of these copyrighted standards may be obtained from NSF International, P. O. Box 130140, Ann Arbor, MI 48113-0140.

(h) 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 appropriate water management district which provide equivalent protection. PVC pipe shall be joined by solvent bonded couplings, threaded couplings, heat welding, or other methods approved by the appropriate water management district which provide equivalent protection.

(i) Nonmetallic and stainless steel well casing or liner pipe shall not be installed by driving unless prior approval is obtained from the appropriate water management district based on a demonstration that the integrity of the well casing or liner pipe will be maintained. 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. A drive shoe is required for use on casing or pipe installed by driving unless prior approval is obtained from the appropriate water management district based on a demonstration that a drive shoe is not necessary to maintain the integrity of the casing or pipe.

(2) Geothermal well heat exchanger pipe and fitting materials shall meet the standards and specifications in the document Closed-Loop/Geothermal Heat Pump Systems Design and Installation Standards, Revised Edition 2008, published by the International Ground Source Heat Pump Association, Oklahoma State University, which is adopted and incorporated by reference herein. In addition, the reference Closed-Loop/Ground-Source Heat Pump Systems Installation Guide, 1988, Oklahoma State University, is excellent and is included here as a guidance document. Copies of all of these references may be obtained from the International Ground Source Heat Pump Association, Oklahoma State University, 374 Cordell South, Stillwater, OK 74078-8018.

(a) All geothermal well heat exchanger pipe and fitting materials shall be stenciled with the applicable standard, or proper documentation of manufacturer specifications must be supplied to the permitting authority upon request.

(b) The Department or the permitting authority shall approve geothermal well heat exchanger pipe and fitting materials not meeting the standards and specifications in the document adopted in subsection 62-532.500(2), F.A.C., if the applicant makes a showing, certified by a professional engineer, to justify that such use would provide an equivalent material strength and durability.

(3) Well Construction Criteria.

(a) Well casings, which are seated into unconsolidated earth material, shall extend from the upper terminus of the well to the well screen. The well screen shall be attached to the casing with a watertight seal.

(b) Well casings that are seated into a rock layer or other consolidated earth material, shall be continuous and shall extend from the upper terminus of the well to no less than the top of the uppermost consolidated unit. Wells constructed of telescoping casings shall be considered as a continuous casing provided the grout requirements are met. The lower terminus of the well casing shall extend to or below the water level of the aquifer intended to supply water to the well or receive fluids from the well. In addition, all caving zones below the uppermost consolidated unit shall be cased.

(c) Geothermal wells shall be grouted in accordance with subparagraph 62-532.500(3)(i)6., F.A.C.

(d) For public water system wells using telescoped casing, the casing shall be overlapped by not less than 20 feet when increases or reductions occur in casing size, unless another footage is approved by the appropriate water management district or permitting authority. Not less than two centralizing spacers shall be used in the overlapped sections, and the annular space in the overlapped sections shall be completely sealed with cement grout.

(e) Prevention of Interchange of Water and Loss of Artesian Pressure. All water wells shall be properly designed and constructed to prevent an interchange of water between water bearing zones that 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. If a well cannot be properly completed to prevent such 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 this chapter or other directions from the permitting authority, which are appropriate for the hydrogeologic conditions encountered.

(f) In the construction, repair, or abandonment of a water well, caution shall be taken to maintain the work site so as to minimize the potential entrance of contaminants into the bore hole and the ground water resource.

(g) Only water from a potable water source shall be used in the construction, repair or abandonment of a water well, including water for cleaning of well materials, drilling equipment, and water used to mix drilling fluids.

(h) Use of Explosives. The use of dynamite or other high-grade explosives in the construction or repair of water wells is prohibited.

(i) Grouting and Sealing.

1. All well casings seated into a consolidated formation shall be seated or sealed with neat cement grout.

2. Except as provided in 3. below, wells with driven casing into natural earth or a bore hole equal to or smaller in diameter than the outside diameter of the casing shall be sealed by adding dry bentonite to the casing string at land surface and allowing that material to be carried down the outside of the casing as the casing is driven to completion. Dry bentonite shall be applied to maintain a grout seal around the casing.

3. In the construction of water wells with driven casing, for limited use commercial public water systems, limited use community public water systems, public water systems, potable water wells permitted pursuant to Chapter 62-524, F.A.C., and water wells serving bottled water plants, the minimum acceptable seal shall be accomplished by undercutting or under-reaming the last five feet of the hole before seating the casing. A minimum of one foot of such enlarged hole must be into the consolidated formation in which the casing will be seated. The entire enlarged portion of the hole shall be filled with cement grout, and then the casing shall be driven through the cement grout and seated into the enlarged one-foot portion of the consolidated formation. The uppermost 20 feet of casing shall be sealed with no less than a two-inch nominal thickness of cement grout. No other minimum seal

shall be acceptable unless approved by the appropriate water management district or delegated permitting authority as providing equivalent protection to the resource.

4. 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 inside 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. For well casings with an outside diameter of less than four inches, intended to be installed in a bore hole which is larger in diameter than the inside diameter of the casing, the minimum grout thickness shall be a nominal one inch thickness of neat cement grout. The casing shall be centered in the bore hole prior to grouting. In those cases where, during grouting operations, 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 and the annulus shall be bridged at that point by sand or other approved material introduced through the pipe. Grouting of the annular space shall be completed using the tremie pipe or other equivalent method approved by the permitting authority.

5. Any district may grant individual exceptions or, with the concurrence of the Department, may exempt any areas of that district from the requirements of cement grouting the annular space between the well casing and bore hole wall of that part of a well which penetrates an unconsolidated formation upon demonstration that:

a. The unconsolidated formation material is of such a caving nature that upon stopping the circulation of drilling fluid through the well the aquifer material will immediately cave into and fill up the annular space between the well casing and bore hole wall.

b. A flow space is not created by such construction that will allow any movement of waters along the outside of the well casing which did not naturally occur prior to construction of the well.

6. Except as provided in subparagraph 5. above, grouting and sealing of water wells shall be accomplished by the practices and methods recommended by Appendix C of American Water Works Association (AWWA) Standard A100-97 (1997), AWWA Standard for Water Wells, and grouting and sealing of geothermal wells shall be accomplished by the practices and methods recommended by the Vertical Geothermal Heat Pump Systems Engineering Design and Field Procedures Manual, published by the International Ground Source Heat Pump Association, First Edition 2000, Oklahoma State University, which are adopted and incorporated by reference herein. Copies of these recommended practices and methods may be obtained from the American Water Works Association, 6666 West Quincy Avenue, Denver, CO 80235; and the International Ground Source Heat Pump Association, Oklahoma State University, 374 Cordell South, Stillwater, OK 74078-8018, respectively.

7. Alternate grouting methods and materials providing equivalent protection shall be approved in writing by the permitting authority. Alternatives to the grouting methods described in subparagraphs 1.-6. above, must be requested for use from the permitting authority as part of the construction permit application, or once construction begins only in situations where the methods in the rules are not working. In either situation, a detailed explanation of what and why alternate methods are requested must be provided. Alternate grout materials (other than neat cement grout) must be requested in the construction permit application, or once construction begins only when neat cement grout is not providing or will not provide as good a seal as the alternate materials.

(4) Top of the Well.

(a) Well Covers.

1. Whenever there is an interruption in work on the well, such as overnight shutdown, the well opening shall be sealed with a tamper resistant cover.

2. Except for those areas of a district designated by the Department with the concurrence of the permitting authority, 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.

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

4. Any unused well shall be capped in a watertight manner with a threaded, welded, or bolted cover or valve.

(b) Upper Terminus.

1. At the time of well construction, all wells shall be accessible at the upper terminus of the well casing for inspection, servicing, and testing.

2. For private and multi-family water system wells and irrigation wells, the upper terminus of the well casing shall project at least 12 inches above finished grade. Where a potential physical structure or traffic hazard may be present or where a potential public health threat exists, the upper well casing terminus may be placed in an appropriate enclosure terminating at finished grade. The enclosure shall be designed to allow vertical access to the upper well casing terminus for maintenance and inspection and

provide for gravity drainage of the enclosure. The upper well casing terminus shall be constructed to a point 18 inches or less below finished grade. The upper well casing terminus shall be sealed with a water tight seal to prevent the entrance of surface water and contaminants into the well.

3. For limited use commercial public water system wells and limited use community public water system wells constructed on or after April 1, 2002, the upper terminus of the well casing shall project at least 12 inches above the concrete apron around the well.

4. For public water system wells constructed on or after April 1, 2002, the upper terminus of the well casing shall project at least 12 inches above the pump house floor, pump pit floor, or concrete apron around the well.

5. For public water system wells, limited use commercial public water system wells, and limited use community public water system wells constructed on or after April 1, 2002, located at sites subject to flooding, the upper terminus of the well casing shall project at least 12 inches above the 100-year flood elevation and 100-year wave-action elevation. Where it is not practicable to comply with this requirement, the water management district or delegated permitting authority shall allow exceptions on a case-by-case basis provided the upper terminus of the well casing is fitted with a watertight seal.

6. Public water system wells, limited use commercial public water system wells, and limited use community public water system wells, shall be equipped with a sealable opening that will allow introduction of disinfectants and measurement of static water level and drawdown or artesian pressure.

(c) Well Aprons. For public water system wells, limited use commercial public water system wells, and limited use community public water system wells constructed on or after April 1, 2002, not located within a pump house or pump pit, a concrete apron at least six feet by six feet and at least four inches thick shall be centered around the well. The bottom surface of the concrete apron shall be constructed on top of the finished grade, and the top surface of the concrete apron shall be sloped to drain away from the well casing.

(d) Flowing Wells. If the well flows at land surface, control shall be provided by valved pipe connections, watertight pump connections, or receiving reservoirs set at an altitude corresponding to the artesian head.

(5) Plugging. All abandoned wells shall be plugged by filling them from bottom to top with neat cement grout or bentonite and capped with a minimum of one foot of neat cement grout. An alternate method providing equivalent protection shall be approved in writing by the Department or the permitting authority.

Rulemaking Authority 373.309 FS. Law Implemented 373.309, 373.313, 373.316 FS. History–New 8-17-74, Formerly 17-21.10, 17-21.100, Amended 7-30-89, 3-11-92, Formerly 17-532.500, Amended 3-28-02, 10-7-10.

62-532.510 Water Well Inspections.

(1) During the construction, repair, or abandonment of any well, the Department or the permitting authority may conduct inspections as is necessary to ensure conformity with applicable standards. Duly authorized representatives of the Department or the permitting authority shall be given access, at reasonable times, to any premises for the purpose of such inspection.

(2) If during construction, repair, or abandonment, the Department or the permitting authority finds the work does not meet the requirements of rules and standards adopted pursuant to Chapter 373, F.S., the Department or the permitting authority shall give the owner and water well contractor written notice pursuant to the requirements in Section 120.60, F.S.

Rulemaking Authority 373.309 FS. Law Implemented 120.60, 373.316, 373.319, 373.323, 373.333 FS. History–New 8-17-74, Formerly 17-21.11, 17-21.110, Amended 7-30-89, Formerly 17-532.510.

62-532.600 Enforcement of Water Well Permitting and Construction Requirements.

Enforcement shall be as provided by Section 373.333, F.S.

Rulemaking Authority 373.309 FS. Law Implemented 373.129, 373.333 FS. History–New 8-17-74, Formerly 17-21.12, 17-21.120, Amended 7-30-89, Formerly 17-532.600.

62-532.610 Penalties for Violation of Water Well Permitting and Construction Requirements.

Penalties shall be as provided by Section 373.336, F.S.

Rulemaking Authority 373.309 FS. Law Implemented 373.336 FS. History–New 8-17-74, Formerly 17-21.13, 17-21.130, Amended 7-30-89, Formerly 17-532.610.

62-532.900 Forms.

Rulemaking Authority 373.309 FS. Law Implemented 373.309, 373.313, 373.316 FS. History–New 10-7-10, Repealed 2-16-12.

TABLE 1
WELL SETBACK DISTANCES
October 7, 2010

Part A Drinking Water Supply Wells Serving Public Water Systems or Bottled Water Plant Wells		
RULE	INSTALLATION	SETBACK in feet (footnote)
Reuse of Reclaimed Water and Land Application 62-610.421(3)	Slow Rate Land Application Restricted Public Access	500 (a)
62-610.521(2)	Rapid Rate Land Application	500 (b)
62-610.621(2)	Overland Flow Systems	500
62-610.621(4)	Transmission Facilities Conveying Reclaimed Water to Restricted Public Access Slow Rate Land Application Systems, Rapid Rate Land Application System, or Overland Flow Systems	100
62-610.471(1)	Public Access, Residential Irrigation, or Edible Crop Slow-rate Land Application Systems	75
62-610.471(3)	Transmission Facilities Conveying Reclaimed Water to Public Access, Residential Irrigation, or Edible Crop Slow-rate Land Application Systems	75
Domestic Wastewater Residuals 62-640.700(4)(b)	Domestic Wastewater Residuals Land Application Areas	500
Phosphogypsum Management 62-673.340(2)(d)	Phosphogypsum Stack Systems	500 (c)
Storage Tank Systems 62-761.500(1)(a) and 62-762.501(1)(a)	Aboveground or Underground Storage Tanks	100
Solid Waste Management Facilities 62-701.300(2)(b)	Solid Waste Disposal Facilities	500
62-701.300(12)(a)	Yard Trash Disposal, Storage, or Processing	200
62-701.300(13)	Storage or Treatment of Solid Waste in Tanks	100
Permitting and Construction of Public Water Systems 62-555.312(1)	Onsite Sewage Treatment and Disposal Systems	200 (d), 100 (e)
Public Water Systems 62-555.312(3)	Sanitary Hazard as defined in Chapter 62-550, F.A.C., for drinking water supply wells serving public water systems	100 (f), 50 (g)
Feedlot and Dairy Wastewater Treatment and Management Requirements 62-670.500(6)(a)	Dairy Farm Waste - Unlined Storage and Treatment, or High Intensity Areas	300
62-670.500(6)(b)	Dairy Farm Waste - Land Application	200

Part B Drinking Water Supply Wells Serving Limited Use Commercial Public Water Systems and Limited Use Community Public Water Systems		
RULE	INSTALLATION	SETBACK in feet (footnote)
Reuse of Reclaimed Water and Land Application 62-610.421(3)	Slow Rate Land Application Restricted Public Access	500 (a)
62-610.521(2)	Rapid Rate Land Application	500 (b)
62-610.621(2)	Overland Flow Systems	100
62-610.621(4)	Transmission Facilities Conveying Reclaimed Water to Restricted Public Access Slow Rate Land Application Systems, Rapid Rate Land Application System, or Overland Flow Systems	100
62-610.471(1)	Public Access, Residential Irrigation, or Edible Crop Slow-rate Land Application Systems	75
62-610.471(3)	Transmission Facilities Conveying Reclaimed Water to Public Access, Residential Irrigation, or Edible Crop Slow-rate Land Application Systems	75
Domestic Wastewater Residuals 62-640.700(4)(b)	Domestic Wastewater Residuals Land Application Areas	500
Phosphogypsum Management 62-673.340(2)(d)	Phosphogypsum Stack Systems	500 (c)
Storage Tank Systems 62-761.500(1)(a) and 62-762.501(1)(a)	Aboveground or Underground Storage Tanks	100
Solid Waste Management Facilities 62-701.300(2)(b)	Solid Waste Disposal Facilities	500
62-701.300(12)(a)	Yard Trash Disposal, Storage, or Processing (no setback required for on-site water wells)	100
62-701.300(13)	Storage or Treatment of Solid Waste in Tanks	100
Drinking Water Systems 64E-8.002(2)	Onsite Sewage Treatment and Disposal Systems	200 (d), 100 (e)
	Sanitary Hazard	100 (f), (g)
Feedlot and Dairy Wastewater Treatment and Management Requirements 62-670.500(6)(b)	Dairy Farm Waste – Unlined Storage and Treatment, or High Intensity Areas	300
62-670.500(6)a)	Dairy Farm Waste – Land Application	200

Part C Private Wells Multifamily Wells		
RULE	INSTALLATION	SETBACK in feet (footnote)
Reuse of Reclaimed Water and Land Application 62-610.421(3)	Slow Rate Land Application Restricted Public Access	500 (a)
62-610.521(2)	Rapid Rate Land Application	500 (b)
62-610.621(2)	Overland Flow Systems	100
62-610.471(1)	Public Access, Residential Irrigation, or Edible Crop Slow-rate Land Application Systems	75
Domestic Wastewater Residuals 62-640.700(4)(b)	Domestic Wastewater Residuals Land Application Areas	300
Storage Tank Systems 62-761.500(1)(a) and 62-762.501(1)(a)	Aboveground or Underground Storage Tanks	100
Solid Waste Management Facilities 62-701.300(2)(b)	Solid Waste Disposal Facilities	500
62-701.300(12)(a)	Yard Trash Disposal, Storage, or Processing (no set back required for on-site water wells)	100
62-701.300(13)	Storage of Treatment of Solid Waste in Tanks	100
Drinking Water Systems 64E-8.003(1)	Onsite Sewage Treatment and Disposal Systems	75
	Sanitary Hazard	75 (f), (g)
Feedlot and Dairy Wastewater Treatment and Management Requirements 62-670.500(6)(a)	Dairy Farm Waste – Unlined Storage and Treatment, or High Intensity Areas	300
62-670.500(6)(b)	Dairy Farm Waste – Land Application	200

Part D Irrigation Wells and Geothermal Wells		
RULE	INSTALLATION	SETBACK in feet (footnote)
Standards for Onsite Sewage Treatment and Disposal Systems 64E-6.005(1)(d)	Onsite Sewage Treatment and Disposal System	50

TABLE I FOOTNOTES

(a) This distance shall be reduced to 200 feet if facility Class I reliability is provided and shall be reduced to 100 feet if both facility Class I reliability and high-level disinfection are provided.

(b) This distance shall be reduced to 200 feet if both facility Class I reliability and high-level disinfection are provided and if the applicant provides reasonable assurance that applicable water quality standards will not be violated at the point of withdrawal.

(c) This distance applies only to shallow water supply wells (i.e., potable water wells that pump from an unconfined water table aquifer).

(d) This distance applies to public drinking water supply wells that serve water systems having total sewage flows greater than 2,000 gallons per day.

(e) This distance applies to public drinking water supply wells that serve water systems having total sewage flows less than or equal to 2,000 gallons per day.

(f) This distance applies to sanitary hazards that pose a potentially high risk to ground water quality and public health as defined in subsection 62-555.312(3), F.A.C. The following examples are of sanitary hazards that pose a potentially high risk: active or abandoned mines; airplane or train fueling or maintenance areas at airports and railroad yards; concentrated aquatic animal production facilities; domestic wastewater collection/transmission systems; drainage or injection wells, oil or gas production wells, and improperly constructed or abandoned wells (i.e., wells not constructed or abandoned in accordance with Chapter 62-532, F.A.C.); fertilizer, herbicide, or pesticide storage areas at agricultural sites, golf courses, nurseries, and parks; graveyards; impoundments and tanks that process, store, or treat domestic wastewater, domestic wastewater residuals, or industrial fluids or waste and that are not regulated under Rule 62-670.500, F.A.C.; industrial waste land application areas other than those regulated under Rule 62-670.500, F.A.C.; junkyards and salvage or scrap yards; pastures with more than five grazing animals per acre; cattle dip vats; pipelines conveying petroleum products, chemicals, or industrial fluids or wastes; and underground storage tanks that are not regulated under Chapter 62-761, F.A.C., but are used for bulk storage of a liquid pollutant or hazardous substance (as defined in Chapter 62-761, F.A.C.) other than sodium hypochlorite solution.

(g) This distance applies to sanitary hazards that pose a potentially moderate risk to ground water quality and public health as defined in subsection 62-555.312(3), F.A.C. The following examples are of sanitary hazards that pose a moderate risk: aboveground storage tanks that are not regulated under Chapter 62-762, F.A.C., but are used for bulk storage of a liquid pollutant or hazardous substance (as defined in Chapter 62-762, F.A.C.) other than sodium hypochlorite solution; fertilizer, herbicide, or pesticide application areas that are not under the ownership or control of the supplier of water at agricultural sites, golf courses, nurseries, and parks; railroad tracks; stormwater detention or retention basins; and surface water (the surface water setback does not apply to multi-family and private wells).