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Final Regulation Agency Background Document

Agency name	State Board of Health
Virginia Administrative Code (VAC) Chapter citation(s)	12-VAC-5-630
VAC Chapter title(s)	Private Well Regulations
Action title	Amendments to Private Well Regulations
Date this document prepared	August 9, 2022

This information is required for executive branch review and the Virginia Registrar of Regulations, pursuant to the Virginia Administrative Process Act (APA), Executive Order 19 (2022) (EO 19), any instructions or procedures issued by the Office of Regulatory Management (ORM) or the Department of Planning and Budget (DPB) pursuant to EO 19, the Regulations for Filing and Publishing Agency Regulations (1 VAC 7-10), and the *Form and Style Requirements for the Virginia Register of Regulations and Virginia Administrative Code*.

Brief Summary

Provide a brief summary (preferably no more than 2 or 3 paragraphs) of this regulatory change (i.e., new regulation, amendments to an existing regulation, or repeal of an existing regulation). Alert the reader to all substantive matters. If applicable, generally describe the existing regulation.

The Board of Health (Board) has not made significant revisions to the Private Well Regulations (Regulations) since their adoption in 1990. The Regulations establish the minimum location and construction requirements for private wells installed in the Commonwealth. In August 2016, the Virginia Department of Health (VDH) began a periodic review of the Regulations and formed a Private Well Regulations Workgroup. The purpose of the workgroup was to assist VDH in the development of proposed revisions to the Regulations. The Proposed Regulations were published in Volume 38 Issue 11 of the *Virginia Register of Regulations* on January 17, 2022, and advertised a public comment period ending March 18, 2022. The intent of this regulatory action is to explore amendments to the Regulations based on current industry standards, all public comments received, and feedback received from the Private Well Regulations Workgroup. The purpose is to ensure the Regulations (i) are protective of public health and the environment, (ii) address changes in current standards and practices, (iii) clarify regulatory language, and (iv) exhibit improved consistency with other regulations related to private wells and

groundwater resources. No substantive changes have been made between the Proposed and Final Stages.

Acronyms and Definitions

Define all acronyms used in this form, and any technical terms that are not also defined in the "Definitions" section of the regulation.

- ASTM – American Society of Testing and Materials
- AWWA – American Waterworks Association
- DHCD – Department of Housing and Community Development
- DEQ – Department of Environmental Quality
- DPOR – Department of Professional and Occupational Regulation
- NGWA – National Groundwater Association
- NSF – National Sanitation Foundation
- ODW – Office of Drinking Water
- SHDR – Sewage Handling and Disposal Regulations
- SWCB – State Water Control Board
- VDH – Virginia Department of Health
- USGS – United States Geological Survey
- VWWA – Virginia Water Well Association
- WWSP – Water Well Systems Provider

Statement of Final Agency Action

Provide a statement of the final action taken by the agency including: 1) the date the action was taken; 2) the name of the agency taking the action; and 3) the title of the regulation.

The Board of Health approved these Final Regulations for the Private Well Regulations (12VAC5-635) on September 22, 2022.

Mandate and Impetus

List all changes to the information reported on the Agency Background Document submitted for the previous stage regarding the mandate for this regulatory change, and any other impetus that specifically prompted its initiation. If there are no changes to previously reported information, include a specific statement to that effect.

In accordance with Virginia Code §2.2-4017 and Executive Order 14 (2018) (amended), the Department conducted a periodic review of the Regulations. In a January 27, 2017, memorandum to the Commissioner of the Department, Grant Kronenberg, Assistant Attorney General offered opinion that certain exemptions from regulatory requirements provided to dewatering wells in the existing regulations are not supported under the statutory authority given in the Code of Virginia §§ 32.1-176.4(A) and 32.1-176.5(A). The Assistant Attorney General therefore recommended that VDH amend the Regulation so that statutory requirements with respect to construction permits apply to private dewatering wells. This opinion, along with the periodic review of the Regulations, provided impetus to update the Regulations such that they (i) are protective of public health and the environment, (ii) address changes in current standards and practices, (iii) clarify regulatory language, and (iv) exhibit improved consistency with other regulations related to private wells and groundwater resources.

Legal Basis

Identify (1) the promulgating agency, and (2) the state and/or federal legal authority for the regulatory change, including the most relevant citations to the Code of Virginia and Acts of Assembly chapter number(s), if applicable. Your citation must include a specific provision, if any, authorizing the promulgating agency to regulate this specific subject or program, as well as a reference to the agency's overall regulatory authority.

Section 32.1-12 of the Code of Virginia authorizes the Board to “make, adopt, promulgate and enforce such regulations and provide for reasonable variances and exemptions therefrom as may be necessary to carry out the provisions of [Title 32.1.]” § 32.1-176.4 requires the Board to promulgate regulations “pertaining to the location and construction of private wells,” including “minimum storage capacity and yield requirements for residential drinking wells.” The Board has the duty to protect the public health and to ensure that ground water resources are not adversely affected by the construction and location of private wells.

Purpose

Explain the need for the regulatory change, including a description of: (1) the rationale or justification, (2) the specific reasons the regulatory change is essential to protect the health, safety, or welfare of citizens, and (3) the goals of the regulatory change and the problems it is intended to solve.

The private well industry has experienced significant advancements since promulgation of the Regulations in 1990, including improvements in the materials and equipment used to construct private wells, changes in the regulatory oversight of Water Well Systems Providers (WWSP) from VDH to the Department of Professional and Occupational Regulation (DPOR), and changes in other regulations which relate to these Regulations. New information and research has improved understanding of the risk to public health and groundwater resources with regards to the location and construction of private wells. Examples include advancements in alternative onsite sewage treatment system design, promulgation of standards related to reclaimed water, federal guidelines related to emerging contaminants, regulation of groundwater withdrawal by the Virginia Department of Environmental Quality (DEQ), and activities such as hydraulic fracturing and underground injection of treated effluent. Stakeholders have also identified inconsistencies between the Regulations and other regulations related to private wells and groundwater resources, including references to repealed sections of the Code of Virginia, and the need for the Regulations to correlate to other regulatory requirements for wells constructed in designated Groundwater Management Areas. The amendments to the Regulations propose updated private well location and construction criteria recognizing current industry standards, improve consistency with other regulations, and improve protection of public health and groundwater resources. This regulatory change is essential to public health and safety because there are currently requirements in the Regulation that are based on outdated well location and construction standards. Without the proposed amendments, Virginians will have to comply with regulations that are not informed by current, up to date research and industry practices. Additionally, inconsistencies between the Regulations and other regulations related to private wells and groundwater resources will persist.

Substance

Briefly identify and explain the new substantive provisions, the substantive changes to existing sections, or both. A more detailed discussion is provided in the “Detail of Changes” section below.

The following substantive changes to existing sections, and new substantive provisions, are proposed to the existing regulatory language:

- Revisions of definitions, and additional definitions, as necessary for consistency with the Code of Virginia, other regulations related to private wells and groundwater resources, and current industry standards.
- Revision of administrative processes to reflect current law and to improve consistency with other Department regulations.
- Clarification of grout materials and procedures approved for well abandonment.
- Improvement of standards regarding well abandonment protocols.
- Revision of the separation distance requirements between sources of contamination and wells abandoned in accordance with the Regulations.
- Improvement of consistency between the Regulations and other regulations, such as the Sewage Handling and Disposal Regulations (12VAC5-610), which establish minimum separation distance from private wells.
- Improvement of consistency between private well construction reporting requirements in the Regulations and well construction and reporting requirements in the Groundwater Withdrawal Regulations (9VAC25-610).
- Removal or revision of references to obsolete or repealed regulations and laws.
- Revision of current construction standard exemptions for Class IIIC and Class IV wells.
- Clarification of disinfection procedures.
- Clarification of standards for yield and storage requirements.
- Revision of private well classification system so that Class IV well construction standards mirror Class III wells.
- Establishment of a standard procedure for converting existing Class IV wells to Class III wells.
- Identification of reasonable exemptions from the Regulations (e.g., dewatering wells).
- Clarification of regulatory authority relative to observation wells.
- Establishment of minimum private well construction criteria based on geologic conditions, such as requiring a mechanical seal at the termination of well casing into bedrock.
- Requirement that all private well components meet national lead-free standards.
- Establishment of criteria to acknowledge nationally recognized standards and certifications (e.g., National Sanitation Foundation) for approval of private well components (including, but not limited to, standard methods, materials, products, analytical, and permeability standards).
- Establishment of a minimum separation distance from utilities, property lines, permanently abandoned onsite sewage systems, reuse water lines, and other potential sources of contamination.
- Establishment of quality standards for water used during well construction.

Issues

Identify the issues associated with the regulatory change, including: 1) the primary advantages and disadvantages to the public, such as individual private citizens or businesses, of implementing the new or amended provisions; 2) the primary advantages and disadvantages to the agency or the Commonwealth; and 3) other pertinent matters of interest to the regulated community, government officials, and the public. If there are no disadvantages to the public or the Commonwealth, include a specific statement to that effect.

Primary advantages and disadvantages to the public, such as individual private citizens or businesses, of implementing the new or amended provisions

Advantages include clarity in requirements for well location and construction, which benefit both WWSP and well owners, and enhanced protection of public health and groundwater quality by means of improved setback distance requirements. VDH has not identified any disadvantages in the proposed revisions.

Primary advantages and disadvantages to the agency or Commonwealth

The revisions will assist the Department in making improvements to the permitting process by addressing inconsistencies in the existing Regulations. The revisions will assist the Commonwealth by enhanced protection of public health and the environment. VDH has not identified any disadvantages in the proposed revisions.

Other pertinent matters to the regulated community, government officials, and the public

The revisions eliminate static references to well construction materials and procedures and replace them with reference to national standards and accreditations (e.g., ASTM, NSF). This provides WWSP the ability to apply professional judgment rather than forced reliance on obsolete specifications and standards included in the existing Regulations.

Requirements More Restrictive than Federal

List all changes to the information reported on the Agency Background Document submitted for the previous stage regarding any requirement of the regulatory change which is more restrictive than applicable federal requirements. If there are no changes to previously reported information, include a specific statement to that effect.

There are no federal requirements, other than non-enforceable general guidance, addressing the location and construction of private wells.

Agencies, Localities, and Other Entities Particularly Affected

List all changes to the information reported on the Agency Background Document submitted for the previous stage regarding any other state agencies, localities, or other entities that are particularly affected by the regulatory change. If there are no changes to previously reported information, include a specific statement to that effect.

Other State Agencies Particularly Affected

DEQ, DPOR, DHCD

Localities Particularly Affected

The Regulations apply equally throughout the Commonwealth. Localities named in VA Code §§ 32.1-176.4.A and 32.1-176.5.B and C and having authority to adopt ordinances establishing standards pertaining to private well location, testing of water, and well abandonment may need to modify ordinances to be consistent with the regulatory changes.

Other Entities Particularly Affected

WWSP, Homebuilders, Onsite Soil Evaluators, Realtors, Commercial Laboratories.

Public Comment

Summarize all comments received during the public comment period following the publication of the previous stage, and provide the agency’s response. Include all comments submitted: including those received on Town Hall, in a public hearing, or submitted directly to the agency. If no comment was received, enter a specific statement to that effect.

Commenter	Comment	Agency response
Virginia Onsite Soil Evaluators	<p>Title: “drilling fluids unsuitable for potable water development.” Comment ID: 119191 Concern: widespread practice of withdrawal and injection into wells under development of un-characterized surface waters obtained from streams, farm ponds, or rivers while drilling or boring drinking water wells contaminates groundwater with materials (see pollutants), and/or pathological organisms (bacteriological, viral & parasitic) which could threaten public health on or adjacent to permit holder’s property. Reference: “<u>G. Water used during well construction shall be obtained from a suitable source or the well being constructed. A suitable source means a pure water source, or, when a pure water source is not locally available, water taken from another source then disinfected using compounds meeting NSF/ANSI Standard 60 environmental specifications.</u>” Private sanitary standards do not meet requirements of Code citation. Therefore it is recommended requirement for disinfection be specified. Example given: 12VAC5-630-430. Disinfection.</p>	<p>The Department agrees that disinfection of water used in well construction is necessary when the water is not from a pure water source, which is the purpose of the new regulatory language referenced. The Department does not agree that “private sanitary standards do not meet requirements of Code citation.” (§§ 32.1-12 and 32.1-176.2 through -176.8:1 of the Code of Virginia). The existing revision language requires disinfection of water not from a pure water source using compounds meeting NSF/ANSI Standard 60 environmental specifications.</p> <p>The Department is sympathetic to the commenter’s concern regarding uncharacterized surface waters. In discussion with representatives of the Virginia Water Well Association, the parties discussed the subsection language but were not able to agree on a suitable text revision.</p> <p>In the majority of well construction events the matter will not come up because water hauled to well construction sites by the driller comes from pure water sources. The purpose of the language is to provide water well system providers an option in the rare case that additional water is needed and there is no nearby pure water source available.</p> <p>Modification to Regulations in response to comment: No</p>
John Public	<p>Title: “Minimum yield” Comment ID: 119207 Minimum yield requirements increase cost to consumer, role of health officials should not include bullying citizens into drilling additional wells. The regulations are silent on the accepted means of determining well yield or storage capacity; thus the driller who has several conceivable conflicts of interest, is left to advise the</p>	<p>The inclusion of minimum yield requirements in the regulations is required by the Code of Virginia. Section 32.1-176.4.A. states, in relevant part, that the private well “regulations shall include minimum storage capacity and yield requirements for residential drinking wells. The certified water well systems provider shall certify the storage capacity and the yield of the well on a form provided by the Department at the time the well is completed.”</p>

Commenter	Comment	Agency response
	<p>property owner whether the yield is "sufficient." Water use is one parameter which is completely at the discretion of the homeowner. Is there any data suggesting that 1/2 gpm well yield is insufficient for a 3BR home? A sewage permit would anticipate discharge of 450 gallons/day, while 1440 minutes/day gives 720 gallons from a so-called low yield well. The existing regulation has not proven problematic, and is certainly not a threat to public health or welfare. Leave well enough alone.</p> <p>Reference: 12VAC5-630-460. Water system yields for residential use wells.</p> <p>A. All drinking Drinking water systems that utilize one or more Class III wells shall be capable of supplying water in adequate quantity for the intended usage. All such systems, with Systems with a capacity less than <u>under</u> three gallons per minute, shall have a capacity <u>ability</u> to produce and store 150 gallons per bedroom per day and be capable of delivering a sustained flow of five gallons per minute per connection <u>for 10 minutes for ordinary residential use</u>. Systems with a capacity of three gallons per minute or more do not require additional storage.</p> <p>B. The certified water well systems provider shall certify the storage capacity and the yield of the well on the Uniform Water Well Completion Report.</p>	<p>Other than style modifications to improve consistency with the <i>Form and Style Requirements for the Virginia Register of Regulations and Virginia Administrative Code</i>, the sole change to the existing section is clarification of the length of time that sustained flow of 5 gallons per minute per connection is required, which will eliminate confusion for the regulated community.</p> <p>Modification to Regulations in response to comment: No.</p>
JT Walker	<p>Title: "licensure" Comment ID: 120641 Please clarify who is licensed to design and permit construction of water wells.</p> <p>Although VDH regulations require acceptance of well site design applications endorsed by PE, OSE or certified well driller the proposed regulations are silent on the vital issue of site plan, certification of meeting horizontal standoffs to easements, boundaries, and existing or proposed improvements.</p> <p>Reference: 12VAC5-630-80. Relationship to the Department of Professional and Occupational</p>	<p>The Code of Virginia § 32.1-176.5:2.A states "(t)he Department shall accept private site evaluations and designs, in compliance with the Board's regulations for the construction of private wells, designed and certified by a licensed professional engineer, in consultation with a licensed onsite soil evaluator, or by a licensed onsite soil evaluator." Further, Acts of the Assembly Chapter 831 (2018) states that "Beginning July 1, 2018, (the Department shall) accept private evaluations and designs for private wells, in compliance with the State Board of Health Regulations for construction of private wells, designed and certified by a certified master water well system provider pursuant to § 54.1-1129.1 of the Code of Virginia."</p>

Commenter	Comment	Agency response
	<p>Regulation. <u>Persons engaged in the construction, repair, or alteration of a private well shall be licensed and certified in accordance with § 54.1-1103 and 54.1-1129.1 of the Code of Virginia. any contractor constructing a water well to reach ground water shall possess, as a minimum, a valid Class B contractors license.</u></p>	<p>These sections of the Code of Virginia clearly distinguish between <i>site evaluation</i> and <i>design</i>. Site evaluation (i.e., determining the proposed location of a well) is not a function of design. This is supported by academic and industry standards and practices (e.g., Groundwater and Wells, 2nd edition, Fletcher G. Driscoll, Ph.D.), which clearly differentiate identification of the intended location of a well from design functions pertaining to the construction of the well (such as casing diameter, well depth, screen length, and so on).</p> <p>Site evaluation (referred to in the Regulations as a sanitary survey) is a matter of adhering to a prescribed standard. In the case of 12VAC5-630, the prescribed standard is presented in Section 380, and the expectation placed on the party completing the sanitary survey is that the location of the well must meet required separation distances and be documented in detail sufficient that a person unfamiliar with the property can properly locate the well site.</p> <p>Private well design requirements are presented in Part III of the Regulations, which identify the classes of private wells and the minimum casing and grout requirements relative to each class. It is a generally accepted practice (Driscoll) that in the design of domestic, or residential, wells a “compromise is necessary between well cost and well efficiency.” For this reason, well depth and screen interval for domestic wells is typically determined on site at the time of drilling rather than on the basis of a documented design completed prior to drilling.</p> <p>When owners of non-domestic private wells (e.g. irrigation or industrial) require detailed well design specifications prior to drilling, VDH is not involved beyond the issuance of a construction permit based on the well class. Questions regarding licensure to design water wells fall under the purview of the Department of Professional and Occupational Regulation.</p> <p>With respect to permitting of construction, the Department issues permits for the construction of water wells, including private wells and wells supplying waterworks.</p> <p>Modification to Regulations in response to comment: No.</p>

Commenter	Comment	Agency response
William Johnson	<p>Comment by Email.</p> <p>Our concern originates in 12VAC5-640-10 Definitions.</p> <p>The definition “Biosolids” means solid, semisolid, or liquid materials removed from municipal sewage and treated to be suitable for recycling as fertilizer. This definition seems innocuous enough...however...</p> <p>There are no mentions of Class A, Class B, or EQ biosolids.</p> <p>There are no mentions of 40CFR-anything.</p> <p>There are no mentions of other VAC-anything.</p> <p>Because the definition is in the regulation and does not reference any other definitions, or any regulatory definitions, or any other regulations, or any other regulatory guidance, all of the other things that we know to be TRUE about Biosolids do not exist within the eyes of this regulation or within the context of the definition herein. By being in the regulation as is, this definition closes the door with respect to referencing everything else known about biosolids.</p> <p>The Virginia Department of Health in the Private Well Regulations is defining the term Biosolids in twenty words or less for the purpose of regulating private wells in the Commonwealth of Virginia.</p> <p>As well-meaning and important as these regulations are, they do not have the mandate nor authority to define biosolids, regardless of how good their intentions are...</p> <p>We are hoping to get your specific reference for the words used to define biosolids in the proposed regulations; our Googling found:</p> <p>The words (“solid, semisolid, or liquid materials removed from municipal sewage and treated to be suitable for recycling as fertilizer) suggests these words are often used in the public advertisements for land application of biosolids permits (reference Nutri-Blend 2009, Cumberland and reference Synagro Central 2010 Surry)</p>	<p>The commenter has identified a lack of clarity in the proposed revision of the Regulations with respect to separation distance from locations subject to the application of biosolids. Specifically, the term “biosolids” as presented in the draft Regulations is non-specific and does not align with requirements in the DEQ regulations that address their beneficial use. The Department agrees with the commenter that the draft language is subject to potential conflicting interpretations.</p> <p>Modification to Regulations in response to comment: Yes</p>

Commenter	Comment	Agency response
	<p>DEQ FAQ Pamphlet from 2015 (see attached) uses these words. We found 9VAC25-32-10 (VPA Permit Regulation) Definitions: "Biosolids" means a sewage sludge that has received an established treatment and is managed in a manner to meet the required pathogen control and vector attraction reduction, and contains concentrations of regulated pollutants below the ceiling limits established in 40 CFR Part 503 and 9VAC25-32-356, such that it meets the standards established for use of biosolids for land application, marketing, or distribution in accordance with this regulation. Liquid biosolids contains less than 15% dry residue by weight. Dewatered biosolids contains 15% or more dry residue by weight.</p> <p>With respect to 12VAC5-630-380 Well location:</p> <p>Paragraph A says (whole new paragraph): A. The private well shall be sited for the protection of public health and the aquifer, with appropriate consideration given to distance from potential contamination sources; vulnerability to known or suspected natural risks (e.g., flooding); potential for interference with utilities; accessibility for drilling machinery and support equipment; and safety of the public and well construction personnel.</p> <p>Paragraph B says (underlined parts are new): B. Sanitary survey. Any obvious source Obvious sources of potentially toxic or dangerous substances within 200 feet of the proposed private well shall be investigated as part of the sanitary survey by the district or local health department. Sources of contamination may include, but are not limited to, items listed in Table 3.1.; abandoned wells.; pesticide treated soils, underground; petroleum or chemical storage tanks, drums, totes or other storage containers (aboveground and underground); and</p>	

Commenter	Comment	Agency response
	<p>other sources of physical, chemical or biological contamination. If the source of contamination could affect the well adversely, and preventive measures are not available to protect the ground water groundwater, the well shall be prohibited. The minimum separation distance between a private well and structures, topographic features, or sources of pollution shall comply with the minimum distances shown in Table 3.1.</p> <p>The words 'items listed in Table 3.1' originate in the 'old regulations' that describe structures and topographic features...the update to Table 3.1 describes more than 'structures or topographic features'?</p> <p>This regulation says that 'the well shall be prohibited within 100 feet of Biosolids application sites, no exceptions'. This regulation (unintentionally?) puts an X over every single biosolids application site in the Commonwealth of Virginia for the location or development of a private well; there are no preventative measures that can un-apply biosolids from a site. Every single site has been permitted by the Virginia Department of Environmental Quality. Every single site has been declared off-limits by the Virginia Department of Health in the Private Well Regulations (unintentionally?). Who will the property owners hold liable for their land being forever marked by an X by the Commonwealth of Virginia and Virginia Department of Health? No well equals not development potential, which means no development potential value; can the Commonwealth of Virginia be held financially liable for marking an X over property that was permitted by the Commonwealth of Virginia?</p> <p>We do not believe that VDH intends this consequence; we do not believe that VDH would enforce this consequence even though it is written in its own Private Well Regulations...we believe that VDH intends to direct the application of Biosolids to have a 100' buffer around</p>	

Commenter	Comment	Agency response
	<p>the new well to protect the new well. HOWEVER, the way the regulation is drafted, a very savvy commenter in a public forum will stand up and point to the words in the new PRIVATE WELL REGULATIONS and say that VDH says no new wells within 100 feet of a Biosolids application site, no exceptions. We do not want to have to argue that this is not what the regulation says...we want the VDH, the DEQ, the Commonwealth of Virginia, and the Biosolids industry to work together to revise the proposed language to head this type of public argument off at the pass, especially since we do not believe that VDH intends to put an X over every piece of property that is a Biosolids Application site.</p> <p>Paragraph I says: <u>Biosolids application site. No private well shall be placed closer than 100 feet from land on which biosolids are applied.</u></p> <p>Just to make the case for the 'savvy commenter' more straight forward, paragraph I says in no uncertain terms that no private well shall be placed on land on which biosolids are applied...we believe that the intent is to make sure that the application of biosolids in the vicinity of a new well backs off the expected 100 feet, but the words say much more than what seems to have been intended? Again, VDH does not intend the interpretations articulated herein, but a plain straight-faced reading of the words may conclude otherwise.</p>	
<p>Brian Campbell (DEQ)</p>	<p>Comments by Email</p> <ol style="list-style-type: none"> Specify "GW-2" when referencing Uniform Water Well Completion Report for clarity and consistency 	<p>The term GW-2 is not universally used in reference to the Uniform Water Well Completion Report. The Department therefore believes removal of all references to GW-2 will provide clarity and consistency, as opposed to the action recommended by the commenter. In addition, because the Uniform Water Well Completion Report is addressed in Section 310, Section 440 will be repealed to avoid duplication.</p> <p>Modification to Regulations in response to comment: Yes</p>

Commenter	Comment	Agency response
	<p>2. Incorrect reference in 12VAC5-630-410.</p> <p>3. Suggested clarifications regarding placement of grout in Section 12VAC5-630-410. Commenter is concerned that the methodology of pouring grout or bentonite chips/pellets is subject to failure if the annular space or interior of tremie pipe is not dry. The presence of moisture can lead to swelling and bridging, preventing effective application.</p> <p>4. The hyperlink to the Uniform Water Well Completion Report in the Forms Section is Obsolete</p>	<p>The Department agrees that the reference is incorrect.</p> <p>Modification to Regulations in response to comment: Yes</p> <p>The Department agrees with this comment.</p> <p>Modification to Regulations in response to comment: Yes</p> <p>The Department agrees with this comment.</p> <p>Modification to Regulations in response to comment: Yes</p>

Detail of Changes Made Since the Previous Stage

*List all changes made to the text since the previous stage was published in the Virginia Register of Regulations and the rationale for the changes. For example, describe the intent of the language and the expected impact. Describe the difference between existing requirement(s) and/or agency practice(s) and what is being proposed in this regulatory change. Explain the new requirements and what they mean rather than merely quoting the text of the regulation. * Put an asterisk next to any substantive changes.*

Current chapter-section number	New chapter-section number, if applicable	New requirement from previous stage	Updated new requirement since previous stage	Change, intent, rationale, and likely impact of updated requirements
10	na	No	Yes	CHANGE: The definition of Biosolids is changed as follows: "Biosolids" means solid, semisolid, or liquid materials removed from municipal sewage and treated to be suitable for recycling as fertilizer, as defined in 9VAC25-31-10 and

Current chapter-section number	New chapter-section number, if applicable	New requirement from previous stage	Updated new requirement since previous stage	Change, intent, rationale, and likely impact of updated requirements
				<p><u>9VAC25-32-10. For the purpose of these regulations, biosolids do not include exceptional quality biosolids as that term is defined in 9VAC25-32-10.</u></p> <p>INTENT: The intent of the change is to provide clarity to the definition of biosolids.</p> <p>RATIONALE: The rationale for the revision of the definition of biosolids is that 9VAC25-31 and 9VAC25-32 provide definitions of biosolids and the intention of the proposed amendment is to achieve consistency with those definitions.</p> <p>LIKELY IMPACT: The likely impact of the change is that separation distance of a well from a biosolids application field will be in harmony with DEQ’s regulation of biosolids application.</p>
310	na	No	Yes	<p>CHANGE: Remove two references to GW-2 form, further, the term GW-2 is replaced with uniform water well completion report wherever it occurs in the Regulations.</p> <p>INTENT: The intent of the change is to discontinue use of the term “GW-2” relative to the Uniform Water Well Completion Report.</p>

Current chapter-section number	New chapter-section number, if applicable	New requirement from previous stage	Updated new requirement since previous stage	Change, intent, rationale, and likely impact of updated requirements
				<p>RATIONALE: The rationale for the change is that “GW-2” is not universally used by the regulated community and regulators, whereas “Uniform Water Well Completion Report” is.</p> <p>LIKELY IMPACT: The likely impact is to reduce confusion for the regulated community and regulators with other state and federal agencies regarding the name of the document completed following well construction.</p>
380	na	No	Yes	<p>CHANGE: Table 3.1 is renumbered as Table 1 (note: references to Table 3.1 throughout the Regulations are revised accordingly).</p> <p>INTENT: To improve clarity</p> <p>RATIONALE: This is the only table in the Regulations.</p> <p>LIKELY IMPACT: The likely impact of the change is consistency with the <i>Form and Style Requirements for the Virginia Register of Regulations and Virginia Administrative Code</i>. Further, the regulated community will not attempt to find tables numbered lower than Table 3.1.</p>
380	na	No	Yes	<p>CHANGE: The Title of Table 3.1 is changed from “Distances (in feet) between a well</p>

Current chapter-section number	New chapter-section number, if applicable	New requirement from previous stage	Updated new requirement since previous stage	Change, intent, rationale, and likely impact of updated requirements
				<p>and a structure or topographic feature” to “Separation Distances (in feet),” and the Table 3.1 Column 1 Row 2 legend is changed from “Structure or Topographic Feature” to “Feature”</p> <p>INTENT: The intent of the change is improve the clarity and readability of the table.</p> <p>RATIONALE: The features requiring separation distances listed in the table include more than “structures and topographic features.”</p> <p>LIKELY IMPACT: the likely impact of the change is to eliminate confusion for the regulated community regarding table contents.</p>
380	na	No	Yes	<p>CHANGE: Item 10 in Table 3.1 (renumbered Table 1) is changed as follows: “Biosolids application sites <u>fields (as field is defined in 9VAC25-32-10).</u>” In addition, the following language is added to Exceptions: “<u>No separation distance applies if biosolids have not been applied within the 12 months preceding well construction.</u>”</p> <p>INTENT: The intent of the change is to achieve consistency with 9VAC25-32.</p>

Current chapter-section number	New chapter-section number, if applicable	New requirement from previous stage	Updated new requirement since previous stage	Change, intent, rationale, and likely impact of updated requirements
				<p>RATIONALE: The rationale for the change is that an application “site” is not defined, but an application “field” is, per the DEQ regulation that is referenced. Also, because a purpose is to protect groundwater resources during well construction, the exclusion allows well siting when the threat to groundwater is mitigated by time.</p> <p>LIKELY IMPACT: The likely impact of the change is that the regulated community will understand that a biosolids application field has the same meaning as in the DEQ regulation governing biosolids application, and that the separation distance will not apply if biosolids have not been applied within the previous 12 months.</p>
380	na	No	Yes	<p>CHANGE: Subsection I is changed as follows: “Biosolids application site <u>field</u>. No private well shall be placed closer than 100 feet from land <u>a field, as defined in 9VAC25-32-10</u>, on which biosolids are being applied or have been applied within the previous twelve months.”</p>

Current chapter-section number	New chapter-section number, if applicable	New requirement from previous stage	Updated new requirement since previous stage	Change, intent, rationale, and likely impact of updated requirements
				<p>INTENT: The intent of the change is to achieve consistency with 9VAC25-32.</p> <p>RATIONALE: To clarify both the location of and conditions associated with (i.e., one year since application) biosolids application.</p> <p>LIKELY IMPACT: The likely impact of the change is clarity for regarding separation distance from a biosolids application field, including conditions when the separation distance does not apply.</p>
410	na	No	Yes	<p>CHANGE: Subsection C.4.d. is revised to update reference.</p> <p>INTENT: The intent of the change is to correct a typographic error.</p> <p>RATIONALE: The rationale for the change is to ensure that the reference to the applicable subsection is correct.</p> <p>LIKELY IMPACT: The likely impact of the change is to reduce confusion regarding the referenced subsection.</p>
410	na	No	Yes	<p>CHANGE: Added language to F.6.b: "Pouring of grout is acceptable for bored wells whenever <u>when</u> the grouting depth does not exceed 30 <u>20</u> feet provided there is a minimum of a 3-inch annular space <u>and the annular</u></p>

Current chapter-section number	New chapter-section number, if applicable	New requirement from previous stage	Updated new requirement since previous stage	Change, intent, rationale, and likely impact of updated requirements
				<p><u>space is free of standing water.]”</u> INTENT: To clarify the conditions when it is permissible to pour grout. RATIONALE: The rationale for the change is to mitigate potential for improper placement of grout during well construction. LIKELY IMPACT: To reduce the chance of bridging or other failure during the grout placement phase of well construction.</p>
410	na	na	na	<p>CHANGE: Added language to F.6.c: <u>“Bentonite chips or pellets are acceptable for bored wells when the grouting depth does not exceed 20 feet provided the annular space is at least four (4) inches greater than the outside diameter of the casing or coupling and the casing [and the annular space is free of standing water].”</u> INTENT: To clarify the conditions when it is permissible to place bentonite chips or pellets. RATIONALE: The rationale for the change is to mitigate potential for improper placement of grout during the grouting phase of well construction.</p>

Current chapter-section number	New chapter-section number, if applicable	New requirement from previous stage	Updated new requirement since previous stage	Change, intent, rationale, and likely impact of updated requirements
				<p>LIKELY IMPACT: To reduce the chance of bridging or other failure during grout placement with bentonite chips or pellets.</p>
440	na	No	Yes	<p>CHANGE: This section is repealed. INTENT: To improve clarity. RATIONALE: The repeal of this section eliminates duplication within the chapter, given that Section 310 addresses the Uniform Water Well Completion Report. LIKELY IMPACT: The change to this section will reduce confusion for the regulated community by eliminating duplicate sections having the same requirement.</p>
FORMS	na	na	na	<p>CHANGE: Update hyperlink to Uniform Water Well Completion Report. INTENT: To provide the regulated community with the current form. RATIONALE: The rationale for the change is to ensure that forms required by the Regulations are accurate and current. LIKELY IMPACT: To allow the regulated community to access the currently-used form.</p>

Detail of All Changes Proposed in this Regulatory Action

List all changes proposed in this action and the rationale for the changes. For example, describe the intent of the language and the expected impact. Describe the difference between existing requirement(s) and/or agency practice(s) and what is being proposed in this regulatory change. Explain the new requirements and what they mean rather than merely quoting the text of the regulation. * Put an asterisk next to any substantive changes.

Current section number	New section number, if applicable	Current requirement	Change, intent, rationale, and likely impact of new requirements
Throughout all sections			<p>CHANGE: The following changes were made throughout the document:</p> <ul style="list-style-type: none"> • “any” deleted or replaced with “a”; • “all” deleted or replaced with “a”; • “such” deleted or replaced with “the”; • “ground water” replaced with “groundwater”; • “driller” replaced with “water well systems provider”; • “sanitarian” replaced with “environmental health specialist”; • Words not capitalized unless they are proper nouns (e.g., “department, board, commissioner”); and • Male pronouns deleted and replaced with gender neutral terms. <p>In subsequent rows, changes as described above are summarized as “amended for clarity.”</p> <p>INTENT: To remove obsolete references and unnecessary terms which can lead to multiple interpretations.</p> <p>RATIONALE: Conformance to the Virginia Register of Regulations Form, Style, and Procedure Manual for Publication of Virginia Regulations.</p> <p>LIKELY IMPACT: Consistency in style with other Virginia regulations will reduce confusion for the regulated community.</p>
10		Definitions*	<p>CHANGE: The following definitions were amended: “Abandoned well,” “Aquifer,” “Bedrock,” “Closed Loop ground-source heat pump well,” “Commissioner,” “Construction of wells,” “Disinfection,” “Division,” “Emergency Well Replacement,” “Gravel Pack,” “Groundwater,” “Observation Well or Monitoring Well,” “Sanitary Survey,” “Screen,” “Sewer,” “Water table,” and “Water Well.”</p> <p>The following definitions were added: “Agricultural operation,” “Beneficial use,” “Bioretention pond,” “Biosolids,” “Casing,” “Cathodic protection well,” “Clean fill,” “Coliform,” “Contaminated media,” “Controlled low strength material,” “Cuttings,” “Department,” “DEQ,” “Development or well</p>

Current section number	New section number, if applicable	Current requirement	Change, intent, rationale, and likely impact of new requirements
			<p>development,” “Groundwater management area,” “Human consumption,” “Injection well,” “Lead free,” “Nonpublic water,” “Pollutant,” “Pure water,” “Reclaimed water,” “Remediation well,” “Tremie pipe,” “Water quality,” “Water well systems,” “Water well systems provider,” “Waterworks,” “Well area,” “Well bore,” “Well site,” and “Withdrawal system.”</p> <p>One definition was deleted: “Confined aquifer.”</p> <p>INTENT: To provide clarity to the Regulations.</p> <p>RATIONALE: To ensure consistency in relation to agency practices, and to be consistent with the definition of the same term in other regulations (ODW, DEQ, DPOR, DCHD) or industry standard (AWWA, NGWA, USGS). The deleted definition is for a term no longer used in the regulations.</p> <p>LIKELY IMPACT: The amended, added, and deleted definitions will aid the regulated community’s understanding of terms used in the Regulations.</p>
30		Purpose and applicability of regulations	<p>CHANGE: This section is amended to include a reference to well abandonment. A new section (B.) is added to clarify exemptions from the regulations, which were previously presented in the Definitions section, or were non-explicit.</p> <p>INTENT: To correct the language by which, in the opinion of the Office of the Attorney general, certain exemptions from regulatory requirements provided to dewatering wells in the existing regulations are not supported under the statutory authority given in the Code of Virginia §§ 32.1-176.4(A) and 32.1-176.5(A).</p> <p>RATIONALE: §§ 32.1-12 of the Code of Virginia authorizes the Board to provide for reasonable exemptions from regulations.</p> <p>LIKELY IMPACT: The changes in the section will reduce confusion for the regulated community regarding the applicability of the Regulations to certain wells.</p>
40		Relationship to Virginia Sewage Handling and Disposal Regulations	<p>CHANGE: The section is repealed.</p> <p>INTENT: To establish consistency between the Private Well Regulations and the Sewage Handling and Disposal Regulations.</p> <p>RATIONALE: The section became unnecessary following an update to the Sewage Handling and Disposal Regulations.</p> <p>LIKELY IMPACT: The repeal of this section will reduce confusion for the regulated community regarding the relation of private wells to onsite sewage systems.</p>

Current section number	New section number, if applicable	Current requirement	Change, intent, rationale, and likely impact of new requirements
50		Relationship to State Water Control Board	<p>CHANGE: This section is amended to clarify reference to additional requirements applying to private wells in groundwater management areas under VA Code 62.1-258 and 9VAC25-610.</p> <p>INTENT: To establish consistency between the Private Well Regulations and the Groundwater Management Act of 1992.</p> <p>RATIONALE: WWSP's must register with the SWCB private wells constructed in a groundwater management area within 30 days of the completion of construction.</p> <p>LIKELY IMPACT: The change to this section will reduce confusion for the regulated community with respect to SWCB authority relative to groundwater withdrawal in designated groundwater management areas.</p>
60		Relationship to DEQ	<p>CHANGE: This section is amended to delete the reference to Waste Management Division of DEQ as it pertains to observation, monitoring, and remediation wells.</p> <p>INTENT: The reference to the Waste Management Division is obsolete.</p> <p>RATIONALE: The use of monitoring wells may occur pursuant to a variety of DEQ regulatory programs, not just waste management.</p> <p>LIKELY IMPACT: The change to this section will reduce confusion for the regulated community regarding observation, monitoring, and remediation wells.</p>
70		Relationship to Uniform Statewide Building Code	<p>CHANGE: This section is amended to change "sampled" to "sampled and tested."</p> <p>INTENT: To improve clarity.</p> <p>RATIONALE: Sampling in the absence of testing does not demonstrate compliance.</p> <p>LIKELY IMPACT: The change to this section will clarify the information to be provided to building officials in order to obtain an occupancy permit.</p>
80		Relationship to DPOR	<p>CHANGE: This section is amended to identify the license and certification of persons engaged in the construction, repair, or alteration of a private well and to remove reference to the class of contractor license needed.</p> <p>INTENT: To establish consistency between the Private Well Regulations and the regulation of tradesmen by the Board of Contractors.</p> <p>RATIONALE: §§ 54.1-1103 and 54.1-1129.1 of the Code of Virginia address DPOR regulatory authority over WWSP.</p> <p>LIKELY IMPACT: The change to this section will provide clarity to the regulated community regarding who is authorized to</p>

Current section number	New section number, if applicable	Current requirement	Change, intent, rationale, and likely impact of new requirements
			engage in the construction, repair, or alteration of a private well.
90		Administration of regulations	<p>CHANGE: This section is amended for clarity.</p> <p>INTENT: Conformance to the Virginia Register of Regulations Form, Style, and Procedure Manual for Publication of Virginia Regulations.</p> <p>RATIONALE: § 2.2-4000 et seq. of the Code of Virginia</p> <p>LIKELY IMPACT: Consistency in style with all Virginia regulations provides clarity for the regulated community.</p>
100		Right of entry and inspections	<p>CHANGE: Addition of “In accordance with the provisions of § 32.1-176.6 of the Code of Virginia, the department has the authority to conduct such inspections as it may find reasonably necessary to ensure that construction work conforms to applicable construction standards.”</p> <p>INTENT: To clarify the Department’s right to inspect private well construction.</p> <p>RATIONALE: Inspection of well construction protects public health and groundwater resources by ensuring that requirements of Part III of the Regulations are achieved.</p> <p>LIKELY IMPACT: Improved quality of private well construction throughout the Commonwealth.</p>
170		Variances	<p>CHANGE: Subsection headings are revised. Section B. clarifies the requirements of a variance application for consistency with 12VAC5-610.</p> <p>Subsections C through G amended for clarity</p> <p>INTENT: To conform to the <i>Virginia Register of Regulations Form, Style, and Procedure Manual for Publication of Virginia Regulations</i> and to realize consistency with 12VAC5-610.</p> <p>RATIONALE: § 2.2-4000 et seq. of the Code of Virginia</p> <p>LIKELY IMPACT: Consistency in style with all Virginia regulations will reduce confusion for the regulated community.</p>
180		Hearing Types	<p>CHANGE: Deletion of discussion of components of adjudicatory hearing pursuant to § 2.2-4000 et seq. of the Code of Virginia.</p> <p>INTENT: To improve clarity of the Regulations.</p> <p>RATIONALE: It is not necessary to duplicate the APA in the Regulations.</p> <p>LIKELY IMPACT: Consistency in style with all Virginia regulations will reduce confusion for the regulated community.</p>
210		Appeals	<p>CHANGE: Deletion of discussion of hearings and variances discussed in other sections.</p>

Current section number	New section number, if applicable	Current requirement	Change, intent, rationale, and likely impact of new requirements
			<p>INTENT: To reduce confusion by not duplicating requirements in different sections.</p> <p>RATIONALE: The elimination of duplication mitigates the chance of inconsistent interpretation of the Regulations.</p> <p>LIKELY IMPACT: To reduce confusion for the regulated community regarding the appeals process.</p>
220		Permits & Inspection Statements: General	<p>CHANGE: This section is amended to remove exemption from permitting for dewatering wells.</p> <p>INTENT: To avoid duplication with Section 30 which exempts dewatering wells from all parts of the chapter except abandonment.</p> <p>RATIONALE: In a January 27, 2017, memorandum to the Commissioner of VDH, Grant Kronenberg, Assistant Attorney General offered opinion that certain exemptions from regulatory requirements provided to dewatering wells in the existing regulations are not supported under the statutory authority given in the Code of Virginia §§ 32.1-176.4(A) and 32.1-176.5(A).</p> <p>LIKELY IMPACT: The change to this section will reduce confusion for the regulated community regarding requirements pertaining to dewatering wells.</p>
230		Application for a Construction Permit	<p>CHANGE: A requirement is added that the owner provide a statement indicating whether the adjacent property is used for an agricultural operation and, if so, to provide additional information (identified in Sub-section 380.E) if necessary.</p> <p>INTENT: To address additional requirements on well owners pursuant to § 32.1-176.5:2 of the Code of Virginia.</p> <p>RATIONALE: § 32.1-176.5:2 of the Code of Virginia prohibits construction of a private well within 50 feet of the property line with an adjacent property of three acres or larger that is used for an agricultural operation, as defined in § 3.2-300.</p> <p>LIKELY IMPACT: The change to this section will reduce confusion for the regulated community regarding information to be included on the application for a construction permit.</p>
240		Issuance of Construction Permit	<p>CHANGE: This section is amended to allow designation of well area or well site on construction permits.</p> <p>INTENT: To reduce the need for permit revisions or issuance of a second permit to address issues encountered during well construction.</p> <p>RATIONALE: In the event that site-specific conditions place limitation on well</p>

Current section number	New section number, if applicable	Current requirement	Change, intent, rationale, and likely impact of new requirements
			<p>construction, the designation of a well area allows the WWSP to relocate within the area without risk of non-compliance with the permit.</p> <p>LIKELY IMPACT: The change to this section will reduce the number of denials of inspection statements resulting from the relocation of a well to avoid an onsite obstacle or limitation.</p>
250		Emergency procedures	<p>CHANGE: This section is amended to recognize that private sector professionals may perform sanitary surveys for emergency well replacements.</p> <p>INTENT: To update the outdated reference to local health departments being the sole provider of well location services.</p> <p>RATIONALE: § 32.1-176.5:2.B. and 2018 Acts of the Assembly Chapter 831 authorize the Department to accept private site evaluations and designs from licensed onsite soil evaluators, professional engineers, and water well systems providers.</p> <p>LIKELY IMPACT: The change to this section will reduce confusion for the regulated community regarding the conducting of sanitary surveys for emergency well replacements.</p>
290		Revocation of permits or inspection statements	<p>CHANGE: This section is amended to add a reference to new section 331.</p> <p>INTENT: To improve clarity.</p> <p>RATIONALE: Section 331 discusses enforcement, notices, and informal conferences.</p> <p>LIKELY IMPACT: The change to this section will reduce confusion for the regulated community regarding permit revocation.</p>
300		Voidance of construction permits	<p>CHANGE: This section is amended to clarify that the commissioner may declare permit documents null and void on the basis of changed conditions, and to add a reference to new section 331.</p> <p>INTENT: To improve clarity.</p> <p>RATIONALE: As originally written, the section could be interpreted to state that permit documents would become null and void without action.</p> <p>LIKELY IMPACT: The change to this section will reduce confusion for the regulated community regarding voidance of construction permits.</p>
310		Statement required upon completion of construction	<p>CHANGE: This section is amended to specify the deadline for submission of a uniform water well completion report and to clarify that it shall be signed.</p> <p>INTENT: To clarify responsibilities of the water well systems provider.</p>

Current section number	New section number, if applicable	Current requirement	Change, intent, rationale, and likely impact of new requirements
			<p>RATIONALE: To ensure proper documentation of well construction. LIKELY IMPACT: The change to this section will provide clarity the regulated community regarding uniform water well completion reports.</p>
330		Issuance of Inspection Statement	<p>CHANGE: This section is amended to clarify that the issuance of the inspection statement by VDH does not denote or imply a warranty or guarantee of water quality or quantity. INTENT: To improve clarity. RATIONALE: The inspection statement confirms that a private well meets the minimum location and construction requirements of the chapter; it is not an assurance of well performance. LIKELY IMPACT: The regulated community will understand that water quality and quantity is not something VDH can assure through means of the Regulations.</p>
NA	331	Enforcement, Notices, Informal Conferences.	<p>CHANGE: This section provides language regarding the citation of regulatory violations, remediating such violations, the addition of language regarding informal fact finding conferences, and the Commissioner's authority to take action in cases of threats to public health as it pertains to private wells. INTENT: The intent of the change is to inform the regulated community of rights and responsibilities and the Department's administration of the APA. RATIONALE: §§ 32.1-12, 32.1-176.2, and 2.2-4000 et seq. of the Code of Virginia. LIKELY IMPACT: The change to this section will provide clarity to the regulated community regarding enforcement, notices, and informal conferences.</p>
350		General	<p>CHANGE: This section is amended to clarify the applicability of the regulations to existing private wells. INTENT: The intent is to clarify the effective date of the chapter. RATIONALE: §§ 32.1-12 and 32.1-176.2 of the Code of Virginia. LIKELY IMPACT: The change to this section will reduce confusion for the regulated community regarding the effective date of the regulations.</p>
360		Classes of water wells*	<p>CHANGE: This section is amended to create Class IV well subclasses that mirror Class III well subclasses, and to provide method to convert a Class IV well to a Class III well. INTENT: To provide well owners a simplified pathway to change a well from non-potable to potable use, provided that separation distance criteria are met.</p>

Current section number	New section number, if applicable	Current requirement	Change, intent, rationale, and likely impact of new requirements
			<p>RATIONALE: To prevent abandonment or replacement of Class IV wells intended to be repurposed for potable water supply when well construction does not conform to a Class III standard.</p> <p>LIKELY IMPACT: The change to this section will assist the regulated community and the Department to alter well classifications when situations warrant.</p>
370	431	Water quality	<p>CHANGE: Section 370 is repealed.</p> <p>INTENT: The information is presented in new section 431.</p> <p>RATIONALE: The rationale is to list requirements related to the construction of a private well in the order in which they occur.</p> <p>LIKELY IMPACT: The change to this section will provide clarity to the regulated community by listing well construction activities in the regulation consistent with the order in which they occur when a well is constructed.</p>
380		Well Location and Separation Distances*	<p>CHANGE: This section is amended to:</p> <ul style="list-style-type: none"> ● Clarify separation distance criteria; ● Simplify Table 3.1 by removing footnotes and incorporating footnoted conditions in the table itself; ● Add additional separation distance criteria for: <ul style="list-style-type: none"> - Permanently abandoned onsite sewage disposal systems. - Reclaimed water distribution pipelines. - Biosolids application sites. - Bioretention ponds. ● Improve consistency of separation criteria with similar criteria in 12VAC5-610 and various DEQ regulations and guidance documents; ● Establish criteria for certification required by VA Code 32.1-176.5:2.; and ● Eliminate the required separation distance from termite treated building foundation. <p>INTENT: To protect public health and groundwater resources by the adoption of clearer and more comprehensive well location requirements.</p> <p>RATIONALE: To incorporate current agency policies, separation distances applicable in other regulations, and industry standards. The amendment regarding termite treated foundations is based on a joint investigation conducted by the Office of Environmental Health Services and the</p>

Current section number	New section number, if applicable	Current requirement	Change, intent, rationale, and likely impact of new requirements
			<p>Office of Epidemiology, and will provide owners with greater flexibility with regards to placement of private wells near building foundations.</p> <p>LIKELY IMPACT: The change to this section will provide clarity to the regulated community and make more of a property available for the siting of a well.</p>
400		Well construction material specifications*	<p>CHANGE: This section is amended to:</p> <ul style="list-style-type: none"> ● Replace prescriptive standards with reference to nationally recognized standards such as ASTM and NSF; ● Relocate “Joints” to section 410; ● Relocate grout specifications from Section 410 to this section; ● Add requirement that water used for well construction shall be pure water; and ● Add requirement that compounds used in disinfection shall meet NSF environmental specifications. <p>INTENT: To protect public health and groundwater resources by the adoption of clearer and more comprehensive material specifications.</p> <p>RATIONALE: To incorporate current industry standards and agency policies.</p> <p>LIKELY IMPACT: The change to this section will provide clarity to the regulated community regarding materials standards and requirements.</p>
410		Well construction*	<p>CHANGE: This section is amended to:</p> <ul style="list-style-type: none"> ● Provide requirement that WWSP notify the agency prior to initiation of well construction; ● Relocate “Joints” from section 400 to this section; ● Add subsections addressing: <ul style="list-style-type: none"> - Well bore. - Filter pack. - Well development. - Well maintenance and repair. ● Relocate grout specifications to Section 400; and ● Delete prescriptive standards pertaining to well casing. <p>It is important to note the Waterworks Regulations reference AWWA A-100, a nationally recognized standard for construction of public water supply wells. The A-100 standard is too rigid for most private wells, and reference to that standard in the Private Well Regulations would place an undue technical and financial burden on private well owners and WWSP. In the absence of a similar nationally recognized well construction standard applicable to</p>

Current section number	New section number, if applicable	Current requirement	Change, intent, rationale, and likely impact of new requirements
			<p>private wells, this section provides more details regarding finished well construction than do the sections pertaining to well construction included in the Waterworks Regulation.</p> <p>INTENT: To clarify the minimum construction standards for private wells.</p> <p>RATIONALE: To incorporate current agency policy and industry standards.</p> <p>LIKELY IMPACT: The change to this section will provide clarity to the regulated community regarding well construction.</p>
420		Observation wells*	<p>CHANGE: This section is amended to clarify that test and exploration wells are not observation or monitoring wells. It is also amended to clarify that permanent abandonment of observation or monitoring wells is required following cessation of use and that temporary abandonment may only occur under the terms of a permit issued by the DEQ.</p> <p>INTENT: To enhance protection of public health and groundwater resources.</p> <p>RATIONALE: To address a loophole in the existing regulations by which wells installed for Preliminary Engineering Reports and similar studies are not permitted as private wells, and to ensure permanent abandonment of unused observation and monitoring wells.</p> <p>LIKELY IMPACT: The change to this section will result in test and exploration wells being permitted as private wells. It will also increase permanent abandonment of observation and monitoring wells.</p>
430		Disinfection	<p>CHANGE: This section is amended to provide the option for an alternate method of well disinfection endorsed by the NGWA.</p> <p>INTENT: To protect public health and groundwater resources by increasing options by which WWSP disinfect wells.</p> <p>RATIONALE: To provide greater flexibility for WWSP to disinfect wells under a variety of schedules rather than limiting all disinfection to a 24 hour method.</p> <p>LIKELY IMPACT: The change to this section will increase options for the regulated community regarding private well disinfection.</p>
370	431	Water quality	<p>CHANGE: Replaces section 370.</p> <p>INTENT: To improve clarity.</p> <p>RATIONALE: The rationale is to list requirements related to the construction of a private well in the order in which they occur.</p> <p>LIKELY IMPACT: The change to this section will reduce confusion for the regulated community by listing water quality</p>

Current section number	New section number, if applicable	Current requirement	Change, intent, rationale, and likely impact of new requirements
			requirements after well construction and disinfection.
440		Uniform Water Well Completion Reports	<p>CHANGE: This section is repealed. INTENT: To improve clarity. RATIONALE: The repeal of this section eliminates duplication within the chapter, given that 310 addresses the Uniform Water Well Completion Report. LIKELY IMPACT: The change to this section will reduce confusion for the regulated community by eliminating duplicate sections having the same requirement.</p>
450		Well abandonment*	<p>CHANGE: This section is amended to:</p> <ul style="list-style-type: none"> ● Provide clarity; ● Provide requirement that WWSP notify the agency prior to initiation of well abandonment; ● Add subsection on materials prohibited from use in well abandonment; and ● Provide additional method to abandon a bored well so that it is no longer a well with respect to separation distances. <p>INTENT: To enhance protection of public health and protection of groundwater resources. RATIONALE: To provide the regulated community with greater flexibility regarding well abandonment methods, which in turn will allow the placement of onsite sewage systems near abandoned bored wells. Further, to protect groundwater by restricting the use of coal combustion by-products in materials used to abandon wells. LIKELY IMPACT: The change to this section will protect public health and groundwater by improved well abandonment practices, and provide means to increase usable land for onsite sewage system siting and repairs.</p>
460		Yield for residential wells	<p>CHANGE: This section is amended to clarify the time period necessary for sustained flow of five gallons per minute per connection when well capacity is under three gallons per minute. INTENT: To eliminate ambiguity. RATIONALE: The existing wording of the section could not be enforced because it did not clearly describe the minimum standard to be achieved. LIKELY IMPACT: The change to this section will provide clarity to the regulated community regarding yield for residential wells.</p>
480		Well casing specifications	CHANGE: The section is repealed.

Current section number	New section number, if applicable	Current requirement	Change, intent, rationale, and likely impact of new requirements
			<p>INTENT: To reduce duplication in the chapter.</p> <p>RATIONALE: The revision of section 400 eliminated the need for this section.</p> <p>LIKELY IMPACT: The change to this section will reduce confusion for the regulated community regarding well casing specifications.</p>