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## Notice of Intended Regulatory Action (NOIRA) Agency Background Document

<b>Agency name</b>	Virginia Department of Health
<b>Virginia Administrative Code (VAC) citation(s)</b>	12VAC5-630
<b>Regulation title(s)</b>	Private Well Regulations (Regulations)
<b>Action title</b>	Amend following a periodic review
<b>Date this document prepared</b>	August 16, 2017

This information is required for executive branch review and the Virginia Registrar of Regulations, pursuant to the Virginia Administrative Process Act (APA), Executive Orders 17 (2014) and 58 (1999), and the *Virginia Register Form, Style, and Procedure Manual*.

### Subject matter and intent

*Please describe briefly the subject matter, intent, and goals of the planned regulatory action.*

The Board of Health (the Board) has not made significant revisions to the Private Well Regulations (the Regulations) since their adoption in 1990. The Regulations establish the minimum location and construction requirements for private wells installed in the Commonwealth. On August 17, 2016, the Virginia Department of Health (VDH) began a periodic review of the Regulations. VDH also formed a Private Well Regulations Workgroup in August 2016. The purpose of the workgroup was to assist VDH in the development of proposed revisions to the Regulations. The intent of this planned regulatory action is to explore amendments to the Regulations based on current industry standards, comments received during the periodic review process, and comments received from the Private Well Regulations Workgroup, in order 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.

### Legal basis

*Please identify the (1) the agency (includes any type of promulgating entity) and(2) the state and/or federal legal authority for the proposed regulatory action, including the most relevant citations to the Code of Virginia or General Assembly chapter number(s), if applicable. Your citation should include a specific provision, if any, authorizing the promulgating entity to regulate this specific subject or program, as well as a reference to the agency's overall regulatory authority.*

Virginia Code § 32.1-12 permits 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 of the Code of Virginia. Section 32.1-176.4 requires the Board to adopt regulations pertaining to the location and construction of private wells in the Commonwealth.

### Purpose

*Please describe the specific reasons why the agency has determined that the proposed regulatory action is essential to protect the health, safety, or welfare of citizens. In addition, please explain any potential issues that may need to be addressed as the regulation is developed.*

The private well industry has experienced significant advancements since the Regulations were promulgated in 1990, including improvements in the materials and equipment used to construct private wells. The proposed regulatory action is essential to protect the health and safety of citizens. New information and research has improved understanding of risk to public health and groundwater resources, which are not addressed by the Regulations. Examples include advancements in alternative onsite sewage treatment system design, promulgation of standards related to reclaimed water, federal guidelines related to emerging contaminants, 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 intended amendments to the Regulations will propose updated private well location and construction criteria which recognize current industry standards, improved consistency with other regulations, and improved protection of public health and groundwater resources. Without the proposed amendments, Virginians will not benefit from more current and up-to-date research and industry practices in the Regulations. Additionally, inconsistencies between the Regulations and other regulation related to private wells and groundwater resources will persist.

### Substance

*Please briefly identify and explain the new substantive provisions that are being considered, the substantive changes to existing sections that are being considered, or both.*

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The following substantive changes to existing sections, and new substantive provisions, are being considered 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 VDH 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., American Water Works Association, American Society for Testing and Materials, 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 possible other sources of contamination.
- Improvement of water sampling criteria, such as requiring a sample for residual chlorine in combination with bacteriological samples.

- Establishment of quality standards for water used during well construction.

## Alternatives

*Please describe any viable alternatives to the proposal considered and the rationale used by the agency to select the least burdensome or intrusive alternative that meets the essential purpose of the action. Also, include discussion of less intrusive or less costly alternatives for small businesses, as defined in § 2.2-4007.1 of the Code of Virginia, of achieving the purpose of the regulation.*

Virginia Code § 32.1-176.4 requires the Board to adopt regulations pertaining to the location and construction of private wells in the Commonwealth. The alternative to the proposed action is to maintain the Regulations as currently adopted; however, this is not considered viable. This regulatory action is necessary to recognize current industry standards, improve consistency with other regulations, and improve protection of public health and groundwater resources. Without the proposed amendments, Virginians will not benefit from more current and up to date research and industry practices. Additionally, inconsistencies between the Regulations and other regulations related to private wells and groundwater resources will persist. This proposed action is not considered intrusive to small businesses, primarily, but not limited to, water well system providers, as it provides an opportunity to incorporate current industry standards into the Regulations. The proposed action would also provide an opportunity to clarify areas of inconsistency and ambiguity, which currently lead to requests for approval from division staff or variance requests to the State Health Commissioner, which can delay permitting actions.

## Public participation

*Please indicate whether the agency is seeking comments on the intended regulatory action, including ideas to assist the agency in the development of the proposal and the costs and benefits of the alternatives stated in this notice or other alternatives. Also, indicate whether a public hearing is to be held to receive comments. Please include one of the following choices: 1) a panel will be appointed and the agency's contact if you're interested in serving on the panel is \_\_\_\_\_; 2) a panel will not be used; or 3) public comment is invited as to whether to use a panel to assist in the development of this regulatory proposal.*

The Board is seeking comments on this regulatory action, including but not limited to: ideas to be considered in the development of this proposal, the costs and benefits of the alternatives stated in this background document or other alternatives, and the potential impacts of the regulation.

The Board is also seeking information on impacts on small businesses as defined in § 2.2-4007.1 of the Code of Virginia. Information may include: projected reporting, recordkeeping, and other administrative costs; the probable effect of the regulation on affected small businesses; and the description of less intrusive or costly alternatives for achieving the purpose of the regulation.

Anyone wishing to submit comments may do so via the Regulatory Town Hall website (<http://www.townhall.virginia.gov>), or by mail, email, or fax to **Anthony W. Creech, P.G., Environmental Health Coordinator, 109 Governor Street, 5<sup>th</sup> Floor, Richmond, Virginia**

23219, (804) 864-7470 (phone), (804) 864-7475 (fax), [anthony.creech@vdh.virginia.gov](mailto:anthony.creech@vdh.virginia.gov).

Written comments must include the name and address of the commenter. In order to be considered, comments must be received by midnight on the last day of the public comment period.

A panel will be appointed and the contact if you're interested in serving on the panel is **Anthony W. Creech, P.G., Environmental Health Coordinator, 109 Governor Street, 5<sup>th</sup> Floor, Richmond, Virginia 23219, (804) 864-7470 (phone), (804) 864-7475 (fax), [anthony.Creech@vdh.virginia.gov](mailto:anthony.Creech@vdh.virginia.gov).**

A public hearing will not be held following the publication of the proposed stage of this regulatory action.

**Periodic review and small business impact review report of findings**

*If this NOIRA is the result of a periodic review/small business impact review, use this NOIRA to report the agency's findings. Please (1) summarize all comments received during the public comment period following the publication of the Notice of Periodic Review and (2) indicate whether the regulation meets the criteria set out in Executive Order 17 (2014), e.g., is necessary for the protection of public health, safety, and welfare, and is clearly written and easily understandable. In addition, as required by 2.2-4007.1 E and F, please include a discussion of the agency's consideration of: (1) the continued need for the regulation; (2) the nature of complaints or comments received concerning the regulation from the public; (3) the complexity of the regulation; (4) the extent to which the regulation overlaps, duplicates, or conflicts with federal or state law or regulation; and (5) the length of time since the regulation has been evaluated or the degree to which technology, economic conditions, or other factors have changed in the area affected by the regulation.*

1. Comments received during the public comment period following the publication of the Notice of Periodic Review

Summary of Periodic Review by the Office of Attorney General

In accordance with Virginia Code §2.2-4017 and Executive Order 17 (2014), the Office of the Attorney General (OAG) conducted a periodic review of the Regulations. In a January 27, 2017, memorandum to the Commissioner of VDH, the OAG 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 OAG therefore recommended that the Regulation be amended so that statutory requirements with respect to construction permits are applied to private dewatering wells.

Summary of Public Comments Received during the Periodic Review period.

Commenter	Comment	Department Response
John Sawdy	Incorporate revised setback distances from abandoned bored and uncased wells to proposed	Currently, the Regulations require that abandoned bored or uncased wells be treated as wells with respect to

Commenter	Comment	Department Response
	<p>onsite sewage system, including onsite sewage system using pre-treatment.</p>	<p>determining the minimum separation distance to sources of contamination (e.g. 100 feet from onsite sewage systems). Section 12VAC5-630-450.C.7 allows the Division of Onsite Sewage and Water Services, Environmental Engineering, and Marina Programs to approve other abandonment methods which can allow for reducing the separation distance from abandoned wells. The agency is considering revising separation distance requirements from bored and uncased wells to proposed onsite sewage systems to incorporate standards currently used by Division staff when evaluating requests under 12VAC5-630-450.C.7.</p>
<p>John Sawdy</p>	<p>Establish a guideline for inspection and testing of private wells for real-estate transactions.</p>	<p>The Code of Virginia only provides VDH with authority to regulate the location and construction of private wells. Ongoing operation, maintenance, and sampling are at the discretion of the well owner. However, VDH provides guidance on its website relative to this issue, and is happy to discuss ways to improve available information for existing and proposed private well owners regarding best practices for ongoing operation, maintenance, and sampling.</p>
<p>Anonymous</p>	<p>There is no required horizontal separation distance from a drilled well abandoned in accordance with the Regulations to a source of contamination, regardless of whether the casing is pulled. There is no required horizontal separation distance from a source of contamination to an uncased closed-loop geothermal well grouted from bottom to top. However, if the closed-loop geothermal well is cased, it must meet the horizontal separation distances in Table 3.1. There is no construction difference between</p>	<p>Section 12VAC5-630-380.G provides horizontal separation distance exception for closed-loop geothermal wells. If the well is grouted to 20 feet, the minimum separation distance for Class IV wells applies. If the well is grouted to 50 feet, the separation distance for Class IIIA or IIIB wells apply. If the well is grouted the entire depth, the well does not have to comply with the minimum separation distance contained in Table 3.1. These exceptions do not specify whether the geothermal well is cased or uncased. If a geothermal well is grouted the entire depth, there is no separation distance, regardless of whether the well is cased or uncased. If cased, the well would need to</p>

Commenter	Comment	Department Response
	an abandoned drilled well that is cased and a closed-loop geothermal well that is cased, but there is a separation distance requirement for the closed-loop geothermal well.	be grouted both in the annular space and inside the casing.

2. Criteria Set Out in Executive Order 17 (2014)

The Regulations are necessary for the protection of public health, safety, and welfare, and are clearly written and easily understandable.

1) Continued Need for the Regulations

The Department has considered the continued need for the Regulations and determined that the minimum location and construction criteria for private wells are necessary to protect public health and groundwater resources, such as minimum grouting requirement which preclude the entrance of undesirable water and contaminants.

2) Nature of Complaints and Comments Received

While the Regulations are necessary, VDH has received numerous requests to update the Regulations to address changes in current standards and practices, to clarify regulatory language, and to improve consistency with other regulations related to private wells and groundwater resources. During that time there have been numerous advancements in the materials and equipment used to construct private wells.

3) Complexity of the Regulation

While the Regulations are not necessarily complex, the growing overlap with other regulations continues to increase.

4) Extent of Overlap, Duplication, or Conflict with Other Regulation

Primary areas of overlap are with regulations regarding the construction of onsite sewage systems and regulations for groundwater withdrawal permitting in groundwater management areas. While not overlapping, the Waterworks Regulations (12VAC5-590) establish a similar set of location and construction criteria for wells used for public water supplies (waterworks). Federal regulations pertaining to Underground Injection Control (40CFR Part 144) have new pertinence to the Regulations.

5) Length of Time since the Regulations have been Evaluated

The Department has not undertaken a complete review of the Regulations since their adoption in 1990. Improving consistency between the Regulations and other regulations related to private wells and groundwater resources is one of the primary goals of this intended regulatory action.