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## Periodic Review and Small Business Impact Findings Where Result is "Retain the Regulation As Is" Agency Background Document

<b>Agency name</b>	Department of Environmental Quality
<b>Virginia Administrative Code (VAC) citation</b>	9 VAC 25-740
<b>Regulation title</b>	Water Reclamation and Reuse Regulation
<b>Date</b>	June 27, 2018

This information is required pursuant to Executive Order 17 (2014) and 58 (1999).

### Legal basis

*Please identify the state and/or federal legal authority for the regulation, including: 1) the most relevant law and/or regulation; and 2) promulgating entity, i.e., agency, board, or person.*

The legal basis for the Water Reclamation and Reuse Regulation (9 VAC 25-740-10 et seq.) is the State Water Control Law (Law) (Chapter 3.1 of Title 62.1 of the Code of Virginia). Section 62.1-44.15 authorizes the State Water Control Board (Board) to promulgate regulations necessary to carry out its powers and duties.

Specific to water reclamation and reuse, § 62.1-44.2 establishes the purpose of the Law to, among other things, promote and encourage the reclamation and reuse of wastewater in a manner protective of the environment and public health. More specifically, § 62.1-44.15(10) and § 62.1-44.15(15) give authority to the Board to adopt regulations as it deems necessary, to enforce the general water quality management program, and to promote and establish requirements for the reclamation and reuse of wastewater that are protective of state waters and public health as an alternative to directly discharging pollutants into state waters.

The State Water Control Board adopted the initial regulation in 2008 and amended it in 2014.

### Alternatives

*Please describe all viable alternatives for achieving the purpose of the existing regulation that have been considered as part of the periodic review process. Include an explanation of why such alternatives were rejected and why this regulation is the least burdensome alternative available for achieving the purpose of the regulation.*

One alternative considered was repeal of the regulation. This alternative was rejected on the basis that (i) the regulation promotes and encourages the reclamation and reuse of wastewater, and (ii) without the regulation, this activity would not likely occur in a manner protective of environment and public health.

### Public comment

*Please summarize all comments received during the public comment period following the publication of the Notice of Periodic Review, and provide the agency response. Please indicate if an informal advisory group was formed for purposes of assisting in the periodic review.*

An informal advisory group was not formed as part of this review.

Commenter	Comment	Agency response
Patricia Sinicropi, Executive Director, WaterReuse Association  Jeff Angiel, Director of Water Reclamation, Loudon Water	<p><b><u>Retitle Reclaimed Water:</u></b> We encourage/support the retitling of “Reclaimed Water” under 9VAC25-740-10 as “Recycled Water”. Positive public perception of reclaimed or recycled water is a challenge. Renaming “reclaimed water” to “recycled water” could improve public understanding and acceptance of the water, and provide a more positive initial reaction to water reuse. Other states (Arizona and California) have experienced positive results by re-titling to a more familiar nomenclature for the general public.</p>	<p>§ 62.1-44.3 (Definitions) of the Code of Virginia defines the term “reclaimed water”, and the defined term in the regulation is consistent with State Water Control Law. The suggested change would be inconsistent with the terminology in state law. Therefore, no change is being proposed to the regulation in response to this comment.</p>
Patricia Sinicropi, Executive Director, WaterReuse Association  Jeff Angiel, Director of Water Reclamation, Loudon Water  Kevin Parker,	<p><b><u>Re-label Access Control and Advisory Signs with Less Alarming Language:</u></b> Current regulations (9VAC25-740-160) require signage around facilities using reclaimed/recycled water that reads “Caution: Reclaimed Water – Do Not Drink”. The word “Caution” can distort the general public’s perception of risks associated with water reuse, and create a higher sense of unwarranted alarm and negative public perception of water reuse.</p>	<p>The current required language of the sign “CAUTION: RECLAIMED WATER- DO NOT DRINK” has been part of the regulation since (October 1, 2008). Changing the wording of the signage would have a financial impact on the regulated community. Although DEQ does not intend to amend the regulation at this time, changes proposed by the comment will be considered among future amendments to the regulation and may warrant further discussion with stakeholders to determine the risks, benefits and financial impact that changing the language of advisory signage would have on the regulated community.</p>

<p>Environmental Scientist, HRSD</p>	<p>The term “caution” should be removed to encourage water reuse and make Virginia’s advisory signage requirements more consistent with those of other states, such as Florida (Florida Administrative Code 610.468) and California (California Code of Regulations Title 22) that require the advisory statement “Reclaimed/Recycled Water – Do Not Drink”.</p>	
<p>Patricia Sinicropi, Executive Director, WaterReuse Association</p> <p>Jeff Angiel, Director of Water Reclamation, Loudon Water</p>	<p><b>“De minimis” Provision for Unplanned Releases of Reclaimed/Recycle Water:</b> We encourage/support establishment of a “de minimis” provision in the regulation. The provision would apply to all reclaimed water permit holders and hold harmless providers and users of reclaimed water with unplanned releases of less than 5,000 gallons. This provision would also establish a minimum volumetric threshold for reporting unplanned releases greater than 5,000 gallons. This “de minimis” provision is important as potential reclaimed/recycled water customers often forgo connection to reclaimed/recycled water service because of their uncertainty regarding the negative consequences of mistakes or failures, including minor system leakage.</p>	<p>In accordance with the Water Reclamation and Reuse Regulation, water reclamation and reuse projects are implemented through the Virginia Pollutant Discharge Elimination System (VPDES) Permit Regulation and program or the Virginia Pollution Abatement (VPA) Permit Regulation and program. Releases of reclaimed water from leaks, main breaks or maintenance activities that may result in an unauthorized discharge or a noncompliance must be reported in accordance with the VPDES or VPA permit covering the project. The VPDES and VPA Permit Regulations do not contain provisions for de minimis releases or discharges. Any amendment to either the VPDES Permit Regulation or the Water Reclamation and Reuse Regulation to include such provisions, particularly where they would be implemented through a VPDES permit, would need to be approved by EPA. Although DEQ does not intend to amend the regulation at this time, changes proposed by the comment will be considered among future amendments to the regulation and may warrant further discussion with stakeholders to determine the risks and benefits of de minimis releases of reclaimed water to public health and the environment</p>
<p>Patricia Sinicropi, Executive Director, WaterReuse Association</p> <p>Jeff Angiel, Director of Water Reclamation, Loudon Water</p>	<p><b>Increase Funding to Support Reclaimed/Recycled water projects:</b> We encourage the Commonwealth to better promote and encourage reclaimed/recycled water projects through dedicated capitalization, grants, tax-incentives, and/or other funding sources (e.g., modification of eligibility criteria for existing state-supported grants and tax-</p>	<p>The regulation addresses requirements for safe production, distribution and reuse of reclaimed water and does not address funding of these projects. The dedication of funding sources to these types of projects is outside of the scope of this regulation.</p>

	<p>incentives related to recycling and environmental protection to be inclusive of reclaimed water projects).</p>	
<p>Jeff Angiel, Director of Water Reclamation, Loudon Water</p>	<p><b>Industrial Humidification.</b> Stakeholders request that Virginia State Water Control Board acknowledge and enroll Industrial Humidification as an approved use for Level 1 reclaimed water. Doing so would allow reclaimed water to serve air cooled facilities and broaden the use potential of reclaimed water across the Commonwealth. Loudoun Water’s independent research on the use of reclaimed water in this application has concluded health risks are similar to potable water applications.</p>	<p>Currently, reuses of reclaimed water not listed in the regulation under 9VAC25-740-90.A, including industrial humidification, may be authorized by DEQ on a case-by-case under 9VAC25-740-90.B. Although DEQ does not intend to amend the regulation at this time, changes proposed by the comment will be considered among future amendments to the regulation and may warrant further discussion with stakeholders to determine if general approval of Level 1 and/or Level 2 reclaimed water for industrial humidification reuse would be protective of public health and the environment.</p>
<p>Kevin Parker, Environmental Scientist, HRSD</p>	<p><b>Education and notification requirements for Level 1 reclaimed water.</b> The end use of the reclaimed water should dictate the reporting requirements, not the quality of the water. The regulation requires that an education and notification program be developed and submitted for reuses using Level 1 reclaimed water (9VAC25-740-170). A reuse facility may produce only Level 1 reclaimed water, yet distribute this water to an end user for consumptive industrial use with minimum human contact. An education-notification program would be required because the water is Level 1, but based on the use, the education-notification program is unnecessary.</p>	<p>The regulation, specifically 9VAC25-740-170.A, states that an “education and notification program shall be developed and submitted ... <u>for reuses that require</u> Level 1 reclaimed water”. Therefore, a reuse that would normally require Level 2 reclaimed water in lieu of Level 1 reclaimed water, typically due to a lower potential for public or worker contact, will not require an education and notification program. This would apply, for example, where Level 1 or Level 2 reclaimed water is used for a reuse that requires a minimum of Level 2 reclaimed water. No change is being proposed to the regulation in response to this comment.</p>
<p>Kevin Parker, Environmental Scientist, HRSD</p>	<p><b>Reclaimed water filling stations.</b> Reclaimed water filling stations for the general public are common in other states (California Irvine Ranch Water District, California Ironhouse Sanitary District, etc.). These stations provide public access to a beneficial supply of water,</p>	<p>Although DEQ does not intend to amend the regulation at this time, changes proposed by the comment will be considered among future amendments to the regulation and may warrant further discussion with stakeholders to determine the risks and benefits of less regulatory oversight of reclaimed water filling stations to public health and the environment.</p>

	<p>requiring the user to complete a simple application and provide their own container. Although the regulation does not prohibit filling stations in Virginia, the requirements are cumbersome and discouraging to suppliers and potential end-users.</p>	
<p>Jeff Angiel, Director of Water Reclamation, Loudon Water</p>	<p><b><u>Reclaimed water piping identification and notification.</u></b> Requiring indoor reclaimed water piping to be labeled with the caution notification every 3 feet is burdensome and unnecessary. Stakeholders believe that the “purple pipe” color requirement is a reasonable alternative to the existing indoor piping requirements.</p>	<p>The regulation requires a statement identifying reclaimed water distribution piping regardless of the pipe color to avoid cross connections with potable water and other sources of non-potable water. Purple piping may be used in addition to the identification statement but not as the sole method to identify reclaimed water piping. At the time the current regulation was amended in 2014, national model plumbing codes that recommended purple pipe for all types of non-potable water systems, including reclaimed water, were incorporated into Virginia’s plumbing codes. Therefore, the identification statement was determined necessary to differentiate purple piping for reclaimed water from purple piping of other non-potable water types. Changing the spacing of the identification and notification statement could have an adverse public health impact. Although DEQ does not intend to amend the regulation at this time, changes proposed by the comment will be considered among future amendments to the regulation and may warrant further discussion with stakeholders to determine the risks and benefits of changing identification and notification requirements for reclaimed water piping to public health and the environment.</p>
<p>Kevin Parker, Environmental Scientist, HRSD</p>	<p><b><u>Develop a Comprehensive Potable Reuse Framework:</u></b> Virginia should consider developing a comprehensive indirect and direct potable reuse framework. Similar efforts are underway in Florida, Texas, New Mexico, North Carolina and California. At a minimum, the express prohibition in 9VAC25-740-50 against direct potable reuse should be removed to provide the flexibility for Virginia to respond quickly to water resource challenges.</p>	<p>DEQ’s regulation currently allows indirect potable reuse via surface waters, but prohibits direct potable reuse (DPR). Since 2008 when the regulation first went into effect, technological advancements have been made to make DPR a more feasible, safe and reliable alternative potable water resource. Although DEQ does not intend to amend the regulation at this time, changes proposed by the comments will be considered among future amendments to the regulation, including considerations related to development of a more comprehensive potable reuse framework.</p> <p>Two commenters referenced the Hampton</p>

<p>Patricia Sinicropi, Executive Director, WaterReuse Association</p>	<p><b><u>Develop a Comprehensive Potable Reuse Framework:</u></b>                  Potable Reuse opportunities are increasingly emerging in Virginia. We encourage the Virginia State Water Control Board to develop a comprehensive potable reuse framework inclusive of both indirect and direct potable reuse projects. Proven and safe technologies to treat wastewater to drinking level quality exist and a robust regulatory framework is needed to encourage the adoption of more innovative reuse projects to meet Virginia's water resource management needs. Projects like the Hampton Road Sanitation District's Sustainable Water Initiative For Tomorrow (SWIFT) which will produce drinking water quality recycled water demonstrate the growing potential for reuse in Virginia to address an array of challenges. Other states such as California and Arizona are in the process of developing direct potable reuse regulations and efforts by Virginia to expand and develop its potable reuse regulations will better prepare the state to engage in emerging water resource management opportunities.</p>	<p>Roads Sanitation District's Sustainable Water Initiative For Tomorrow (SWIFT) project related to potable reuse. DEQ recognizes the significance of this project as an innovative means to meet Virginia's water resource management needs. However, the SWIFT project involves groundwater recharge with reclaimed water via a direct injection well authorized by the EPA Underground Injection Control Program (40 CRF, Part 144). This activity is specifically excluded from (or is not subject to) the requirements of the regulation in accordance with 9VAC25-740-50.A. No change is being proposed to the regulation in response to this comment.</p>
<p>Jeff Angiel, Director of Water Reclamation, Loudon Water</p>	<p><b><u>Develop a Comprehensive Potable Reuse Framework:</u></b>                  Potable Reuse opportunities are emerging in the Commonwealth at a rapid pace. Stakeholders encourage the Virginia State Water Control Board to develop a comprehensive potable reuse framework inclusive of both indirect and direct potable projects. HRSD's SWIFT project as well as California's Assembly Bill No. 574 directing California's State Board to develop Direct Potable Reuse regulations are strong indicators for the need for Virginia to develop a framework aligned with emerging water resource management opportunities. Indeed, USEPA's</p>	

	<p>April 2018 report “Mainstreaming Potable Water Reuse in the United States” provides an evidence-based template for planning, regulating, and managing potable reuse systems. Loudoun Water echoes the American Water Works Association (AWWA) in recognizing the value of high quality reclaimed wastewater treated to appropriate standards as a sustainable supplement to a region’s water supply portfolio.</p>	
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**Effectiveness**

*Please 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.*

This regulation is necessary for the protection of public health, safety and welfare and is clearly written and easily understandable.

**Result**

*Please state that the agency is recommending that the regulation should stay in effect without change and provide the reason why.*

The agency is recommending the regulation stay in effect without change. The regulation is beneficial to the regulated community and the public.

**Small business impact**

*In order to minimize the economic impact of regulations on small business, please include, pursuant to § 2.2-4007.1 E and F, 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. Also, include a discussion of the basis for the agency’s determination to retain the regulation as is, consistent with the stated objectives of applicable law, to minimize the economic impact of regulations on small businesses.*

The regulation continues to be needed. Consistent with State Water Control Law, the regulation has established requirements for the reclamation and reuse of wastewater that are protective of state waters and public health as an alternative to directly discharging pollutants into state waters.

Public comments were received during the periodic review of this regulation and included the following:

- Changing terminology, labeling/identification, education, and reclaimed water filling station requirements included in the regulation.
- Increase funding to support reclaimed water projects.
- Include a "de minimus" provision for unplanned releases of reclaimed water.
- Include industrial humidification as a generally approved reuse of Level 1 reclaimed water.
- Develop a comprehensive direct and indirect potable reuse framework in Virginia.

None of the commenters indicated their suggested change would minimize the impact of the regulation on small business. Responses to individual comments are included in the Public Comment section of this document.

The regulation is technical in nature and contains requirements that are complex. These include different reclaimed water standards and treatment requirements based on the type of wastewater to be reclaimed and the intended reuse of the reclaimed water.

The regulation is a state only regulation. There are federal guidelines but no federal regulations for the reclamation and reuse of wastewater.

Although changes in technology have occurred since the last amendment of the regulation in 2014, design and operational requirements of the regulation remain applicable and relevant.

Consistent with § 62.1-44.2 of the Code of Virginia, the regulation promotes and encourages the reclamation and reuse of wastewater in a manner protective of the environment and public health, but does not require any person or party, including small businesses, to perform this activity. Consequently, the regulation does not adversely impact small businesses.

## Family impact

*Please provide an analysis of the regulation's impact on the institution of the family and family stability.*

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It is not anticipated that this regulation will have a direct impact on families.