

MDH Recommendations to the 2024 UPC Ad Hoc Rulemaking Committee

CHAPTER 16, CHAPTER 15, APPENDIX K, APPENDIX S

Recommendations

Chapter 16: Nonpotable Rainwater Catchment Systems

Code sections covering nonpotable rainwater catchment systems have been adopted with revisions in Minnesota Plumbing Code (MPC) since 2015 (Chapter 17 at that time). Rainwater is generally considered to be the “cleanest” of the alternate water sources, but treatment is still required to protect public health. MDH is unclear what, if any, ongoing oversight and monitoring of water quality is happening with rainwater catchment systems that have been installed to date.

- **General Recommendations:** *MDH recommends keeping the revisions made to Chapter 16 in the 2020 MPC (adjusting for section renumbering), including the requirement that plans be submitted to the Department of Labor and Industry (DLI) commissioner.* MDH does not feel these systems are “standardized” in Minnesota at this time, and centralized review would help with consistency and tracking. There is interest from water reuse practitioners in tracking installations to allow follow-up as to the successes/challenges in ongoing operation.
- **Water Quality:** *MDH recommends Table 1602.9.6 from the 2020 MPC be adopted as Table 1603.4 in the 2024 UPC and section 1602.9.6 from the 2020 MPC as section 1603.4 of the 2024 UPC. MDH also recommends that information is gathered on compliance with water quality requirements for existing systems.* It should be noted that the minimum water quality recommendations in 2020 MPC Table 1602.9.6 are now in good alignment with IAPMO/ANSI Z1234-2022 (which supersedes IAPMO IGC 324 referenced in the 2024 UPC).
- **Water Quality Devices and Equipment:** *MDH recommends Section 1603.12 from the 2020 MPC should replace Section 1603.15 from the 2024 UPC.*

Chapter 15: Alternate Water Sources for Nonpotable Applications

Alternate water sources addressed in Chapter 15 include reclaimed water, gray water, and on-site treated nonpotable water. In our view, each of these sources has unique implementation considerations. ***The Minnesota Department of Health (MDH) does not recommend adopting Chapter 15 in its entirety at this time.***

- **Gray Water:** Gray water is defined in Minnesota Rules, part 7080.1100 as “sewage that does not contain toilet wastes”, and proper disposal is required to protect groundwater and public health. ***Sections 1503.0 to 1504.11 of the 2024 UPC appear to conflict with Minnesota Rules, part 7080.2240 and MDH does not recommend adoption of these sections.***
- **Reclaimed Water:** Reclaimed water is defined in Section 220.0 of the 2024 UPC as “nonpotable water provided by a water/wastewater utility that, as a result of tertiary treatment of domestic wastewater,

meets requirements of the public health Authority Having Jurisdiction for its intended uses.” **MDH recommends changing “the public health Authority Having Jurisdiction” in this definition to “the Minnesota Pollution Control Agency”.** The Minnesota Pollution Control Agency (MPCA) has guidance for reclaimed municipal wastewater ([Municipal Wastewater Reuse](#)) and regulates municipal wastewater through NPDES and SDS permits. Therefore, for reclaimed water applications, the Plumbing Code needs to provide protection against cross-connections, but water quality oversight is provided by the Minnesota Pollution Control Agency with MDH input. **MDH is supportive of adopting code sections 1505.0 to 1505.14 related to the use of reclaimed water.**

- **On-Site Treated Nonpotable Water Systems:** As described in Section 1506.10.2 of the 2024 UPC, on-site treated water needs to be disinfected, and meet the applicable water quality requirements as determined by the public health Authority Having Jurisdiction. Treatment systems that are providing public health protection require ongoing maintenance and oversight to ensure they meet water quality requirements and are operated properly. It is not clear if there is any Authority that has the resources and capacity for proper oversight at this time. **MDH does not currently have authority over nonpotable water systems and does not recommend adoption of Sections 1506.0 to 1506.13 related to On-Site Treated Nonpotable Water Systems until a system for operational and water quality oversight is in place.**
- **General Sections:** *To implement our recommendations, the general sections 1501.0 to 1502.6 would need to be modified to only discuss the use of reclaimed water, and MPCA should be listed in 1501.7 as the Authority Having Jurisdiction for minimum water quality requirements for reclaimed water.*

Appendix K: Potable Rainwater Catchment Systems

Any potable rainwater catchment system that serves an average of 25 or more people for at least 60 days of the year will be classified as a public water system and subject to the Surface Water Treatment Rules of the Safe Drinking Water Act. Appendix K would not be needed for public water systems. MDH does not recommend potable rainwater catchment systems for systems that aren’t public water systems. **MDH therefore recommends not adopting Appendix K.**

Appendix S: Onsite Stormwater Treatment Systems

Appendix S covers stormwater treatment, which is a specific type of on-site treated nonpotable water system covered in Chapter 15. While Appendix S provides some additional detail for stormwater treatment, MDH has the same concerns regarding authority and oversight as for Chapter 15. **MDH does not recommend adoption of Appendix S until a system of operational and water quality oversight is in place.**

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