



Guidelines for Cistern Water Systems

The following guidelines are designed to assist applicants and engineers in the development of proposals for cistern water systems using hauled water to serve buildings that necessitate potable water. The criteria provided in this document shall be used by Spokane Regional Health District (SRHD) in accordance with the SRHD Water Adequacy Review Procedure.

Professional Engineer

1. Cistern water systems shall be designed by professional engineers, licensed under chapter 18.43 RCW.

Water Source

1. The source of water to supply a cistern water system shall be a public water system that is approved by the Washington State Department of Health (DOH), Washington State Department of Ecology (DOE), and any other applicable agency to supply potable water in quantities up to the maximum demand indicated in the proposed design.
2. Documentation from the water purveyor must be provided to SRHD showing they agree to supply potable water up to the maximum quantities indicated in the proposed design.

Location

1. The components of the cistern water system shall be located in areas protected from sources of contamination and in compliance with any applicable set back requirements (on-site sewage systems, easements, etc.).

Capacity

1. The capacity of the booster pump, storage tank, and water hauling plan for the cistern water system shall be adequate to meet the intended needs.
2. Water usage calculations must detail all anticipated water uses served by the cistern system, including both indoor use (drinking, food preparation, bathing, laundry, cleaning, etc.) and outdoor use (irrigation of lawn, garden, and landscape plantings; livestock watering, washing of vehicles/equipment, etc.).
3. The design shall be based on an average daily demand of at least one hundred twenty gallons per bedroom per day, with a minimum of two hundred forty gallons per day.
4. The cistern tank size shall be at least three times the average daily demand.

Construction

1. Tanks, piping, pumps, and other water-contact components of the cistern water system and transport equipment shall be approved for use with drinking water by an American National Standards Institute (ANSI)-accredited certification program.

Water Quality

1. Water obtained from the cistern water system shall meet all applicable water quality standards.
2. The owner of the cistern water system shall maintain any necessary testing equipment to determine treatment residual levels, if applicable.

Transport Equipment

1. Water transport equipment shall be adequate to meet the intended needs as determined by the design engineer. All water-contact components shall be approved for use with drinking water by an ANSI-accredited certification program.

Operations And Maintenance Plan

1. An Operations and Maintenance (O&M) plan shall describe how the cistern water system and water transport equipment is to be operated and maintained to meet the maximum water demand and ensure its safe operation.

Installation

1. Following approval by Spokane Regional Health District (SRHD) and other applicable agencies, the cistern water system shall be installed in accordance with the approved design and all applicable laws.

Inspection & final submittal

1. Following installation and prior to use of the cistern water system and water transport equipment, an inspection shall be conducted by the design engineer to ensure compliance with the approved design.
2. The design engineer shall submit to SRHD a record drawing of the cistern water system along with a statement attesting that the installation and water transport equipment meets the approved design.
3. SRHD shall file a notification to the property deed with the Spokane County Auditor. The notification shall indicate the use of a cistern water system, and include copies of the approved plan, record drawing, and O&M plan. The applicant shall be responsible for all fees associated with the filing.

Final Approval

1. Following receipt of all required items and payment of all applicable fees, SRHD shall notify the jurisdictional building code authority of the approval of the cistern water system to facilitate issuance of a certificate of occupancy.
2. The operation and maintenance of the cistern water system and water transport equipment is the sole responsibility of the property owner.

If Cistern Taken Out of Service

1. If the cistern water system is taken out of service because an on-site water source has become legally and physically available, SRHD shall complete a water adequacy review of the new source in accordance with the SRHD Water Adequacy Review Procedure at the current fee. If the new source is found to conform to the applicable drinking water standards specified in WAC 246-290, the deed notification will be removed at the current fee.

Spokane Regional Health District assures nondiscrimination in accordance with Title VI of the Civil Rights Act of 1964 and the Americans with Disabilities Act. To file a complaint or to request more information, reasonable accommodations, or language translations, contact 509.324.1501 or visit srhd.org.

