

Individual Sewage Disposal System Stakeholder Process
Work Group Position Paper
DRAFT

Work Group: Graywater Reuse Committee

Definition: Graywater is defined for purposes of this position paper as “water from sources within a residential or commercial building that requires little or no treatment to meet the requirements, prohibitions, and standards adopted by the commission for subsequent reuse.”

Problem: Colorado does not have a comprehensive program that facilitates the reuse of graywater for appropriate residential, commercial and industrial uses. This prevents the conservation of Colorado’s valuable water resources and the associated cost savings through the reuse of graywater

Mission Statement: To take such action as is necessary to assist the legislature and the commission to adopt statutes and regulations permitting and encouraging the reuse of graywater in Colorado.

Alternatives considered with Pros and Cons:

The Graywater Reuse Committee members are all advocates of graywater reuse, thus Pros and Cons of graywater reuse were never explored. Rather the Committee focused on alternative for implementing graywater reuse in Colorado. Three alternatives were explored:

1. Revise ISDS Act & Guidelines to Include Full Range of Graywater Requirements
2. Revise ISDS Act to Authorize non-ISDS Graywater Applications as Interim Measure until Graywater Act/Regulation passed
3. Enact Separate Statute and Regulations specifically for Graywater

In the end the Committee elected to choose a new path described below.

Consensus Proposal and why it is the best solution:

Assist with developing proposed language changes to Article 10 that will authorize the commission to promulgate regulations describing requirements, prohibitions, and standards on the reuse of graywater for purposes other than drinking that will protect public health and environment, and encourage the reuse of graywater. .

Strategy and Ideas for Implementation:

Adopt the approach used in the Water Quality Control Act (Article 25-8-205(1) (f)) for modifying the ISDS statute. The Water Quality Control Act states simply that reuse is permitted subject to regulations to be developed by the Commission. The details of how water reuse is regulated are contained in the Regulation 84. Similarly, we propose to use the simplest language possible in the ISDS statute (Article 10) that allows reuse of graywater; changes in Article 10 also need to include who oversees the program within the boundaries of a city or town. Requirements for graywater reuse would be developed in a separate regulation promulgated by the commission.

To enable individuals to understand what the regulation might look like, the Graywater Committee will outline its vision of a graywater regulation. Following are some preliminary thoughts about what should be in that regulation:

- **START SIMPLE** - The development of the graywater reuse regulation would start simply, with graywater reuse for lower risk uses such as landscape irrigation and toilet flushing.

As experience is gained through prototype applications in Colorado, the regulation can be amended or expanded to include other forms of reuse.

- INITIAL DEFINITION OF GRAYWATER - Graywater could initially be defined in the regulation to include water from sinks, showers, bathtubs and laundry that is easily and minimally treated for reuse in lower risk situations. Graywater would not include water from dishwashers, kitchen sinks and/or toilets.
- TREATMENT/MANAGEMENT REQUIREMENTS - A tiered approach to required treatment and best management practices for graywater reuse is recommended taking into account risk and performance. For simple graywater re-use systems used for landscape irrigation, treatment requirements would probably be less restrictive than for graywater used for toilet flushing.
- OTHER OPTIONS FOR REUSE - OWS systems that include treatment of kitchen sink and/or toilet water, even though they produce a high quality effluent are not envisioned to be regulated as graywater under this regulation.
- SIZE OF SYSTEM ALLOWED - The size of graywater reuse systems might be limited initially in the regulation until we get experience with its use in Colorado.
- REGULATION - The regulation or amendment to Article 10 must address who is responsible for regulating graywater reuse; is it the state, county, or local jurisdiction; there are pros and cons to each alternative, including potentially added cost and possibly additional staff requirements. Permitting would be part of this discussion; issues that must be addressed include:
 1. Is a separate permit required for the graywater plumbing since graywater systems are included in the Uniform Plumbing Code?
 2. Is a permit required for landscape irrigation, or is notification of the state or local authority that a graywater irrigation system is being installed is sufficient?
 3. For municipal applications (graywater for facilities connected to public sewer systems), who approves the plumbing, and is that the same entity that approves the irrigation system?
- WATER RIGHTS - The regulation needs to speak to the water rights issue. For inter-basin transfer water, there should be no issue at all.

Impacts on Practitioners and Other Stakeholders:

At this time the graywater committee sees no negative impact on any business. There is a potential positive business effect on businesses that sell and install the equipment used in graywater reuse systems. These businesses would include hardware stores, plumbers and businesses that install and service onsite wastewater treatment systems, and landscape irrigation companies.

Depending upon the permitting requirements that are promulgated in the graywater reuse regulation, there is a potential cost savings to cities and counties in terms of amount of drinking water that needs to be used and treated, and the amount of wastewater that requires treatment.