SUBJECT: Expanding the use of graywater and alternative onsite water

COMMITTEE: Natural Resources — committee substitute recommended

VOTE: 10 ayes — Keffer, Ashby, D. Bonnen, Burns, Frank, Kacal, T. King, Larson, Lucio, Nevárez

0 nays

1 absent — Workman

WITNESSES: For — Adam Smith, City of Austin; (*Registered, but did not testify*: Christy Muse, Hill Country Alliance; Cyrus Reed, Lone Star Chapter Sierra Club; Myron Hess, National Wildlife Federation; C.E. Williams, Panhandle Groundwater Conservation District; Ned Munoz, Texas Association of Builders; Julie Nahrgang, Texas Association of Clean Water Agencies and Water Environment Association of Texas; Neftali Partida, Texas Building Owners and Managers Association; David Weinberg, Texas League of Conservation Voters; Frank Aguirre, Texas Septic Systems Council; David Lancaster, Texas Society of Architects; Dean Robbins, Texas Water Conservation Association.; Carole Baker, Texas Water Foundation; Perry Fowler, Texas Water Infrastructure Network; Liana Kallivoka, U.S. Green Building Council; George Cofer)

Against — None

On — (*Registered, but did not testify*: David Galindo, Texas Commission on Environmental Quality)

BACKGROUND: Health and Safety Code, sec. 341.039, governs standards for the use and reuse of graywater. It defines "graywater" as wastewater from clothes-washing machines, showers, bathtubs, hand-washing lavatories, and sinks that are not used for disposal of hazardous or toxic ingredients. Graywater does not include wastewater from sinks used for food preparation or disposal, wastewater that has come in contact with toilet waste, or wastewater from the washing of material, including diapers, that has been

soiled with human waste.

Sec. 341.039 also establishes the circumstances under which domestic use of less than 400 gallons per day of graywater is allowed by the Texas Commission on Environmental Quality (TCEQ) without a permit. Allowable use includes graywater from a private residence used onsite by the occupants for gardening, composting, or landscaping. Graywater must be stored in tanks and conducted in separate pipes that are clearly labeled as containing nonpotable water. It must be collected using a system that overflows into a sewage collection or on-site wastewater treatment and disposal system.

Water Code, sec. 26.0311 establishes standards for control of graywater based on those contained in Health and Safety Code, sec. 341.039. Both codes require TCEQ, by rule, to adopt and implement minimum standards for the domestic use of graywater, which appear in 30 TAC, Part 1, ch. 210, subch. F.

DIGEST:

CSHB 1902 would amend Health and Safety Code, sec. 341.039 to include standards for alternative onsite water, as well as graywater. The bill would define alternative onsite water to include rainwater, air-conditioner condensate, foundation drain water, storm water, cooling tower blowdown, swimming pool backwash and drain water, reverse osmosis reject water, or any other source of water considered appropriate by the Texas Commission on Environmental Quality (TCEQ).

The bill also would change the conditions for residential use of graywater or alternative onsite water without a permit to allow indoor use of graywater for toilet or urinal flushing. It also would require a collection system that could be diverted into, rather than overflowing into, an on-site wastewater treatment and disposal system. CSHB 1902 would modify the requirement in current law for the storage of graywater or alternative onsite water in tanks. Under the bill, graywater would be stored in surge tanks if required by TCEQ rule.

The bill would require the TCEQ to adopt and implement minimum

standards, by rule, for the indoor and outdoor use and reuse of treated graywater and alternative onsite water, including use for toilet and urinal flushing. These rules would be required to assure that the use of alternative onsite water and graywater did not threaten human health and would preserve current requirements that guard against graywater creating a nuisance or damaging the quality of groundwater or surface water.

CSHB 1902 would allow TCEQ, by rule, to annually inspect and test a graywater or alternative onsite water system. TCEQ would have to develop a public regulatory guidance manual to explain rules associated with graywater and alternative onsite water.

The bill would make conforming changes to Water Code, sec. 26.0311, including the requirement for the adoption of minimum standards under that section. TCEQ would have to adopt the rules required by CSHB 1902 by January 1, 2017.

This bill would take immediate effect if finally passed by a two-thirds record vote of the membership of each house. Otherwise, it would take effect September 1, 2015.

SUPPORTERS SAY:

CSHB 1902 would promote the use of graywater and alternative onsite water as viable, sustainable resources. The development, management, and preservation of water resources throughout Texas has become a major priority as the state faces a prolonged drought. With its limited water resources, it is critical that Texas recognize graywater and other alternative onsite water sources as a desirable and sustainable water resource.

Graywater is a relatively clean form of wastewater from baths, washing machines, and other kitchen appliances. Current law and regulations allow graywater use for a few outdoor purposes, such as irrigation and watering to reduce foundation cracking. Graywater is contained within a separate plumbing system to ensure that the public water supply is not contaminated. These requirements in law and rule on the use of graywater were established more than 10 years ago. Since then, the invention of new

technologies and systems has expanded the possibilities for safe onsite reuse of graywater on commercial, industrial, and domestic properties.

CSHB 1902 would bring current law and regulations up to date by expanding the sources of usable non-potable water to include alternative on-site water, such as air conditioning condensate, rainwater, storm water, and foundation drain water. The bill would further the use of graywater and alternative onsite water by allowing the indoor use of graywater for toilet and urinal flushing and by no longer requiring its storage in a tank for every system. This can be costly and not always necessary, especially for smaller residential systems. Under CSHB 1902, any requirement for a storage tank would appear in rule, at TCEQ's discretion.

The use of graywater indoors, such as in toilets, would not pose a risk to public health. A cross-connection safeguard would be used to protect the public water supply from potential contamination due to backflow. The bill would provide further protections by requiring TCEQ to adopt minimum standards and rules and would allow for annual inspections and testing for graywater and alternative onsite water systems. While these systems can be costly to install, programs are available to assist homeowners and businesses with the expense. For example, the Property Assessed Clean Energy (PACE) program allows homeowners and businesses to finance the installation of a graywater or alternative onsite water supply system using property assessments on their buildings as a repayment mechanism.

OPPONENTS SAY:

Although Texas needs to consider every resource that might help to conserve the public water supply, the use of graywater and alternative onsite water could pose a risk to public health. Currently, graywater can be used for only limited outdoor use. CSHB 1902 would allow indoor use for graywater and many additional sources of non-potable water. While the allowable use would be limited to flushing toilets and urinals, any indoor use would significantly increase the potential for human contact, requiring a great deal of regulation to assure that there would not be any threat to human health.

Because of the requirement for a separate plumbing system and other costly equipment, graywater systems can be prohibitively expensive, especially for homeowners. While CSHB 1902 could remove one of the cost barriers by allowing TCEQ to determine by rule whether a storage tank was necessary, another significant cost factor could come from treating water to a bacterial level that would be safe for indoor use.