

Israel takes pains to ensure graywater is safe for homes

Treated water from sinks, bathtubs and washing machines — graywater — can be used in many ways and is a great way to conserve freshwater. The problem is, the Health Ministry is reluctant to approve the procedure, fearing the water used in homes would not be treated properly.

Despite the raft of proposals, expert committees and debates in Knesset panels, the use of graywater has not yet been regulated.

In recent weeks, scientists and environmentalists have been trying to move the issue forward again. But the Health Ministry, which officially supports the move, keeps setting conditions, and the Water Authority and other agencies appear to be in no rush to promote the issue.

In arid countries like Israel, graywater could be used for watering gardens and washing toilets. Its potential use is estimated in the millions of cubic meters a year, similar to the production of a mid-sized desalination plant.

True, direct exposure to graywater or its penetration into the drinking-water pipes could be a health hazard. So for graywater to be used, new systems are necessary, including separate pipes and treatment measures to neutralize the microbes and detergents.

Two decades in the making

The Health Ministry issued its first permit for the use of graywater 21 years ago, when it allowed the use of water from swimming-pool showers for irrigation. Permits to use graywater in other public facilities, especially sports centers, followed.

The nonprofit group Shomera for a Better Environment recently launched a pilot plant for treating water from the main ritual bath in Tel Aviv-suburb Ra'anana. Shomera, which recently received the Health Ministry's approval in principle to operate the system, aims to show how treated graywater can be used for watering gardens and washing toilets.

Shomera's chief executive, Miriam Garmaise, says the system is safe enough to use in densely crowded areas as well.

But the Health Ministry is worried about the graywater used in homes. As a result, an estimated 10,000 households are illegally op-

erating their own systems to recycle graywater, mostly for watering gardens.

In recent years, the Coalition for Gray Water Recycling in Israel has been pushing for legislation that would greatly increase the use of graywater in both homes and public facilities. The coalition cites recent studies by professors Amit Gross of Ben-Gurion University of the Negev and Eran Friedler of the Technion technology institute.

Users just as healthy

Gross and Friedler found that a graywater treatment plant they studied could produce high-quality water that did not damage the soil. They compared the health of people who had graywater treatment systems in their homes and those who didn't. Graywater users didn't suffer from a higher rate of disease from microbial contamination.

The Coalition for Gray Water Recycling has also helped set standards for treatment systems. After a long effort, the technical committee at the Standards Institute approved the standard.

The Health Ministry made various comments before further debates were held. Last week the institute's technical committee approved the newest standard, but the Standards Institute's director, Daniel Goldstein, has refused to sign it. The institute says that since a new minister and director general have been appointed at the Health Ministry, the issue will be discussed with them before a final decision is made about the standard.

The Health Ministry says graywater may be used today in public buildings, subject to the ministry's approval. Ministry officials are now working on legislation that would enable graywater use in households, including apartment buildings, the ministry says.

The draft bill is being discussed with Interior Ministry officials, and a memorandum on the issue will be released soon, the Health Ministry says, adding that the standard can support legislation but cannot alone form a basis for using graywater. The Coalition for Gray Water Recycling says a number of proposals on graywater use were submitted to the Knesset long ago, so the legislation could easily be in place now.



A graywater facility in Ra'anana.

Tomer Appelbaum