RO waste check

How much water does your reverse osmosis system send down the drain? Measure it, then do the yearly math. Bracketed numbers point to the sources at the bottom of the page.

DRAIN WATER PER GALLON YOU DRINK

System	To the drain per gallon made	Recovery	Source
WaterSense labeled	2.3 gallons or less	About 30% or better	[1]
Household design range	4 down to about 2.3 gallons	20 to 30%	[2]
Typical	5 gallons or more	About 17% or less	[1]
Inefficient	Up to 10 gallons	As low as about 9%	[1]

MEASURE YOUR OWN RATIO

1. Check your manual first. If it describes a flow test, use that instead of these steps.
2. Not comfortable working with the fittings under your sink? Ask your installer or a plumber to run the test.
3. Run the RO faucet until the tank is empty and the flow drops to a steady trickle.
4. Turn off the system's water supply valve before you touch the drain tubing. If the fitting is unfamiliar or won't release by hand, stop here.
5. Put the drain tubing in one measuring jug, turn the supply back on, leave the faucet open and catch its stream in another jug.
6. Time the same number of minutes for both, turn the supply off again and write down both volumes.
7. Reconnect the drain tubing as it was, turn the supply on and check every fitting for leaks.

WORKSHEET

A. Drain jug (gallons)	From the timed test	_____
B. Faucet jug (gallons)	Same minutes	_____
C. Your ratio = A ÷ B	Gallons to drain per gallon made	_____
D. Recovery = B ÷ (A + B) × 100	Percent of incoming water you drink	_____
E. RO water your household draws per day (gallons)	Your own estimate	_____
F. Drain water per year = C × E × 365	Gallons, a rough estimate: one short empty-tank test, and conditions change as the tank fills	_____

WHAT MOVES YOUR NUMBER

- Colder water makes less treated water: about 1 to 2 percent less for every degree below 77°F. Well water at 45°F makes about half as much as at 77°F. [2]
- Incoming pressure must overcome the osmotic pressure, and a higher pressure difference across the membrane gives better rejection. [2]
- A shut-off valve should stop the flow when the tank is full. If water keeps running to the drain with the tank full, have it checked. [2]
- Clogged membranes decrease flow and cause poor performance. Keep to the maker's filter and membrane schedule. [2]
- Replacing a unit? EPA says a WaterSense labeled model saves more than 3,100 gallons a year on average. [1]

We sell Sentry H2O water filtration systems, which are not RO systems. This check makes no claim about any product; it is the same test we would run on any RO system.

[1] U.S. EPA WaterSense, Point-of-Use Reverse Osmosis Systems (last updated August 21, 2026): www.epa.gov/watersense/point-use-reverse-osmosis-systems
[2] University of Nebraska–Lincoln Extension, NebGuide G1490, Drinking Water Treatment: Reverse Osmosis (2014): extensionpubs.unl.edu/publication/g1490/2014/html/view