

# SAFE RV WATER

Data gathered from various web resources



There's more to using your RV fresh water system than just hanging a hose on the side of the rig and turning on the water. Properly using your RV fresh water system can make a world of difference in how much you enjoy your trip--or possibly regret it.

## The Water Hose...



Unless a hose is clearly sold as "safe for drinking water," it's best to assume it is NOT safe. Why so? Many vinyl hoses are made with a process that uses lead to stabilize the plastic. That lead can actually leach out into the water. Even in minute quantities, lead can have a debilitating effect on human health, particularly for children. The materials used in a "drinking water quality" hose should be clearly labeled as FDA approved.

That said, it would seem we're all steered over to the shelf at Camping World or Walmart to purchase one of those ubiquitous white "camping hoses," right? For a quick purchase, yes, it would seem that way. But those standard RV water hoses come with their own set of drawbacks. Talk to any RVer whose had his hose for a year or better, they'll soon be grumbling and spitting about water hoses that kink, and hoses that leak. It just seems inevitable.

Is there another way? Sure enough, a trip to a well-fitted hardware store may find a way that gets a good quality, safe for drinking, doesn't kink, meets your personal needs, and doesn't require a printing press to print up new money to buy it, water hose. A trip down the plumbing row should take you to a line of polyester braided PVC hose that is approved for drinking water--look for an "NSF" certification.

The thickness of the braided hose is certainly better than that of the typical "RV" hose; hence, kinkage should be past history. The "funny taste" we often associate with water hoses is also a non-issue, as we've found the water coming out of these lines is fairly good. And since you're buying the hose in "cut" lengths, you can make up your own hoses. Some RV'rs say they carry several of their own hoses, 10' in length for easy storage. These can be rolled up and stored away in a sanitary fashion in a plastic gear box. Having more than one 'ten-footer' on hand helps them to make whatever length is needed without a lot of excess hanging around to trip over and fuss with it's time to break camp.

Keep in mind the smaller the diameter of the hose, the greater the resistance to water flow--and hence a drop in pressure. If you're just filling your tanks with a hose, that might not make much difference to you. But if you do frequent campground hookups, a smaller hose restricting your water flow could make for a difference in your shower power. The longer the hose run, the greater the effect, so plan accordingly. Of course, the bigger the hose diameter, the greater the cost of the hose; and there are practical limits on the size of the fittings you'll also need to stick on the ends of your new hose.

After you've picked out the length (or lengths) you'll need, you'll need to get the appropriate fittings to put on the end of your new hoses. Brass fittings tend to last longer, but are a bit more spendy than their plastic counterparts. Plastic seems to be more subject to UV radiation, and cracking or breaking when run over with the tow rig is a definite. Regardless of your choice, always keep a supply of hose washers with you--a leaking hose is a surefire nuisance that can be easily dealt with.



A couple of thoughts on hose use: Store your hoses with the ends screwed together; this keeps dirt, bugs, and other undesirable stuff out of the hose. Always drain your hose before storing it--that helps to keep bacterial growth down.

Even using hoses with material approved by the FDA, it is suggested that RV'rs do well to run the water through the hose for a minute or so before using the water. Why so? A hose with standing water in it can provide a wonderful medium for bacterial growth. Running water through the hose first will help to clear any undesirables out of the hose onto the ground, and not in your tank or RV.

So, what of those of us who connect a hose to our RV as a primary water source, and leave it connected? Again the answer: If you're going to drink it, it might be best to run the tap for a minute or so before drawing a drink. The problem of bacterial contamination increases with warmer weather when the bugs finding multiplication of their species enhanced.

You might also want to consider a screen filter to your water line. This would go between the regulator and water source. Check it regularly to make sure it is free of debris. Clean or replace as needed. The filter will reduce your water flow a very small amount.



## Water Pressure

Add another layer of protection between your water hose and the tap. In this case, a water pressure regulator will protect both your RV plumbing system--and your water hose--against high pressure surges that can come through the "city water" system you'll be hooking up to. Surges can actually hammer RV plumbing fittings, causing leaks, or even catastrophic breakage. You can find a regulator at an RV supply store. They come in a couple of different "flavors," being made of either brass or high impact plastic. Others add whistles and bells in the form of a gauge to indicate exact water pressure. Any of these will work.



Screw the regulator between the water tap and the hose. Open the tap to flush the hose out, shut the tap, then connect the hose to the RV. Why this flush? It's just a good practice to be in. Any bacteria that may have developed in the hose between uses can be blasted out harmlessly, and not put into your RV fresh water lines.

Some RV'rs seem to think they don't need a pressure regulator in their line if they simply open the tap, "just a little." They reason that if the tap isn't on full, the pressure will be reduced. Sorry, faulty reasoning! Turning the tap on "just a little" will reduce the volume of water, but not the pressure. True, you will "lose" a little flow when using the regulator, but so much better than having your plumbing system broken when you're away on a day trip, returning to find your interior flooded out.

### How long can I keep fresh water in the tank?

Our "germ free" society seems to be bent on scaring us to death. If you believe the TV commercials, if you don't wash with "antibacterial soap," you're sure enough going to drop over dead. It's no wonder that many RV'rs (not just new ones) worry about how long it's safe to keep water on board. Some even think they should drain their water heater between outings.

The Federal Emergency Management Agency (FEMA) water storage safety experts on the subject of storing "home prepared" drinking water says that much depends on the quality of your water source. If you're filling up your RV tanks with water from a "known" good source (a municipal water supply as an example) then stop worrying about the water. Before you fill, make sure your tanks are properly sanitized (see next section).

Using a drinking water-safe hose, fill your tank from your safe supply. Make sure the tank is securely capped to keep out unwelcome pests and road dust. Now settle back and relax. According to FEMA, "Replace the water every six months," is all that's required. What about water in your water heater tank? Remember, when you fire up the heater, a lot of bugs are likely to be cooked to death. And if the water supply you originally filled up with is good, then the same "six month" recommendation applies.

## **Properly Sanitized Water Tank!**

### Tanks Clean as a Whistle

If you boondock away from city water, you'll be glad to have a clean and safe fresh water tank. Sanitizing a fresh water tank is straight forward. First, determine the capacity of your fresh water tank, and bring it to near full of fresh water. The trick is to add a 1/4 cup of household bleach for each 15 gallons of tank capacity. But to do this, you won't just dump bleach into the tank, rather get a container with a capacity of at least a quart. Bring the container near to full, and carefully add the requisite amount of bleach. Mix carefully, and funnel this diluted solution into your fresh water tank. Top off the tank with fresh water.

Now run your water pump and draw water through all fixtures until you smell the odor of chlorine. Everything should now be allowed to sit for at least three hours, and overnight if possible. Once the wait is over, drain the fresh water tank and "sweeten" it. After treating with chlorine (an alkaline), using baking soda (another alkaline) may not work as well as using the old vinegar trick.

Get yourself apple cider vinegar and, following the same physical procedures as for the bleach, add a quart of vinegar for every 15 gallons of tank capacity. Of course, you'll need to "up the size" of your dilution container. Again, you're ahead to let the cider solution sit in the system for a few hours. Drain it out, add fresh water to the tank, and run the fixtures until the smell's gone.

Now you've a clean tank, keep it clean. Don't let your fresh water tank filler sit about without a proper cap. In hot, dry climates, you'd be surprised how a trail of ants can sniff out your fresh water tank and attempt to infiltrate your RV "watering hole." It's a major headache clearing ants (or other contaminants) out of your tank--so much easier to keep them out in the first place.