



PortaWell Newsletter

Volume 2 September 2021

Tips and Tricks for Emergency Water Filtration

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Selection of Surface Source Water for filtration through PortaWell

One PortaWell Customer asked the question:

I live near the Jordan River in Salt Lake City, Utah. Could I use it as a water source and process it through PortaWell in an emergency situation?

The Jordan River in Utah has as its source Utah Lake, and thereafter journeys approximately 50 miles through some of Utah's most populated and developed areas before emptying into the Great Salt Lake. The water quality varies along its path varies but gets "very, very dirty and lots of signs of degradation the bottom of the watershed", as stated in a 2020 article in the Salt Lake Tribune. While efforts are being made to reclaim the river, its water quality is still suspect at best.

The Jordan River is indicative of many in large, populated areas where this type of source may be the only one convenient (proximity) to people in the event of a catastrophic emergency the shuts down all utilities for an extended period of time. People must have drinking water to survive. In a life-or-death situation the question **no longer becomes:**

- Does this filter remove such and such minor contaminant (which may or may not affect my health in 30 years if I drink 5 gallons per day)?
- **but** will this filter remove the biologic and chemical contaminants that will make me or my family ill tomorrow if I drink it to sustain life?

My advice, as always, is to pick the very best (cleanest) water source possible to filter or process through any portable water treatment system.

By best water source, I mean

- absence of significant turbidity (cloudiness of water due to sediment, algae, or other fine particulate),
- absence of significant chemical pollution, and
- absence of pollution sources such as raw sewage, livestock runoff or other industrial wastes.

If you are concerned about water availability for an extended emergency, I recommend scouting out your nearest source and get as much information as to possible pollutants.

You should avoid highly polluted sources even if you must travel further to find safe water.

One can argue, "but isn't this what a portable treatment system is supposed to do—make dirty water into clean water so I can drink it"? Yes, but the more contaminated the water source, the faster any filtration system will foul (clog up) or expend its chemical absorption capability.

Advertisements that show a person pumping water

from a heavily silted, contaminated water source and then drinking clear water are disingenuous at best. Yes, it may clean the water for several gallons, but the filter will quickly clog and be of little use unless the filter can be cleaned or replaced.

The following is my ¹list in order of quality for source water to filter though PortaWell in an emergency (or any portable water treatment system):

1. Tap water with a city boil order
2. Spring
3. Mountain stream
4. Rainwater from roof or capture structure
5. Swimming pool or spa (free of algae)
6. Large lake or reservoir
7. Large river
8. Small river or canal (rural setting)
9. Small river or canal (urban setting)
10. Stagnant pond or small lake



Having said all this, I have recently performed some testing using PortaWell from less-than-ideal water sources (numbers 9 and 10 on my list). I live in

Southern Utah and the Virgin River is about a mile from my house. There are also several ponds fed



by the Virgin River within walking distance. **Could I use this water as a source in an emergency (life or death) situation?** This area of Utah has a rich pioneer history dating back to the 1850s and this same Virgin River sustained life for

generations before modern water treatment plants were installed. The primary pollutants now are: biological from free ranging livestock along its path, and chemical pollutants from agriculture and

urban runoff. During heavy rains the river becomes silted from storm runoff.

In the next Newsletter, I will share my experience and techniques I used to pretreat this water to make it more suitable for PortaWell filtration and drinking in an emergency.

¹*This list is based upon my experience and on my location. Others may have differing circumstances with different local conditions. Some water sources may require multiple treatment options before it can be made safe to drink.*

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