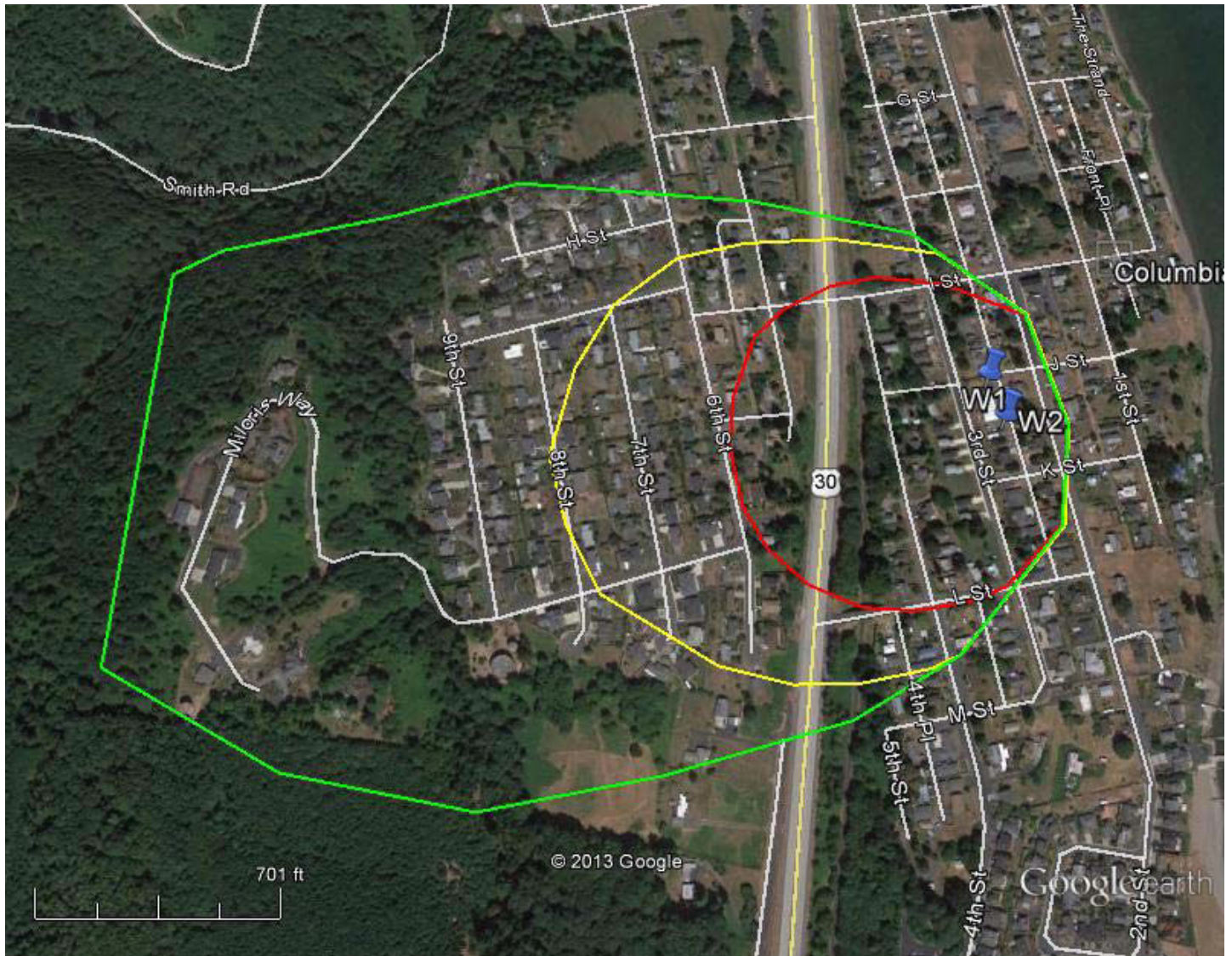


PROTECT YOUR DRINKING WATER SOURCE

Clean drinking water is critical, and the majority of Columbia City's drinking water comes from two groundwater wells. In an effort to protect our drinking water, Columbia City developed a Source Water Protection Plan in 2014 that identified a Drinking Water Protection Area (DWPA). The DWPA is the area most critical to preserving your drinking water quality.

Delineation of Drinking Water Protection Area (DWPA)



- Red Zone** - higher risk - one-year estimated time of travel to source water
- Yellow Zone** - moderate risk - two-year estimated time of travel to source water
- Green Zone** - lower risk - two-five year estimated time of travel to source water

Contamination is one of the primary threats to our drinking water supply. Contamination occurring within the red zone may travel to our drinking supply within just one year, contamination within the yellow zone might take up to two years, and green zone contamination is estimated to take two to five years.

Safe drinking water is essential, and it's important for all of us to protect water quality, not only for the present, but for the future. If you live within the above DWPA, it's especially important for you to help to protect your drinking water source.

WAYS YOU CAN HELP PROTECT WATER QUALITY

Household Hazardous Waste:

- Participate in the Columbia County Transfer Station's Household Hazardous Waste Events for the disposal of chemicals, pesticides, herbicides, fluorescent tubes and light ballasts, solvents, thinners, gasoline, diesel, fuels, cleaners, detergents, propane cylinders, etc.
- Properly dispose of used motor oil, antifreeze, paint, etc., at the Columbia County Transfer Station.
- Substitute less hazardous substances for products you use in your home.

Car Care:

- Check your car regularly for oil and antifreeze leaks, and repair any leaks quickly.

Lawn Care and Landscaping:

- Use environmentally sound products on your lawn, garden and landscaped areas.
- If you must use pesticides and/or fertilizers, apply them minimally and properly.

Pet Waste:

- Promptly pick up pet waste.
- Dispose of pet waste by flushing it or placing it in the garbage.

MORE ABOUT SOURCE WATER PROTECTION

What is Groundwater? Groundwater contributes most or all of the water that is derived from wells or springs. It occurs in the natural open spaces (fractures or pore spaces between grains) in sediments and rocks below the surface. The water table separates the shallow zone where the openings are filled with air from the deeper zones where the openings are filled with water. If the openings in a geologic formation are filled with water and the water can be extracted by a well, then the formation is referred to as an aquifer. Aquifers are not underground rivers, lakes or veins, rather they are geologic materials including old river sediments and fractured volcanic rocks such as basalt.

Where does groundwater come from? Groundwater originates as precipitation that sinks into the ground. Some of this water percolates down to the water table and recharges the aquifer. Much of the recharge area can be located in the immediate vicinity around the wellhead. However, some recharge areas are located quite a distance from the well itself.

How can the well water become contaminated? If the downward percolating precipitation encounters any source of contamination, at the surface or below it, the water may dissolve some of that contaminant and carry it to the aquifer. Groundwater moves from areas where the water table is high to where the water table is low. Consequently, a contaminant may enter the aquifer some distance from the well, and then continue to move towards the well. When a well is pumping, it lowers the water table in the immediate vicinity of the well, increasing the tendency for water to move towards the well.

What are the potential sources of contamination? Contaminants can be conveniently lumped into three categories: microorganisms (bacteria, viruses, *Giardia*, etc.), inorganic chemicals (nitrate, arsenic, metals, etc.) and organic chemicals (solvents, fuels, pesticides, etc.) Importantly, it takes only a very small amount of some contaminants in drinking water to raise health concerns.

