

**Figure 2: Groundwater Monitoring Data**

## FUTURE MONITORING

Poland Spring takes its environmental stewardship responsibilities seriously and is committed to sustainable management of natural resources. Monitoring the groundwater, surface water, habitat and precipitation in Poland will continue for as long as Poland Spring withdraws spring water here.

## SUMMARY

Water withdrawals by Poland Spring from the Poland Spring Aquifer are regulated by the DEP and managed sustainably through proactive monitoring and responsible use. Water withdrawal activity has not resulted in undue adverse impacts to groundwater, surface water, wetlands, or other natural resources.

**Questions about Poland Spring or the monitoring information gathered by Poland Spring can be directed to:**

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# MONITORING REPORT SUMMARY

**2018  
POLAND SPRING  
POLAND, MAINE**



**MANAGING FOR SUSTAINABILITY**

## ABOUT POLAND SPRING

Poland Spring is located in Poland, Maine within the watershed of Lower Range Pond. The Lower Range Pond watershed is approximately 2,300 acres in size. Lower Range Pond drains into Waterhouse Brook and flows north until it reaches the Little Androscoggin River in Mechanic Falls. It then flows into the Androscoggin River and joins the Kennebec River in Merrymeeting Bay.

The Poland Spring aquifer is comprised of glacially deposited stratified drift deposits (deposited approximately 13,500 years ago) that lie adjacent to Ricker Hill to the west and Lower Range Pond to the north and east. Classic glacial deposits are present on the site including a well-defined esker, deltaic sand and gravel, and numerous kettle holes (depressions within the glacial outwash formed by the melting of a detached block of stagnant ice that was buried in the outwash material). Precipitation (as rain and snow) acts to recharge the Poland Spring aquifer via infiltration, as gravity pulls the water down into the aquifer to become groundwater (Figure 1).

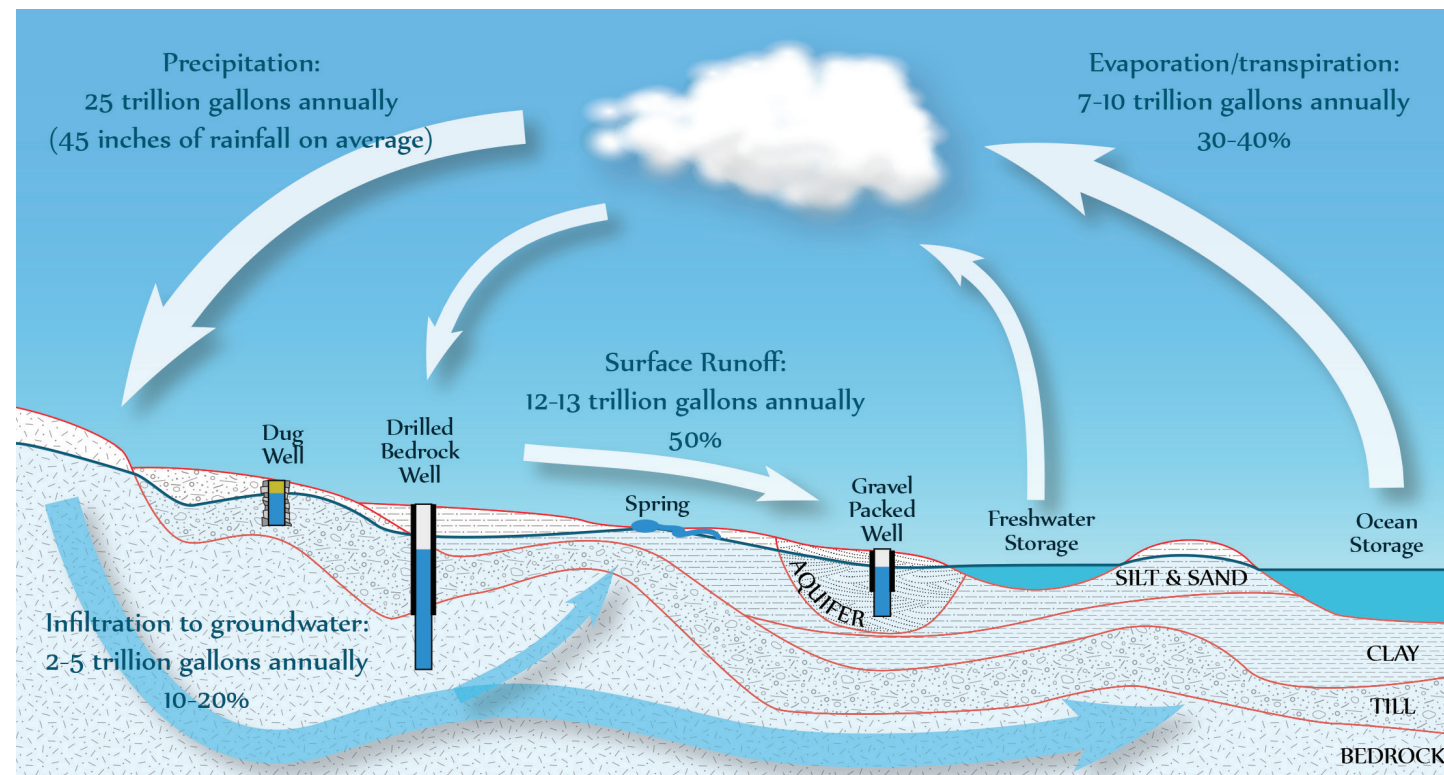


Figure 1: Maine's Water Cycle

## DEFINITION OF A SPRING

A spring is the location where groundwater (water that exists beneath the earth's surface) naturally emerges from the ground. In Poland, these springs are subaqueous in nature, emerging in the shallow water along the near shore of Lower Range Pond. Poland Spring withdraws water from nine boreholes in Poland, intercepting a portion of the spring water that would otherwise flow to the surface.

## WATER WITHDRAWALS AND SUSTAINABILITY

In Maine, the Department of Environmental Protection (DEP) regulates spring water withdrawal through the issuance of permits. The permit governing the Poland Spring site allows Poland Spring to withdraw up to 398 million gallons of spring water per water year (October 1 – September 30), subject to adjustment based on an evaluation of annual precipitation and fluctuations of groundwater levels.

Since water year 1998, the Poland Spring site has received an average of 50 inches of water annually (source: *Shaker Hill Station, National Weather Service Cooperative Station ID 176856*). On average, the Lower Range Pond watershed receives 3.2 billion gallons of water annually. In water year 2018, Poland Spring withdrew 158.5 million gallons of spring water from the Poland Spring aquifer. This represents approximately 5.04% of the total average amount of water (since 1998) received within the Lower Range Pond watershed, and 5.68% of the total amount of water received in the watershed in water year 2018. Poland Spring, as a sustainable guideline, produces well below the volume of spring water allowed by the DEP permit.

**At Poland Spring, our water withdrawals are regulated by:**

- Dept. of Environmental Protection
- Dept. of Health & Human Services (Maine Drinking Water Program)

## SITE MONITORING

Independent scientists contracted by Poland Spring regularly and thoroughly monitor the groundwater system, springs, wetlands, and surface water bodies in and around the Poland Spring Aquifer. Poland Spring monitors extraction rates at the spring water boreholes and monitors stream flow at six locations around Lower Range Pond. These monitoring efforts ensure that Poland Spring's operations do not have an undue adverse effect on the groundwater, surface water, and natural environments. These independent scientists submit annual reports to the DEP where they are publicly available for review.

## RECENT MONITORING RESULTS

The graph in Figure 2 summarizes important measures of the health of the natural groundwater system. The graph depicts water levels typically observed in the Poland Spring Aquifer. The water levels in the aquifer naturally fluctuate by a few feet, depending on the season. Spring and fall rains typically lead to recharge of the aquifers, while growth and uptake of water by plants in the summer usually decreases aquifer water levels, as does the lack of recharge during winter months when the ground is frozen. Years of monitoring data have shown that Poland Spring's activities have not resulted in undue adverse impacts on these natural cycles.