

MONITORING REPORT SUMMARY

2022

EVERGREEN SPRING
FRYEBURG, MAINE



MANAGING FOR SUSTAINABILITY

ABOUT EVERGREEN SPRING

Evergreen Spring is located in Fryeburg, Maine, within the Wards Brook watershed. Wards Brook flows into Lovewell Pond and then to the Saco River. The Wards Brook watershed is approximately 2,000 acres in size. The Wards Brook Aquifer is a body of highly permeable sand and gravel layers that exist beneath the Wards Brook valley. The aquifer and associated sediments (all of which are mapped as significant sand and gravel aquifers by the Maine Geological Survey) are up to 100 feet thick and fill a deep bedrock valley. The valley filled with sand and gravel sediments during the recession of the continental ice sheet in Fryeburg approximately 13,000 to 14,000 years ago. As the ice sheet melted and receded to the north, active deposition of sediments occurred along the ice margin where meltwater flowed into a glacial lake (Lake Pigwaket). Today, these sand and gravel layers comprise the Wards Brook Aquifer. Precipitation recharges the aquifer by infiltration, as gravity pulls the water down into the aquifer to become groundwater (Figure 1). Poland Spring withdraws water that falls as precipitation within the Wards Brook watershed boundary and infiltrates into the Wards Brook Aquifer.

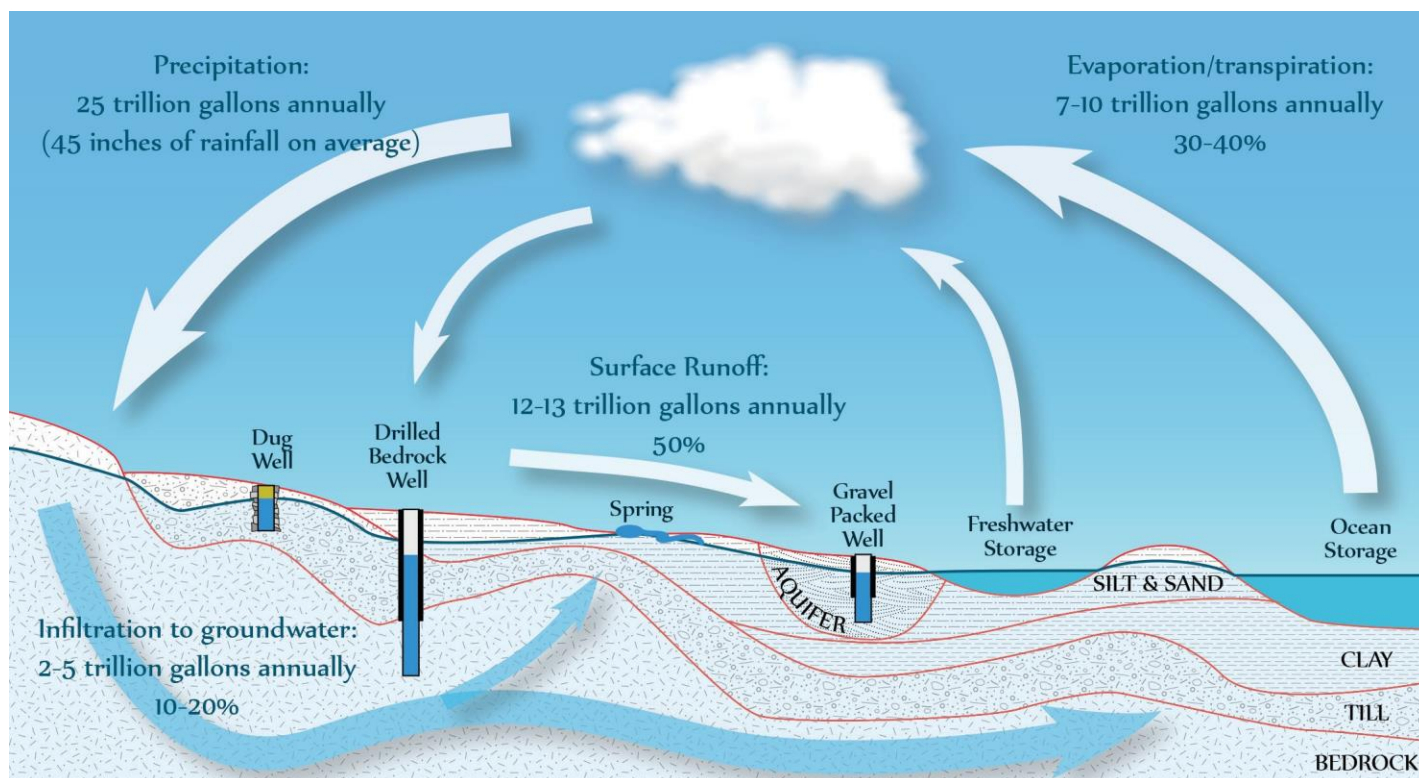


Figure 1: Maine's Water Cycle

DEFINITION OF A SPRING

A spring is the location where groundwater (water that exists beneath the earth's surface) naturally emerges from the ground. Poland Spring withdraws water from one borehole in Fryeburg, intercepting a portion of the spring water that would otherwise naturally emerge from the ground. Spring water is prevalent along Wards Brook, between Route 113/5 and Lovewell Pond where Evergreen Spring is located. The spring water here eventually flows into the Saco River and then on to the Atlantic Ocean.

WATER WITHDRAWALS AND SUSTAINABILITY

Poland Spring purchases spring water from the Fryeburg Water Company, a privately held water utility that owns the Evergreen Spring site in Fryeburg, Maine.

In 2005, the Fryeburg Aquifer Resource Committee funded an investigation of the Wards Brook Aquifer by an independent hydrology expert, Emery & Garrett Groundwater Investigations (Emery & Garrett). As a result of that investigation, Emery & Garrett concluded that there are approximately 293 million gallons of excess water available annually from the Wards Brook Aquifer beyond what is needed to serve Fryeburg Water Company's other customers well into the future and to keep the aquifer full and overflowing. As part of its analysis, Emery & Garrett imposed a safety factor of 25%, arriving at a conservative volume of excess water available annually of 220 million gallons (or 603,000 gallons per day). In 2018, Emery & Garrett updated the numerical model of the Wards Brook Aquifer, incorporating the latest groundwater and surface water data. They indicated that the original permissible production guidance is sustainable and ensures that groundwater discharge to Wards Brook will occur under any non-extreme climatic scenario. Poland Spring, as a sustainable guideline, purchases well below the volume of excess water.

Poland Spring's water withdrawals at Evergreen Spring are regulated by:

- Maine Public Utilities Commission
- Dept. of Health & Human Services (Maine Drinking Water Program)

In 2022, an estimated 2.4 billion gallons of precipitation fell in the Wards Brook watershed (Source: Fryeburg Eastern Slopes Airport ICAO Station KIZG, Northeast Regional Climate Center) and Poland Spring purchased approximately 109 million gallons of spring water from the Fryeburg Water Company. Thus, Poland Spring purchased approximately 49.5% of the 220 million gallons of excess available water and approximately 4.5% of the precipitation that fell in the watershed in 2022.

SITE MONITORING

Water Supply

Independent scientists contracted by Poland Spring regularly and thoroughly monitor the groundwater system, springs, wetlands, and surface water bodies in and around the Wards Brook Aquifer. Poland Spring monitors extraction rates at the spring water borehole and monitors stream flow at two locations along Wards Brook. These monitoring efforts ensure that Poland Spring's operations do not adversely affect the groundwater, surface water, and natural environments. These independent scientists submit monthly monitoring data and annual reports to the Town of Fryeburg and the Fryeburg Water Company.

Stream and Wetland Health

Poland Spring also assesses stream health of Wards Brook through biological monitoring and wetland health of nearby wetlands through wetland monitoring. The independent scientists who conduct these assessments submit biannual reports on stream and wetland health to the Town of Fryeburg and the Fryeburg Water Company.

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 Wards Brook Aquifer. MW-108 is an overburden (sand and gravel) monitoring well centrally located within the Wards Brook

continued on back

Aquifer. For comparison, water levels from U.S. Geological Survey (USGS) well ME-OW1214 are also presented. This well is located in Oxford, Maine and is also an overburden monitoring well.

The water levels in the Wards Brook 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 adverse impacts on these natural cycles.

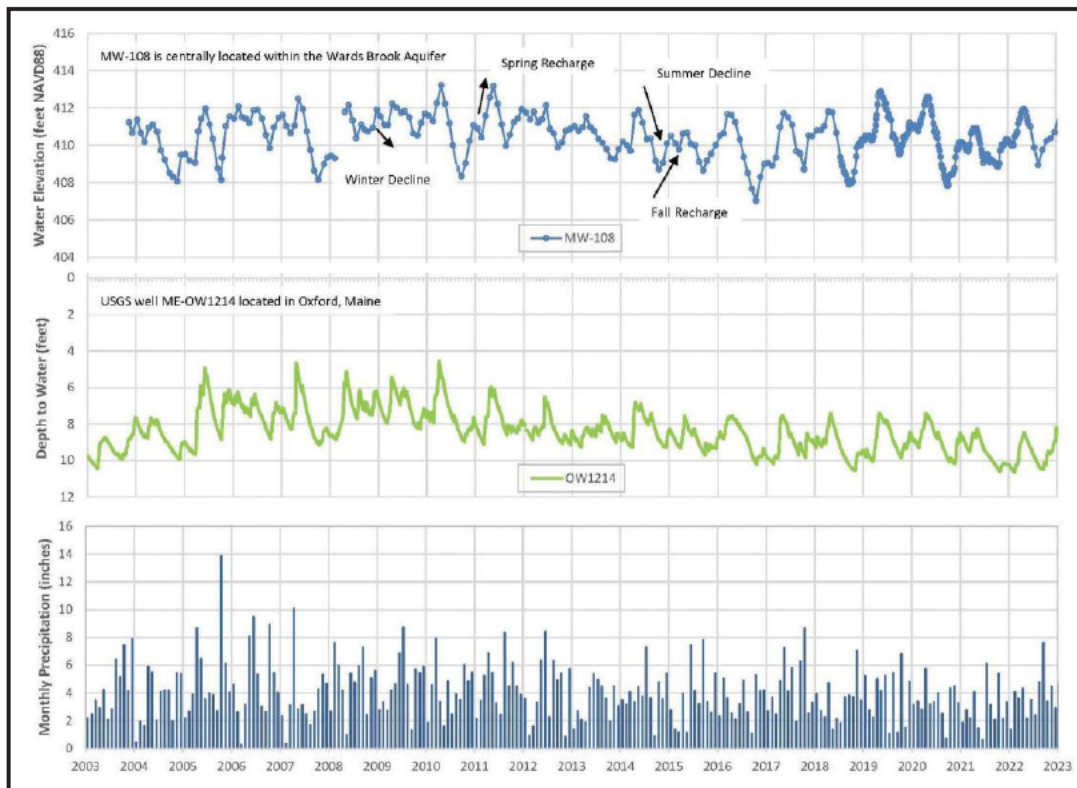


Figure 2: Groundwater Monitoring Data

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 Fryeburg will continue for as long as Poland Spring withdraws spring water here.

SUMMARY

Water withdrawals by Poland Spring at Evergreen Spring in Fryeburg are overseen by the Town of Fryeburg and its independent hydrologist (Emery & Garrett). Poland Spring manages for sustainability through proactive monitoring and responsible use. Water withdrawal activity has not resulted in adverse impacts to groundwater, surface water, wetlands, or other natural resources.

Monthly monitoring results are available to the public at Fryeburg Town Hall, 16 Lovewell Pond Road, Fryeburg, Maine. [REDACTED]

[REDACTED]

[REDACTED]