

MONITORING REPORT SUMMARY

2022
CLEAR SPRING
HOLLIS, MAINE



MANAGING FOR SUSTAINABILITY

CLEAR SPRING LOCATION

Clear Spring is located in Hollis, Maine, within the watersheds of Killick Pond and Wales Pond Brook, which flow into the Saco River. The area that comprises the watershed is approximately 7,670 acres in size. This area is made up of steeply sided valleys carved by streams and rivers into plains formed of sand, gravel and clay deposited by melting glaciers after the last ice age. The major surface water features that dominate the landscape are the Saco River, Killick Pond and its associated streams, and Wales Pond Brook and its wetlands and ponds.

Rain and snow that fall in the watershed recharge the aquifer and groundwater resource throughout most of the year. This natural cycle of water occurs throughout Maine and includes precipitation, runoff infiltration to groundwater and evaporation/transpiration. (Figure 1)

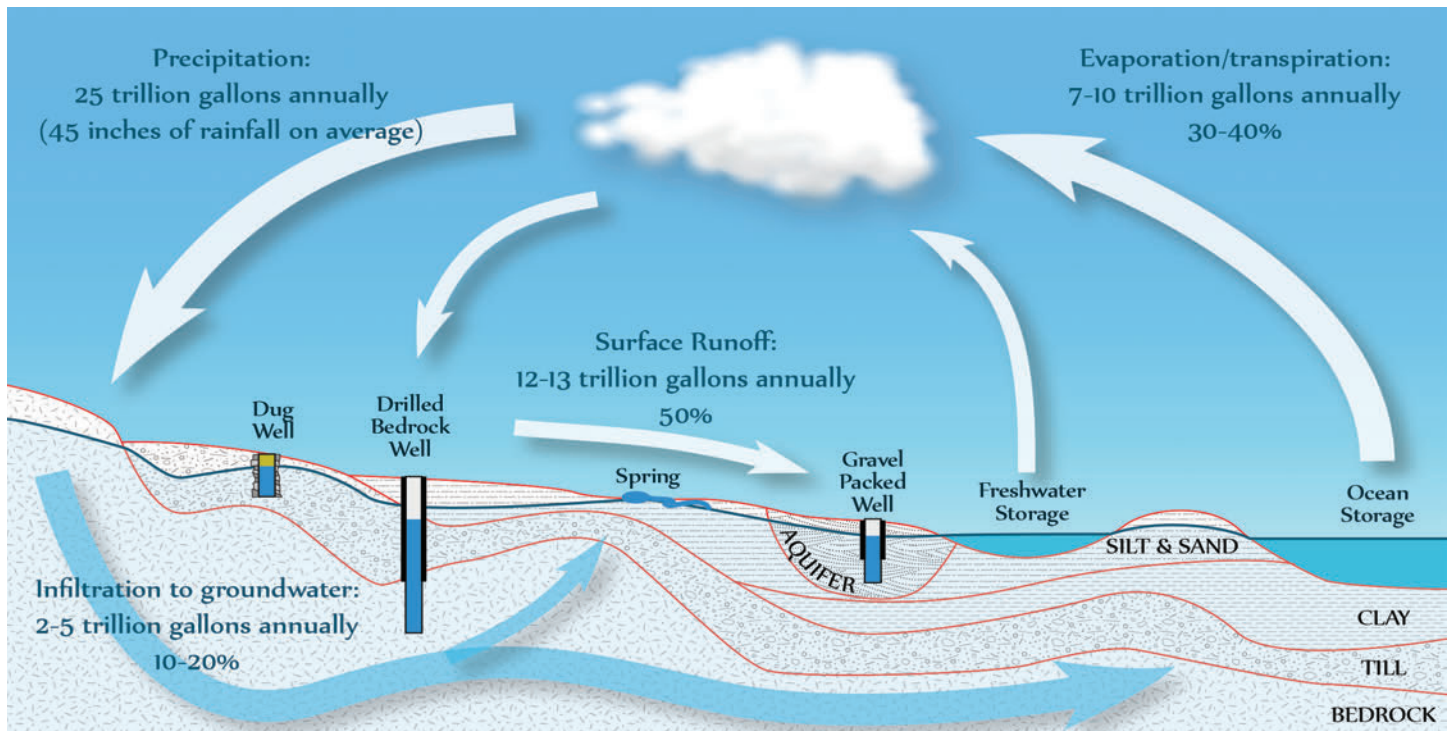


Figure 1: Maine's Water Cycle

DEFINITION OF A SPRING

A spring is the location where groundwater (water that exists beneath the earth's surface) naturally emerges from the ground. Poland Spring withdraws mostly spring water in Hollis. The withdrawal locations - or "boreholes" - intercept Clear Spring water before it naturally emerges from the ground. There are six spring water boreholes in Hollis.

WATER WITHDRAWALS AND SUSTAINABILITY

In Maine, the Department of Environmental Protection (DEP) regulates spring water withdrawal through the issuance of permits. In addition to an extensive scientific investigation of the site, the DEP required that Poland Spring construct, calibrate and verify a comprehensive groundwater flow model before issuing a permit. This model and its findings were used by the DEP to set an extraction volume from Clear Spring sources of 237.7 million gallons (MG) of water per year.

While this may seem like a large number, it is important to remember that annually 10 billion gallons (BG) or 52 inches of water fall on the Hollis watershed in the form of precipitation (based on a 28-year average). Therefore, the amount of Poland Spring's water withdrawal permit represents less than 2.4% of the entire volume of water received in the watershed area annually.

Other withdrawals by Poland Spring in Hollis include utility water withdrawals of up to 47 MG per year for purified water production, plant sanitary requirements, fire protection and industrial uses.

SITE MONITORING

Independent scientists contracted by Poland Spring regularly monitor the groundwater system, springs, wetlands, homeowner water supplies, and surface water bodies. To comply with state permits, Poland Spring monitors extraction rates at all boreholes and utility wells and continuously monitors stream flow at three stations in the watershed. Additionally, water levels in a network of nearby homeowner water supply wells are monitored on a daily basis via data loggers deployed in these wells. These considerable monitoring efforts ensure that Poland Spring's operations do not adversely affect the groundwater, surface water, natural environments, or neighbors. The independent scientists submit monthly monitoring data and annual report to the Town of Hollis and the DEP. This summary document condenses the most recent annual report submission, which can be viewed at Town Hall.

Poland Spring's spring water withdrawals at Clear Spring are regulated by:

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

RECENT MONITORING RESULTS

The graphs below summarize important measures of the health of the natural groundwater and surface water systems. The first graph (Figure 2) depicts water levels at Monitoring Wells 6 and 9, which are monitoring wells centrally located in the aquifer used by Poland Spring. For comparison, water levels from U.S. Geological Survey (USGS) well (background well) in Sanford, Maine along with monthly precipitation are also presented. This USGS well is located outside of the Clear Spring Aquifer. The water levels in the Clear Spring Aquifer naturally fluctuate by a few feet, depending on the season and the amount of precipitation. Spring and fall rains typically lead to aquifer recharge, while growth and uptake of water by plants in the summer decrease aquifer water levels, as does the lack of recharge during winter months when the ground is frozen. Inspection of the graphs indicate that fluctuations of precipitation each year correlates with trends of groundwater levels measured at on-site monitoring wells (Monitoring Wells 6 and 9). Similar trends are also observed in the USGS background monitoring well (Figure 2). Years of monitoring data have shown that Poland Spring's activities have not resulted in adverse impacts on these natural cycles.

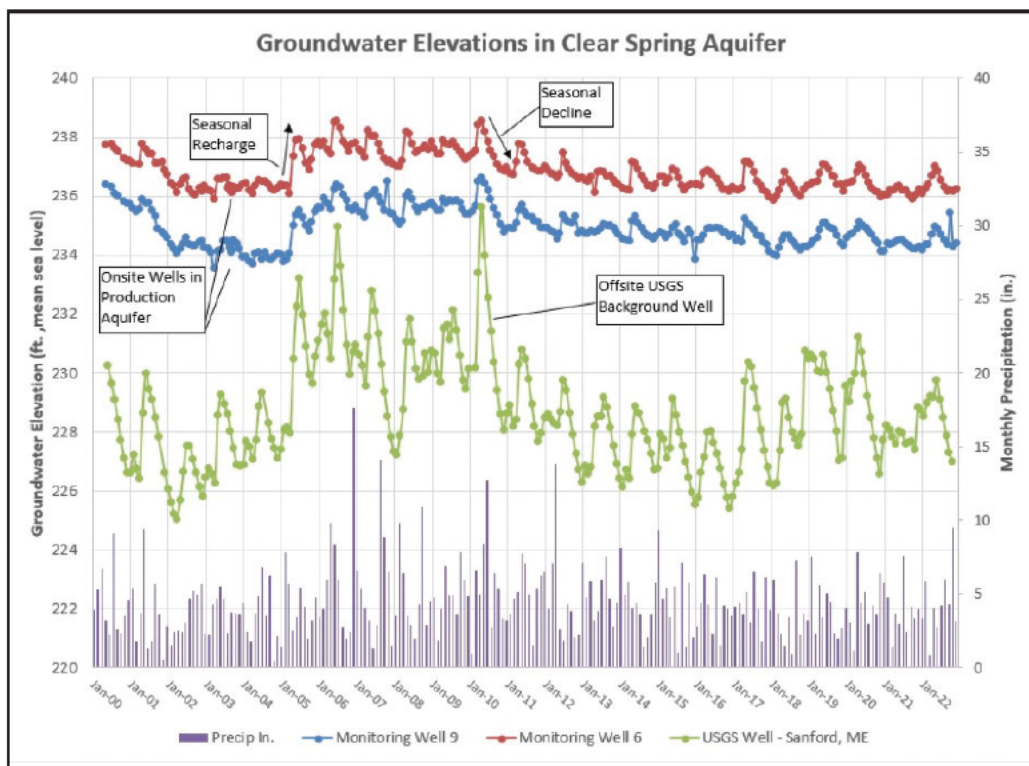


Figure 2: Groundwater Monitoring Data

continued on back

Surface water bodies respond similarly to these natural cycles, as shown in the second graph (Figure 3). Melting snow and spring rains lead to increased surface water flows. Hotter, drier summer weather, combined with uptake of moisture by plants, reduces available surface water flow. The DEP has set minimum pass-by flow requirements that Poland Spring must meet. Past flows below these requirements have been the result of fluctuations in precipitation, beaver dam construction and clogging of upstream dam grates by falling leaves and debris. When these occur, Poland Spring reports the incidents to the DEP and works cooperatively with the DEP to address issues as they arise.

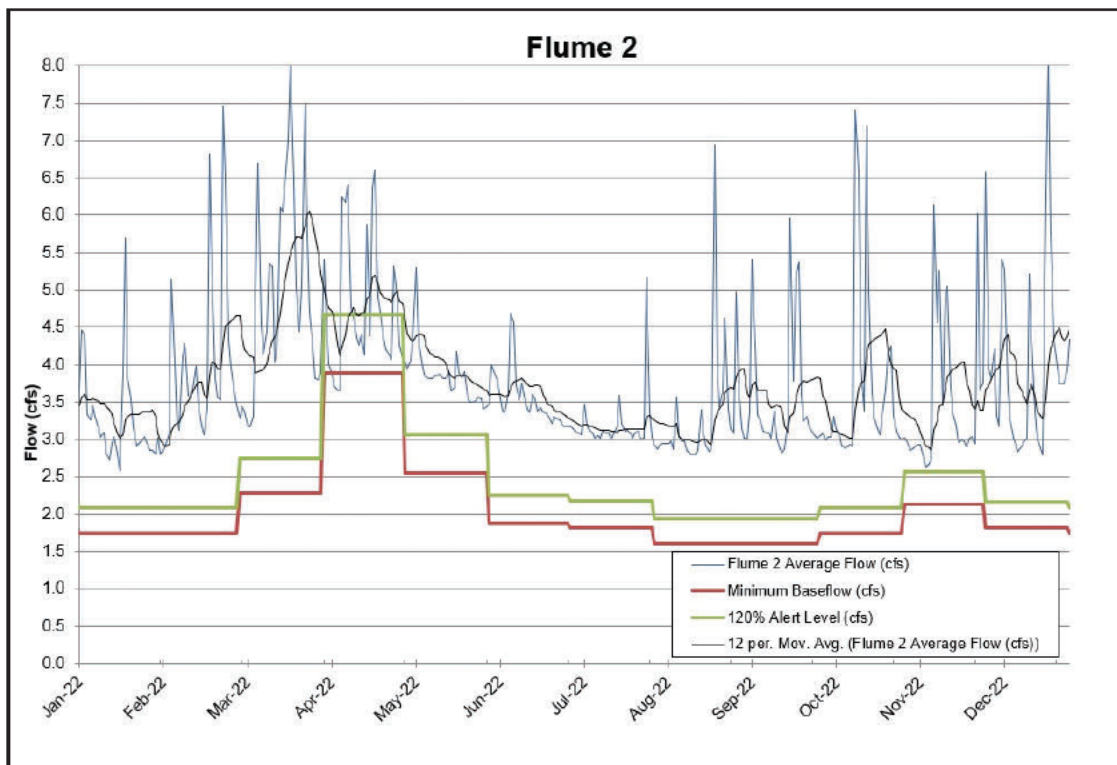


Figure 3: Surface Water Monitoring Data

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 Hollis will continue for as long as Poland Spring withdraws spring and utility water here.

SUMMARY

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

