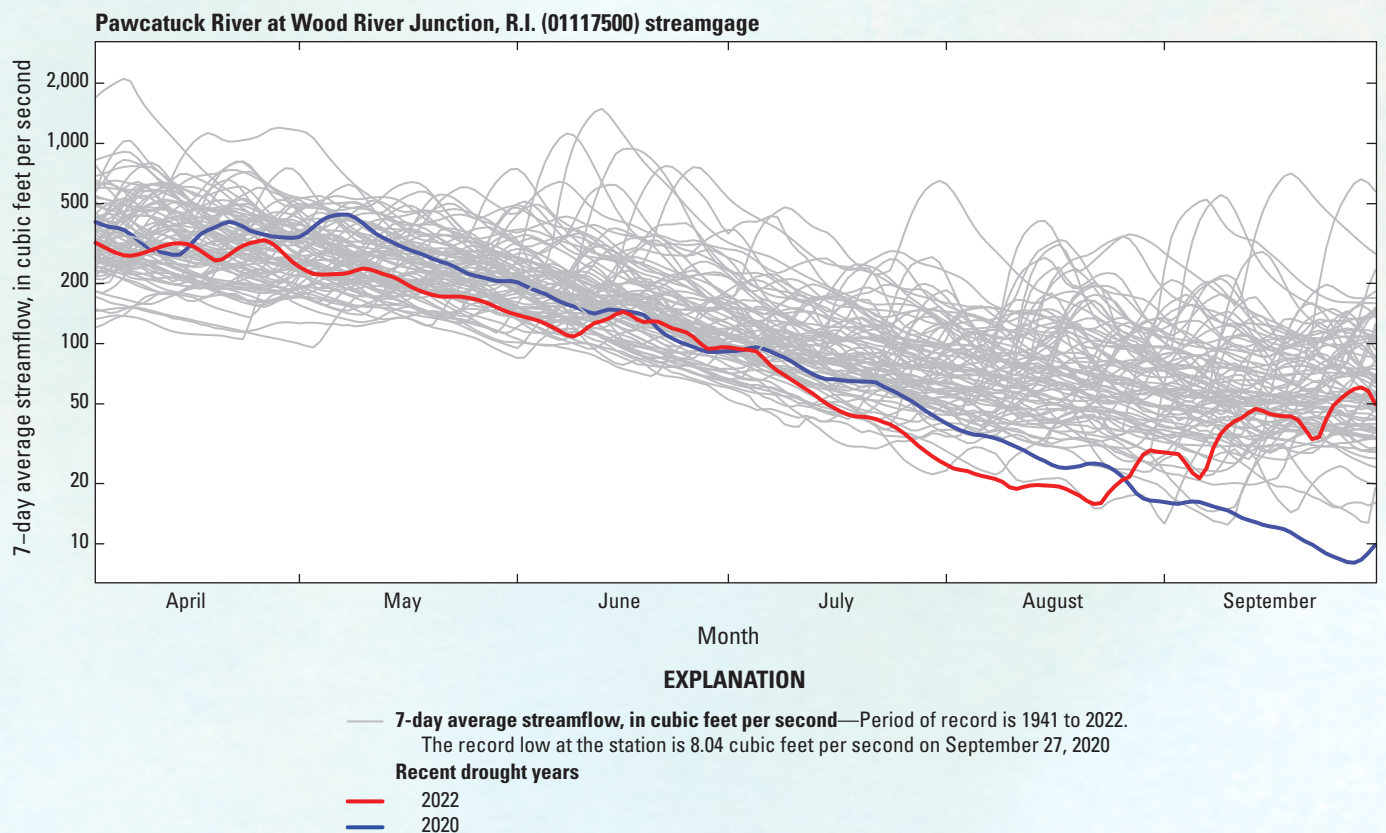


## Appendix 5. Drought in Rhode Island in 2022

Flows in Rhode Island were normal or above normal in April but began to decrease in May when 6 of 8 streamgages experienced below normal conditions and 1 experienced well below normal conditions (fig. 3A). Flows at most streamgages increased slightly in June but returned to below normal to well below normal conditions through July and August. Flow conditions were comparable to conditions in 2020, with a few streamgages having flows below 2020 conditions during some months; for example, streamflow at the Pawcatuck River at Wood River Junction, Rhode Island (01117500) U.S. Geological Survey (USGS) streamgage dropped below 2020 conditions in May, July, and August 2022 (fig. 5.1). Streamflows across the State reached their lowest values at the end of August or beginning of September, when streamflows quickly increased and fluctuated around normal to above normal conditions through September.

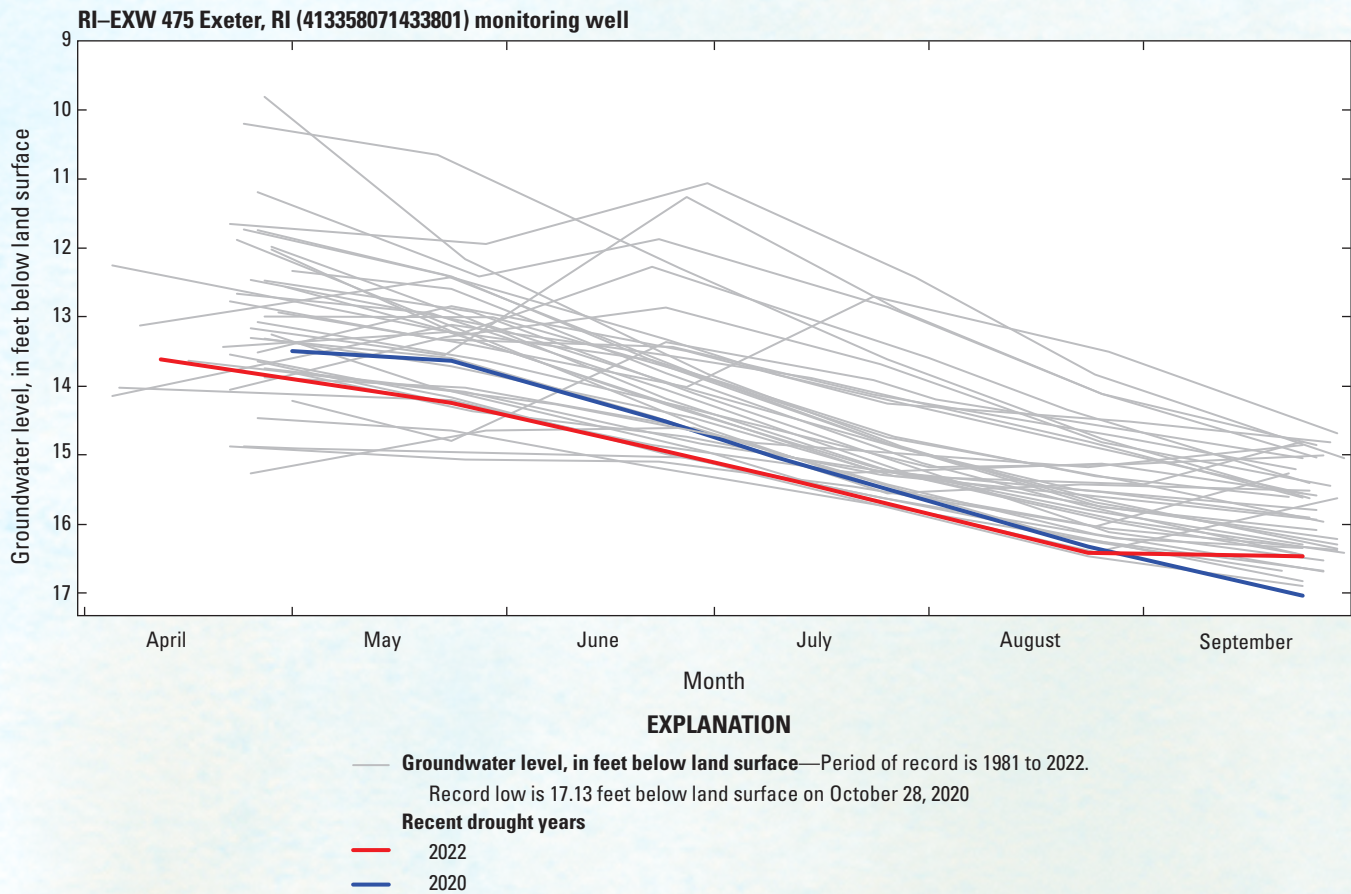
Groundwater levels at wells in Rhode Island were highly affected by drought conditions in the summer (fig. 3B), many showing comparable or worse conditions

than those of the 2020 drought. Nearly all monitoring wells had water levels within the normal range in April (26 of 27 wells). However, water levels declined rapidly, with many wells experiencing below normal conditions in May through August, for example, at the RI-EXW 475 Exeter, RI (413358071433801) USGS monitoring well (fig. 5.2). Of the 27 wells in Rhode Island, 25 had water levels that were below normal in August, and 5 wells recorded a water level representing a 25-year low in July (fig. 3B). In September, water levels improved throughout much of the State, especially in northern Rhode Island, with only 10 wells state-wide recording below normal monthly water levels. Two of the 10 wells (RI-EXW 278 413135071314201 and RI-POW 551 413325071152401) were observed to be dry in September; both are completed in till, which can respond slower to precipitation events.



**Figure 5.1.** Graph showing the moving average 7-day flows at the Pawcatuck River at Wood River Junction, R.I. (01117500) U.S. Geological Survey streamgage for April through September for the streamgage period of record.





**Figure 5.2.** Graph showing monthly groundwater levels at the RI-EXW 475 Exeter, RI (413358071433801) U.S. Geological Survey monitoring well for April through September for the well’s period of record.