

Drought /Resiliency

Resilience of Water Use Sectors to Climate Change in NM March 7, 2022

Discussion-Climate change predictions indicate that the rate of aquifer recharge will diminish over the next 50 years. It is important for Public Water Systems to understand the depletions of the water in your locale. In NM, 144 of the 604 PWSs have only one well. These systems are very vulnerable compared to systems with back up wells or secondary source of water.

The volume of treated water that a PWS can hold in storage tanks is important for increasing resiliency. Sudden loss of water due to power failure, water level declined, flooding, can be less disruptive if sufficient water is held for storage. Your storage tanks should be sized for holding at least a days flow at average demand or for fire flow requirements whichever is more. A PWS needs to balance between having enough capacity for improved resilience yet not overcapacity, which can degrade water quality if stored too long.

PWSs are facing increased risks to water supplies and damage to infrastructure. Systems that are prepared with an agreement and necessary piping to receive an alternative supply of water during an emergency are more resilient. A 2021 survey of PWSs were asked a series of questions about

each systems preparedness for emergencies. Of 410 PWSs surveyed 310 said they have an emergency supply of water and 100 systems said they had no supply or said they would buy bottled water; 194 did not answer the survey.

Understanding the rate of water-level decline in wells and understanding the response of streamflow to precipitation events and snowpack melt are important to managing the water resources. The 2021 NMED DWB survey asked PWS if water levels were monitored in their water supply wells. 67% responded and 196 said they did not monitor water levels.

How many Water Sources (wells) does your water systems have?

Are your wells producing at anticipated rates?

Does your system monitor your well depth regularly?

How many days of storage capacity does your water system currently have?

Does your water system have an agreement and necessary piping to receive an alternative supply of water during an emergency?

Does your PWS have an emergency reserve account?

What does resilient mean to you? Do you feel like you water system is resilient?

Do you know if your Emergency Response Plan addresses water outages?