

City Prepared if Drought Conditions Prevail

By Mike Barhorst

All of Shelby and the surrounding counties are currently experiencing what the National Weather Service labels either *abnormally dry* or *moderate drought* conditions. The most recent statistics for Ohio released this week by the National Drought Mitigation Center indicate that 75.61% of the state has been impacted by the current drought - up from 70.34% a week ago. Just three months ago, all of Ohio was relatively drought free.

Severe drought conditions have impacted other parts of the country for some time. A couple of years ago as I traveled through Georgia, I observed dry lake beds and beautiful "lakeside" homes and their docks high above what was once a sprawling lake covering more than 1,000 acres. Nearby, the pond on Bob Anderson's farm (at the time, Bob was a Sidney resident and vice president of human relations at Emerson Climate Technologies), property that has been owned by members of his family since before the Civil War, went dry for the first time in all those generations of family ownership.

Although droughts have existed throughout history, their news certainly reaches us much more quickly than would have been the case even a half century ago. The news of droughts causing reservoirs to run dry and mandatory water conservation programs being instituted have become a staple of the evening news – as well as various electronic media.

Before the current drought, the City of Sidney had experienced serious drought conditions seven times since 1988, with the most recent being in 2012. The most serious of those occurred in 1999, when the City came within one day of implementing its Drought Contingency Plan.

What is a Drought Contingency Plan, you might ask? It's a plan designed to methodically guide the City's actions during a prolonged period of abnormally low rainfall. In Sidney, nearly 75% of the raw water supply presently originates from surface water from either the Great Miami River or Tawawa Creek.

The source of the Great Miami River is Indian Lake and its headwaters. The source of Tawawa Creek is Kaiser Lake. These primary sources of surface water are highly susceptible to seasonal river changes and drought conditions.

The historic record of water flow shows the minimum flow of the Great Miami River to be 5.2 million gallons per day (MGD). This flow rate would still meet the city's daily demand. However, new historic lows are certainly possible. Without significant rainfall to replenish the watershed, a new record low is potentially just weeks away.

As noted above, data from the National Drought Mitigation Center indicates portions of Shelby County are abnormally dry and others in a state of moderate drought. City officials have and will continue to actively monitor the river levels to ensure water supply levels remain acceptable.

If drought conditions would worsen, the first step in the City's Drought Contingency Plan is to enact a curtailment plan. The first phase of the curtailment plan is a public awareness campaign to educate water consumers on personal water conservation practices, such as taking shorter showers or fewer baths and making sure dishwashers and washing machines are full versus partially full when run.

The curtailment plan includes specific river flow details that would trigger voluntary conservation efforts. Sprinkling of lawns and landscaping, washing cars or filling swimming pools would be affected.

If drought conditions persist, Level I and Level II water restrictions would then be mandated. If the Great Miami River flow becomes non-existent, Level III water restrictions would be enacted. At this point, the City's water supply would be critically low, with water available only for survival purposes. All industry and non-critical businesses would be shuttered until there was significant rainfall.

As you know, we use water to drink, make food, create energy, manufacture products, extract raw minerals from the Earth and everything else in between. Businesses and industry use massive quantities of water. Perhaps surprisingly, the average family of four uses 400 gallons of water per day.

While I hope we will soon see rain, I'm relieved to know the City has a plan in place should drought conditions persist. I'm even more excited that the City has secured a more reliable source of groundwater that will alleviate much of our reliance on the surface water sources. The new well field is expected to be operational next spring. Until then, continue to pray for rain.