

12-6-2022

## Drought Levels in Nevada Counties, 2022

Julianna Jovillar

University of Nevada, Las Vegas, jovilj1@unlv.nevada.edu

Caitlin J. Saladino

Brookings Mountain West & The Lincy Institute, caitlin.saladino@unlv.edu

William E. Brown Jr.

Brookings Mountain West, william.brown@unlv.edu

Follow this and additional works at: [https://digitalscholarship.unlv.edu/bmw\\_lincy\\_env](https://digitalscholarship.unlv.edu/bmw_lincy_env)



Part of the [Agricultural and Resource Economics Commons](#), [Agriculture Commons](#), [Environmental Policy Commons](#), [Environmental Studies Commons](#), [Public Policy Commons](#), and the [Water Resource Management Commons](#)

### Repository Citation

Jovillar, J., Saladino, C. J., Brown, W. E. (2022). Drought Levels in Nevada Counties, 2022. *Environment Fact Sheet No. 10* 1-3.

Available at: [https://digitalscholarship.unlv.edu/bmw\\_lincy\\_env/10](https://digitalscholarship.unlv.edu/bmw_lincy_env/10)

This Report is protected by copyright and/or related rights. It has been brought to you by Digital Scholarship@UNLV with permission from the rights-holder(s). You are free to use this Report in any way that is permitted by the copyright and related rights legislation that applies to your use. For other uses you need to obtain permission from the rights-holder(s) directly, unless additional rights are indicated by a Creative Commons license in the record and/or on the work itself.

This Report has been accepted for inclusion in Environment by an authorized administrator of Digital Scholarship@UNLV. For more information, please contact [digitalscholarship@unlv.edu](mailto:digitalscholarship@unlv.edu).

## DROUGHT LEVELS IN NEVADA COUNTIES, 2022

Environment Fact Sheet No. 10 | December 2022

Prepared by: Julianna Jovillar, Caitlin J. Saladino, and William E. Brown, Jr.

### PURPOSE:

This fact sheet synthesizes data on drought levels within Nevada counties from the National Integrated Drought Information System (NIDIS) in 2022. The information presented in this document focuses on the breakdown of the number of Nevada residents affected by the droughts within each county and the drought experience in each county.

### ABOUT THE DATA:

The National Oceanic and Atmospheric Administration (NOAA) conducts NIDIS, a national database that monitors drought levels in the United States.<sup>1</sup> The drought monitor indicates five levels of drought, shown in the table below: D0: Abnormally Dry; D1: Moderate Drought; D2: Severe Drought; D3: Extreme Drought; D4: Exceptional Drought.<sup>2</sup>

This fact sheet examines the drought levels, the number of residents impacted by drought, and drought levels of D1, D2, and D3 within each Nevada county. A comparison of D3 drought conditions is also provided.

Drought Levels	Conditions
D0 Abnormally Dry	<ul style="list-style-type: none"> <li>• Snowpack reduced</li> </ul>
D1 Moderate Drought	<ul style="list-style-type: none"> <li>• Forage is reduced</li> <li>• Fire danger increases; fires at elevation increase</li> </ul>
D2 Severe Drought	<ul style="list-style-type: none"> <li>• Bear activity increases; wildlife encroach onto residential areas</li> <li>• Desert plants implement reproductive survival mechanisms</li> <li>• Surface water levels decline; Lake Tahoe water clarity is higher than normal</li> </ul>
D3 Extreme Drought	<ul style="list-style-type: none"> <li>• Alfalfa and hay yields decrease; farmers are not planting crops; pasture conditions are very poor; producers are selling cattle</li> <li>• Fire activity increases; fire season is extended; firework ban is implemented</li> <li>• Lakes and rivers are depleted; lake hazards are noted; water temperatures rise</li> </ul>
D4 Exceptional Drought	<ul style="list-style-type: none"> <li>• Boat ramps close; trout fishing limits are lifted; wildlife populations decline; producers haul water for wildlife; ecosystem viability is threatened</li> <li>• Reservoir levels are extremely low; hydropower production is limited; groundwater decreases; water allotments to farmers and ranchers are curtailed; citizens reduce water use</li> <li>• Fire danger increases; restrictions are enacted earlier than usual; events are canceled</li> </ul>

Adapted from Drought.gov. (n.d.). Nevada. National Integrated Drought Information System. Retrieved from <https://www.drought.gov/states/nevada>

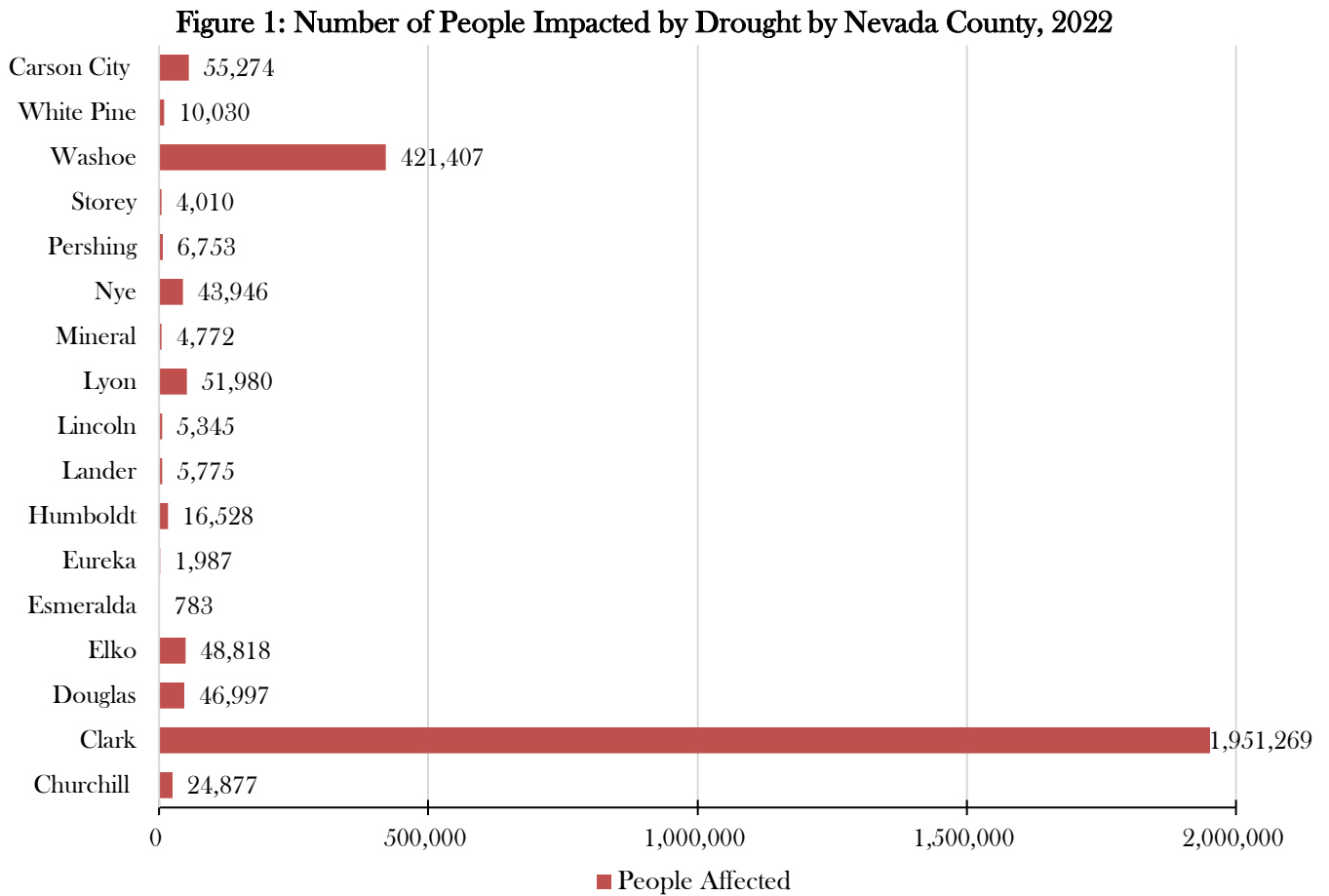
### KEY FINDINGS:

1. Among the Nevada counties, Clark County – with 72% of Nevada’s overall impacted population – has the highest number (1,951,269) of people affected by drought.
2. All Nevada counties are in drought status, meeting consistent D1 (moderate) and D2 (severe) or higher levels of drought.
3. Nevada counties experienced all levels of drought conditions except the most severe level (D4).

<sup>1</sup> Drought.gov. (n.d.). About. National Integrated Drought Information System. Retrieved from <https://www.drought.gov/>

<sup>2</sup> Drought.gov. (n.d.). Nevada. National Integrated Drought Information System. Retrieved from <https://www.drought.gov/states/nevada>

Figure 1 shows the current number of people affected by drought, regardless of level, in every Nevada county. Each Nevada county is affected by drought, but there is a large discrepancy between Clark County’s affected population (1,951,269) and the combined population (749,282) of the remaining counties.



Source: National Integrated Drought Information System. Retrieved from <https://www.drought.gov/states/nevada>

Figure 2 illustrates the percentages of each Nevada county that experienced D1 (moderate), D2 (severe), and D3 (extreme) drought levels. Almost all counties exhibit D1 and D2 drought levels. The D1 and D2 stacked columns are at nearly equal levels, displaying their 100% drought conditions. The exception to this is Humboldt County, with 94.6% of the county experiencing D2 drought levels. D3 percentages are varying, with 0% of some counties experiencing D3 level drought (Douglas, Lyon, Storey, Carson City), and other counties reporting as much as 82.9% of Nye County at a D3 drought level.

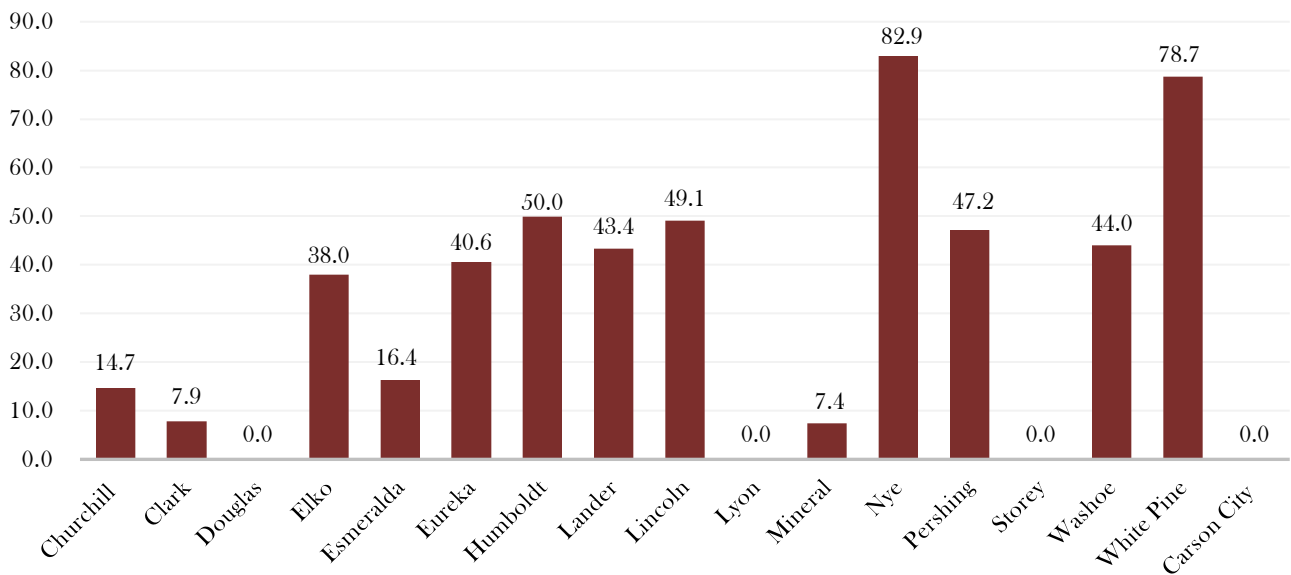
**Figure 2: Percentage of Nevada Counties Experiencing D1, D2, and D3 Drought Levels, 2022**



Source: National Integrated Drought Information System. Retrieved from <https://www.drought.gov/states/nevada>

Figure 3 displays a comparison of Nevada counties experiencing D3 drought level conditions (the dark red bars in Figure 2). D3 levels are currently the most varied of drought levels in Nevada. They differ across counties and do not correlate with population percentages, as shown by Clark, where 7.9% of the county experiences D3 level drought.

**Figure 3: Percentage of Nevada Counties Experiencing D3 Drought Levels, 2022**



Source: National Integrated Drought Information System. Retrieved from <https://www.drought.gov/states/nevada>