

CLIMATE DISASTERS IN ARIZONA

With Trump gutting FEMA and fighting with state governments, what is in store for the rest of 2020 for Arizona?

TL/DR:

Trump has [failed to prepare us](#) for disasters caused by climate change. What does this mean for Arizona?

- As temperatures rise due to climate change, [the severity, frequency and extent of wildfires increases](#), putting lives at risk and costing Arizonans billions:
 - Arizona's 2020 wildfire season is [expected to mirror 2019's](#), which saw 1,860 fires burn an estimated 400,000 acres of land across the state. [Scientists predicted](#) that wet winter conditions in Arizona paved the way for a potentially disastrous dry summer in 2020.
 - In the last decade, [Arizona has seen five wildfires](#) that caused a total of \$26.8 billion in damages and 98 deaths. In 2011, the Wallow Fire consumed over 500,000 acres in Arizona, making it the [largest wildfire in the state's history](#).
- [In addition to drought and wildfires, Arizona experiences severe rains and storms:](#)
 - [Severe storms have been linked to climate change](#), as hotter air carries more moisture, leading to more frequent and more intense storms:
 - [Studies show](#) Arizona could see heavier monsoon rains and less winter snow as the planet warms.
 - In 2019, [FEMA obligated](#) \$555,140 to Arizona following severe storms.

HERE'S WHAT'S HAPPENING:

With Trump gutting FEMA and fighting with state governments, Arizonans should be asking [how ready the federal government is](#) to provide aide in a disaster at a time when climate change is already fueling major disasters that impact Arizona.

In 2019, [FEMA obligated](#) \$555,140 to Arizona following severe storms that [have been linked to climate change](#). This year, one-third of the lower 48 states [face flooding risks](#) due to severe storms and an [above average number of tornadoes](#) are forecasted. [Studies show](#) Arizona could see heavier monsoon rains and less winter snow as global temperatures rise.

Arizona is also at risk from climate-related wildfires, which studies show increase in [severity, frequency and extent](#) due to rising temperatures. In the last decade, [Arizona has seen five wildfires](#) that caused a total of \$26.8 billion in damages and 98 deaths. In 2011, the Wallow Fire consumed over 500,000 acres in Arizona, making it the [largest wildfire in the state's history](#), and in 2019, [Arizona experienced wildfires](#) that burned [384,942 acres of land in the state](#), causing \$1.2 billion in damages and 10 deaths.

Alongside the threat of wildfires, Arizona is at risk from [persistent drought conditions](#) due to below average rainfall. In the past decade, [Arizona has experienced five severe drought](#) events that caused a total of \$58.4 billion in damages and 176 deaths. In 2018, Arizona was one of four states where the [most extreme drought conditions](#) continued to persist, and such severe drought events have been [linked to increasing](#) greenhouse gas emissions.

RESEARCH

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DAMAGES FROM CLIMATE-RELATED DISASTERS IMPACTING ARIZONA

In The Past Decade, Arizona Has Experienced 11 Climate-Related Disasters

Responsible For Over A Billion Dollars' Worth Of Damages. According to NOAA's National Centers for Environmental Information, Arizona experienced 11 climate-related disasters that were responsible for over a billion dollars' worth of damages. These 11 disasters that occurred between 2009 and 2019 include five wildfires, five droughts, and one severe storm. [ndcd.noaa.gov, Accessed 4/30/2020]

Since Trump Assumed The Office Of The Presidency, Arizona Has Experienced Two Climate-Related Disasters Responsible For Over A Billion Dollars' Worth Of Damages. According to NOAA's National Centers for Environmental Information, since President Trump assumed office in 2017, Arizona has experienced two climate-related disasters responsible for over a billion dollars' worth of damages. These two climate-related disasters include one drought and one wildfire. [ndcd.noaa.gov, Accessed 4/30/2020]

RECENT FEMA SPENDING IN ARIZONA

2019: FEMA Obligated \$555,140 To Arizona Following Severe Storms. According to data from the Federal Emergency Management Agency, Arizona was obligated \$555,140 in 2019 following severe storms. [[FEMA.Gov](https://www.fema.gov), Accessed 5/21/2020]

SEVERE STORMS/MONSOONS

Link To Climate Change

Heavy Rainstorms Have Become Heavier And More Frequent In The U.S. In The Past Three To Five Decades. According to the National Climate Assessment, "Heavy downpours are increasing nationally, especially over the last three to five decades. The heaviest rainfall events have become heavier and more frequent, and the amount of rain falling on the heaviest rain days has also increased. " [National Climate Assessment, Extreme Weather, [2014](#)]

Scientists Have Linked An Increase in Heavy Downpours To Climate Change. According to the National Climate Assessment, “Global analyses show that the amount of water vapor in the atmosphere has in fact increased due to human-caused warming. This extra moisture is available to storm systems, resulting in heavier rainfalls.” [National Climate Assessment, Extreme Weather, [2014](#)]

2020 Season Outlook

Washington Post Headline: “One-Third Of The Lower 48 Faces Risk Of Flooding This Spring, Weather Service Says.” On March 19, 2020, the Washington Post reported: “A third of the United States is at risk of flooding this spring, including 23 states and 128 million Americans. That’s according to the spring flood outlook released by the National Weather Service on Thursday. The forecast for significant spring flooding comes a year after one of the worst seasons on record in 2019. But this year, the flooding isn’t expected to be quite as severe.” [[Washington Post, 3/19/2020](#)]

Study Warned Arizona Could See Heavier Monsoon Rains And Less Winter Snow As The Planet Warms. In June of 2017, the Arizona Republic reported, “Arizona could experience heavier monsoon rains in the coming decades, according to the author of a new study examining rainfall changes around the world. The study, published in the journal Science Advances, does not detail specific rainfall changes in Arizona. But Aaron Putnam, its lead author and a geologist at the Climate Change Institute at the University of Maine, speculates that while there could be an ‘invigoration of the North American monsoon,’ a warmer planet might also lead to a drop in precipitation during the wintertime, potentially reducing the snowfall that helps replenish water-storage reservoirs. ‘The input of CO2 in the atmosphere is a bit of a sledgehammer on to the system,’ he said. ‘It might respond in non-linear, more unpredictable ways.’ A heavier monsoon in the summer might be ‘flashy,’ Putnam said, but less precipitation in the winter would diminish water levels in aquifers and reservoirs critical to the state’s water supply.” [[Arizona Republic, 6/13/2017](#)]

AccuWeather Forecasts An Above Average Number Of Tornadoes In 2020. According to AccuWeather, “For all of 2020, AccuWeather predicts a normal to slightly above-normal number of tornadoes, with a range of 1,350 to 1,450. That range would cover what occurred in 2019 (1,422) and is 5 to 15 percent more than the United States annual average (between 1,253 and 1,297 tornadoes occur annually in the U.S.).” [[AccuWeather, 4/6/2020](#)]

WILDFIRE

Link To Climate Change

Climate Change Is Increasing The Severity, Frequency, And Extent Of Wildfires. According to a report from the EPA: “Higher temperatures and drought are likely to increase the severity,

frequency, and extent of wildfires in Colorado, which could harm property, livelihoods, and human health. In 2013, the Black Forest Fire burned 14,000 acres and destroyed over 500 homes. Wildfire smoke can reduce air quality and increase medical visits for chest pains, respiratory problems, and heart problems. The size and number of western forest fires have increased substantially since 1985." [[Environmental Protection Agency, "What Climate Change Means for Colorado" August 2016](#)]

The National Climate Assessment Has Found That The Number Of Wildfires Is Likely To Increase As The Climate Warms And Could Induce "Profound Changes To Certain Ecosystems." In August of 2018, The Atlantic reported: "As if there wasn't enough evidence of that. Last year, the National Climate Assessment—written by a panel of scientists in the military, federal civilian agencies, and private universities—reviewed the complete scientific literature on climate change and wildfires. They concluded that the number of large blazes had increased since the early 1980s. They also said the number of wildfires 'is projected to further increase in those regions as the climate warms.' They warned this could induce 'profound changes to certain ecosystems.'" [The Atlantic, [8/10/18](#)]

Acres Burned By Wildfire Doubled In Recent Decades Due To Climate Change. According to the 2018 National Climate Assessment Report: "Wildfire is a natural part of many ecosystems in the Southwest, facilitating germination of new seedlings and killing pests. Although many ecosystems require fire, excessive wildfire can permanently alter ecosystem integrity. Climate change has led to an increase in the area burned by wildfire in the western United States. Analyses estimate that the area burned by wildfire from 1984 to 2015 was twice what would have burned had climate change not occurred. Furthermore, the area burned from 1916 to 2003 was more closely related to climate factors than to fire suppression, local fire management, or other non-climate factors." [[National Climate Assessment, Chapter 25, 2018](#)]

NAU Study Found That Acreage Burned In Arizona And New Mexico Wildfires Increased By Almost 20K Acres Annually Since The Mid-Eighties. In March of 2019, KNAU reported: "A new study from Northern Arizona University shows the area burned by wildfires in Arizona and New Mexico has increased by about twenty thousand acres annually since the mid-eighties. KNAU's Melissa Sevigny reports. Scientists compared before-and-after satellite images of wildfires in forests and woodlands. They found upward trends in the frequency of wildfires, the number of acres burned overall, and the number of acres burned severely. Megan Singleton of Northern Arizona University is the lead author. 'We're seeing a fire regime shift in ponderosa pine especially and more drier types of vegetation, and this gives managers a better idea of what's going on in these ecosystems so they can manage them more appropriately in the future,' Singleton says. Wildfires worsened after the current drought began in the year 2000. Singleton says more research is needed on the links between fire and the Southwest's drying climate." [[KNAU, 3/1/2019](#)]

2020 Season Outlook

Arizona's 2020 Wildfire Season Is Expected To Mirror The State's 2019 Wildfire Season, Which Saw 1,860 Fires Burn An Estimated 400,000 Acres Of Land Across The State. According to Arizona Central, "The upcoming wildfire season is predicted to mirror recent years — outside of the threat of COVID-19. [...] About 1,860 wildland fires burned an estimated 400,000 acres of private, state, federal and tribal lands in areas under similar conditions in 2019. Officials estimate at least 78% of those were human-caused." [[Arizona Central, 4/25/2020](#)]

- **In 2019, 384,942 Acres Of Land Were Burned Due To Wildfire In Arizona.** According to the National Interagency Fire Center's 2019 report, 384,942 acres of land were burned in 1,869 fires across Arizona in 2019. [[National Interagency Fire Center, National Report of Wildland Fires and Acres Burned by State, 2019 Report](#)]

Wet Winter Conditions Are Predicted To Pave The Way For A Dry Summer "That Has The Potential To Become Disastrous." According to Arizona Central, "Wet winter conditions will likely pave the way for a dry summer that has the potential to become disastrous. An abundance of moisture has already caused grasses to sprout up throughout the central region of Arizona and down throughout the Sonoran Desert." [[Arizona Central, 4/25/2020](#)]

April 2020: Arizona Witnessed Its First Wildfires Of The Season, Which Burned Through 800 Acres Of Land In The Span Of A Few Days. According to Arizona Central, "There have already been a few small fires along Interstate 17 over the past few weekends. The first notable wildfire of the season — the Whitlow Fire — sprouted up near Superior, ripping through 800 acres in just a few days." [[Arizona Central, 4/25/2020](#)]

Almost 2.9 Million People Living In Arizona, 45 Percent Of The State's Population, Are At Elevated Risk Of Wildfire. According to States At Risk, "Almost 2.9 million people living in Arizona, or 45 percent of the state's population, are at elevated risk of wildfire." [[StatesAtRisk.Org, Accessed 5/1/2020](#)]

2019 Fire Season

Summer – Fall 2019: Western Wildfires Caused \$1.2 Billion In Damages And Ten Deaths. According to NOAA's National Centers for Environmental Information, Wildfires across the Western states, that impacted Arizona in the Summer and Fall of 2009, caused \$1.2 billion in damages and ten deaths. [[ncdc.noaa.gov, Accessed 4/30/2020](#)]

Residual And Sustained Drought Conditions Across Western And South-Central States Caused Thousands Of Wildfires. According to NOAA's National Centers for Environmental Information, "Residual and sustained drought conditions across western and south-central states resulted in thousands of wildfires." [[ncdc.noaa.gov, Accessed 4/30/2020](#)]

In 2019, 384,942 Acres Of Land Were Burned Due To Wildfire In Arizona. According to the National Interagency Fire Center's 2019 report, 384,942 acres of land were burned in 1,869

fires across Arizona in 2019. [[National Interagency Fire Center, National Report of Wildland Fires and Acres Burned by State, 2019 Report](#)]

Cost Of One Northern Arizona Fire In 2019 Expected To Top \$13 Million. In August of 2019, US News & World Report wrote: “The cost of fighting a wildfire that burned through a northern Arizona mountain pass and dealing with its aftermath is expected to top \$13 million. The U.S. Forest Service has spent about \$10 million so far on suppressing the fire that burned more than 3 square miles (nearly 8 square kilometers) of the Coconino National Forest in Flagstaff, agency spokesman Mark Thibideau said. The cost covers 700 personnel, aircraft and fuel for vehicles involved in the firefighting effort, among other things. The fire that started July 21 and prompted the evacuation of about two dozen homes was declared fully contained Aug. 15.” [[US News & World Report, 8/22/2019](#)]

Arizona Was One Of Six States Most Affected By The Wildfires, Which Burned Over 5.9 Million Acres Nationally. According to NOAA's National Centers for Environmental Information, “Most affected states include CA, AZ, NM, TX, OK, and UT. National acreage burned exceeding 5.9 million. Over 200 homes and structures destroyed in the California ‘Station’ fire alone.” [[ndcd.noaa.gov, Accessed 4/30/2020](#)]

2018 Fire Season

In 2018, 165,356 Acres Of Land Were Burned Due To Wildfire In Arizona. According to the National Interagency Fire Center's 2018 report, 165,356 acres of land were burned in 2,000 fires across Arizona in 2018. [[National Interagency Fire Center, National Report of Wildland Fires and Acres Burned by State, 2018 Report](#)]

2017 Fire Season

Summer – Fall 2017: Western Wildfires And The California Firestorm Caused \$18.9 Billion In Damages And 54 Deaths. According to NOAA's National Centers for Environmental Information, Western Wildfires and the California Firestorm, which impacted Arizona in the Summer and Fall of 2017, caused \$18.9 billion in damages and 54 deaths. [[ndcd.noaa.gov, Accessed 4/30/2020](#)]

In 2017, 429,564 Acres Of Land Were Burned Due To Wildfire In Arizona. According to the National Interagency Fire Center's 2017 report, 429,564 acres of land were burned in 2,321 fires across Arizona in 2017. [[National Interagency Fire Center, National Report of Wildland Fires and Acres Burned by State, 2017 Report](#)]

2016 Fire Season

Summer – Fall 2016: Western/Southeastern Wildfires Caused \$2.6 Billion In Damages And 21 Deaths. According to NOAA's National Centers for Environmental Information,

Western/Southeastern Wildfires that sparked in Arizona through the Summer and Fall of 2016 caused \$2.6 billion in damages and 21 deaths. [ndcd.noaa.gov, Accessed 4/30/2020]

- **Western And Southern States Experienced An Active Wildfire Season, With Over 5 Million Acres Burned Nationally.** According to NOAA's National Centers for Environmental Information, "Western and Southern states experienced an active wildfire season with over 5.0 million acres burned nationally. Most notable was the firestorm that impacted Gatlinburg, Tennessee with hurricane-force wind gusts in extremely dry conditions creating volatile wildfire behavior. These wildfires destroyed nearly 2,500 structures and caused 14 fatalities. The drought conditions in many areas of the Southeast and California worsened the wildfire potential." [ndcd.noaa.gov, Accessed 4/30/2020]

2012 Fire Season

Summer – Fall 2012: Western Wildfires Caused \$2 Billion In Damages And Eight Deaths.

According to NOAA's National Centers for Environmental Information, Western Wildfires, which impacted Arizona in the Summer and Fall of 2012, caused \$2 billion in damages and eight deaths. [ncdc.noaa.gov, Accessed 4/30/2020]

2011 Fire Season

Summer – Fall 2011: Texas, New Mexico And Arizona Wildfires Caused \$2.1 Billion In Damages And Five Deaths. According to NOAA's National Centers for Environmental Information, wildfires across Texas, Arizona and New Mexico in the Summer and Fall of 2011 caused \$2.1 billion in damages and five deaths. [ncdc.noaa.gov, Accessed 4/30/2020]

- **Continued Drought And Periods Of Extreme Heat Sparked A Series Of Wildfires Across Texas, New Mexico And Arizona.** According to NOAA's National Centers for Environmental Information, "Continued drought conditions and periods of extreme heat provided conditions favorable for a series of historic wildfires across Texas, New Mexico and Arizona." [ncdc.noaa.gov, Accessed 4/30/2020]
- **The Wallow Fire Consumed Over 500,000 Acres In Arizona, Making It The Largest Wildfire In The State's History.** According to NOAA's National Centers for Environmental Information, "The Bastrop Fire in Texas was the most destructive fire in Texas history destroying over 1,500 homes. The Wallow Fire consumed over 500,000 acres in Arizona making it the largest on record in Arizona. The Las Conchas Fire in New Mexico was also the state's largest wildfire on record scorching over 150,000 acres while threatening the Los Alamos National Laboratory. Over 3 million acres have burned across Texas this wildfire season." [ncdc.noaa.gov, Accessed 4/30/2020]

2009 Fire Season

Summer – Fall 2019: Western Wildfires Caused \$1.2 Billion In Damages And Ten Deaths.

According to NOAA's National Centers for Environmental Information, Wildfires across the Western states, that impacted Arizona in the Summer and Fall of 2009, caused \$1.2 billion in damages and ten deaths. [[ncdc.noaa.gov](https://www.ncdc.noaa.gov), Accessed 4/30/2020]

- **Residual And Sustained Drought Conditions Across Western And South-Central States Caused Thousands Of Wildfires.** According to NOAA's National Centers for Environmental Information, "Residual and sustained drought conditions across western and south-central states resulted in thousands of wildfires." [[ncdc.noaa.gov](https://www.ncdc.noaa.gov), Accessed 4/30/2020]
- **Arizona Was One Of Six States Most Affected By The Wildfires, Which Burned Over 5.9 Million Acres Nationally.** According to NOAA's National Centers for Environmental Information, "Most affected states include CA, AZ, NM, TX, OK, and UT. National acreage burned exceeding 5.9 million. Over 200 homes and structures destroyed in the California 'Station' fire alone." [[ncdc.noaa.gov](https://www.ncdc.noaa.gov), Accessed 4/30/2020]

DROUGHT

Link To Climate Change

NASA Research Showed Human Activity Has Been Influencing Global Patterns Of Drought, With Increased Drought Occurring In Response To Greenhouse Gas Emissions. According to NASA, "Warming temperatures and changing precipitation patterns can lead to droughts, and NASA research shows that humans have been influencing global patterns of drought for nearly a century. Kate Marvel and Ben Cook, researchers at NASA's Goddard Institute for Space Studies and Columbia University in New York City, investigated humans' influence on 20th-century drought patterns using historical weather data and drought maps calculated from tree rings. They found that a data 'fingerprint' – a drying and wetting pattern predicted to occur in response to greenhouse gas emissions – was visible as far back as the early 1900s." [climate.nasa.gov, 6/13/2019]

Climate Change Is Already Affecting Global Patterns Of Drought, And Such Trends Are Expected To Continue. According to NASA, "Demonstrating that humans influenced global drought patterns in the past is an important part of understanding how we may influence them in the future, said Cook. 'Climate change is not just a future problem,' he said. 'This shows it's already affecting global patterns of drought, hydroclimate, trends, variability — it's happening now. And we expect these trends to continue, as long as we keep warming the world.'" [climate.nasa.gov, 6/13/2019]

Longer And More Intense Droughts Are Expected In The Future Due To Climate Change, With The U.S. Southwest Potentially Experiencing 'Megadroughts' Lasting More Than Three Decades. According to NASA, "Demonstrating climate models' ability to accurately depict past droughts, helps to confirm their ability to model future droughts as well. Other research of Cook's shows that if greenhouse gas emissions continue to increase along current trajectories, the U.S. Southwest could see 'megadroughts' lasting more than three decades. Cook and his team ran 17 different climate models, and all of them agree that there are likely to be longer and more intense droughts in the future." [[climate.nasa.gov, 6/13/2019](https://climate.nasa.gov/6/13/2019)]

The Weather Channel HEADLINE: Climate Change Is Stoking What May Be A Long-Term Megadrought In Western U.S. [[The Weather Channel, 4/16/2020](https://www.weather.com/news/4/16/2020)]

2020 Season Outlook

Due To Below Average Rainfall, Current Drought Is Expected To Persist And There Is Potential For New Drought Developments Across Swaths Of The U.S. West. According to the National Weather Services' Climate Prediction Center, "As the dry season starts in late May and June for the western contiguous U.S. and based on precipitation and temperature forecasts and outlooks at most time ranges, the most likely outcome is for current drought to persist and for potential new drought development in currently anomalous dry areas in the Pacific Northwest, the Northern Intermountain Region, parts of central California and the Central Great Basin. This is associated with well below normal precipitation since the beginning of the Water Year (Oct 1, 2019) and the expectation of warm, dry conditions in Jun-Jul-Aug (JJA)." [[cpc.ncep.noaa.gov, 5/21/2020](https://cpc.ncep.noaa.gov/5/21/2020)]

2018 Drought Impacts

Summer – Fall 2018: Drought Across The Southwest And Southern Plains Caused \$3.1 Billion In Damages And Zero Deaths. According to NOAA's National Centers for Environmental Information, drought across the Southwest and Southern Plains, which impacted Arizona in the Summer and Fall of 2018, caused \$3.1 billion in damages and zero deaths. [[ndcd.noaa.gov, Accessed 4/30/2020](https://ndcd.noaa.gov/)]

- **Arizona Was One Of Four States Where The Most Extreme Drought Conditions Continued To Persist.** According to NOAA's National Centers for Environmental Information, "Drought conditions were present across numerous Southwestern and Plains states (TX, OK, KS, MO, CO, NM, AZ, UT). The most extreme drought conditions continue to persist across the Four Corners region of the Southwest." [[ndcd.noaa.gov, Accessed 4/30/2020](https://ndcd.noaa.gov/)]
- **The Agriculture Sector Across Impacted States Saw Damage To Field Crops From Lack Of Rainfall.** According to NOAA's National Centers for Environmental Information, "The agriculture sector has been impacted across the affected states including damage to

field crops from lack of rainfall. Ranchers have also be forced to sell-off livestock early in some regions due to high feeding costs.” [ndcd.noaa.gov, Accessed 4/30/2020]

2015 Drought Impacts

2015: Western Drought Caused \$5 Billion In Damages And Zero Deaths. According to NOAA’s National Centers for Environmental Information, drought across Western and Southern states in 2015, which impacted Arizona, caused \$5 billion in damages and zero deaths.

[ndcd.noaa.gov, Accessed 4/30/2020]

- **Arizona Experienced Drought Conditions That Impacted The Agriculture Sector And Increased Wildfire Conditions.** According to NOAA’s National Centers for Environmental Information, “Drought conditions were present across numerous western states (CA, NV, OR, WA, ID, MT, UT, AZ) with the most severe conditions continuing to plague California for all of 2015. The agriculture sector was again impacted by a lack of rainfall resulting in hundreds of thousands of acres of farmland remaining fallow and requiring excess groundwater pumping to irrigate existing agriculture interests. Wildfire conditions were further enhanced by the ongoing drought. California experienced extensive damage from both drought and wildfire impacts. Drought conditions did improve dramatically across Texas and Oklahoma, in the form of several major flood events.” [ndcd.noaa.gov, Accessed 4/30/2020]

2014 Drought Impacts

2014: Western Drought Caused \$4.4 Billion In Damages And Zero Deaths. According to NOAA’s National Centers for Environmental Information, drought across the Western U.S. in 2014, which impacted Arizona, caused \$4.4 billion in damages and zero deaths. [ndcd.noaa.gov,

Accessed 4/30/2020]

2013 Drought Impacts

Spring – Fall 2013: Drought And Heatwaves Across The West And Great Plains Caused \$11.7 Billion In Damages And 53 Deaths. According to NOAA’s National Centers for Environmental Information, drought and heatwaves across the Western and Great Plains states, which hit Arizona in Spring and Fall of 2013, caused \$11.7 billion in damages and 53 deaths. [ndcd.noaa.gov, Accessed 4/30/2020]

- **Arizona Was One Of 22 States That Experienced Moderate To Extreme Drought.** According to NOAA’s National Centers for Environmental Information, “The 2013 drought slowly dissipated from the historic levels of the 2012 drought, as conditions improved across many Midwestern and Plains states. However, moderate to extreme drought did remain or expand into western states (AZ, CA, CO, IA, ID, IL, KS, MI, MN, MO, ND, NE, NM, NV, OK, OR, SD, TX, UT, WA, WI, WY). In comparison to 2011 and 2012 drought conditions the US experienced only moderate crop losses across the central agriculture states.” [ndcd.noaa.gov, Accessed 4/30/2020]

2012 Drought Impacts

2012: Nationwide Droughts And Heatwaves Caused \$34.2 Billion In Damages And 123 Deaths. According to NOAA's National Centers for Environmental Information, drought and heatwaves across the U.S. in 2012 caused \$34.2 billion in damages and 123 deaths.

[ndcd.noaa.gov, Accessed 4/30/2020]

- **The 2012 Drought Impacted Over Half Of The U.S., Including Arizona, And Was The Most Extensive Drought In America Since The 1930s.** According to NOAA's National Centers for Environmental Information, "The 2012 drought is the most extensive drought to affect the U.S. since the 1930s. Moderate to extreme drought conditions affected more than half the country for a majority of 2012. The following states were affected: CA, NV, ID, MT, WY, UT, CO, AZ, NM, TX, ND, SD, NE, KS, OK, AR, MO, IA, MN, IL, IN, GA. Costly drought impacts occurred across the central agriculture states resulting in widespread harvest failure for corn, sorghum and soybean crops, among others. The associated summer heatwave also caused 123 direct deaths, but an estimate of the excess mortality due to heat stress is still unknown." [ndcd.noaa.gov, Accessed 4/30/2020]