

Current Drought Conditions and Potential Management Strategies for Arizona's Wildlife

A synopsis of a presentation given to the Arizona Game and Fish Commission in January 2021

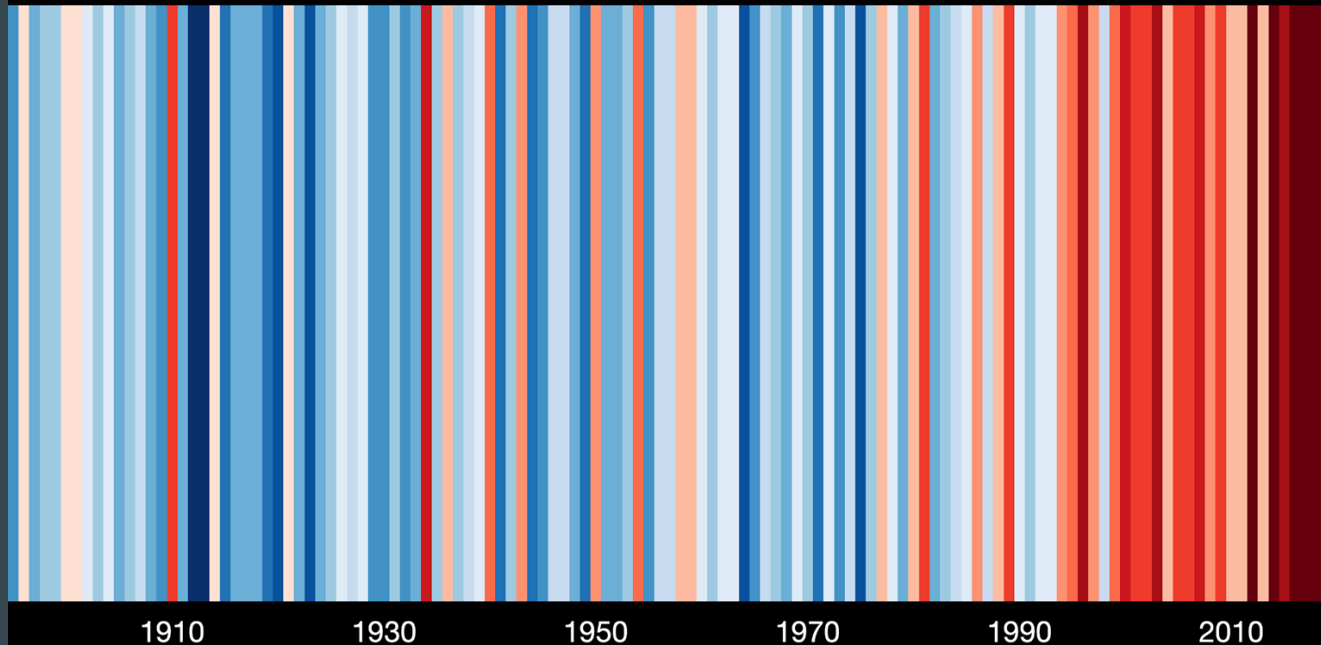


David Weedman, Aquatic Habitat Program Manager
Arizona Game and Fish Department
May 2021

As we all well know we are and have been in a drought

- The magnitude of change over the last 20 years is not nearly as dramatic as when looking at the past 50-100 years

Temperature change in Arizona since 1895



The stripes represent the change in temperature from 1895-2019, with each stripe representing the average temperature for 1 year. Red is warmer and blue is cooler than the 1901-2000 average.

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- The Commission and Department have been monitoring and managing wildlife sustainably during the last 20 years
- The practices and approaches the Department have in place are working and provide a mechanism to guide management and response under severe conditions

What are we doing?



Eagle Rescue Team

(Incidents increase with drought and early/sustained heat waves)

- Raptor Crew
- 24/7 Communication Network to respond to Eagle Emergencies.
- Often nestlings leaving nest prior to capable flight.
- Rehydration, food, health evaluation, and rehabilitation



Black-tailed Prairie Dog Supplemental Feeding

Increasing food availability during nutrient dependent gestation and pup-rearing

- Staff and volunteers distribute alfalfa pellets around colonies Mar-Jun increasing food availability during dry months, esp during periods of drought without green grass growth.
- Supplemental feeding decreases predation and intra-colony mortality by decreasing need for adults to venture far from burrows to find food
- Increases birth rate by increasing nutrients during reproduction
- Food is purchased at cost through partnership with the Phoenix Zoo



Game Management

The Department responsibly manages Arizona's wildlife within the biological limits of each species. Management strategies meet social acceptability, which is routinely more conservative than the limits at which wildlife may be biologically managed to ensure sustainable populations

Processes:

- ◆ Population Monitoring
- ◆ Hunt Guidelines
- ◆ Harvest Monitoring
- ◆ Hunt Recommendations
- ◆ Emergency Seasons - if deemed necessary



Aquatic Wildlife Branch Responses

- Regulation changes and stocking strategies
 - ◆ Shift stocking locations from dry to wet areas
 - ◆ Increase catch and release fisheries (when appropriate)
 - ◆ Removing limits or restricting angling
 - ◆ Reduce stocking (when appropriate)
- Plan for flexibility in hatchery operations
 - ◆ Changes in aquaculture strategy (e.g., reduce crowding, supplement oxygen, modify feeding regimens)
 - ◆ Increase contingency budget for purchasing fish
 - ◆ Monitor water quality and quantity
- Monitor water quality under drought conditions for stocking purposes
- Salvage and relocation of native fish species in threatened habitats

Water Management - 2020 Water Hauls

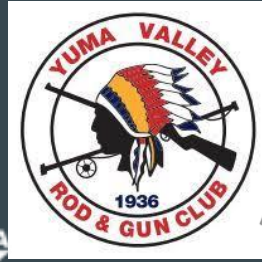
Gallons Hauled by Region (Staff and Volunteers)

- ◆ Region I = 572,411
- ◆ Region II = 1,021,042
- ◆ Region III = 187,966
- ◆ Region IV = 474,596
- ◆ Region V = 101,175
- ◆ Region VI = 36,000

Total Gallons Hauled = 2,393,190



Volunteer Water Hauling = 1,288,495 gallons of the 2,393,190 total !



Over 15 partner organizations and over 50 volunteers to make it rain!

Communication and Public Outreach

Over the summers of 2019 and 2020 AGFD reached out to the public about the need for water hauling funds. “Send Water” campaign expanded our reach. In addition to a robust paid campaign, we partnered with ABC15 to help tell the story. The result of the combined efforts of many was increased momentum in awareness and financial support.

Summer of 2019 donors contributed **\$57,237***

Summer of 2020 donors contributed **\$172,832****

*total includes donations for all of FY20

**total includes donations to date in FY21



The poster features a blue background with a white border. The text "THEY NEED WATER. WE NEED YOU." is written in large, white, bold, sans-serif capital letters. The word "THEY" is positioned above "NEED WATER.", and "WE" is positioned above "NEED YOU.". Various animals are integrated into the text: a black bear is perched on the letter 'Y' of "THEY"; a brown deer is to the right of "THEY"; a brown ram is to the left of "WE"; a small brown squirrel is to the right of "WE"; and a brown rabbit is to the right of "YOU.". In the bottom left corner, there is a circular logo for the Arizona Game and Fish Department, featuring a mountain, a river, and a fish. To the right of the logo, the following text is written in a smaller font: "Arizona's drought continues to impact our wildlife. To help give these animals a chance at survival, the Arizona Game and Fish Department maintains 3,000 lifesaving water catchments around the state. These catchments cost nearly \$1 million to operate and because the Department receives no general tax funds, we need your help. Please donate today. You're not just giving wildlife a drink of water, you're giving them a sip of life." Below this text, the call to action "Text SENDWATER to 41444 or visit SendWater.org" is written in a bold, orange font.

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Questions or Comments?

