Utah Water Assessment & Conditions Monitoring (Drought Webinar)

The meeting will begin shortly

Thank you to our contributors
Utah Water Assessment & Conditions Monitoring Webinar

September 20, 2022
Temperature (7-day and 30-day)

Av. Max. Temperature dep from Ave (deg F)
9/6/2022 – 9/19/2022

Av. Max. Temperature dep from Ave (deg F)
8/21/2022 – 9/19/2022

Agency - Utah Climate Center
Presenter - Jon Meyer
7-day Precipitation
EDDI (4-week & 1-week)

The Evaporative Demand Drought Index (EDDI) is an experimental drought monitoring tool that can serve as an indicator of both rapidly evolving “flash” droughts and sustained droughts. It examines how anomalous the atmospheric evaporative demand (ED; also known as “the thirst of the atmosphere”) is for a given location and across a time period of interest. EDDI can offer early warning of agricultural drought, hydrologic drought, and fire-weather risk. EDDI data is updated daily.

Source(s): NOAA Physical Sciences Laboratory
Data Valid - 09/13/22
Soil Moisture Changes (2-week & 1-year)
Vegetation Drought Impacts

U.S. Vegetation and Drought: VegDRI

U.S. Vegetation and Drought: Vegetation Health Index

Drought Conditions
- Pre-Drought Stress
- Moderate Drought
- Severe Drought
- Extreme Drought

Moist Conditions
- Unusually Moist
- Very Moist
- Extremely Moist

Other Conditions
- Near Normal
- Out of Season
- Water
- Other Landcover

Unfavorable Conditions
- 0 - 6
- 6 - 12
- 12 - 24
- 24 - 36
- 36 - 48

Favorable Conditions
- 45 - 60
- 60 - 72
- 72 - 84
- 84 - 100

The Vegetation Drought Response Index (VegDRI) is a weekly depiction of drought's effects on vegetation stress across the contiguous United States, produced by the National Drought Mitigation Center, the U.S. Geological Survey's National Center for Earth Resources Observation and Science, and the High Plains Regional Climate Center.

Source(s): NDMC, USGS, HPREC

NOAA's Center for Satellite Applications and Research produces satellite-based global vegetation health products, including the vegetation health index (VHI). VHI is a proxy characterizing vegetation health or a combined estimation of moisture and thermal conditions. Vegetation health is often used to estimate crop condition and anticipated yield. If the indices are below 40, indicating different levels of vegetation stress, losses of crop and pasture production might be expected; if the indices above 60 (favorable conditions), plentiful production might be expected.

Source(s): NOAA STAR

Updates Weekly - 05/14/22
Short- and Long-Term Drought Indicator Blend

These experimental drought blends integrate several key drought monitoring products and indices into a single short-term or long-term product, based on the methodology developed at the NOAA Climate Prediction Center. The blends are created using the Climate Engine tool, and apply the CPC weighting ratios to the high-resolution gridded research datasets. The short-term blend combines PDSI, 2-index, 1-month SPI, and 3-month SPI to estimate the overall short-term drought. This product is an example of current NIDIS-funded research. The data is updated every 5 days, with a delay of 4 to 5 days to allow for data collection and quality control.

Sources: UC Merced, Climate Engine
Data Valid - 09/12/22
Reservoirs at 20% or below

- Newton
- Woodruff Creek
- Settlement Canyon
- Big Sand Wash
- Scofield
- Yuba
- Gunnison
- Minersville
- Piute
- Otter Creek
- Upper Enterprise

Agency - Division of Water Resources w/NRCS data
Presenter - Laura Haskell

Reservoir Fill %
Updated 09/20/2022
Statewide Average: 43%

Data Sources: water.utah.gov/reservoirlevels
*State average excludes Lake Powell & Flaming Gorge to better represent the state's water supply.
Total capacity including these is 36%
Reservoir Storage

9/18/2022

Agency - BOR
Presenter - Gary Henrie
Reservoir Storage

9/18/2022

Agency - BOR
Presenter - Gary Henrie

72% full
7th percentile

24% full
0th percentile
An increase in moisture will bring the threat of locally heavy rainfall to portions of central and southern Utah Tuesday, spreading into portions of northern Utah Wednesday.

A Flood Watch will go into effect starting 12pm Tuesday and ending 12am Thursday for portions of central and southern Utah.

Total precipitation of 0.50-1.00 inches with locally higher amounts can be expected in a broad area, mainly east of I-15 and south of US-6.
Climate Prediction Center 8 to 14 Day Outlooks - Precipitation

8-14 Day Precipitation Outlook

Valid: September 27 - October 3, 2022
Issued: September 19, 2022

Agency - National Weather Service Weather Forecast Office
Presenter - Glen Merrill
Just comparing water year to date precipitation numbers between last year and this year. General improvement over the state, which is a good sign as we start looking at our soil moisture parameters.
Current Streamflow Conditions

Sep. 20

*Sites must have at least 10 years of streamflow record to be ranked on this graphic

Agency - USGS Utah WSC
Presenter - Ryan Rowland
Area based cumulative runoff computed from mixed regulated and unregulated streamflows.
Streamflow at Selected Gages

Agency - USGS Utah WSC
Presenter - Ryan Rowland
Streamflow at Selected Gages

USGS 10128500 WEBER RIVER NEAR OAKLEY, UT
(Drainage area: 162 square miles, No. of years of record: 117 - 118 years)

Agency - USGS Utah WSC
Presenter - Ryan Rowland
Streamflow at Selected Gages

USGS 10154200 PROVO RIVER NEAR WOODLAND, UT
(Drainage area: 162 square miles, No. of years of record: 58 - 59 years)

Cumulative Streamflow, in millions of acre feet

- Cumulative flow between daily 25th and 75th percentiles
- Cumulative streamflow of daily median
- Lowest observed cumulative flow (1977)
- Highest observed cumulative flow (1986)
- Observed cumulative flow (2022)

Last updated: 2022-09-20

Agency - USGS Utah WSC
Presenter - Ryan Rowland
Streamflow at Selected Gages
Streamflow at Selected Gages
Great Salt Lake Water Surface Elevation

- Mean daily value 9/19/2022 = 4,189.1’ (record lows continue)
- Mean daily value 9/5/2022 = 4,189.2’