



**A herd of cows cross a flooded pasture in Sacramento county following multiple winter storms in Sacramento, CA, January 9, 2023. REUTERS/Fred Greaves/File Photo**  
**See article in this issue: “US beef cow herd falls to 52-year low, squeezing meatpackers.”**

# **California Water and Infrastructure Report**

## **For July 27, 2023**

**(With expanded coverage of all the Western States)**  
**by Patrick Ruckert**

**Published weekly since July, 2014**

**An archive of all these weekly reports can be found at both links below:**

**<http://www.californiadroughtupdate.org>**

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## **A Note to Readers**

A chorus of voices in the U.S. media, like the chorus on the rest of the Woke agenda, finds that almost every article on drought or weather will at some point in the article state that the author will write, “It is all caused by “climate change.” And a large portion of those articles then promote so-called “renewable energy” as the solution.

This week we take a look at some aspects of this, as I call it, mental disease.

This week's **Feature**, *“Reply to Charles Benoit: Green Energy Is Not the American System,”* discusses the broader economic and financial policy required to be able to ensure the real industrialization of the nation. Within that context, the article takes on the absurdity of focusing our economic policy on building solar power plants.

Two further articles can be found in the section labeled, *“What Are the Real Numbers for “Renewable Energy.”*

The first is a chart from the U.S. Energy Information Administration (EIA) that shows that 12% of U.S. electricity production is produced from "renewable sources" and, of this 12%, 40% is from "biomass." But biomass is burned to run turbines and doing so produces carbon dioxide.

The second article, which demonstrates the absurdity of building solar production facilities anywhere and everywhere is on the proposal to cover canals with solar panels, producing electricity and reducing evaporation from those canals. Of course, reducing evaporation is a net gain. But there are 4,000 miles of canals in California, and the first “test site” will build just 1.6 miles of canals for a price tag of \$20 million. Do the math and we get over \$40 billion dollars for just 2,000 miles of canals covered. For that same amount of money we could build 40 desalination plants like the one in Carlsbad CA.

On the drought, of course, we have the U.S. Drought Monitor map for California, and a report from Colorado that the reprieve from drought lasted just two weeks as sections of the state have reverted to drought conditions once again.

The food supply of the nation continues to be threatened by drought. The next section shows that U.S. farmers are raising the fewest beef cows since at least 1971, as drought conditions whittled herds,

The Colorado River, it is claimed, has lost in the last two decades enough water to fill Lake Mead, due to climate change. Despite every study on the topic not making that claim, but more conservatively saying that drought and climate change intensifies water loss and the drought itself.

## **U. S. Drought Monitor**

### **July 25, 2023**

#### **The West**

The ongoing heatwave was impacting much of the Southwest into southern California over the last several weeks. Temperatures in the region were well above normal for most areas and some departures in the Southwest were 8-10 degrees above normal this week.

Areas of northern Utah and Nevada as well as portions of western Wyoming had above-normal rainfall this week.

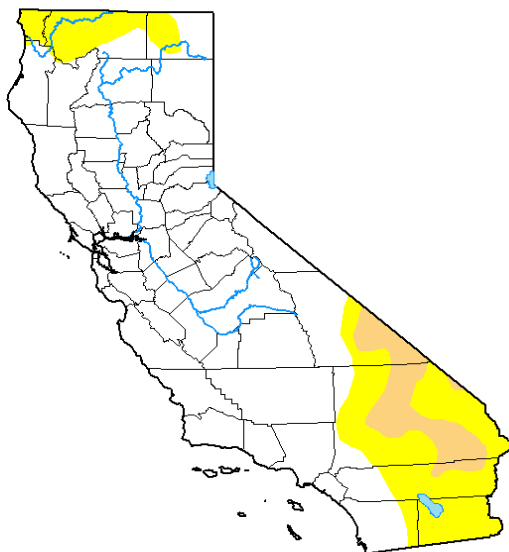
Moderate and severe drought were expanded in Idaho as well as the north and western portions of Montana. Abnormally dry conditions expanded over southern and southwest Colorado with moderate drought introduced this week in south central Colorado.

A vast expansion of abnormally dry conditions was made in Arizona into western New Mexico, with moderate and severe drought expanding over southern New Mexico. Moderate drought also expanded over northern and northwest New Mexico.

# California

## U.S. Drought Monitor California

July 25, 2023  
(Released Thursday, Jul. 27, 2023)  
Valid 8 a.m. EDT



### Intensity:

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <http://droughtmonitor.unl.edu/About.aspx>

### Author:

Brian Fuchs  
National Drought Mitigation Center



[droughtmonitor.unl.edu](http://droughtmonitor.unl.edu)

## Statistics

Current	<a href="#">2023-07-25</a>	74.43	25.57	6.29	0.00	0.00	0.00
st Week to Current	<a href="#">2023-07-18</a>	74.45	25.55	6.29	0.00	0.00	0.00
3 Months Ago to Current	<a href="#">2023-04-25</a>	68.04	31.96	7.98	0.00	0.00	0.00
Start of Calendar Year to Current	<a href="#">2022-12-27</a>	0.00	100.00	97.94	80.56	35.50	7.16

## And In Colorado

### Colorado's drought is back after only a short reprieve

#### *Southwest Colorado once again considered abnormally dry*

By [Elise Schmelzer](#) | [eschmelzer@denverpost.com](mailto:eschmelzer@denverpost.com) | *The Denver Post*

PUBLISHED: July 26, 2023

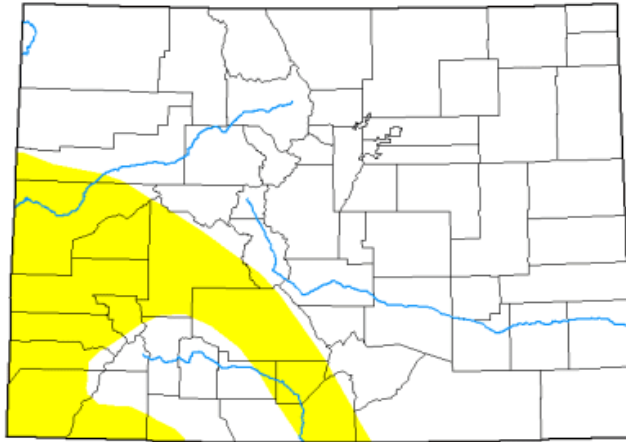
<https://www.denverpost.com/2023/07/26/colorado-drought-2023-forecast/>

*Colorado's reprieve from drought lasted two weeks as warm temperatures and little precipitation have put the southwest corner of the state back to dry conditions.*

*The U.S. Drought Monitor last week reported that 20% of the state is back in drought, just two weeks after [its July 6 finding that the state was drought-free for the first time since 2019.](#)*

**U.S. Drought Monitor  
Colorado**

**July 18, 2023**  
(Released Thursday, Jul. 20, 2023)  
Valid 8 a.m. EDT



**Intensity:**

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

**Author:**

Richard Tinker  
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[droughtmonitor.unl.edu](https://droughtmonitor.unl.edu)

**U.S. Drought Monitor**

Twenty percent of Colorado is abnormally dry, according to the U.S. Drought Monitor.

*Meteorologists and climatologists at the U.S. Drought Monitor predict that drought will continue to expand in Colorado through the end of summer. Half of the U.S. was in drought conditions as of the monitor's most recent report last week.*

## **Drought in the West Devastates U.S. Cow Herd**

### **US beef cow herd falls to 52-year low, squeezing meatpackers**

By [Tom Polansek](#)

July 21, 2023 2:34 PM PDT Updated a day ago

<https://www.reuters.com/markets/commodities/us-beef-cow-herd-falls-52-year-low-squeezing-meatpackers-2023-07-21/>



A herd of cows cross a flooded pasture in Sacramento county following multiple winter storms in Sacramento, California, U.S. January 9, 2023. REUTERS/Fred Greaves/File Photo

CHICAGO, July 21 (Reuters) - U.S. farmers are raising the fewest beef cows since at least 1971, government data released on Friday showed as drought conditions whittled herds, likely boosting costs for meatpackers that slaughter the animals into steak and hamburgers.

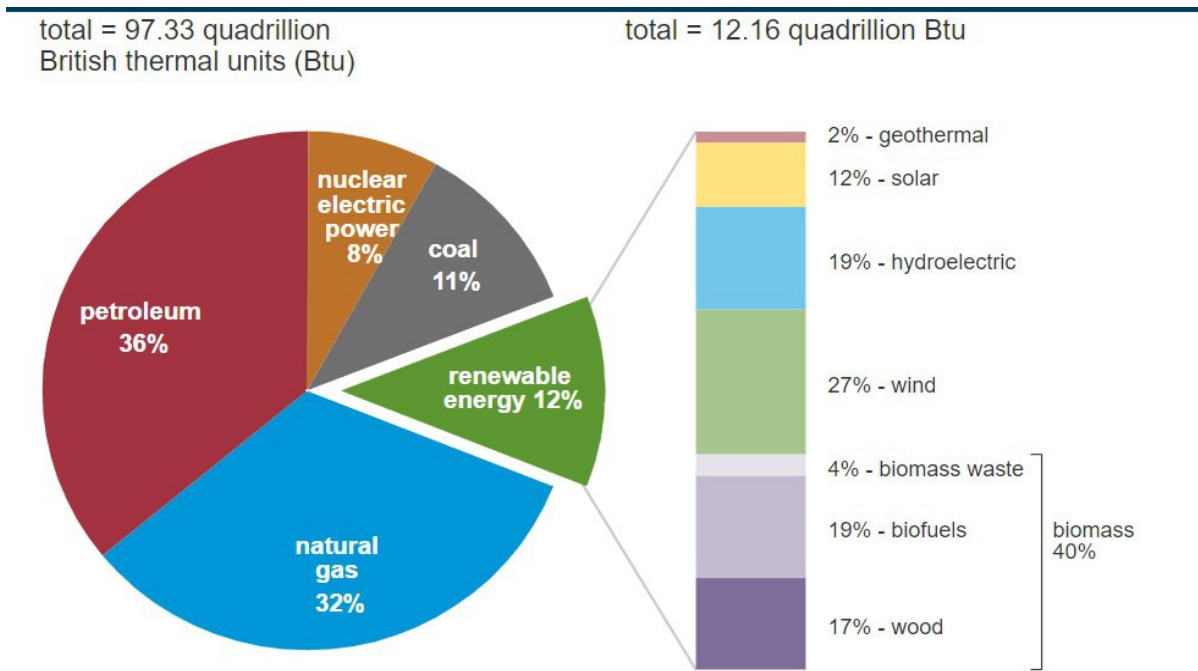
There were 29.4 million beef cows as of July 1, down 2.6% from a year earlier, the U.S. Department of Agriculture said in a biannual report. It was the smallest herd for that date since the government began keeping the records 52 years ago and reflected a fifth year of declining beef cow numbers.

Annual records of the herd size as of Jan. 1 go back farther, and the number of beef cows at the start of this year was the lowest since 1962 at 28.918 million head.

Ranchers have increasingly sent cows to slaughter as dry weather reduced the amount of pasture available for grazing.

## What Are the Real Numbers for “Renewable Energy”

The U.S. Energy Information Administration (EIA) provides this chart. It shows that 12% of energy is produced from "renewable sources" and, of this 12%, 40% is from "biomass." But biomass is burned to run turbines and doing so produces carbon dioxide. It is "renewable" because you can always grow more trees. But burning wood produces even more carbon dioxide than burning coal. So don't think "renewable" rules out carbon. The real "renewable" energy sources should exclude biomass, so that means only 7% is "renewable," not 12%.



Data source: U.S. Energy Information Administration, *Monthly Energy Review*, Table 1.3 and 10.1, April 2022, preliminary data  
Note: Sum of components may not equal 100% because of independent rounding.



[https://www.eia.gov/energyexplained/us-energy-facts/?fbclid=IwAR1AKyNfdjNYLRs\\_WIPyKAHVe-5tufA7mKx8OmVkUScmkAwY2mfePyr2Jr8](https://www.eia.gov/energyexplained/us-energy-facts/?fbclid=IwAR1AKyNfdjNYLRs_WIPyKAHVe-5tufA7mKx8OmVkUScmkAwY2mfePyr2Jr8)

## ***Solar AquaGrid: Installing Solar Panels Over Canals to Address Water Loss and Climate Pollution***

***By Terence West***

*Jul 20, 2023*

<https://www.energyportal.eu/news/why-arent-solar-panels-on-california-canals-more-widespread/71551/>

*Solar AquaGrid, the company founded by Harris and Raj, is now preparing to break ground on the first solar-covered canal project in the United States. The concept is simple: install solar panels on canals in regions with ample sunlight and water scarcity to reduce evaporation and generate electricity.*

*A study conducted by the University of California, Merced supports this idea, estimating that covering California's 4,000 miles of canals with solar panels could save 63 billion gallons of water and generate 13 gigawatts of power, enough to supply the entire city of Los Angeles from January through early October. However, these estimates and other potential benefits are yet to be scientifically tested. Therefore, a project called Project Nexus in California's Central Valley aims to study the impact of solar-covered canals comprehensively.*

*With \$20 million in public funds committed by the state, the pilot project has become a collaborative effort among the private, public, and academic sectors. Approximately 1.6 miles of canals, varying in width from 20 to 110 feet, will be covered with solar panels positioned between five and 15 feet off the ground. The UC Merced team will conduct research on various impacts, including evaporation and water quality, to gain a comprehensive understanding of the technology's potential.*

## **The Colorado River**

Warning: This article's headline states that climate change is once again claimed as the cause of water loss in the Colorado River basin. The only real scientific studies that have been on the topic of climate change and drought, always say the cause is not demonstrated, but that climate change does intensify droughts.

### ***AGU: Colorado River Basin has lost water equal to Lake Mead due to climate change***

[\*American Geophysical Union\*](#)

[\*News and Features\*](#)

*July 24, 2023 0 29*

<https://mavensnotebook.com/2023/07/24/agu-colorado-river-basin-has-lost-water-equal-to-lake-mead-due-to-climate-change/>

***A rapid rate of reductions in runoff associated with the Colorado Basin’s snowpack region, quantified here for the first time, is largely responsible for the water loss.***

*By American Geophysical Union*

*From 2000 to 2021, climate change caused the loss of more than 40 trillion liters (10 trillion gallons) of water in the Colorado River Basin — about equal to the entire storage capacity of Lake Mead — according to [a new study](#) that modeled humans’ impact on hydrology in the region.*

*Without climate change, the drought in the basin most likely would not have reduced reservoir levels in 2021 to the point requiring supply cuts under the [first-ever federally declared water shortage](#), according to the study, which was published in the AGU journal *Water Resources Research*, which publishes original research on the movement and management of Earth’s water.*



*“While we knew warming was having an impact on the Colorado Basin’s water availability, we were surprised to find how sensitive the basin is to warming compared to other major basins across the western U.S., and how high this sensitivity is in the relatively small area of the basin’s crucial snowpack regions,” said Benjamin Bass, a hydrologic modeler at the University of California-Los Angeles and lead author of the study. “The fact that warming removed as much water from the basin as the size of Lake Mead itself during the recent megadrought is a wakeup call to the climate change impacts we are living today.”*

## Feature:

### Reply to Charles Benoit: Green Energy Is Not the American System



By [Michael Steger](#)

July 24, 2023

[https://www.larouchepac.com/reply\\_to\\_charles\\_benoit\\_green\\_energy\\_is\\_not\\_the\\_american\\_system?fbclid=IwAR0m9dpPVieeSJ2BlrKp6ln6XOH\\_DfkLqGGL4bduPwC-1sWXefWX0QN-gIs](https://www.larouchepac.com/reply_to_charles_benoit_green_energy_is_not_the_american_system?fbclid=IwAR0m9dpPVieeSJ2BlrKp6ln6XOH_DfkLqGGL4bduPwC-1sWXefWX0QN-gIs)



President Donald J. Trump, joined by Chinese Vice Premier Liu He, sign the U.S. China Phase One Trade Agreement Wednesday, Jan. 15, 2020, in the East Room of the White House.

Thanks for the article, “[What the Latest Trade Data Tells Us About Tariffs.](#)” It’s a useful review of tariff policy. However, I have to strongly object to the final proposal for solar panels. To argue for trade balancing and at the same time for green energy is like closing the doors, but letting all the flies in.

The American System is premised on industrial growth, i.e., physical profits. Green energy is a net loss, as is a massive trade deficit—there's no difference. To *not* make this clear, and to obfuscate the principle with what is an otherwise relevant discussion, in the end will only injure and even sabotage the economic revitalization of the US.

We need to increase the physical net gain of our productive potential over each cycle of investment. That means physical profit, as opposed to the accounting tricks called monetary profit today. To create that physical net gain after the costs of inputs and labor, we have to see a net surplus in productive terms. This is easiest to see with energy. If the energy required, as a base metric for all inputs (including disposal costs), is less than the energy output, we have an actual profit. [The opposite is true for solar panels, which are a net energy loss.](#) And neither solar nor wind can provide baseline energy requirements because of their intermittency, so both require fossil-fuel backup for redundancy which is thus part of the input costs.

If we removed the massive subsidies for household solar panels and EVs, we would see them for what they are: the play toys of the rich.

Besides, decentralizing energy production is a wasteful use of manufacturing and productive potential. Energy-dense advanced nuclear plants, for example, from the gigawatt range down to advanced modular reactors in the 100 megawatt range, can now be built for cities, as well as for health facilities,



water plants, and large industrial firms, at whatever scale is required, providing an abundance of electricity and heat. (Process heat is used in both desalination and consumer and industrial waste-water facilities and other industrial processes but is unavailable from wind or solar.)

This centralized approach to what we might call the “alpine” (furthest upstream) inputs to production, for example in a small industrial city, frees up the individual firms to focus on entrepreneurial improvements to the physical and cultural system, rather than financial schemes like selling solar panels or transitioning to EVs. Not to speak of the decades-long obsession with the financialization of housing for the benefit of the bloated bureaucracies and pet projects of city councils and county boards. Industry was, and remains the foundation for small, medium, and large-scale cities to thrive in the long term. For industry to flourish, we need critical alpine inputs to be of the highest quality and reliability.

This points to a key factor in the revival of the American System, i.e. infrastructure. At the modern industrial scale, no firm can accept the long-term costs or responsibility for what is essentially public infrastructure. The building of a new power grid, modern energy plants, water treatment facilities, new industrial rail services and water transit, and inner-city dense transit capabilities, are key components for driving internal industrial investment on an approximately 25-year cycle. If these large-scale systems are designed from the standpoint of building new centers of modern industry, rather than decentralized consumer affluence—or lack thereof—then we will have a net gain in total investment, with a maximum of public benefit, including for the entrepreneur and the consumer. If they are managed from a physical standpoint, and with an eye towards future productive requirements, the productive potential of the nation, or relevant region, will increase. So will the aggregate physical profits (even if the financial profit will be nowhere near the predatory 20% of the private equity model today), and overall prosperity will increase as well. Under these circumstances, as in the past, other cultural investments will then flourish, like beautiful parks—as in San Francisco, where in the midst of a total dark age, the Golden Gate Park remains a gem of cultural infrastructure and a refuge for the aesthetic mind.

Of course, with a strong tariff system and enforced domestic content requirements, we can ensure that the new infrastructure uses domestic inputs, and given the appropriate scale, this can provide an environment for long-term capital investments by the private sector. This will benefit from Hamiltonian national banking policies like low interest credit and investment tax credits, which prevent such a policy from being perverted by tax-and-spend government expenditures and protect it from the globalists’ usurious and speculative interests.

The point in short: solar panels are first, a waste of energy—literally—and second, the promotion of solar energy undermines the necessary component of centralized infrastructure that is essential for a domestic manufacturing ecosystem. It is precisely that centralized infrastructure and manufacturing ecosystem that is critical to the revival of the US as a manufacturing superpower.