



The 1876 Centennial Exposition Held In Philadelphia to Celebrate the Signing of the Declaration of Independence-- See this week's Feature on page 8.

California Water and Infrastructure Report For June 8, 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>

<https://www.facebook.com/CaliforniaDroughtUpdate>

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A Note to Readers

The **Feature** this week revisits the 1876 Centennial Celebration held in Philadelphia in an article by my colleague Robert Ingraham, *"President Trump Makes Himself the Personal Rallying Point for the Principles of 1776."*

"On May 31, on his Agenda 47 web page, Donald Trump released a new video titled '[Celebration of 250 Years of American Independence at the Iowa State Fairgrounds](#).' In that video, Trump proposes to

create a year-long “Salute to America”—to honor the 250th anniversary of the signing of the Declaration of Independence.”

So begins the article. But, then the article focuses on what should such a celebration feature, and reviews in great detail the 1876 Centennial Celebration that occurred in Philadelphia.

That celebration demonstrated to the American people, and the world, that the U.S. was now the leading industrial power in the world.

Reviewing that history, we are struck by how we have shrunk. When once we were a nation that challenged the frontiers of science and technology, built great infrastructure projects that transformed the nation and provided inspiration to millions throughout the world, now we are most famous for insane wars, deviant behavior and more than 100,000 deaths per year from drug overdoses.

The article provides the challenge, as does President Trump's call for a great celebration for the nation's 250th birthday, that we must take up.

The rest of this week's report:

The *U.S. Drought Monitor*, as usual begins the report. It shows no change from last week, and probably won't for a couple of months.

El Nino has officially begun, states announcement of the weather phenomenon. *“The natural climate phenomenon is marked by warmer ocean temperatures in the equatorial Pacific, which drives hotter weather around the world.”*

Next are a couple of items discussing the winter's immense amount of water that remains in the snowpack or on the ground, and the second, that the drought will return. So, I think the author of the second writes the obvious. But, that is journalism today.

An update on the Sites Reservoir moving closer to actual construction reports on the State Water Resources Control Board (SWRCB) ruling that “the reservoir’s water right application was deemed complete.”

One of many articles now appearing argues that the water rights held by farmers is outdated and must be reformed, comes next. This is obviously opposed by the water rights holders, as they feel threatened by any reforms put forth by the Democrat dominated legislature.

That the U.S. labor force has lost its skills as we transitioned to the insane consumer economy is not a new story. But this article makes the point that now California does not have the skilled manpower to build even the green economy infrastructure funded by Biden's funding: *“Limited workforce may hinder California’s infrastructure upgrade.”*

There is not much new on the Colorado River crisis this week, but spending more than \$1 billion for farmers to fallow their land and not use water, which is a central point of policy to deal with the crisis on the Colorado River, may not produce the water savings that those promoting it expect. An article included below makes that point.

U.S. Drought Monitor

June 6, 2023

The West

Small-scale improvements were made in parts of southern and central Idaho, Nevada and northwest Utah, where high streamflows and large precipitation amounts from the winter into May led to a reassessment of conditions.

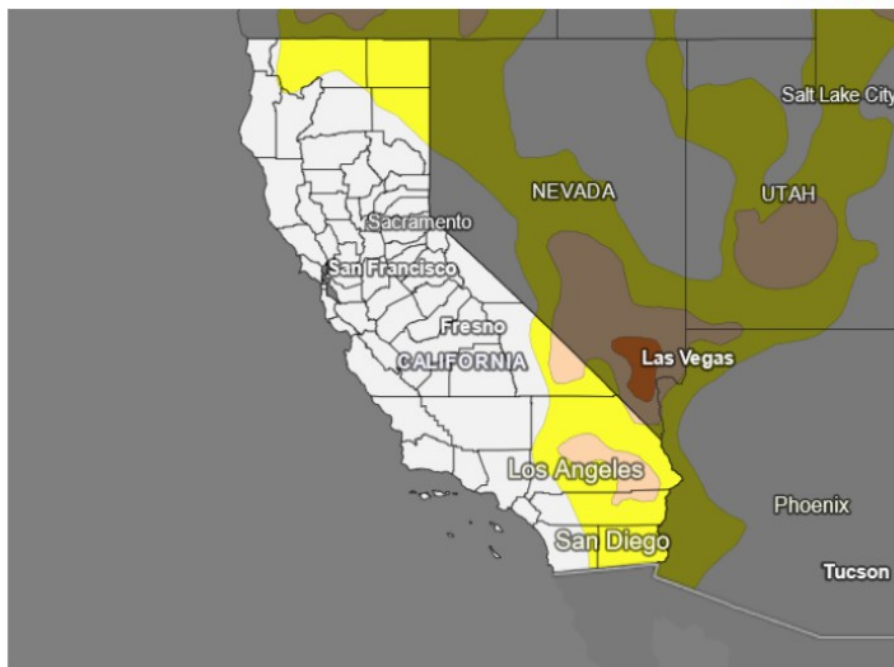
Moderate and severe drought increased in coverage in northwest Montana and northwest Washington, where short-term precipitation deficits were occurring amidst low streamflow and decreasing soil moisture.

In Oregon, a tight gradient in temperature and precipitation anomalies has been present recently, resulting in worsening conditions in the north and west portions of the state, while conditions have improved in the southeast part of Oregon. In some areas, streamflow and snow cover has quickly decreased as a result of early melt off and recent dry weather.

Due to heavy rains associated with a storm system responsible for the heavy rain in the southern Great Plains, some improvements were also made in the plains of east-central New Mexico.

California

U.S. Drought Monitor: California



Drought & Dryness Categories

	% of CA
 D0 – Abnormally Dry	24.5%
 D1 – Moderate Drought	4.6%
 D2 – Severe Drought	0.0%
 D3 – Extreme Drought	0.0%
 D4 – Exceptional Drought	0.0%

Total Area in Drought (D1–D4)

4.6%

Source(s): NDMC, NOAA, USDA

Updates Weekly: 06/06/23

[Drought.gov](https://drought.gov)

Statistics

Week	Date	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
Current	2023-06-06	70.88	29.12	4.63	0.00	0.00	0.00	34
Last Week to Current	2023-05-30	70.88	29.12	4.63	0.00	0.00	0.00	34
3 Months Ago to Current	2023-03-07	26.84	73.16	43.06	19.00	0.00	0.00	135
Start of Calendar Year to Current	2022-12-27	0.00	100.00	97.94	80.56	35.50	7.16	321
Start of Water Year to Current	2022-09-27	0.00	100.00	99.76	94.01	40.91	16.57	351
One Year Ago to Current	2022-06-07	0.00	100.00	99.79	97.48	59.81	11.59	369

[Estimated Population](#) in Drought Areas: 704,780

El Niño has officially begun

El Niño has officially begun. Here's what that means for the U.S.

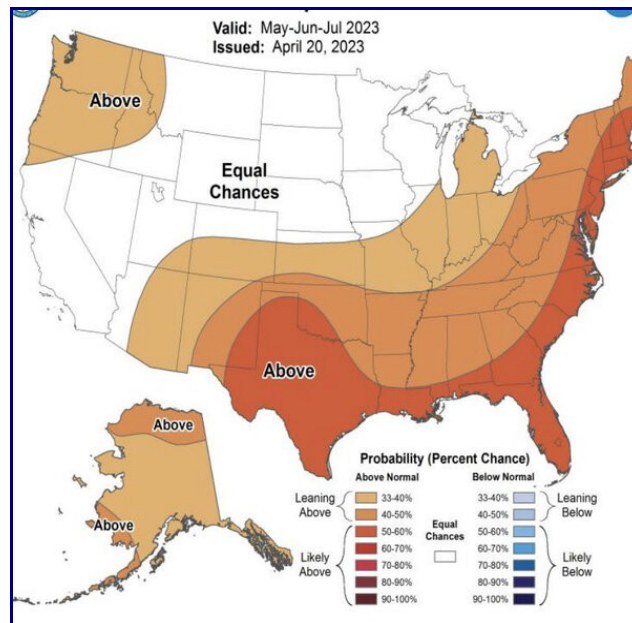
June 8, 2023 3:13 PM ET

[Rebecca Hersher](#)

<https://www.npr.org/2023/06/08/1181086972/el-nino-has-officially-begun-heres-what-that-means-for-the-u-s>

El Niño is officially here, and that means things are about to get even hotter. The natural climate phenomenon is marked by warmer ocean temperatures in the equatorial Pacific, which drives hotter weather around the world.

"[El Niño] could lead to new records for temperatures," says Michelle L'Heureux, a climate scientist at the National Oceanic and Atmospheric Administration's Climate Prediction Center.

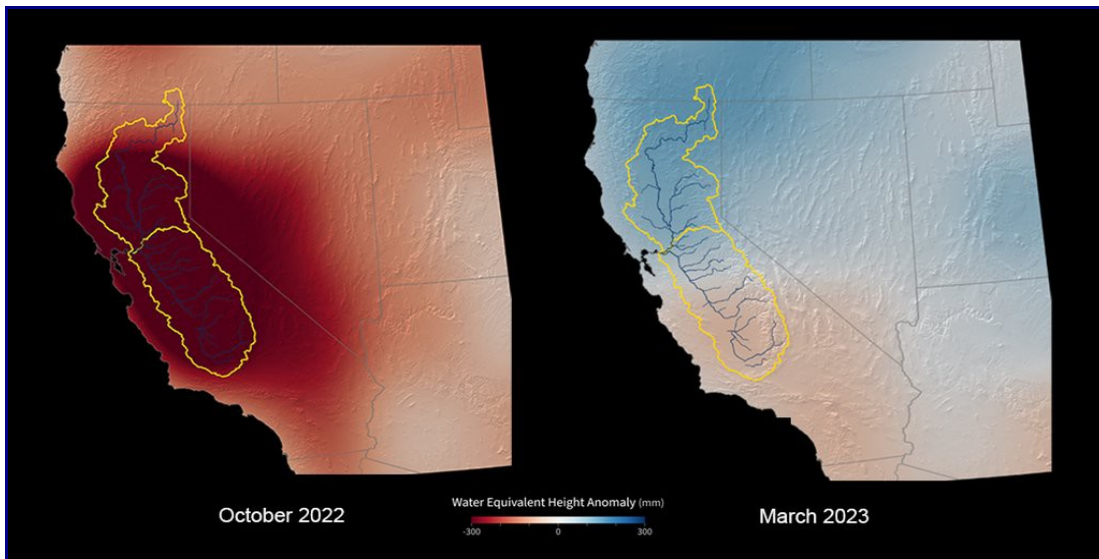


California: Lots of Water Now, But It Will Not Last

US-German Satellites Show California Water Gains After Record Winter

June 7, 2023

<https://www.jpl.nasa.gov/news/us-german-satellites-show-california-water-gains-after-record-winter>



Thanks to a wet winter, California saw tremendous gains in the amount of water in the San Joaquin, Sacramento, and Tulare river basins (outlined in yellow) from October 2022 to March 2023, GRACE-FO data shows. The measurement includes water in lakes, rivers, reservoirs, snowpack, and groundwater aquifers. (Credit: NASA's Scientific Visualization Studio)

Early data shows the greatest net gain of water over the winter in nearly 22 years, but the state's groundwater levels still suffer from the effects of years of drought.

After years of intense drought and diminishing groundwater, California just saw its greatest year-over-year water gains in two decades, according to data from the [GRACE-FO](#) (Gravity Recovery and Climate Experiment Follow-On) satellite mission, a partnership between NASA and the German Research Centre for Geosciences (GFZ). This past winter's bonanza of atmospheric rivers alleviated some of the water deficit that the state incurred during periods of drought over the last 10 years, which included the three driest years on record in California.

California's Drought Outlook Has Shifted Dramatically - Here's Why

By [Robyn White](#) On 6/6/23 at 10:57 AM EDT

<https://www.newsweek.com/california-drought-outlook-change-moderate-rain-storms-1804787>

As snowpack continues to melt in California, this year's drought outlook for the state has changed dramatically.

Heavy rainfall and snow hit the state in the winter months, and a huge amount of [snowpack accumulated in the Sierra Nevada](#). As the weather warms, that's all melting.

[California has been in a drought](#) for years, but amid the melting snow, the drought outlook has changed significantly. According to the U.S. Drought Monitor, the drought in the state has pretty much lifted, with only 4.63 percent of the state in a moderate drought, and 29.12 percent being abnormally dry.

Just three months ago, some 24.96 percent of the state was in a severe drought and 49.13 percent in a moderate drought.

A drought map from three months ago shows drought conditions covering much of the state, while a recent map from the end of May shows the conditions mostly alleviated.

At the beginning of the calendar year, 97.94 percent of the state was in a moderate drought.

As the snow continued to melt and the drought alleviated, areas [including Yosemite National Park](#) have flooded. This is expected to continue throughout June and perhaps into July.

The current situation, however, is only likely to be a short-term solution to the state's drought problems.

The Sites Reservoir: Another Step Forward

Sites closer to a reality with state water board decision

- *Appeal Staff Report*
- *June 5, 2023*

https://www.appeal-democrat.com/news/sites-closer-to-a-reality-with-state-water-board-decision/article_5686bf8e-03ff-11ee-b994-8ba93f80de37.html

Sites Reservoir, which could provide 1.5 million acre-feet of additional water storage capacity, received a significant boost late last week when the Sites Project Authority was notified by the State Water Resources Control Board (SWRCB) that the reservoir's water right application was deemed complete.

Because of this action, the Sites Reservoir project is now able to move forward to the next step in the process of getting a new water right permit for the project.

The project, which has been in the works for more than 60 years, hopes to turn the Sites Valley, located 10 miles west of Maxwell where Colusa and Glenn counties meet, into a state-of-the-art off-stream water storage facility that captures and stores stormwater flows in the Sacramento River – after all other water rights and regulatory requirements are met – for release in dry and critical years for environmental use and for communities, farms and businesses statewide to utilize when needed, the Appeal previously reported.

Once the Sites Project Authority receives a water right permit, it will give the Authority “legal authorization to divert water within certain conditions, for a specific purpose, and for use within a specified area,” Sites Project Authority officials said. As a result, the Sites Project Authority will be considered the state-designated steward of the water right for the Sites Reservoir project.

Another Threat To Farmers

'Improvised, spotty and belated': Will California reform its oversight of water rights?

Ian James

Mon, June 5, 2023 at 5:00 a.m. PD

<https://ca.style.yahoo.com/improvised-spotty-belated-california-reform-120022144.html>

California's complex system of water rights took shape starting in the mid-1800s, when settlers saw the state's water as abundant and free for the taking — a time when a Gold Rush prospector could stake claim to river flows simply by [nailing a notice to a tree](#).

Today, California's oldest and most senior water rights — called riparian and pre-1914 rights — have been passed along to thousands of agricultural landowners, irrigation districts and urban water suppliers that claim control of roughly one-third of the water that is diverted from the state's rivers and streams.

But increasingly, California water regulators are struggling to manage supplies for 39 million residents, agriculture and the environment as climate change warps the hydrologic cycle and brings longer-lasting and more severe droughts. Legal experts say the way the state manages this antiquated system is in dire need of reform. Among other problems, they say, current law prevents officials from verifying whether claims of senior water rights are valid, ordering those water users to reduce usage, or imposing fines that are large enough to penalize those who flout the rules.

Three bills gaining momentum in the Legislature are seeking to change that, even as they draw heated opposition from water agencies and agricultural groups.

“These bills show that the Legislature is taking a serious look at bringing more comprehensive and consistent regulation to water rights — and empowering the State Water Resources Control Board to do the job California needs it to do,” said Nell Green Nylen, a senior research fellow at the UC Berkeley School of Law's Wheeler Water Institute.

Skilled Labor Shortage Threatens Even Green Infrastructure Policy

Limited workforce may hinder California's infrastructure upgrade

by BY BRIAN JOSEPH posted 06.07.2023

<https://capitolweekly.net/limited-workforce-may-hinder-californias-infrastructure-upgrade/>

After [decades of neglect](#), California's infrastructure is poised for an upgrade.

Thanks in part to the [Infrastructure Investment and Jobs Act](#) signed by President Biden [in November 2021](#), the Golden State is set to receive [more than \\$100 billion](#) in federal and state infrastructure funds over the next several years.

This money represents a “[once-in-a-generation opportunity](#),” according to [Gov. Gavin Newsom](#), to install and/or update [a litany of critical systems serving Californians](#), including:

- *A network of charging stations for electric vehicles;*
- *Broadband internet service;*
- *Replacement roads and bridges, designed to mitigate climate change;*
- *Protections against cyberattacks, wildfires and extreme weather events;*
- *Improved public transportation options;*
- *Better service lines and pipes for clean drinking water; and*
- *Airport upgrades.*

But there's a problem, according to the CA FWD report: this new funding is expected to generate 400,000 construction jobs – jobs the current California workforce can't fill.

“In order to implement its infrastructure program,” CA FWD says bluntly, “California will need to develop its infrastructure workforce.” That won't be easy.

On the Colorado River

Deadpool Diaries: Paying to fallow may not save as much water as we think

Posted by [jfleck](#) on [6 June 2023, 11:27 am](#)

<https://www.inkstain.net/2023/06/deadpool-diaries-paying-to-fallow-may-not-save-as-much-water-as-we-think/>

Given that we're about to spend a billion dollars to fallow land to reduce water use in the Colorado River Basin, it's reasonable to ask how we can be sure we know how much water is actually being saved.

The answer, according to [new work by Katharine Wright and colleagues at Arizona State University](#), may be “not as much as we think.”

Wright and her colleagues looked at the oldest and most well-understood rotational fallowing program in the west – the Metropolitan Water District-Palo Verde Irrigation District deal set up two decades ago to fallow land in PVID and use the water to shore up Met's Colorado River Aqueduct supplies.

Their key finding: **over the time period studied, actual savings were far smaller than MWD's estimates.**

The key difference in their work, as compared to the techniques used to derive official estimates, is an effort to analyze farmer behavior – the choices of which fields to enroll in the fallowing program and farmers' cropping and irrigation practices on non-fallowed fields. If farmers fallow fields that would have used less water anyway, or use more water on the non-fallowed fields, it could sway the estimates.

Feature

While the following article begins with President Trump's call for a great national celebration to honor the 250 year anniversary of the signing of the Declaration of Independence, it is what the content of that celebration should be that can inspire the nation.

With an extensive report on the 1876 Centennial celebration that saw millions of visitors to Philadelphia that year, Bob Ingraham's article should remind us of how the United States became the greatest industrial power in the world. The whole world visited that celebration in 1876, and some of those visitors took home what they learned and began transforming their own nations with the American System methods and policies that had transformed the United States.

Let us make the 250th anniversary of the signing of the Declaration of Independence have an even bigger impact on the world than that of 1876.

President Trump Makes Himself the Personal Rallying Point for the Principles of 1776

By [Robert Ingraham](#)

June 05,

https://www.larouchepac.com/president_trump_makes_himself_the_personal_rallying_point_for_the_principles_of_1776



Above left: Centennial Photographic Company, Main Building, from East Gallery, albumen stereograph (detail), Philadelphia: 1876.

Above right: Centennial Photographic Company, Agricultural Hall, Main Avenue, albumen stereograph (detail), Philadelphia: 1876.

On May 31, on his Agenda 47 webpage, Donald Trump released a new video titled “[Celebration of 250 Years of American Independence at the Iowa State Fairgrounds](#).” In that video, Trump proposes to create a year-long “Salute to America”—to honor the 250th anniversary of the signing of the *Declaration of Independence*.

On Day 1 of his second term as President, Trump will convene a White House task force, he announces, which will be “responsible for coordinating with state and local governments to ensure not just one day of celebration, but an entire year of festivities across the nation starting on Memorial Day 2025 and continuing through July 4th, 2026.” He continues, “I will work with all 50 Governors, Republican and Democrat alike, to create the Great American State Fair, a unique one-year exhibition featuring pavilions from all fifty states. It’ll be something. The Great American State Fair will showcase the glory of every state in the Union, promote pride in our history, and put forth innovative visions for America’s future.”

He will ask the “amazing people of Iowa” to open up the legendary Iowa state fairgrounds to host the Great American State Fair, with the aim of welcoming “millions and millions of visitors from around the world to the heartland of America.” He promises that “as President, I will invite the leaders and citizens of nations around the world to visit the United States in honor of our 250th anniversary. It’s going to be great.”

Who We Are

Much has been discussed of Donald Trump's policies—what he accomplished as President and the economic and energy policies he has put forward in his Agenda 47—but, in truth, his greatest and most courageous achievement has been to remind us, the people of America, who we are. What our Republic truly is. He has made himself the personal rallying point for the Principles of 1776, and by doing this he has incurred the vicious hatred of America's enemies and the America-haters within our own midst. This has been Trump's mission since he came down the famous escalator in 2015: —to rescue America, to revive within the hearts of her citizens a love for their country—its principles, its intention, and its heritage.

At Mount Rushmore on July 3, 2020, President Trump said this:

“Our Founders launched not only a revolution in government, but a revolution in the pursuit of justice, equality, liberty, and prosperity. . . . It was all made possible by the courage of 56 patriots who gathered in Philadelphia 244 years ago and signed the Declaration of Independence. They enshrined a divine truth that changed the world forever when they said: ‘all men are created equal’. . . . 1776 represented the culmination of thousands of years of western civilization and the triumph not only of spirit, but of wisdom, philosophy, and reason.”

In his Salute to America proposal, Trump notes that he “will sign an Executive Order to bring back our National Garden of American Heroes, which we want to build very badly, and commission artists for the first one hundred statues to populate this new statuary park honoring the greatest Americans of all time.” He will “ask America's great religious communities to pray for our nation and our people as we prepare for this momentous occasion. From the very beginning, America has been a country sustained and strengthened by prayer and by our communities of faith. As we chart a course toward the next 250 years, let us come together and rededicate ourselves as one nation under God.”

America's First Centennial Celebration

In his May 31 video, Trump announces that one of the key objectives of Salute to America will be to “put forth innovative visions for America's future.” With that injunction in mind, what is offered here, by this author, is a proposal to the members of the task force that Trump will appoint to organize the events of America's 250th birthday. It is a request that those who will be tasked to organize the 2025-2026 festivities first begin by studying the celebration that was held in 1876, on the occasion of the 100th anniversary of the signing of the Declaration of Independence.

That event is known today as the 1876 Philadelphia Centennial Exposition, although at the time its official title was the International Exhibition of Arts, Manufactures, and Products of the Soil and Mine. Although the exhibition did not run for the full year that Trump is proposing for 2025-2026, its doors were open for a full six months, from May 10 to November 10, 1876, with a special celebration on July 4th. 186,272 people attended the Exposition on the first day, and over the course of six months, close to 10 million people traveled to Philadelphia for the celebration (this would be the equivalent of 70 million today). Attendance peaked on September 28, when 275,000 visited the Exhibition on a single day.

At first most of the attendees came from the Northeast, but by autumn, hundreds of thousands arrived by rail and steamboat from all over the nation, including Texas, Florida, California, and Oregon. An estimated 22,917 trains would ultimately carry millions of passengers to the Exposition. Nothing like it had ever been witnessed before.

What the organizers of the Exposition consciously set out to do was to demonstrate what a free people can accomplish in advancing the human condition. No longer shackled by the oligarchical systems of

Europe, free people were able to think, to invent, to act—to consciously and deliberately create a better future.

The Transcontinental Railroad had been completed only seven years earlier, in 1869, but this stupendous accomplishment was only the tip of the iceberg in the economic advancement that was unfolding. In the fourteen years leading up to the 1876 Exposition, Abraham Lincoln's Greenback Policy had been in effect. Lincoln's National Banking System had also been operational since 1863, and high tariffs had been in effect since the passage of the Morrill Tariff in 1861. These American System policies of National Credit and Protectionism had created the greatest industrial and scientific revolution—and the greatest advancement in human productivity—in human history.

Grant sets the Stage

On May 10, President Ulysses Grant opened the Exposition with the following remarks:

“My countrymen – It has been thought appropriate upon this Centennial occasion to bring together in Philadelphia, for popular inspection, specimens of our attainments in the industrial and fine arts, and in literature, science, and philosophy, as well as in the great business of agriculture and of commerce. That we may the more thoroughly appreciate the excellencies and deficiencies of our achievements, and also give emphatic expression to our earnest desire to cultivate the friendship of our fellow-members of this great family of nations, the enlightened agricultural, commercial, and manufacturing people of the world have been invited to send hither corresponding specimens of their skill to exhibit on equal terms in friendly competition with our own. . . .

“One hundred years ago our country was new and but partially settled. Our necessities have compelled us to chiefly expend our means and time in felling forests, subduing prairies, building dwellings, factories, ships, docks, warehouses, roads, canals, machinery, etc. etc. Most of our schools, churches, libraries, and asylums have been established within a hundred years. Burdened by these great primal works of necessity, which could not be delayed, we have done what this Exhibition will show in the direction of rivaling older and more advanced nations in law, medicine, and theology, in science, literature, philosophy, and the fine arts. Whilst proud of what we have done, we regret that we have not done more. Our achievements have been great enough, however, to make it easy for our people to acknowledge superior merit wherever found.

“And now, fellow-citizens, I hope a careful examination of what is about to be exhibited to you will not only inspire you with a profound respect for the skill and taste of our friends from other nations, but also satisfy you with the attainments made by our own people during the past one hundred years. . . .”

At the Exposition

The grounds of the Exposition contained five major buildings: the Main Exhibition Building, Memorial Hall (Art Gallery), Machinery Hall, Agricultural Hall, and Horticultural Hall.

- The Main Exhibition Building was the largest. At 1,880 feet in length, it was longer than 6 football fields, and it occupied 21 acres. It was the largest building in the world. The sheer number of displays (more than 30,000 businesses exhibited) was staggering.
- Machinery Hall was the second largest structure. It was 1,402 ft long, 360 ft wide and occupied 558,440 square feet. Every conceivable type of machinery and tool was on display, most making their first appearance. It was a showcase for state-of-the-art industrial technology.
- Memorial Hall was devoted entirely to the arts and designed as a permanent art museum, while Agricultural Hall, and Horticultural Hall were each devoted to the creative and scientific breakthroughs related to their specific fields, again with thousands of exhibits.

In addition to the main halls, there were over 250 other buildings, with the total Exposition covering 285 acres, larger than today's New York Botanical Garden.

The Exhibition was an international affair, and almost 50 nations had their own pavilions, including Brazil, Japan, Sweden, Chile, Turkey, Spain, Great Britain, France, Germany, Switzerland, and Portugal. Almost two-thirds of the individual U.S. states also had their own exhibits, and individual "state days" were organized to celebrate what each state had contributed to the Union.

The most impressive building on the fairgrounds was Machinery Hall. The huge glass and iron structure contained miles of overhead belts and pulleys for driving steam-powered line shafts. There were 8,000 operating machines in the 14-acre building. These were all powered by the 1,400-horsepower Corliss steam engine, built by the George H. Corliss Co. of Providence, R.I. The 70-foot-tall machine weighed more than 650 tons and was the largest steam engine ever built.

An anonymous participant at the Exposition expressed this view upon seeing the Corliss Engine:

"The Corliss Engine was the centerpiece of the 1876 Exhibition. Its gigantic size and power had an awesome impact, not only on those who viewed its operation in person, but, like the thunderous earth-shaking eruption of Krakatoa, it pronounced the ascendancy of the United States of America to the position of being the world's leading industrial power. It was the figurative and literal representation of the success of the American System of political economy. It was the dawning of a new era where the reliance on the brutish muscle-power of human beings and animals would be replaced by the inventions of the mind."

Another center of attention was the 30-foot-tall, completed arm and hand bearing the "torch of liberty." At the completion of the Centennial Exposition, it would be shipped to New York to complete the construction of the Statue of Liberty. The world's first monorail—the Centennial Monorail—was also built for the Exposition, with a steam locomotive and passenger cars traveling from building to building.

Thousands of new inventions were showcased, many of which the inventors had rushed to complete and then loaded on a railroad car or steamboat to take to Philadelphia. While celebrating America's first 100 years, the Exhibition represented the dawn of a productive and prosperous future.

Alexander Graham Bell's first telephone was set up at opposite ends of Machinery Hall, amazing those who spoke over it. Thomas Edison's Quadruplex Telegraph, capable of transmitting four messages simultaneously over a single telegraph wire, won for him the Centennial Award for best new invention. Guests were allowed to try out the first Remington typewriter, and the Wallace-Farmer Electric Dynamo, the precursor to electric light, was operational, generating artificial daylight. The first internal combustion engine, invented by George Brayton, was also demonstrated. John A. Roebling & Sons Company displayed a slice of their 5 ¾ inch diameter cable to be used for the construction of the Brooklyn Bridge. This was a revolutionary cable, covered with Zinc and with a strength of 160,000 pounds per square inch. Baldwin Locomotives had a large exhibit featuring breakthrough designs in railroad technology. In the years following the Exposition, Baldwin locomotive engines would be shipped to China, Australia, Japan, Russia, Brazil, Mexico, and elsewhere.

Advanced machine tools, air-powered tools (compressors and pumps), screw-cutting machines, grinding machines, metal-working tools, valves, wheels and axles, stoves, wagons, carriages, lanterns and sewing machines were on display. The Agricultural Hall featured new types of harvesters, reapers, and other agricultural equipment as well as new types of disease resistant, high yield crops. Even new consumer food products, such as Heinz ketchup, Hires root beer and popcorn were introduced to the public.

All these inventions and machines were displayed by the companies or individuals creating them. In a

sense they were marketing their wares, and by the time the Exposition ended thousands of orders had been placed, including for the Corliss Steam Engine which was promptly purchased by the Pullman Company to power their main factory in Chicago. It was an explosion of American ingenuity. George Eastman and George Westinghouse both attended the Exposition, as did the father of Henry Ford. By 1880, only four years after the Centennial Exposition, more than 10,000 new U.S. patents were issued for a wide variety of machines and devices.

Henry Carey, the great American economist attended and offered his new pamphlet, *Commerce, Christianity, and Civilization, Versus British Free Trade*, (a.k.a., “Letters in Reply to the London Times”) to the public.

One foreign visitor to the Centennial Exhibition was the 29-year-old Dmitri Mendeleev, later to become famous for his revolutionary work on the development of the “Periodic Table” of elements. Another was Emil Rathenau, who later formed a partnership with Thomas Edison and founded the Edison Electric Company in Germany, which illuminated Berlin and revolutionized German industry.

Honor the Past; Build the Future

Imagine the impact today if only a fraction of what was attempted at Philadelphia in 1876 were to become a primary theme for the 2026 national Salute to America. Trump proposes to invite thousands of high school athletes to compete in a series of Patriot Games, allowing “young Americans from every state to show off the best of American skill, sportsmanship, and competitive spirit.” This is laudable. But what if we were to add to this another invitation, one to tens of thousands of high school students to participate in a national Science Fair, to demonstrate their excellence in scientific investigations. Imagine the creative energies this might spark.

Similarly, coherent with the 1876 exhibitions at Machinery Hall, why not invite hundreds—if not thousands—of American companies and individual inventors and entrepreneurs to display and demonstrate their wares? Donald Trump has proposed to build 10 new cities, each of about 750,000 people, and to build these cities with the most advanced technology available. Would it not be educational and inspirational to present some of this work-in-progress to the American people in 2026? To show how we intend to build our nation into the future?

Other areas of important technological and manufacturing development might be presented, including 3-D printing, flying cars or “Advanced Urban Air Mobility,” the production of artificial human organs, quantum computing, photonics, robotics, low pressure tunnel and tube Maglev human transport at speeds faster than current jet aircraft, supersonic and hypersonic commercial passenger aircraft, and much more.

An entire pavilion could be devoted to the latest advancements in both compact and large-scale fission and fusion reactor systems.

Most important—it really deserves its own Hall—would be a multifaceted presentation, devoted to the exploration and settlement of our solar system, including efficient, reliable, and reusable transport to the surface of the Moon), as well as the challenge of settlement of both the Moon and Mars. Such exhibits could include offerings from major corporations, such as SpaceX, but also projects dreamed up by some of America’s high school young scientists.

The intention should be, as in 1876, to demonstrate to the citizenry what is possible, the future that can be built, in which all will have the opportunity to participate, all will benefit. Such is a fitting way to celebrate America’s 250th birthday.