

California Water and Infrastructure Report

Formerly, the "California Drought (and Flood) Update"

For January 31, 2019 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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There is another side to the trade balance, which is not the current account balance but the capital account. This means that there could be Chinese investments in the United States, for instance, in infrastructure. The Chinese showed that they are very good at this and the U.S. needs it. That is a capital flow too, which could go from the East to the West, and if you put together trade account and capital account, this can move towards parity as a target.

Italian Undersecretary of State for Economic Development Michele Geraci

A Note To Readers

Since the government remains paralyzed, even though the shut-down is over, at least for a couple of more weeks, President Trump's infrastructure building policy, which even the Democrats at least give lip-service to, is not even on the agenda.

Meanwhile, the southwest of the country continues to slide toward a full-blown disaster as the Colorado River shows no signs of a revival of an adequate flow of water to be able to sustain 40 million people in the years ahead. Today the state of Arizona was to pass the legislation approving the Drought Contingency Plan of the seven states that are dependent on the Colorado. That plan is nothing but a rationing plan that all agree on. If Arizona does not approve the plan, then the Bureau of

Reclamation Commissioner Brenda Burman will impose her own plan, which some definitely will not like, especially Arizona, which is at the end of the line for which states get water first.

This did not have to happen. Members of Congress, presidential candidate Robert Kennedy and many others in the late 1960s promoted the building of the *North American Water and Power Alliance* (NAWAPA). That project, had it been built when it was so presented, would have provided today not only the water the southwest now requires, but also done so for the mid-west states, the Canadian prairies and Mexico. Yes, I know I have said this before, but sometimes one must repeat the lesson for the student in order for it to sink in. More on NAWAPA next week.

In this week's report:

We begin with reports that celebrate that the snowpack and the reservoirs have reached their average levels for this time of the year. That is kind of funny-- there really are not that many things that are praised for just being average. But, it has been some time since California has seen the extent of drought in the state rapidly decline and the supply of water in the reservoirs being as high as they are now, and even a snowpack that looks almost healthy. The snowpack, if you will recall, provides about 30 percent of the water used in the state, especially later in the summer.

We have a brief report on the Colorado Drought Contingency Plan, and I am sure there will be more next week.

Then the fall-out of the PG&E bankruptcy filing that occurred as scheduled on January 29. The hedge funds, some of which bought millions of shares of PG&E stock just before the Camp Fire in November, are loudly crying as they count up their hundreds of millions of dollars of loss as the stock prices have fallen about 80 percent.

But, there are more than just crying speculators who are getting the shaft. Of course, PG&E, itself a felon with at least two counts against it, remains in a real and serious crisis. In addition, victims of wildfires caused by PG&E's equipment are considered to be unsecured creditors, meaning their legal claims in bankruptcy get paid after secured lenders such as banks, and even after financial analysts and bankruptcy lawyers expected to charge hundreds of millions of dollars, already PG&E has suspended payments to some they settled with from a 2015 fire in the Sierras. And, most likely, electricity rates will rise, maybe dramatically so, some, like pot growers may not be able to stay in business. Oh, what a tragedy!

Infrastructure includes the necessary inputs required for agricultural productivity, so this report comes next: "Anti-Population Lobby Targets Agriculture Chemicals, Alleges Glyphosate Causes Cancer."

Some in California have had their minds deranged a little by the completely incompetent high-speed rail system being built, or maybe, not being built. Competent and necessary high-speed rail construction and operations have been mastered by Japan, China, and others. And their systems are constantly being expanded and upgraded. Japan will soon be running a train that will cruise at 360 kilometers per hour. Currently, Japanese high-speed trains run at about 100 km less than that. Japan is also preparing to put into operation magnetic levitation trains, and they will run at 603 kph (375 mph).

The full report on Italian Undersecretary of State for Economic Development, Michele Geraci's proposed policy completes our updates for this week.

The Feature is the ongoing class series on the principles of real economics presented by LaRouche PAC.

The Drought, the Snowpack, the Reservoirs and El Nino

Drought conditions evaporate across state in a week

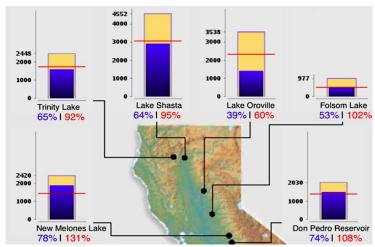
Weekend storm to bring more rain and snow as reservoirs fill

By Adam Brinklow

Jan 31, 2019

https://sf.curbed.com/2019/1/31/18205329/drought-map-nws-storms-norcal-weather-winter-storm-

watch



California Reservoirs

Northern California's wet and windy winter has pushed fears of resurgent drought to the back of minds; however, until recently, a majority of the state was still classified in the grips of what the U.S. Drought Monitor dubbed a "moderate drought."

That changed with a <u>new drought map</u> released Thursday, which revealed that the affected area around the state has declined by more than two-thirds in only one week.

The previous map showed more than 77 percent of California in the midst of at least "moderate drought." The new map cuts that area down to approximately 23 percent.

According to <u>data released</u> by the California Department of Water Resources, six of the state's major reservoirs are at 100 percent or more of their seasonal average, with four more at least 90 percent of the way there.

Under the new assessment, most of the state (more than 76 percent) still qualifies as "abnormally dry," but the area experiencing more or less normal conditions now includes San Francisco and most of the Bay Area.

January Storms Boost California's Snowpack to 98 Percent of Average - California Snowpack Holds More Water than Last Year

Published: Jan 31, 2019

California Department of Water Resources

https://water.ca.gov/News/News-Releases/2019/January/January-31-2019-Snow-Survey

SACRAMENTO, Calif. – Today, the Department of Water Resources (DWR) conducted the second

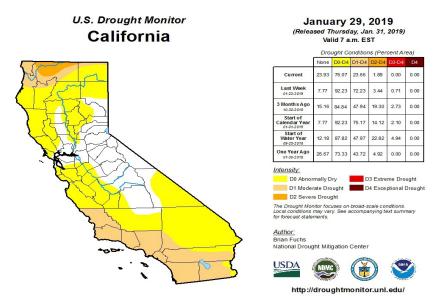
Phillips Station snow survey of 2019. The manual survey recorded 50 inches of snow depth and a snow water equivalent (SWE) of 18 inches, which is 71 percent of average for this location. Statewide, the Sierra snowpack is 98 percent of average.

By comparison, on February 1, 2018 measurements at Phillips Station revealed a SWE of 2.6 inches, only 14 percent of the early-February average. And last year at this time, measurements at this location were at 30% percent of average.

"The snowpack across California is on par with the historical average for this time of year, thanks in no small part to an atmospheric river that brought heavy snowstorms to the Sierra Nevada. Typically, California relies on a handful of large storms like we saw earlier this year." said DWR Director Karla Nemeth. "It's a start, but the next two or three months will determine what it means for our reservoirs and overall water supply."

On average, the Sierra snowpack supplies about 30 percent of California's water needs as it melts in the spring and early summer to meet water demands in the summer and fall.

U.S. Drought Monitor



As several articles today make the point, in one week the extent of drought in California has dropped dramatically. Moderate Drought or more severe categories dropped from 72 percent of the state to 24 percent of the state. Severe and Extreme Drought levels became almost negligible.

So Far, El Niño Winter Brings Lessened Snowpack, Water Worries To Northwest

By <u>Anna King</u> • Jan 29, 2019

<u>http://www.nwnewsnetwork.org/post/so-far-el-ni-o-winter-brings-lessened-snowpack-water-worries-northwest</u>

As of late January 2019, much of the Washington snowpack was under historical averages.

<u>This warm El Niño winter</u> in the region is worrying water managers and farmers. Many Washington and Oregon reservoirs aren't filling up like they should, and snowpack levels are below average in many areas.

In Oregon, snowpack near Mt. Hood is 50 percent of normal. A little better at 70 percent of normal

statewide. Some reservoirs in Eastern Oregon are at, or below 38 percent.

In Washington, snowpack is around 79 percent of normal -- which could be bad news for spring crops.

But much of the Northwest is already feeling drought conditions. Ninety percent of Oregon is in either extreme or severe drought. In Washington, more than half the state is abnormally dry, mostly east of the Cascades.

Washington and Oregon water managers say there is still some time for large snow storms to turn around the situation. But <u>long-term forecasts from NOAA</u> predict warmer-than-normal conditions through spring, so it's unlikely.

On The Colorado



Colorado River drought plan takes another step at Arizona Legislature; final vote **Thursday**

Andrew Nicla and Dustin Gardiner

Arizona Republic

Jan. 30, 2019

https://www.azcentral.com/story/news/politics/legislature/2019/01/30/arizona-legislature-poisedapprove-drought-contingency-plan/2723051002/

Arizona lawmakers appear on track to pass a Colorado River drought plan, with less than 30 hours to go before a critical federal deadline.

A state Senate committee voted 6-1 Wednesday evening to pass a pair of measures that outline how the state would share looming cutbacks on the river's water and work with other states to take less.

The bills now head to the full Senate and House. Both chambers are expected to pass the bills Thursday, an effort that could stretch into the night as they rush to meet a federal deadline.

Arizona is the last state to sign onto the Drought Contingency Plan, the intrastate agreement to keep Lake Mead levels from plunging to critical levels.

Bureau of Reclamation Commissioner Brenda Burman gave Arizona and other states until midnight Thursday to act or she said she would step in and decide what cuts would be necessary to prevent reservoir levels from falling even further.

If Arizona fails to act, the Bureau of Reclamation will divvy up those cuts, which could add up to more than the 700,000 acre-feet over a seven-year period the state would lose under the existing plan.

PG&E: As the Man Said—Aieeeee!

PG&E, owner of biggest U.S. power utility, files for bankruptcy

By Subrat Patnaik

January 29, 2019

https://www.reuters.com/article/us-pg-e-us-bankruptcy/pge-corp-files-for-chapter-11-bankruptcy-protection-idUSKCN1PN0PX

• (Reuters) - Power provider PG&E Corp filed for voluntary Chapter 11 bankruptcy protection on Tuesday, succumbing to liabilities stemming from wildfires in Northern California in 2017 and 2018.

The owner of the biggest U.S. power utility has filed a motion seeking court approval for a \$5.5 billion debtor-in-possession financing, it said in a statement.

PG&E listed assets of \$71.39 billion and liabilities of \$51.69 billion, in a court document filed in the U.S. Bankruptcy Court for the Northern District of California.

PG&E Faces Judge's Wrath on Fire Prevention Failures

A federal judge overseeing criminal probation could force the utility into massive changes in procedures with the goal of "zero fires" this year.

<u>Jeff St. John</u> January 31, 2019

https://www.greentechmedia.com/articles/read/pge-faces-judges-wrath-on-fire-prevention-failures#gs.gakEOYPG

"Does the judge just turn a blind eye and say, 'PG&E, continue your business as usual, kill more people by starting more fires?"

Pacific Gas & Electric, which filed for Chapter 11 <u>bankruptcy protection</u> this week and faces the threat of being broken up by California regulators, now has an additional worry: satisfying the "zero fires" goals of the federal judge overseeing its criminal probation.

On Wednesday, U.S. District Court Judge William Alsup, who oversees PG&E's criminal probation for its role in the 2010 San Bruno natural-gas pipeline disaster, found the utility in violation of its probation agreement, due to a failure to report its out-of-court \$1.5 million settlement with Butte County over its role in the 2017 Honey Fire.

It's a relatively minor violation, compared to the billions in potential liabilities that PG&E says it faces from its role in starting some of the state's deadliest wildfires in 2017 and 2018.

But the remedy being proposed by Alsup is an <u>extreme one</u>: to inspect and clear vegetation from every mile of PG&E's power grid by the start of this year's fire season in July, or be forced to turn off power to large portions of the grid when weather, wind, temperatures and local vegetation conditions add up to high fire risk.

PG&E's Exoneration From Fire Seen as Too Little, Too Late

Mark Chediak <u>Bloomberg</u> January 25, 2019

https://finance.yahoo.com/news/pg-e-apos-exoneration-deadly-025314234.html

(Bloomberg) -- California has cleared PG&E Corp. of responsibility for one of the deadliest blazes in its history. And that still probably won't be enough to prevent the state's largest utility from going bankrupt as it faces billions of dollars in wildfire liabilities.

The state's finding that PG&E's equipment isn't responsible for the Tubbs fire, which tore through wine country in 2017, may slash the company's estimated \$30 billion in liabilities, but not by enough to offset damages from other fires and mounting lawsuits, analysts said. PG&E itself said it still faces "significant costs," and it's continuing to plan for a bankruptcy filing as soon as next week, according to people familiar with the matter.

California Governor Gavin Newsom estimated that the finding would reduce the utility's projected liabilities by as much as \$17 billion, an amount he stressed "isn't insignificant." But he also said a Chapter 11 filing is up to PG&E, not the state, a sign that he won't step in even after the government removed a big overhang for the company.

The Tubbs fire was the most destructive in state history until November's Camp fire, which killed 86 people and is suspected of having been started by PG&E equipment. Even with Thursday's rally, the company's shares have plunged more than 70 percent since that blaze began as Wall Street bet that liabilities will push it into insolvency. It's a collapse that has already reduced some of its power suppliers' credit to junk, sent shares of other California utilities falling and put the state's bonds under scrutiny.

Moody's Investors Service, which cut PG&E's rating to junk earlier this month, said Thursday that the Tubbs fire finding doesn't change its assessment of the company.

"PG&E's numerous regulatory, legislative and credit challenges are largely unchanged and we still expect them to file for Chapter 11 bankruptcy protection in the next few days," Moody's analyst Jeff Cassella said in a statement.

Analysts said the reduction in liabilities was less than Newsom's estimate. "This has the potential to lower the \$30 billion in fire claims down to the low \$20 billion range," said Andy DeVries, an analyst at CreditSights. He described the Tubbs fire finding as "a real game changer" that begs the question of whether the company still need to file for bankruptcy.

PG&E Erases Settlements With Fire Victims Ahead of Bankruptcy

By <u>Joel Rosenblatt</u> January 28, 2019 https://www.bloomberg.com/news/articles/2019-01-28/pg-e-erases-settlements-with-fire-victims-ahead-of-bankruptcy

- Utility is skipping payments to homeowners in 2015 Butte Fire
- Families with accords now headed to rear of line of creditors

As <u>PG&E Corp.</u> prepares to file for bankruptcy, victims of wildfires are getting a preview of how they're likely to be treated as the utility reorganizes -- harshly.

Ahead of an expected filing for Chapter 11 protection this week, the company is skipping payments it agreed to make to people whose property was destroyed in a 2015 blaze in the Sierra Nevada foothills caused by a tree falling on a power line that officials have blamed on the utility.

So far, California's largest investor-owned utility has failed to make payments of about \$1.5 million to four families whose properties were destroyed by the Butte fire, and appears prepared to turn its back on at least another seven settlement agreements worth about \$2.5 million, according to plaintiffs' lawyer Amanda Riddle.

The utility explained to a judge in a Jan. 23 letter that money is too tight now to commit to honoring the settlements -- two days before PG&E <u>said</u> its board approved a \$75,000 raise for its senior vice president of gas operations.

"They have wildfire victims who've been through litigation, went through a mediation, negotiated a settlement, reached an agreement with PG&E and are ready to be paid," Riddle said. "And PG&E refuses to pay them."

Victims of wildfires caused by PG&E's equipment are unsecured creditors, meaning their legal claims in bankruptcy get paid after secured lenders such as banks, and even after financial analysts and bankruptcy lawyers expected to charge hundreds of millions of dollars.

Until the company files for bankruptcy, Tayback wrote, "PG&E hopes and expects that it will be able to make payments as they come due, including contractual obligations such as settlement agreements."

"However, PG&E faces liquidity problems," and is prioritizing payments to deliver gas and electricity, the lawyer added. "As a result of all these factors, PG&E cannot commit to pay one potential creditor over any other in the days prior to filing for bankruptcy."

Under federal law, PG&E's bankruptcy filing would automatically put on hold thousands of claims by fire victims filed in California courts. In that scenario, the Butte fire cases would be lumped with all fire victims fighting it out against other unsecured creditors, such as bondholders, to extract a recovery from the utility.

As bankruptcy looms, PG&E will walk away from two dams it owns. What about the other 167?

By Ryan Sabalow and Dale Kasler

January 25, 2019

https://www.sacbee.com/latest-news/article225102345.html

With <u>bankruptcy looming</u>, Pacific Gas and Electric Co. is citing "challenging financial circumstances" as one of the reasons why it's backing off from renewing its federal license for two of its hydroelectric dams. The move raises a fresh set of questions about how the company plans to maintain its aging network of 169 hydroelectric dams in California amid its financial crisis.

PG&E told the Federal Energy Regulatory Commission (FERC) on Friday that it would no longer try to renew the license for its Potter Valley Hydroelectric Project on the Eel River in Mendocino and Lake counties.

"Regrettably, continued declining energy markets, potential increased costs associated with anticipated license conditions and challenging financial circumstances have caused PG&E to conclude it cannot justify further expenditures to its ratepayers associated with the project," the utility said in its letter to FERC.

PG&E spokesman Paul Moreno said the pending Chapter 11 bankruptcy proceedings, expected to be filed next week, had little to do with the decision to walk away from the project. He said the company announced it was putting the project up for sale in September.

"We've been for quite a while divesting some hydro assets, either through direct sales or through an auction process," he said. "(Bankruptcy) underscores the decision but was not the primary cause."

PG&E's Financial Woes Will Decimate California's "Green" Industries

Northern California-based renewable-energy providers and marijuana growers are suddenly in big trouble.

Sean Williams Jan 28, 2019

https://www.fool.com/investing/2019/01/28/pges-financial-woes-will-decimate-californias-gree.aspx

PG&E"s financial woes could turn California's "green" industries into rubble

While it might seem as if the ramifications from PG&E's financial woes are confined to it, its shareholders, and the unfortunate residents affected by these fires over the past two years, I can assure you there are almost certainly going to be other "casualties." In particular, Northern California's "green" industries could be nothing short of decimated as a result of PG&E's problems.

For starters, renewable-energy companies <u>would be expected to take it on the chin</u>. Aside from simply affording itself some liability leniency with a bankruptcy filing, PG&E should be able to break and then renegotiate its contracts with electricity suppliers. The result would be significantly lower electricity costs for PG&E.

The problem is that solar and wind producers benefit from the gap in costs that utilities such as PG&E pay versus the notably lower expenses solar and wind producers contend with. If PG&E is able to renegotiate its contracts, it would almost certainly mean less money for renewable-energy providers. These solar and wind providers often carry quite a bit of debt to get their renewable projects off the ground, meaning lower rates could doom their business model.

But it also would mean serious <u>problems for California's other green industry</u>: marijuana.

The Emerald Triangle, consisting of Humboldt, Mendocino, and Trinity counties, is the top cannabis-producing region in the entire country. That's meaningful for one reason: Cannabis plants require a lot of electricity to grow. These are plants that yield optimally in climate- and light-controlled environments, and that means growers often turn to the predictable yields of high-pressure sodium (HPS) bulbs, which are relatively inexpensive to buy but create a lot of heat and devour plenty of electricity. The heat created from these bulbs often requires the use of a cooling system, which further

adds to electricity costs.

Now, facing a considerably larger liability, PG&E has suggested that electric rates could move substantially higher for its 16 million customers. For marijuana growers that could be a gamechanger, or a game-ender.

California's legal pot industry is already facing the <u>highest aggregate tax in the country</u>, which in some locales could approach as much as 45%. Tacking on significantly higher electricity costs in Northern California would probably drive consumers back to the black market, costing the state valuable tax revenue dollars, and putting Northern-based growers out of business.

Elliott's Arrival Shows Just How Friendless PG&E Is

With few options available, the utility's rescue won't come cheap.

By Liam Denning

January 28, 2019, 1:11 PM PST

https://www.bloomberg.com/opinion/articles/2019-01-28/pg-e-elliott-s-arrival-shows-how-friendless-it-is

Here come the hedge funds.

In case you hadn't realized PG&E Corp.'s financial distress will end up costing Californians a bundle, Elliott Management Corp. just showed up.

The activist fund manager has pulled together a consortium offering \$4 billion of funding aimed ostensibly at keeping PG&E out of bankruptcy, as <u>reported</u> by Bloomberg News Monday. While likely structured as a secured loan with an option to convert into equity down the line, terms are undisclosed for now.

PG&E and the various stakeholders around it are now in the financial equivalent of the Twilight Zone. The coincidence of there being a brand-new California governor, with PG&E facing huge historical liabilities and potentially huge future ones due to chronic wildfire risk, left the company all but uninvestable as 2019 kicked off. A peculiar state requirement that PG&E give a couple of weeks notice of potentially filing for Chapter 11 provided an added twist, putting the company in a weird state of pre-bankruptcy.

Hedge funds have lost hundreds of millions on PG&E stock bets

By Julia La Roche Yahoo Finance January 29, 2019

https://finance.yahoo.com/news/hedge-fund-pge-losses-160917499.html

A number of big-name hedge funds have lost hundreds of millions on investments in PG&E stock.

On Tuesday, PG&E (<u>PCG</u>), the California-based energy and utility giant, <u>filed for chapter 11</u> <u>bankruptcy</u> following the massive liabilities the power provider faces in the wake of the wildfires. Shares of PG&E were about 5% in early trading.

Famed value investor Seth Klarman, the founder of Boston-based Baupost Group, is the largest hedge fund shareholder of PG&E and has seen his position decline 74% in the last few months.

In a letter to investors sent last week, Klarman explained that the fund purchased PG&E right before

the stock "slumped badly" on "tragic developments that led to financial distress." He added that the fund remained a holder.

During the third quarter, Baupost snapped up 14.48 million shares to hold a total 18.98 million shares of the power provider. At the end of the third quarter, the position was valued at \$873.26 million. The current market value is \$227.95 million, a decline of \$645.31 million, a nearly 74% decline.

Other possible hedge fund losers on the stock include Hound Partners and Viking Global Investors, so-called "Tiger Cub" hedge funds that started with seed capital from Julian Robertson, the legendary hedge fund manager. Hound and Viking have seen their positions — assuming they haven't changed — drop from \$307 million at the end of the third quarter to \$80.16 million and from \$263.5 million at the quarter end to \$68.79 million, respectively. Both of those funds initiated new positions in PG&E during the third quarter of 2018.

Hysterics Must Not Rule

Anti-Population Lobby Targets Agriculture Chemicals, Alleges Glyphosate Causes Cancer

Jan. 29 (EIRNS)—The mutant zero population growth lobby has succeeded in stirring up a wave of know-nothing hysteria against the herbicide chemical widely used in farming and in lawn upkeep, and effective against drug plants—coca, poppy, and marijuana—by claiming it causes cancer.

At present, there are an estimated 10,500 filings in U.S. courts by plaintiffs seeking damages from, mostly, the first patent-holder on glyphosate, Monsanto—since June 2018 owned by the German firm Bayer AG. The Bayer products are still marketed under their original brand names Round-Up and Round-Up Pro. The plaintiffs claim they got cancer. Bayer says it will fight the false charges. Law firms are trolling the country, on late night TV ads and social networking, for more potential litigants.

Prominent players in the anti-glyphosate and anti-farm chemical movement are the ultra-greenie Environmental Working Group (EWG) and Pesticide Action Network (PAN), operating since the 1990s, with multi-millions in funding, to demand "chemical free," and "organic" lifestyles, and the banning of pesticides, herbicides, nuclear power, and advanced technologies in general.

The stampede into the courts was kicked off in August 2018, after a California jury awarded a \$289 million settlement of damages (\$39.25 million) and punishment (\$250 million) against Bayer (Monsanto,) to a school district groundskeeper, who said he got cancer from using their product over a two-year period. Science experts testified on both sides. Upon appeal by Bayer, a judge decreased the punitive damages down to \$39.25 million, in October, bringing the total award down to \$78.5 million. But the judge let the jury verdict stand, which Bayer is continuing to appeal.

Meantime, the propaganda machines have worked overtime. Within five days of the August anti-Bayer decision, the EWG issued a paper charging that the Food and Drug Administration was soft on glyphosate contamination in U.S. food. They churned out scare stories, including that harm from trace glyphosate was found in General Mills' Cheerios, and Kellogg's popular cereal brands.

In Europe, French President Emmanuel Macron got on the bandwagon, and said last fall that France would totally ban glyphosate by 2020. After an uproar from farmers, French Agriculture Minister Didier Guillaume walked Macron's decree back on Jan. 25. He said that by 2021, France hoped to have an 80% reduction in glyphosate use. Since, however, a Lyon judge has issued a ban on glyphosate

Glyphosate is a substance that has allowed the world to increase crops yields and feed the world, showing a very low toxicity for man. It penetrates the ground very little and is degraded by natural bacteria.

Relevant national agencies in Europe and the U.S. consider glyphosate safe, when used properly. But the World Health Organization-associated International Agency for Research on Cancer said in 2015, the chemical is "probably" carcinogenic, following which California's Office of Environmental Health Hazard Assessment has put the chemical on its list ("Proposition 65") of products as allegedly known to cause cancer.

Three points are essential for an overview. First, the chemical glyphosate itself, initially identified as a herbicide in 1970, is no more toxic than scores of others serving beneficial purposes of killing weeds or preserving food.

Secondly, on Monsanto: That company deserves its infamy, given its terrible treatment of farmers and the public. (Bayer is getting rid of the Monsanto name.) But the crimes of Monsanto and cohort firms in the chemical and genetics cartel (Cargill, Dow/DuPont/Pioneer, Bayer Crop Science, BASF, Syngenta, etc.) are not in developing new scientific methods and results, such as new chemicals, weed-killer tolerant crop varieties, or genetically-improved seeds. They are guilty of monopoly powers over these advances, which governments granted them as a core part of the last half-century of deregulation. The cartels even hold patent rights over living matter, such as human disease genes and plant life.

Finally, Round-Up tolerant food crops (e.g., Round-Up Ready soybeans, and many others) are being used successfully and safely by many farmers. An estimated 25% of U.S. corn cultivation utilizes glyphosate. Currently, glyphosate is the most widely used herbicide in the world. Use of crop chemicals, fertilizers, and pesticides is a matter for science and agronomy, not green histrionics.

Japan To Test Its Next Generation Shinkansen 'Bullet' Train, and Working on Maglev

Jan. 7 (EIRNS)—Japan is to test the newest generation of its Shinkansen bullet train. Shin Kaneko, president of Central Japan Railway (JR Central), one of five bullet train operators in Japan, announced the testing of the new N700S Shinkansen at speeds of up to 360 kph this year, according to a report by the Japan Times and Sputnik.

The new trains are expected to begin operating on the Tokaido Shinkansen line, which links Shin-Osaka Station and Tokyo Station, in 2020, and will operate at 360 kph. Current bullet trains operate at a maximum speed of 285 kph.

"We aim to carry out test runs at 360 kph this year so that we can demonstrate safety when we export the train to such markets as the United States and Taiwan," Kaneko stated, cited by the Japan Times. Kaneko detailed that earlier test runs of the next-generation N700S bullet train ran at maximum speeds of 330 kph.

Kaneko also confirmed that construction for the maglev route had begun. "We have secured more than 50% of land needed for the maglev work on the west side of Nagoya Station, and are now in talks with landowners for the east side of the station, [and] we'll continue making all-out efforts," he said.

Japan's magnetic levitation, which requires no wheels on rail track, is capable of traveling up to 603 kph (375 mph), according to current tests. It will first connect Tokyo to Nagoya, in 2027, then on to Osaka by 2045.

Italian Minister Geraci Encourages China To Build Infrastructure in the United States

Jan. 25 (EIRNS)—In an interview with Class-NCBC TV on Jan. 23, Italian Undersecretary of State for Economic Development Michele Geraci promoted the same proposal as that made by the Schiller Institute, that a solution for U.S.-China trade imbalances could be Chinese investments in U.S. infrastructure. Geraci also explained, in an excellent way, why Italy seeks cooperation with China to develop Africa.

Asked about the positive turn in the U.S.-Chinese trade dispute, Geraci said: "Tariffs have always been used as a tactical tool in order to put some negotiating chips on the table, but I never believed that either the U.S.A., China, or even Europe could use tariffs in a permanent way, to go back to autarky, as in the past. Therefore, the latest news is welcome and, let's remember, this comes after the 'moratorium' on tariffs [announced] at the beginning of the year. Thus, slowly, rationality prevails and confirms that it is more a question of temporary tactics, in order to achieve some concessions from one's trade partner."

Geraci then expressed his wish that other countries follow the same path of "reducing abnormal trade surpluses," clearly referring to Germany. What is key, he said, is the will to rebalance the bilateral balance of trade. It can be done in different ways: "There could be agreements—I am thinking of the production of U.S. aircraft which China needs for its increased commercial air traffic. This could be a first step that certainly won't reduce the deficit by \$300 billion, but look: There is another side to the trade balance, which is not the current account balance but the capital account. This means that there could be Chinese investments in the United States, for instance, in infrastructure. The Chinese showed that they are very good at this and the U.S. needs it. That is a capital flow too, which could go from the East to the West, and if you put together trade account and capital account, this can move towards parity as a target. However, a reduction of the trade deficit would be an excellent signal for everyone, for the U.S. and for China as well, because ultimately, China needs things that the U.S. produces."

On Africa, Geraci stressed that "the real way to solve the migration problem is to create conditions for Africa to have a sustainable economic and social development." The real problem is not "the few thousands" of migrants now, but "the 20 million youth" of tomorrow who can't find jobs in Africa. "Therefore, what is important is an effort to develop a solid economy in Africa." He optimistically stated that, "I have said this in the past: Italy can and must play a major role so that our position in the Mediterranean, which has created some problems [with migration flows], is used as a bridge for the whole of Europe and for countries such as China, as a hub to go and invest in Africa."

Feature

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The Creative Powers of the Human Mind Reflect a Principle of the Universe as a Whole

Class #1: How You Think the Universe Works is How You Behave

January 5, 2019

https://www.youtube.com/watch?

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January 12, 2019

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Class #4: What, Exactly, Is This "Creativity" That Is the True Source of all Economic Value?

January 26, 2019

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Physical economist and statesman Lyndon LaRouche has dedicated his life to insisting that it is not enough, to merely assert that value in a successful physical economy is uniquely determined, not by monetary standards, but by the extent to which we, as individuals, and as a society, make creative leaps in our ability to master the principles governing our living, self-developing universe.

Rather, it is our sacred duty as human beings, to investigate, nurture, and master, within ourselves, i.e., within our souls, the nature of this creative capacity itself. And in order to do so, we must learn to understand, and then to speak, the language of poetry, music, and the plastic arts.

One of the most pernicious recent sins against human culture, was committed by the Romantic philosophers Immanuel Kant and G.W.F. Hegel, and their follower Friedrich Carl von Savigny, who claimed that there was an unbridgeable gap between the physical sciences (*Naturwissenschaft*) and the so-called liberal arts (*Geisteswissenschaft*). Theirs was a direct assault against the great poet Friedrich Schiller specifically, but more generally against everything that makes mankind truly human, since their doctrine seeks to relegate art to the domain of unknowable, arbitrary emotion, guided by animal instincts—sometimes raw, other times merely modified by what they cynically term "a veneer of culture."

As a result, today, the true languages of poetry and music, as opposed to the "Brand X" versions that are hawked in popular culture, have been all but buried under more than a century of cultural detritus.

In this class, we will use just a few examples from the domains of poetry and music, to assist you in finding your own entry-point into the beautiful, yet scarcely known, wonderfully "dynatropic" (to use Bruce Director's term) domain of Classical art. We will also touch on the principle of harmonic "well-tempering" as discovered by Johannes Kepler in the action of the Solar System, and as applied by the composer Johann Sebastian Bach, sparking a revolution in musical potential which, just as with fusion power today, is still only in its infancy.