EXECONOMICS

WITHOUT SHIFT TO FUSION POWER

Western States' Drought Spells No Food, Death

by Patrick Ruckert and Marcia Merry Baker

Jan. 27—The implications of the extreme drought now afflicting all three major river basins of the western United States are now unavoidable. As Lyndon La-Rouche and his scientific Basement team insisted when they put forward the Nuclear NAWAPA XXI program in 2013, the United States west of the Mississippi is dying—and taking the food supply of the country with it—condemning the nation to a future of starvation and collapse. The only alternative is an immediate shift away from the Green Death policies of environmentalism, and adoption of a crash program for a nuclear fusion-based economy, whose centerpiece will be the massive water-management program known as the North American Water and Power Alliance (NAWAPA).

This emergency situation has emerged—not because of apparent weather cycles, to be expected in our Solar System—but because 50 years ago, the progression to improving the entire water- and land-resource base and productive potential of this continent were blocked, when the building of a full-scale nuclear economy and, in particular, NAWAPA were blocked. It can't be reduced to an "issue" of water per se, and it can't be solved immediately. But real action requires removing the chief political obstacle—green British agent Barack Obama; restoring Glass-Steagall and an American System credit system; and immediately launching a John F. Kennedy-style program to build a productive economy.

The largest of the three Southwestern riversheds, in terms of "normal" volume and flow, is that of California: the Sacramento-San Joaquin system. At present, its reservoirs are at crisis-low levels behind the dams serving the system. The severity of the drought is the worst in 160 years; the snowpack is barely 17% (on Jan. 16) of what has been considered normal. Groundwater is depleted and of bad quality.

The next largest of the regional watersheds, the Colorado River, which serves parts of seven states and Mexico, has flow and storage way below minimal needs. The city of Las Vegas is putting in a new tunnel system, to still be able to suck out some water, even when the river flow and Lake Mead levels drop so low that the original draw-off system fails.

The Rio Grande River basin, likewise, is in such a condition of low flow and falling water tables, that its entire watershed region is in crisis, including in Mexico.

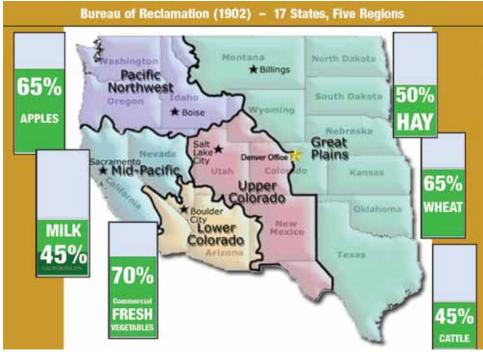
Figure 1 shows the percentage of the national food output produced in this region. This crisis threatens the *nation* as a whole.

California

The specifics of the situation in California, where Gov. Jerry Brown declared a Drought State of Emergency Jan. 17, have captured the most headlines, in the form of deadly wildfires, unplanted cropland, and the disappearance of town water supplies. But the lasting

FIGURE 1

Percent of National Food Output



EIRNS/Robert L. Baker; Bureau of Reclamation base map

effects will not be just local, but will show up in the dramatic reduction of the nation's food supply, and our ability to produce in the future.

Communities throughout the state have begun strict rationing of water, and farmers are preparing to let hundreds of thousands of acres of land lie fallow. There are already reports of growers ripping out their fruit and nut trees. The dairy industry, which was already in an existential crisis due to the lack of parity prices and extraordinary increase in feed costs, is struggling to keep its herds alive. And California ranchers, according to a recent AP report, are auctioning off beef cattle at eight times the normal level. Cattle herds take decades to build up. One cattleman said, we are not killing any cattle—yet.

Last year, farmers in the San Joaquin Valley only received 20% of the water they required, and this year, that could go to as low as 5%. Only the growers with the most senior water rights may receive up to 25% of the water they request. Even that is not certain, since the U.S. Bureau of Reclamation recently stated that, without significant precipitation soon, there may be a zero percent initial allocation for Central Valley Project con-

tractors south of the Valley's Delta.

Storage in most major reservoirs throughout the state is well below average for the date and falling fast, when at this time of year they should be filling up (Figure 2). The low snowpack makes a change in this situation unlikely. The northern and central Sierras provide about one-third of the state's water supply through runoff from the snowpack. Unless there is snowfall soon, the 29 public agencies that supply water to 25 million people may only receive 5% of their requested amounts this year. California's major river systems, including the Sacramento and San Joaquin rivers, have significantly reduced surface water flows.

Groundwater levels throughout the state have also dropped significantly.

The drought is accompanied by record or near-record high temperatures throughout the state, which have created the never-before-seen Winter fire danger. A fire just north of Los Angeles on Jan. 16, virtually exploded from an uncontained campfire to spread to 1,700 acres in four hours. As one fire official put it, California no longer has a fire season; the entire year is fire season. A 300-acre fire in Humboldt County, on the north coast, was even more alarming to fire officials, as the county is normally one of the wettest places in America.

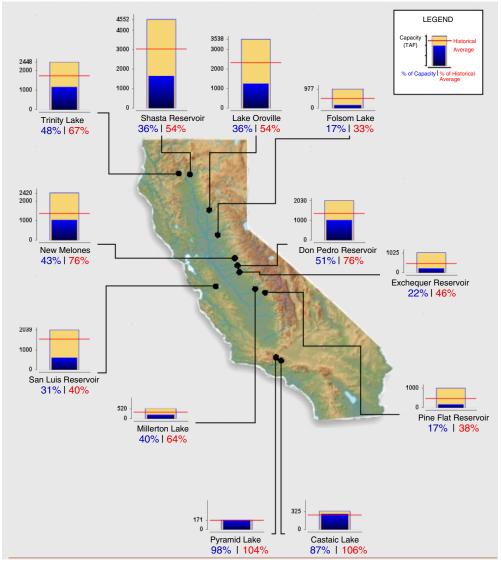
The Food Is Disappearing

The Central Valley, along with other parts of California, account for a huge share of U.S. food consumption—especially fruits, vegetables, nuts, milk, and beef—and international food supply as well. This is all now undercut.

In the San Joaquin Valley, farmers report that over a third of the area in various farm districts will be fallow. For example, many farmers growing tomatoes, lettuce,

54 Economics EIR January 31, 2014

FIGURE 2 Reservoir Conditions, Jan. 22, 2014



Source: California Department of Water Resources

and other field produce, rely on some groundwater, plus their allotment from the Sacramento Delta flow, but now they may get zero from the latter. They aren't planting.

California accounts for majority percentages of many of the fruits and vegetables grown in the United States. As of 2011: broccoli—94%; leaf lettuce—90%; spinach—83%; canning tomatoes—95%; lemons—86%; fresh strawberries—88%; fresh plums—97%; carrots—66%, and so on.

The Central Valley in California alone provides a

third of all produce grown in the United States. Over 200 different crops are produced, from melons, grapes, berries, orchard fruits, and nuts, to salad vegetables. This one location is the largest supplier of canned tomatoes in the world.

As for ranchers and dairy farmers, the consequences are also dire. Instead of a customary short-growth of grass at this time of year, to add to other rations, there is dust. Ranchers are forced to ship in hay from far outof-state, as well as the Imperial Valley. Market animals are lighter weight. One Tulare County Justin Greer. rancher. summarized it to CNBC: "Two years ago, we were shipping steer calves that weighed 650 [pounds]. Last year we shipped calves that weighed 570. And if this keeps going at this current rate, I would be surprised if we shipped calves that weighed [even] 500."

California alone accounts for 20% of all the

milk produced in the top 23 U.S. dairy states. California dairy-herd operations are now under severe threat, under impossible conditions from receiving prices below their costs of production, and from scarce and high-priced fodder. Over the last 18 months, 100 herds have been shut down, leaving only 1,500 total. California milk production is declining.

Of all the irrigated acreage in the 17 Western states—which is about 42 million acres (7.5% of the total crop base of the U.S.)—half of this area is irrigated for two kinds of crops for animal feed—hay,



Creative Commons/Stuart Rankin

As seen in Figure 2, Folsom Lake Reservoir, shown in this Jan. 19, 2014 photo, is at 17% of capacity, about half of its historical average.

greenchop, and other fodder (26%); and corn for grain (24%), mostly for livestock rations (percentages are from 2008). Now, water for irrigating these crops is short (with the exception of some northerly locations), at the same time as non-irrigated fodder crops have declined from drought, and pastures have dried up.

Adding to this livestock-feed crisis, is the insistence by the Obama Administration on continuing the cornfor-ethanol mandate.

Well-drilling services for agriculture-use water are very expensive, and bookings are backed up for over a year. "Everybody just keeps installing deeper, longer straws. The water quality is degrading. It's become saltier, and that's not good for any of our crops," said San Joaquin Valley farmer Justin Borba, to CNBC Jan. 17.

It's Not Just California

But it's not just the Sacramento-San Joaquin River system which is running dry. The next largest of the regional watersheds, the Colorado River, which serves parts of seven states and Mexico, has flow and storage way below minimal needs. This includes the states of Texas, Oklahoma, and parts of Kansas and Nebraska. The U.S. cattle inventory (beef, dairy cattle, and calves) has fallen to its lowest total since 1952.

Over recent years, the four High Plains states of Texas, Oklahoma, Kansas, and Nebraska accounted for over 30% of all the cattle and calves in the nation—mostly for beef. Texas alone accounted for more than 14%. These four states in 2008 had 32.5 million head of cattle, which was 34% of the national inventory of 96.7 million head.

Today, the number of cattle in these four states is

down to 27.65 million head, a drop of 15% in just five years. The U.S. inventory is down to 92 million head. This decline comes directly from the conditions of depleting groundwater, severe heat, and drought, lack of Federal aid, and diversion of food to biofuels.

Over the last five years, the Texas cattle herd fell by 18%; the Oklahoma herd declined by 22%. Over just one year, from January 2012 to January 2013, Texas cattle numbers fell 5%, and 7% in Oklahoma. (See "Cattle Inventory" twice yearly survey by the U.S. Department of Agriculture, National Agricultural Statistics Service; next report, Jan. 31, 2014.)

A Broader Crisis

The crisis goes beyond food, of course.

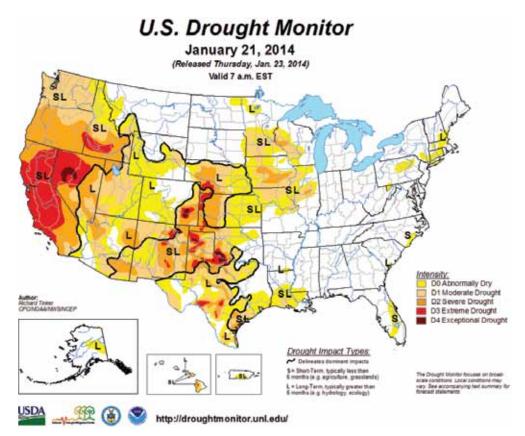
This month, the Texas Comptroller of Public Accounts, Susan Combs, issued "The Texas Water Report: Going Deeper for the Solution," which summarizes aspects of the state's water supply crisis (www.TXWaterReport.org). The report notes that as of Oct. 30, 2013, 26.5% of the state's community water systems were under voluntary or mandatory water restrictions.

The report states, "Since 2011, two small Central Texas communities, Spicewood Beach and Barnhart, have run out of water, the former in early 2012 and the latter in June 2013.

"Unfortunately, water problems aren't limited to small towns. Some of Texas' largest metro areas are feeling the pinch as well.

"• The U.S. Drought Monitor [Figure 3] reports that Lubbock has experienced the nation's worst average level of drought since the beginning of 2011. McAllen, Harlingen, Brownsville and Corpus Christi also

FIGURE 3



ranked among the nine U.S. cities most affected by extreme drought.

- "• According to the Texas Commission on Environmental Quality (TCEQ), 46 of the state's public water systems were at risk of running out of water within 180 days, as of Jan. 8, 2014.
- "• Seven Texas communities could run out of water in 45 days or less, which TCEQ classifies as an 'emergency' level of drought."

These towns, with a combined population of 22,840, are Mackenzie, Silverton, Baylor, Seymour, Weinert, Uvalde, and the two already dry—Spicewood Beach and Barnhart. (See cities that could run out of water at www.TXWaterReport.org/scarcity/cities.php)

The NAWAPA Alternative

Droughts come and go, but what makes them destructive is not the result of "natural" causes, but the unnatural shift, decades ago, into the anti-human environmentalist insanity that stopped the already-in-place nation-building policies of President Kennedy. These

policies included massive nuclear power plant building, water desalination projects, and NAWAPA. That shift, accompanied by the takeover of the nation by the Wall Street and London financial oligarchy, turned our formerly production-oriented economy into a gambling casino, which blew out in 2008.

Attempting to maintain that empire of money, the British Empire (and its puppets, first Bush, and now Obama) has been carrying out its genocidal intent to kill billions of people, and possibly set off World War III. That is what we see underway in the destruction of the Western areas of the United States now being destroyed by drought.

The alternative is to go

to the enhanced version of NAWAPA, which the La-Rouche movement has put together in its "Nuclear NAWAPA XXI."

The North American Water and Power Alliance was originally planned in the 1950s and '60s, and became a policy of the Kennedy Administration. It is a series of projects designed to take only 11% of the fresh water from Alaskan and the Canadian rivers, divert it before its runoff into the Pacific Ocean, channel it through Canada, into the United States, and all the way to northern Mexico. This would be achieved by a series of dams, canals, tunnels, lakes, and pump lifts, guiding the water down the continent, allowing for the potential irrigation of an estimated 86,000 square miles, transforming the arid landscape along the way.

Taking the core of the original 1960s design, NAWAPA XXI will expand the project by building high-speed rail lines for both passenger and freight, new nuclear power plants, and new cities. Along this route, the irrigation and managed water flow will begin to transform the land area, including the climate and

weather, increasing mankind's conscious management of a significant region of the Biosphere, thus increasing the productivity of both mankind, and the Biosphere itself.

By bringing water to these desert and arid lands, we will enable chlorophyll, one of the greatest of the Biosphere's technologies, to transform the surface of the Earth. With NAWAPA's water providing the missing component for the growth of photosynthetic plants, the presently less productive solar radiation and carbon dioxide in the region will be transformed into useful biological material, even cooling desert environments.

Obviously, the environmental benefits of NAWAPA XXI, which has a 30-year perspective, won't show up for quite a while, but, as the 21st Century Special Report points out, more immediate relief could be gotten from proceeding with another of President Kennedy's programs—nuclear desalination. Kennedy had proposed producing a half-dozen intermediate-sized units, including two in Southern California. If his plans had not died with him, this project would already been producing 50 to 150 million gallons of fresh water per day.

The NAWAPA program places the United States on the direct path to even more ambitious development programs, which will carry our nation and the world into prosperity through the coming generations. From NAWAPA, we can see the Bering Strait rail tunnel project, connecting Alaska to Russia, linking the two great landmasses of the globe with high-speed rail. There are many other projects which can be successively brought into operation, all of which will be necessary, but the pinnacle, guiding mission will be the commitment for colonization of space. The prospect for the industrialization of the Moon, and the mining of Helium-3 to fuel an accelerated nuclear fusion development program, as now proposed by the Chinese Moon project, opens the way for man attaining conscious mastery of the science of his own economic development.

The enemies of this nation, located in the financial oligarchy of London and Wall Street, have, for almost 50 years now, succeeded in turning our once proud industrial, scientific production system into nothing but a looted-out gambling casino. If that is the future you wish to bequeath to your grandchildren, then you, too, have succumbed to the corruption of the soul that has accompanied the destruction of the future.

marciabaker@larouchepub.com

Nuclear NAWAPA XXI Gateway to the Fusion Economy

A 21st Century Science & Technology Special Report

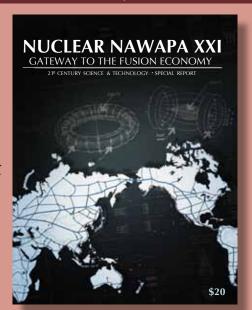
By the LaRouchePAC Scientific Research Team

Available from

21st Century Science & Techology

Print **\$20** post-paid PDF **\$10**

Print report with one-year subscription \$40



From the Introduction:

This planet can no longer tolerate environmentalists.

The time has come to make a tremendous step forward in our relationship to nature, by making the development of a fusion-based economy—bringing the power of the stars under our control—our primary long-term physical economic goal.

Articles include:

- A Call for an International Crash Program: Creating the Fusion Economy
- Increasing the Productivity of the North American Water Cycle
- Nuclear NAWAPA XXI and the New Economy
- Nuclear Agro-Industrial Complexes for NAWAPA XXI
- The Pacific Development Corridor: Maglev Through the Bering Strait
- The 'Common Aims of Mankind': A Strategic Defense of Earth

58 Economics EIR January 31, 2014