Appendix

NAWAPA's History and Scope

by Marcia Merry Baker

Aug. 1—In 1964, The Ralph M. Parsons Company of Los Angeles released its 100-page report, "North American Water and Power Alliance—Conceptual Study" (Ref. No. 606-2934), outlining key engineering and financial parameters of its proposed project to divert 15-20% of the run-off flowing northward to the Arctic, southward through western Canada, the United States, and into northern Mexico. The plan included a channel into the Great Lakes Basin, and companion proposals for developing the water resources of the Hudson Bay and James River basins.

In its summary, the Parsons report stated that, the "NAWAPA concept will utilize the geographical and climatological features of the North American Continent to collect and store the excess water of the northwestern areas of the continent and distribute it to the water-deficient areas of Canada, the United States, and northern Mexico in sufficient quantities to assure adequate water supplies for the next one hundred years or more. This concept is based on the use of only that water which is now, and in the foreseeable future, going unused."

Under the 30-year construction time-frame proposed, plus 10 years for detailed engineering and site preparation, the NAWAPA program would now be in operation as of 2010. Its features are outlined below.

Instead, NAWAPA, and the scientific outlook embodied in it, were killed off in the 1960s, by a massive intervention into U.S. law, policy, and public opinion, waged by London-centered international financial networks intent on subverting nation-states and economic growth. Prominent figures and agencies, operating mostly under pseudo-environmentalist cover, include the World Wildlife Fund (WWF), William K. Reilly, Bill Gates, and other operatives who call for depopulation.

Now, Lyndon LaRouche has put the NAWAPA perspective—"the Tennessee Valley Authority of the 21st Century"—back on the U.S. and world agenda, as part of do-or-die emergency actions required to restore nations and science. The following are summaries of the political history and original scope of NAWAPA.

History: 'Bold' Infrastructure

As of the 1960s, water shortages were becoming acute in the Western states—the area traditionally known as the Great American Desert—given that the additional supplies provided by the FDR-era water-management projects, especially the Colorado River Basin system, were already insufficient for growth areas in California, Arizona, Nevada, and elsewhere. In fact, a water-rights feud went on for over 20 years between Arizona and California, and was only settled in 1964.

In 1959, the Senate established a Select Committee on National Water Resources to set a policy course for action on national and international infrastructure projects to relieve the situation and meet future needs. Hydrologists looked to construct large-scale interbasin transfers of water on the continent, and conduct large-scale desalination of seawater on the Pacific and Gulf of Mexico coasts, based on cheap electricity from nuclear power. This was clearly the future for the dryland regions of North America.

Canadian and Mexican engineers were of a like mind. For example, U.S. and Mexican scientists were conducting joint experiments on desalting water, under the auspices of the Office of Saline Water in the U.S. Interior Department.

Accordingly, in 1964, the Senate Committee on Public Works took up the NAWAPA concept, in its review of the mid-century water shortages. They formed a Special Subcommittee on Western Water Development, which issued a thorough report by that name, in October, which was reprinted and revised up through January 1966 (No. 58-018 O), presenting the NAWAPA plan, complete with maps, charts, and economic benefit studies.

The report's preface states: "Man's dependency on an adequate supply of fresh water is an indisputable fact. It is equally a fact that there is an insufficiency of such water and that this insufficiency has been particularly felt in the Western United States.... The time has passed during which this problem can be solved through traditionally local or piecemeal approaches. The solution must equal in magnitude the problem." This was written by Subcommittee chairman Frank E. Moss (D-Utah), who was also chairman of the Subcommittee on Irrigation and Reclamation of the Interior Committee of the Senate.

The view of Moss and his colleagues was that a thorough engineering work-up for NAWAPA must be undertaken by the U.S. Army Corps of Engineers, and then construction should proceed.

All the standing institutions of the United States responsible for natural resources and infrastructure, concurred in this view: the U.S. Army Corps of Engineers, the Interior Department/Bureau of Reclamation, the Federal Power Commission, and the U.S. Department of Agriculture/Soil Conservation Service.

Apart from NAWAPA, there were, at that time, 3,151 individual hydro-projects of all sizes, authorized or contemplated in the Western United States by both Federal and non-Federal agencies, which, if completed, would provide 2,771 million acre-feet of stored (that is, "new") water. In contrast, NAWAPA would involve 369 principal projects, and yield 4,339 million acre-feet of stored water. The Senate report stated: "The NAWAPA system provides nearly twice the water storage for use in the United States as is provided in current Federal planning.

"Without NAWAPA then, the supply of water in Western United States will be substantially below the need." Likewise, Canada and Mexico would be denied their development potential. Not only water supplies, but hydro-power potential would also be lost.

History: Infrastructure Denied

However, in 1968, NAWAPA, and anything categorically like it, were blocked from consideration by law, as a result of subversion operations deployed by modern-day British Empire enemies of the United States. Several actions and individuals stand out:

• Henry "Scoop" Jackson (D-Wash.) played the leading anti-NAWAPA role in the Senate. This is in line with his whole career as a Truman Democrat, of furthering British foreign and domestic policies, from the Cold War, to anti-infrastructure legislation. (He served in the Senate, 1953-83; and the House of Representatives, 1941-52.)

As chairman of the Senate Interior and Insular Affairs Committee (1965-68), Jackson repulsed all attempts, arising from the dry Southwestern states, to initiate even merely exploratory studies of new interstate water transfers. He was adamant against international, interbasin transfers. Jackson, and cohorts in his home state of Washington, made the charge that the "South" must not be allowed to steal Columbia Basin water for California or any of the Colorado Basin states.

• Propaganda against NAWAPA poured forth from the monetarists and pseudo-environmentalist networks. Some Washington State-based quackademics were hyper-active. The University of Washington's James Crutchfield presented Malthusian lunacy as an argument against NAWAPA, in the pages of the September 1967 and September 1968 *Bulletin of the Atomic Scientists*: "Technological progress in agriculture . . . has consistently outrun the growth of population and effective demand. . . . Nor is there any finding that the [NAWAPA-induced] increased agricultural output would in fact be needed to satisfy growing demand at going prices."

The positive view of NAWAPA, Crutchfield protested, rests on the assumption that there will be a need for more water in the decades ahead; but there is no evidence that there will actually be a shortage. "We must emphasize again that if realistic prices were charged for water, particularly for irrigation, much of the Southwest water 'shortage' would simply vanish." He added that, in addition to "realistic prices" (call it the Enron Theory of Utilities), all you have to do is reduce waste and better manage existing supplies of water. "Unfortunately, we have been swept along with the view that larger consumption is somehow desirable." But such an option is far too costly, in "this time of budget stringencies."

• Beginning in 1968, *a 10-year ban was imposed on any Federal agency study of inter-basin water transfers.* This was included in the Colorado River Basin Project Act of 1968. (This law otherwise temporarily settled some of the long-standing water rights feuding between California and Arizona, by allowing Arizona to undertake new water management infrastructure, but within the Colorado Basin. This authorized the Central Arizona Project, or CAP.)

• A new National Water Commission was set up in 1968—with Commission members personally vetted by Jackson—mandated to be the only Federal entity to review inter-regional water projects, including any proposal for inter-basin transfers. The Commission was to conduct a five-year study, and issue a report. *This initiative was aimed to kill off the FDR legacy of dam-building, and basin-management by the Bureau of Reclamation, Army Corps, U.S. Department of Agriculture, and Federal Power Commission*, all of which were in favor of NAWAPA.

Among the new, "non-governmental" expert Commission members, were such as Russell Train, the raving depopulation "environmentalist." Train was the

first vice president of the World Wildlife Fund (WWF) at its founding in 1961.

• In 1973, the report by the National Water Commission was a hash of some 250 miscellaneous projects, downplaying infrastructure. The executive director of the National Water Commission was Theodore M. Schad (1969-73), who said that "relative price" could allocate scarce water adequately, so, new supplies were not necessary.

• In 1978, the very goal itself of providing for ample, new water supplies for all of North America, was abandoned, when a Carter Presidential Review of water policy established "conservation as a new national priority," not infrastructure. The review called for "increased attention to environmental quality," reducing pollution, and using less water.

This 1982 pamphlet boosted NAWAPA.

A national disgrace, this shift was a national success for Russell Train, who at this time was president of the WWF (1978-85; and later, WWF chairman, 1985-94). Earlier, Train was the second administrator of the Environmental Protection Agency (September 1973 to January 1977), begun in 1970, and associated with enforcing "clean" water, not expanded supplies. The EPA was a key instrument in carrying out another Scoop Jackson-sponsored anti-progress atrocity, the National Environmental Policy Act of 1969 (NEPA), signed into law, Jan. 1, 1970.

In tandem with all this, in Canada, there was unceasing propaganda run by London-serving networks, to insist that continental-scale water infrastructure is both undesirable, and an "American plot" to steal water.

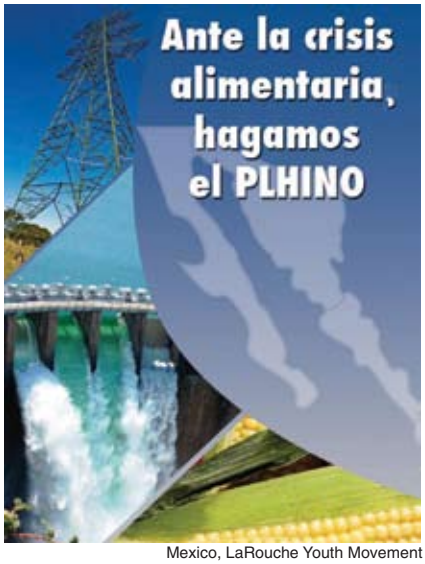
LaRouche: 'Science and Infrastructure'

LaRouche led the drive over the entire four-decade period, for geo-economic intervention—specifically NAWAPA—and the science involved. Soon after the founding in 1974 of the Fusion Energy Foundation, by LaRouche and other scientists, FEF promoted nuclear desalination and the NAWAPA plan for water infrastructure to create new man-made "natural" resources.

In 1978, the FEF and LaRouche's U.S. Labor Party opposed Carter and the Russell Train subversives head-on, over their block on NAWAPA and water technology.

In December 1979, the FEF magazine *Fusion* ran a feature, "The North American Water and Power Alliance Proposal; Creating Water Resources for the Year 2000," by Calvin Larson. In October 1980, the FEF sponsored a conference in Los Angeles, on "A High-Technology Policy for U.S. Re-industrialization," at which a presentation was made on "Water from Alaska"—the NAWAPA plan—by Nathan W. Snyder, from The Ralph M. Parsons Company.

During 1981, LaRouche political circles, coordinated by the Democratic National Policy Committee (NDPC), led a cross-country campaign for NAWAPA and development, backed especially by state legislators in the High Plains states, suffering the depletion of the Ogallala Aquifer. For example, Kansas State Rep. Keith Farrar (R-Hugoton) told the High Plains Study Council, in October 1981, that any lesser proposal than NAWAPA, such as to try to import water from states bordering the Ogallala Aquifer, would be "cost prohibitive and politically impossible." Bring the water down from the Far North, he said.



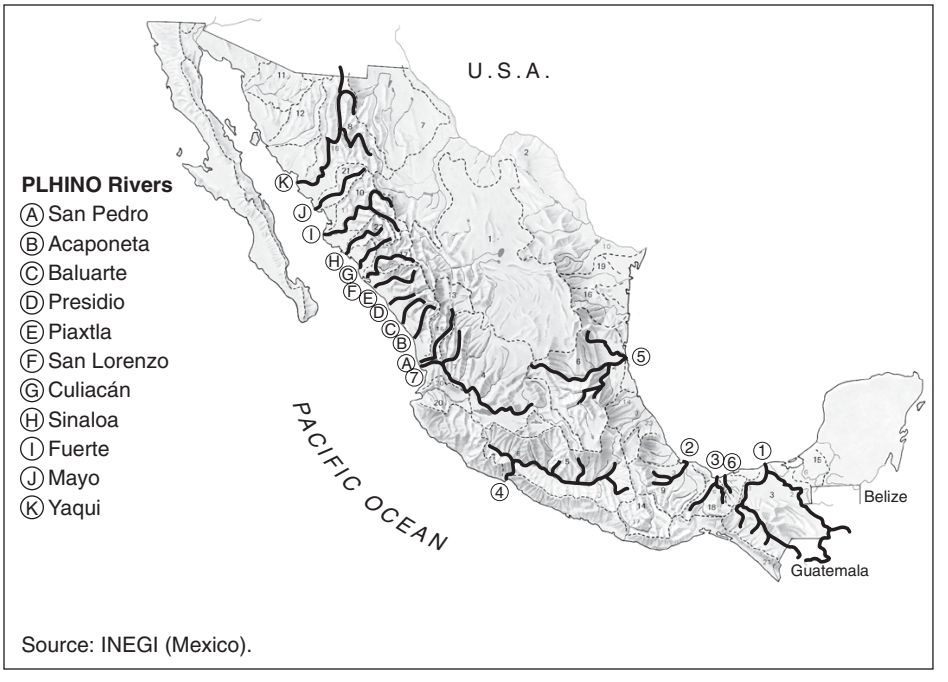
Mexico, LaRouche Youth Movement
This 2008 pamphlet is headlined, "Before the Crisis, Build the PLHINO."

An NDPC conference in Houston, Texas, on Feb. 27, 1982 brought Farrar and many others together, on NAWAPA organizing, at which LaRouche presented a major policy paper, "Won't You Please Let Your Grandchildren Have a Drink of Fresh Water?" This was published, with documentation on NAWAPA, in a mass NDPC pamphlet that year.

LaRouche continued the drive in the 1990s. In June 1992, another mass pamphlet was issued, featuring NAWAPA and nuclear-powered desalination, "America Is Running Dry—Build Great Water Projects Now!" by Democrats for Economic

FIGURE 1
Mexico's PLHINO Project

FIGURE 2
Mexico Major Rivers



Source: INEGI (Mexico).

Recovery/LaRouche in '92.

In September 2002, LaRouche wrote "Science and Infrastructure," an *EIR* Special Report, publicizing the NAWAPA plan as part of the scope of rebuilding necessary infrastructure across the board.

In November 2002, on tour in the northern state of Coahuila, Mexico, LaRouche called for a "Super-TVA" agenda for all North America, to conduct the crash infrastructure projects required. This included proceeding with the 1960s NAWAPA-era plans for the PLHINO and PLHIGON—Mexican water transfer proposals (**Figures 1 and 2**), to move northward some of the run-off

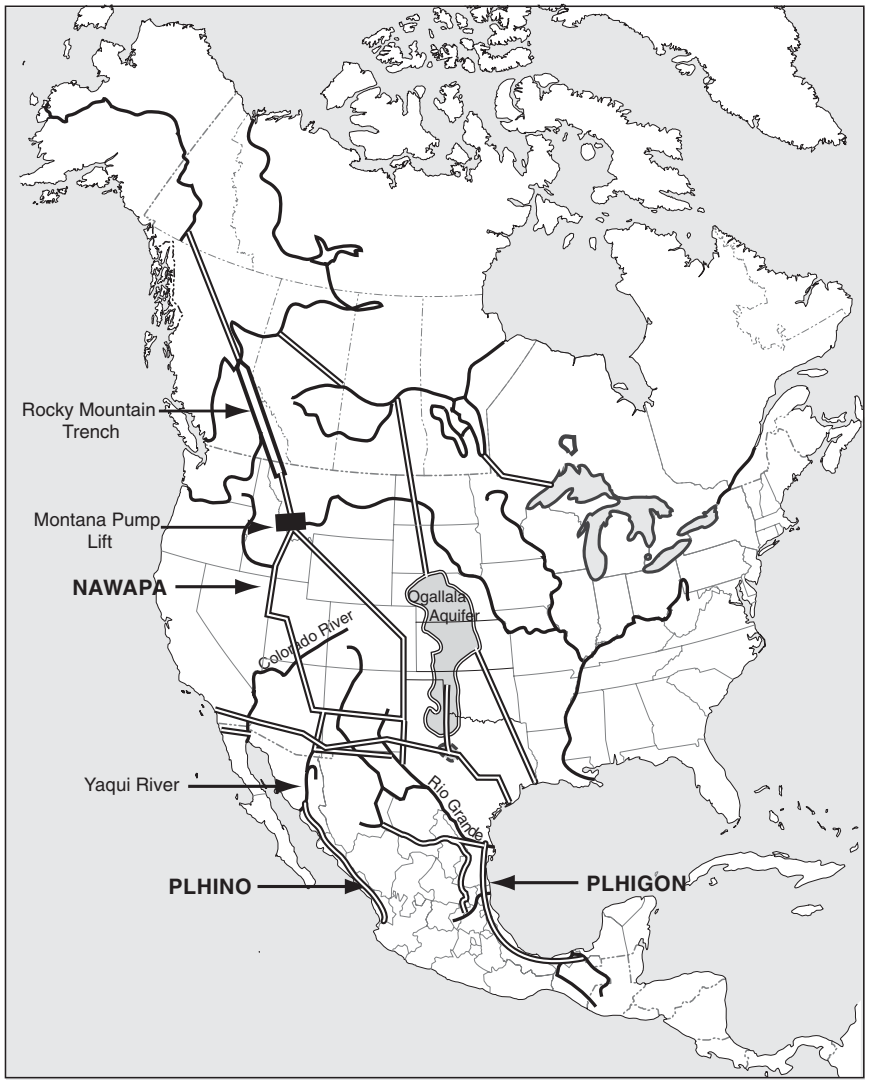
from the southern Sierra Madre's western and eastern slopes. The PLHINO, in particular, which runs up the western coast of Mexico, would directly link up with NAWAPA, as indicated in the early Parsons plan (see "Vernadsky and the Biogeochemical Development of the Great American Desert," *EIR*, May 9, 2003, from which **Figure 3** is reprinted).

In September 2003, the LaRouche movement intervened in the California re-call elections, against Arnold Schwarzenegger's run for Governor. The NAWAPA plan was included in a mass pamphlet of the LaRouche in 2004 Presidential campaign committee, titled "The Sovereign States of the Americas—LaRouche's Program for Continental Development."

In 2007, LaRouche again stressed the urgency to proceed on a continental plan, as a "NAWAPA-Plus" appoach for cross-border, Mexico-U.S. development, involving new agro-industrial projects and millions of jobs, as opposed to the border strife occurring then and now, as a result of economic collapse and despair. (See Dennis Small, "U.S. and Mexico Cooperate on Great Water Projects," *EIR*, Dec. 7, 2007.)

In January 2009, the LaRouche Political Action Committee released a feature video, "NAWAPA-PLHINO—The Future of the Americas."

FIGURE 4
North America: 'NAWAPA-Plus'



Sources: Parsons Company, *North American Water and Power Alliance Conceptual Study,* Dec. 7, 1964; Hal Cooper; Manuel Frías Alcaraz; *EIR.*

This "NAWAPA-Plus" map was prepared by EIR *in 2007, using the original map of the North American Water and Power Alliance, by The Ralph M. Parsons Co., 1964. Features added to it include: the schematic bifurcation of channels to the west and east of the Rocky Mountains; the north-south channel from Canada into the area underlain by the Ogallala Aquifer; the east-west channel in the cross-border region between the U.S. and Mexico (which would rely on desalination sources as well as NAWAPA), and the PLHINO and PLHIGON channels in Mexico.*

NAWAPA: The Scope

Speaking for The Ralph M. Parsons Company, in 1980, Nathan W. Snyder told a conference of the Fusion Energy Foundation in Los Angeles, "The project was named North American Water and Power Alliance (NAWAPA), which name fits the cooperative relations needed by the alliance of Canada, the United States, and Mexico. In this plan, a replenishable resource, unlike oil, will be continually available for thousands of years. The aqueducts of Rome are still standing!" (The quotes below are also from Snyder's 1980 description of the original 1964 NAWAPA proposal.)

The project can be visualized on a map, beginning in the northwest of North America (Figure 1). A portion of the headwaters of the Yukon and MacKenzie rivers—

which empty, respectively, into the Bering Sea and Arctic Sea—can be collected in the Yukon Territory and northern British Columbia, in a series of impoundments, from which water is pumped up into the northern end of the Rocky Mountain Trench. This is "a vast cordilleran gorge extending south to Flathead Lake, Montana," Snyder said. What is thus created, is a "regulating reservoir, some 500 miles long, to store between 300 to 400 million acre-feet, over three times the fresh water consumption of the coterminous 48 states. Waters of Alaska and northern Canada would be pumped into this catchment, the largest ever contemplated....

"NAWAPA's collection system stretches from the Yukon River to northern Montana. Its total drainage area encompasses about 1.3 million square miles, which enjoy heavy annual precipitation. Of a run-off of 800 to 1000 MAFY (million acre-feet a year), NAWAPA would divert some 160 MAFY for consumption and waterway control."

The distribution system is extensive, with the following main features. "South of the Rocky Mountain Trench, in central Idaho and southeastern Washington, a series of hydroelectric plants" and reservoirs would be developed on the rivers there (Clearwater and Clearwater North Fork Rivers, and lower reaches of the Salmon and Snake rivers). From there, the flow of the Columbia River could be supplemented or diminished as needed. "NAWAPA aqueducts and reservoirs would dot the slopes of the Rocky Mountains, providing water to the Staked Plains and lower Rio Grande River Basin, and serving New Mexico, Texas, Colorado, Kansas, Nebraska, Oklahoma, and Mexico, via existing rivers.

"Flows from the Rocky Mountain Trench and Clearwater subsystem would supply Idaho, Oregon, Utah, Nevada, California and Arizona in the United States and Baja California, Chihuahua and Sonora in Mexico....

"In Canada, NAWAPA water would create a navigable waterway across the Prairie Provinces, connecting the Fraser River and the Great Lakes, and supplying water to the Great Plains. A barge canal would reach the upper Missouri and Minnesota rivers, stabilizing the flows of both.

"Through the Great Lakes connection, as much as 48 MAFY of NAWAPA water a year would stabilize the level of the lakes and supply, when needed, dry areas in Vermont, New Hampshire, Massachusetts, Rhode Island, New York, New Jersey, Pennsylvania, Delaware, West Virginia, Ohio, Indiana, and Illinois, via a system of new and existing canals and aqueducts."

The direct benefits, in terms of added volumes of water and power supplies, were calculated by state for each of the three nations. Of the total of 160 MAFY of water, there would be 80 MAFY directly reaching 23 U.S. states, the largest volume being to California, Arizona, Texas, and North and South Dakota. In Canada, 58 MAFY, with the largest volume to Alberta, Saskatchewan, Manitoba, and the Great Lakes Basin. In Mexico, 20 MAFY, reaching seven states, with the largest volume in Sonora, Baja California, and Chihuahua.

The hydropower benefits—net of that required for the lift pumping stations—were measurable, and add up to a total of 70 million kilowatts of electricity. In the national breakdown, Canada would see 35 million KW, the United States 30, and Mexico, a potential 2 million KW.

Translate all this into vastly increased irrigated agriculture, forestry, transportation, industry, towns and cities, and the landscape is entirely transformed. For example, in the United States, nearly 50 million more acres of irrigable land would become available—almost twice the area under irrigation in the 1960s. The percent increase in the Canadian Prairie Provinces is even greater.

In 1979, the FEF wrote of the import of NAWAPA: "Besides the drought-proofing effects of the plan by its integrated grid of reservoirs, canals, and tunnels, the Continental system would inherently act as a gigantic critical experiment for modifying the weather of the continent as a whole. The effects of increases in evapotranspiration, animal respiration, and artificial cloud seeding over wilderness catchment areas will provide invaluable information on weather control throughout the world."

Thus, while the original 1964 NAWAPA proposal chose to focus on simply two aspects of the plan—the engineering concept for water and power, and also financial estimates based on the 1960s time period—the actual eco-transforming potential is inherent in the nature and scale of the proposal.

Snyder ended his 1980 presentation, "But most compelling is the realization, as one stands before a beautiful lakeful of water, that millions of people nearby can live in decent homes and be secure in their jobs because of this monument of engineering."