Build NAWAPA XXI

An excerpt from 'Platform for a New Presidency: The Full Recovery Program for the United States,' the second, updated edition of a LaRouchePAC pamphlet. By Michael Kirsch.

> *"Every Member of Congress, everyone in the executive branch from the President on, in the field of national resources, has to plan during their period of administration or office, for the next generation, because no project that we plan today will be beneficial to us. Anything we begin today is for those who come after us. And just as those who began something years ago make it possible for us to be here, I hope we'll fulfill our responsibility to the next generation that's going to follow us."*
>
> —President John F. Kennedy
> Pueblo, Colorado, Aug. 17, 1962

Glass-Steagall halts the collapse, cancelling the bail-in and bail-out system, and a credit system creates the potential for economic growth. Credit only functions with goals and an orientation for the economy. We will need a specific project-orientation that can capture the imagination of the citizenry, rapidly create large numbers of opportunities for skilled productive employment, and generate a guaranteed process of economic growth in the coming decades. Surveying the needed improvements in our nation, we see the collapse of our water resources and food supply are arguably the most pressing concerns, both immediately and in the longer term. NAWAPA XXI, an updated version of a project proposed by the Ralph Parsons Company in 1964, answers these needs.

NAWAPA XXI is a resource development plan for a continental water management system, built in collaboration with Canada and Mexico. This proposal will launch the greatest development of North America in history; it will double irrigated agricultural farmland, provide ample hydroelectric power, mitigate or eliminate the risk of floods and droughts, balance the continent's water distribution, and create 7 million highly skilled and highly productive jobs.

Such a plan is essential. Earlier prospects for nuclear desalination and continent-scale water management systems were sabotaged by the anti-growth and

"environmentalist" policies of the 1960s and '70s, with results that now pose an immediate threat to our ability to supply the most basic of needs: food.

Short-term improvements can come from changing farm policy, regulating commodity speculation, and eliminating the destructive transformation of food into fuel. But shrinking water resources and diminishing groundwater supplies mean sharply reduced population potentials in the U.S., Canada, and Mexico in the future, unless NAWAPA XXI is built.

Water, Food Crisis, and Depopulation: Western States Now Parched

The majority of U.S. food production lies in the western states. Lack of water availability in the highly irrigation-dependent and agriculturally productive West is leading to the shutdown of food production. This is not a description of the distant future, but of our immediate present.

From 1950 to 1980, the area of irrigated farmland rose from 25 to 58 million acres, but since then has gone nowhere, and in recent years has begun to decline. Currently, some 75% of irrigated farming in the U.S takes place in the 17 western states.

In the Southwest, river flow is very limited: The 32 million acre feet per year (MAFY) flow of the Sacramento (17), San Joaquin (3.4), Colorado (11), and Rio Grande (0.7) river systems, while brilliantly developed in the beginning of the 20th Century, are almost completely used. Water from just one river, the tapped Colorado River, irrigates roughly 15% of the crops in the United States. Throughout the 17 western states, reservoir levels are declining.

In the High Plains States, agriculture is largely dependent on the Ogallala Aquifer, whose water provides for almost 30% of all irrigated agriculture in the U.S., irrigating more than 15 million acres of crops each year; those water levels are dropping.

The lack of river water has led to increased groundwater use. Even before our current drought episode—considered the worst in 50 years—large parts of the Southwest and High Plains states have come to be reliant on more and deeper wells. Pumping of groundwater for irrigation, as of 2005, was three times the volume in 1950.

Land subsidence is extensive from Southern California, to West Texas, to Nebraska. Salination of farmland is worsening, for lack of flow-through of fresh water to flush the soils. One-fifth of California's aquifers are in serious over-draft. The acreage under production in the Central Valley has been declining. New Mexico and West Texas are already 90% dependent on wells, but wells are running dry.

The water table of the mid- and southern-Ogallala Aquifer region (the Southern High Plains States) has plunged. In many areas, water levels have plunged by 50 to 200 feet, compared to pre-pumping levels, and the rates are accelerating. The aquifers are not recharging; more and more farmland is being abandoned as pumping costs increase, water availability decreases, and aquifer levels drop.

Add up all these figures, and the only conclusion is a dramatic food crisis, and consequent depopulation of the United States, Canada, and Mexico.

The chief cause of this crisis has been the prevention of launching a cooperative agreement among the sovereign nations of North America to fully develop their resources as a coordinated system. The basis for such an agreement between was established in the 1960s.

Food Production In the West

Produce: Nationwide, about 60% of all fruits and vegetables come from the 17 western states, and production is on the decline. California's Central Valley alone produces one-third of all produce of the United States, and is now in a severe water supply crisis.

Grains: 35% of all wheat is produced in Kansas, Oklahoma, and Texas; other major shares of grains are produced in the West.

Beef and Dairy: The seven Plains States and California account for 50% of the national cattle herd, which is now at its lowest level since 1952. Roughly one-fifth of the world's beef is produced in the United States. California is the leading dairy state, accounting for 20% of U.S. milk produced, and the state's production is now in decline.

The History of NAWAPA

> Let us remember that only a generation or two ago, all the great rivers of America—the Missouri, the Columbia, the Mississippi, the Tennessee—ran to the sea unharnessed and unchecked. Their power potential was wasted. Their economic benefits were sparse. And their flooding caused an appalling destruction of life and property. This nation began to develop its rivers systematically, to conserve its soil and its water, and to channel the destructive force of these great rivers into light and peace. And today, as a result of this, the face of this nation has been changed. Forests are growing where there was once dirt and waste. Now there is prosperity where our poorest citizens lived.... The question which confronts us is the whole question of our resource development in the western United States in the 1960s. Surely a continent so rich in minerals, so blessed with water, and a society so replete with engineers and scientists can make—and must make—the best possible use of the bounty which nature and God have given us, public and private, federal and local, cooperative and corporate.
>
> —President John F. Kennedy,
> Oahe Dam, South Dakota, Aug. 17, 1962

The Tennessee Valley Authority of President Franklin Roosevelt demonstrated that man was capable of harnessing not just the flow of rivers—turning what had been an enemy of the people living there into an ally working along their side—but of bringing the functioning of entire river systems under his conscious control. With locks, dams, canals, and reservoirs, we were able to bring the entire hydrological cycle of the Tennessee Valley under our dominion and induce the once wild rivers to act at our behest, generating abundant electricity and irrigating our fields. At the same time, large Colorado River storage facilities began to be constructed, followed by the California Water Plan, and similar projects, creating the potential for the enormous productivity of western agriculture.

At the end of the 1950s, a similar design was conceived for river systems from the Mississippi River all the way west, and north to the Arctic, named the North American Water and Power Alliance (NAWAPA). This would be a TVA, but on a far greater scale. Not only would we engineer the hydrological cycle within a single basin, but we would carry water from one basin to the next, from Alaska to Mexico, linking them to create a North American-wide water management system—a continental TVA.

At the same time, the plans were being laid to bring man into space, engineering studies were underway to demonstrate the feasibility of such a vast project on earth. The NAWAPA plan was originally designed by the Ralph M Parsons engineering firm in California.

In the early 1960s, Sen. Frank Moss of Utah became its leading advocate, forming the Senate Special Subcommittee on Western Water Development to study the feasibility of the plan, as well as entering into an international dialogue with Canada about the shared necessity of the development of both nations. There was early support from Canada's Prime Minister Lester Pearson, as well as widespread bipartisan support in both houses of Congress. In September of 1965, Senator Moss introduced Senate Concurrent Resolution 55, calling for NAWAPA to be referred to the U.S.-Canada International Joint Commission. A similar resolution was introduced in the U.S. House of Representatives for consideration. Among the cosponsors of the NAWAPA resolution was Sen. Robert Kennedy, who wrote in a letter to Moss:

> I am glad to join you as a co-sponsor of S. Con. Res. 55 expressing the sense of Congress that the President refer to the International Joint Commission the subject of the North American Water and Power Alliance.... This proposal de serves careful study and consideration by both the United States and Canada, and has applications to the East as well as the West.

However, though a juggernaut was building in favor of this project, official government action on NAWAPA stalled as the United States was sucked into heavy combat in Vietnam in the years following John F. Kennedy's death.

Though support for the project continued among leadership in both the United States and Canada, a cultural paradigm shift was in progress away from Kennedy's "New Frontiers" and into drugs, existentialism, and radical environmentalism. With the assassination

of Robert Kennedy in June of 1968, the formerly brilliant hope of NAWAPA faded. The outlook for infrastructure-building came to a halt and the government of the United States submitted to the formerly intolerable and unscientific Malthusian doctrines of over-population and scarcity of resources, in contrast with all prior trends of mankind's technological development and role as a creative force on the planet.

Water shortages were guaranteed to come, as pumping drew down underground water levels and aquifers were depleted, while surface water runoff management and reservoirs became completely insufficient for farm, residential, power, manufacturing, and other uses.

The Present Requirement

Having a North American water plan is necessary for the development of Canada, the United States, and Mexico. This is not an optional project. Without integrating the water resources of the continent into a controllable system, increasing population growth, and even maintaining the current population, will not be possible.

The progress of continued application of technology was shut down, when the possibility to build NAWAPA was shut down. NAWAPA was not an option that was turned down, it was a necessity that was blocked.

The sovereign nations of the continent, sharing the same broad Pacific and Atlantic weather systems, must rise to act on the scale of the continent, for the betterment of mankind, and build a North American water management system, which utilizes wasted water resources through a system of drought and flood control.

Project Overview

We live on a continent whose western part has a wide discrepancy of rainfall distribution, due to the particularities of the Pacific Ocean weather system. The area stretching from Alaska and Yukon down to Washington State has 40 times the annual river runoff of the Southwest and northern Mexico. Floods in some regions, and droughts in others, unpredictably wreak havoc, decimating food supplies and destroying cities. NAWAPA XXI will create a continental system of water regulation that can redistribute wasted runoff waters of northern Canada and Alaska to make the Great American Desert bloom, and turn would-be flood waters in one area into the means for fighting drought in another, all through the construction of a massive infrastructural network which can direct these flows and provide a scientific analysis of their best use.

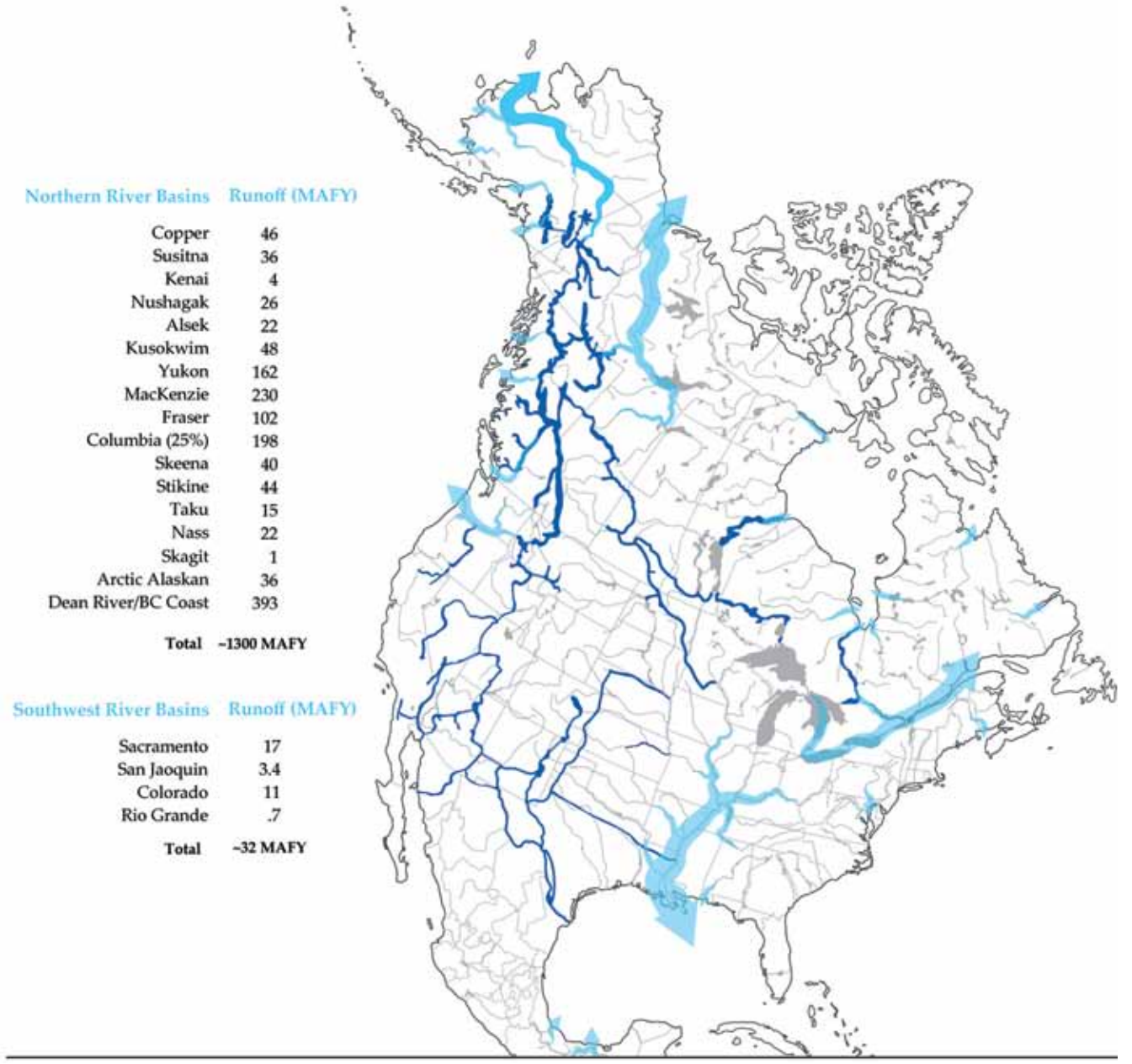
At first thought, it would seem that to move some of this extra runoff to areas where there is little, a very long canal or series of pipelines would be required, but closer inspection shows that such a canal is already built. More specifically, there is a continuous stretch of natural canals, in the form of Rocky Mountain trenches and valleys, stretching from southeast Alaska through southern Idaho, roughly 2,000 miles. All that is required is the construction of 31 dams along the route, and a mountain reservoir system can be formed, capable of making a portion of annual runoff available as permanent source of water to the Great American Desert, which will last as long as the rain continues to fall in the northern mountains of the continent.

Such water transfer would more than double the amount of agricultural land under irrigation west of the Mississippi. It would provide an enduring water supply for cities, farms, and industries across the Southwest, and secure livelihoods for generations to come. The construction of the northern storage and power system will bring with it the industrialization of Alaska, the rapid development of British Columbia, and the general development of the continent as a whole. Implementing the project will save and revive vital industries and technological capabilities, and create millions of long-term productive jobs. In addition to the on-site construction and site preparation for the project, manufacturing all over the country will be dramatically expanded to meet the needs.

To speak quantitatively about these volumes of water, the usual unit is millions of acre-feet per year (MAFY). Rainfall in Alaska, Yukon, and British Columbia is about 2,200 MAFY, and runoff is about 1,300 MAFY, while the catchment areas in Alaska and Canada have an annual runoff of 630 MAFY. In comparison, the southwest U.S. has a total runoff of only 32 MAFY.

Strategically located dams and tunnels will connect collected runoff of the Susitna, Copper, and Tanana River valleys to the Yukon River valley, forming a giant reservoir, out of which water will be joined with the Taku River, where a pump lift will bring water into the Stikine, Nass, and Skeena river valleys, joining two

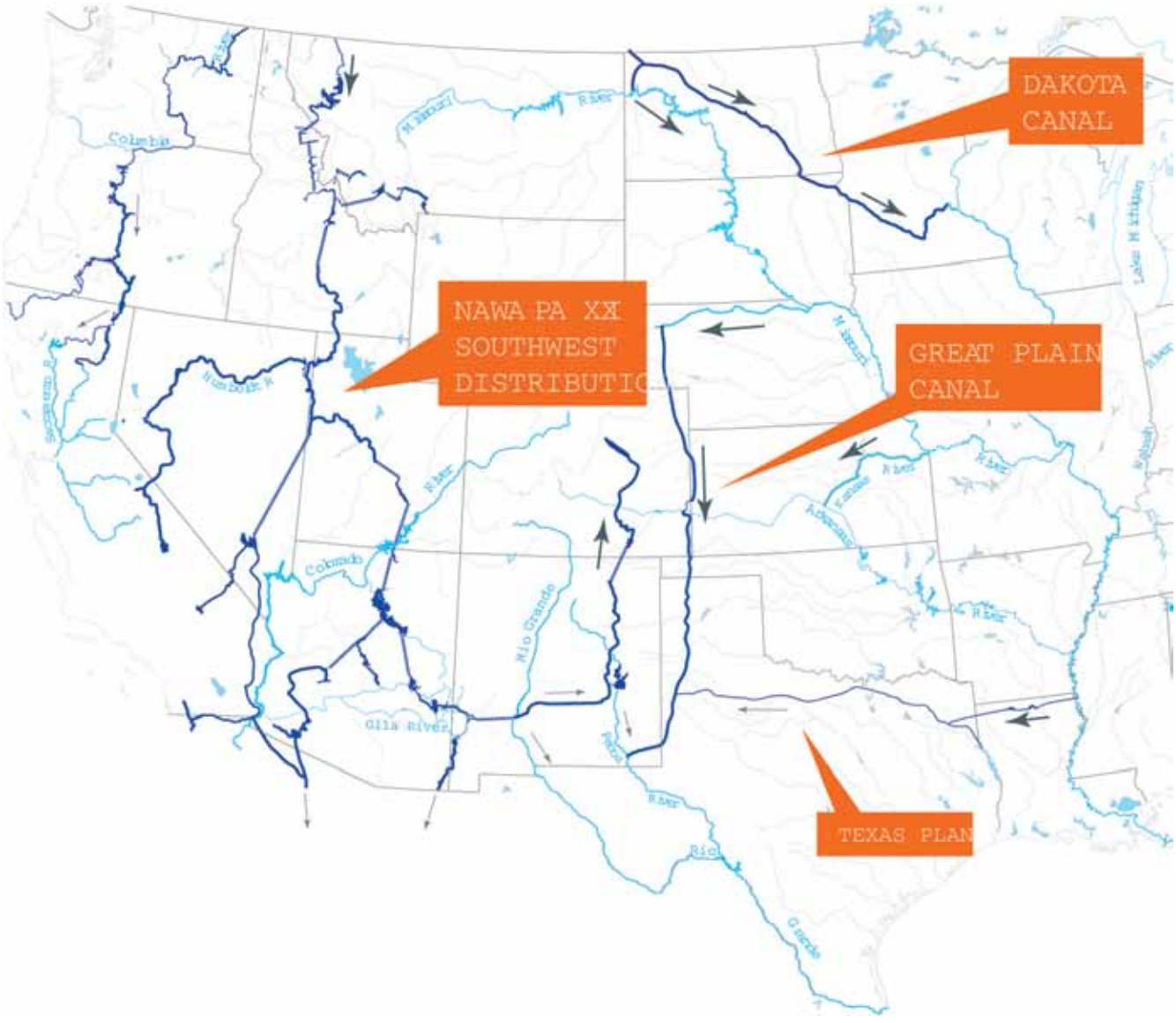
NAWAPA XXI; Continental Water Management



large lakes north of Prince George, British Columbia. From there, the water will be pumped into the Rocky Mountain Trench reservoir, formed by three dams at the head waters of the Fraser River. From there the water would be be delivered into the United States and Mexico, entering Montana and Idaho, completing the 2,000-mile mountain reservoir system before tunneling into the Great Basin.

An additional branch of the plan contemplates an industrial corridor and barge canal to be built across the Canadian prairies, connecting the Peace River to Lesser Slave Lake, to the Saskatchewan and Qu'Appelle Rivers, to Lake Winnipeg, and Lake Superior. Sufficient water supplies will be drawn from the canal for

U.S. Drought and Flood Control System

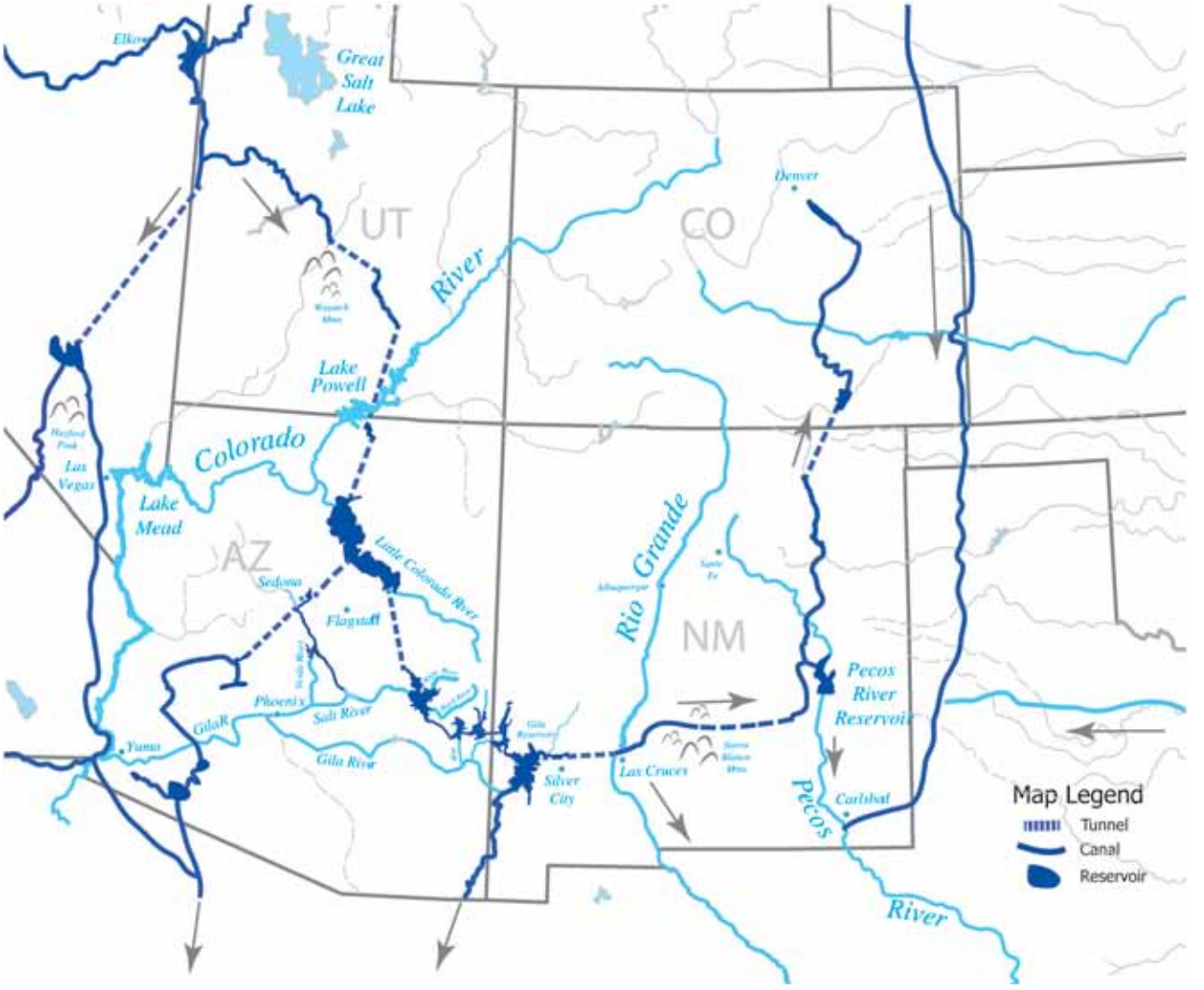


the needs of Alberta, Saskatchewan, and Manitoba. The source of the water would be primarily from the upper tributaries of the Mackenzie River, whose mean discharge is 230 MAFY. A regulation system of the Mississippi and Missouri rivers, as well as potentially the Great Lakes, would rely on the excess runoff from this system. Additional plans, such as diversion of James Bay runoff, could be incorporated into the final design.

All of these plans will form an interconnected grid across the continent, which can divert water as needed to minimize the effects of droughts and flood. The whole area can be managed as a single system. For the first time in history, mankind will be acting on an entire continent. Studies indicate that water falling on land is typically "recycled" 2.7 times through evaporation and re-precipitation.

As NAWAPA XXI comes into operation, there will be surprises, as the water recycling creates a broader hydrological effect than the direct water contributions from the distribution system itself. By consciously changing the local atmospheric and soil moisture, we set the conditions for learning much more about the functioning of the earth and its biosphere as a system. Detailed descriptions follow.

Colorado-Rio Grande Distribution System



NAWAPA XXI will tunnel into the Great Basin and the Colorado Basin, creating reservoirs on the tributaries of the Colorado River, feeding water into the main stem of the Colorado. A large distribution reservoir, up to four times the size of Hoover Dam's Lake Mead, will be formed in the Little Colorado River valley. Out of this central reservoir, tunnels and canals will form three reservoirs on the tributaries of the Salt River, three reservoirs on the tributaries of the Gila River, and a large reservoir on the headwaters of the Gila. A tunnel will connect a reservoir formed on the Gila River to the Rio Grande Basin, crossing and supplying water to the Rio Grande River, and forming a large reservoir on the Pecos River, which will supply West Texas and Mexico, and connect to eastern Colorado.

Throughout the Colorado and Rio Grande basins, pumping costs will be eliminated, farmland restored, and with the water added to Utah, Arizona, New Mexico, and West Texas alone, 14 million acres of farmland could be opened up. The average 11 MAFY currently flowing through the Colorado River will be increased up to 100% through these added reservoirs; the Pecos and Rio Grande rivers will become full and flow year round.

Approximately 30 new reservoirs will be formed in New Mexico, Arizona, Nevada, Utah, and Colorado, changing local climates, and expanding recreation. The storage capacity of the Rio Grande Basin will be doubled, from 20 MAF to 54 MAF, a 170% increase. The Colorado Basin will be increased by up to 230%, from 61 MAF largely from Lake Mead and Lake Powell, up to 230 MAF. A 7-MAF reservoir will be formed 50 miles north of Las Vegas, just north of Hayford Peak, in the Sheep Mountain range, distributing water to Southern Nevada and paralleling the Colorado River, supplying water to farms before continuing south to Mexico, and the Imperial Valley.

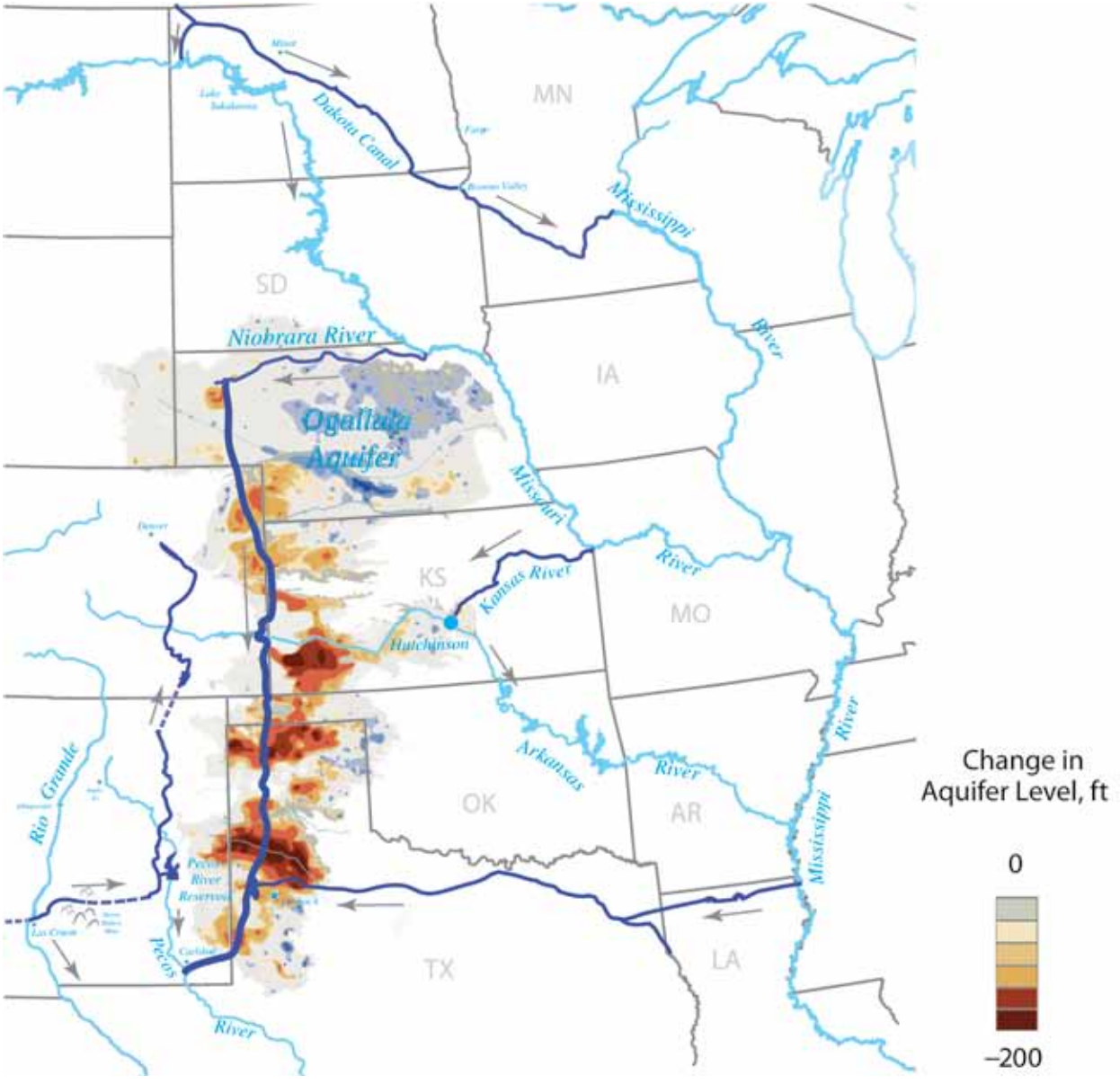
Oregon-California Distribution System

By releasing a portion of the water collected in the Rocky Mountain Trench and adding it to the upper Columbia River, into the reservoir formed by Mica Dam, near Revelstoke, British Columbia, additional water will be available to be pumped out of the Columbia River further south, at the Dalles Dam into a reservoir and aqueduct system, beginning with a series of reservoirs on the Deschutes River, before continuing downhill through Central Oregon and Northern California, connecting with the Klamath and Sacramento rivers.

Connecting with Goose Lake and the Pitts River, increased water supply will flow into Shasta Lake, one of the key storage reservoirs of the Central Valley Project. An additional canal could be added to supply Eagle Lake, and link into Oroville reservoir. These connections will secure the nation's vital agricultural production of the Central Valley, making unnecessary the unsustainable pipeline proposals to bring water from the Sacramento Valley to Southern California, and instead delivering a renewable supply from excess northern precipitation.

A 7-MAF storage reservoir will be created between Murdoch and Bald Eagle mountains, 50 miles east of Elko, Nev. By connecting this reservoir with a 30-mile canal to the Humboldt River, water can be distributed across the state, ending at the Humboldt Sink, and from there, can be linked to Lake Lahontan, of the Truckee Carson Irrigation District, serving Northern Nevada, before continuing south and connecting with the Owens River, refilling Owens Lake over time, reviving farmland.

Mississippi-Missouri-Great Plains System



Water in the Canadian Prairie Canal will link up with the Missouri River at Lake Sakewea, as well as running along the Laurentian Continental Divide through the Dakotas, before connecting with the Mississippi River. These inputs into the Missouri and Mississippi systems will make feasible the following flood diversion projects.

1. Missouri River flood water will be diverted just downstream of the Fort Randall Dam, and pumped up a series of reservoirs on the Niobrara River. From there, water will run through a canal engineered to intersect key locations of the Ogallala Aquifer, supplying the Great Plains with water.

2. Missouri River flood water will be back-pumped from the north side of Kansas City, Kan., along the Kansas River before being piped to Hutchinson, Kan., where a world-class water purification plant could be built to purify water to the degree needed to discharge water into the Ogallala Aquifer. Water could also be added to the Arkansas River, along with any other programmed flow of water into the river from other elements of the system.

3. Mississippi River flood water could be diverted according to specific elements of the Texas Water plan, intersecting other plans.

Conclusion: NAWAPA XXI Imperative

Such a system must be begun to be constructed in the next few years. Government negotiations must begin with Canada and Mexico, with the goal of a joint credit and cooperation agreement by the United States for the building of NAWAPA XXI over a period of 15-20 years.

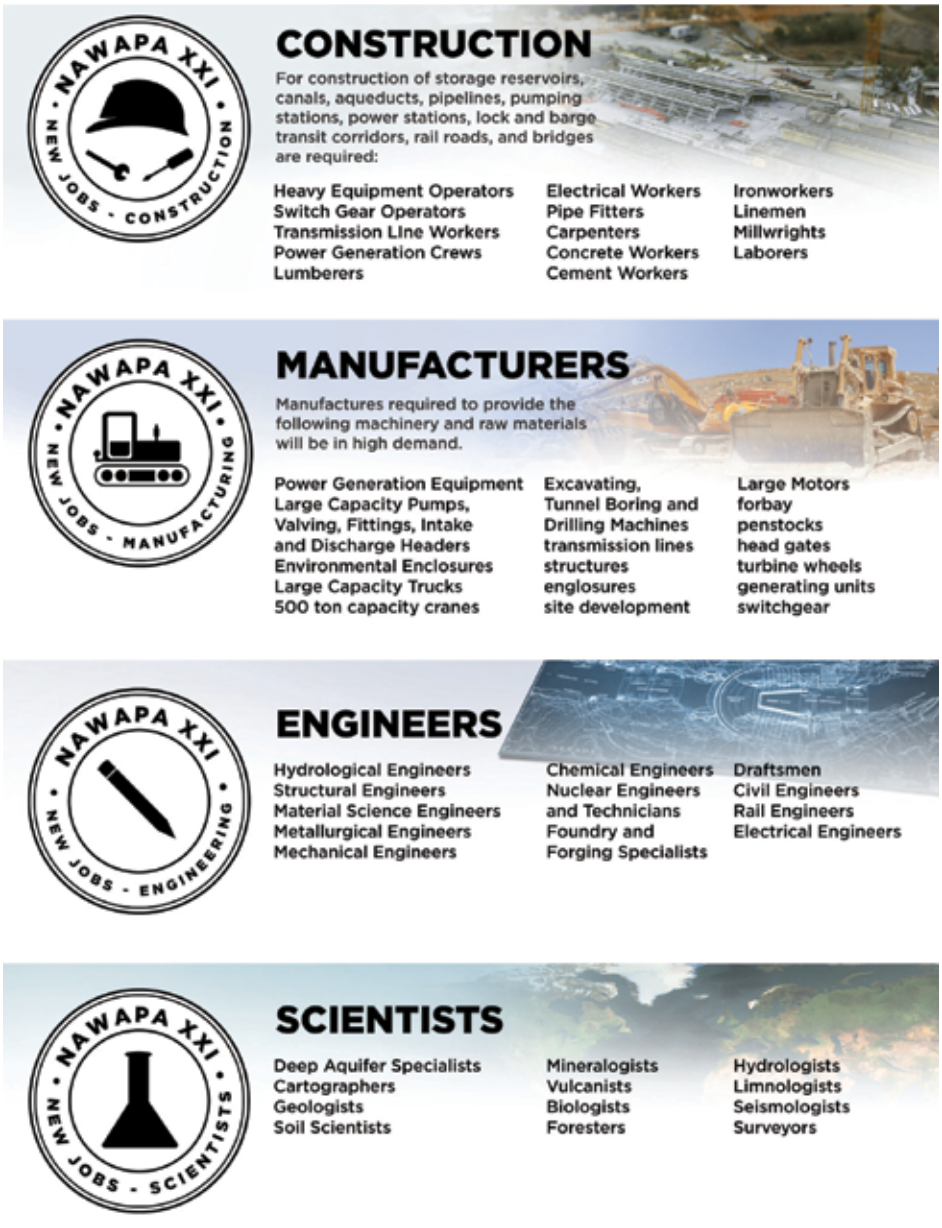
NAWAPA XXI will make it possible for the nations of North America to increase their agricultural and industrial power into the foreseeable future, rather than undergo self-cannibalization and allow whole sections of the United States to be shut down and depopulated.

Studies on the negative impacts of dam-building should be thrown aside. The failure to build the project has had the worst effects of all: the collapse of food production, abandonment of land, decreasing production and industry, and the threatened shutdown of whole cities throughout the West. The dam-building process must continue. Mankind must build the higher process which takes mastery of the biosphere's cycles. That is real scientific development, not a stagnant process of watching our cities die and our farms close, and our population shrink, by submission to an ideology.

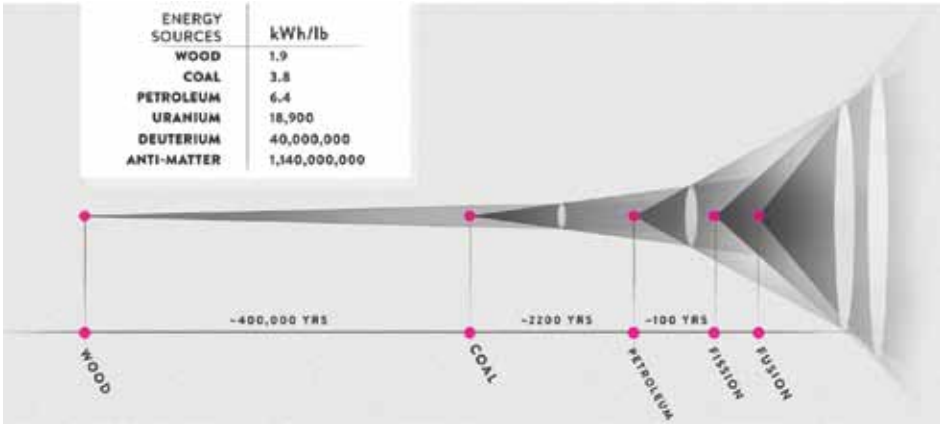
The historical development of the biosphere shows the stunning error of the over-population ideology. Increasing consumption of resources and energy in each evolutionary step of the biosphere has been the rule, made possible not by simply increasing consumption, but by increasing the supply through additions of new principles and new complexity to the system. Mankind's own technological advancement has mirrored this evolutionary process, something impossible for other animal species: Scientific discoveries and their application create new organizations, accessibility, and coordination of resources, as well as wholly new resources.

A society that willfully imposes an ideology that collapses its own growth process—an ideology at odds

Seven Million Jobs



Man's Use of 'Fire'



Energy densities of the various forms of "fire" discovered by man. The pitches of the cones represent energy-density, and apexes respresent the time of discovery. As a higher cone reaches the previous one, the old technology becomes eclipsed in its use in the economy. Both the rate of discovery, and the relative energy ratios, are increasing dramatically. While two millennia separated the introduction of petroleum after coal, with a doubling of energy density, it took only one century before the introduction of nuclear power, with a thousand-fold increase in energy density.

with the scientific history of the energy-flow of the biosphere and mankind's role in it—is unfit to survive. Only a fundamental break with the irrational ideology of over-population and conservation of resources, will lead to the sustainable development of mankind over the coming decades. Let us reverse the four decades of cultural and economic decay that we suffer from today, pick up where Kennedy left off, and turn our generation of youth and young adults from being a wasted generation into the generation that built NAWAPA XXI.