

emplace the appropriate number of nuclear-energy plants to clean its waters as a by-product of its basic operations. Along ocean coastal sites for nuclear-energy plants, we should cease to waste the benefits of fish-farming potentials available to us.

The case of nuclear-energy production's role in cleaning and otherwise managing our water resources is only the most obvious example of a broad range of many high-technology approaches to economical management of fresh-water throughput. If we concentrate on making energy cheaper, as only nuclear technologies enable us to do this, cheaper energy, especially energy available for use at higher operating temperatures (or equivalent), permits us to deploy various mechanical and chemical approaches to purifying water, and to increasing fresh-water supplies with large-scale, and, ultimately, acceptably economical desalination of ocean water.

To the extent the NAWAPA and related engineering work develops relatively large-scale throughputs of fresh water, we must foresee the development of new urban centers in our Western states in particular. Our emphasis ought to be on developing the kinds of agro-industrial centers of urban activity most useful to the agriculture and forestry of the adjoining regions, for both the immediate years ahead and the more distant future.

Some of this must involve initiatives by the federal and state governments, especially in such important matters as political decisions setting aside various portions of federal lands and state lands for assigned categories of future use and development, and for establishing priorities for steering credit and encouragement to investment.

With modern energy technologies, especially in the nuclear-technologies' spectrum, "urban" need no longer

The lineup on the NAWAPA plan

The North American Water and Power Alliance (NAWAPA) Plan was developed in 1964 by the Ralph M. Parsons Company of Pasadena, California. The plan would use a natural reservoir, a 500-mile-long valley high in the Canadian Rockies, which contains the headwaters of major U.S. and Canadian rivers. NAWAPA would catch and store the water at this high elevation and transport it down in a series of irrigation canals on both sides of the Rockies.

To the east of the two irrigation canals, through the Great Plains, would run a north-south canal between the Rockies and the Mississippi, with a lateral branch into Lake Superior.

The natural east-flowing rivers would then be used as multiple connecting links between the perimeter canal directly east of the Rockies, the navigation canal passing through the heart of the great Plains, and the Mississippi River.

NAWAPA would move 130 million acre-feet of water per year (MAFY) for U.S. irrigation; another 20 MAFY for navigation; and 100 MAFY for Canada and Mexico. It would cost \$130 billion in 1979 dollars. Instead of being a net user of power, it would supply over 50,000 Megawatts Electric (MWE) in hydroelectric capacity *above the amount of power used to move the water.*

Recent lobbying efforts by the National Democratic Policy Committee, led by its Southwestern coordinator, Nicholas Benton, have caused various public figures to again look at NAWAPA.

Kansas State Rep. Keith Farrar who has endorsed legislation to restudy NAWAPA, is a member of the official governmental body charged with finding new water sources to replace the Ogallala aquifer, which is being rapidly depleted, the High Plains Study Council. He prefers the continental approach of NAWAPA to the "regionally limited approach" of the High Plains Council. Democratic Senatorial candidate in California Will Wertz, has released a White Paper endorsing the Peripheral Canal Project in that state, stating: "a victory for the Peripheral Canal will strengthen the nationwide fight for NAWAPA . . . the benefits are . . . enormous stimulation of the U.S. economy as well as the associated advantages from the agricultural development in the Mexican state of Sonora, which would receive 40 MAFY of water."

Robert Delano, President of the American Farm Bureau (AFB), said at the AFB annual convention in San Diego Jan. 12: "There is a great need for a national water policy that clearly spells out this priority while allowing the development of major water supplies to meet present and future needs of the entire North American continent."

But Interior Secretary James Watt's response to a question about NAWAPA at the press conference was: "The economic costs would be staggering and the environmental consequences would be beyond calculation. . . . There are lots of things we can do for better conservation of water resources."