
Interview: Senator Frank Moss



Revive the water-from-Alaska plan to make U.S. dry regions flourish

Frank Moss, former Democratic senator from Utah, during the 1960s spearheaded the U.S. Senate's investigation of the feasibility of a plan known as the North American Water and Power Alliance (NAWAPA), originally developed by the Ralph Parsons Company of California, for bringing water from Canada and Alaska to the United States. He was interviewed by Nick Benton.

EIR: Senator Moss, I would like to begin by asking you to describe, generally, the NAWAPA concept, how it would function and what its benefits would be.

Senator Moss: I was born and have lived all my life in the arid part of the United States—that is, in Utah, where it is necessary that we impound and divert and use waters that are deposited in winter months in order to live through the long dry spell and be able to inhabit this state that looks so bountiful now. So, I've been interested in problems of water and the use of water ever since I can remember. When I went to the Senate, one of my great interests was to see that we were able to develop additional water sources for the arid parts of our country, and that that area continue to expand beyond where originally we thought our desert states were concentrated. In the course of my assignment in the Senate, I was placed on the Interior Committee and assigned to the Water and Power Subcommittee, of which I became chairman at one time. Our object then was to examine and determine the water needs of the country and to plan as we could ways of meeting the increasing, continuing demand of people to support populations in arid areas and produce crops and build homes and businesses in a part of the United States that is delightful in every way if you have water.

Out of all of this came my first introduction to the NAWAPA concept of bringing water down from the northern part of the continent into the arid areas of the United States and old Mexico, and indeed some of the prairie provinces of Canada. The fact is that water falls unevenly because of the weather we have in various parts of the continent and various

parts of the United States. Also, the fact is that the northern area of this continent, which is cold and inhospitable for agriculture or even for living conditions of people, is also where a great deal of the water is deposited, and it drains off into the Arctic Ocean, and therefore it has little or no use. The concept of NAWAPA is to be able to divert some of that water—not all of it—from these great rivers that flow northward into the Arctic, and turn that water south back down through Canada into the United States and on to the Republic of Mexico.

The feasibility of this has been worked out by the Parsons Company of California, and they have outlined a concept which would enable whoever built the system to divert that water and in the course of turning it south, drop it several times through generators that would produce electricity along the way, and thus be able to provide some energy in addition to the more valuable water. There would be some engineering needs for tunnels and some channeling; however, the major part of this system could be built without additional diversions other than using river courses that are already in existence, that probably have to be widened and banked a little, but the engineering work is not anything beyond the art we already have. The net effect of sending this water south would be to make inhabitable, in fact delightful, great areas of our country and some of these prairie provinces of Canada, simply because water becomes available for agricultural, industrial, and municipal uses.

It would be extremely valuable in Mexico, which has very good soil and conditions if they have water. Agriculture could thrive down there, and cities grow up and people have more income. So, the whole idea intrigued me very much, and I looked into it through the committees upon which I served, to try to determine whether or not we should go ahead and start on this sizeable project.

The opposition that arose came from two or three sources. First, the faint-hearted who simply said, "It's too big; it's overwhelming; you can't do that on a continent-wide basis."

But there were others who had more parochial objections. The Canadians were very skeptical about it. They were fearful that perhaps they were losing control of some of their waters. Indeed, we were suggesting that they sell the water to the users who would be able to use it on the other end in the United States and elsewhere, so my argument back to the Canadians was to say, "You're just selling us something that you have in surplus, like any other product you might want to sell us, and this is a renewable resource. It comes back year after year after year. So you have nothing to worry about as long as you sell only the surplus water you have."

There were other parochial objections. There was some fear in the northwest on the Columbia River, that some way or other they might be losing some of the flow of that great river, although it should be pointed out that if this project were put into use, it would guarantee the flow of the Columbia River, as there would be water available, if at any time that flow did drop, that could augment the flow of the river.

Never did we get far enough to have any authorization either from our government, from the Canadians, or, indeed, from the Mexicans, although the Mexicans were excited about it and I'm sure would have come forward if Canada and the United States had taken the lead.

So, there were hearings held, there was a great deal of data compiled. The more we looked into it, the better it seemed. Besides the use of water for irrigation, there would be a large barge canal that could be built across Canada to bring agricultural products by water transportation to the Pacific coast as well as into the Great Lakes. One arm of this system would dump some water into the Great Lakes to keep its flow high out through the St. Lawrence Seaway and guarantee that that would always be navigable. It had many side benefits like that.

In the United States, in addition to providing irrigation water in our flat-bottomed valleys out in the west, it could be a source for recharging what we call the Ogallala Aquifer, which is the great deposit of water beneath the High Plains of Texas and up into Kansas, Nebraska. It is an enormous aquifer, which has been pumped now for many years to supply irrigation water, and has therefore been dropping in level, so that in some places the cost of lifting the water by pump has become a factor and they've had to discontinue it.

NAWAPA is a great, inspiring concept and one that could be undertaken, and especially at a time when unemployment is high, it would furnish employment for a lot of engineers, workmen, and technical people, and would begin to fall into place a piece at a time. The whole thing doesn't have to be built before it begins to become valuable. You can build sections of it that link up ultimately, but would begin at a very early time to provide water to various places for various uses.

Finally, the thing I would like to say about water is that it is the absolute *sine qua non*, the life blood that we have to

have to live on this planet. If we foul up our supplies of water and contaminate them, or if we allow our deserts to expand and our country to be waterless in certain places, then we lose our standard of living and, in fact, our population would have to shrink. And if we can see the vision of NAWAPA, we can expand our capacity and our lifestyle, our income, for generations and generations into the future.

EIR: When the NAWAPA concept was first being put forth, it was seen primarily as a way of dramatically increasing the potential for development in the western part of the continent. Since the 1960s, it has become clear that our current supplies of water are diminishing and endangering even presently existing farmland and population centers. You mentioned the Ogallala Aquifer problem. All of southern California is also threatened. Doesn't this new reality make the need for a project like NAWAPA even more urgent today than it was back in the '60s?

Senator Moss: That is right. It is well known that the Colorado River that supplies not only southern California, but Arizona and several of the arid states, has been divided up by compact in the water that may be used in each of the states. This has been a long and tortuous struggle between different users of the Colorado River, because there wasn't enough water to go around. They made a division that they thought might be fair, but it was found that their estimate of the runoff of the river was high, and there were shortages. Southern California is feeling the brunt, mostly, of that division, as Arizona and the upper states are able to claim their share that was assigned in the compact. California has, of course, transferred a good bit of water from northern California to southern California, but still is in short supply. . . .

EIR: There was the recently completed High Plains Study conducted by Congress over the last half-dozen years, which expended \$6 million to demonstrate that transferring water out of the Missouri or Arkansas Rivers to the depleted High Plains area would not be economically feasible.

Senator Moss: Yes, that is my understanding; that is the finding of the study. The need for water is so great in the High Plains area, with the dropping of the level of the Ogallala Aquifer, that studies have been made of various ways whereby water might be reclaimed or rechanneled or utilized in some way to recharge the aquifer, but the study has not indicated that it is feasible to do it. It's economically and technically not satisfactory, whereas if water can be brought down by diverting those northern-flowing rivers and into this area, it appears—all the preliminary studies indicate—that that recharge will take place in quite a natural form and the aquifer will again rise to where it was several decades ago. . . .

It isn't just the far west and the arid part of the far west that is interested in this. The affected region extends all the way across the Great Plains, into the Dakotas, even into the

Great Lakes states. In the years that I have traveled back and forth between the east coast and Utah, I have observed that irrigation is creeping farther east all the time.

EIR: In the course of the study in the U.S. Senate, was there any opposition that claimed that the project was either technologically or environmentally unfeasible?

Senator Moss: I don't know that there was anyone who made that claim. . . . There was objection because the project was so great. When it was announced that the projects that would be built would cost \$100 billion overall, that was so shocking 20 years ago that a lot of people said it is out of range, that we could never afford it. But the estimates at the time was that it not only would amortize out over a period of about 20 or 30 years because of the return, but that there would be a steady income from not only the sale of water, but from power generated that would maintain the system and, indeed, turn in a profit after the amortization.

EIR: With the concerns today about the budget deficit and so forth, how do you answer those who argue that a project of this magnitude would be too expensive?

Senator Moss: I'm not an engineer, neither am I an expert on money, but it seems to me that we could very well begin this by the issuance of bonds which would be guaranteed by the government of the United States, maybe Canada and Mexico, too, whereby private money could be utilized in building the project and as it began to return income, as I said section by section, you would have money to repay the bonds, pay the interest, and ultimately retire the bonds. I don't think it is too big a project to depend on private money coming in, although there would have to be some sort of guarantee, I agree, to make the bonds saleable. People would have to feel that they were secure, but that would be the only involvement I could see for federal money.

EIR: What obstacles prevented NAWAPA from being implemented?

Senator Moss: As I said, there were some parochial problems, not only in the United States, but in Canada, too. The Canadians were fearful that some way or other they were going to be short-changed on the water exchange, and they were fearful that the control of the United States would be so strong that it would overshadow Canada. But I pointed out that the original concept was not only for the western northern-flowing rivers but the concept included turning around the rivers in the James Bay area off Hudson's Bay so it would flow toward the Great Lakes on the Canadian side, and have the same beneficial effects we're talking about, including improving the navigation and pollution problem in the Great Lakes. The Canadians have gone ahead and done that, and built it. So that little part of the overall concept's already been done by the Canadians and it is working very well. The one

we're talking about in the west is different only in that it involves more than one country and is larger in its scope.

I must say that I don't think the objections of the Canadians are insurmountable. I said that the Canadians had a sort of latent fear—and in generalizing that I must say not *all* Canadians, but the ones in governmental positions at that time, who had a fear that in some way the United States overshadowed Canada; and could be dictatorial and could take from Canadians something that they wanted to keep totally in their own grasp. . . . There was a kind of a mystique about water, I guess, that causes people to be fearful.

EIR: What do you feel are the prospects for overcoming the obstacles which prevented the development of NAWAPA back in the 1960s, as we head toward the latter part of the 1980s?

Senator Moss: First of all, what is needed is intelligent study and explanation that can be easily understood, so that people generally can appreciate and see the value of the project and not simply be frightened by big numbers and large volumes of water, so they can see it is a concept that is sound. Secondly, we'll have to have political statesmanship of the representatives that serve in the Congress and serve in the executive branch of the government dealing with resources, to be able to explain and adopt this concept as part of their responsibilities of serving the people. We'll have some problem reassuring some of the environmentalists who are fearful of any change in the course of a stream, or any movement that is not dictated by nature. But I don't think it is insurmountable.

EIR: As far as that goes, one could argue that from an environmental standpoint, of course, NAWAPA would also enhance the environment in terms of the recreational and natural conditions that would favor wildlife.

Senator Moss: Yes, that part would favor wildlife and recreational opportunities, and therefore would be considered desirable. But there are certain people who are preservationists to the point that they don't want any interference with the flow of water from what its natural course has become.

EIR: Would you go so far as to say that given the water crisis that is developing in the western part of the continent, we really have no choice but to develop this concept, that options just don't exist to meet the magnitude of the problem we have?

Senator Moss: Yes. I've always felt this project would come along at some time simply by the pressure of events, as population continued to grow and pressures for food and jobs and all these other things grew. I felt that we'd just simply have to turn to it, and we could make it so much better if we could turn to it right away with our planning and start to build it now.