

WESTERN WATER INSTITUTIONS IN A CONTEMPORARY PERSPECTIVE\*  
by  
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I

In the third edition of his classic treatise on Water Rights in the Western States, published in 1911, Professor Samuel C. Wiel noted that a fundamental change was taking place in western water law. The policy of encouraging free development of the land and water resources in the public domain, according to Wiel, was giving way to a policy of conservation.

He was sufficiently perplexed about the legal significance of these policy changes to note that, "It is so controversial and contains so much not concerning law, that a law-book upon a limited field had best not enter."<sup>1</sup> Wiel went on to note that, "The future of the Western law of waters will depend much upon the policy of conservation; at present that policy is in the ascendent, and demands a great change in the existing law."<sup>2</sup> However, for the purposes of his exposition, Wiel preferred to deal with the western water law of 1911 as "a branch of local jurisprudence."<sup>3</sup>

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<sup>1</sup>Samuel C. Wiel, Water Rights in the Western States, 3rd ed., vol. I (San Francisco, 1911), p. 166.

<sup>2</sup>Loc. cit.

<sup>3</sup>Loc. cit.

\*This paper was presented at the Western Interstate Water Conference, Las Vegas, Nevada, September 16-17, 1964.

Anyone who has been reading the decisions of the United States Supreme Court during the past twenty years can only come to the conclusion that water law has become something more than a branch of local jurisprudence. The Supreme Court has clearly indicated that inconsistent state law must give way to the requirements of federal law concerned with water resource developments. Some of our most cherished doctrines in western water law including the doctrine of state "sovereignty" over water supplies have come tumbling down. One court decision after another has indicated that water law is controlled by considerations of both state and national resource policies and can no longer be regarded as simply "a branch of local jurisprudence."

The imperative necessity of today in considering western water institutions is a critical assessment of where we are and a careful identification of some of the problems which must be faced if we are to make intelligent use of the region's water resources. In this essay, I would like to begin a critical reconsideration of basic water policies and institutional arrangements by pointing up some of the incongruities between traditional formulations and contemporary requirements. I have the profoundest respect for the intelligence and imagination that went into the formulation of the institutional arrangements which have done so much to facilitate the development of the American West. But, the

achievements of former generations do not remove the responsibility for using our best intelligence in analyzing contemporary developments and for using our most effective imagination in considering the future course of events. At the risk of oversimplification, I would like to challenge a few implicit assumptions and basic commitments which seem to pervade much of our traditional approach to contemporary water problems.

II

Until the turn of the twentieth century, American resource policy was generally based upon the assumption that large surpluses of underdeveloped wealth existed in the frontier region and that public policy should encourage the settlement and development of the region by making land and other resources freely available. Western mining law, the homestead law, and other land laws, and western water law were all based upon a policy of encouraging settlement by free development of resources in the public domain.

Today, the only major resource still subject to a policy of free development is water. Except for a nominal permit and license fee not unlike the old homestead fee, no serious attempt so far as I know is being made anywhere in the West to establish water rent or production charges which reflect the value of water at its source.

The absence of an adequate water production charge

to reflect the value of water at its source leads to gross distortions in emphasizing consumptive, on-the-land uses of water as against non-consumptive, in-the-channel uses. It is this kind of assumption that enables many Westerners to talk loosely about water wasting into the ocean without taking account of its value for navigation, for power production, for recreation, for waste disposal and as a habitat for fish and wildlife. Somehow we need to bring both consumptive, on-the-land uses and non-comptive, in-the-channel uses into a more balanced accounting in dealing with water resource developments in the future. A free water policy can no longer be justified on the grounds that Southern California, for example, is an undeveloped land. Such highly developed regions should be prepared to pay a water production charge or a water rent which would at least reflect the value of foregone opportunities for in-the-channel uses of water at its source in addition to the costs of storage, diversion, transmission and distribution.

In the development of the San Joaquin units of the Central Valley Project, for example, inadequate attention was given to the value of in-the-channel uses when the decision was made to divert substantially all of the river flow southward into the Tulare basin. A salmon run of some significance was destroyed. Enterprises based upon recreational uses of the river were jeopardized. Only after a political hassle aided and abetted by rice farmers, who did not want to pasture

ducks in their rice fields, were the duck clubs in the San Joaquin grasslands successful in securing water at a price comparable with that paid by local irrigators. Both the Bureau of Reclamation and the California Department of Water Resources are now concerned with the problem of sewerizing the San Joaquin Valley. The mark of "full" development is apparently attained when no water reaches the ocean except through sewer outfalls. When we begin sewerizing our river valleys, we have long since passed the point where we can rationally justify a policy of free access to water, and fail to establish a realistic price to reflect the value of water at its source for various joint and alternative uses.

### III

Other facets of western water law appear to reflect assumptions of the pastoral simplicity implicit in 19th century life when individual proprietors acquired water rights for the use of water on their own private lands, or organized themselves into cooperative enterprises or public entities to provide water for their several individual holdings from a single source of supply. Everyone was entitled to his fair share of nature's bounty; and the significant points at issue were the rules for sharing the bounty. Most took their stand on a first come, first served basis. Others insisted that every proprietor should share and share alike. Surface waters were commonly distinguished from ground waters. The traditions of creak law

with a water master to distribute rightful shares among the lawful claimants represented a highly advanced solution in water resource allocation. A man's right to water represented an imperative necessity; and if adequate institutional facilities were not available to settle controversies, conflicts over water rights might easily erupt into open violence.

In contrast to this sense of pastoral simplicity, our modern water institutions of today are coming to more closely resemble the complex structure of a highly integrated industry dominated by two or three large-scale water producers, amid a menagerie of independents, with a vast variety of wholesalers and distributors supplying diverse water services to the ultimate consumer. More and more frequently, the ultimate consumer receives his water supply as a utility service furnished by some agency whose principal business is the provision of water services. He is no longer an individual proprietor who owns his own water rights and produces water from a single source for use exclusively upon his own land.

The modern water industry is more apt to represent a complex series of agencies, operating a coordinated system of works, supplied from alternative sources and providing water for a whole regional complex. The life and death dependence of the single proprietor upon a single source of water supply has been replaced by the relative security of a firm supply from alternative sources furnished at a fair price. Modern

water production requires complex management strategies for the conjunctive use of alternative sources of supplies, and no longer justifies the hard-nosed strategy, of taking what you can get and letting the devil take the hindmost.

The highly coordinated regional water industries with alternative sources of supply provide vast new opportunities for institutional arrangements which will facilitate the efficient use of water resources. The distinction between surface and ground water rights no longer represents a reasonable distinction in such regions and stands as an obstacle to optimal management of a conjunctive use system. With alternative supplies available, a water right for the individual proprietor is not an all-or-none condition of survival but, at most, represents a marginal price advantage.

Incipient market mechanisms have begun to develop among water supply agencies in some of the more highly coordinated regional water industries. In some of these areas we may not be very far away from the development of open regional water markets where it would be possible to permit inefficient water producers to sell out at a fair market value. Certainly many small inefficient producers would prefer to sell at a fair price rather than be exposed to complex legal procedures and the loss of their water rights through default because of the high costs of litigation. If water is indeed valuable, we ought to allow its value to be reflected in an incentive for

the inefficient producer to transfer the use of water to more efficient producers and to encourage the development and reclamation of water from diverse sources of supply within the latitudes of the marginal price of the most costly incremental supply.

Southern California, for example, with its multi-billion dollar water industry appears to be making painfully slow progress toward the development of a regional water market. In addition to the development of alternative sources of supplemental supply, actions have been taken to adjudicate ground water rights, to price water production through pump taxes, to undertake the reclamation of waste water and to replenish ground water supplies. With all of this effort the region is still threatened by salt water intrusion because many small-scale, inefficient producers continue to supply their base demands for ground water sources simply because these supplies are cheaper than imported water. By contrast, these same ground water supplies have a premium value for producers who can use local ground water to meet seasonal peak demands during the summer months. The critical step remains to be taken. If access to pumping can be controlled, efficient producers should be able to offer a sufficiently attractive price to find willing sellers and be able to convert these basins to their highest economic use through a market solution. In the West Coast Basin, for example, the

differences in value represent a magnitude of a few hundred dollars per acre-foot as the value of a water right devoted to base supply as against an additional \$15,000 per acre-foot as the value of a local ground water right devoted to seasonal peaking. With such magnitudes, a substantial opportunity would exist for market transactions to facilitate the transfer of water from lower to higher uses.

IV

The modern water industry in the American West needs to be critically evaluated for what it is -- a large-scale system of predominantly public enterprises engaged in a multi-billion dollar business. Perhaps it is our private enterprise bias which has prevented us from seeing this public enterprise system as one of the region's most important industries. Or, perhaps it is our organization-chart mentality which leads us to assign every agency of government to a unique niche in some bureaucratic structure. In any case, none of us has an adequate understanding of the politico-economic structure and conduct of this type of public enterprise industry which has developed in our midst.

The task of disciplining an industry composed predominantly of public enterprises by the economic and political "realities" of life was not especially difficult so long as the western water industry was composed predominantly of local public enterprises. These agencies were subject to the

political responsibility of sharing most major decisions with the local voters who were also the local patrons. They were also subject to the financial responsibility of paying for the cost of any undertaking.

Since the beginning of the Great Depression, the large-scale water production agencies of the federal government have come to occupy an increasingly significant role in the water industry. The strategic opportunities for undertaking new ventures in the industry have been significantly modified by the introduction of quite different political and economic "realities." Scales of operation have shifted from one of undertaking individual projects to the development of whole systems of projects. Recent United States Supreme Court decisions have also confirmed a fundamental shift in the center of authority concerning water resource developments.<sup>4</sup>

More than ever before, we are confronted with the task of designing institutional arrangements which will effectively discipline the course of decision-making involved in water resource development. We need vigorous entrepreneurs who can think big, but we also need critical analysts who can carefully assess the consequences before we plunge into giant

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<sup>4</sup>City of Tacoma v. Taxpayers of Tacoma, 357 U.S. 320 (1958), Federal Power Commission v. Oregon, 349 U.S. 435 (1955), Ivanhoe Irrigation District v. McCracken, 357 U.S. 275 (1958), Dugan v. Rank, 372 U.S. 609 (1963), City of Fresno v. California, 372 U.S. 627 (1963), Arizona v. California, 373 U.S. 546 (1963).

undertakings. It is doubtful that a promoter is the best one to evaluate the adverse consequences of his own proposal. Yet in the water industry we typically rely upon the large-scale water production agencies to evaluate their own proposals. It is doubtful if Congress or a state legislature is now properly organized to make efficient investment decisions. How then, can we devise adequate institutional arrangements to assure that decisions are made in light of competent economic analysis rather than being sustained by a promoter's economic justification? The best way to make rapid progress in reverse is to undertake a giant scheme that sustains a larger flow of costs than benefits. The bigger the scheme; the more you lose.

The water industry with its long-time horizons, which typically extend at least fifty years into the future, also needs some comprehensive past-audits to give us a critical evaluation to see what we can learn from past planning experiences. Where, for example, did we go wrong in the Colorado basin? Would a series of low dams have been more efficient than the initial commitment to the high dam at Boulder Canyon? What happened to the voices which gave warning of the limited water crop in the Colorado basin? Will we be left with multi-million dollar developments which become legally obsolescent even before the bonds are paid off? Are we still crashing ahead on the same course of development in the Colorado basin without due regard for what is happening in evaporation losses

and the deterioration of water quality? Who bears the consequences for mistakes in the water industry? Are time horizons too long to hold anyone responsible except the future generation of rate payers? What safeguards can be built into the planning process to avoid an unnecessary preemption of the freedom of future generations to decide their own course of action?

We are also confronted with the task of designing institutional arrangements in our modern water industry which will discipline the conduct of all of the different enterprises functioning within the industry to sustain an efficient and equitable performance in the development of the region's economy. We need to nurture strong countervailing powers in the basic structure of the water industry in order to assure a balanced consideration of all of the interests involved and a proper proportioning of the complex bundle of goods and services which are produced from the region's water resources.

In many cases we need to add to the voting strength of the ballot box by an opportunity to bid with our dollars for the services which we value. The appropriate use of fishing license fees supported by some imaginative entrepreneurship, for example, offers an opportunity for giving the fisherman a better voice in the allocation of water resources. We have hardly begun to exploit the opportunities that are available in a public enterprise system to sustain an imaginative public

entrepreneurship in the development of western water resources.

In addition to more effective competition among the primary producers of different water services, the water industry requires a proper balancing of interests between large-scale water production agencies and local agencies which represent the interests of local water users. The bigger the scale of water resource developments and the more powerful the large-scale water production agencies become, the more important it is to maintain the strength, vitality and independence of the local agencies and to sustain their bargaining power on behalf of the ultimate consumer. Many of these forces are actively at work in the conduct of the present-day water industry. The critical problem is how to sustain and nurture a competitive, arm's length relationship in a public enterprise system which will enable agencies to undertake cooperative developments which are of mutual benefit, permit them to say "no" to developments which are not in the interest of the local community of water users, and to bargain for a fair deal.

The task of developing a public enterprise system which can sustain an arm's length relationship is an extraordinarily sensitive problem. Large-scale water producers undertaking big development projects have every incentive to want to commit local water service agencies to iron-clad arrangements which will minimize the risks involved in such

undertakings. If no effective alternative is available, the large-scale producer can usually have its own way in the long-run. As added alternatives become available, the local water distribution agencies occupy a stronger bargaining position.

So long as local agencies can sustain their independence they will find it expedient to search out alternative solutions.

These alternatives might even include support for the entry of a new large-scale producer, such as the California Department of Water Resources, to give more competitive viability in relation to the established producers.

While the large-scale production agencies are apt to be oriented toward the big schemes, the smaller agencies are apt to pick up the bits and pieces which are left behind, and in the process attempt to sustain an effective bargaining position. Thus, the dramatic projects like the California Aqueduct find their counterpart in other ventures such as the water reclamation project now being undertaken by the Los Angeles County Sanitation Districts, the Los Angeles County Flood Control District and the Central and West Basin Water Replenishment District to reclaim waste water for ground water replenishment purposes. These efforts by local agencies to pursue the alternatives available to them is both a means of sustaining their local autonomy and of securing a higher degree of efficiency in the development of local water resources.

At this point in the development of the western

water industry we have a number of exciting prospects before us. In some areas where we have a highly coordinated regional water industry with alternative sources of supply we might anticipate the development of more effective market arrangements. Where regional water markets do develop, the relatively simple procedure of an economic transaction may replace some of the highly complicated legal maneuvers which have preoccupied most ventures in the water industry. With appropriate pricing through the use of sophisticated license fees we should be able to encourage a much more vigorous public entrepreneurship on the part of those who are concerned with the management of our fish and wildlife resources and with the use of our water resources for a variety of recreational purposes. Such developments might point the way to a whole new reconsideration of the fundamental issues of water resource policies in a rich and prosperous land which must make the most efficient use of its limited water resources for the amenities of life which grace western living.

Finally, we face the task of organizing an efficient and well-balanced water industry which provides a place for the great variety of federal, state and local interests which have become involved. Arguments over "state sovereignty" can only confuse the issue. The task before us is to develop and sustain an open, competitive public enterprise system which will provide opportunities for imaginative venture in public entre-

preneurship and which will be properly disciplined by contending and countervailing forces to assure an efficient and well-proportioned development of the region's water resources.