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After the Concrete Sets: The Future Role of the Bureau of Reclamation in Western Water Management

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AFTER THE CONCRETE SETS:

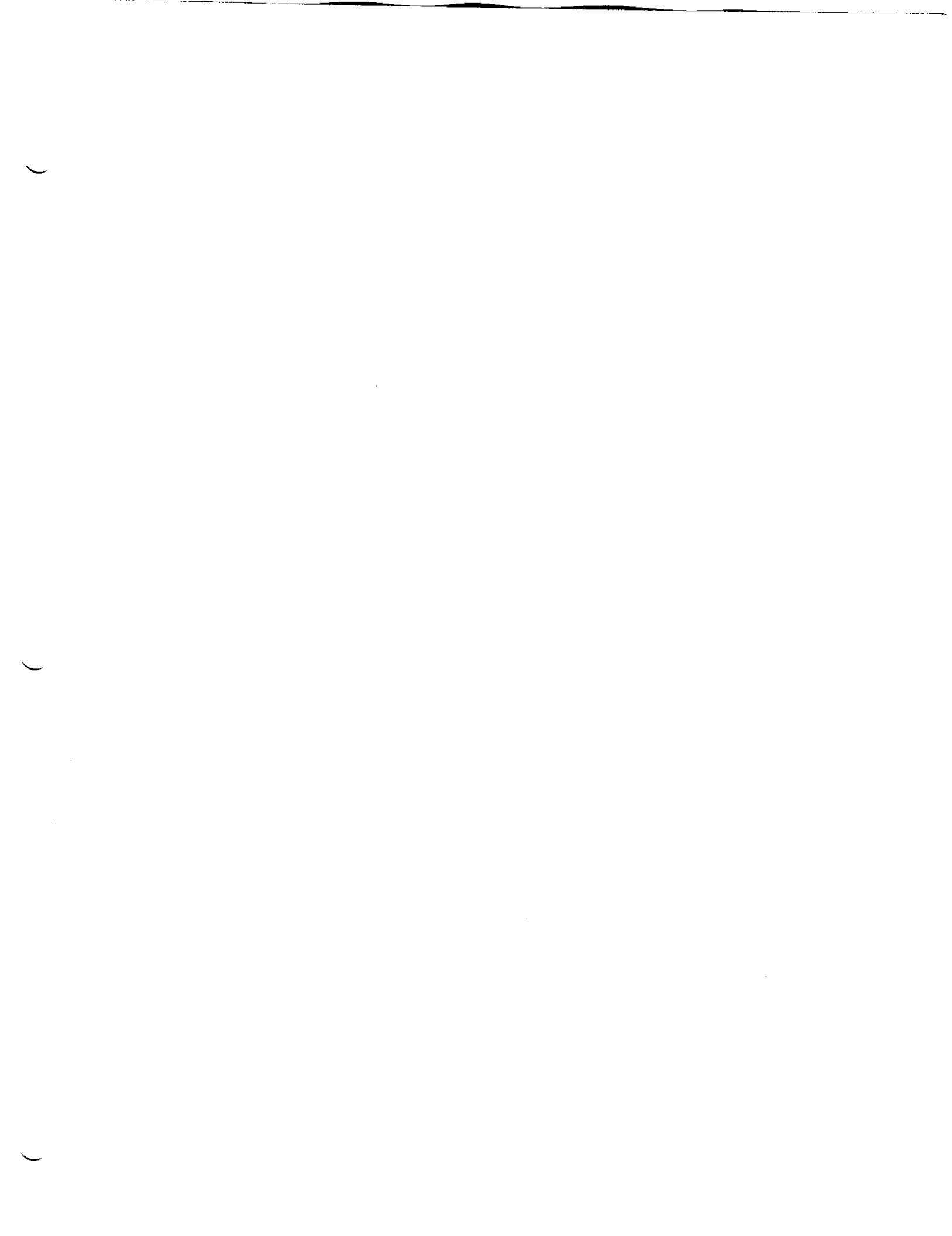
The Future Role of the Bureau of Reclamation
in
Western Water Management

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Western Water: Expanding Uses/Finite Supplies

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I. INTRODUCTION

Since 1902 the Bureau of Reclamation has been a major player in Western water development. Its dams and ancillary facilities are now found in every Western state, supplying water for a variety of purposes to millions of acres and millions of people, as well as hydroelectric power that facilitates water delivery and groundwater pumping.

A number of constraints are converging to spell the apparent end to the Bureau's traditional role in constructing large facilities to store and convey surface water. Most of the West's major rivers are now fully controlled. Many prime dam sites have already been used, and using those that remain encounters stiff opposition. Costs have escalated and benefits are regarded more skeptically than formerly, but increasing subsidies in order to justify more projects is difficult in the face of federal budgetary deficits, environmental criticism, and opposition by non-reclamation states. Inter-regional transfers, such as exporting Columbia River basin water to the Colorado River Basin, once promised to be the next major phase of both Western water development and Bureau of Reclamation activity, but the promise has

faded rather dramatically in the last decade or so.

Although the Bureau has a healthy backlog of authorized but uncompleted projects, the justification for many of these is so shaky that realists inside and outside the agency don't expect them to be built, at least in originally planned form. Instead, most foresee a steep decline in Bureau construction activities after the Central Arizona Project, and that portion of the Central Utah Project now under construction, are completed in the early 1990's. (These two projects have for the past several years accounted for the lion's share of Bureau construction appropriations.) The Reagan Administration has proceeded full bore with funding the CAP and the CUP but has, like its predecessor, generally been more tight-fisted with other projects, especially ones authorized but not yet under construction. Mere mention of requiring local beneficiaries to contribute to the costs of the latter up front (so-called "cost-sharing" -- a Carter Administration proposal that the Reagan Administration made its own, although not consistently) may be tantamount to killing them, given the tenuous economics behind them.

What, then, will become of the Bureau? Does it

have a meaningful role to play in the new era of wiser, more efficient management of Western water? Can it transfer its political and engineering skills, historically used to enlarge the pie of Western water, to a new era that seems to require recarving the pie? In the process of recarving the pie, what is the Bureau's responsibility regarding the use of water from existing projects, including transfers to new places or kinds of use?

General Reference Sources on the Bureau

1. Michael Robinson, Water for the West: The Bureau of Reclamation 1902-1977 (Public Works Historical Society, 1979).
2. Alfred R. Golze, Reclamation in the United States (1961).
3. W. Warne, The Bureau of Reclamation (1972).
4. Marc Reisner, Cadillac Desert (forthcoming, August 1986, from Viking-Penguin).

[The first is a semi-official history of the agency and contains a useful bibliography. The second and third are generally uncritical, at times even fawning, in their praise of the agency and its works. The fourth is a distinctly revisionist and often sharply critical analysis.]

Sources on Reclamation Law

Still the best work, though increasingly outdated, is Joseph Sax's chapter in Volume 2 (pp. 111-291) of the Waters and Water Rights treatise (R. Clark ed., 1967, with a 1978 Supplement by M. Byron Lewis).

In recent years the law reviews have published a steady stream of articles on reclamation law. The best single article, though considerably outdated, is Frank Trelease's "Reclamation Water Rights," 32 Rocky Mt. L. Rev. 964 (1959). Another useful publication, though purely descriptive rather than analytical, and also now badly outdated (a new version has been in the works for a decade or more,) is Federal Reclamation and Related Laws Annotated (3 vols., U.S. Dep't of the Interior, 1972) that covers 1902 through 1966.

For a modern (and critical) economic analysis of reclamation policy, see E. Phillip LeVein, "Reclamation Policy at a Crossroads," 19 Bull. of Inst. of Gov't Studies, U. Cal. Berkeley, no. 5 (Oct. 1978).

For a detailed view of the law and policy surrounding a large and controversial Bureau project, see "Special Task Force Report on the San Luis Unit" (U.S. Dep't of the Interior, 1978)

(Westlands Water District on the West side of the San Joaquin Valley), and "Westlands Water District-Legal Questions," 85 I.D. 298 (1978).

II. A Thumbnail History of the Bureau

John Wesley Powell is often described as the father of reclamation, though he did not advocate a federal public works agency like the Bureau. But Powell's ideas did lay some groundwork for the emergence of the Bureau, with the Reclamation Act of June 17, 1902, 32 Stat. 388, codified at 43 U.S.C. § 391 and scattered other sections in 43 U.S.C.

The early projects, authorized by the Secretary of the Interior exercising power delegated by Congress in the Reclamation Act, see 43 U.S.C. § 411, were almost exclusively for agricultural irrigation and, perhaps because the federal subsidy involved was so limited (merely an interest free loan to be repaid over ten years) were frequently financial and social failures. A series of acts, studies, and more acts followed that overhauled the program, forgiving debts, stretching out the repayment terms, and manifesting a steady search for a formula that would make the program politically, if not purely economically, viable.

In the decade of the 1930's, that formula was located, based on new engineering techniques that allowed construction of giant dams, beginning with Hoover on the lower Colorado, to serve multiple purposes including flood control, storage, electric power generation, and water for municipal and industrial uses as well as agriculture. Other big projects followed, and the decade closed with passage of the Reclamation Project Act of 1939, 43 U.S.C. §§ 485-485K, that greatly loosened restrictions on repayment and other terms. This decade saw the liberal vision of the New Deal united with Jefferson's agrarian myth and "can-do" engineering hubris to move the program into high gear, and nary a dissenter was to be found.

The post World War II era, through the mid-1960's, was the Bureau's golden age, as its projects multiplied and it for the most part successfully resisted incursions by the other major federal dam building agency, the Corps of Engineers, into its Western turf. But, dissenters began to appear. (Raymond Moley, New Deal brain truster, became the earliest prominent critic, on mostly economic grounds, with publication of What Price Federal Reclamation? in 1955.) The successful fight against the Echo Park dam in

Dinosaur National Monument and its tradeoff, the damming of Glen Canyon, in 1956, and the even more heated battles over dams in the Grand Canyon in the 1960's were the modern turning points in Bureau evolution. Its future was seriously constricted by limitations on interbasin transfers grafted onto the Central Arizona Project Act in 1968, and its critics bolstered by the report of the National Water Commission in 1973 (a report commissioned by Congress in companion legislation to the CAP Act), that recommended drastic reduction of federal subsidies for water development.

Today, the Bureau is besieged by environmentalists, fiscal conservatives, easterners fighting for a larger share of the national park barrel, as well as critics from within its own traditional western constituencies -- farmers, cities and industry -- who are increasingly, and publicly, at war with each other over the allocation of the Bureau's subsidies. These interests are sometimes joined by the western states themselves, some of whom have occasionally challenged Bureau policies and practices.

III. The Future - New Projects and New Directions

It is difficult to generalize about the

Bureau's future because its past has been characterized by a flexibility, remarkable for a government agency, to adapt to local circumstances and conditions in designing and building water projects. Although its original (and still core) constituency was agriculture, for example, the Bureau readily moved, without a backward look, to build projects to serve municipal, industrial, flood control and other interests. It even participated in building a coal-fired power plant in the early 1970's to supply electricity for the Central Arizona Project. Its genius at helping create local political coalitions and then tailoring projects to satisfy them could lead it to continue to play a major role in Western water development.

Nevertheless, many of the factors discussed above that argue against major new projects are seemingly intractable. Moreover, the Bureau's historic expertise, and its bias, is pouring concrete, and not promoting efficiency, conjunctive use of groundwater and surface water, and other techniques on the cutting edge of water policy in the 1980's. Today, for example, well over half of the Bureau's personnel are still in construction-related functions.

This bias toward what is euphemistically called in the trade "structural solutions" has tended to permeate Bureau attitudes toward "non-structural" methods of meeting the real water needs of the West. The Bureau did not, for example, strenuously resist groundwater regulation in Arizona largely because, I suspect, once the CAP is completed there are practically no more local projects to be built in the state. But the Bureau has vigorously opposed groundwater regulation in California's Central Valley because the undammed North Coast rivers still beckon invitingly for dams. (Indeed, the Bureau has never charged local valley beneficiaries of its surface water projects in California's Central Valley for the recharge of groundwater resulting from the Bureau's importation of new supplies of surface water, arguing the improvement is merely the "unavoidable result" of such surface water imports. In Arizona, on the other hand, Bureau projects like the CAP and, even as early as the 1930's, the San Carlos project have called for conjunctive management of ground and surface water.)

Similarly, the Bureau has attempted, with mixed success, to move into cloudseeding research and applications, probably largely because it offers

some new opportunities to build projects to capture and deliver the "new" water produced. Its cloudseeding programs have been attacked as too promotional for this very reason.

This points up the central problem: One could foresee a future for the Bureau in such areas as data gathering, providing technical assistance for on-farm management to improve irrigation effectiveness, and undertaking demonstration projects for groundwater recharge, conjunctive use management and the like. Indeed, this shift in objectives is the kind of thing institutions with a self-preservation instinct grab onto to survive in a greatly altered milieu. But in the Bureau's case there is room to doubt whether it will occur. For one thing, the agency itself may not be content with such a less glamorous role. Taming wild rivers surely offers more challenge and romance than improving irrigation efficiency. For another, it may be doubted whether the Bureau has the ability to play such a role effectively. Employees of the Bureau who show interest or expertise in non-structural solutions have historically tended to be isolated or even driven out because their approach was perceived, probably correctly, as undercutting the agency's traditional mission to

build projects regardless of efficiency concerns. The result is a substantial vacuum of talent on this approach within the agency. Third, environmental groups and other critics of the Bureau are likely to oppose any such attempted transformation because in their view a leopard doesn't readily change its spots. In short, though the Bureau's historic bias toward large capital-intensive construction projects seems simply ill-suited to current realities, prospects for change are not rosy.

If the Bureau does successfully adapt to this seemingly inescapable modern reality of no major new projects, it will be a very different Bureau; much smaller, for one thing, and with a much altered range of expertise. History teaches that government agencies don't easily disappear, but there is at least a reasonable prospect that the Bureau will become largely irrelevant as a force in water resource development and management in the West.

Having said all this, some parts of history does suggest that the Bureau can function as a leader for the Western states in promoting better water management. Many of the western states' early water rights adjudication systems were

patterned after the model water code designed by Morris Bien, a Bureau attorney, at the turn of the century. Indeed, many early stream adjudications in the Western states were (much to the chagrin of many Indian tribes) prompted by the Bureau, as it needed secure water rights in order to undertake new project construction. And the Bureau does have close relationships with some western water management entities, especially irrigation and other special water districts. Significantly, in some cases the Bureau is closer to these districts than the relevant state agency is. But whether this history and these relationships are enough to overcome the obstacles identified above to such a shift in orientation is still anybody's guess.

One cautionary note. Although the scenario that seems most realistic, even compelling, today is for no new major projects, the pendulum could always swing back toward the Bureau's traditional approach. Some are now theorizing, for example, that the "greenhouse effect" caused by a buildup of carbon dioxide and other gases in the upper atmosphere could reduce the average flow in the already over-allocated Colorado River by 25%. If that happens, the basin faces some difficult choices; most likely, between substantial

elimination of irrigated agriculture or importation of water from outside the Basin. Economics seems to favor the former, given low crop values throughout most of the Basin. But politics has a squirrely way of ignoring economics, and a revival of Columbia Basin export plans could be in the offing. At the moment, however, that still seems unlikely.

IV. The Future -- Managing Existing Projects

There is another important side to the Bureau - its role with respect to existing projects, as the water users served by these projects themselves try to adapt to the emerging emphasis on more efficient management. The Bureau is implicated here in a variety of ways.

A. Transfers of Reclamation Project Water Rights

First, and perhaps foremost, is the question of transfers. Both the law and the Bureau's practice are murky. See, e.g., Meyers & Posner, "Market Transfers of Water Rights: Toward an Improved Market in Water Resources" (Legal Study #4 for the National Water Commission, 1971) pp. 18-25, 47, and Appendix 3. The possibility that transfers may be

subject to an independent review by the Bureau even when permissible under state law, and may be prohibited by federal law if they involve the transfer from one type of use to another or for use outside the federal project boundaries, undoubtedly has a chilling effect on such transfers. Indeed, federal law has been used as a basis for challenging them, see, e.g., John F. Long v. Salt River Project, No. 83-2397 (D. Ariz., filed Dec. 12, 1983), but many questions remain to be answered.

Both the law and, especially, Bureau policy ought to be clarified. If transfers are to be encouraged, there remain a couple of important questions. First, should the Bureau try to recapture some or all of the federal financial subsidy designed to assist agriculture, when agricultural water is transferred to another use (e.g., municipal and industrial) not as heavily subsidized under reclamation law? See, e.g., Wilson, "Reclamation Subsidies and Their Present-Day Impact," 1982 Ariz. St. L.J. 297. Such farm-to-city-or-industry transfers are becoming the rage in parts of the West, reflecting bottom line economics on the relative worth of Ag versus M & I water. Second, should the Bureau attempt to

regulate such transfers in order to protect other values, such as preservation of local agricultural communities and instream flows and other environmental amenities?

An important part of this problem is the entire relation of federal and state law vis-a-vis reclamation project water rights. See generally Kelley, "Staging a Comeback -- Section 8 of the Reclamation Act," 18 U.C. Davis L. Rev. 97 (1984). The Supreme Court, like the Bureau itself, has not steered a steady course on such questions. See generally California v. United States, 438 U.S. 645 (1978), and compare Ide v. United States, 263 U.S. 497 (1924), with Nevada v. United States, 463 U.S. 110 (1983). The current view seems to be that the federal government's "ownership" of water rights is "at most nominal," Nevada v. United States, 463 U.S. at 126, at least in a contest between the private beneficiary and the federal government, and even a federal reservation of a contractual right of control may not be sufficient to defeat a water right based on state law that is inconsistent with the contract. United States v. Alpine Land & Reservoir Co., 697 F.2d 851 (9th Cir.), cert. denied sub nom Pyramid Lake Paiute Tribe v. Truckee-Carson Irr. Dist., 464 U.S. 863

(1983).

California v. United States at first seemed to end the dispute over state control of reclamation projects, even though the Bureau did not seem to get the message, see, e.g., the Ninth Circuit's decision after remand, reported at 694 F.2d 1171 (9th Cir. 1982). But numerous troublesome issues remain, such as the seemingly independent federal "appurtenancy" and "beneficial use" requirements of § 8 of the reclamation act, the need to determine whether state law is inconsistent with congressional directives applicable to specific projects, and what now seems to be a singular but very important exception to state control, on the Colorado River, based on its "unique size and multi-state scope." See California v. United States, 438 U.S. at 665, n.19, 668-69, n.21, 674, 676, 678 n.31.

As this last example suggests, one of the difficulties in generalizing about reclamation law is its variegated character. All Bureau projects except the earliest ones have been authorized by statute, and the same ad hoc coalition building that persuaded Congress to approve such projects led to the incorporation of variable objectives and restrictions in these authorizations. From a legal

perspective, these projects are like snowflakes -- seemingly fungible but endlessly variable when scrutinized. Organic reclamation law remains important, but is often subject to modification when viewed in relation to a specific project authorization.

B. Other Legal Questions

As long as the Bureau retains some control over federal reclamation projects and the water they produce, numerous other questions are likely to pop up and demand resolution. "Excess lands" problems arising out of the notorious 160 acre acreage limitation were reduced by the relaxation of the limitation adopted by Congress in the Reclamation Reform Act of 1982, 43 U.S.C. § 390aa-zz. But while this act brought many beneficiaries into compliance, it also tightened controls and strengthened the federal mechanisms (if not the federal resolve) for policing and enforcing compliance with respect to those landowners still subject to the relaxed limitations. The Reagan Administration has asked Congress to water down these enforcement mechanisms, but so far Congress has not shown any stomach to revisit the matter.

Other questions likely to arise concern the Bureau's obligations with respect to the

groundwater/surface water interface alluded to earlier, and potential conflicts between the Bureau's duty to comply with federal regulatory laws like the Endangered Species Act and its obligations to carry out projects as authorized by Congress. See, e.g., Carson-Truckee Water Conservancy Dist. v. Watt, 549 F.Supp. 704 (D. Nev. 1982), aff'd as modified, 741 F.2d 257 (9th Cir. 1984), cert. denied 105 S.Ct. 1842 (1985).

C. Maintenance and Rehabilitation of Existing Projects

Another likely battleground is over money needed to repair and maintain existing projects. Bureau project facilities today average over 50 years of age, and concerns over dam safety were fueled rather dramatically by the collapse of the Teton Dam in 1976. The Bureau has understandably seized on such concerns as a lever for continuing the flow of federal water project dollars. Repair is not as heady as building new projects from scratch, but it might be a living for a beleaguered Bureau, especially because repair tends to excite less environmental opposition.

Here too, however, cost-sharing is likely to have an impact, for federal insistence upon more

local contributions could change rather dramatically the real price of water produced by reclamation projects, and for this reason is stoutly resisted. At this point, the likely result appears to be compromise, with locals contributing something, but the proportion depending upon ad hoc negotiations influenced by the strength of local coalitions and how well-placed their congressional delegations are.

A related problem that has emerged in recent years involves degradation of water quality from the operation of reclamation (as well as other) irrigation projects. Waterfowl-destroying selenium contamination in the Westlands Water District in California made headlines a while back, and similar problems probably exist at some other projects. Every irrigation project sooner or later creates a drainage problem, the old saw goes, and salinity buildup has been the bane of irrigated agriculture throughout history. The bill for dealing with these problems is beginning to come due, and answers, at least easy ones, are not readily available.

CONCLUSION

One who believes in Occam's Razor (the simplest solution is the best) has to be tempted to recommend that the Bureau get out of the water project and management business. The Western states, having clamored for "local control" of water all these many years, have always regarded the Bureau, or at least the Bureau's money and engineering skills, as an essential ingredient in that local control. But that historic reality no longer obtains. Scarcely anyone except the most starry-eyed supply-side economist (and, apparently, the President) believes the federal government is going to climb out of huge budget deficits any time soon, and in any event more and more people appear to believe that heavy federal financing of local water projects is not a wise investment.

Anyone who has worked around politics, however, especially in as sensitive an area as water, knows that the simplest theoretical solution is almost never realistic. I therefore don't think I'm going very far out on a limb by saying that the Bureau will probably continue to exist, and will continue to play some role in Western water use. But it will be a much reduced role under almost any conceivable scenario. The key question, yet

unanswered, is whether its role will facilitate or constrain the Western states as they yield to the reality of a static-sized pie and begin to recarve it. Although efforts to improve efficiency in water management largely by non-structural means cuts against the Bureau's grain, its historic sensitivity to prevailing political winds should not be discounted.

The key to resolving this dilemma might be found not in the Bureau or its congressional supporters, but in the Western states themselves. If they send the message that they want to transform the Bureau into a supporter of new water management realities (and that they want to exercise more control over reclamation projects, and the local water districts that benefit from them, to achieve this end), the transformation has a fair chance of success.