Water Law as a Pragmatic Exercise: Professor Joseph Sax’s Water Scholarship

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INTRODUCTION

Professor Joseph Sax has always been, first and foremost, a water scholar. In a 1985 homage to water law, Sax confessed that he likes to teach that subject more than any other; in fact, water law was the only course he had taught on an annual basis since starting his teaching career in 1962.1 Although publishers have pled with Sax to author casebooks on a variety of environmental subjects, he has acquiesced to writing only on water resources.2 His earliest and his most recent articles have focused principally on water policy. Ask any water lawyer for the name of the current dean of water scholarship, and the odds are high that the lawyer will say Joe Sax.

Sax’s water scholarship, excluding his casebooks, is divisible into four overlapping sets of articles. The first two sets center on the public trust doctrine and general takings jurisprudence. I leave extended discussion of Sax’s views in these areas to Professors Merrill and Rose

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in their contributions to this symposium, except to observe that Sax's valuable insights into these subjects flow directly from his water work. Water law provides a valuable window onto general property issues, and Sax has used that window to influence legal thinking on the relative public and private rights over the nation's sensitive resources.

The third collection of articles, published early in Sax's academic career, examined issues arising out of the government's heavy involvement in the storage and distribution of water. One of the peculiarities of the water "industry" is its domination by government. Private companies generate and distribute most of the electricity and natural gas used in the country, but government provides most of the water used, often at a subsidy, through entities such as the federal reclamation program, irrigation districts, and municipal agencies. This governmental involvement raises many unique problems, several of which Sax analyzed in the mid-1960s with thoroughness, sophistication, and political savvy, but ultimately without any impact on public policy.

Although I will touch briefly on these early articles, I want to focus on Sax's most recent water scholarship, in which he probes the nature of water, the unique law that governs it, and what he perceives as the inevitable coming changes to water policy. Sax explores these foundational issues in the context of two specific legal issues. In three articles, he addresses takings jurisprudence as applied to evolving water rights, and in a fourth he examines community claims against


5. Two lower courts initially cited Sax's article Problems of Federalism, supra note 4, for the proposition that federal policy, not state law, should generally control the use of federal reclamation water. But the Supreme Court ultimately rejected this view, and implicitly Sax's arguments, in California v. United States, 438 U.S. 645 (1978).

Sax's recommendations regarding municipal discrimination and sales of federal reclamation acreage have gone totally unheeded. Although Sax addressed his suggestion regarding municipal discrimination directly to the courts, no court has ever cited the article. And Congress has yet to restrict sales of federal reclamation acreage.

water transfers. The articles provide an invaluable perspective on broader issues of water law and a partial road map for reform. Moreover, the articles have already influenced proposed and actual policies.

These articles also reinforce an impression that I have long held of Sax's approach to legal and policy issues: Sax is a pragmatist. Sax's approach to water issues (and his recent approach to other environmental and resource issues) separates him from many of his environmental colleagues, both in the academy and in the trenches. Importantly, his pragmatic approach allows his scholarship to resonate with a larger audience and thus to achieve better many environmental goals.

I use the term "pragmatist" with some hesitance, because being a pragmatist has become the rage this decade (much like being a "law and" scholar in the late 1970s and early 1980s) and because pragmatism is a vague and much-debated term. But the term is too descriptive of Sax's analytical approach, and too laden with the correct connotations, to pass up. Four prominent characteristics of Sax's approach to water issues justify calling him a pragmatist. First, Sax is an instrumentalist. His writings virtually never diverge into "escapist" ruminations on abstract environmental ethics or other theoretical issues. Sax instead focuses on how to achieve the basic demands and needs of our society. Second, Sax has little time for grand theories. 


8. Even here, Sax's influence should not be overstated. In writing his articles on takings law and water rights, Sax has sought to convince courts that constitutional challenges to water regulations are, at best, very weak. Yet courts have cited only his article Water and the Constitution, supra note 6, and only twice. Sax might be chagrined, moreover, that one of the courts cited his article, not for his proposition that takings claims are weak in the water field, but for the counterclaim that water rights are "an important part of the landowners' bundle of sticks." Dulaney v. Oklahoma State Dept. of Health, 868 P.2d 676, 684 (1993). The other court included Sax's article only in a lengthy string cite meant to demonstrate the extensive academic interest in takings; the opinion, which was authored by Chief Judge Loren Smith of the United State Court of Federal Claims (the archangel of the property rights movement), sent to full trial a takings claim involving water. See Stone Safe Redlands Ass'n v. United States, 35 Fed. Cl. 726, 729 (1996).

9. As Professor Steven Smith has written, "it seems only a slight exaggeration to suggest that a movement which [in 1985] included almost no one today appears to embrace virtually everyone." Steven Smith, The Pursuit of Pragmatic, 100 YALE L.J. 409, 410 (1990).

10. For anyone interested in the debates raging around the meaning of legal pragmatism and the pros and cons of legal pragmatism, the best single source is probably the 1995 symposium: The Revival of Pragmatism, published at 18 CARDOZO L. REV. 1 (1996).
and abhors “scary simplifiers.” 11 Due to the complexity of the world within which he works, Sax discounts the value of single theories. 12

Third, Sax appreciates the value of history, not for the virtue of tradition, but for what past experience tells us about current context and future possibilities. Sax understands that environmental policy builds on and must be responsive to social beliefs and practices that have lengthy cultural heritage and roots, even if they might not withstand close legal or normative scrutiny. Those social beliefs and practices are part of any community and are therefore essential to knowing what is best for and what will work for a given community. Sax also understands the “cash value” of historical experience in testing the truth of various propositions. 13 As Holmes once said, the “life of the law is experience rather than logic.” 14

Finally, Sax willingly borrows policy analysis and approaches from multiple perspectives, even perspectives that he has criticized in the past. Sax keeps an open mind to ideas and suggestions, always aware that better information or new context might require reconsideration of old beliefs. Recent attempts to describe pragmatism have suggested that “a legal pragmatist is an eclectic, result-oriented, historically-minded antiformalist.” 15 That characterization quite nicely encapsulates the water scholarship of Professor Joseph Sax.

Sax, of course, has often proposed daring changes in the law; his expanded application of the public trust doctrine is the most obvious example. Yet the boldness of his proposals does not conflict with his pragmatism. Indeed his pragmatic approach helps increase the chances that his more radical suggestions will advance in the courts and legislatures. By building on historical doctrines, understanding institutional cultures, and focusing on tangible needs and practical solutions, Sax develops ideas that resonate with courts, legislators, and commentators—even when they represent significant shifts in the actual black letter law.

The remainder of this Article explores Sax’s insights into the nature of water resources and the inevitable change that water policy will undergo in responding to new environmental knowledge and growing societal demands. Part I examines why water, as commentators frequently assert, is “different” from other resources. Part II dis-

12. Unlike many current legal academics, who appear enamored with grandiose theorizing, Sax is closer in predilection to the legal professional.
13. See William James, Pragmatism 97 (1975).
cusses water law's legacy of change and how courts have responded to that change. Part III outlines where water policy is currently evolving, while Part IV considers how water policy will get there. Finally, Part V critiques and expands on Sax's views concerning community claims to water resources, which is one of the trickiest and most politically explosive issues that water law currently faces.

I. THE UNIQUE "PUBLICNESS" OF WATER

In order to understand water policy and address current societal needs, Sax emphasizes that one must first appreciate the uniqueness of water as revealed in both its physical characteristics and the law's historical approach to water resource issues. Water is not like a pocket watch, to use Sax's favorite comparison. Instead, the general public has a special interest in and claim over water resources that shapes how water can be allocated and used.

Sax uses several different terms to describe and explain water's special "publicness," reflecting the multifaceted nature of the public's claim. Sax often notes that water is a "public commons," emphasizing the open access to waterways that the public has traditionally enjoyed for navigation, fishing, recreation, and aesthetic enjoyment. To some degree, this access reflects the immense historic importance of waterways for commerce and sustenance and the fear that privatization of the waterways could lead to natural monopolies. Of greater current importance, open access to waterways often can increase the total social value of the waterways by maximizing common public use. As Professor Carol Rose has observed, the more public use of the resource the merrier, at least up to a point.

In other contexts, Sax refers to water as "common capital" or as a "community's capital stock." Here, Sax emphasizes the inescapable importance of water to the development and sustainability of society. Water not only sustains life itself, but it is also the essential basis for all developed or developing economies. Waterways are primary sources of transportation and sustenance (although the importance of waterways for these uses has declined since the development of the railroad and mass food distribution). Virtually all major commercial production, from agriculture to computer chips, also relies on water,

18. See Carol Rose, The Comedy of the Commons, 53 U. Chi. L. Rev. 711, 774-81 (1986). See also Thompson, Environmental Policy and State Constitutions, supra note 17, at 887.
and often on good quality water. Moreover, unlike most other major resources, such as petroleum or even irrigable land, water enjoys no substitute. The quantity and quality of water available to a community thus supports and constrains the community's economy and lifestyle, and, as a corollary, the rules governing its use and protection can "affect the fate of the whole community." 20

In a more controversial suggestion, Sax also has called water a "heritage resource." 21 In using that term, Sax suggests that communities are not only inescapably dependent on water for their existence and development, but also view their water resources as an inviolable legacy. During the Reagan Administration, then-Secretary of the Interior Donald Hodel provocingly suggested that the Hetch Hetchy Dam should be removed, restoring the Hetch Hetchy valley to its earlier splendor, but simultaneously depriving San Francisco of its principal water supply. In opposition, then-Mayor of San Francisco, Diane Feinstein, insisted that the Hetch Hetchy was San Francisco's "birthright." 22 Rural communities similarly complain that proposals to transfer water out of their watersheds would constitute theft of their valleys' water. As Sax observes, communities feel an attachment to water that is strikingly similar to the strong interest that nations and cultures assert over their antiquities and other cultural properties. 23

Sax reinforces his case that water is uniquely public by emphasizing how legal doctrine has long reflected each of the three points just discussed. The navigational servitude and the public trust doctrine protect the commons and help ensure universal access to waterways for navigation and sustenance. 24 The central importance of of water to communities' development and sustainability has spawned universal rules against waste, 25 as well as provisions in many western state constitutions asserting ultimate state ownership over water. 26 The ri-

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20. Sax, Water and the Constitution, supra note 6, at 276.
22. Dan Morain & Paul Houston, Hodel Would Tear Down Dam in Hetch Hetchy, LOS ANGELES TIMES, Aug. 7, 1987, at 1-1. Feinstein was reported to have been livid at the suggestion. According to Feinstein, the idea of dismantling the Hetch Hetchy dam was the worst idea "since selling arms to the Ayatollah." Id. Nor did Feinstein find the environmental benefits to be worth the loss of San Francisco's birthright. "All this is for an expanded campground? . . . It's dumb, dumb, dumb." Id. For more on the controversial suggestion, see Bill Stall, Undam A Grand Sierra Valley? A Plan that Quite Holds Water, LOS ANGELES TIMES, Feb. 21, 1988, at 5-3.
26. See Thompson, Environmental Policy and State Constitutions, supra note 17, at 875.
parian doctrine treats water as a heritage resource by requiring that water typically be used within the watershed,\textsuperscript{27} and several western prior-appropriation states provide area-of-origin protections.\textsuperscript{28} The United States Supreme Court also has lent some credence to the heritage concept by suggesting that states can prohibit the exportation of water in some settings where the Constitution would prohibit similar hoarding of other natural resources.\textsuperscript{29}

Sensitive to the importance of context, Sax does not set out a broad theory of how each of the special characteristics of water should influence water policy. To Sax, however, these public aspects of water law undermine the claims of individual water users to inviolable and perpetual rights. Although the government might award private rights over water to the degree that private use promotes the public interest, such rights always remain subject to the “exigencies of the . . . interests of the Commonwealth.”\textsuperscript{30} Given the immense and unique importance of water to the public, “trifling inconveniences to particular persons must sometimes give way to the necessities of a great community.”\textsuperscript{31}

II.

THE CONSTANT FLUX OF WATER POLICY

As Sax has emphasized, the history of water policy in the United States is a history of “continual change.” As new needs have developed, new information has become available about the nature of water resources and the consequences of their use, and courts have discovered flaws in existing doctrines, the law has evolved to meet the new demands or adjust to the additional information. When the advent of mill power required the modification of streams, the English rule of natural flow gave way to a more flexible riparian doctrine.\textsuperscript{32} When the West’s aridity necessitated large scale diversions for off-stream use, local courts, and ultimately legislatures, abandoned the riparian doctrine in favor of prior appropriation.\textsuperscript{33} When growing timber operations sought means of transporting timber to their mills, courts redefined navigable waterways, for the purpose of determining

\begin{itemize}
\item \textsuperscript{27} See Sax, Abrams, and Thompson, supra note 2, at 38-42.
\item \textsuperscript{28} See id. at 262-69.
\item \textsuperscript{30} Sanderson v. Pennsylvania Coal Co., 86 Pa. 401, 408 (1878), rev’d, 113 Pa. 126 (1886), quoted in Sax, Public Waters, supra note 6, at 476-78.
\item \textsuperscript{31} Pennsylvania Coal Co. v. Sanderson, 113 Pa. 126, 149 (1886), quoted in Sax, Public Waters, supra note 6, at 447.
\item \textsuperscript{32} For a particularly provocative telling of the history of riparian law in the United States, see Carol Rose, Energy and Efficiency in the Realignment of Common-Law Water Rights, 19 J. of Legal Stud. 261 (1990).
\item \textsuperscript{33} See Sax, Abrams, and Thompson, supra note 2, at 319-60.
\end{itemize}
permissible public use, to include those streams capable of floating logs even if not capable of floating an entire boat.\textsuperscript{34} Growing recognition of the close connections between surface water and groundwater, combined with increasing water scarcity, has led some states to increase integration of the law of surface water and groundwater.\textsuperscript{35}

However, to anyone interested in knowing how the law should deal with current demands for legal change, this history of continual legal evolution tells only half the story. Equally important, in Sax’s view, courts until recently have consistently rejected constitutional claims to compensation brought by those water users who believed their rights were damaged by legal change. Existing water right holders have frequently brought takings claims against proposed legal changes, but until the 1980s no appellate court had ever upheld such a claim.\textsuperscript{36}

To Sax, the importance of this history of legal change and constitutional approval lies not only in its technical precedential value, but also in the evidence it provides that uncompensated change can be made without ill consequences. Sax has little time for grand theories of why compensation should or should not be paid. The issue for him is what history teaches us about legal change. Though many have constructed models or arguments warning that the failure to provide compensation could lead to “fiscal illusion,” discourage valuable investments in property, or demoralize the population, there is no evidence that past failure to provide compensation for changes in water law has ever brought down the house. No evidence exists, for example, that the government has made inefficient changes in water law because, freed from the need to pay compensation, the government underestimated the cost of the change. To the contrary, in retrospect, all of the lasting legal changes appear to have increased overall public welfare. Nor does any evidence exist that the lack of compensation discouraged investment or sent rolling waves of demoralization through the population of water users. Each legal change undoubtedly redistributed income and angered those invested in the status

\textsuperscript{34} See, e.g., Gaston v. Mace, 10 S.E. 60 (W.Va. 1889).
\textsuperscript{36} In Robinson v. Ariyoshi, 753 F.2d 1468 (9th Cir. 1985), the Ninth Circuit initially held that the Hawaii Supreme Court’s attempted change in Hawaiian water law, threatening to return Hawaii to a largely riparian system, was an unconstitutional taking. The United States Supreme Court then remanded the case for consideration of ripeness, after which the Ninth Circuit ordered the case dismissed as premature. Robinson v. Ariyoshi, 887 F.2d 215 (9th Cir. 1989). One year later, the Oklahoma Supreme Court held that Oklahoma’s attempted abolition of unexercised riparian rights violated the takings protections of the state constitution. See Franco-American Charolaise, Ltd. v. Oklahoma Water Resources Bd., 855 P.2d 568 (Ok. 1990).
quo, but the history of prior uncompensated changes in water policy does not cry out for future compensation, at least on the surface.

In relating this history, Sax warns current courts against impeding useful changes in today's law through vacuous incantations of takings rhetoric. For Sax, the question of compensation reduces to a pragmatic issue: will overall welfare be improved through the awarding of compensation? And on this question, Sax implies, history to date supports unfettered legal change. Sax does not even bother to address libertarian arguments for compensation. To Sax, the right to use water is a societal creation designed to promote social value, not a natural right.

Sax is not totally deaf to the complaints of individual water users threatened by the prospect of legal change. However, the issue to him is not whether compensation should be required, but whether change can be implemented in a manner that reduces unnecessary individual impacts. For example, because Sax recognizes the potential for sudden and drastic legal changes to disrupt plans and investments, he advocates gradual and evolutionary shifts in the law wherever possible. According to Sax, "every effort needs to be made to ensure that transition periods proceed as smoothly as possible." In this regard, Sax's view parallels the largely ignored perspective of Justice Potter Stewart (himself a legal pragmatist), who urged that only "sudden change in state law, unpredictable in terms of the relevant precedents," should trigger constitutional concern.

Sax, however, appears to consider the need for smooth transitions in legal doctrine to be a matter of legislative concern, rather than one of constitutional mandate. He does not explain why the timing of transitions should not be of constitutional significance. Because large, sudden changes can be particularly disruptive and are often avoidable, such changes might seem to provide a particularly appropriate instance in which to require compensation. That was Justice Stewart's

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37. Sax, however, does not consider the significant possibility that changed conditions could increase the need for compensation in the future. As I have argued elsewhere, if water markets replace regulation as the dominant means of allocating water in the future, the stability demanded by markets strengthens the argument for compensation. See Barton H. Thompson, Jr., Takings and Water Rights, in WATER LAW: TRENDS, POLICIES, AND PRACTICES 43 (Carr & Crammonds, eds. 1995).

38. See Public Waters, supra note 6, at 482.


40. See Hughes v. Washington, 389 U.S. 290, 296 (1967) (Stewart, J., concurring). Although Hughes concerned the constitutionality of a judicial change in the law and thus raised unique issues not relevant to run-of-the-mill takings cases, Stewart's standard for invoking the Fifth Amendment speaks more generally to the conditions under which constitutional concerns arise.
view. Perhaps Sax doubts whether courts have adequate information
to judge the appropriate pace of legal change.

Alternatively, Sax might fear the likely consequences of a constitutio-
tional rule focused on timing. Property owners' opposition to
change may ironically cause some of the most rapid and drastic
changes. In arguing for preservation of the status quo, property own-
ers often merely delay change until the pressure for change becomes
so great that a more radical break with tradition must occur. Cer-
tainly, property owners do not deserve compensation resulting from
their own follies. If compensation is not guaranteed even for large,
rapid changes, perhaps wise property owners will ultimately see that
they would be far better off using their political power to influence the
timing and nature of the transition than simply opposing the
inevitable.

III.
WHERE IS WATER LAW FLOWING TODAY?

These transitional issues are important because Sax believes that
water law has entered a period of profound change—a claim that only
someone waking up from a 30-year coma could deny. Although Sax
has used the terminology employed by Kenneth Boulding to describe
the underlying forces behind today's change, I find Sax's own termi-
nology far more suggestive. The nation is beginning to move from a
largely "transformative economy," which emphasizes the value of
transforming our resources for human production and consumption,
toward an "economy of nature," which recognizes both the value of
resources in their natural, untransformed condition (the so-called
"service value" of nature) and the limits of the resources that nature
has bequeathed us. From Sax's pragmatic perspective, moreover,
this particular turning of the wheel is of critical importance to society
because it flows, not from a mere shift in ideology, but from a "scien-
tific, knowledge-based" recognition of the importance of estuaries and
wildlife, of genetic diversity and biological productivity, and of the

41. Boulding predicted over thirty years ago that the world was moving from a "cow-
boy economy" (in which societal wealth was measured in growth of production and con-
sumption) to a "spaceship" economy (in which the emphasis would be on sustainability).
See Kenneth Boulding, The Economics of the Coming Spaceship Earth, in Environmen-

42. See Nature's Services: Societal Dependence on Natural Ecosystems
(Gretchen C. Daily, ed. 1997) (identifying and attempting to quantify various service val-
ues from natural ecosystems).

possibilities for sustainable development."\textsuperscript{44} The long-term viability of our world, in short, mandates the change.

Sax suggests that this shift in societal goals and understanding will lead to three major transformations in water policy: an increased demand for conservation and water recycling, the reallocation of existing water supplies to meet new demands, and the maintenance and augmentation of instream flows.\textsuperscript{45} I would add a fourth transformation—preservation of existing groundwater resources.

At this point, one expects to hear Sax describe the numerous initiatives designed to implement these goals if only the courts do not gum up the works by improvidently and improperly invoking the constitutional takings doctrine. According to Sax, water law has "always incorporated an intuitive appreciation of the public, common, systemic nature of the resource."\textsuperscript{46} Moreover, the "reality" of the economy of nature is "upon us," forcing us to take seriously the need for conservation, reallocation, restoration and protection of instream flows, and groundwater preservation.\textsuperscript{47} Yet with the possible exception of instream flow augmentation, we are not moving toward an economy of nature very quickly. States, as well as the federal Bureau of Reclamation, have required a good deal of conservation planning, but thus far have been generally unwilling to impose significant new conservation requirements.\textsuperscript{48} Reallocation is the subject of much discussion and negotiation, typically surrounding the opportunity for water markets to move water, but as yet little water has moved.\textsuperscript{49} Groundwater overdrafting continues apace. Even the enhancement and preservation of instream flows has resulted more from the inventive invocation by environmental groups of the Endangered Species Act, Clean Water Act, and public trust doctrine than from purposeful legislative initiative. It is unlikely that Congress could or would have passed the Endangered Species Act or the Clean Water Act had it

\begin{footnotes}
\item 44. Sax, Public Waters, supra note 6, at 478 (emphasis added).
\item 45. See Sax Water and the Constitution, supra note 6, at 257-58.
\item 46. Id. at 281.
\item 47. Id.
\item 48. As Sax has noted, exceptions exist. See, e.g., Imperial Irrigation District v. State Water Resources Control Board, 186 Cal. App. 3d 1160, (1986) (upholding order of the state water board requiring an irrigation district to conserve water that the board had found was being wasted); Environmental Defense Fund v. East Bay Municipal Utility Dist., 52 Cal. App. 3d 828, (1975), vacated, 20 Cal. 3d 327, (1978) (requiring conservation as a condition for approving additional waters). But such exceptions are few and far between.
\item 49. See Barton H. Thompson, Jr., Water Markets and the Problem of Shifting Paradigms, in WATER MARKETING: THE NEXT GENERATION 1 (Terry L. Anderson & Peter J. Hill, eds. 1997) [hereinafter Shifting Paradigms].
\end{footnotes}
been aware that the laws would require significant reductions in existing water diversions.50

The hurdle to greater progress, moreover, is not a judicial threat of requiring compensation under the Takings Clause. Despite Sax's expressed concerns, courts have yet to order compensation in the type of settings discussed here. What, then, is the barrier to change? "For practical reasons," Sax has suggested, "most states are not likely to want to enforce waste laws very rigorously," order substantial reductions in existing diversions, limit groundwater extractions, or mandate reallocations.51 And the unstated "practical reasons" are the strong political opposition of water users to uncompensated change and the public's disinclination to pay for change. Existing water users enjoy significant political power; they are the victors of the transformative economy and have the resources and connections necessary to kill off serious legislative threats.52 Existing users are further aided in their efforts to defeat new initiatives because the public frequently refuses to pay for new legislative endeavors, even when the public strongly favors and values the effort.53

Although he has never said so on paper, Sax is too close a student of history, is too politically savvy, and has spent too much time in Washington, D.C., to believe that Congress and state legislatures will take on this political opposition except in isolated or relatively minor instances. Indeed, Sax's early water articles were rich and insightful studies in legislative and political pathologies: legislatures refuse to face up to important issues, saying one thing in their legislation while intending (or at least wanting) something quite different,54 existing water users block recommended changes through concentrated opposition,55 and local water suppliers charge higher rates to non-residents

50. See Barton H. Thompson, Jr., Water Federalism: Governmental Competition and Conflict Over Western Waters, in ENVIRONMENTAL FEDERALISM 175, 190-95 (Terry L. Anderson & Peter J. Hill, eds. 1997).
51. Sax, Water and the Constitution, supra note 6, at 258 (emphasis added).
52. Defeating legislation, moreover, is far easier than passing legislation.
53. Multiple theories exist for why the public may be unwilling to pay for a legislative initiative that it values at more than the cost. The public, for example, might balk at paying for a good (e.g. instream flows) to which it believes it already has a right. Or, on the darker side, the public might resist paying for something that it expects it ultimately will get for free (through, for example, an uncompensated judicial change). Whatever the explanation, however, a pragmatic look at history refutes the simple concept that public unwillingness to pay for a change means that the change is not worth the cost. For more extensive consideration of this point, see Barton H. Thompson, Judicial Takings, 76 Va. L. Rev. 1449, 1502-06 (1990).
54. See Sax, Problems of Federalism, supra note 4, at 82 (observing that Congress has consistently ordered the Bureau of Reclamation to follow state law, even while suggesting in its comments and in other provisions that it "wants . . . national policy implemented").
55. See Sax, Selling Reclamation Water, supra note 4, at 46 (explaining why Congress was unlikely to limit the windfall that farmers served by federal reclamation projects enjoy when selling their land at prices that reflect the value of the federal reclamation subsidy).
than to residents because the former cannot complain at the ballot box.\textsuperscript{56} Although legislatures occasionally enjoy fits of revisionary spirit and are likely to follow initiatives from other quarters, no one who reads these articles could come away with much hope for legislative salvation.

IV.

\textbf{POLICY TOOLS: WHATEVER WILL FLOAT}

Legislatures are thus unlikely to lead the movement toward greater instream flows, increased conservation, groundwater preservation, and reallocation. Why, then, has Sax invested so much time and effort trying to debunk the argument that changes in water policy demand compensation as a constitutional principle? And from where will the "scientific, knowledge-based" change that Sax believes is inevitable come? Or is Sax's talk of major shifts in water policy just wishful thinking? If Sax were answering these questions, I believe he would reaffirm the inevitability of change and list at least two sources of likely progress.

A. \textit{Courts and the Common Law}

A pragmatic perspective suggests that courts almost certainly will be one source of the changes that Sax anticipates. The past evolution of water law is largely a history of judicial change. Courts, not legislatures, modified the riparian doctrine in the eighteenth century, expanded the definition of navigability to permit the floating of timber to the mills, and reinvigorated the public trust doctrine. While a majority of Congress may not have contemplated that the Endangered Species Act and the Clean Water Act would become the prime means of preserving and augmenting instream flow in the United States, courts recognized the congruence of ends and goals and interpreted the broad language of the acts to mandate action, exercising, if you will, a "common law for the age of statutes."\textsuperscript{57} Courts also have played a role in eliminating unexercised riparian rights and integrating the legal regimes for surface water and groundwater.

In his early environmental writings, Sax extolled the role that courts could play in helping to overcome political opposition to environmental change. Sax believed that courts enjoy a number of practical virtues, several of which make courts prime candidates for

\textsuperscript{56} See Sax, \textit{Municipal Water Supply}, supra note 4, at 55 (noting that water rates for non-residents are often "as much as four or five times the resident rate").

\textsuperscript{57} Cf. GUIDO CALABRESI, A \textit{COMMON LAW FOR THE AGE OF STATUTES} (1982) (discussing the role that courts can play in combating legislative obsolescence through a common law approach to statutory application).
reforming water policy today.\textsuperscript{58} First, most judges are "outsiders" to the political process, relatively inattentive to the ballot box, and appointed for reasons that seldom include their positions on environmental issues. Second, courts must respond to cases brought before them and thus typically cannot duck controversial problems. Finally, courts address concrete and specific issues and thus formulate solutions appropriately grounded in context.

Once one recognizes the important role that courts are likely to play in adapting water law to new needs, Sax's articles on water rights and the Constitution take on new purposes.\textsuperscript{59} Not only do the articles attempt to debunk constitutional takings challenges to changes in water policy, but they also serve two other valuable functions. First, the articles constitute a plea to the courts (whether or not intended by Sax) to persist in their common law role of adapter. By emphasizing the continual change that has characterized the history of water policy, Sax reminds the courts of the important role that they play in adjusting water law to evolving conditions, information, and needs. And, similarly, by emphasizing the "publicness" of water, Sax reminds the courts of the broad set of legal doctrines with which they can work to reshape the law. Second, the articles take some of the steam out of arguments that legislatures should counter judicial initiatives by passing legislation to preserve the status quo or to require compensation.\textsuperscript{60}

\textbf{B. Water Markets}

Sax also has emphasized the role of water markets in reducing waste and encouraging redistribution. Here, Sax again displays a pragmatic approach to water policy. Sax is not a market disciple. Indeed, in one of his earliest articles, Sax bemoaned governmental policy that would permit recipients of federal reclamation water to cash in on the reclamation subsidy by selling their water on the open market or by selling their land for a price that reflected the water's value.\textsuperscript{61} To paraphrase the question Sax posed in the introduction to that article, why should water users who receive their water either for free under state appropriation law or at a subsidy under the federal reclamation program be "rewarded by the gift of a large capital asset" when they no longer need the water or can get by with less?\textsuperscript{62} Sax still

\footnotesize
\textsuperscript{59} See supra note 6 and sources cited therein.
\textsuperscript{60} Judicial activism in the water field has spawned legislative proposals to amend the laws that the courts are interpreting or to restrict the courts' ability to apply various common law doctrines. See, e.g., H.B. 794, 53rd Leg., 2d Reg. Sess. (Idaho 1996) (limiting reach of the public trust doctrine).
\textsuperscript{61} See generally Sax, Selling Reclamation Water, supra note 4.
\textsuperscript{62} Id. at 15.
worries about the equitable implications of water markets, claiming that "the most wasteful users will profit the most" from markets because they will have the most to sell. But thirty years after initially posing his question, Sax now has a pragmatic answer: although there is "little to be said" for water markets "as a matter of equity," a "justification" for water markets lies in "the practical desire to get the job of conservation underway with as much dispatch as possible." Water markets provide water users with an economic incentive to conserve and the funding necessary to implement conservation measures. Such markets also provide cities with a more environmentally benign means of meeting their water needs than building new water projects and permitting environmental groups to purchase additional instream flow.

Old prejudices, however, do not die easily and lead Sax to understate the value of water markets. Contrary to Sax's belief, for example, water markets can promote equity. Forgetting a principal tenet of pragmatism, Sax ignores the importance of context to the evaluation of any institution. Most of the original interest in water markets focused on their potential to stimulate conservation and encourage reallocation of water from economically low-value uses (primarily agricultural) to higher-value uses (primarily urban). As Sax notes, such reallocations can raise equity issues. Yet water markets also can be used to help reduce the tension between equity and efficiency when legislative or other initiatives demand reduced diversions or withdrawals. If the government orders an overall reduction in water use, the reduction somehow must be allocated among existing users. The most equitable means of allocating the reduction (which often would be pro rata) virtually never will be the most efficient (which would call for requiring all reductions to be made by the users with the least marginal demand for the water). By coupling reductions with markets, the government can simultaneously pursue both equity and efficiency; reductions can be allocated on an equitable basis, allowing the market to achieve efficiency through voluntary reallocations of the reduced rights. Far from presenting a conflict between efficiency and equity, markets thus can help ease regulatory tensions between the goals.

Sax's historic skepticism about markets also has led him to suggest implementing markets in ways that may prove counterproductive. I do not want to be too critical here. Skepticism in policy analysis provides a healthy means of ferreting out problems that need resolution. Sax's skepticism, moreover, makes him a more effective propo-

63. Sax, Water and the Constitution, supra note 6, at 278.
64. Id.
65. See Thompson, Shifting Paradigms, supra note 49.
nent of water markets than most true believers. However, water markets are likely to be quite sensitive in this initial transitionary period, and governmental intervention could easily kill the goose before it ever lays a golden egg.

Two examples from Sax’s writings illustrate my concern. First, based on the historical opposition of agricultural water districts to the marketing of their water to users outside their borders, Sax worries that the creation of water markets might not provide a sufficient incentive to encourage conservation unless it also is matched with a threat to strip current users of water if they do not conserve. He therefore encourages states “to keep waste enforcement at the ready” in order to “induce ‘voluntary’ conservation and sale.” Yet an active threat of waste enforcement may well undermine rather than strengthen markets. Entities with unmet water needs may hesitate to pay for water if there is a chance they can use the regulatory system to get the water for free. To make matters worse, those interested in buying water will often be different entities from those who would receive the water if it were stripped from the current user under the regulatory system, ensuring disputes over proposed transfers if the regulatory option appears viable. Finally, the mere threat of regulatory action can undermine the security necessary to make markets work.

A second example is Sax’s implicit praise for Oregon’s conservation statute, which permits water users who conserve water to transfer up to 75 percent of the saved amount. Sax commends the statute both because it uses transfers to encourage voluntary conservation

66. Id. As an illustration, Sax points to the Imperial Irrigation District (“IID”) which in the late 1980s agreed to “market” conserved water to the Metropolitan Water District of Southern California (“MWD”) only after the state determined that IID was wasting water and ordered it to significantly reduce its diversions. For more discussion of the dynamics of the IID-MWD transfer, see Barton H. Thompson, Jr., Institutional Perspectives on Water Policy and Markets, 81 CAL. L. REV. 671, 729-30 (1993).

A decade later, however, many farmers are far more receptive to water markets. IID, for example, has voluntarily sought out marketing opportunities. In December 1997, IID tentatively agreed to transfer up to 200,000 acre-feet of water per year to the San Diego County Water Authority for as many as 75 years. See WATER INTELLIGENCE MONTHLY, Dec. 1997, at 4. The broad majority of farmers in IID support the proposed transfer, undermining Sax’s concern that farmers might prove reticent to engage in water transfers.

67. Sax, Water and the Constitution, supra note 6, at 278.

68. Both the MWD and a neighboring agricultural district have opposed the proposed IID-San Diego transfer, discussed supra note 66, partially on the argument that, if IID can conserve water, then the water should go to them for free under traditional anti-waste regulation. See Lindgren, Colorado River Update: The Journey to the Day of Reckoning Continues (Slowly), 8 CAL. WATER: L. & POL’Y 109, 110-11 (1998).

69. Or. Rev. Stat. §537.455-537.480 (1988). Sax discusses the Oregon statute in Water and the Constitution, supra note 6, at 277-81, as an illustration of a “positive . . . approach to the waste problem” that “exemplifies the likely future direction of water law throughout the West.”
and because it "mitigates the windfall [from transfers] to some extent by capturing a portion of the water saved for allocation to the state as instream flow." Fortunately, the instream requirement constitutes a relatively hefty transfer tax that discourages conservation at the margin. Since Oregon passed the statute in 1983, only one small conservation transfer has occurred, and the instream requirement may be partially to blame. A legislative effort to eliminate the requirement, except where public funds are used to finance the conservation, was vetoed by Oregon's governor.

V. WATER AND COMMUNITY

As noted in Part I, one of Sax's most important contributions to current water policy discussion has been his elaboration of water as a "heritage resource." Sax, however, has only begun to investigate the many questions posed by the special relationship between community and water. What rights, if any, does a community have in "its" water? What control, if any, should the community enjoy over policies affecting that water? Where do community rights come from? Do some communities have greater claims to water than others? Is San Francisco's claim to a "birthright" in Hetch Hetchy water weakened, for example, by the city's location several hundred miles away from the Hetch Hetchy watershed? How should "community" be defined for purposes of implementing any community rights or authority? Given the inevitability of overlapping communities, how should conflicting community claims be resolved? A pragmatist might demur to these questions, arguing that each question must be addressed in context. Nonetheless, one hopes that Sax will examine these questions in a future article because the relevant analysis would benefit from his insight and analytical rigor.

For the moment, we can at least begin to consider some of these issues by scrutinizing the one context in which Sax has considered

70. Id. at 278.
71. See Reed D. Benson, Watershed Issues: The Role of Streamflow Protection in Northwest River Basin Management, 26 ENVTL. L. 175, 208 (1996). Only three small conservation plans were even proposed during the statute's first ten years of existence. See Thompson, Shifting Paradigms, supra note 49, at 8.
72. For a more detailed discussion of the Oregon statute and the various flaws that have discouraged its use, see Mark Honhart, Comment, Carrots for conservation: Oregon's Water Conservation Statute Offers Incentives to Invest in Efficiency, 66 U. COLO. L. REV. 827 (1995).
73. See Benson, supra note 71, at 208.
74. In response to Diane Feinstein's assertion that Hetch Hetchy water is San Francisco's "birthright," for example, Donald Hodel responded that "Yosemite National Park is America's birthright, not any individual city's." Dan Morain, Hodel, Feinstein Square Off Over Plan to Dismantle Dam, LOS ANGELES TIMES, October 14, 1987, at 1-3.
community claims: water markets. Many local communities have opposed transfers of water to users outside of the community, in part on the assertion that such transfers can impose significant economic and social costs on the local community. For example, where farming land is fallowed as a result of an external transfer, jobs can be lost, support businesses can close, and tax revenue can decline (leading in turn to a reduction in governmental support services). In a community’s worst nightmare, the social fabric of the community itself might begin to unweave as local residents, sensing economic trouble, leave the area. Sax believes that water transfers must be responsive to these concerns. In particular, “transfers should not be redistributive to the disadvantage of those in the selling area, both in human and natural terms.”

Sax suggests two ways in which legislation might accomplish this end: a law might permit transfers only of conserved water or impose a “community compensation tax” on transfers. Unfortunately, all such impediments to water markets can cause substantial inefficiency and chill valuable transfers.

Sax’s suggested approaches to community concerns have paralleled and spawned a number of legislative proposals in recent years, but his analysis also raises a number of critical and as yet unaddressed questions. The first of these questions is why should society worry about the community impact of external water transfers? As Sax himself notes, “third-party effects exist wherever significant resources are allocated or re-allocated,” but the law generally ignores them. “When General Motors closes a factory in Michigan and opens one in another state or another country, workers may be left in a lurch. These are all third-party effect problems. With rare exceptions, they have no standing in our legal system.” Most economists, moreover, tell us that we should not worry about these long term third-party effects. Any loss in jobs and local business resulting from a water transfer or the closure of a General Motors factory represents a “pecuniary” externality that should not be compensated or offset. The loss sends a valuable market signal that human and financial resources should be moving elsewhere; blocking that signal is as counterproductive as subsidizing the manufacturer of buggy whips. Because the economy is not frictionless, society should help individuals and businesses overcome the difficulties of moving to a new eco-

75. Sax, Understanding Transfers, supra note 7, at 15.
76. Id. at 15-16. A third, frequently suggested option would be to limit the percentage of the local water supply that can be transferred to external users. See Thompson, Shifting Paradigms, supra note 49, at 24.
77. See Thompson, Shifting Paradigms, supra note 49, at 24.
78. Sax, Understanding Transfers, supra note 7, at 13.
nomic equilibrium. But Sax's proposals threaten to impede the change itself.

Sax is frustratingly Delphic in response to this point. Water, Sax simply says, "is and always has been different, certainly in theory, and to some extent in practice."\(^{80}\) Moreover, "the claim for a community stake in water is legitimate and is reflected in a wide range of responses to water problems over a long time."\(^{81}\) But why?

Trying to think about the issue in pragmatic terms, let me suggest two arguments that I believe Sax might make as to why water is different and justifies some form of community protection. Each argument suggests a slightly different policy approach and, as discussed below, each can have unique implications for other related questions. First, water exports may be different from a shuttered factory because the nature of the loss to the community differs when water leaves the area. Context, the pragmatist would counsel, is crucial. When General Motors moves out of Michigan, it takes capital along with it, but the transferred capital comes from fluid international markets, not from the community itself. The community still retains the human and other natural resources with which it began, and it may be able to reinvest those resources in new industries and services. By contrast, when water is transferred, the community loses a natural resource, which it either began with or acquired earlier through governmental or community efforts. Because of water's inherent importance to an economy, the community also fears that its crucial resources, and thus its options for the future, are reduced.\(^{82}\) When General Motors moves out of a community, moreover, it does not appear to receive a windfall at the community's expense; the company is simply managing its expenses in a competitive environment. When a farmer transfers water to a distant city, by contrast, the farmer "is likely to be significantly enriched... since water has usually been under-priced"; the community, however, gains nothing.\(^{83}\)

A second possible argument for treating water exports differently than plant closings is that our society has always viewed and treated water, to some degree, as a "heritage resource." To misuse another Holmes aphorism, "continuity with the past... is not a duty, only a necessity."\(^{84}\) From this perspective, water transfers must take commu-

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80. Sax, Understanding Transfers, supra note 7, at 13.
81. Id. at 15.
82. The development of active and fluid water markets, however, would mitigate this latter concern because the exporting community could always purchase back any needed supplies.
83. Sax, Understanding Transfers, supra note 7, at 15.
nity concerns into account because both laws and cultural norms have long suggested that communities have a special claim over local water resources, leading to substantial community expectations. The basis for a community claim might seem insubstantial under close scrutiny and might seem no different than community claims over General Motors, but unique expectations have developed and cannot simply be disregarded as a matter of either equity or politics. As Sax notes, the law does not set out “clearly defined rights” for purposes of water transfers. Proposed transfers therefore often resemble a “diplomatic negotiation” and the “future of water rights will be jeopardized” unless a “broader and more inclusive model is embraced.”

A second unanswered question on the topic of community impacts is, if a community has a legitimate claim when water is voluntarily reallocated through water transfers, does the community have a like claim when water is involuntarily reallocated through regulatory fiat? Many of the reasons just suggested for protecting communities against external transfers would appear also to justify providing compensation or other forms of protection when the government unilaterally reduces the amount of water available to a community. Nor would the state’s interest in unfettered regulatory reductions appear to be any greater than the states’ interest in unfettered markets, because both regulatory reductions and markets are tools toward the same state water goals. Indeed, given markets’ greater efficiency in promoting conservation, markets arguably should be less constrained. Yet it seems hard to imagine that Sax, who has devoted several articles and much intellectual energy to rebutting the compensatory claims of private water users, would burden regulatory reallocations with the need to compensate all members of a local community.

Distinctions between voluntary and regulatory reallocations exist, but they narrow the scope of potential justifications for protecting communities against the third-party effects of voluntary transfers and are not very convincing. Regulatory reallocations, for example, do no result in a redistribution of wealth within the community; instead, everyone in the community is worse off—farmer, farm worker, and tractor salesperson. In market transfers, by contrast, the transferring farmer receives a “windfall” at the expense of the local community. Regulatory reallocations, however, do leave the beneficiaries of the reallocation better off, so why should they not compensate the community?

Finally, would Sax’s proposals for limiting or taxing water transfers meet the community concerns? Transfers even of conserved water reduce the amount of water available in a community for future

85. Sax, Understanding Transfers, supra note 7, at 13.
development and can lead to a redistribution of wealth (a "windfall" to the farmer, with nothing at all going to the remainder of the community). Many communities may find compensatory funding an inadequate substitute for water. Sax's answer to this issue is likely to be pragmatic. Sax is not trying to preserve the status quo for the community at all costs; community "inconvenience," like inconvenience to individual water users, must "sometimes give way to the necessities of a great community."86 Sax is simply trying to find a balanced means of addressing communities' claims without discouraging water transfers.87

Whether the government should take any actions to protect communities from the adverse consequences of water exports (other than to reduce the cost of economic transition as it does in the case of other market shifts) remains questionable. Even if water exports are different from plant closings, Sax's suggestions would hinder the efficient redistribution of water within our society and merely prolong the demise of many fading agricultural communities. Examining the issue from Sax's pragmatic perspective, however, uncovers insights that a more abstract analysis would not have provided.

CONCLUSION

Several generations of law students have now studied in Professor Sax's classroom or read his casebooks and articles. Many of these law students are now teaching water law themselves. Throughout this time, Sax has served as both an inspiration and a model for us all. His careful and perceptive scholarship has repeatedly emphasized the importance of studying carefully the lessons of the past while heeding the scientific and practical truths that must shape our future. Our understanding of water issues is far richer as a result.

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86. Pennsylvania Coal Co. v. Sanderson, 113 Pa. 126, 149, (1886), quoted in Sax, Public Waters, supra note 6, at 477.

87. Sax concedes that his suggestions are "second-best solution[s], and will not produce the appropriate result in every individual case." But the alternative "threatens to make all but the largest water transfers uneconomic and untimely." Sax, Understanding Transfers, supra note 7, at 16.