

AN ECOSYSTEM PERSPECTIVE ON COLLABORATION FOR THE COLORADO RIVER

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I. INTRODUCTION: THE THIRD ALTERNATIVE

While preparing this Essay and the conference presentation on which it is based, I came across a wonderful book of quotations called *Breathing on Your Own, Quotations for Independent Thinkers*.¹ As with most books in this genre, it was divided by topic.² I searched for entries on “collaboration,” “cooperation,” or anything similar, but to my disappointment, no such categories were included. That made me wonder whether to conclude that collaboration is not for “independent thinkers.” Fortunately, I did locate the following single quote in the category “Third Alternative”: “There’s an alternative. There’s always a third way, and it’s not a combination of the other two ways. It’s a different way.”³

In alternative dispute resolution literature, this concept is sometimes known as the “third story.”⁴ It refers to the idea that resolution of disputes need not entail a traditional “compromise” situated somewhere along a linear path between the opening positions of the opposing parties. Rather, by opening the discussion to a wider range of solutions not necessarily tied to the initial assumptions that defined the end points for that single line of outcomes, resolutions that meet or even maximize the goals of all of the parties may become apparent. That constitutes a “third story,” or a “third alternative.” The “third alternative” quote, however, comes not from a scholar in the dispute resolution field, but from David Carradine (of television show *Kung Fu* fame).

In part because this idea of a third story or a third alternative provides opportunities for creative problem-solving that transcend the traditional heel-digging, posturing, and defensive positions of bilateral litigation, I have long

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¹ RICHARD KEHL, *BREATHING ON YOUR OWN, QUOTATIONS FOR INDEPENDENT THINKERS* (2001).

² For a presentation in Las Vegas, two of the entries in the category “Chance” stood out: “A throw of the dice will never abolish chance,” by Marcel Duchamp; and my favorite: “We can’t leave the haphazard to chance,” by British author N.F. Simpson. *Id.* at 22-23.

³ *Id.* at 198.

⁴ See DOUGLAS STONE, BRUCE PATTON & SHEILA HEEN, *DIFFICULT CONVERSATIONS: HOW TO DISCUSS WHAT MATTERS MOST* 146-62 (1999).

been a fan of collaborative processes, and I have participated in several of those processes⁵ and written about many others.⁶ Thus, any critiques presented here about the nature and efficacy of collaborative programs in the Colorado River Basin do not rest on any fundamental disagreement with the nature of the process. Moreover, collaboration can have important incidental benefits beyond substance of the particular negotiation, such as improved long-term relationships among previously antagonistic individuals and parties.

However, I do suggest that there are several related, overarching principles that should be used as guideposts for collaborations designed to address the multitude of problems currently facing the Colorado River and its many users, based in part on recommendations I presented in a recent book about those restoration programs.⁷ Ultimately, the real-world goal is an acceptable future. The laudable goal of “getting along,” or improving relationships, or avoiding litigation, cannot be our *only* goal when the fate of one of the world’s great riparian and estuarine ecosystems is at stake, as well as the welfare of tens of millions of people who rely on the river for water, power, recreation, and other purposes. In this context, “acceptable” does not mean the optimum for any one set of interests, but rather one that protects the legitimate needs and interests of all parties. Very often, that will require us to search for a “third alternative.”

When negotiations involve the future of a large, internationally-important set of interconnected ecosystems like those along the Colorado River and the Colorado River Delta, the long-term health of those ecosystems must be one of the key indicia of a successful collaboration. In my view, that is a nonnegotiable core value. I understand that it is *my* core value—no doubt one that is shared by some but not necessarily by all—but my bottom line is that any collaborative process that fails to meet that fundamental goal cannot be justified merely because it allows everyone to get along or avoid litigation.

Likewise, others will argue that the Colorado River has become a resource lifeline for millions of people in the Southwest,⁸ and that preservation of those

⁵ For example, I was co-chair of Water Quality 2000, a multi-interest group collaborative assessment of national water pollution control policy, *see* WATER QUALITY 2000, WATER ENV’T FED’N, A NATIONAL WATER AGENDA FOR THE 21ST CENTURY: PHASE III REPORT (1992); I was a member of the Management Advisory Group to the Assistant Administrator for Water for the U.S. Environmental Protection Agency (“EPA”), a subgroup of which ultimately negotiated a groundbreaking solution to the multi-billion dollar, longstanding dispute about Combined Sewer Overflow (“CSO”) policy in the United States, *see* EPA, Combined Sewer Overflow (CSO) Control Policy, 59 Fed. Reg. 18,688 (Apr. 19, 1994) (to be codified at 40 C.F.R. pt. 122); and I was a member of the EPA’s Federal Advisory Committee Act (“FACA”) Committee on Total Maximum Daily Loads (“TMDLs”) under the federal Clean Water Act, *see* EPA, EPA 100-R-98-006, REPORT OF THE FEDERAL ADVISORY COMMITTEE ON THE TOTAL MAXIMUM DAILY LOAD (TMDL) PROGRAM (1998).

⁶ *See, e.g.*, Robert W. Adler, *Addressing Barriers to Watershed Protection*, 25 ENVTL. L. 973 (1995) [hereinafter Adler, *Addressing Barriers*]; Robert W. Adler, *Toward Comprehensive Watershed-Based Restoration and Protection for Great Salt Lake*, 1999 UTAH L. REV. 99; Robert W. Adler & Michele Straube, *Watersheds and the Integration of U.S. Water Law and Policy: Bridging the Great Divides*, 25 WM. & MARY ENVTL. L. & POL’Y REV. 1 (2000).

⁷ *See generally* ROBERT W. ADLER, RESTORING COLORADO RIVER ECOSYSTEMS: A TROUBLED SENSE OF IMMENSITY (2007).

⁸ *See id.* at 5.

economies and lifestyles is an equally legitimate and equally nonnegotiable core value. The depth with which those core values are held was demonstrated in testimony offered at a 1997 hearing before a committee of the U.S. House of Representatives over the lightening rod proposal to decommission Glen Canyon Dam.⁹ The hearing included a reprinted article by David Brower, former Sierra Club Director and founder of both Friends of the Earth and the Earth Island Institute: “Once again Grand Canyon would make its own sounds and, if you listened carefully, you would hear it sighing with relief.”¹⁰ At the hearing, biologist Dave Wegner claimed: “We are people who believe in the resources. We are people who believe in the fish. We are people who speak for the birds.”¹¹ Opponents of the plan were equally vehement in their opposition. Arizona Water Resources Director Rita Pearson said: “[L]ife as we know it here in the West would be impossible without Lake Powell Reservoir.”¹² Even more dramatically, the chairman of Friends of Lake Powell testified: “[T]he people involved in daily life, commerce, and the free enterprise system surrounding the area will oppose until their deaths any person or persons that attempt to disrupt our personal rights, freedoms, and opportunities for existence around Lake Powell.”¹³

The difficult challenge in any collaborative process involving such passionately held views is determining whether two or more such sets of core values can be reconciled in an acceptable way. Although successful efforts to achieve that kind of reconciliation through collaboration are, of course, extremely desirable, at some point collaborative efforts can also become counterproductive if they exalt relationship building *over* the fundamental goal of resolving the conflicts in some way in order to achieve an acceptable overall future. Once that point is reached, in my view we are actually better off resorting to litigation, the political process, or some other forum to resolve the issue. Stated differently, if the result of a collaboration is avoiding rather than resolving core value disputes about the health of Colorado River ecosystems (or any other similar dispute), that very avoidance phenomenon can do more harm than good.

Part II of this Essay will test the three major collaborative processes along the main stem of the Colorado River and see how well they stand up to those principles. Although all of those programs are well-intentioned and do some good, I will suggest that each of those efforts is driven primarily by a goal of protecting ongoing water development in the face of environmental compliance challenges under the Endangered Species Act (“ESA”)¹⁴ and other laws and regulations, and not by a more fundamental goal of ecosystem restoration. As such, to date those programs have avoided rather than confronted and resolved

⁹ *The Sierra Club’s Proposal to Drain Lake Powell or Reduce Its Water Storage Capability: Joint Hearing Before the Subcomm. on National Parks and Public Lands and Subcomm. on Water and Power of the H. Comm. on Resources*, 105th Cong. 2 (1997) [hereinafter *Hearing*].

¹⁰ David R. Brower, *Let the River Run Through It*, SIERRA, Mar.-Apr. 1997, at 42, 42; see also *Hearing*, *supra* note 9, at 89 (reprinting part of Brower’s article).

¹¹ *Hearing*, *supra* note 9, at 77 (statement of David Wegner, Glen Canyon Institute).

¹² *Id.* at 39 (statement of Rita Pearson, Director, Arizona Department of Water Resources).

¹³ *Id.* at 66 (statement of Larry E. Tarp, Chairman, Friends of Lake Powell).

¹⁴ 16 U.S.C. §§ 1531-1544 (2000).

core value disputes between ecosystem-based and economic goals. Part III will then discuss the “third alternative” approach proposed in my book *Restoring Colorado River Ecosystems*,¹⁵ which I suggest will move us further toward an acceptable future that seeks to promote the legitimate needs and interests of all of the major parties involved in Colorado River disputes.

II. SURVEY OF THREE EXISTING COLLABORATIVE PROGRAMS FOR THE COLORADO RIVER

A. *The Upper Colorado River Endangered Fishes Recovery Program*

The Upper Colorado River Endangered Fishes Recovery Program, also known as the Recovery Implementation Program-Recovery Action Program (“RIP-RAP”), is a multi-interest group collaborative process in the Colorado River Basin upstream of Lake Powell.¹⁶ The stated goal of the effort is “to recover the [endangered fishes] while existing and new water development proceeds,”¹⁷ i.e., to allow continued development of upper basin water rights while still working towards endangered species recovery in the Upper Colorado River Basin (“upper basin”)¹⁸ and complying with the ESA. The underlying assumption is that we can have both; we will not have to make a difficult choice between further water development and endangered fish.

This underlying conflict must be viewed in the context of the two most dominant legal forces that drive the various parties’ competing interests. The upper basin states negotiated the compact during a period in which users in California were diverting and acquiring water rights to much larger shares of Colorado River water than was possible in the less populous and slower-growing upper basin states,¹⁹ and in the face of a U.S. Supreme Court decision that the prior appropriation doctrine of western water law²⁰ applied to interstate water disputes between states that adopted that doctrine intrastate.²¹ The Colo-

¹⁵ See ADLER, *supra* note 7.

¹⁶ See UPPER COLORADO RIVER ENDANGERED FISH RECOVERY PROGRAM, RECOVERY IMPLEMENTATION PROGRAM RECOVERY ACTION PLAN (RIPRAP) (2000), available at <http://www.fws.gov/mountain-prairie/crrip/riprap/2004finalrevriprap2.pdf>.

¹⁷ *Id.* at 1.

¹⁸ Under the Colorado River Compact of 1922, the “upper basin” is a hydrologically-defined area including the Colorado River watershed above Lee Ferry, which includes portions of Colorado, Utah, Wyoming, and parts of Arizona and New Mexico. Colorado River Compact, UTAH CODE ANN. § 73-12a-2 art. II(f) (2007). The “lower basin” includes portions of Arizona, California, Nevada, Utah, and New Mexico. *Id.* art. II(g). The “upper division” is defined geopolitically as the states of Colorado, New Mexico, Utah, and Wyoming; while the “lower division” consists of the states of Arizona, California, and Nevada. *Id.* arts. II(c)-(d). The Colorado River Compact is published at multiple locations. *E.g.*, COLO. REV. STAT. § 37-61-101 (2008); see also Colorado River Compact, 1922, <http://www.usbr.gov/lc/region/g1000/pdfiles/crcompct.pdf>.

¹⁹ See NORRIS HUNDLEY, JR., WATER AND THE WEST: THE COLORADO RIVER COMPACT AND THE POLITICS OF WATER IN THE AMERICAN WEST 115-16 (1975).

²⁰ See generally JOSEPH L. SAX ET AL., LEGAL CONTROL OF WATER RESOURCES 98-105 (3d ed. 2000) (explaining basic tenets of prior appropriation doctrine, including principle that those who divert water for beneficial use generally are afforded priority in relation to the date of appropriation).

²¹ Wyoming v. Colorado, 259 U.S. 419 (1922).

rado River Compact apportioned to the states in the upper and lower basins 7.5 million acre feet (“maf”) of water a year for beneficial consumptive use,²² that is, free from the constraints of prior appropriation law in which water rights usually are not granted until water is used and put to beneficial use. That allowed those states to develop more gradually, without fear of losing the entire river flow to booming California. In return for this reservation of future rights, the upper basin guaranteed deliveries of the lower basin’s share of water even in times of shortage,²³ thus placing the risk of drought on the upper basin. Although details of the compact and its vast body of accompanying law are complex and beyond the scope of this Essay, that was the nub of the deal, and the basin states and their water users have relied on those assurances ever since.

Beginning in 1977, however, the U.S. Fish and Wildlife Service (“FWS”) began to issue “jeopardy” opinions under the ESA, finding that new water diversions and other projects in the upper basin would jeopardize the continued existence of four endemic species of endangered Colorado River fish.²⁴ Under the ESA, FWS must reject actions that cause such jeopardy absent “reasonable and prudent alternatives” that avoid harm to those species.²⁵ Thus, the burden of proof is on each project proponent to demonstrate project-specific reasonable and prudent alternatives that would avoid jeopardy. If these new ESA requirements in fact prevented further upper basin water withdrawals, they could thereby limit if not eliminate the compact’s earlier guarantee of future upper basin water use.

In the upper basin recovery program, the basic approach to resolving this conflict is to reverse the usual burden of proof under the ESA. Rather than evaluating individual water withdrawals and requiring project-specific mitigation, project proponents are allowed to pay a fee per unit of water withdrawn, and those funds contribute to a more comprehensive, watershed-based species recovery program implemented by FWS in collaboration with a multi-party committee of stakeholders.²⁶ The approach is to pool resources to develop a more comprehensive approach to species recovery.

This collaborative program is laudable in a number of respects because it reflects broader ecosystem management and environmental restoration approaches rather than the band-aids that might be applied in the context of narrower, project-specific mitigation. For example, it has stimulated some successful efforts to restore backwater and floodplain habitats that are critical to spawning and rearing of endangered fish, but that are not tied directly to indi-

²² UTAH CODE ANN. § 73-12a-2 art. III(a). The Compact also grants the lower basin the right to increase its beneficial consumptive use by an additional one maf. *Id.* art. III(b). The term “beneficial consumptive use” is not defined in the Compact, leading to potential future implementation disputes. See Charles J. Meyers, *The Colorado River*, 19 STAN. L. REV. 1, 18-19 (1966).

²³ UTAH CODE ANN. § 73-12a-2 art. III(d). More precisely, this provision obligates the states in the upper division to ensure that water flows at Lee Ferry, the artificially-defined dividing point between the upper and lower basins, are at least seventy-five maf on a ten-year rolling average.

²⁴ See ADLER, *supra* note 7, at 120-21.

²⁵ 16 U.S.C. § 1536(b)(4) (2000).

²⁶ See ADLER, *supra* note 7, at 122-24.

vidual water withdrawals.²⁷ The key problem, however, is that the program designers and managers set the withdrawal price before they knew what steps were needed to recover the species. So the presumption is that water projects will continue before we know whether recovery programs will work, how much they will cost, and even what they will be. Moreover, that fundamental uncertainty about the efficacy of the recovery effort will only increase as more water is withdrawn from the system, thus posing increased jeopardy to the fish. As a result, the program has been criticized on both policy and legal grounds. One group of commentators wrote that the fate of the fish has become secondary to the political process.²⁸ A leading ESA expert argued that the program “subordinates the section 7 consultation process” and “creates a significant danger of regulating species out of existence.”²⁹

From a collaborative process perspective, my main critique is that this “pay as you go” approach reflected in the upper basin recovery program avoided or deferred the day of reckoning in which difficult choices must be made between species protection and development. Alternatively, the process simply ignores the view that Congress already made that choice in adopting the ESA,³⁰ and rejected later legislative efforts by upper basin states and water users to override the ESA in the face of this conflict.³¹ Of course, it is *possible* that the program will work, in which case society will, in fact, deftly avoid that difficult choice. As of now, however, there is little evidence that species recovery is succeeding in the upper basin despite three decades of effort. Thus, a de facto choice could be made by default, that is, through extinction. As such an unfortunate result approaches, it would be preferable to make real decisions through litigation or political discourse if the existing collaborative process is ill-equipped to do so.

B. *The Glen Canyon Dam Adaptive Management Program*

Another collaborative process is in place farther downstream and is designed to provide consensus recommendations to the Secretary of the Interior regarding modifications to the operation of the Glen Canyon Dam in order to reduce impacts to the downstream ecosystem through Grand Canyon National Park. The Glen Canyon Dam Adaptive Management Program (“GCDAMP”)

²⁷ See UPPER COLORADO RIVER ENDANGERED FISH RECOVERY PROGRAM, SAN JUAN RIVER BASIN RECOVERY IMPLEMENTATION PROGRAM, PROGRAM HIGHLIGHTS (2006-2007), available at <http://www.fws.gov/coloradoriverrecovery/publicpages/Highlights2006-2007.pdf>.

²⁸ Ann Brower et al., *Consensus Versus Conservation in the Upper Colorado River Basin Recovery Implementation Program*, 15 CONSERVATION BIOLOGY 1001 (2001).

²⁹ Federico Cheever, *The Road to Recovery: A New Way of Thinking About the Endangered Species Act*, 23 ECOLOGY L.Q. 1, 71 (1996).

³⁰ See *Tenn. Valley Auth. v. Hill*, 437 U.S. 153, 174 (1978) (finding that “beyond doubt . . . Congress intended endangered species to be afforded the highest of priorities”). *But see Nat'l Ass'n of Home Builders v. Defenders of Wildlife*, 127 S. Ct. 2518 (2007) (holding more recently that the consultation requirements of the ESA apply only to discretionary agency actions). The impact of *National Ass'n of Home Builders* on future decisions regarding Bureau of Reclamation projects is not yet clear. See Reed D. Benson, *Dams, Duties, and Discretion: Bureau of Reclamation Water Project Operations and the Endangered Species Act*, 33 COLUM. J. ENVTL. L. 1 (2008).

³¹ See ADLER, *supra* note 7, at 121.

similarly involves multiple stakeholders in a facilitated process, and seeks win-win solutions to the difficult set of tradeoffs involved in operating the dam and managing the Colorado River through what is perhaps its most famous and publicly-valued reach.³² As with the Upper Colorado River Endangered Fish Recovery Program, the GCDAMP is a laudable process, but one that has failed to resolve the key tradeoffs. The biggest difference, however, is that with respect to the Glen Canyon/Grand Canyon program, Congress bears much more direct blame for this failure.

As is true in the Upper Colorado River region, in the river reach below Glen Canyon Dam there have been fundamental conflicts between implementation of the ESA and various aspects of the Law of the River. Operation of dams always involves tradeoffs among different uses and values:

Even absent environmental considerations, operating a dam involves tradeoffs among different objectives. If you store more water behind the dam, perhaps to help the upper basin meet its water delivery obligation during a later drought, less storage space remains if the ensuing winter brings a bounty of snow. Torrential spring runoff will threaten dam safety if you cannot release water quickly enough to keep up with the flow. If you release as much water as possible to protect the dam, more than you can use to spin the turbines to generate electricity, you will not maximize power generation with the available water. If you dump all of that water at once, you might cause flooding downstream, threatening new riverfront condos.³³

Congress addressed many of these tradeoffs in legislation authorizing major dams and other water projects in the Colorado River. In the 1956 Colorado River Storage Project Act,³⁴ which among many other provisions authorized construction of Glen Canyon Dam, Congress provided that Glen Canyon and various other dams were to be built to meet water use and management needs first, and hydroelectric power demand second. The stated project purposes were to regulate water flows, to store water for “beneficial consumptive use,” to reclaim arid lands, to control floods, and “for the generation of hydroelectric power, as an incident of” the other identified purposes.³⁵ More specifically, the Act provided that hydroelectric facilities must be operated “so as to produce the greatest practicable amount of power and energy” consistent with water delivery requirements under the Colorado River Compact and other aspects of the Law of the River.³⁶

In the 1968 Colorado River Basin Project Act,³⁷ Congress authorized additional projects in the upper basin, but also added details on priorities for

³² See generally *id.* at 162-69; U.S. DEP'T OF THE INTERIOR, U.S. GEOLOGICAL SURVEY, USGS CIRCULAR 1282, THE STATE OF THE COLORADO RIVER ECOSYSTEM IN GRAND CANYON: A REPORT OF THE GRAND CANYON MONITORING AND RESEARCH CENTER 1991-2004 (Steven P. Gloss et al. eds., 2005) [hereinafter USGS CIRCULAR 1282].

³³ ADLER, *supra* note 7, at 138.

³⁴ Act of Apr. 11, 1956, Pub. L. No. 485-203, 70 Stat. 105 (codified as amended at 43 U.S.C. §§ 620-620o (2000)).

³⁵ *Id.* § 1.

³⁶ *Id.* § 7. In a later provision, Congress directed “facilities to mitigate losses of, and improve conditions for, the propagation of fish and wildlife.” *Id.* § 8(2). Thus, environmental goals were a distant third in the 1956 hierarchy of project goals.

³⁷ Colorado River Basin Project Act, Pub. L. 90-537, 82 Stat. 885 (1968) (codified as amended at 43 U.S.C. §§ 1501-1556).

water releases from Glen Canyon and Hoover Dams.³⁸ Again, Congress put first priority on the requirements of the Law of the River, requiring that water released from Glen Canyon Dam be used first to meet U.S. treaty obligations to Mexico, and then to implement the upper basin's delivery obligations under the Colorado River Compact.³⁹ Additional water can be used for other uses in the lower basin, to maintain Lakes Mead and Powell at approximately equal levels (the "equalization" requirement), and to "avoid unanticipated spills" from Lake Powell.⁴⁰ The equalization concept prevents the upper basin from hoarding water at the expense of water and power production downstream. More importantly for this analysis, the "spill prevention" provision prevents releases that exceed the power production capacity of the turbines in the dam, thus preventing any water from being "wasted" unnecessarily in terms of maximizing power output.

Glen Canyon Dam was in operation for only a little more than a decade, however, before FWS requested consultation under section 7 of the ESA regarding the impact of dam operation on endangered populations of humpback chub and Colorado pikeminnow in Marble and Grand Canyons downstream of the dam.⁴¹ This led to a long history of studies and confrontations over the degree to which steps to implement and enforce the ESA conflicted with the provisions of the Law of the River. But most of the proposed changes in dam operations designed to protect the fish will reduce power output, in conflict with the requirements of both the 1956 and 1968 water project statutes. Under the ESA, the Bureau of Reclamation argued that any alternative that would violate or interfere with the requirements of those statutes is not, by definition, "feasible."⁴²

In 1992, Congress passed the Grand Canyon Protection Act ("GCPA").⁴³ In that law, Congress had the opportunity to resolve the conflict between the water and power goals of the Law of the River and the environmental goals established in the National Environmental Policy Act ("NEPA"),⁴⁴ the ESA, and other environmental statutes. "Unfortunately, the [GCPA] could be used in an introductory philosophy text as an example of circular logic."⁴⁵ One provision of the law instructs the Secretary of the Interior to operate Glen Canyon Dam "in such a manner as to protect, mitigate adverse impacts to, and improve the values for which Grand Canyon National Park and Glen Canyon National Recreation Area were established"⁴⁶ A second section commands the Secretary to implement the first provision "in a manner fully consistent with

³⁸ *Id.* § 501.

³⁹ *Id.* § 602(a)(1)-(2).

⁴⁰ *Id.* § 602(a)(3).

⁴¹ See ADLER, *supra* note 7, at 143.

⁴² Since that time, both lower courts and recently the U.S. Supreme Court have ruled that the ESA consultation requirement only applies to "discretionary" agency actions, i.e., that actions required by other valid legal authority were not "discretionary." *Nat'l Ass'n of Home Builders v. Defenders of Wildlife*, 127 S. Ct. 2518 (2007); *Defenders of Wildlife v. Norton*, 257 F. Supp. 2d 53, 68-69 (D.D.C. 2003).

⁴³ Grand Canyon Protection Act of 1992, Pub. L. 102-575, 106 Stat. 4600.

⁴⁴ 42 U.S.C. §§ 4321-4370f (2000).

⁴⁵ ADLER, *supra* note 7, at 145.

⁴⁶ Grand Canyon Protection Act § 1802(a).

and subject to” the Colorado River Compact and other aspects of the Law of the River, including the 1956 and 1968 statutes.⁴⁷ A third provision provides that nothing in the Act “alters the purposes for which the Grand Canyon National Park and the Glen Canyon National Recreation Area were established.”⁴⁸ But the National Park Service Organic Act directs that those National Park System units be managed “in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.”⁴⁹ It is difficult to operate the dam in ways that fundamentally change the nature of the Grand Canyon ecosystem while still leaving the park unimpaired for future generations.

Finally, section 1806 of the Grand Canyon Protection Act provides:

Nothing in this title is intended to affect in any way—

- (1) the allocations of water secured to the Colorado Basin States by any compact, law, or decree; or
- (2) any Federal environmental law, including the Endangered Species Act.⁵⁰

In the last provision of the statute, however, Congress did instruct the Department of the Interior, along with the Department of Energy, to “identify economically and technically feasible methods of replacing any power generation that is lost through adoption of long-term operational criteria for Glen Canyon Dam,” including potential increased production at Hoover Dam.⁵¹ That provision suggests that Congress envisioned at least some operational changes that would reduce power production, notwithstanding its earlier statements to the contrary.

At bottom, although Congress purported to enact a law designed to require Grand Canyon restoration, at the same time it preserved all aspects of the pre-existing Law of the River, in terms of both water and power resources. It was either unwilling or unable to make clear choices about restoration priorities, or to choose clearly between water and power or fish. Instead, it *delegated* those fundamental value decisions to the Secretary of the Interior.⁵² Her decisions, in turn, were to be guided by a collaborative process designed to bring together representatives of all the various stakeholder groups whose uses and values are affected by the manner in which we manage the dam and the river. Those interests include the basin states, resource agencies, Indian tribes, academic and scientific communities, environmental organizations, the recreation industry, and power users.

That consultative and collaborative process requirement has been implemented through the auspices of an Adaptive Management Work Group (“AMWG”), which has met for more than a decade to help guide the restoration process.⁵³ The details of that process have been documented elsewhere,⁵⁴ but

⁴⁷ *Id.* § 1802(b).

⁴⁸ *Id.* § 1802(c).

⁴⁹ 16 U.S.C. § 1 (2000).

⁵⁰ Grand Canyon Protection Act § 1806.

⁵¹ *Id.* § 1809.

⁵² *Id.* §§ 1804(c)(3), 1805(c).

⁵³ For detailed and updated information on the AMWG process, see Glen Canyon Dam Adaptive Management Program – Background Reclamation UC Region, <http://www.usbr.gov/uc/rm/amp/background.html#background> (last visited May 27, 2008).

⁵⁴ See ADLER, *supra* note 7, at 162-69.

the general consensus has been that while discrete decisions have been made and some experimental flow regimes have been tried in an as-yet unsuccessful effort to restore downstream resources and environmental processes, little progress has been made in resolving the fundamental value tradeoffs involved in managing the river.⁵⁵ In part, this is because the AMWG has not been able to resolve conflicts among the competing goals of the participants. For example, efforts to modify the temperature and other characteristics of water released from Glen Canyon Dam in order to help recover endangered indigenous species might harm the prize population of introduced trout below the dam.⁵⁶ As of early 2008, a major new effort was underway to use the AMWG and NEPA processes to forge a longer-term experimental restoration program for the Grand Canyon reach of the river.⁵⁷ Only time will tell whether that effort will be more successful than previous attempts.

At least to date, in defining restoration goals through the AMWG collaborative process, the democratic process through which society makes difficult choices among competing values has broken down. Congress purported to make choices among competing values, but in reality deferred to a collaborative stakeholder process with authority only to make policy recommendations to the Secretary of the Interior. Neither the AMWG nor the Secretary, however, has made any decisions that would consciously impair any of the competing goals for which the Glen Canyon Dam or the river might be managed. The consequence of those non-decisions, however, might be to impair significant interests, for example, if one or more species is extirpated from the Grand Canyon as a result.

The AMWG collaborative process is sound in concept, but will not result in significant progress unless it results in actual choices among competing goals and values. If it cannot or does not, the question is whether the false promise of collaborative decision making ultimately will do more harm than good.

C. *The Lower Colorado River Multispecies Conservation Program*

The newest of the major restoration programs along the Colorado River is also in ways the most complex, and involves an equally large or even larger set of difficult tradeoffs among competing interests and values. The Lower Colorado River Multispecies Conservation Program (“LCRMSCP”) is an effort designed to address ESA compliance along the entire lower Colorado River from Lake Mead to the Mexican border. The LCRMSCP covers a long list of identified species that are either listed as threatened or endangered under the ESA, or otherwise identified as imperiled under state law.⁵⁸ The program is

⁵⁵ See USGS CIRCULAR 1282, *supra* note 32.

⁵⁶ See ADLER, *supra* note 7, at 155-58.

⁵⁷ U.S. DEP'T OF THE INTERIOR, BUREAU OF RECLAMATION, RECLAMATION: MANAGING WATER IN THE WEST; SCOPING REPORT FOR THE GLEN CANYON DAM LONG-TERM EXPERIMENTAL PLAN ENVIRONMENTAL IMPACT STATEMENT 3 (2007), available at <http://www.usbr.gov/uc/rm/gcdltep/scoping/FinalScopingReport.pdf>.

⁵⁸ For information about the program, see Bureau of Reclamation: Lower Colorado Region – LCR Multi-Species Conservation Program, <http://www.lcrmscp.gov/> (last visited May 27, 2008).

designed to be collaborative in some ways, but the environmental community opted out when other participants refused to include the part of the lower river ecosystem in Mexico.⁵⁹ It is similar in many ways to the Upper Colorado River Endangered Fish Recovery Program, but also has some very key legal and economic differences.

The LCRMSCP is even more ecosystem-based in some respects than its upstream partners. It formally addresses twenty-seven listed or special status species chosen from a candidate list of 149 species considered within the program boundaries.⁶⁰ It is based primarily on a habitat protection and restoration approach designed to restore and create new habitats along the lower river for the target species, rather than significant changes in dam operations as is true for the GCDAMP immediately upstream.⁶¹ Like the upper river endangered species recovery program, it at least purports to look at the whole watershed rather than discrete actions at specific locations along the river.

Like the upper river program, however, the LCRMSCP is designed facially to accommodate development simultaneously with ESA compliance in ways that avoid potentially difficult choices. The stated program goal is to “accommodate present water diversions and power production and optimize opportunities for future water development, to the extent consistent with the law.”⁶² Obviously that ambitious win-win goal is extremely desirable *if possible*. If it is not, however, compliance with the law should be paramount, and that may entail another set of difficult decisions and tradeoffs.

Also like the upper river recovery program, the LCRMSCP allows a large group of parties to purchase their way out of ESA compliance, this time for a fixed single price, half of which is subsidized by the federal government, in return for which they are granted incidental take authorizations under the ESA⁶³ for all of the covered species, and for a full half century.⁶⁴ And also like the upper river program, this price tag was set without any real assurances that the proposed restoration will be effective in recovering the species, or even full plans for what will be done. Boiled down to its essence, the program consists of a set of acreage goals for habitat restoration and tentative plans for implementing those goals.⁶⁵ It is not clear what will happen if that restoration effort fails, or if even successful restoration of the specified acreage fails to help species recovery. In that sense, the fact that so many species are covered by the program is actually a liability rather than an asset from an ecosystem

⁵⁹ See ADLER, *supra* note 7, at 179.

⁶⁰ See 2 LOWER COLO. RIVER MULTI-SPECIES CONSERVATION PROGRAM, FINAL HABITAT CONSERVATION PLAN § 1.4.2 (2004), available at <http://www.lcrmscp.gov/publications/Volumell.pdf>.

⁶¹ See *id.* ch. 5.

⁶² *Id.* § 1.2.

⁶³ Under section 10(a) of the ESA, permits may be issued for the “incidental” taking of a species if impacts are mitigated and minimized to the maximum extent practicable, and if “the taking will not appreciably reduce the likelihood of the survival and recovery of the species in the wild.” 16 U.S.C. § 1539(a)(2)(B) (2000).

⁶⁴ U.S. Fish and Wildlife Service, Permit TE-086834-0, Apr. 4, 2005, available at <http://www.lcrmscp.gov/publications/10APermit.pdf>.

⁶⁵ See ADLER, *supra* note 7, at 179-89.

restoration perspective because ESA successful compliance will be avoided for all of those species.

Like its sister programs upstream, therefore, the LCRMSCP process does more to avoid the key value choices than it does to resolve them. And the most notable deficiency in that regard may be the fact that the program punts on the issue of water for the Colorado River Delta in Mexico, the very issue that nullifies the claim that this is truly a collaborative process. Most obviously, the fact that all of the major environmental group representatives abandoned the process belies any possible claim that all of the key interests are represented in the process. More fundamentally, however, those groups declined to participate because critical environmental interests and issues south of the border are not addressed by the program. Obviously, it is impossible to address competing interests by ignoring some of them entirely.

This is just one symptom of a broader problem, however, in that none of the three restoration programs addressed in this analysis looks beyond its specific geographic boundaries to the ecosystems of the river as whole. As explained below, this narrow focus precludes consideration of “third alternative” or “third story” solutions that might, in fact, allow us to address the core needs of the full range of parties interested in the use and the future of the Colorado River.

III. CONCLUSION: TOWARD A “THIRD ALTERNATIVE”

At the outset, I defined a “third alternative” or a “third story” as a solution not necessarily tied to the initial assumptions that defined the end points for a single line of pre-conceived outcomes.⁶⁶ Thus far, such solutions have been elusive in the collaborative processes designed to restore Colorado River ecosystems.

The underlying premise of all three of the major collaborative restoration programs for the main stem of the Colorado River is the same. All of the programs seek to walk a very narrow tightrope between business as usual on the river and narrowly-defined compliance with the ESA. The reason for this high wire act is clear. Although technical ESA compliance is mandatory and the parties’ intent to restore endangered species no doubt is sincere, achieving that goal with the strategies envisioned thus far might entail a significant curtailment of the water supply, power production, and other economic benefits currently taken from the river. No one is willing to acknowledge, much less accept, that result. As a result, the parties in the various collaborative processes have not—at least not yet—confronted the key tradeoffs we may ultimately face between ESA compliance, meeting broader ecosystem restoration goals, or preserving full use of the river’s water, power, and other extractable resources for economic use and development.

This avoidance of fundamental choices has limited the range of restoration solutions we have explored for the Colorado River and its associated ecosystems. Instead of looking at a broader set of possible solutions, we continue to pursue solutions that are not likely to jeopardize existing economic uses or

⁶⁶ See *supra* text accompanying note 4.

operation of any aspect of the Law of the River. Those options, then, are limited to tinkering with operation of the existing dams, and steps to restore relatively small, discrete patches of habitat in and along the river. Ironically, a broader set of solutions might actually do more to accommodate the very economic interests that the narrower, existing policies seek to maintain. So how might we accommodate those interests while addressing ecosystem restoration goals more effectively?

First, a more successful collaborative process designed to promote ecosystem restoration for the Colorado River should be more comprehensive both geographically and in terms of the range of interests that have a meaningful voice in the process. As has been suggested by others, a comprehensive, watershed-based program for the Colorado River would have a better chance of addressing the full range of complex issues than the existing, more fragmented programs.⁶⁷ Such an effort should cover the entire river, from its headwaters to its terminus in the Sea of Cortez. Second, such a program should include all stakeholders on both sides of the border, and provide some real decision making authority to each of those interests to allow real but difficult choices to be made rather than the avoidance phenomenon that has characterized previous efforts. Admittedly, such a process would be difficult and complex. Successful programs of equal complexity, however, have been designed for large watershed restoration programs in places like the Chesapeake Bay and the Great Lakes.⁶⁸

Third, a more effective way to determine whether difficult tradeoffs must be made to ensure species and ecosystem recovery (or whether they can be avoided) is to look much more broadly at what resources we use from the river and how, and what alternatives there might be to replace those resources. In other words, we need to look for a “third alternative,” or more likely, a series of third alternatives. Several possible examples are given below, but I intend them more as a stimulant to further analysis and creativity than as presumptively “correct” solutions.⁶⁹

We know that the vast array of legal institutions and physical infrastructure we have developed for the Colorado River is designed to accommodate economic growth and development in a region with limited water resources. Setting aside the issue of whether it is environmentally sustainable to allow regions to grow beyond their natural resource limits, we might instead ask whether other means exist to provide water to growing places of use, in ways that allow more water to remain in the river for environmental restoration and protection. For example, use of desalination in the Southwest has been limited in the past due to cost and environmental issues such as disposal of the resulting brines, especially in sensitive marine environments. More and more growing Southern California cities are investing in desalination, however, as costs

⁶⁷ See David H. Getches, *Colorado River Governance: Sharing Federal Authority as an Incentive to Create a New Institution*, 68 U. COLO. L. REV. 573, 577-82 (1997).

⁶⁸ See Adler, *Addressing Barriers*, *supra* note 6, at 1070-75.

⁶⁹ All of these solutions are discussed in ADLER, *supra* note 7, ch. 9.

decline and as the cost of other water supplies grows.⁷⁰ Moreover, experts predict that desalination costs will continue to decline, potentially to a dramatic degree due to a major breakthrough in filtering or other aspects of the technology.⁷¹

This suggests an alternative to the current regime in which we pump Colorado River water to Southern California and pay a lot of money for environmental mitigation efforts with currently questionable efficacy to offset the harm caused by those diversions. Perhaps the same financial resources could be devoted to subsidizing desalination in Southern California as part of our Colorado River restoration program, and then to dedicate the water produced on a gallon for gallon basis to instream flows all the way to the Sea of Cortez. The result would be the same in terms of Southern California water supply, but might be significantly more effective in restoring aquatic and riparian habitats along the lower river and into the Colorado River Delta than equally expensive programs to replant small patches of habitat along the lower river corridor in the United States.

Another possible example of a “third alternative” or a “third story” is to look at the relative contribution of hydroelectric power to the Southwest power grid, and to explore how that electricity might be replaced over time by solar power or other non-fossil fuel-based options.⁷² Ironically, the very source of aridity in the region—the predominant number of sunny days rather than days of precipitation—along with the vast open spaces in the region, makes it one of the richest potential areas for solar power in the nation. Again, maybe investing in those options *as an environmental restoration strategy* makes more sense than investing in mitigation, to the extent that it would allow us to decommission dams currently justified in part for power production purposes.

These and similar “third alternative” ideas⁷³ are long-term approaches, and will require a considerable amount of time, effort, planning, resources, and collaboration. But we have been working on restoration programs in the upper river for three decades now without a lot to show for it, nearly as long for the GCDAMP downstream of Glen Canyon Dam, and the newer LCRMSCP appears to be headed along the same, frustrating path. Maybe it is time to look for a Third Alternative, one that adopts a broader, ecosystem-wide approach to collaboration for the Colorado River.

⁷⁰ See Kathryn Kranhold, *Water, Water, Everywhere. . . Seeking Fresh Sources, California Turns to the Salty Pacific, but Desalination Plants Face Criticism on Environment, Costs*, WALL ST. J., Jan. 17, 2008, at B1.

⁷¹ See ADLER, *supra* note 7, at 250-51.

⁷² See *id.* at 258-62.

⁷³ Among other options I have posited for the Colorado River include offstream reservoirs, aquifer storage and recovery facilities, rethinking some of the fundamental tenets of the Law of the River, and rethinking the recreational uses of the river. *Id.* ch. 9.