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Decentralization and Water Politics at the Sub-National Level

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The Dilemma of Autonomy: Decentralization and Water Politics at the Sub-National Level

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Abstract

This article develops a framework for understanding the role of sub-national states in water politics in decentralized federal systems. First, that role has increased worldwide as a result of decentralization. Second, the quest for autonomy sometimes leads sub-national officials to prefer weak forms of cooperation. Third, the interaction of sub-national states, central governments, and non-governmental actors largely explains inter-jurisdictional conflict and cooperation in shared river basins. This framework is applied to the case of the Colorado River Basin to help explain a long-term shift towards more cooperative relationships between the riparian states.

Keywords: hydropolitics; decentralization; water; sub-national politics; Colorado River

Introduction: Exploring Sub-National Hydropolitics

Traditionally, scholars of water politics have emphasized the role of the central state in shaping the dynamics of conflict and cooperation at both sub-national and international levels. But in many river basins sub-national units like states and provinces play an important role in water resource management, and their interests often vary considerably from those of their parent nation-states. The role of these sub-national states has begun to receive some attention from scholars of water politics. Several detailed accounts exist of the role of sub-national states and provinces in basins as diverse as the Ganges, the Missouri, and the Murray-Darling (Franda

1968); (Thorson 1994); (Garrick, et al. 2014). At the same time, a small but intriguing literature examines the linkages between water-related conflict and disputes at the sub-national level and tensions in international transboundary basins, particularly in South Asia (Giordano, Giordano and Wolf 2002); (Wirsing 2007); (Alam, Dione and Jeffrey 2009). Finally, a sub-set of the collective action literature examines how different sub-national jurisdictions cooperate to manage estuaries and other shared water bodies estuaries (Weber 2003); (Sabatier, et al. 2005); (Berardo and Scholz 2010). However, the existing literature leaves several important questions unanswered. First, exactly what role do sub-national states play in hydro-politics relative to the central states and non-governmental actors that have been the primary subjects of past scholarly attention? Second, under what circumstances do sub-national states engage in conflict versus cooperation over shared water resources?

This article attempts to present a tentative answer to these questions, and in the process to develop a framework for understanding the role of sub-national jurisdictions in water politics. It does so by examining the role of riparian states, the federal government, and environmental advocacy organizations in the case of the Colorado River basin. The Colorado case is well-suited to the theory-building objectives of this article for two reasons: first, the American federal system defines a constitutional role for sub-national states in water resource management. Second, nearly a century of conflict and cooperation in the basin between the states, the federal government, and non-governmental organizations evinces several shifts in relationships between these actors. This within-case variation presents an opportunity to explain the role of sub-national states, and to identify the factors that induce them to engage in conflict versus cooperation (King, Keohane and Verba 1994).

Accordingly, I rely on a wide range of documentary resources, including news articles, personal papers, and official records to construct a historical case study of Colorado River management. While this case study approach cannot validate a generalizable theory, it is suited to the theory-building objective I have set out, namely to conceptualize the role of sub-national states in water politics. I identify several distinct shifts in the degree of cooperation between the federal government, the riparian states, and civil society actors in the Colorado basin. These shifts illustrate that the behavior of the riparian states was informed by a desire to maintain their autonomy relative to the central government, and which led them to prefer weak forms of cooperation with their neighbors. In this context, third-party pressure from non-governmental organizations has been critical to establishing more robust forms of cooperation, which have in turn promoted more sustainable approaches to Colorado River governance.

The increasingly prominent role of sub-national states in water resource management stems from the global trend toward the transfer of administrative responsibilities, fiscal resources, and political power from central to sub-national levels of government. While countries have implemented decentralization in different ways and to varying degrees, the overall effect has been to greatly enhance the power of sub-national levels of government relative to that of the

central government (Treisman 2007) . The effect of decentralization has been felt to some extent by nearly every country in the world, as even highly-centralized states such as Denmark, Indonesia, and Uganda have devolved decision-making and fiscal powers in many policy areas from central to local governments (Montero 2001); (Hooghe and Marks 2003). As a result of this global trend toward decentralization, sub-national states have become important players in water resource management. They have always been important actors in the water politics of federal countries, where constitutional responsibility for water resources is usually divided between central and state governments (Forum on Federations 2009). But under decentralization, states, provinces, and municipalities have become increasingly important players in natural and water resource management across the globe (Andersson, Gibson and Lehoucq 2006); (Ascher 2007); (Mullin 2009).

While decentralization has played out very differently across countries, its most important and universal effect is to create an acute dilemma of autonomy. The essence of decentralization is to permit sub-national jurisdictions to act with some independence from the central government. In some countries, sub-national governments have narrowly-defined and pedestrian responsibilities like trash collection, while in others they possess powers in virtually every area except defense and foreign affairs, and maintain independent judiciaries and legal systems (Watts 2008). Even in more centralized countries, however, the division of powers and responsibilities between central and sub-national levels of government creates ambiguity in who is responsible for certain issues, as well as inherent coordination problems between levels of government. Given the inherently inter-sectoral nature of water resource management, these challenges often hinder effective responses to inter-jurisdictional issues like water resource allocation, pollution control, and groundwater regulation (UNFAO 2010). The division of power is in particular frequently faulted for failures of inter-jurisdictional collective action in shared river basins. A study of flood control in the Missouri River basin concludes, for example, that “The Constitution provides few opportunities for resolving natural resource conflicts between states or within regions, and it provides even fewer formal avenues for intergovernmental cooperation in the management of shared natural resources—particularly rivers” (Thorson 1994, 4).”

However, the division of power under decentralization also means that sub-national governments have to constantly protect their autonomy from over-reach by the central state. Decentralization is often employed by central governments as an expedient, most typically either to quiet the demands of peoples or regions for independence or to improve public services in areas where the central government has been ineffective (Hooghe and Marks 2003). As a result, decentralization is often subject to periodic re-negotiation, and even reversal. The challenge of maintaining sub-national independence is especially acute in countries where the powers of sub-national governments lack firm constitutional foundations. However, even federal countries often experience prolonged debates over the diminution of sub-national authority. In the United States in particular, the power of the states relative to the federal government has been subject to

constant flux since its foundation, and is perhaps the foundational question in American political life (Elazar 1984). The struggle between central states and local communities over control for water has been observed in a large number of contexts, including the American west (Worster 1985); (Bakker 2010). Accordingly, sub-national officials across countries face a common dilemma: how to preserve their independence while also cooperating with the center and with their neighbors on matters of shared concern.

For sub-national officials, the solution to this dilemma is often to pursue weak forms of cooperation with their neighbors. Joseph Zimmerman notes, for example, that in the United States, “The modus operandi of most states does not encourage extensive interstate joint ventures because states, as semiautonomous entities, naturally are reluctant to engage in such ventures due to the loss of exclusive control accompanying them” (Zimmerman 2011, 201). This tendency to prefer weak forms of cooperation with neighboring jurisdictions poses a particular challenge for inter-jurisdictional collective action problems in shared river basins. Most scholars agree that problems like water scarcity and pollution are most effectively addressed by institutions that can convene all relevant stakeholders at an appropriate scale of decision-making, usually that of the watershed or river basin (Teclaff 1996); (Imperial 2005); (Lankford and Hepworth 2010). While these institutions can include less-formal bodies like water user associations as well as formal river basin commissions, they must have sufficient powers and resources to facilitate collaborative and participatory decision-making. By necessity, assuming these powers dilutes the independence of individual sub-national jurisdictions. As a result, sub-national officials tend to prefer weaker forms of cooperation that enable them to veto decisions favored by either the central government or their neighbors. As a study of U.S. river basin commissions observed, “Most states appear to join commissions for defensive purposes...They seek defenses against one another as well as against federal action” (Derthick 1974, 151).

In the United States, this desire to protect their autonomy has led state officials to prefer weak forms of cooperation over shared waterways in the form of interstate compacts, which are the predominant instrument employed in the United States to address both water quantity and quality externalities (Schlager and Heikkila 2009). Though numerous, these arrangements often lack enforcement and conflict-resolution capacities (Heikkila, Schlager and Davis 2011). Instead, compact agreements are typically subsumed within wider inter-state politics. As one observer has commented, “No compacts have truly succeeded in eliminating externalities because the regional governments that they establish do not coordinate well with pre-existing governments which create the compacts” (Thorson 1994, 140). At the same time, the U.S. Constitution provides states with an alternative to cooperative agreements like interstate compacts, namely by pursuing competing claims to water through judicial means (Watts 2008). The number of such lawsuits has increased significantly in recent years; as of the time of writing four inter-state water-sharing disputes were before the Supreme Court (Jacobs 2015).

Yet while some features of decentralization and federalism may raise the cost of collective action in inter-state river basins, others create opportunities for inclusive and cooperative governance of shared water resources. In general, the more decentralized the political system, the broader is what social movement scholars call the political opportunity structure, meaning that more opportunities exist for non-governmental actors, such as environmental organizations, to gain both political voice and influence (Kitschelt 1986); (Kriesi, et al. 1992); (Marks and McAdam 1996). This broader political opportunity structure promotes water resource management that is both collaborative, meaning that decisions are made based on shared values and norms of reciprocity (Lubell 2004), and participatory, meaning that all relevant actors are included in the decision-making process. Both practices, the consensus runs, are essential to achieving environmental and social objectives, especially under changing circumstances (Blatter and Ingram 2001); (Weber 2003); (Sabatier, et al. 2005). In the United States, conservation organizations effectively exploited points of access at both state and federal levels to gain support for national water quality legislation in the early twentieth century, for example (Paavola 2006); (Birch 2009).

Environmental non-governmental organizations (ENGOS) and civil society groups have long been acknowledged to play a critical role in fostering positive, cooperative outcomes in water resource management (Keck and Sikkink 1998); (Wood 2007). This is because non-governmental and civil society representation provides inputs into decision-making that balance the often-narrow views of governmental actors on the one hand, and of self-interested economic interests on the other. Perhaps most significantly, ENGOS and civil society organizations help to confer legitimacy on decision-making processes, an imprimatur that can be critically important given the contention which surrounds many aspects of water resource management. This feature of ENGO and civil society participation in water resource governance, vividly illustrated in the case of Brazil, is decisive in promoting cooperation and preventing conflict among the users of a shared water resource (Abers and Keck 2006); (Abers and Keck 2009); (Abers and Keck 2013). In many ways, ENGO and civil society participation is the glue that holds the cumbersome architecture of water resource management in place, especially in large, multi-stakeholder river basins. Their influence and pressure is critical to fostering collaborative, participatory institutions for water resource management, as illustrated by the case of the Colorado River basin.

Multi-Level Institution-Building in the Colorado River Basin

For the better part of a century, the U.S. federal government and states of the Colorado River basin have attempted to construct an adequate regional institutional framework to manage the region's scarce water resources. The degree of cooperation between them has steadily increased over time (see Figure 1). A key feature in this evolution has been the changing relationship between the states, the federal government, and environmental advocacy

organizations. In the initial phase of institution-building in the Colorado basin, fear that Mexico may lay claim to large quantities of the river's flow led riparian states to forge the Colorado River Compact, which created the nucleus for continued cooperation in subsequent decades. However, the concern of states with maintaining their individual autonomy resulted in a weak and brittle compact architecture that proved ill-suited to meeting growing demands placed on the river's waters. This conflict intensified in the second stage of the controversy as states and water users jockeyed for rents from federally-financed water infrastructure projects. Finally, in the third, most recent period, the growing power of environmental movements has created pressure for the development of more robust, collaborative, and participatory governance institutions. The case of institution-building in the Colorado River basin therefore suggests that sub-national states face a dilemma of autonomy which discourages robust institution-building. Instead, cooperation is most often induced by third-party advocacy organizations.

<insert Figure 1 (JPEG attachment)>

Figure 1: Timeline of Institution-Building in the Colorado River Basin
(Source: Author)

The Colorado River is located in the western United States, and is shared between seven American states as well as between the United States and Mexico (see Map 1). Large portions of Arizona, Colorado, and Utah lie within the basin, while the remaining states contribute a smaller share of the river's flow. Waters of the Colorado are apportioned by a 1922 interstate compact between an Upper Basin, which consists of those parts of Wyoming, Colorado, Utah, and New Mexico which lie above the Lee's Ferry, Arizona, and a Lower Basin, constituting those parts of Arizona, Nevada, and California which lie below. 7.5 million acre-feet of water (MAF) are apportioned to each part of the basin annually and in perpetuity by the compact. In the Upper Basin, a 1948 interstate compact allocates 51.75% of water to Colorado, 11.25% to New Mexico, 23% to Utah, 14% to Wyoming, and 50,000 acre-feet annually to Arizona. In the Lower Basin, a 1964 Supreme Court decree apportioned 4.4MAF to California, 2.8MAF to Arizona, and 300,000 acre-feet annually to Nevada. Additionally, a 1944 treaty guarantees Mexico a downstream flow of 1.5MAF annually, subject to minor restrictions (US Bureau of Reclamation 2008).

Subsequent agreements under this treaty framework provide for the control of salinity in waters delivered to Mexico, as well as for the maintenance of baseline levels of environmental flow in the Colorado River Delta (Bennett 2000). Collectively, these compacts and agreements are known as the Law of the River. This regime has historically been hobbled by a number of structural deficiencies, particularly its failure to recognize Native American water rights and its reliance on a baseline Colorado River flow that research suggests is significantly above long-term historical averages (Christensen, et al. 2004). But one of the biggest challenges to cooperation in the Colorado River Basin has been competition between federal and state government for jurisdiction and control over the river's waters, joined more recently by non-

governmental advocacy organizations who have lobbied for a more participatory approach to decision-making in the basin.

<insert Map 1>

The Struggle for Autonomy and Control over Water: Roots of Inter-State Conflict in the Colorado River Basin

The roots of inter-state conflict lie in the attempts of riparian states to permanently secure their autonomy, along with senior rights to Colorado river water. Beginning in the late nineteenth century, California's fast-growing and water-scarce southern regions, particularly the cities of Los Angeles and San Diego and the irrigated lands of the Imperial and Coachella Valleys, turned to the Colorado for their water needs. Accordingly, these regions began to lobby for a share of Colorado River water. As a 1924 report noted, "California makes no contribution to the waters of the Colorado but...on account of the low lying lands within her borders can use advantageously the greater part of the water allocated to the lower basin" (Clark 1924, 15). Irrigated agriculture quickly expanded throughout the early twentieth century, and in 1911 the Imperial Irrigation District (IID) was organized as the world's largest single agricultural unit. The IID quickly emerged as a powerful political force, and soon began calling for federal assistance to build an "All-American Canal" which would divert water from the Colorado on the American side of the border, instead of relying on water from Mexico as had previously been the case (Nadeau 1974). At a 1919 conference, the IID allied with Los Angeles and Coachella farmers to seek Congressional appropriations for the Canal, in return for which they were guaranteed Colorado water. Less than two months later, IID lobbyists were in Washington, "handing out cantaloupes produced in the [Imperial] valley" (Hundley 1975, 41-42).

A similar process played out in the neighboring state of Arizona, where constituencies emerged in support of water diversion projects in order to irrigate vast areas in central Arizona. In the early 1920s, an Arizona entrepreneur named George Maxwell helped to start an organization advocating construction of a "High-Line Canal" to channel water from the main stem of the Colorado River to central Arizona. The project, Maxwell argued, was made necessary by the combined water allocations implied for both California and Mexico under the proposed terms of the Colorado River Compact, leaving little for Arizona. In particular, Maxwell argued that the compact "was a smokescreen to cover the design of turning the waters of the Colorado over to... northern Lower California," leaving only enough to irrigate some 282,000 acres in Arizona, as opposed to 900,000 in California and 810,000 in Mexico (Arizona Republican 1922). Maxwell's charge that Arizona faced a poor bargain gained considerable political support in the Arizona legislature, and after the 1923 legislative session began, rarely was "a day allowed to pass...without an added measure designed to stave off action on the Colorado River compact" (Los Angeles Times 1923).

Arizona's hostility to the Colorado River Compact was perhaps the most extreme example of the extent to which the dilemma of autonomy led riparian states to prefer weak forms of institution-building in the basin. However, the breadth of this concern is illustrated by the creation of the League of the Southwest, a lobbying group founded to support basin-wide initiatives like the Compact. In its founding declaration, the League pledged to uphold state sovereignty over water: "In the arid States of the West the irrigation projects undertaken by or with the aid of the Federal Government should in every instance be based upon a full compliance with the laws of the State wherein the projects are located so far as the appropriation of water and other matters of purely State control are concerned." The basin states thus approached institution-building as a counterweight to the U.S. and Mexican governments who they feared would assert control over Colorado River waters. A remark by Delph Carpenter, the Colorado lawyer who first proposed the Colorado River Compact, makes clear his position that "the States of the Union...have the same power to enter into compacts with each other as do independent nations." Without guarantees to its claims to water, Carpenter proclaimed, "The upper State has but one alternative, that of using every means to retard development in the lower State until the uses within the Upper State have reached their maximum" (Carpenter 1923, 19-32).

This suspicion of their neighbors as well as the federal government led the states to pursue a loose form of cooperation among themselves. However, by the end of the 1930s, growing water demand and the prospect of a large Mexican water claim under the proposed U.S. - Mexican boundary treaty persuaded Arizona's leaders that they required main-stem Colorado River water, which necessitated ratification of the compact. The Gila Project Association, which desired federal appropriations for irrigation projects in the Yuma region, stridently criticized Arizona's refusal to sign the Colorado River compact, and the risk of remaining outside the Compact was driven home when in May 1937 Upper Basin Congressional representatives voted *en masse* to defeat an appropriations bill for the Gila Project (Los Angeles Times 1937). Henceforth, the political pendulum in Arizona shifted toward ratification of the compact, though only with the goal of supplying its long-sought High-Line Canal, which Democratic Governor Rawghlie Stanford claimed would mean that "existing water disputes and water shortages...on the same streams within Arizona will be ended" and would allow Arizona to "become the most prosperous State in the Union" (Smith 1937).

Indeed, opposition to alleged federal and Mexican water claims proved to be the best stimulant to cooperation between the riparian states. In 1938, largely in response to fears regarding the amount of Colorado River water promised to Mexico under a pending boundary treaty, all seven Colorado basin states formed the Committee of Fourteen, with two representatives from each state, in order to persuade Washington not to surrender a drop of Colorado River water to Mexico (Nadeau 1974, 235). The Committee petitioned President Roosevelt to abandon negotiations on the U.S. - Mexico treaty, and instead to serve notice to the government of Mexico that "it was the policy and purpose of the United States to reserve for use within this country all waters of the Colorado River." Reflecting their distrust of Washington,

however, the conference also asked the federal government to withdraw claims asserted during the Arizona Supreme Court litigation as to federal ownership and control of non-navigable streams within the Colorado basin (Los Angeles Times 1938). At the same time that the Committee advocated confrontation with Washington, however, it promoted comity among the basin states. As an Arizona state government report noted, “Through this Committee of Fourteen, friendly relations have been built up between all the basin states” (Colorado River Commission of Arizona 1940, 27).

These improved relations did not, however, end inter-state conflict in the basin. Instead, they merely pitted the other states against a new feared water hegemon in the form of California and its senior claims to Colorado River water. In 1943-1944, all five Upper Basin states rewarded Arizona for its opposition to the U.S. – Mexico treaty by defying California and voting to approve Arizona’s entry into the Colorado River compact under favorable terms (Los Angeles Times 1943). The federal government encouraged the states to resolve their differences, but in a concession to the animosity which existed between California and the other basin states, nonetheless maintained a degree of remove. In 1944, again over California’s strenuous objections, Interior Secretary Harold Ickes approved a contract delivering 2.8MAF annually to Arizona, provided that its legislature ratify both the contract and the compact, which was promptly done. Reflecting federal officials’ reluctance to become embroiled in the deep-seated conflict, however, the contract “specifically provides that it does not resolve the issues between the two States and that it is without prejudice to their respective claims” (Los Angeles Times 1944). In the postwar era, enhanced federal efforts to induce cooperation among the riparian states would meet with even greater frustration.

Preserving Autonomy and Seeking Appropriations: Frustrated Federal Involvement in Inter-State Disputes

After 1945, driven by rising demand for water as the economy boomed and the population of western states increased dramatically, the U.S. federal government made a determined attempt to resolve inter-state conflict in the Colorado River Basin. In the early 1960s, Interior Secretary Stewart Udall attempted to finally overcome the problem of autonomy by proposing a gigantic Pacific Southwest Water Plan (PSWP). The PSWP aimed to meet the energy and water needs of the entire western United States by developing large dams, canals, and transmission lines to channel water and power from the Pacific Northwest to the southwest, thereby side-stepping the Colorado River Basin dispute (Dominy 1964). This regional approach, Udall proclaimed, promised to finally transcend “the outmoded concept of state lines...only regional planning and action will enable us to meet the growth needs of this area” (Sherman 1963). Yet despite the stridency of Udall’s support for such a regional solution, the Secretary was soon forced to acknowledge the significance of the very state lines he had initially disparaged. In testimony before Congress, Udall promised that “The rights of the individual

states likewise must be respected and the aspirations of the states accommodated” (US Senate Committee on Interior and Insular Affairs 1963, 311).

Indeed, state political leaders and their allies in Congress quickly mobilized to thwart aspects of the PSWP which threatened state control over water. Powerful Democratic Senator Henry Jackson of Washington grew concerned about proposed water transfers from the Columbia River to the more arid parts of the southwest, and demanded that the PSWP be reviewed by an independent National Water Commission (NWC). As Washington’s governor testified before Congress, “we are a downstream state within a basin whose waters have consistently been looked upon and prejudged as a source of import supply” (US Senate Committee on Interior and Insular Affairs 1967, 631). Meanwhile, national conservation organizations lobbied representatives of eastern states, such as Republican Congressman John Saylor of Pennsylvania, to oppose the PWSP because of its threatened effects on the west’s dramatic natural scenery (Fleming 1954). The combined influence of this Congressional opposition outside the Colorado River Basin was sufficient to dramatically reduce the scale of the PSWP, returning the Congressional debate to projects favored by the individual states.

In light of the effective state opposition to the attempts of federal agencies to settle the Colorado River Basin dispute themselves, a California-Arizona lawsuit was left to determine the final partition of Lower Basin water. The matter remained as contentious as in previous phases of the dispute; a pre-trial conference so exasperated a Court-appointed Special Master that he resigned, saying simply, “I give up” (Los Angeles Times 1956). After a 26-month-long trial, a re-appointed Special Master upheld Arizona’s claim to an additional million acre-feet of Colorado River water, allocating it 2.8MAF, and reducing California’s allotment by 978,000 acre-feet annually to 4.4MAF (Chicago Daily Tribune 1960). The Court itself upheld this partition in its final 1963 decision in *Arizona v. California*, and further re-affirmed the Interior Secretary’s power to apportion water among water users in the Lower Basin states, particularly in times of drought (Blair 1963). Federal officials, expectant that the Court’s decision had finally solved the dispute, appeared eager to wash their hands of the matter. Secretary Udall refused to become embroiled in continued controversy surrounding California’s 4.4MAF, telling Congress, “It is our view that this is a matter between the states, and however they want to work this out is satisfactory so far as the administration is concerned” (US Senate Committee on Interior and Insular Affairs 1967)

The Court’s decision set the stage for the Colorado River Project Act (CRPA) in 1968, which authorized a raft of water infrastructure projects throughout the basin, finally promising states the sovereignty over water resources they had long sought. But in during debates over CRPA, a new force emerged which would once again highlight the tension between state sovereignty over water and true basin-wide cooperation. The salience of environmental issues in Colorado River basin governance became clearly marked in 1969, when President Johnson used his last 90 minutes in office to protect several areas along the river from ranching, mining, and

other extractive activities. While conservation groups like the Sierra Club praised the move as “true conservation in the public interest,” state officials were furious. Utah’s Director of Natural Resources expressed hope that the next administration would “undo the damage Johnson has done,” while Utah Republican Senator Bob Bennett called the federal designation “the most blatant type of greed I can imagine” (Goodman 1969). Despite this familiar state objection to perceived federal over-reach, the growing political salience of environmental issues induced Washington to take a significantly more active and constructive role in governance of the Colorado basin after 1970s that it had in previous decades.

In part, the federal government’s increased role in basin governance relative to the states during the 1970s was both the result of and enabled by its long-standing prerogatives in the field of foreign relations. Soon after taking office, President Nixon made improving ties with Mexico a priority, including solving the growing problem of salinity in the Lower Basin, which Mexican officials claimed made Colorado water essentially worthless by the time it entered Mexico, in violation of the 1944 treaty (Semple 1970). The issue became so politically heated that a 1972 article noted that “When Mexicans discuss relations between their country and the United States, they tend to mention first the level of mineral salts in the Colorado River” (Severo 1972). This continued attention to the issue bore fruit when in 1973 President Nixon announced that the U.S. would commit to building what was then the world’s largest desalinization facility to ensure that water flowing into Mexico remained of sufficient quality to support irrigation (Childs 1973). Concentrated economic interests in the United States, however, grew concerned that this commitment would reduce water availability in the southwestern states, and exerted their influence in Congress by persuading it to designate the Department of the Interior, over which they held more influence, as the lead agency on the desalinization project, rather than the State Department as the Administration had proposed (McElheny 1974). This victory proved short-lived, however, as the environmental movement changed the way that all federal bureaucracies approached institution-building in the basin.

The Creation of Cooperation: Rise of the Environmental Movement

The end result of the federal effort to tackle desalination was Washington’s close involvement in environmental protection in the Colorado River Basin, a process in turn facilitated by the growing influence of the environmental movement. The involvement of third-party ENGOs created a critical constituency for basin-wide cooperation that eventually helped to diffuse the long-running inter-state dispute. The decade of the 1970s opened with passage of several landmark pieces of environmental legislation, most notably the National Environmental Policy Act of 1970 (NEPA) and the Endangered Species Act of 1973, both of which transformed the federal government’s approach to Colorado River Basin governance. Nonetheless, as state opposition to Johnson’s conservation measures illustrates, success was far from inevitable, and it required the skillful exploitation by environmental organizations of new lobbying opportunities created by environmental legislation. As early as 1972, barely two years after NEPA created the environmental impact assessment process, organizations like the Sierra Club and Friends of the Earth provoked a distinct change in orientation among federal agencies like the Bureau of

Reclamation (BuRec) and the U.S. Army Corps of Engineers (USACE). Where once these agencies had been obsessed with “quick technological fixes,” by 1972 they were actively considering conservation-oriented approaches (Ripley 1972). The same year, the Environmental Defense Fund illustrated the growing power of environmental organizations by suing BuRec under NEPA for proposing to sell water allocated by Congress for irrigation to coal companies, an unprecedented challenge to what had previously been an unassailable bureaucratic prerogative (E. Kenworthy 1973).

In the Upper Basin, meanwhile, environmentalists joined with residents of Colorado’s West Slope region to oppose completion of the Fryingpan – Arkansas Project (FAP), strongly favored by BuRec and Colorado Congressional representatives, including powerful Democrat Wayne Aspinall. One of the most powerful Congressmen of the post-war period, Aspinall represented what was at the time the largest single Congressional district in the continental United States, and one that featured little appetite for the environmentalism increasingly influential in other parts of the country. A 1971 *New York Times* profile quoted a Congressional colleague as saying that “In many ways he is very, very provincial. It is fair to say that he has repeatedly put his district above the national interest” (Fradkin 1971). But such provincialism had by the early 1970s ceased to be the modus operandi in the Colorado River Basin. The changing balance of power between environmental and rights organizations on one hand and BuRec and state officials on the other was illustrated at the 1972 dedication of the FAP, at which Interior Secretary Rogers Morton acknowledged “diverse opinions” concerning its wisdom, and Colorado Republican Governor John Love declared that the project represented “the end of an era” of large water infrastructure projects (New York Times 1972).

At the same time, provisions of the Endangered Species Act of 1973 (ESA) began to fracture the previous alliance of convenience between federal agencies and state governments in support of reclamation projects. Following passage of the ESA, elements of the federal bureaucracy began to ally themselves with the environmental movement, instead of supporting reclamation projects favored by states as they had hitherto done almost without exception. In 1981, the Colorado River Water Conservation District, which supported additional dam construction, protested to the Interior Department that “As viewed by the federal courts and agencies, the Endangered Species Act...stands supreme in the land no matter what it costs the country and its people in lost opportunities” (Associated Press 1981). While this objection would at one time have reached sympathetic ears in the Department of the Interior, pressure from a national conservation organization, the National Wildlife Federation, compelled Interior Secretary James Watt to cancel a planned expansion of hydropower facilities at Glen Canyon Dam, despite his reputation as an anti-conservationist (Shabecoff 1981).

Within the executive branch, environmental interest groups were growing rapidly in influence, and altered agency priorities in the Colorado River Basin in favor of conservation and management rather than reclamation. A watershed moment occurred in 1987, when BuRec officials announced that the agency would cease initiating major construction projects, and

would instead change its “orientation from construction to resource management” (Coates, U.S. pulls plug on new dams 1987). The Environmental Protection Agency, which hithertohad played little role in western water issues, helped solidify this trend by blocking construction of Colorado dam strongly favored by state political leaders, citing its disruption to a number of threatened species (Coates 1989). Although tensions between environmental, flood control, and irrigation priorities persisted, especially in the Lower Basin, federal agency leaders increasingly identified with conservation objectives (Lancaster 1990). In 1994, the Clinton Administration announced a change to managing releases from Glen Canyon Dam to minimize variation in flows downstream, a move that BuRec’s Commissioner said heralded “the difference between the old way we have treated the river and the way of the future” (T. Kenworthy 1994b). Interior Secretary Bruce Babbitt, meanwhile, proclaimed a “new era for ecosystems” and “a new era for dam management” (Associated Press 1996).

Even more significant than this change in policy, however, was a newfound willingness on the part of federal leaders to constructively engage in Colorado River Basin governance. In 1997, Interior Secretary Babbitt announced a new federal rule designed to encourage inter-state water transfers as an alternative to litigation and political re-allocation of increasingly scarce water. Babbitt, breaking with a long tradition of federal neutrality in inter-state water disputes, warned California that “the time has come for me as the River Master to play a more active role” and impose limits on deliveries of Colorado River water to the state (Perry 1997). On the strength of this unprecedented personal involvement, the seven riparian states of the Colorado River Basin in 1999 reached a preliminary agreement to resolve the remaining issues concerning allocation on the Colorado. Under the agreement, the states agreed to a process under which the federal government would begin reducing water deliveries, especially to California, which for its part, committed to an ambitious effort to line canals and construct underground storage to accelerate transfers from agricultural to urban areas (Purdum 2000).

The federal government’s new-found commitment to cooperation in the Colorado River Basin further increased during the Bush Administration. Beginning in the mid-1990s, multi-state Adaptive Management Working Groups representing federal, state, and non-governmental stakeholders had been formed, and in the early 2000s these groups scored notable successes, including building support for plans to adjust streamflow to protect endangered species (Blakeslee 2002); (Blakeslee 2002b). Even more importantly, when a vote by the IID board threatened to imperil the 1999 inter-state agreement, Interior Secretary Gale Norton did not back down on a threat to reduce deliveries of Colorado River water in order to compel IID to approve the sale of water to San Diego (Murphy 2003). Despite IID’s protests that this threat constituted “an example of heavy-handed and unwarranted federal interference” (Murphy 2003c), Norton quickly gained the enthusiastic support of the other six basin states, environmental groups, and California state legislators, who were loath to surrender deliveries of Colorado River water. IID finally bowed to this combination of federal, state, and non-governmental pressure by agreeing

to the transfer, thus signaling a dramatic shift in the stance of the Colorado River Basin's most important single economic actor (Murphy 2003b).

This shift in IID's attitude toward cooperation in turn set the stage for another, even more productive, phase of institution-building in the Colorado River Basin, even as physical water scarcity pressures grew acute. In 2007, with the determined personal involvement of Norton's successor, Dick Kempthorne, a set of guidelines were concluded which superseded the 1999 agreement and specified how the Lower Basin states would share the burden of water use reductions during drought (Archibold 2007). As the drought grew more acute in the mid-2010s, the Lower Basin states, along with the Bureau of Reclamation, agreed to further curtail water use by implementing conservation measures in order to preserve water levels in Lake Meade, and to increase storage by 1.5MAF over time (Brean 2014). California's willingness to accept further restrictions marked a striking change from the prior history of basin competition. As one participant recalled, the state's "original attitude was 'We have the priority and those look like difficult problems – good luck.'" However, the very severity of the drought led California officials to calculate that senior water rights would not be sufficient to protect the state from rationing in the event that Lake Mead water levels dropped further. As a California water official stated, "We absolutely agree we're better off having the lake higher. We can't only rely on our priority and say we have our priority and we're protected" (Davis 2014). The dilemma of autonomy which had produced weak institution-building among the Colorado riparian states in the twentieth century has not disappeared in the twenty-first, but it has been attenuated by a constructive partnership between environmental groups and the federal government.

Conclusion

This article has attempted to propose an initial framework for understanding the role of sub-national states in water politics. This framework consists of three key elements: a process and structure of decentralization, which creates a role for sub-national states in water resource management; a basic concern with autonomy which leads sub-national states to prefer loose forms of cooperation over shared water resources; and finally pressure from third-party NGOs and national political leaders, which creates the constituency for collaborative and participatory institution-building. This framework has been applied to the case of the Colorado River basin, and I have argued that it explains the evolution of cooperation in the basin over time, from an initial phase of weak institution-building to a more institutionalized and cooperative approach in recent decades. More specifically, the role of sub-national states *vis a vis* the federal government and civil society explains variation in the extent of cooperation in the basin, and suggests that sub-national states may be the primary determinants of institutionalized collective action in shared river basins.

This observation can be formulated into a testable hypothesis that might inform further research: the greater the extent of political decentralization in a given country, the more likely it is to feature weak, less institutionalized forms of cooperation over shared water resources. However, the case of the Colorado has unfolded in the distinctive context of American federalism, and validating this hypothesis would require testing against a greater number and variety of cases. Such additional research would help to clarify the impact of decentralization on inter-jurisdictional collective action. In the meantime, the framework I have proposed suggests the need for greater attention to the interests and incentives of sub-national political actors in water politics, especially when decentralization accords them a more significant role relative to national-level actors. Indeed, while scholars concerned with water resource management often direct their focus to the national level, the case of the Colorado suggests that sub-national officials frequently determine the success or failure of national water resource policy reforms. This phenomenon is potentially of great consequence, for it may help to explain why, despite widespread consensus on the need for water resource management to adopt more collaborative and participatory approaches, progress toward implementation in many countries remains limited.

Map 1: Physical and Political Geography of the Colorado River Basin

(Source: Author)



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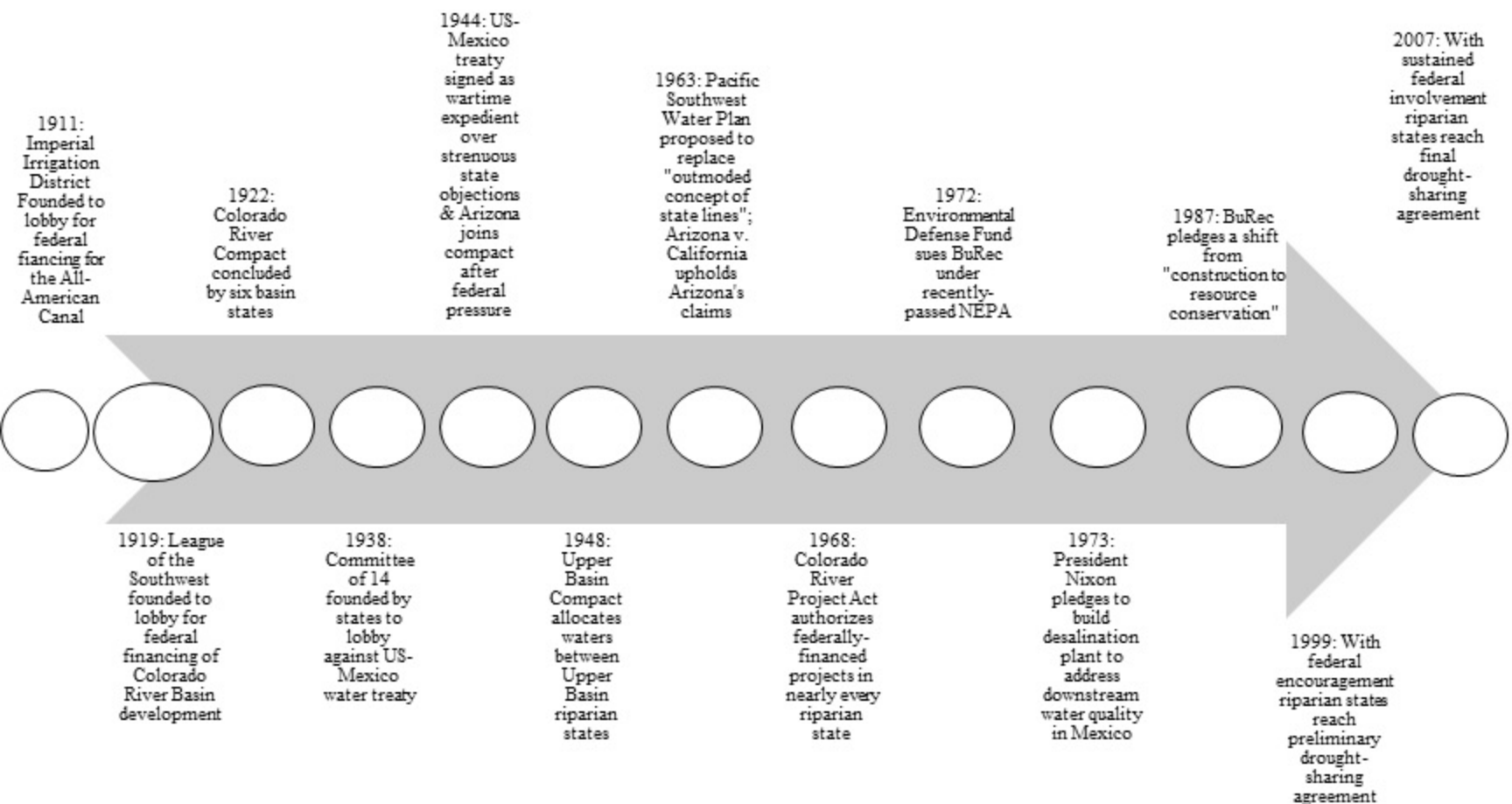
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1911: Imperial Irrigation District Founded to lobby for federal financing for the All-American Canal

1922: Colorado River Compact concluded by six basin states

1944: US-Mexico treaty signed as wartime expedient over strenuous state objections & Arizona joins compact after federal pressure

1963: Pacific Southwest Water Plan proposed to replace "outmoded concept of state lines"; Arizona v. California upholds Arizona's claims

1972: Environmental Defense Fund sues BuRec under recently-passed NEPA

1987: BuRec pledges a shift from "construction to resource conservation"

2007: With sustained federal involvement riparian states reach final drought-sharing agreement

1919: League of the Southwest founded to lobby for federal financing of Colorado River Basin development

1938: Committee of 14 founded by states to lobby against US-Mexico water treaty

1948: Upper Basin Compact allocates waters between Upper Basin riparian states

1968: Colorado River Project Act authorizes federally-financed projects in nearly every riparian state

1973: President Nixon pledges to build desalination plant to address downstream water quality in Mexico

1999: With federal encouragement riparian states reach preliminary drought-sharing agreement