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CONFLUENCE: THE COLORADO RIVER COMPACT'S CENTENNIAL

*Jason Anthony Robison**

Many thanks to Remi Bullock for that introduction and, more broadly, to the Potter Law Club for the invitation to be this year's Trelease speaker. I'm so honored and appreciative. Thank you.

Although we're not on campus, but rather a few block east here at the Iverson Mansion, I'd nonetheless like to begin with UW's land acknowledgement:

We collectively acknowledge that the University of Wyoming occupies the ancestral and traditional lands of the Cheyenne, Arapaho, Crow, and Shoshone Indigenous peoples along with other Native tribes who call the Great Basin and Rocky Mountain region home. We recognize, support, and advocate alongside Indigenous individuals and communities who live here now, and with those forcibly removed from their Homelands.¹

In stepping into my role as this year's Trelease Speaker, I'm mindful of the shoes I've been asked to fill. We've had some amazing people serve in this role during my time at UW over the past eight years, including our most recent (pre-Covid) Trelease Speaker, Dan Tarlock. I recognize it took a global pandemic for the Potter Law Club to tap me for this job, but whatever it takes, right? The ends justify the means. In all seriousness, I'm humbled.

What I'd like to do given this invitation basically involves storytelling. And the story I'd like to tell is a biography. Not of a person, though, but instead of a law, the first of its kind drafted in U.S. history—the law pictured here—the Colorado

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¹ Implementation of a Land Acknowledgement Statement for ASUW Senate Meetings, ASUW S. 2699 add. D (2020), http://www.uwyo.edu/asuw/_archived/Legislation/2019-2020-pdf-files/sb-2699.pdf [<https://perma.cc/3HPD-C27D>].

River Compact. It's turning a hundred years old next year, and I'd like to use this occasion, both the centennial and the Trelease Dinner, to reflect on the Compact's life if you will. "The life of the Colorado River Compact," that's an alternative title I could've coined for my talk, but I went with the "Confluence" title instead. And for good reason . . .

The Compact's centennial alone justifies, in my mind, stepping back and thinking about what's happened with the law over the past 100 years—the biography idea. But the centennial's timing is unbelievable, extremely serendipitous, for reasons that involve both the present and the future, reasons that I'll roll out over the course of my talk. In this sense, we collectively are situated at a confluence in time right now, with the Compact's centennial arriving on the one hand, and critical domestic and international developments involving the Colorado River system arriving on the other. It is, in a nutshell, an inflection point of generational significance. And if there's a "should" piece to my talk, an advocacy piece given the field many of us in the room spend an inordinate amount of time in, it's this: Watch this space; engage in it. Close attention needs to be paid to the Colorado River system over the next few years, more so than at any point in my lifetime, both close attention and, even better, earnest care. For as the old poet wrote, in regards to the very region where we sit this evening: "Here is a land where life is written in water. The West is where the water was and is."² That sentiment was made for the Colorado River Basin. And that brings me here.

I recognize people in the audience have different levels of familiarity with the Colorado River Basin, so here's a map of it.³ This is the space the Compact adheres to; it's the space shaped by the Compact. The basin is about 244,000 square miles in size and contains an extensive river system that not only includes the Colorado River mainstem, but also its major tributaries: the Green, the San Juan, and the Gila. The landscape is as varied as it is stunning.

The Compact draws an imaginary line at a spot along the Colorado River in northern Arizona called Lee Ferry. The part of the river system upstream of Lee Ferry is called the "Upper Basin," and the part of the system downstream of Lee Ferry is referred to as the "Lower Basin." In truth, of course, it's just one basin.

The headwaters of the river system are found in the Upper Basin. They are majestic and sublime and include the Wind River Range, the Green River's headwaters, here in Wyoming. The Colorado Rockies in and around Rocky Mountain National Park, the headwaters of the Colorado River mainstem. The San Juan mountains in southwestern Colorado. The mighty Wasatch in Utah, which

² THOMAS HORNSBY FERRILL, *HERE IS A LAND WHERE LIFE IS WRITTEN IN WATER*, https://www.fs.fed.us/psw/cirmount/photos/poems/Ferrill_HereIsALand.pdf [<https://perma.cc/XZ4B-ZX8L>].

³ BUREAU OF RECLAMATION, *COLORADO RIVER BASIN STAKEHOLDERS MOVING FORWARD TO ADDRESS CHALLENGES IDENTIFIED IN THE COLORADO RIVER BASIN WATER SUPPLY AND DEMAND STUDY: PHASE I REPORT: EXECUTIVE SUMMARY 2* fig.1 (2015), <https://www.usbr.gov/lc/region/programs/crbstudy/MovingForward/Phase1Report/ExecSumm.pdf> [<https://perma.cc/7WVQ-7JH7>] [hereinafter *BASIN MAP*].

I was raised at the base of. And the Uintas, also in Utah. These are the Colorado River Basin's "water towers" you might say. More than 90% of the river system's flows originate in them, and these flows incise the Upper Basin's lower-lying canyon country, including spots like Canyonlands National Park in southern Utah.⁴

Even more widely known, of course, is one of the Eight Wonders of the World—the Grand Canyon, in northern Arizona. The Colorado River is the canyon's "sculptor."⁵ It carved the canyon at what is the top of the Lower Basin, an area characterized mainly by low-desert country. That includes the Sonora Desert in Arizona and the Mojave Desert in California. Further downstream, across the international border in Mexico, is the place where the Colorado River reaches the sea—or at least used to reach the sea—the river's delta at the Sea of Cortez. Once one of the most lush, expansive wetlands in North America, the delta is now largely, though not exclusively, a mudflat.

Again, this is the Colorado River Compact's "habitat" so to speak. It's magical. Two nation-states hold territory within the basin: the U.S. and Mexico. And within those nation-states, no fewer than seven U.S. states, including the headwaters state of Wyoming, and two Mexican states. In addition, thirty Native American tribal sovereigns reside on reservations throughout the basin, including on the largest reservation in the United States, the Navajo Nation near Four Corners, a reservation slightly larger in size than West Virginia.⁶ The total population base reliant on the Colorado River system right now is approximately forty-million people, equivalent to about one in eight U.S. residents.⁷ I'll say more later about how the Colorado River system's flows are used by this population, both across and adjacent to this nearly quarter-million square miles of territory. But for now, I need to circle back to the Compact, and start from the start as it were.

It all began here. The river just down the road from the University of Wyoming, the Laramie River, was instrumental in spawning the Colorado River Compact. There was a conflict along this river, a decade-long lawsuit in the U.S. Supreme Court, over the rights of Colorado and Wyoming to use the river's flows. That

⁴ U.S. BUREAU OF RECLAMATION, COLORADO RIVER BASIN WATER SUPPLY AND DEMAND STUDY, TECHNICAL REPORT B—WATER SUPPLY ASSESSMENT, at B-22 (2012), http://www.usbr.gov/lc/region/programs/crbstudy/finalreport/Technical%20Report%20B%20-%20Water%20Supply%20Assessment/TR-B_Water_Supply_Assessment_FINAL.pdf [<https://perma.cc/Q5UL-AEHD>].

⁵ Jason Anthony Robison, *Grand Canyon as Legal Creation*, 60 J. ARIZ. HIST. 557, 582 (2019).

⁶ TEN TRIBES PARTNERSHIP & BUREAU OF RECLAMATION, COLORADO RIVER BASIN TEN TRIBES PARTNERSHIP TRIBAL WATER STUDY: STUDY REPORT, at app. 1B-1 (2018), <https://www.usbr.gov/lc/region/programs/crbstudy/tws/docs/Appx%201B%20Federally%20Rec%20Tribe%2012-13-2018.pdf> [<https://perma.cc/F7UL-N5TD>] [hereinafter TRIBAL WATER STUDY] (providing map of twenty-nine tribes' reservations in basin). The Tribal Water Study did not note the San Juan Southern Paiute Tribe, which is a federally recognized tribe living on traditional territory within the Navajo Reservation. *About the Tribe*, SAN JUAN SOUTHERN PAIUTE TRIBE (Oct. 16, 2021), <https://www.sanjuanpaiute-nsn.gov/about> [<https://perma.cc/8W64-N9W7>].

⁷ *The Colorado River Drought Contingency Plan: Oversight Hearing Before the Subcomm. on Water, Oceans, & Wildlife of the Comm. on Nat. Res.*, 116th Cong. 8 (2019) (statement of Brenda Burman, Comm'r, Bureau of Reclamation).

fight was the famous case of *Wyoming v. Colorado*, which spanned from 1911 to 1922, eleven years in total.⁸ “The Silver Fox of the Rockies,” as he was called, was perhaps the most famous of the various figures involved in the *Wyoming v. Colorado* litigation—Greeley native and attorney Delph Carpenter.⁹ Carpenter summed up his experience litigating *Wyoming v. Colorado* in a single word in his diary: “hell.”¹⁰ That feeling no doubt may account for the fact that Carpenter’s client, the State of Colorado, lost the case. But even more importantly, that feeling reflected Carpenter’s views on the process—*i.e.*, relying on the U.S. Supreme Court to resolve interstate water conflicts. There had to be another way. And there was and is. And that’s perhaps the supreme lesson Carpenter learned from the Laramie River.

Carpenter ended up spearheading that other way, that alternative path for resolving interstate water conflicts, toward the end of the *Wyoming v. Colorado* litigation in the early 1920s. Carpenter was a member of this famous, though some might say infamous, body chaired by then Secretary of Commerce Herbert Hoover—the Colorado River Commission.¹¹ What Carpenter saw through the *Wyoming v. Colorado* case was another constitutional method of dispute resolution along interstate rivers—the Compact Clause in Art. I, § 10 of the Constitution. By relying on the Compact Clause, states could form the equivalent of “domestic treaties” to address their rights to interstate flows.¹² That’s what the Colorado River Commission was about—a negotiating body charged with bringing into existence the first interstate water compact drafted in U.S. history. The states in the Lower Basin—Arizona, Nevada, and, most importantly, California—wanted water infrastructure for their immediate economic development. The states in the Upper Basin—Wyoming, Colorado, Utah, and New Mexico—were concerned that their future development would be hamstrung by the Lower Basin’s quicker development—specifically, by water rights that parties in the Lower Basin would obtain and later assert under the “first in time, first in right” principle.

So instead of resorting to the U.S. Supreme Court to resolve their differences, the basin states and the federal government did what Delph Carpenter envisioned as an alternative to the “hell” that had been *Wyoming v. Colorado*. They drafted a “domestic treaty”—an interstate water compact.¹³ It was not a panacea, in either process or substance, at least from a twenty-first-century perspective. The Colorado River Basin’s tribal sovereigns—again, there are thirty federally recognized tribes in total—had no voice at the compact negotiations. Same goes for Mexico. It was relegated to observer status. And what the commissioners came up with was also far from perfect, particularly in one critical respect: fixed, quantified flow obligations

⁸ *Wyoming v. Colorado*, 259 U.S. 419, 455 (1922).

⁹ DANIEL TYLER, *SILVER FOX OF THE ROCKIES: DELPHUS E. CARPENTER AND WESTERN WATER COMPACTS* (2003).

¹⁰ *Id.* at 89.

¹¹ See generally NORRIS HUNDLEY, JR., *WATER AND THE WEST: THE COLORADO RIVER COMPACT AND THE POLITICS OF WATER IN THE AMERICAN WEST* (2d ed. 2009) (surveying Colorado River Commission’s negotiations).

¹² TYLER, *supra* note 9, at 111.

¹³ WYO. STAT. ANN. § 41-12-301 (2021) (Colorado River Compact).

imposed by the Compact on the Upper Basin states at Lee Ferry—again, the basin's artificial dividing point.¹⁴ Nonetheless, it was a collaborative effort, at least in part, that approached the human relationships around the Colorado River system in a way that was much less harmful to those relationships than litigation otherwise would have been. And it was through this novel pathway that the first interstate compact in U.S. history was drafted.

But that, of course, was a century ago—a century ago as of next November 24, 2022—and what has happened over that century has been dizzying. One way of tying everything together is to think of the various developments after the Colorado River Compact's drafting as essentially revolving around one thing—the Compact's implementation. And the way this implementation has occurred does not so much involve the Compact proper (*e.g.*, amendments to it or U.S. Supreme Court interpretations of it), but rather the adoption of layers upon layers of laws atop it. These layers of laws have created the most complex transboundary water regime on the planet. The first interstate water compact drafted in U.S. history gave rise to the most complex legal framework in existence for allocating and managing transboundary waters such as the Colorado River system. The colloquial term for this legal framework is the “Law of the River.”¹⁵ It is a massive edifice, a labyrinth if you will, and again governs the flows of a river system on which forty-million people depend.

One core component of the Law of the River is a series of laws that have filled in the two sub-basin (Upper Basin/Lower Basin) apportionment scheme established by the Colorado River Compact. A treaty between the U.S. and Mexico did so at the international level in 1944, recognizing a quantified, annual apportionment of Colorado River water for Mexico.¹⁶ A second interstate water compact, the Upper Colorado River Basin Compact, followed on the heels of the U.S.–Mexico Treaty in 1948.¹⁷ It created an apportionment for the Upper Basin states—again, Wyoming, Colorado, Utah, and New Mexico—so they could share the flows apportioned to them by the Colorado River Compact upstream of Lee Ferry. Unfortunately, the same thing—a supplementary interstate water compact—wasn't possible below Lee Ferry. The Lower Basin states—again, Arizona, California, and Nevada—weren't able to agree on a Lower Colorado River Basin Compact or the like. So in the seminal case of *Arizona v. California*, spanning from 1952–1963, the U.S. Supreme Court was called on to step into this space, interpreting (or misinterpreting in my view) a federal statute, the 1928 Boulder Canyon Project Act, as establishing an apportionment for the Lower Colorado River and leaving unregulated each Lower

¹⁴ Article III(c) and (d) contain these flow obligations. *Id.*

¹⁵ See Lawrence J. MacDonnell, *Colorado River Basin*, in *WATER AND WATER RIGHTS* (Amy K. Kelley ed., 2021).

¹⁶ Utilization of the Waters of the Colorado and Tijuana Rivers and of the Rio Grande, Treaty Between the United States of America and Mexico, U.S.–Mex., Feb. 3, 1944, T.S. 994, <https://www.ibwc.gov/Files/1944Treaty.pdf> [<https://perma.cc/Q7AY-GNSJ>].

¹⁷ Upper Colorado River Basin Compact, ch. 48, 63 Stat. 31 (1949).

Basin state's use of its tributaries (*e.g.*, the Gila River).¹⁸

And just as these allocation laws served to flesh out the Colorado River Compact's apportionment after its adoption in 1922, they were accompanied by a complementary component of the Law of the River: a series of laws addressing the Colorado River Basin's vast water infrastructure—the “plumbing” as it's sometimes called. These laws not only authorized the infrastructure's construction, they also set important rules for its operation. And, to be clear, the infrastructure was conceived as a tool. It would serve to implement the apportionments of the Colorado River Compact and the other allocation laws that followed in its wake. The major pieces of federal legislation that brought this infrastructure into being are the 1928 Boulder Canyon Project Act,¹⁹ the 1956 Colorado River Storage Project Act,²⁰ and the 1968 Colorado River Basin Project Act.²¹

As for the infrastructure itself, it includes in the Upper Basin, Glen Canyon Dam and Lake Powell just upstream of Lee Ferry—again, the Compact dividing point—as well as a host of smaller-scale dams and reservoirs in the Upper Basin states, including Flaming Gorge Dam and Reservoir along the Utah–Wyoming border, Navajo Dam and Reservoir along the New Mexico–Colorado border, and the Aspinall Unit in Colorado's Gunnison River Basin.²² Lake Powell is the second-largest reservoir by storage capacity in the United States.²³ And to get to the largest one, all you need to do is follow in John Wesley Powell's footsteps and float downstream through the Grand Canyon.²⁴ There you'll arrive at Lake Mead. Created by the Law of the River during the Great Depression, Hoover Dam impounds Lake Mead just east of Las Vegas.²⁵ A string of smaller dams and reservoirs follow Hoover Dam and Lake Mead as the Lower Colorado River makes its way downstream toward Mexico.²⁶ And attached to this infrastructure are the

¹⁸ *Arizona v. California*, 373 U.S. 546 (1963) (principal decision); *Arizona v. California*, 547 U.S. 150, 155–56 (2006) (consolidated decree).

¹⁹ Boulder Canyon Project Act, ch. 42, 45 Stat. 1057 (1928) (codified as amended at 43 U.S.C. §§ 617–617v).

²⁰ Colorado River Storage Project Act, ch. 203, 70 Stat. 105 (1956) (codified as amended at 43 U.S.C. §§ 620–620o).

²¹ Colorado River Basin Project Act, Pub. L. No. 90-537, 82 Stat. 886 (1968) (codified as amended at 43 U.S.C. §§ 1501–1556).

²² *Colorado River Storage Project*, BUREAU OF RECLAMATION (Aug. 19, 2021), <https://www.usbr.gov/uc/rm/crsp/index.html> [<https://perma.cc/ZK6K-SSCZ>].

²³ *Lake Powell Reaches New Low*, NASA EARTH OBSERVATORY (Oct. 15, 2021), <https://earthobservatory.nasa.gov/images/148861/lake-powell-reaches-new-low> [<https://perma.cc/UX8Y-77PQ>] [hereinafter *Lake Powell*].

²⁴ JOHN WESLEY POWELL, *EXPLORATION OF THE COLORADO RIVER OF THE WEST AND ITS TRIBUTARIES* (1875), <https://pubs.usgs.gov/unnumbered/70039238/report.pdf> [<https://perma.cc/6RKC-8ZQF>]; *VISION & PLACE: JOHN WESLEY POWELL & REIMAGINING THE COLORADO RIVER BASIN* (Jason Robison, Daniel McCool & Thomas Minckley eds., 2020).

²⁵ *See generally* MICHAEL HILTZIK, *COLOSSUS: HOOVER DAM AND THE MAKING OF THE AMERICAN CENTURY* (2010) (chronicling history of Hoover Dam's construction).

²⁶ *Dams Along the Lower Colorado River*, BUREAU OF RECLAMATION (Nov. 14, 2014, 11:30 AM), https://www.usbr.gov/lc/yuma/facilities/dams/yao_dams_map.html [<https://perma.cc/5Q64-ZD49>].

canal systems that have made the modern Southwest. These include the Central Arizona Project flowing through the Sonoran Desert to Phoenix and Tucson.²⁷ And strewn across the Mojave Desert, the Colorado River Aqueduct in southern California, running to Los Angeles and San Diego,²⁸ as well as the longest irrigation canal in the world, the All-American Canal, also in southern California.²⁹

The water stored in and flowing through this infrastructure has made the “desert bloom like a rose” as the old adage goes. More Colorado River system water goes to agriculture than any other type of use in and around the basin.³⁰ The Imperial Irrigation District in southeastern California, one of the largest irrigation districts in the United States, is just one example. But the Colorado River system’s flows have grown much more than crops. They’ve grown metropolises and megalopolises throughout this arid and semi-arid region: Denver, Salt Lake, Albuquerque, even Cheyenne in the Upper Basin states, and their counterparts of Los Angeles, San Diego, Phoenix, Tucson, and Las Vegas in the Lower Basin states.³¹

It’s a hydraulic society, a society founded on the vast infrastructure built to fulfill the water allocation schemes of the Colorado River Compact and its successors.³² *That* is what the Compact’s implementation has yielded: a hydraulic society whose fate is hitched, in no uncertain terms, to the Law of the River—again, the most complex transboundary water regime on the planet.

But “[w]hat’s past is prologue” as Shakespeare famously said.³³ The water allocation laws and infrastructure covered up to this point were all in place at the turn of the millennium. Then the game changed, as it were, along the Colorado River system. Or, put differently, the Colorado River Compact entered a new stage of its life—a transformative stage—one that is ongoing, and one that gives rise to the title of my talk: “Confluence.”

Have you seen the bathtub ring around Lake Mead—again, the largest reservoir in the United States? It’s kind of been hard to miss in the national and regional

²⁷ *Central Arizona Project*, BUREAU OF RECLAMATION (Oct. 15, 2021), <https://www.usbr.gov/projects/index.php?id=504> [<https://perma.cc/SC8Z-WQ3L>].

²⁸ *Our Foundation: Securing Our Imported Supplies*, METRO. WATER DIST. OF S. CAL. (Oct. 15, 2021), <https://www.mwdh2o.com/planning-for-tomorrow/securing-our-imported-supplies/> [<https://perma.cc/D42B-Y9WV>].

²⁹ *Boulder Canyon Project—All-American Canal System*, BUREAU OF RECLAMATION (Oct. 15, 2021), <https://www.usbr.gov/projects/index.php?id=514> [<https://perma.cc/8YNL-ZJ98>]; *All-American Canal*, NASA EARTH OBSERVATORY (Nov. 10, 2021), <https://earthobservatory.nasa.gov/images/37078/all-american-canal> [<https://perma.cc/Y2RA-2SH8>].

³⁰ BUREAU OF RECLAMATION, COLORADO RIVER BASIN WATER SUPPLY AND DEMAND STUDY, TECHNICAL REPORT C—WATER DEMAND ASSESSMENT, at C-9 fig.C-4 (2012), https://www.usbr.gov/lc/region/programs/crbstudy/finalreport/Technical%20Report%20C%20-%20Water%20Demand%20Assessment/TR-C-Water_Demand_Assessment_FINAL.pdf [<https://perma.cc/5NUP-Y7EN>].

³¹ BASIN MAP, *supra* note 3.

³² DONALD WORSTER, RIVERS OF EMPIRE: WATER, ARIDITY, AND THE GROWTH OF THE AMERICAN WEST 7 (1985).

³³ WILLIAM SHAKESPEARE, THE TEMPEST act 2, sc. 1, l. 289, https://shakespeare.folger.edu/downloads/pdf/the-tempest_PDF_FolgerShakespeare.pdf [<https://perma.cc/CG6K-SGZ4>].

media.³⁴ This phenomenon may be the best, or at least the most tangible, hook for segueing to where we're at right now on the cusp of the Colorado River Compact's 2022 centennial. Suffice it to say, Lake Mead did *not* look like this twenty years ago.

Nor did the second-largest reservoir in the United States—again, Lake Powell—just upstream from Lake Mead. These satellite images from NASA are worth a thousand words.³⁵

There are a host of figures and sources that speak to what has been happening with these reservoirs since 2000, but one of the classic diagrams, probably the best known, comes from a landmark Bureau of Reclamation study in 2012.³⁶ The takeaway from this figure is plain—there's an imbalance between water supplies and demands in the Colorado River Basin. The water budget is broken. And on the supply side, the culprit is equally plain—climate change has altered the basin's hydrology and diminished the river system's flows.³⁷ Higher air temperatures are particularly to blame. The twenty-one-year drought we're currently in is unprecedented in the historical record, and some scientists refer to it as a “megadrought,” which is the term I prefer. Others suggest there's been a more long-term shift in the basin's climate and hydrology—not just a megadrought, but “aridification.”³⁸ The reservoirs tell this story—their combined storage has never been lower than right now.

And this reality has not been lost on policymakers, international and domestic, over the past two decades. When the megadrought set on in 2000, and the reservoirs started plummeting, there was alarm, and perhaps understandably, some infighting.³⁹ By and large, however, what we've seen in the Colorado River Basin over the past twenty years is a good deal of collaboration—a collaborative culture among policymakers—and, as offshoots, a series of incremental measures aimed at adapting the Colorado River Compact and broader Law of the River to the reality of climate change.⁴⁰ At the international level, these developments have come in the form of “minutes” (*i.e.*, implementation agreements) to the U.S.–Mexico

³⁴ Joanna Allhands, *Is It Time to Start Thinking About the Worst-Case Scenario on Lake Mead?*, ARIZ. REPUBLIC (June 28, 2021), <https://www.azcentral.com/story/opinion/op-ed/joannaallhands/2021/06/28/lake-mead-dropping-time-think-worst-case-scenario/5349718001/> [<https://perma.cc/RC87-QHFY>].

³⁵ *Lake Powell*, *supra* note 23.

³⁶ BUREAU OF RECLAMATION, COLORADO RIVER BASIN WATER SUPPLY AND DEMAND STUDY: STUDY REPORT, at SR-7 fig.2 (2012), https://www.usbr.gov/lc/region/programs/crbstudy/finalreport/Study%20Report/CRBS_Study_Report_FINAL.pdf [<https://perma.cc/78KW-GJZD>].

³⁷ Bradley Udall & Jonathan Overpeck, *The Twenty-First Century Colorado River Hot Drought and Implications for the Future*, 53 WATER RES. RSCH. 2404 (2017).

³⁸ Jonathan Overpeck & Bradley Udall, *Climate Change and the Aridification of North America*, 117 PROC. NAT'L ACAD. SCIENCES 11856, 11856–11857 (2020).

³⁹ U.S. DEP'T OF THE INTERIOR, RECORD OF DECISION, COLORADO RIVER INTERIM GUIDELINES FOR LOWER BASIN SHORTAGES AND THE COORDINATED OPERATIONS FOR LAKE POWELL AND LAKE MEAD 1–2, 11 (2007), <https://www.usbr.gov/lc/region/programs/strategies/RecordofDecision.pdf> [<https://perma.cc/8Q4J-XD92>] [hereinafter INTERIM GUIDELINES].

⁴⁰ Jason Robison, Matthew McKinney & Daryl Vigil, *Community in the Colorado River Basin*, 57 IDAHO L. REV. 1, 44–62 (2021) [hereinafter Robison et al., *Community*].

Treaty. Key among these minutes have been Minute 319 adopted in 2012,⁴¹ and its successor, Minute 323, adopted in 2017.⁴² To an even greater extent, we've seen the same thing at the domestic level. The major landmarks in this space include adoption of a path-breaking document called the Interim Guidelines in 2007,⁴³ as well as adoption of follow-up agreements called the Drought Contingency Plans—both Upper Basin and Lower Basin—in 2019.⁴⁴ The emergence of these documents amidst the megadrought marks, in my mind, a new stage in the life of the Colorado River Compact. What these agreements fundamentally serve to do is to implement the Compact in the face of climate change, and to navigate the disconcerting imbalance between water supplies and demands. They are, in short, climate-adaptation measures.

And that brings me back to the 2022 centennial. The centennial alone, in my view, is a major historical milestone that warrants reflection on what has happened with the Compact and broader Law of the River over the past century. But again the timing is, in a word, “serendipitous.” Part of that serendipity should be clear from what's already been covered: forty-million people have come to rely on a river system encountering an unprecedented twenty-one-year megadrought, and governed not only by the first interstate water compact drafted in U.S. history, but a broader transboundary water regime that's the most complex in existence.

But there's more. Recall those collaborative processes mentioned just a second ago, and the agreements they've generated over the past two decades: Minutes 319 and 323 at the international level, and at the domestic level the Interim Guidelines and the Drought Contingency Plans. I omitted something about them—they're about to expire. All of them were written purposefully as temporary (*i.e.*, interim, incremental) agreements. By their very terms, they will sunset in 2025 and 2026, and the creative, climate change-driven management rules they've established for the Colorado River system will evaporate.⁴⁵ Unless, of course, they're replaced. And that's where another piece of the serendipity lies. For the next five years, between now and 2026, domestic and international negotiations will play out to develop replacement management rules for the Colorado River system. These negotiations arrive at the Compact's centennial. The management rules developed from the negotiations will serve to implement the Compact and broader Law of the River

⁴¹ INT'L BOUNDARY & WATER COMM'N, MINUTE NO. 319, INTERIM INTERNATIONAL COOPERATIVE MEASURES IN THE COLORADO RIVER BASIN THROUGH 2017 AND EXTENSION OF MINUTE 318 COOPERATIVE MEASURES TO ADDRESS THE CONTINUED EFFECTS OF THE APRIL 2010 EARTHQUAKE IN THE MEXICALI VALLEY, BAJA CALIFORNIA (Nov. 20, 2012), https://www.ibwc.gov/Files/Minutes/Minute_319.pdf [<https://perma.cc/V5K7-69YE>] [hereinafter MINUTE 319].

⁴² INT'L BOUNDARY & WATER COMM'N, MINUTE NO. 323, EXTENSION OF COOPERATIVE MEASURES AND ADOPTION OF A BINATIONAL WATER SCARCITY CONTINGENCY PLAN IN THE COLORADO RIVER BASIN (Sept. 21, 2017), <https://www.ibwc.gov/Files/Minutes/Min323.pdf> [<https://perma.cc/AN88-SBFG>] [hereinafter MINUTE 323].

⁴³ INTERIM GUIDELINES, *supra* note 39.

⁴⁴ *Colorado River Basin Drought Contingency Plans*, BUREAU OF RECLAMATION (June 5, 2019), <https://www.usbr.gov/dcp/> [<https://perma.cc/L5PH-F7BX>].

⁴⁵ Robison et al., *Community*, *supra* note 40, at 54, 58, 61–62.

in again what are historic circumstances.

To add fuel to this fire, if the historic nature of the moment isn't clear from what's already been said, consider this. Two months ago, Lake Mead reached its lowest level in modern history, and for the first time ever the Secretary of the Interior declared a shortage along the Lower Colorado River.⁴⁶ The law under which the Secretary made this declaration, the Supreme Court's *Arizona v. California* decree, has been in place since 1964, for more than a half century.⁴⁷ But a shortage had never been declared under it—until this summer. As of today, Lake Mead is at 34.8% of capacity.⁴⁸

At the same time as the Lower Colorado River shortage declaration this August 2021, Lake Powell followed suit. It also reached the lowest level in modern history, causing major trepidation.⁴⁹ As we sit here tonight, water is being released from upstream Flaming Gorge Reservoir to bolster downstream Lake Powell's storage.⁵⁰ The immediate and urgent concern is that the Lake Powell's water level will drop to a point in the near future where hydropower production won't be possible at the dam impounding the reservoir, Glen Canyon. As of today, Lake Powell is at 29.7% of capacity.⁵¹

It would be difficult to overstate the pressure being brought to bear by the megadrought on negotiations over the new water management rules. But a couple additional things have to be mentioned about the negotiation dynamics—*i.e.*, about the confluence and the serendipity.

One of these things can be captured in a simple, but heavy question posed by colleagues about ten years ago in early stages of my career: Is the Colorado River still a river if it doesn't reach the sea? Or is it a river no more? Values in U.S. and Mexican society have shifted considerably since 1922 about whether it's ok to treat rivers as just conduits for human water consumption. That is certainly true at the Colorado River Delta, where efforts to restore the delta's ecosystem have been an important aspect of U.S.–Mexico relations over the past two decades during the megadrought.⁵² That's also true at Glen Canyon Dam just upstream of the Grand Canyon. Founded on the 1992 Grand Canyon Protection Act, there are ongoing efforts to operate Glen Canyon Dam in a way that minimizes its adverse impacts on

⁴⁶ *Lake Powell*, *supra* note 23; *Shortage Declaration in the Colorado River Basin Takeaways*, PACIFIC INSTITUTE (Nov. 11, 2021), <https://pacinst.org/shortage-declaration-in-the-colorado-river-basin-takeaways/> [<https://perma.cc/B4HT-BJSB>].

⁴⁷ *Arizona v. California*, 376 U.S. 340 (1964).

⁴⁸ *Water Summary*, LAKE MEAD WATER DATABASE (Oct. 15, 2021), <https://lakemead.water-data.com/> [<https://perma.cc/6JJU-TUJH>].

⁴⁹ *Lake Powell*, *supra* note 23.

⁵⁰ *Flaming Gorge*, BUREAU OF RECLAMATION (May 20, 2021), <https://www.usbr.gov/uc/water/crsp/cs/fgd.html> [<https://perma.cc/M5ZU-GR3Y>].

⁵¹ *Water Summary*, LAKE POWELL WATER DATABASE (Oct. 15, 2021), <https://lakepowell.water-data.com/> [<https://perma.cc/4FGY-YMMU>].

⁵² MINUTE 323, *supra* note 42, at 15–18; MINUTE 319, *supra* note 41, at 11–14.

the Grand Canyon's ecosystems.⁵³ High-flow experimental releases from the dam are one such effort.⁵⁴ Whether it's possible to reconcile water-supply and hydropower goals on the one hand with ecosystem-protection goals on the other remains to be seen. But the effort itself speaks to the key point—a shift in values. That shift is also apparent with respect to four of the basin's endemic fish species: the Bonytail, Colorado Pikeminnow, Humpback Chub, and Razorback Sucker. They're currently listed as endangered or threatened under the Endangered Species Act and subject to four different recovery and conservation programs throughout the Colorado River system.⁵⁵ It's again unclear what the fate of these fishes will be—recovery or extinction—in light of competing demands on the river system. But the fact that there are attempts at this reconciliation is the takeaway. I'm not sure precisely what role environmental values, and stakeholders with environmental values, will play in the negotiations over new management rules for the Colorado River system. I would suggest, however, that this dynamic in the negotiations cannot be ignored.

A similar perspective applies to the basin's tribal sovereigns. As mentioned earlier, there are thirty federally recognized tribes in the Colorado River Basin, residing on twenty-nine reservations, including the Navajo Nation—the largest in the United States.⁵⁶ These Native peoples' connections to what we now call the “Colorado River system” trace back centuries and millennia.⁵⁷ Any notion that this part of the present-day American West was unpeopled when Spaniards and later Europeans and Euro-Americans entered the region simply overlooks scientific fact.⁵⁸ And no doubt the Colorado River system has always been a life source for the basin's Native peoples, whether it's the Utes, Paiutes, Apaches, and other tribes in the Upper Basin, or the Hopi, Navajo, Pima, Maricopa, Cocopah and other tribes in the Lower Basin. “Water is life,” as the adage goes, and the basin's Native peoples know it better than anyone.

Never in my lifetime have I seen the Colorado River Basin's tribal sovereigns as mobilized and engaged in water policy as they are right now. And there's good reason for this. Twenty-two of the basin tribes collectively hold water rights to use

⁵³ Grand Canyon Protection Act of 1992, Pub. L. No. 102-575, 106 Stat. 1669.

⁵⁴ *Glen Canyon Dam High Flow Experimental Releases: Fall 2021*, BUREAU OF RECLAMATION (Oct. 20, 2021), <https://www.usbr.gov/uc/rm/gcdHFE/index.html> [https://perma.cc/2Y65-BSAK].

⁵⁵ *Homepage*, UPPER COLO. RIVER ENDANGERED FISH RECOVERY PROGRAM (Oct. 17, 2021), <https://coloradoriverrecovery.org/> [https://perma.cc/U4C5-CBSA]; *Welcome to the San Juan River Basin Recovery Implementation Program*, SAN JUAN RIVER BASIN RECOVERY IMPLEMENTATION PROGRAM (July 10, 2017), <https://www.fws.gov/southwest/sjrip/> [https://perma.cc/52Z2-44T2]; *Glen Canyon Dam Adaptive Management Program*, BUREAU OF RECLAMATION (July 19, 2021), <https://www.usbr.gov/uc/progact/amp/index.html> [https://perma.cc/DJP2-ZXDN]; *Homepage*, LOWER COLO. RIVER MULTI-SPECIES CONSERVATION PROGRAM (Oct. 17, 2021), <https://www.lcrmscp.gov/> [https://perma.cc/QG3H-ADY3].

⁵⁶ TRIBAL WATER STUDY, *supra* note 6, at app. 1B-1.

⁵⁷ See, e.g., Jason Anthony Robison, *Indigenizing Grand Canyon*, 2021 UTAH L. REV. 101, 105–20 (2021) (surveying tribal connections to the Grand Canyon).

⁵⁸ See, e.g., Robison et al., *Community*, *supra* note 40, at 11–14 (discussing longstanding Native American presence within Colorado River Basin).

roughly a quarter of the Colorado River system's flows at Lee Ferry.⁵⁹ Up to this point in time, however, many of these water rights have been underutilized for various reasons, including lack of infrastructure and funding. Another dozen basin tribes simply have never had their water rights legally recognized and quantified—a century after the Compact's drafting.⁶⁰ While I cannot speak for any basin tribe, and instead speak only for myself as an individual, I will offer a prediction. These tribal sovereigns are not going to sit idly by and let this state of affairs persist. What I can foresee as the twenty-first century progresses is just the opposite—namely, the as-yet unrecognized, unquantified tribal water rights being resolved, and the as-yet recognized, quantified, but unutilized tribal water rights being developed by basin tribes. That's my prognosis. What this process will look like for the tribal sovereigns and non-tribal water users alike remains to be seen given climate change's future impacts on the basin's hydrology. And that interface is an extremely important one. But connecting this line of thought back to the centennial year, what seems clear as day is that there won't be a repeat of the Colorado River Compact negotiations over the next several years, in terms of tribal sovereigns being excluded from the negotiating table.⁶¹ That would be both unjust *and* unwise.

Rather, it's serendipitously on the shoulders of a Native person, the first Native American Secretary of the Interior in U.S. history, that everything I've covered rests.⁶² Just imagine, for a moment, having that job. The first interstate water compact drafted in U.S. history, the Colorado River Compact, is turning 100 years old next year. Forty-million people have become dependent on the Colorado River system's life-giving flows since the Compact was drafted a century ago. The Compact's implementation has spawned the most complex transboundary water regime on the planet, the Law of the River, and it's in trouble. An unprecedented megadrought set on in the basin in 2000, and it has not relented. Policymakers have developed innovative measures to navigate the megadrought—or, more precisely, to address the supply/demand imbalance—but the efficacy of these measures remains to be seen, and they are slated to expire in 2025 and 2026, having been written in an interim and incremental fashion. In the meantime, the first-ever shortage along the Lower Colorado River was declared two months ago, contemporaneously with the two largest reservoirs in the United States, Lake Mead and Lake Powell, dropping to historic lows. Ask ten different people what should be done about this situation, and you very well may get ten different answers, which speaks to another challenge. Peoples' views on how the Colorado River system's flows ought to be used have shifted over the past century. There is, in short, value pluralism at the centennial. And, in this spirit, there are mobilized, capable basin tribes—tribal

⁵⁹ WATER & TRIBES INITIATIVE, POLICY BRIEF #4, THE STATUS OF TRIBAL WATER RIGHTS IN THE COLORADO RIVER BASIN 1 (2021), <http://www.naturalresourcespolicy.org/publications/policy-brief-4-final-4.9.21-.pdf> [<https://perma.cc/6HSD-348D>].

⁶⁰ *Id.*

⁶¹ HUNDLEY, *supra* note 11, at 80, 175–76.

⁶² *Secretary Deb Haaland*, U.S. DEP'T OF THE INTERIOR (Oct. 17, 2021), <https://www.doi.gov/secretary-deb-haaland> [<https://perma.cc/A5SB-ZU5L>].

sovereigns that intend to be at the negotiating table, not “on the menu.”

This, in a nutshell, is the confluence. It will play out between now and 2026, and it constitutes an inflection point of generational significance. My one piece of advocacy is again basic: Watch this space; engage in it. For when you touch water in the West, you touch everything.⁶³

⁶³ “Touch water in the West and you touch everything.” John Gunther, <https://quotestats.com/topic/john-gunther-quotes/> [<https://perma.cc/ED8Q-UYJH>] (last visited Oct. 23, 2021).

