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**The Right to Exist:
Ensuring the Colorado River's Health and
Sustainability from Source to Mouth**

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Abstract

This paper examines the transformative potential of recognizing the Colorado River as a legal person endowed with inherent Rights of Nature. It critiques dominant anthropocentric water-law doctrines, particularly prior appropriation, that prioritize human uses and property interests at the expense of the river's ecological health and long-term sustainability. Drawing on international legal precedents that recognize rivers as legal persons and establish guardianship structures, the paper argues for a comparable rights-based framework for the Colorado River. It further contends that Indigenous legal principles and Tribal sovereignty are essential to the legitimacy and effectiveness of such a framework because they incorporate cultural stewardship, reciprocity, and ecological responsibility into water governance. Acknowledging entrenched legal doctrines, political conflict, jurisdictional complexity, and enforcement challenges, the paper proposes a framework based on clearly defined ecological rights, independent guardianship, meaningful Indigenous decision-making authority, enforceable restoration duties, and coordinated federal legislation. Recognizing the Colorado River's legal personhood would therefore constitute not merely a symbolic legal innovation, but a practical and moral response to ecological degradation. Such recognition could help protect one of the American West's most vital ecosystems while advancing equity, sustainability, and intergenerational justice.

Keywords: more than human rights, legal personhood, Rights of Nature, water rights, law, Colorado River, sustainability

INTRODUCTION

The Colorado River is the fifth longest river in the United States, at approximately 1,450 miles.¹ It supports roughly 40 million residents of the southwestern United States and northwestern México. The river forms portions of the boundaries between Nevada and Arizona, California and Arizona, and the Mexican states of Baja California and Sonora. In response to numerous conflicts over water rights, the adjoining states and the federal government established the Colorado River Compact in 1922,² apportioning the river's water between the Upper Basin, comprising Colorado, New Mexico, Utah, and Wyoming, and the Lower Basin, comprising Arizona, California, and Nevada.³

When the Homestead Act of 1862 accelerated westward settlement throughout the American West, the English common law doctrine of riparian rights proved ill-suited to the region's arid climate and limited water supplies.⁴ Unlike the eastern United States, where water was generally abundant and attached to riparian land ownership, western settlers required a legal system that allocated scarce water resources to users regardless of land ownership. In response, western states adopted the doctrine of prior appropriation, a system rooted in Spanish and Mexican civil law traditions.⁵ Under prior appropriation, a water right is established by diverting water for a beneficial use, maintained through continued use under the principle of "use it or lose it," and prioritized according to the rule of "first in time, first in right."⁶ By the early twentieth century, prior appropriation had become the dominant framework governing western water rights and served as the legal backdrop for the negotiation of the Colorado River Compact. Rather than replacing this doctrine, the compact apportioned the waters of the Colorado River between the

¹ J.C. Kammerer, *Largest Rivers in the United States*, U.S. GEOLOGICAL SURVEY (May 1990), <https://pubs.usgs.gov/of/1987/ofr87-242/>.

² Walter Gordon Clark, *The Colorado River: History, Seven-States Compact and Future Development* 15 (1924).

³ Colorado River Compact, 1922, 43 U.S.C. § 617g.

⁴ Homestead Act (1862) of 2021; Fred W Welden, *History of Water Law in Nevada and the Western States* 2 (2003).

⁵ WELDEN, *supra* note 4, at 2.

⁶ *Id.*; 43 U.S.C. § 617g.

Upper and Lower Basins while leaving the allocation of individual water rights to the basin states under their existing prior appropriation systems.⁷ Consequently, the compact institutionalized a legal regime that distributes water according to human beneficial use and priority of diversion, rather than the ecological health or inherent interests of the river.⁸

Legal personality is the juridical status through which the law recognizes an entity as capable of possessing legal rights, duties, and interests.⁹ An entity that possesses legal personality is recognized as a legal person and may hold legally protected rights and interests, own property where authorized by law, and have those interests represented before a court.¹⁰ The law has long extended legal personality to nonhuman entities such as corporations, municipalities, trusts, and estates, demonstrating that legal personhood is a legal construct rather than a biological characteristic.¹¹ Building upon this established principle, the Rights of Nature is a legal framework and movement that recognizes natural entities, including rivers, forests, mountains, watersheds, and entire ecosystems, as rights-bearing legal persons possessing intrinsic value independent of their utility to humans.¹² Rather than treating nature solely as property or a resource for human exploitation, Rights of Nature reorients environmental law toward protecting the integrity, health, and continued existence of ecological systems as ends in themselves.¹³ Throughout this paper, the terms *ecological needs* and *ecological values* refer to the conditions necessary for the Colorado River to function as a healthy, self-sustaining ecosystem, including adequate streamflow, water quality, biodiversity, habitat connectivity, and the maintenance of natural ecological processes. These ecological interests stand in contrast to

⁷ 43 U.S.C. § 617g; CLARK, *supra* note 2, at 15–20.

⁸ Shemin Ge et al., *Fixing the Flawed Colorado River Compact*, EOS, June 2023, <https://eos.org/features/fixing-the-flawed-colorado-river-compact>; 43 U.S.C. § 617g.

⁹ Jérémie Gilbert, *Human Rights & the Rights of Nature: Friends or Foes?*, 47 FORDHAM INTERNATIONAL LAW JOURNAL 447, 454–56 (2024).

¹⁰ *Id.*

¹¹ *Id.*

¹² *Id.* at 456–71; Jérémie Gilbert, *Creating Synergies between International Law and Rights of Nature*, 12 TRANSNATIONAL ENVIRONMENTAL LAW 671, 673–76 (2023).

¹³ Gilbert, *supra* note 9, at 470–71.

the anthropocentric assumptions embedded within western water law, which have historically measured the river's value primarily according to its beneficial use for human consumption, agriculture, industry, and development.¹⁴

This paper first examines the historical development of western water law and the major cases that shaped governance of the Colorado River. It then analyzes domestic and international Rights of Nature jurisprudence to identify legal principles relevant to recognizing the Colorado River as a legal person. Finally, it argues that recognizing the Colorado River as a legal person is legally viable only if personhood is accompanied by clearly defined ecological rights, independent guardianship, meaningful Indigenous authority, enforceable restoration duties, and coordinated federal legislation.

HISTORY

Understanding why such a framework would require substantial legal change first requires examining how the existing system developed. The legal framework governing the Colorado River did not emerge solely from the Colorado River Compact of 1922. It also developed through a series of foundational statutes and judicial decisions that shaped western water law, federal authority, and Indigenous reserved water rights. One of the earliest and most influential of these decisions was *Winters v. United States*, which established what later became known as the Winters Doctrine.¹⁵ The doctrine originated with the creation of the Fort Belknap Indian Reservation in Montana following a series of treaties and congressional actions that reserved land for the Nakoda and Aaniiih (Gros Ventre) Tribes without expressly allocating water rights.¹⁶ In *Winters*, the Supreme Court held that when the federal government reserves

¹⁴ Christopher D. Stone, *Should Trees Have Standing?—Toward Legal Rights for Natural Objects*, 45 S. CAL. L. REV. 450, 16–22 (1972); Gilbert, *supra* note 9, at 452–54; Pamela L. Martin & Craig M. Kauffman, *How Courts Are Developing River Rights Jurisprudence: Comparing Guardianship in New Zealand, Colombia, and India*, 20 VT. J. ENVTL. L. 260, 271–73 (2019).

¹⁵ *Winters v. United States*, 207 U.S. 564 (1908).

¹⁶ *Id.* at 565–67; John D. Leshy, *The Federal Role in Managing the Nation's Groundwater*, 11 UC LAW ENVIRONMENTAL JOURNAL, 10–12 (2004).

land for an Indian reservation, it implicitly reserves sufficient water to fulfill the purposes of that reservation.¹⁷ Justice McKenna reasoned that the reservation would have been rendered practically worthless without adequate water to make the arid land habitable and productive.¹⁸ The decision established that federally reserved Tribal water rights arise upon the creation of a reservation, are not dependent upon state law, and are therefore generally superior to later state-law appropriations under the doctrine of prior appropriation.¹⁹ The Winters Doctrine consequently became a foundational principle of western water law and continues to influence the allocation and administration of Colorado River water today.

The Winters decision demonstrates that western water law developed through overlapping Tribal, federal, state, and interstate authority. Although the doctrine recognized federally reserved Tribal water rights capable of superseding later state-law appropriations, it still framed those rights as claims to use water rather than as protections for the river.²⁰ That distinction remained central as the Colorado River's governing framework expanded through the Colorado River Compact and subsequent federal legislation.²¹ The resulting system became increasingly sophisticated in allocating and administering competing human claims while leaving the river's ecological needs without comparable legal recognition.²² The compact's allocation structure also rested on estimates of river flow that proved overly optimistic, contributing to a system in which promised water deliveries exceeded the river's long-term supply.²³ This over-allocation reinforced a governing framework centered on distributing water among states and users rather than maintaining sufficient streamflow, habitat,

¹⁷ *Winters*, 207 U.S. at 576–77.

¹⁸ *Id.* at 576.

¹⁹ *Id.* at 576–77; FELIX S. COHEN, COHEN'S HANDBOOK OF FEDERAL INDIAN LAW 19.03-19.04 (Nell Jessup Newton et al. eds., 2024 edition ed. 2024).

²⁰ *Winters*, 207 U.S. at 576–77; COHEN, *supra* note 19, § 19.03–19.04.

²¹ 43 U.S.C. § 617g; CLARK, *supra* note 2, at 15–20.

²² Ge et al., *supra* note 8; Stone, *supra* note 14, at 456–72.

²³ Ge et al., *supra* note 8.

water quality, and other conditions necessary for the river's ecological health. The foundational allocation system continued to treat ecological protection as secondary to recognized human uses.

Congress expanded this human-centered development framework through the Boulder Canyon Project Act of 1928. The Act approved the Colorado River Compact for federal purposes, authorized construction of Boulder Dam (later renamed Hoover Dam) and established federal authority over major water-delivery and hydroelectric projects in the Lower Basin.²⁴ By promoting water storage, irrigation, municipal supply, and electricity generation, the statute transformed the Colorado River into infrastructure for regional economic growth. It did not establish any independent legal interest in maintaining the river as a healthy ecological system. The Act therefore strengthened federal control over Colorado River development while preserving the assumption that the river's principal legal function was to serve human demands.

Arizona v. California litigation began in 1930 with Arizona arguing that the compact and related federal legislation threatened its interests in the river.²⁵ The Court denied Arizona leave to file the complaint because the alleged injury was too uncertain and had not yet occurred.²⁶ Arizona renewed its challenge in 1934 and 1936, with the Court declining both times to resolve the broader allocation dispute because the United States, which held and administered substantial federal and Tribal water interests, was not a party and could not be joined without its consent under the doctrine of sovereign immunity, which generally prevents the federal government from being sued or made a party to litigation without its consent. The Court therefore left open whether the Colorado River's unappropriated water could be equitably divided in a future action involving the United States and all interested states, stating, "[w]e leave undecided the question

²⁴ Boulder Canyon Project Act, ch. 42, 45 Stat. 1057 (1928) (codified as amended at 43 U.S.C. §§ 617–617t).

²⁵ *Arizona v. California*, 292 U.S. 341 (1934).

²⁶ *Id.* at 347–48.

whether an equitable division of the unappropriated water of the river can be decreed in a suit in which the United States and the interested states are parties.”²⁷

In 1952, Congress enacted the McCarran Amendment, which waived the United States’ sovereign immunity in comprehensive state proceedings involving the adjudication or administration of water rights.²⁸ By granting that consent in qualifying water-rights proceedings, the amendment allowed federal and federally reserved claims, including claims held in trust for Tribal Nations, to be determined alongside competing state-law rights. The amendment therefore reduced the procedural obstacle that had prevented courts from resolving interconnected water claims when the United States was an indispensable participant.²⁹

In 1976, the Supreme Court considered the relationship between federal jurisdiction and comprehensive state water adjudication in *Colorado River Water Conservation District v. United States*.³⁰ The United States, acting on its own behalf and as trustee for several Tribal Nations, filed a federal lawsuit asserting reserved water rights while a state proceeding involving the same river system was already in progress under Colorado’s Water Rights Determination and Administration Act.³¹ The majority opinion held that the McCarran Amendment did not remove the federal district court’s legal authority to hear the federal claims.³² The Court affirmed the dismissal of the federal action under principles of “wise judicial administration,” emphasizing the state proceeding’s comprehensive character, the interdependence of the water rights at issue, and the need to avoid resolving related claims through separate and potentially conflicting proceedings.³³ The decision thus established that a federal court may possess jurisdiction over a

²⁷ *Arizona v. California*, 298 U.S. 558, 570 (1936).

²⁸ McCarran Amendment, 43 U.S.C. § 666.

²⁹ See *id.*; *Colorado River Water Conservation District v. United States*, 424 U.S. 800, 809–12 (1976).

³⁰ *Colorado River Water Conservation District v. United States*, 424 U.S. 800 (1976).

³¹ *Id.* at 804–06.

³² *Id.* at 808–09.

³³ *Id.* at 817–20.

water-rights dispute yet defer to an existing state adjudication in exceptional circumstances involving coordinated administration of a shared water system.³⁴

Together, these developments established a legal framework designed to allocate, administer, and adjudicate water rights among states, the federal government, Tribal Nations, and individual users. Prior appropriation prioritized diversion and beneficial use; the Colorado River Compact divided water between interstate basins; the Boulder Canyon Project Act promoted federal reclamation and development; and the McCarran Amendment encouraged comprehensive adjudication of competing claims.³⁵ Even the Winters Doctrine, despite its essential protection of Tribal reserved rights, recognized claims to use water rather than rights belonging to the river.³⁶ The resulting framework is therefore not ecologically neutral. It institutionalizes a system in which the Colorado River's health is considered through the consequences for recognized human interests rather than as an independently protected legal interest.³⁷ Recognizing the river as a legal person would require inserting that ecological interest into a system historically structured to allocate water among human claimants.

COMPARATIVE RIGHTS OF NATURE JURISPRUDENCE

INTERNATIONAL RIGHTS OF NATURE

According to the *Eco Jurisprudence Monitor*, 275 Rights of Nature laws, cases, policies, and other governance initiatives have been approved worldwide. Fifty-four concern freshwater ecosystems.³⁸ The recognition of rivers and other freshwater bodies as legal persons with rights

³⁴ *Id.* at 818–21.

³⁵ 43 U.S.C. § 617g; Boulder Canyon Project Act, ch. 42, 45 Stat. 1057 (1928); McCarran Amendment, 43 U.S.C. § 666; Welden, *supra* note 4, at 15–20.

³⁶ Winters v. United States, 207 U.S. 564, 576–77 (1908); Arizona v. California, 292 U.S. 341 (1934); Arizona v. California, 298 U.S. 558 (1936); Colorado River Water Conservation District v. United States, 424 U.S. 800 (1976).

³⁷ Ge et al., *supra* note 8; Stone, *supra* note 14, at 456–72.

³⁸ Eco Jurisprudence Monitor, *Initiative Index*, https://ecojurisprudence.org/initiatives/?_ejm_eco_jurisprudence=rights-of-nature (last visited Aug. 5, 2026).

represents a significant development in environmental law across the globe. This trend marks a paradigm shift in environmental governance, integrating ecological values into legal systems.

▪ Whanganui River: Legal Personhood and Guardianship

The Whanganui River case in Aotearoa New Zealand is a landmark example of river rights recognition and legal personhood for nature. The Whanganui River was granted its own legal identity through a settlement reached in 2014 between the government and the Whanganui iwi (the Indigenous Māori communities associated with the river), which had disputed the river's status for over 140 years based on the Treaty of Waitangi.³⁹ This settlement culminated in the Te Awa Tupua Act of 2017, which formally declared the Whanganui River a legal person, giving it the rights, powers, duties, and liabilities of an entity that can be represented in court.⁴⁰

The Act established *Te Pou Tupua*, a two-person office authorized to act as the “human face” of the river and to protect its legal status and interests.⁴¹ This arrangement reflects a unique legal and cultural recognition of the river as an ancestor and living entity with intrinsic rights, deeply rooted in Māori worldview.⁴² The river's legal personhood allows it to participate in court proceedings and ensures that its wellbeing is defended through these guardians. The river is recognized as a living ancestor and an indivisible whole, incorporating physical and metaphysical elements.⁴³ The Whanganui framework provides one of the clearest statutory models for defining and exercising river rights, explicitly granting legal personality to a natural entity and naming custodians for its representation.⁴⁴

³⁹ Lidia Cano Pecharroman, *Rights of Nature: Rivers That Can Stand in Court*, 7 RESOURCES 13, 7 (2018).

⁴⁰ Martin & Kauffman, *supra* note 14, at 271.

⁴¹ Because a river cannot act for itself in legal or administrative proceedings, Rights of Nature frameworks commonly rely on human representatives to protect the river's interests. The Te Awa Tupua Act created Te Pou Tupua as the “human face” of the Whanganui River and authorized that office to act and speak on the river's behalf. Te Pou Tupua consists of two representatives, one nominated by the Whanganui iwi and one nominated by the government. See *Te Awa Tupua (Whanganui River Claims Settlement) Act 2017*, NEW ZEALAND LEGISLATION 18–20, <https://www.legislation.govt.nz> (last visited Aug. 5, 2026); Martin & Kauffman, *supra* note 14, at 271–73.

⁴² Martin & Kauffman, *supra* note 14, at 271–73.

⁴³ *Id.* at 270–71.

⁴⁴ Pecharroman, *supra* note 39, at 7.

The significance of the Whanganui framework extends beyond the formal recognition of legal personhood. By establishing a permanent representative institution rather than relying on individual plaintiffs or temporary litigation, the Te Awa Tupua Act integrates the river's interests into ongoing governance.⁴⁵ The shared structure of Te Pou Tupua also gives institutional expression to the relationship between the Whanganui iwi and the river while preserving a role for the state in administering the legal framework.⁴⁶ In this way, the Act demonstrates that river personhood can operate as a continuing governance arrangement rather than merely as a declaration of symbolic rights.⁴⁷

▪ **Atrato River: Participatory Guardianship and Restoration**

In 2016, Indigenous and Afro-descendant communities living along the Atrato basin in Colombia set out to rectify severe environmental damage and protect the rights of the Atrato River, their lifeline.⁴⁸ Consequently, the Colombian Constitutional Court declared the Atrato River a legal subject with its own rights.⁴⁹ This was a pioneering decision in Latin America.⁵⁰ By granting legal personhood, the river can hold rights and is afforded protection under the law.⁵¹

The court attributed severe pollution and deforestation in the Atrato River Basin to industrial and informal mining, logging, monocrop agriculture, cattle ranching, cacao cultivation, and infrastructure development.⁵² These activities damaged the river and significantly affected the Indigenous and Afro-descendant communities whose livelihoods, cultures, and territorial relationships are closely connected to it.⁵³ Indigenous communities hold ancestral claims through

⁴⁵ Te Awa Tupua (Whanganui River Claims Settlement) Act 2017, NEW ZEALAND LEGISLATION 18–20, <https://www.legislation.govt.nz> (last visited Aug. 5, 2026); Martin & Kauffman, *supra* note 14, at 271–73.

⁴⁶ Martin & Kauffman, *supra* note 14, at 271–73.

⁴⁷ *Id.*

⁴⁸ Helena Alviar Garcia, *Granting Rights to Rivers in the Shadow of Extractivism*, 18 FIU L. REV. 687, 694 (2023).

⁴⁹ Liliana Mosquera-Guerrero & Tobias Krueger, *Struggling for the Recognition of River Rights: A Case of Hydrosocial Territorialization of the Atrato River in Colombia*, 151 GEOFORUM 104000, 1 (2024).

⁵⁰ Garcia, *supra* note 48, at 701.

⁵¹ María Ximena González-Serrano, *The Atrato River as a Bearer and Co-Creator of Rights: Unveiling Black People's Legal Mobilization Processes in Colombia*, 49 LAW SOC. INQ. 2493, 2494 (2024).

⁵² González-Serrano, *supra* note 51, at 2497, 2509.

⁵³ *Id.* at 2497–2500, 2509.

ninety-two reserved territories, or *Resguardos Indígenas*, while Black communities constitute approximately 82 percent of the basin's population.⁵⁴ In response, the court recognized the Atrato River as a legal entity, established a Commission of Guardians, and ordered pollution remediation, the eradication of illegal mining, restoration of traditional livelihoods, governmental oversight, and continuing toxicological and epidemiological studies.⁵⁵

The governance model established by the ruling is structural and participatory, involving both government representatives and affected communities in the Commission of Guardians. This bipartite arrangement was inspired by the Whanganui River case.⁵⁶ It aims to foster dialogue and community participation in decision-making about river protection. It also helps bridge Colombia's historical divide by incorporating local Indigenous and Afro-descendant voices in the policymaking process. The Atrato River case remains a transformative example of how recognizing the Rights of Nature can be linked to concrete environmental and social measures.⁵⁷ It highlights both the potential for legal personhood to protect natural entities and the limitations imposed by existing institutional weaknesses in Colombia.

Taken together, these international examples demonstrate that recognizing a river or other natural entity as a legal person is not merely symbolic but can reshape environmental governance through guardianship, Indigenous participation, and ecological restoration. At the same time, they show that legal recognition alone is insufficient to guarantee meaningful protection. Effective implementation depends upon clearly defined guardianship structures, continued political support, adequate governmental resources, and institutions capable of enforcing the

⁵⁴ Liliana Mosquera-Guerrero & Tobias Krueger, Struggling for the Recognition of River Rights: A Case of Hydrosocial Territorialization of the Atrato River in Colombia, 151 *Geoforum* 104000, 4 (2024); González-Serrano, *supra* note 51, at 2497–2500.

⁵⁵ Martin & Kauffman, *supra* note 14, at 277; Philipp Wesche, Rights of Nature in Practice: A Case Study on the Impacts of the Colombian Atrato River Decision, 33 *J. Env't L.* 531, 554 (2021).

⁵⁶ García, *supra* note 48, at 689.

⁵⁷ Wesche, *supra* note 55, at 548–54.

rights granted to nature.⁵⁸ While the Whanganui and Atrato Rivers illustrate the potential of Rights of Nature to improve environmental stewardship, they also reveal that long-term success requires sustained legal, political, and community commitment.⁵⁹ These examples provide valuable guidance for the Colorado River, demonstrating both the promise of legal personhood and the practical challenges that must be addressed if such a framework is to produce lasting ecological protection.⁶⁰

▪ **Ganga and Yamuna Rivers: Institutional Uncertainty**

The recognition of India's Ganga (Ganges) River and its tributary, Yamuna, as legal persons provides a cautionary contrast to the more institutionally developed Whanganui and Atrato River frameworks. In *Mohd. Salim v. State of Uttarakhand*, the Uttarakhand High Court declared the Ganga and Yamuna, together with their tributaries and associated natural features, to be legal and living persons possessing the rights, duties, and liabilities of a juristic person.⁶¹ The court designated state officials as legal representatives responsible for acting on the rivers' behalf.⁶²

The ruling demonstrated the potential of courts to extend established concepts of legal personality to natural entities. Unlike the Whanganui framework, however, the decision was not founded on comprehensive legislation establishing a permanent guardianship institution, funding structure, or detailed system of ecological governance. The officials designated to represent the rivers were government administrators whose territorial authority was largely confined to the State of Uttarakhand, even though the Ganga and Yamuna flow through several Indian states.

⁵⁸ Martin & Kauffman, *supra* note 14, at 271–84.

⁵⁹ Wesche, *supra* note 55, at 548–54; Garcia, *supra* note 48, at 701–08; Pecharroman, *supra* note 39, at 7–10.

⁶⁰ Martin & Kauffman, *supra* note 14, at 271–87; Gilbert, *supra* note 9, at 470–71.

⁶¹ *Mohd. Salim v. State of Uttarakhand*, Writ Petition (PIL) No.126 of 2014 (December 5, 2016 and March 20, 2017) - ELAW: Environmental Law Alliance Worldwide, <https://elaw.org/resource/salim-v-state-uttarakhand-writ-petition-pil-no126-2014-december-5-2016-and-march-20-2017> (last visited July 29, 2026).

⁶² *Id.*; Martin & Kauffman, *supra* note 14, at 278–82.

This created uncertainty regarding the geographic reach of the judgment, the authority of the appointed representatives, and responsibility for harms occurring beyond the court's jurisdiction.⁶³

The State of Uttarakhand challenged the ruling before the Supreme Court of India, raising concerns about how the rivers' rights and liabilities could be administered across multiple jurisdictions and whether the appointed officials could be held responsible for injuries or disputes involving the rivers. The Supreme Court subsequently stayed (temporarily suspended) the High Court's order while the challenge proceeded.⁶⁴ Although the stay did not finally reject the possibility of river personhood, the litigation demonstrated the vulnerability of judicial recognition when the legal consequences of personhood and the responsibilities of guardians have not been clearly established.

The Ganga and Yamuna litigation illustrates why Rights of Nature models cannot simply be transferred from one jurisdiction to another. Dr. Eden Kinkaid explains that Rights of Nature develops through culturally and geographically specific legal regimes, governance structures, political projects, and human-environment relationships.⁶⁵ The legal recognition of the Ganga and Yamuna therefore cannot be understood merely as an Indian version of the Whanganui model. The Indian ruling emerged from different religious meanings, governmental institutions, territorial arrangements, and environmental conflicts. Treating Rights of Nature as a uniform global model risks overlooking the institutional conditions necessary to make personhood effective.

⁶³ Martin & Kauffman, *supra* note 14, at 281–84.

⁶⁴ *Mohd. Salim*, Writ Petition (PIL) No. 126 of 2014; Martin & Kauffman, *supra* note 14, at 282–84.

⁶⁵ Eden Kinkaid, "Rights of Nature" in Translation: Assemblage Geographies, Boundary Objects, and Translocal Social Movements, 44 *TRANSACTIONS OF THE INSTITUTE OF BRITISH GEOGRAPHERS* 555, 565–68 (2019).

For the Colorado River, the Indian experience reinforces the need to establish jurisdiction, representation, duties, and liability before recognizing the river as a legal person. Like the Ganga and Yamuna, the Colorado River crosses numerous political boundaries and is governed by overlapping state, federal, Tribal, and international authorities. A judicial declaration that failed to specify how guardians would exercise authority throughout the watershed could face similar challenges. The Ganga and Yamuna cases therefore demonstrate that legal personhood must be accompanied by legislation defining the river's geographic scope, the powers and obligations of its representatives, its relationship to existing governmental authorities, and the mechanisms through which its rights may be enforced.

DOMESTIC RIGHTS OF NATURE

▪ **Sierra Club v. Morton: Standing**

Sierra Club v. Morton (1972) was the first major U.S. Supreme Court case to confront standing, the legal requirement that a plaintiff show a sufficient personal stake in a dispute to bring a claim in court, in modern environmental litigation.⁶⁶ The dispute arose after Walt Disney Productions received federal approval to develop a ski resort in California's Mineral King Valley. The Sierra Club challenged the project because of the threat of environmental harm to Mineral King Valley, but it did not allege that the organization or any of its members personally used the area or would suffer a concrete injury from the proposed development.⁶⁷ The Supreme Court held that concern for environmental harm alone was insufficient to establish standing, requiring the plaintiff to show an injury that was concrete and personal to itself or its members.⁶⁸ By conditioning access to federal court on human injury, the decision excluded natural entities and ecosystems from asserting their own interests and reinforced the anthropocentric structure of

⁶⁶ *Sierra Club v. Morton*, 405 U.S. 727 (1972).

⁶⁷ M. Margaret McKeown, *The Trees Are Still Standing: The Backstory of Sierra Club v. Morton*, 44 J. SUP. CT. HIST. 189, 194 (2019).

⁶⁸ *Sierra Club v. Morton*, 405 U.S. 727, 731–35 (1972); McKeown, *supra* note 67, at 194–204.

environmental standing doctrine.⁶⁹ The Rights of Nature framework challenges this limitation by allowing ecosystems to possess legally protected interests and to appear in court through authorized representatives.⁷⁰ This broader recognition of environmental interests also reflects Indigenous and other relational worldviews that understand humans as part of, rather than separate from, the natural world.⁷¹ Institutionalizing procedural and substantive Rights of Nature would therefore not only provide a legal basis for environmental protection but also embed respect for nature as a central community value.⁷²

The dissents in *Sierra Club* are as important as its majority opinion. They reflect a critical challenge to the Supreme Court's restrictive doctrine on standing, especially in the context of environmental law. Justice Douglas delivered a pioneering dissent arguing that natural objects like Mineral King Valley should have standing to sue in federal courts.⁷³ He proposed that environmental litigation should be permitted "in the name of the inanimate object about to be despoiled, defaced, or invaded,"⁷⁴ effectively granting legal rights to nature itself. This perspective sought to circumvent the need for plaintiffs to show personal injury and emphasized the intrinsic value of protecting the environment from harm, marking a profound departure from anthropocentric legal principles. Douglas's approach aimed at simplifying standing issues by enabling direct representation of environmental interests, providing a basis for more robust environmental advocacy through the courts.

Justice Blackmun's dissent built on Douglas's concern that restrictive standing requirements could prevent meaningful environmental protection but approached the problem

⁶⁹ Elizabeth MacPherson, The (Human) Rights of Nature: A Comparative Study of Emerging Legal Rights for Rivers and Lakes in the United States of America and Mexico, 31 DUKE ENVTL. L. & POL 327, 333 (2021).

⁷⁰ Scott W. Stern, Standing for Everyone: *Sierra Club v. Morton*, Justice Blackmun, 49 ENVTL. L. REP. 10063, 10072 (2019).

⁷¹ McKeown, *supra* note 67, at 200.

⁷² Stern, *supra* note 70, at 10063.

⁷³ *Sierra Club v. Morton*, 405 U.S. 727, 741 (Douglas, J., dissenting).

⁷⁴ *Id.* at 742 (Douglas, J., dissenting).

through more pragmatic legal and procedural alternatives. Blackmun acknowledged the ecological threats posed by development projects and the inadequacy of rigid standing requirements to address such challenges. He suggested two alternatives: requiring the Sierra Club to amend its complaint to allege injury to its members or adopting "an imaginative expansion"⁷⁵ of standing rules to allow environmental organizations to litigate without strict injury requirements, reflecting the Club's bona fide environmental mission. Blackmun's dissent reflected apprehension that denying standing would effectively allow harmful development to proceed unchallenged, harming areas of great natural beauty. Notably, he admitted the influence of his emotional investment in environmental protection, underscoring the tension between legal formalism and environmental necessity. Together, these dissents constitute formative statements in the development of environmental standing doctrine and the broader Rights of Nature discourse.⁷⁶

▪ **Lake Erie Bill of Rights: Federalism and Preemption**

The Lake Erie Bill of Rights illustrates two related limits on local Rights of Nature laws: federalism, which divides governmental authority among federal, state, and local institutions, and preemption, under which a higher level of law may displace a conflicting lower-level rule. Voters in Toledo, Ohio, adopted the Lake Erie Bill of Rights in response to pollution associated with industrial agricultural runoff into Lake Erie.⁷⁷ The measure established rights for both the people of Toledo and Lake Erie and prohibited corporations and governmental entities from violating those rights.⁷⁸ The Lake Erie Bill of Rights granted Lake Erie the right to "exist,

⁷⁵ *Id.* at 758 (Blackmun, J., dissenting).

⁷⁶ Stern, *supra* note 70, at 10063.

⁷⁷ Marsha Jones Moutrie, The Rights of Nature Movement in the United States: Community Organizing, Local Legislation, Court Challenges, Possible Lessons and Pathways, 10 EARTH JURISPRUDENCE & ENVTL. JUST. J. 5, 20–22 (2020).

⁷⁸ Lake Erie Bill of Rights, Toledo Charter, ch XVII, §§ 253–260.

flourish, and naturally evolve” and authorized residents to bring legal actions on the lake’s behalf.⁷⁹

The Lake Erie Bill of Rights highlights the jurisdictional limitations that arise when Rights of Nature protections are enacted at the municipal level. Municipalities generally lack authority to create new state-law causes of action, meaning legally recognized claims that permit a person to bring a lawsuit, or to invalidate permits issued under state or federal law.⁸⁰ The Lake Erie Bill of Rights nevertheless attempted to prevent corporations from invoking state or federal preemption defenses and sought to invalidate permits that conflicted with its provisions.⁸¹ The federal district court held that the Lake Erie Bill of Rights violated constitutional due-process requirements because its language was so vague that regulated parties could not determine what conduct was prohibited or how the law would interact with existing state and federal authority.⁸²

The Lake Erie Bill of Rights also faced immediate political and legislative resistance. Shortly after the district court’s ruling, the Ohio legislature enacted a law preventing nature or ecosystems from possessing legal standing in state courts.⁸³ This backlash demonstrates the importance of securing broad political and public support when pursuing Rights of Nature reforms. At the same time, the Lake Erie Bill of Rights helped mobilize community organizing and draw media attention to residents’ frustration with conventional environmental protections.⁸⁴ Its symbolic force therefore had strategic value even though the measure did not survive judicial review. Ultimately, the Lake Erie Bill of Rights’ vague definitions and uncertain enforcement structure made it vulnerable to constitutional and preemption challenges, demonstrating that

⁷⁹ Lake Erie Bill of Rights, Toledo Charter, ch XVII, §§ 253-260; Kathleen M Mannard, *Lake Erie Bill of Rights Struck Down: Why the Rights of Nature Movement Is a Nonviable Legislative Strategy for Municipalities Plagued by Pollution*, 28 BUFF ENVTL LJ, 40–41.

⁸⁰ Kenneth Kilbert, *Lake Erie Bill of Rights: Stifled by All Three Branches Yet Still Significant*, 81 OHIO ST. L.J. ONLINE 227, 234 (2020).

⁸¹ Alison M. Collins, *The Lake Erie Bill of Rights: Legal Challenges to Granting Rights to Nature*, 37 MICH ENV LAW J, 3 (2019), <http://connect.michbar.org/blogs/environmental-law-journal/2019/09/17/the-lake-erie-bill-of-rights-legal-challenges-to-g>.

⁸² *Drewes Farms Partnership v. City of Toledo*, 441 F.Supp.3d 551, 556–57 (N.D. Ohio 2020); Dana Zartner, *Watching Whanganui & the Lessons of Lake Erie: Effective Realization of Rights of Nature Laws*, 22 VT. J. ENV’T L. 1, 30–34 (2021).

⁸³ Ohio Rev. Code Ann. § 2305.011.

⁸⁴ Kilbert, *supra* note 80, at 235–36; Moutrie, *supra* note 77, at 20–22.

future Rights of Nature legislation must define protected rights, prohibited conduct, enforcement authority, and available remedies with sufficient precision to withstand legal scrutiny.⁸⁵

▪ **Mauna Kea: Indigenous Stewardship and Legal Recognition**

The Hawaiʻian volcano Mauna Kea exemplifies the critical role a Rights of Nature framework can play in recognizing and protecting Indigenous cultural and spiritual connections to natural sites. For the Kānaka Maoli (Indigenous people of the Hawaiʻian islands), Mauna Kea is not merely a physical location but a sacred elder and an integral part of their cosmology and identity.⁸⁶ Disputes over construction of the Thirty Meter Telescope near the summit brought these relationships into direct conflict with development interests, as Native Hawaiian protectors opposed further construction on a site they regard as sacred.⁸⁷ The resulting protests highlighted broader concerns about cultural preservation, Indigenous participation in land-use decisions, and stewardship of Mauna Kea.⁸⁸ Mauna Kea’s legal conflicts highlight the necessity of due process rights and how affected Indigenous communities should be meaningfully involved before projects are approved.⁸⁹

A legislative action which attempted to codify Indigenous participation in land use was House Bill 2077, introduced by Representative Kirstin Kahaloa in 2024, which proposed recognizing Hawaiʻi’s watershed ecosystems as legal persons. The bill’s findings stated that “[r]ights for nature offer a novel policy approach that can simultaneously and effectively enhance environmental policy outcomes while addressing related indigenous issues through the codification of native Hawaiian traditional and customary cultural principles into the law.”⁹⁰

⁸⁵ Zartner, *supra* note 82, at 30–34; Kilbert, *supra* note 80, at 234–36.

⁸⁶ Karli Uwaine, Rights of Nature in Hawaiʻi: Preserving the Relationship Between Natural Resources and Cultural Significance, 53 ENV’T L. 239, 270 (2023).

⁸⁷ Nina Oishi, Love, Memory, and Reparations: Looking to the Bottom to Understand Hawaiʻi’s Mauna Kea Movement, 29 ASIAN AM. L.J. 126, 129–32 (2022).

⁸⁸ *Id.* at 129–44.

⁸⁹ *Id.* at 129.

⁹⁰ Kirstin Kahaloa, H.B. 2077, (2024), https://data.capitol.hawaii.gov/sessions/session2024/bills/HB2077_.HTM.

Mauna Kea provides a domestic example of how Indigenous legal traditions, cultural relationships, and environmental protection can inform efforts to recognize the interests of a natural entity within the United States.⁹¹ Although Mauna Kea has not received the same formal legal personhood as the Atrato River, the disputes surrounding the mountain demonstrate that Indigenous lifeways and relational understandings of nature can shape legal and political arguments over environmental governance.⁹² This makes Mauna Kea particularly relevant to the Colorado River, where a Rights of Nature framework would need to operate within U.S. law while also recognizing the authority and longstanding relationships of Tribal Nations connected to the river.

PROPOSALS

Taken together, the comparative cases show that legal personhood is effective only when it is supported by clearly defined rights, authorized representation, enforceable restoration obligations, and coordinated legislation. The international and domestic examples discussed above identify four institutional requirements for recognizing the Colorado River as a legal person: clearly defined rights, authorized representation, enforceable restoration obligations, and coordinated legislation. Rights of Nature provides the legal foundation for this framework by recognizing ecosystems as rights-bearing entities with intrinsic value independent of their usefulness to humans.⁹³ For the Colorado River, legal personhood should therefore be understood as an institutional framework rather than a symbolic designation. The river's rights must be sufficiently specific to guide governmental decisions, support judicial enforcement, and provide measurable standards for ecological recovery. The framework must also identify

⁹¹ Uwaine', *supra* note 86, at 270–74; Oishi, *supra* note 87, at 129–44.

⁹² Martin & Kauffman, *supra* note 14, at 277; Garcia, *supra* note 48, at 689–701; Uwaine', *supra* note 86, at 270–74.

⁹³ Gilbert, *supra* note 9, at 470–71; Gilbert, *Creating Synergies*, *supra* note 12, at 673–76.

representatives capable of asserting those rights without subordinating them to existing political or economic interests.

LEGAL RECOGNITION AND DEFINITION OF THE RIVER'S RIGHTS

Recognizing the Colorado River as a legal person would first require defining the substantive rights attached to that status. At a minimum, the river should possess the following rights: to exist, persist, regenerate its natural cycles, maintain sufficient streamflow and water quality, preserve biodiversity and habitat connectivity, and recover from ecological harm. These rights would protect the Colorado River as an integrated and living ecological system rather than merely as a collection of water entitlements allocated among states, agricultural users, municipalities, industries, and other human claimants. Rights of Nature frameworks support this shift by recognizing that ecosystems possess intrinsic value and legally protectable interests independent of their economic or instrumental usefulness.⁹⁴

The river's legal identity should extend from its headwaters and tributaries through its main channel, surrounding habitats, groundwater connections, and through to its mouth at the Gulf of California. Defining the river as an interconnected ecological whole would prevent its interests from being divided according to political boundaries that do not correspond with natural systems. This approach would be similar to the Te Awa Tupua Act, in recognizing the Colorado River as a living and indivisible whole encompassing both physical and metaphysical elements.⁹⁵ Treating the Colorado River as a unified legal entity would similarly allow its health to be evaluated across the entire watershed rather than through isolated state allocations or individual water rights.

⁹⁴ Gilbert, *supra* note 9, at 454–71; Stone, *supra* note 14, at 16–22.

⁹⁵ Martin & Kauffman, *supra* note 14, at 271–73.

Legal personhood should include both substantive and procedural rights. Substantive rights define the interests the law protects, such as the river's ecological health, streamflow, water quality, biodiversity, and capacity to regenerate. Procedural rights provide the mechanisms through which those interests can be asserted and enforced, including participation in administrative proceedings, challenges to governmental approvals, judicial review, and remedies for violations. Without procedural mechanisms, declarations of ecological rights may remain aspirational and difficult to enforce. The Colorado River must therefore be able to appear as a named legal party through its representatives, rather than depending exclusively on human plaintiffs to establish personal injury under conventional standing doctrine.

International precedents also demonstrate that recognizing river rights should create affirmative obligations rather than merely prohibiting future harm. The Atrato River decision connected legal recognition with government duties to reduce contamination, address illegal mining, restore damaged ecosystems, and protect the communities whose lives and cultures depend upon the river.⁹⁶ A Colorado River framework should similarly require public authorities to address existing ecological degradation rather than limiting enforcement to newly proposed activities.

The river's rights must also be stated with sufficient precision to survive legal challenge. The Lake Erie Bill of Rights declared that Lake Erie possessed rights to exist, flourish, and naturally evolve, yet its broad language contributed to uncertainty about which conduct was prohibited and how its provisions would interact with state and federal authority.⁹⁷ Legislation recognizing the Colorado River should therefore connect general ecological rights with identifiable standards, including minimum streamflows, water-quality requirements, habitat-

⁹⁶ Wesche, *supra* note 55, at 548–54; Garcia, *supra* note 48, at 701–08.

⁹⁷ Kilbert, *supra* note 80, at 234–36; Zartner, *supra* note 82, at 30–34.

preservation goals, species protections, and restoration benchmarks. Scientific standards may evolve as ecological conditions change, but the legislation must provide courts, agencies, and guardians with concrete criteria for determining when the river's rights have been impaired.

GUARDIANSHIP AND INDIGENOUS REPRESENTATION

As the Colorado River cannot personally participate in legal or administrative proceedings, legal recognition must be accompanied by an independent guardianship institution authorized to represent its interests. Guardians would owe their primary legal duty to the river itself rather than to any individual state, agency, industry, or water-right holder. Their responsibilities should include evaluating proposed actions, participating in water-management decisions, bringing legal claims, seeking injunctive relief to stop conduct that threatens the river's rights, overseeing restoration plans, and reporting publicly on the river's ecological condition.

The Whanganui River provides the clearest model for such representation. The Te Awa Tupua Act established a guardianship arrangement in which one representative is selected by the government and another by the Whanganui iwi. Together, they speak on behalf of the river and protect its legal interests.⁹⁸ The Atrato River decision similarly created a participatory guardianship structure involving both governmental representatives and affected Indigenous and Afro-descendant communities.⁹⁹ These examples demonstrate that guardianship can connect formal legal authority with the knowledge and experience of communities whose histories, cultures, and livelihoods are inseparable from the river.

For the Colorado River, Tribal Nations with ancestral, cultural, spiritual, and legal relationships to the river must hold a central role in the guardianship system. Indigenous

⁹⁸ Martin & Kauffman, *supra* note 14, at 271–73.

⁹⁹ *Id.* at 277; Garcia, *supra* note 48, at 689–701.

representation should not be limited to consultation after governmental decisions have already been formulated. Tribal representatives should possess equal decision-making authority in defining the river's interests, reviewing proposed actions, directing restoration priorities, and enforcing violations. Such representation would recognize that Indigenous nations are sovereign political entities with distinct legal traditions and longstanding systems of ecological stewardship.

Indigenous legal principles can also strengthen the substantive meaning of the river's rights. Many Indigenous legal traditions emphasize reciprocity, relational responsibility, and the interdependence of human and nonhuman life rather than treating water as an alienable commodity. Indigenous peoples have challenged state-centered and exploitative models of environmental governance by advancing legal approaches grounded in kinship, stewardship, and cultural responsibility.¹⁰⁰ Incorporating these principles into the Colorado River's guardianship structure would support a more holistic form of environmental governance while avoiding the appropriation of Indigenous knowledge without corresponding political authority.

The guardianship body should also include ecological and scientific expertise, but technical participation should complement rather than displace Indigenous governance. Hydrologists, ecologists, climate scientists, water-quality specialists, and habitat experts could advise guardians and develop measurable indicators of river health. Legal specialists could assist in litigation and administrative proceedings. The ultimate responsibility of the guardians, however, should remain the protection of the river's rights, rather than the maximization of any single human use or economic benefit.

¹⁰⁰ Gilbert, *supra* note 9, at 466; Gilbert, *Creating Synergies*, *supra* note 12, at 690.

To preserve independence, guardians should serve fixed terms, disclose conflicts of interest, and be protected from removal based solely on politically unpopular decisions. Funding for proceedings and policy writing should come from a stable public source rather than voluntary appropriations that could be withdrawn when guardians challenge powerful governmental or commercial interests. The guardians should also be required to issue regular public reports explaining the river's condition, alleged violations, restoration progress, and significant decisions. These safeguards would help ensure that legal representation remains accountable, transparent, and directed toward the river's long-term ecological integrity.

RESTORATION AND ENFORCEMENT MANDATES

Recognizing the Colorado River's rights would be ineffective without enforceable prevention and restoration duties to prevent harm and restore ecological health. The guardianship institution should therefore have authority to challenge governmental and private conduct that substantially interferes with the river's defined rights. Potential violations could include water withdrawals that reduce streamflow below established ecological minimums, pollution that impairs water quality, infrastructure projects that destroy habitat connectivity, or management practices that prevent the river from reaching its mouth.

The legal framework should authorize several forms of relief. Courts should be able to issue injunctions preventing imminent or continuing violations, order agencies to reconsider permits or management decisions, require restoration plans, and impose financial liability for ecological damage. Remedies should prioritize repairing harm to the river rather than simply compensating human plaintiffs. Monetary awards and civil penalties arising from violations should therefore be directed into a dedicated Colorado River restoration fund used for habitat recovery, pollution remediation, scientific monitoring, and other measures benefiting the river.

Restoration duties should be based on measurable objectives. Depending upon the affected portion of the watershed, these objectives could include maintaining minimum water volume, reducing pollutants, restoring wetlands and riparian habitats, improving fish passage, protecting threatened species, reconnecting fragmented habitats, and increasing the frequency with which water reaches the estuary of the Colorado River Delta. Guardians, agencies, Tribal Nations, and scientific advisers should periodically review these standards to account for climate change, drought, and evolving ecological knowledge.

The distinction between prevention and restoration is important. Traditional environmental regulation often permits harmful activity within prescribed limits, responding only when regulated standards are exceeded. A Rights of Nature framework would instead require decision-makers to consider whether an activity is consistent with the river's continued health and regenerative capacity. The Te Awa Tupua and Atrato River models demonstrate that legal recognition can impose affirmative responsibilities to protect and restore ecological systems rather than merely regulate the degree of permissible degradation.¹⁰¹

Enforcement provisions should also permit guardians to intervene before ecological injuries become irreversible. Concepts such as requiring proof of completed harm would undermine the purpose of recognizing the river's right to persist and regenerate. Guardians should be able to seek precautionary relief, allowing a court to intervene before damage occurs when credible scientific evidence shows a substantial risk of serious or irreversible ecological harm. Courts could then require agencies or project proponents to demonstrate that proposed conduct is compatible with the river's legally protected interests.

¹⁰¹ Martin & Kauffman, *supra* note 14, at 271–87; Erin Ryan, Holly Curry & Henry Rule, Environmental Rights for the 21st Century: A Comprehensive Analysis of the Public Trust Doctrine and Rights of Nature Movement, 42 CARDOZO L. REV. 2447, 2499 (2020).

Legislation must define the relationship between the river's rights and existing water rights. Recognizing legal personhood would not automatically eliminate every existing allocation or prohibit all human use. Rather, it would establish ecological limits within which water use must occur. Existing rights would remain subject to the requirement that their exercise not destroy the river's capacity to function as a living ecological system. This balancing approach would distinguish the proposal from an absolute prohibition on diversion while still correcting a legal structure that has historically placed human wants far above ecological needs.

Clear enforcement provisions are especially important considering the Lake Erie outcome. The Lake Erie Bill of Rights' lack of precise standards and its attempt to eliminate state and federal defenses made the law vulnerable to constitutional and preemption challenges.¹⁰² A new Colorado River Compact should instead identify the claims that may be brought, who may bring them, the degree of judicial scrutiny applied to challenged agency decisions, the available remedies, and the legal responsibilities of guardians and public agencies.

LEGISLATIVE AND POLICY IMPLEMENTATION

The Colorado River's interstate character makes municipal recognition inadequate. The Lake Erie Bill of Rights demonstrates the vulnerability of locally enacted Rights of Nature provisions when municipalities attempt to intervene in areas governed by state and federal law.¹⁰³ Because the Colorado River crosses multiple state, Tribal, and international jurisdictions, its legal personhood must be established at a level capable of coordinating those overlapping authorities.

Ideally, federal legislation would provide the strongest foundation for recognizing the Colorado River as a legal person. Congress, in partnership with the interested parties, would

¹⁰² Kilbert, *supra* note 80, at 234–36; Zartner, *supra* note 82, at 30–34.

¹⁰³ *Drewes Farms Partnership*, 441 F. Supp. 3d at 556–57; Kilbert, *supra* note 80, at 234–36.

define the river's rights, establish its guardianship institution, authorize participation in federal administrative and judicial proceedings, create restoration obligations, and identify how the framework interacts with existing environmental statutes and water-management authorities. Federal legislation would also reduce the likelihood that individual states could defeat the river's rights through conflicting laws or preemptive claims.

Recognition should also be integrated into the broader Law of the River. The Colorado River Compact of 1922 and subsequent statutes currently allocate water among human claimants without recognizing the river as an independent legal interest.¹⁰⁴ Amending or supplementing this framework would allow ecological requirements to become a formal component of basin-wide decision-making. Future interstate and interagency agreements should reserve sufficient water to maintain the river's ecological functions before distributing remaining quantities among consumptive users. The river would therefore become a legally recognized participant in allocation decisions rather than the residual recipient of whatever water remains after human demands are satisfied.

Implementation must respect Tribal sovereignty and their existing water rights. The river's legal personhood should not be used to diminish Tribal water claims or transfer authority away from Tribal governments. Instead, legislation should clarify that the river's rights and Tribal sovereignty are complementary legal interests. Tribal Nations should participate in drafting the legislation, selecting guardians, establishing ecological standards, and negotiating changes to basin management. Recognition that merely borrows Indigenous concepts while excluding Indigenous nations from authority would reproduce the inequities that the proposal seeks to address.

¹⁰⁴ 43 U.S.C. § 617g; CLARK, *supra* note 2, at 15–20.

The framework should also establish coordination with existing environmental laws. Statutes governing water quality, endangered species, federal lands, environmental review, and dam operations would remain important mechanisms for protecting the river. Rights of Nature would supplement these laws by recognizing that the river itself possesses enforceable interests that agencies must consider. Guardians could participate in administrative processes, submit scientific and legal evidence, challenge inadequate agency decisions, and seek remedies where existing regulatory systems fail to protect the river's ecological integrity.

Transnational Rights of Nature networks may provide additional models, legal strategies, and technical support. Organizations such as the Global Alliance for the Rights of Nature have helped circulate legal frameworks recognizing ecosystems as rights-holders and have connected communities pursuing similar reforms across jurisdictions.¹⁰⁵ International models cannot simply be transplanted into the United States because each legal system has distinct constitutional, political, and institutional conditions. Nevertheless, the Whanganui and Atrato models offer practical guidance regarding guardianship, community participation, restoration planning, and long-term oversight.

Successful implementation will also require broad public participation. The political opposition to the Lake Erie Bill of Rights demonstrates that legal reform is unlikely to endure without a constituency capable of defending it.¹⁰⁶ Public engagement should therefore accompany legislative advocacy through education, Tribal consultation, community participation, scientific reporting, and transparent decision-making. Presenting Rights of Nature solely as an abstract philosophical change may invite misunderstanding. Connecting the river's

¹⁰⁵ Martin & Kauffman, *supra* note 14, at 268.

¹⁰⁶ Kilbert, *supra* note 80, at 236; Zartner, *supra* note 82, at 30–34.

rights to measurable ecological conditions, reliable water governance, cultural survival, and intergenerational responsibility can demonstrate how legal personhood would operate in practice.

Together, these measures would transform legal personhood from a symbolic declaration into an enforceable framework for protecting the Colorado River's long-term ecological integrity. By defining the river's rights, establishing independent guardianship with meaningful Indigenous authority, creating restoration and enforcement mechanisms, and coordinating implementation through federal legislation, the proposed framework would give the river a legally recognized interest in its own continued health and regeneration.

CONCLUSION

Recognizing the Colorado River as a legal person endowed with enforceable Rights of Nature would require a substantial transformation of United States environmental and water law. For more than a century, the river has been governed primarily through prior appropriation, interstate allocation, federal reclamation policy, and competing claims among states, Tribal Nations, agricultural users, municipalities, and industries. These frameworks have treated the river principally as a divisible resource for human use rather than as an integrated ecological system with legally protected interests of its own.¹⁰⁷ As a result, the river's ecological health has remained subordinate to doctrines centered on diversion, beneficial use, and economic development.

The comparative examples demonstrate that river personhood is most effective when supported by legislation, representative institutions, Indigenous authority, restoration duties, and clear enforcement mechanisms. The Whanganui and Atrato models illustrate the value of these institutional supports, while the Ganga and Yamuna litigation warns against judicial recognition

¹⁰⁷ 43 U.S.C. § 617g; WELDEN, *supra* note 4, at 1–2, 12–14; Stone, *supra* note 14, at 16–22.

without clearly defined jurisdiction, representation, liability, and enforcement.¹⁰⁸ Domestic authorities reveal additional barriers. Sierra Club maintains standing rules centered on human injury, while the Lake Erie Bill of Rights demonstrates the vulnerability of local Rights of Nature laws to vagueness, preemption, and political resistance.¹⁰⁹ The Mauna Kea disputes highlight the relationship between environmental governance and Indigenous sovereignty.¹¹⁰ Together, these authorities show that recognizing the Colorado River will require careful institutional design capable of addressing standing, jurisdiction, federalism, sovereignty, representation, and enforcement.

A viable Colorado River framework should therefore contain four interdependent components. First, legislation must define the river's substantive and procedural rights through measurable standards concerning streamflow, water quality, habitat connectivity, biodiversity, ecological regeneration, and restoration. Second, an independent guardianship institution must possess authority to represent the river in administrative and judicial proceedings. Tribal Nations with longstanding legal, cultural, and spiritual relationships to the river should hold meaningful decision-making authority within that institution rather than being confined to advisory consultation. Third, the framework must establish enforceable prevention and restoration duties, including access to injunctions, restoration orders, ecological monitoring, precautionary relief, and dedicated restoration funding. Finally, federal legislation should coordinate these protections across state, Tribal, federal, and international jurisdictions while integrating the river's rights into the broader Law of the River.¹¹¹

¹⁰⁸ Martin & Kauffman, *supra* note 14, at 271–84; Wesche, *supra* note 55, at 548–54; Garcia, *supra* note 48, at 701–08; *Mohd. Salim v. State of Uttarakhand*, Writ Petition (PIL) No. 126 of 2014 (Uttarakhand High Ct. Mar. 20, 2017).

¹⁰⁹ *Sierra Club v. Morton*, 405 U.S. 727, 731–35 (1972); McKeown, *supra* note 67, at 194–206; *Drewes Farms Partnership v. City of Toledo*, 441 F. Supp. 3d 551, 556–57 (N.D. Ohio 2020); Kilbert, *supra* note 80, at 234–36; Zartner, *supra* note 82, at 30–34.

¹¹⁰ Uwaine, *supra* note 86, at 270–74; Oishi, *supra* note 87, at 129–44.

¹¹¹ Martin & Kauffman, *supra* note 14, at 271–87; Zartner, *supra* note 82, at 18–21, 30–38; Gilbert, *supra* note 9, at 454–71; Ryan, Curry, and Rule, *supra* note 101, at 2499.

Recognizing legal personhood would not eliminate all human use of the Colorado River or immediately resolve the basin's longstanding allocation conflicts. Instead, it would establish ecological limits within which those uses must occur. Existing rights and economic interests would no longer be evaluated without regard to the river's capacity to survive and regenerate. The governing legal question would therefore expand beyond how much water may be diverted, consumed, or transferred among human claimants. Decision-makers would also be required to determine what the river needs to remain alive, functional, and ecologically resilient.

This shift is especially important because the Colorado River's degradation is not merely the result of insufficient scientific knowledge or ineffective administration. It also reflects a legal system that has historically recognized claims to the river without recognizing the river itself. Rights of Nature offers a means of correcting that imbalance by treating ecological survival as a legally protected interest rather than as whatever remains after human demands have been satisfied. At the same time, the international examples caution that the language of personhood cannot simply be transferred between jurisdictions without accounting for distinct legal institutions, cultural meanings, and political relationships.¹¹² Any Colorado River framework must therefore be developed through the participation of Tribal Nations, affected communities, scientists, legal institutions, and governments throughout the watershed.

The Colorado River's right to exist should ultimately be understood as both a legal principle and an obligation of intergenerational justice. By combining clearly defined rights, Indigenous authority, independent guardianship, enforceable restoration duties, and coordinated federal implementation, legal personhood could provide a practical framework for protecting the river as a living ecological system. Such recognition would not merely alter the river's formal

¹¹² Kinkaid, *supra* note 65, at 565–68.

legal classification. It would give legal force to the Colorado River's right to exist by requiring water governance to protect the health, continuity, and regenerative capacity necessary for the river to endure from source to mouth.