Protecting the Footprints of Rivers in the United States during the Anthropocene: A Personhood Proposal for the Columbia River Watershed and a Recognition of Genius Loci in Water Resources Management

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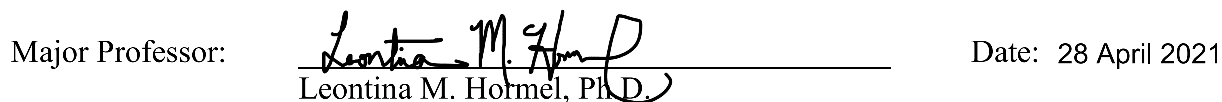
Authorization to Submit Thesis

This thesis of Dakota R. Goodman, submitted for the degree of Master of Science with a Major in Water Resources and titled "Protecting the Footprints of Rivers in the United States during the Anthropocene: A Personhood Proposal for the Columbia River Watershed and a Recognition of Genius Loci in Water Resources Management," has been reviewed in final form. Permission, as indicated by the signatures and dates below, is now granted to submit final copies to the College of Graduate Studies for approval.



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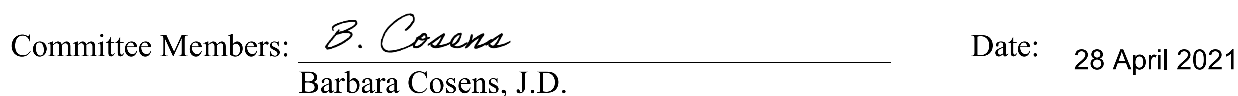

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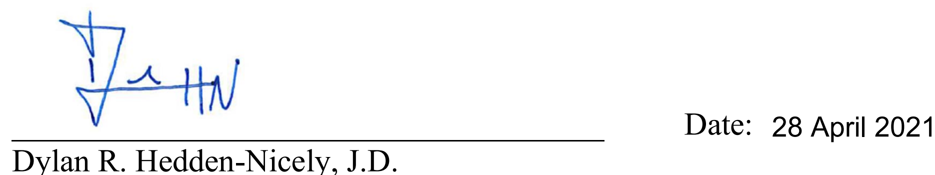

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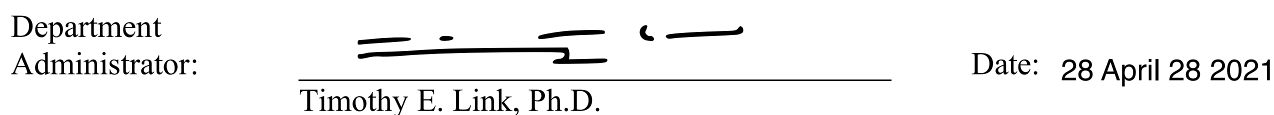

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Abstract

There are gaps in water resources law, policy and management due to being outdated but also due to rising issues of concern surrounding climate change, water scarcity, and environmental racism. There is potential for these issues to be addressed in an interdisciplinary way that acknowledges and utilizes both Western and Traditional ways of knowing. A personhood policy for rivers can set the groundwork for integrating Traditional ways of knowing, specifically dealing with managing the physical landscape, into Western land and water management; there is an urgent need to accept and utilize Traditional ways of knowing instead of trying to assimilate 'minoritized' cultures and societies into a Western framework. Additionally, a personhood policy for rivers would set the groundwork for the social value of rivers, intangible values such as emotional attachment and cultural memory, to be widely acknowledged alongside their economic value, and recognize legal standing for the environment to be seen as a base level protection to be built upon.

Key words: personhood, environmental personhood, legal personhood, guardianship, Rights of Nature, rivers, watersheds, water resources, water scarcity, Genius Loci, Traditional ways of knowing, Traditional knowledge, resilience, social value

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Poem - 9/11/17

Down river we all must go
Ostracized by a term of normal
Nonstop exploration into the last thing we all share
Energies of history bring together the future seven.
-
Then there comes a time
when you need to finish the dance
A return to the stage is inevitable
But certain rotations of a dipper must past
A mind grows tired as shades of red appear
As home prepares
for the coming of the white
The little black bear must go into hibernation
She will still wander
But those wanderings take dreams to places afar
But when she reawakens
A new cycle will be commencing
And she will continue to learn ancient tales
From a river
where all must go.

- By Dakota Goodman

Chapter 1 - An Introduction

> The idea isn't just granting rights or protecting the river for future generations, she said, but 'recognizing that… we are not the masters of the universe, over nature,' but that the relationship between humans and their environment is far more complicated and intertwined.
>
> - Yenny Vega Cardenas, President of the International Observatory on the Rights of Nature

A river, like the person, has an anatomy. A river's anatomy begins at its headwaters, which can take the form of a spring or alpine marshy area, and ends at the mouth or delta. Similarly, a human being can enjoy the crisp morning air and sound of rushing water as their senses interact with waking up next to a river. These sensory inputs interact with the rest of the body as its various structures help to create full function. Anatomy is the structural organization of a living thing, a human being or a river. The shape and nature of the river channel changes as the system meets up with its tributaries, widens, and slows. By the time a river meets the mouth - a lake, wetland or the ocean - it has typically spread into a fan shape. Overall, a river is a dynamic system whose riparian corridors[1] provide natural climate corridors and the critical common pool resource that sustains life, water. In addition to water being a life-sustaining resource, it is integral to land management. However, a river's anatomy, and its overall function, is impacted by natural resource extraction and manipulation.

Water resources management, along with environmental policy and management, has undergone a paradigm shift, from the concentration on sustainability to sustainability <u>and</u> resilience. Within that shift has been a recognition of the need to manage water quality and quantity, as well as mitigate against water scarcity, to establish water security. The use of adaptive management in water governance has provided a platform for the application of resilience theory in water resources management. Water quality "can be thought of as a measure of the suitability of water for a particular use based on selected physical, chemical,

[1] "Riparian areas can be potential climate corridors because they have physical characteristics that make them cooler than the surrounding landscape, such as lower elevation and higher tree cover. As they connect from river headwaters to outlets, they form an uphill path along which plants and animals can escape to cooler temperatures." (Krosby, Meade, David M. Theobald, Robert Norheim, and Brad H. McRae. "Identifying riparian climate corridors to inform climate adaptation planning." *PloS one* 13, no. 11 (2018): e0205156. https://conservationcorridor.org/digests/2018/11/riparian-restoration-as-a-way-to-create-climate-corridors/)

and biological characteristics."[2] Whereas, "water quantity is the timing and total yield of water from a watershed, and is measured by total yield and peak flow over a specified period of time."[3] Water quality and quantity serve as a baseline for water security research in water resources management. Water security is among the greatest issues scientists and policy makers are trying to tackle. According to the United Nations,

> water scarcity can mean scarcity in availability due to physical shortage, or scarcity in access due to the failure of institutions to ensure a regular supply or due to a lack of adequate infrastructure. Water scarcity already affects every continent. Water use has been growing globally at more than twice the rate of population increase in the last century, and an increasing number of regions are reaching the limit at which water services can be sustainably delivered, especially in arid regions.[4]

Water security's central importance in science, policy and management has been widely recognized and the technique of adaptive management in water governance has gained momentum.

As individuals we assign moral standards to social norms and practices, which implicitly creates a hierarchy and standard of tolerance, or intolerance. Certain actions, cultural values, and norms are accepted within cultural ways of knowing and being. However, Western society has developed by suppressing, and even destroying, minoritized cultures, favoring individual gain instead of the well-being of the whole.[5] This is not to say Indigenous cultures do not value the idea of 'the individual.' For instance, K. Tsianina Lomawaima and Teresa McCarty explain, "The concept of the individual is not absent from Indian communities. A sense of the individual is critical to many native communities' sense of empowerment and choice, as it is up to each individual to muster the drive, knowledge and dedication necessary to nurture a healthy, and productive community."[6] In a society structured around Western knowledge systems that manages natural resources in an exploitive manner

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[2] USGS. "Water Quality information by topic." Water Science School. https://www.usgs.gov/special-topic/water-science-school/science/water-quality-information-topic?qt-science_center_objects=0#qt-science_center_objects

[3] Zamora, Diomy, Blinn, Charlie. "Water Quality and Quantity." Wood Energy Extension (2019). https://wood-energy.extension.org/water-quality-and-quantity/#:~:text=Water%20quantity%20is%20the%20timing,other%20wildlife%20(Neary%202002).

[4] "Water Scarcity." United Nations. https://www.unwater.org/water-facts/scarcity/.

[5] Sternberg, Robert J., and Elena L. Grigorenko. "Cultural intelligence and successful intelligence." *Group & Organization Management* 31, no. 1 (2006): 27-39.

[6] Lomawaima, K. Tsianina, and Teresa L. McCarty. *" To Remain an Indian": Lessons in Democracy from a Century of Native American Education*. Teachers College Press, 2006: 14.

for individual gain (i.e., financial profits), and prioritizes standardized management practices as the most efficient method, when issues arise they are dealt with in a reactive manner instead of a proactive and preventative manner. The processes, present problems when resources must meet multiple uses and are finite in quantity.

As a common pool resource, there are challenges in allocating water, especially in more arid regions. Water allocation laws have been established in response to the declaration of the human right to access water, and due to the conflicts that have resulted from the demands made on the multiple-use resource. A common pool resource is a resource whose size or nature make it difficult, or highly costly, to limit access. It is a resource that benefits a group and is managed so that group can enjoy the benefits without diminishment. The "Tragedy of the Commons"[7] is a widely known idea used to explain the results of resource exploitation. It is a situation that results in the depletion or harm of a shared resource when single users and consumers act in their own self-interest instead of in common interest.[8] In 1833, this concept was brought into modern historical discourse by William Forest Lloyd and later used by Garrett Hardin in 1968 to explain the modern environmental problems society was facing.[9] If exploitation occurs it often causes environmental degradation. Environmental degradation can be understood as the exhaustion of resources that results in the weakening of the environment through physical, aesthetic and ecological effects.[10]

Depletion of a common pool resource by a single, or select grouping of users that causes environmental degradation - and produces health and welfare disparities in minoritized communities - is a form of environmental racism. Benjamin Chavis defined environmental racism as:

> racial discrimination in environmental policy making, the enforcement of regulations and laws, the deliberate targeting of communities of color for toxic waste facilities, the official sanctioning of the life-threatening presence of

[7] Garrett, Hardin. "The tragedy of the commons." *Science* 162, no. 3859 (1968): 1243-1248.
[8] Note, the "Tragedy of the commons" idea as a method of explaining how rational choice leads to over exploitation of common pool resources was later proven to be incomplete by Elinor Ostrom. (Ostrom, Elinor. *Governing the commons: The evolution of institutions for collective action*. Cambridge university press, 1990.)
[9] De Young, Raymond. "Tragedy of the Commons." Kluwer Academic Publishers (1999): 601.
[10] "Environmental Degradation." Science Direct. https://www.sciencedirect.com/topics/earth-and-planetary-sciences/environmental-degradation.

> poisons and pollutants in our communities, and the history of excluding people of color from leadership of the ecology movements.[11]

Environmental justice is a term that was created to encompass efforts to remedy environmental racism. Environmental justice is found in both places and spaces. It is an issue within urban, rural and wilderness places, as well as the spaces occupied by different groups of individuals. This is a movement that calls attention to unequal access to the environment and the unequal burden of harms to the environment. This encompasses the air we breathe, the water we drink, and the land we walk upon. The modern environment includes wilderness and urban areas. The environmental justice movement started within the urban setting and sought to call attention to disproportionate health disparities and resource access. The movement has now grown to encompass both urban and wild environments. Indigenous communities count among those facing environmental racism and, thus, efforts to halt environmental degradation and to restore ecological systems embodies environmental justice efforts.

Management of common pool resources is one of the issues adaptive environmental governance aims to address. According to Delmas and Young, the other issues include access, use, and protection of natural resources.[12] In the context of water governance, water scarcity and issues with water quality, have resulted in the emergence of integrated water resources management and adaptive management in water governance.[13] Common pool resources management, as well as, resilience theory and participatory decentralization, have informed these water governance management techniques.

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[11] Mohai, Paul, David Pellow, and J. Timmons Roberts. "Environmental justice." *Annual review of environment and resources* 34 (2009): 405-430, 410.

[12] Cosens, Barbara. "Introduction to the Special Feature Practicing Panarchy: Assessing legal flexibility, ecological resilience, and adaptive governance in regional water systems experiencing rapid environmental change." (2018).
See also, Delmas, Magali A., and Oran R. Young, eds. *Governance for the environment: New perspectives*. Cambridge University Press (2009).

[13] "IWRM, whose formal foundations can be traced to the 1977 United Nations Water Conference (Biswas 2004), is geared toward decentralizing institutions around major river basins, or a particular watershed scale, and joining together various elements of water resources planning, such as groundwater and surface water, water quantity and quality, and socioeconomic, hydrological, and ecological aspects of water management. In doing so, it strives to integrate management across multiple scales while incorporating a multitude of stakeholder interests (Blomquist et al. 2005). AM has its roots in resilience theory (Holling 1978), and is primarily concerned with the management of uncertainty through formalized experimentation and processed-based learning (Lee 1993, Huitema et al. 2009)." (Engle, Nathan L., Owen R. Johns, Maria Carmen Lemos, and Donald R. Nelson. "Integrated and adaptive management of water resources: tensions, legacies, and the next best thing." *Ecology and society* 16, no. 1 (2011)).

Water governance is the term used to describe the social, political, economic and administrative organizations that influence water use and management. Water governance structures decide who gets water, when they get water, how they get water, and rights to water more generally.[14] The concept of common pool resource management and resilience theory have been integrated into adaptive management practices in water governance, more specifically with watershed management.[15] According to the Department of the Interior, "adaptive management is a systematic approach for improving resource management by learning from management outcomes." Active adaptive management provides a structure for the process of decision making in times of uncertainty through monitoring and constant re-evaluation. Part of watershed management is the restoration or preservation of a *section* of river.[16] The practice of river restoration is one of the leading areas in applied water resources science which addresses repairing habitat for aquatic ecology and riparian vegetation, channel adjustments to address hungry water[17] and sediment management, and reconnecting floodplain management. [18] Restoration projects aim to enhance the overall process and form of a manipulated waterbody. A common issue faced in river restoration science and application is the holistic understanding of a rivers anatomy, in other words, rivers as ecosystems, which ties into the problems faced when socio-political processes and systems interact with restoration models.

A big question restoration scientists and water resources policy-managers are now facing is what is the restoration reference state, or what do we restore back to? The main idea

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[14] Water Governance Facility. "Water Governance." UNDP and SIWI. https://www.watergovernance.org/governance/what-is-water-governance/.

[15] Engle et. al (2011).; See also, Cosens, Barbara A., and Mark Kevin Williams. "Resilience and water governance: adaptive governance in the Columbia River basin." *Ecology and Society* 17, no. 4 (2012).; See also, Cosens, Barbara A., and Mark Kevin Williams. "Resilience and water governance: adaptive governance in the Columbia River basin." *Ecology and Society* 17, no. 4 (2012).

[16] The scientific practice of river restoration aims to enhance river process and form, for urban, agricultural and 'wild', watershed networks, headwater streams and lowland rivers. In other words, "river restoration is used to describe a variety of modifications of river channels and adjacent riparian zones and floodplains, and of the water, sediment, and solute inputs to rivers" (Wohl et. al (2015)). Over the past couple of decades, river restoration scientists have shifted their concentration to the restoration of an entire ecosystem that has been harmed by environmental stressors including land use change and agriculture, instead of focusing on a single area or single species of concern (Palmer, Margaret A., Holly L. Menninger, and Emily Bernhardt. "River restoration, habitat heterogeneity and biodiversity: a failure of theory or practice?." *Freshwater biology* 55 (2010): 205-222, 207).

[17] Hungry water is a river restoration science term that refers to sediment deprived rivers and streams.

[18] Wohl, Ellen, Stuart N. Lane, and Andrew C. Wilcox. "The science and practice of river restoration." *Water Resources Research* 51, no. 8 (2015): 5974-5997.

behind ecological restoration is that the discipline will produce systems of recovery for destroyed, damaged or degraded ecosystems so that the ecosystem can return to functioning within its historical trajectory, not its historical condition.[19] A huge factor in the restoration reference point changing, and the need to take historical and contemporary conditions into accounts, is climate change.[20] Overall, restoration can lead to better conservation of natural resources when it takes into account the changing realities. It is a form of human intervention attempting to fix past human intervention that harmed the ecosystem, to aid in the natural resilience of that ecosystem.

Can water governance and adaptive management techniques, with a focus on resilience theory, aid in re-identifying the goal of river restoration in the age of water scarcity? How would a policy of personhood for rivers help redefine the new reference point for river restoration and preservation in a consumer based, capitalist, economy? Overall, the evolution of river restoration techniques and the recognition of the changing reference state, along with, the shifts in water governance and its application of adaptive management and resilience theory, have narrowed the gap between water resources science, policy and management. However, there is still a gap in understanding and application of adaptive water governance, with a focus on modern restoration science and understanding of socio-ecological resiliency, to the law. In this research paper, I propose, that a policy of personhood for rivers could help fill this gap.[21]

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[19] "What is Ecological Restoration?" Society for Ecological Restoration (2020). https://www.ser-rrc.org/what-is-ecological-restoration/

[20]Vaughn, K. J., Porensky, L. M., Wilkerson, M. L., Balachowski, J., Peffer, E., Riginos, C.,Young, T. P. "Resto ration Ecology." *Nature Education Knowledge* 3, no. 10 (2010):66.

[21] Note to the reader: This thesis provides an introductory exploration of the interconnected concepts presented. Given the timeline and parameters of a M.S. thesis, there is much more to discover and discuss. Related topics of interest, that are not yet incorporated in this thesis, include an environmental philosophy analysis and a more in-depth value analysis on the interrelated concepts; a fuller exploration of how environmental and ecopsychology provides another piece of the foundation for promoting personhood designation; and an analysis of the modern history of river restoration and management efforts. This thesis can be thought of as the first phase in a long-term project that I plan to continue working on. I intend for the next phase to consist of a much more detailed policy analysis and proposal, based on what is presented in this thesis. I intend to continue reviewing how Western ways of knowing shapes water resources management in the United States with a focus on social value and public administration theories. Additionally, I will continue analyzing Traditional ways of knowing and highlight the disconnect between Western science and Traditional knowledge through an analysis of the *Navajo Nation* case. Finally, I intend to further my exploration of how integrating Traditional knowledge into modern environmental policy and management - by recognizing social value – could be a method to bridge the two systems of knowing. In conclusion, I do my best to show the interconnections between seemingly separate policy, management, law, sociology, and science topics in the field of water resources, in this thesis. Though the

Statement of the Problem

To establish personhood for rivers in the United States, two key problems must be addressed. The first research problem is establishing what the *social value* of rivers means. The second research problem, which is related to the first, is addressing the language barrier between Western and Traditional ways of knowing as they pertain to water resources management.[22] To explain how the seemingly separate concepts that will be presented in this research all fit together, the adaptive management technique to address water resources management issues – resilience theory – must be set forth as a baseline. Resilience theory provides a basis to understand how adaptive management is utilized in water resources management in an era of climate change. The importance of maintaining resilience, or overall ecosystem health, of a river system has been recognized by Traditional knowledge systems for time immemorial. Traditional knowledge of ecological health can be thought of as Western knowledge's understanding of value.

I concentrate on *social value* as a specific form of value to better explain how society – both Western natural resource managers and Traditional knowledge holders – understand the benefits of nature. Social value in this context is referring to recognizing and assigning value to the less visible[23] and emotional benefits of river systems, instead of looking at the

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research presented may be a broad stroke overview, it was necessary to form a foundation for future research and analysis on personhood designation and legal standing for rivers in the United States.

[22] Phase 2 of this research will provide a more in-depth analysis of the disconnect between the two ways of knowing under study in this report. In sum, Traditional ways of knowing from throughout the world can push natural resources management into the future by promoting the practice of innovation rather than regurgitation. Through the recognition of diverse methods of education, language and communication, and displays of intelligence, individual ways of knowing can be preserved by acknowledging their importance in the foundation of the modern globalized world. With that recognition will follow the development of questions about what historical, and now lesser known, local ways of knowing, can contribute to modern gaps in understanding, therefore pushing modern environmental management into the future.

[23] Less visible in this context is referring to the value of life-giving processes that we may not understand or value because they are not directly benefiting commodity production.

value of rivers from an economic,[24] conservation,[25] recreational or aesthetic[26] viewpoint. Inherent to these viewpoints – economic, conservation, recreational, or aesthetic – is the primacy of a particular set of values that reflect social relations organized around private property rights and commodified nature, which is different and disconnected from Traditional ways of knowing and being. The concept of social value will serve as a bridge[27] between Western - economic and quantifiable value-based understanding that sometimes recognizes ecological value - and Traditional ways of knowing - where value is not measurable through values of market exchange, but through the resilience and long-standing health of ecological systems as a whole.

The Western capitalist system has taken the concept of 'eco', the root of the words, ecology and economy, to support the domination of nature standard. Eco in the English language is derived from the Greek word for house, Oikos.[28] House or home, under other ways of knowing, can be understood as the area of the land that has been given cultural meaning to represent a place of safety and comfort to the individual. The idea of home is symbolic of many things. Home is an area that has evolved into a place due to being assigned cultural and individual value. In the modern context, home can be connected to the country, region, local place, and specific 'structure' one resides in, or has resided in. Home can also be

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[24] Birol, Ekin, Phoebe Koundouri, and Yiannis Kountouris. "Assessing the economic viability of alternative water resources in water-scarce regions: Combining economic valuation, cost-benefit analysis and discounting." *Ecological Economics* 69, no. 4 (2010): 839-847.; See also, Hanley, Nick, Robert E. Wright, and Begona Alvarez-Farizo. "Estimating the economic value of improvements in river ecology using choice experiments: an application to the water framework directive." *Environmental value transfer: Issues and methods*, Springer, Dordrecht (2007): 111-130.

[25] Loomis, John B. "Environmental valuation techniques in water resource decision making." *Journal of water resources planning and management* 126, no. 6 (2000): 339-344.; see also, King, Jackie, Cate Brown, and Hossein Sabet. "A scenario-based holistic approach to environmental flow assessments for rivers." *River research and applications* 19, no. 5-6 (2003): 619-639.

[26] Sanders, Larry D., Richard G. Walsh, and John R. McKean. "Comparable estimates of the recreational value of rivers." *Water Resources Research* 27, no. 7 (1991): 1387-1394.

[27] Environmental personhood for rivers in the United States will not survive within a purely Western legal framework. It is important for the historical dichotomy between law and science to be broken down so that the many forms of science, including Traditional knowledge, can be recognized in the development of new policy. The disciplines of law and science take very different approaches on how to understand and explain the world around them, as well as finding solutions to problems observed. There is yet to be a common language established for lawmakers and scientists to communicate with. This disconnect, by means of communication, continues to exacerbate the problem. Interdisciplinary work and professionals willing to bridge the language gap are highly necessary if legal policy and management based in science is to advance.

[28] *Merriam-Webster.com Dictionary*, s.v. "eco-," accessed February 22, 2021, https://www.merriam-webster.com/dictionary/eco-.

where an individual feels they are familiar with the landscape.[29] The house for all life on earth, is the earth itself.

The English word ecology is a way to describe the climate or environment, and the scientific understanding of the interrelationship of organisms with their environments, in a Western ways of knowing context.[30] In other words, ecology is the Western understanding of the earth as a house for all organisms; a delicate, intricate and complex system. However, this purer form of translation has been misdirected by the capitalist driven Western society. Ecology is understood through the term economy in the United States. Instead of these systems being understood to work in parallel with one another, within the Western ways of knowing context, economy subsumes ecology. Natural resources and ecosystems are still dominantly considered "capital assets" because they provide vital life services.[31] Based on this economic value lens, that disregards Traditional knowledge and climate science, nature has a price tag. In order to break down the domination of nature standard, the systems of ecology and economy must separate to honor the spirit of place - Genius Loci - in natural resources policy and management. This will better highlight both the economic and social value of natural resources, providing a stronger foundation in Western society to honor the earth due to its social value, instead of continuing to exploit it for economic benefit. Traditional knowledge can help teach Western knowledge systems how to interact with natural resources more sustainably while maintaining the various economies at play.

This thesis posits that personhood policy could be a way to combat the issues that have arisen due the social, economic and political tendencies that result from capitalism, while working within the capitalist system. There is a spiritual crisis in the United States impacting the management of natural resources.[32] Indigenous scholar Sandy Grande notes, "the crisis of

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[29] "What do people make of places? The question is as old as people and places themselves, as old as human attachments to portions of the earth. As old, perhaps, as the idea of home, of "our territory" as opposed to "their territory," of entire regions and local landscapes where groups of men and women have invested themselves (their thoughts, their values, their collective sensibilities) and to which they feel they belong. The question is as old as a strong sense of place – and the answer, if there is one is every bit complex." (Basso (1996): xiii)
[30] *Merriam-Webster.com Dictionary*, s.v. "ecology," accessed February 22, 2021, https://www.merriam-webster.com/dictionary/ecology.
[31] Daily, Gretchen C., Tore Söderqvist, Sara Aniyar, Kenneth Arrow, Partha Dasgupta, Paul R. Ehrlich, Carl Folke et al. "The value of nature and the nature of value." *Science* 289, no. 5478 (2000): 395-396.
[32] Western ways of knowing and Western science negatively dominate the structures of society by not allowing for Traditional ways of knowing and Traditional ecological science to be acknowledged and integrated into those structures. There are a great number of social, cultural, environmental, and economic problems plaguing modern day society. According to Bryan McKinley Jones Brayboy, these issues will not be solved unless TribalCrit, as

America (and now the globe) is viewed by Indigenous scholars as primarily a spiritual crisis, rooted in the increasingly virulent relationship between human beings and the rest of nature, whereas critical scholars view the 'crisis' as being principally economic, rooted in the historical-materialist relations of capitalism."[33]

It is my view that social value, structured on human value systems, can serve as the transition from simply valuing things economically,[34] *to valuing the emotional ties to place*. Similar to the concept of value, is the concept of a sense of place. Place is an area of the land that has been given cultural value.[35] There are significant differences between the concepts of space, place and area in both Western and Traditional knowledge systems.[36] Places are important because they are the settings of stories, but it is the space that the individual occupies that determines whether or not they are able to be reminded, or notice, the lessons and morals from the place. Areas are physical landscapes that can be transformed into having

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part of Critical Race Theory, is acknowledged, promoted and integrated into the current societal structures. "The primary tenet of TribalCrit is the notion that colonization is endemic to society. By colonization, I mean that European American thought, knowledge, and power structures dominate present-day society in the United States" (Brayboy (2005): 425-446). Additionally, Sandy Grande describes this issue as a crisis that scholars have tended to recognize as economic, instead of spiritual, because of the dominant Western framework's control of social structures.

[33] Grande, Sandy. "American Indian identity and intellectualism: The quest for a new red pedagogy." *International Journal of Qualitative Studies in Education* 13, no. 4 (2000): 343-359, 356.; See the full quote from Grande: "Thus, to begin, the central tensions garnered from the existing literature on American Indian pedagogy and critical theory are as follows: (1) the crisis of America (and now the globe) is viewed by Indigenous scholars as primarily a spiritual crisis, rooted in the increasingly virulent relationship between human beings and the rest of nature, whereas critical scholars view the ''crisis'' as being principally economic, rooted in the historical-materialist relations of capitalism; (2) American Indian scholars view the issues of sovereignty and self-determination as the central questions of education, whereas critical scholars frame education around issues of democracy and greater equality; (3)American Indian scholars, while recognizing the need to develop rationally based, critical theories of liberation, maintain the mind–body–spirit connection as paramount, whereas most critical scholars focus predominantly on the intellectual-political, somewhat on the aesthetic-affective, and hardly ever on the spiritual aspects of liberation."

[34] Take note, I am referring to the capitalist economy in this statement and recognize the importance of acknowledging that there are historic indigenous economies that were well-established prior to colonization.

[35] Basso, Keith H. *Wisdom sits in places: Landscape and language among the Western Apache*. UNM Press (1996).

[36] Take note that I use the phrase traditional knowledge in this report because there is not just one indigenous knowledge to consider but many when thinking about traditional knowledge.; See also, "Grounded normativity houses and reproduces the practices and procedures, based on deep reciprocity, that are inherently informed by an intimate relationship to place. Grounded normativity teaches us how to live our lives in relation to other people and nonhuman life forms in a profoundly nonauthoritarian, non-dominating, nonexploitive manner. Grounded normativity teaches us how to be in respectful diplomatic relationships with other Indigenous and non-Indigenous nations with whom we might share territorial responsibilities or common political or economic interests. Our relationship to the land itself generates the processes, practices, and knowledges that inform our political systems, and through which we practice solidarity. To willfully abandon them would amount to a form of auto-genocide." (Coulthard, Glen, and Leanne Betasamosake Simpson. "Grounded normativity/place-based solidarity." *American Quarterly* 68, no. 2 (2016): 249-255.)

meaning of place and display social and cultural morals. Both the place and space are assigned to specific areas.

Footprints have been left in places and spaces that are the identity of different locales. These footprints are both physical and spiritual, and are the product of many ways of knowing and doing. Every society has its history of footprints and from that history a cultural intelligence and knowledge base that has been passed down overtime. There is a wealth of knowledge that can fill gaps in understanding cross-culturally when cultural difference is no longer seen as different and dangerous, but as different and useful. Interconnectedness instead of standardization has the power to lead societies footprints towards restoration instead of destruction.

Genius Loci is a term from classic Roman religion that was used to describe the protective spirit of place. It is defined as the "pervading spirit of a place or a tutelary deity of a place."[37] There is a disconnect between Western land use and Traditional land and natural resource use. Additionally, there is a lost relationship between human being's and nature in Western society in the modern day. Indigenous cultures concentrate on the give and take with the land. They do not just take, like Western society does, but give back as well. Indigenous peoples learn from the land and the creatures inhabiting the land, they live with nature, instead of trying to dominate it. The definition of spirit from the Oxford dictionary is "the nonphysical part of a person which is the seat of emotions and character; soul" or "those qualities regarded as forming the definitive or typical elements in the character of a person, nation or group in the thought and attitudes of a particular period." The ethos, in other words, of place needs to be integrated into modern natural resource management. If Genius Loci can be reaccepted into contemporary society then the concept of personhood for a natural entity would have a footing in modern policy. "*Footprints* not only trace physical presence but stand for an enduring emotional, moral and spiritual commitment to a way of life."[38] Overall, it is important not to discount other cultures *footprints*, when placing one's own, and when navigating others' in one's own cultural context.

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[37] *Merriam-Webster.com Dictionary*, s.v. "Genius Loci," accessed March 4, 2020, https://www.merriam-webster.com/dictionary/genius%20loci.
[38] Lomawaima and McCarty (2006): 13.

Lastly, a common issue faced in the communication of land and natural resource management practices is that the English language often becomes romanticized in its explanation of a land relationship. The word 'person' is connected to human beings but the concept of personhood for rivers can be expanded beyond the individual. Personhood and guardianship could also be explained as stewardship.[39] To successfully establish personhood designation to rivers of the United States it is necessary to recognize different ways cultures value the success of their strategies – Western culture focuses on growth economically whereas in Traditional knowledge systems the focus is for everything to coexist and be healthy for seven generations.

Research Statement and Objective

How would legal personhood status for rivers be designated in the United States?

The purpose of this comparative[40] research-based case study is to understand, describe, and develop the concept of legal personhood for rivers in the United States. The key terms in this study are ways of knowing (Western and Traditional), personhood, Rights of Nature, and social value. Western ways of knowing will be defined as knowledge rooted in Western scientific method, whereas Traditional ways of knowing will be generally defined as knowledge rooted in Traditional ecological science (TEK).[41] Personhood for rivers will be

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[39] There are issues with the words personhood/guardianship/stewardship, but I am predominantly using personhood in this report because that is universally recognized at this point in time. I am using these white patriarchal terms in a positive ways that are acknowledging traditional knowledge, but I know that these terms hold various meanings. These are the best terms I have come up with and I plan to discuss the issues that come along with these words - issues revealed in the legal and economic system and how capitalism deals with nature.

[40] Comparative between western ways of knowing and traditional ways of knowing.

[41] Also referred to as Indigenous Ways of Knowing and Traditional Ecological Knowledge (TEK); See also, "TEK and its synonyms Indigenous knowledge and native science have been defined mainly based on two kinds of assumptions: how knowledge is to be mobilized and what TEK's relation to science is. The different assumptions make it tricky to come to a consensus definition that satisfies all stakeholders. This makes us interrogate what the role of TEK is in a world of relationships among different institutions of environmental governance for whom TEK is an issue. TEK must play the role of inviting cross cultural and cross-situational learning for Indigenous and non-Indigenous policy makers, natural resource managers, scientists, activists, elders, and youth. An important implication of this is that science and policy literatures that invoke TEK should discuss it as a collaborative concept. That is, care must be taken to show that the concept invites participation to a long term process of mutually respectful learning. And more effort needs to be taken to understand what these processes should look like. Already, of course, there is work that exemplifies this interpretation of TEK. Yet the point has not been brought out that TEK is playing the role of a collaborative concept in this work. This point should figure more in natural resources and policy literatures. Differences over the meaning of TEK should be seen as invitations to learn more in circumstances where the possibility of genuine collaboration is a relatively recent development." (Whyte, Kyle Powys. "On the role of traditional ecological knowledge as a collaborative concept: A philosophical study." *Ecological processes* 2, no. 1 (2013): 1-12.)

generally defined as a form of environmental personhood, that utilizes a guardianship model in policy and law, which allows stakeholders of the system to establish legal standing based on the social value of rivers, to better protect, preserve, restore, and manage the natural entity. Rights of Nature[42] is a concept derived from Earth Law[43] that recognizes and honors Nature's inalienable rights. Rights of Nature campaigns are creating a new legal paradigm in Western ways of knowing frameworks by advocating that ecosystems and watersheds need to hold the same rights as legal persons - these rights are the basis for granting legal personhood to rivers. The rights of nature are a holistic acknowledgment of the interconnections of all ecosystems. Lastly, there is not only an economic, recreational or aesthetic, and environmental value of rivers but on the whole a social value – generally comprising of intangible, unquantifiable values like cultural memory and emotional attachment. The value analysis[44] will provide a foundation for further exploratory research to find techniques that integrate what I call the social value of rivers into modern policy and law, and eventually an accepted cultural standard. Right now, I am loosely defining social value as the value that stems from the emotional and cultural/societal relationship with rivers.

The modern river restoration movement introduced the Western acceptance and adoption of personification of natural waterscapes.[45] However, there is a gap in integration of Traditional ways of knowing with environmental law and policy despite efforts made by environmental activists. These efforts, having adopted a romanticized view of land and water management, have exacerbated the problem instead of narrowing the gap, as many activists have intended. Current water resources management, specifically policy protecting and managing rivers, is no longer adequate. The Wild and Scenic Rivers Act was an important attempt by Western culture to protect rivers. This innovative policy, enacted in 1968, paved

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[42] "What is Rights of Nature?" GARN. https://www.therightsofnature.org/what-is-rights-of-nature/.
[43] Earth Law Center, Champions for the Rights of Nature. https://www.earthlawcenter.org/#:~:text=Earth%20Law%20is%20the%20idea,court%2C%20just%20like%20people%20can.&text=Because%20our%20current%20laws%20protect,usually%20takes%20priority%20over%20Nature.
[44] Value based approaches to scientific studies can encourage more creative thinking and establish a goal of the application, as one that makes an impact. Value based approaches involve both personal and cultural standards. It is an approach that can link social and ecological systems together in the application of a scientific study and result in advancing society towards compromise based change.
[45] Goodman, D. *The Personification of Natural Waterscapes: A Brief History of Friends of the River (1970-1992)*, History Thesis, College of Letters and Science, University of California, Berkeley (2017). http://www.stanislausriver.org/story/the-personification-of-natural-waterscapes-a-brief-history-of-friends-of-the-river-1970-1992/.

the way for similar policy to be implemented internationally (see Chapter 2).[46] However, after this groundbreaking moment, there was not a lot of action taken to implement the Act domestically. When the WSRA was utilized, as a method for protecting rivers, the process was so arduous that it would take years to successfully designate a section of river to be managed under the Act.[47] Similarly, the environmental legal system in the United States is not one of high efficiency.

Modern citizens of the world have lost connection with each other and with the environment. With the 21st century age of technology comes alienation. We have become disillusioned. Long lasting connection with other people and places, is much harder than it used to be. The generation of problem solving and compromise is on the rise. The problems we face today will not be solved unless compromises can be reached, which is why I am proposing the designation of personhood for rivers to establish a baseline legal standing for rivers and more generally watersheds. This baseline will help emphasize that there is not only an economic, recreational or aesthetic, and environmental value of rivers but on the whole a *social value*. Rivers of the United States should gain personhood status as entities that sustain life, these bodies of water can secure adequate representation and establish a guiding principle of resilience. Personhood status for rivers could be granted in legal or policy form – through judicial or legislative means - in the United States. This type of protection will most likely find form in policy with support and leadership from the co-sovereign Indigenous communities in the United States and neighboring countries. Some policy will most likely need to be adaptable in the form of a treaty to address the transboundary nature of various watersheds.

Methodology

Methods used include data collection through document analysis. The document analysis included examining the concept of river restoration in the age of water scarcity, the concept of

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[46] Phase 2 of this research will provide a more in-depth analysis of the WSRA in public administration and show why it has proven to be an inadequate method of protecting rivers.

[47] Hartman, Fay. "Why Wild? The Importance of Wild and Scenic Protections." American Rivers. https://www.americanrivers.org/2018/01/wild-importance-wild-scenic-protections/; See also, "About the WSR Act." National Wild and Scenic Rivers System. https://www.rivers.gov/wsr-act.php; See also, Chesterton, Steve, Alan Watson. "A watershed moment for river conservation and science." International Journal of Wilderness 23, no. 2 (2017). https://www.fs.usda.gov/treesearch/pubs/56395.; See also, Palmer, Tim. *Wild and Scenic Rivers of America*. Island Press, (1993).

water governance, and the paradigm shift from sustainability to the use of sustainability and resilience theory in water resources management. Due to the lessons learned from restoration science, the reality of water scarcity, the evolution of water resources policy and management and of water governance techniques, there is a gap in how to best promote the stewardship of rivers, which is why the commencement of the argument for rivers gaining personhood status in the United States is presented.

Exploratory research was conducted through content analysis of court cases and academic literature to examine how Western policy can recognize and utilize Traditional ways of knowing as it applies to water resources management, more specifically with a personhood proposal for rivers. As this research progressed, I looked for patterns in policy arguments and court decisions. I categorized the cases, examined the "degrees of success" of each case, then noted the extent to which Western ways of knowing or Traditional ways of knowing entered into the decisions, which illuminates how social values can play into future determinations regarding legal personhood for rivers. The "degrees of success" were determined based on whether the law or policy has been upheld, or if that law or policy has been expanded upon to restructure water resources management in that location. When the law or policy was not upheld initially but inspired further action to be taken, I noted that as a partial degree of success. Similarly, when the law or policy was initially voted for or upheld but later overturned, it still showed signs of progress towards restructuring water resources management for that location. The final degree of success that was noted is "ongoing" which means there was a declared resolution waiting to be adopted by the government or a campaign to protect a waterbody had recently launched. Following this systematic procedure, I was unable to cover all of the recent campaign launches and declarations of 2021. A table summarizing the coding results is presented in Chapter 3.

Rivers in the modern day are managed based off of a compartmentalization of the watershed to fit manmade boundary lines. John Wesley Powell suggested that state lines in the western United States be drawn based off of natural watershed boundary lines.[48] This suggestion was ignored but the importance of his proposal and the map he drew to display different watershed boundaries remains important. Powell's proposal was disregarded by practitioners invested in Western policy frameworks, however, it offers a clue to how the

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[48] Powell, John Wesley. "Arid Lands of the West."

value of rivers differ between the two ways of knowing under study in this report. Mapping watersheds without state and international boundaries restores a relationship to rivers. A policy proposal of personhood for rivers will have to deal with local, regional, state, federal, tribal and international law and policy, that is influenced by Western and Traditional ways of knowing.

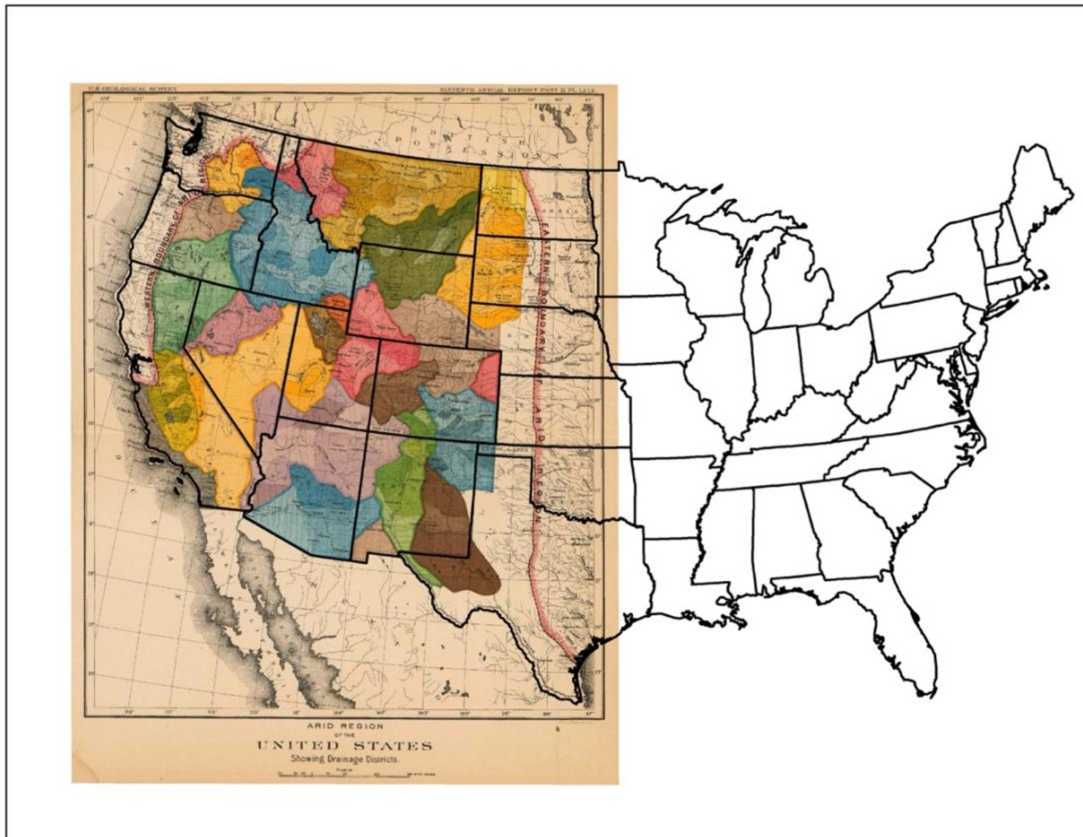

Figure 1: A modern interpretation of Powell's map of the western watersheds[49]

Multiple case studies of organizations, entities and events were conducted for this report. Additionally, the data sources for this comparative case study method included document analysis involving legal document analysis and policy document analysis. Additional data sources included reports and observations from time spent working in the water resources policy and management field. Observational analysis included how modern water resource management is not efficient or proactive in terms of the water resources

[49] Made by request for this report by Benjamin McMurtry, University of Idaho

science and the law, interacting with the other discipline. Additionally, observational analysis included how Traditional knowledge and ways of knowing can offer a great deal to both water resources policy and science and provide the foundation for a solution to steer away from reactive management and decision making in the form of environmental personhood. Overall, the data for this study is textual.

Conclusion - Mapping This Thesis

Throughout the remainder of this thesis, I focus on current environmental legal frameworks and the Rights of Nature movement; how modern environmental and land management could focus less on security of ownership and more on honoring the spirit of place; the important lessons learned from the implementation of the Wild and Scenic Rivers Act as it relates to my research problem; the language gaps between law and science, as well as in Western and Traditional ways of knowing; and Traditional knowledge in setting a foundation for personhood policy.

In Chapter 2, I begin to review important legal and policy proceedings that showcase the rights for rivers movement through an analysis of national environmental law and international Rights of Nature efforts. In Chapter 3, I discuss the national Rights of Nature efforts to finalize the foundation of my argument and propose that the Columbia River gain legal personhood. I conclude by suggesting that all rivers in the United States should gain legal personhood status.

Figure 2 below, illustrates the complicated relationships between the dominant socio-political, economic and environmental management systems in Western management of the transboundary Columbia River, while it also highlights key questions and concerns regarding environmental personhood designation for rivers in the United States. These complicated relationships and important questions showcase the need for a more robust method of river management that integrates Western and Traditional knowledge.

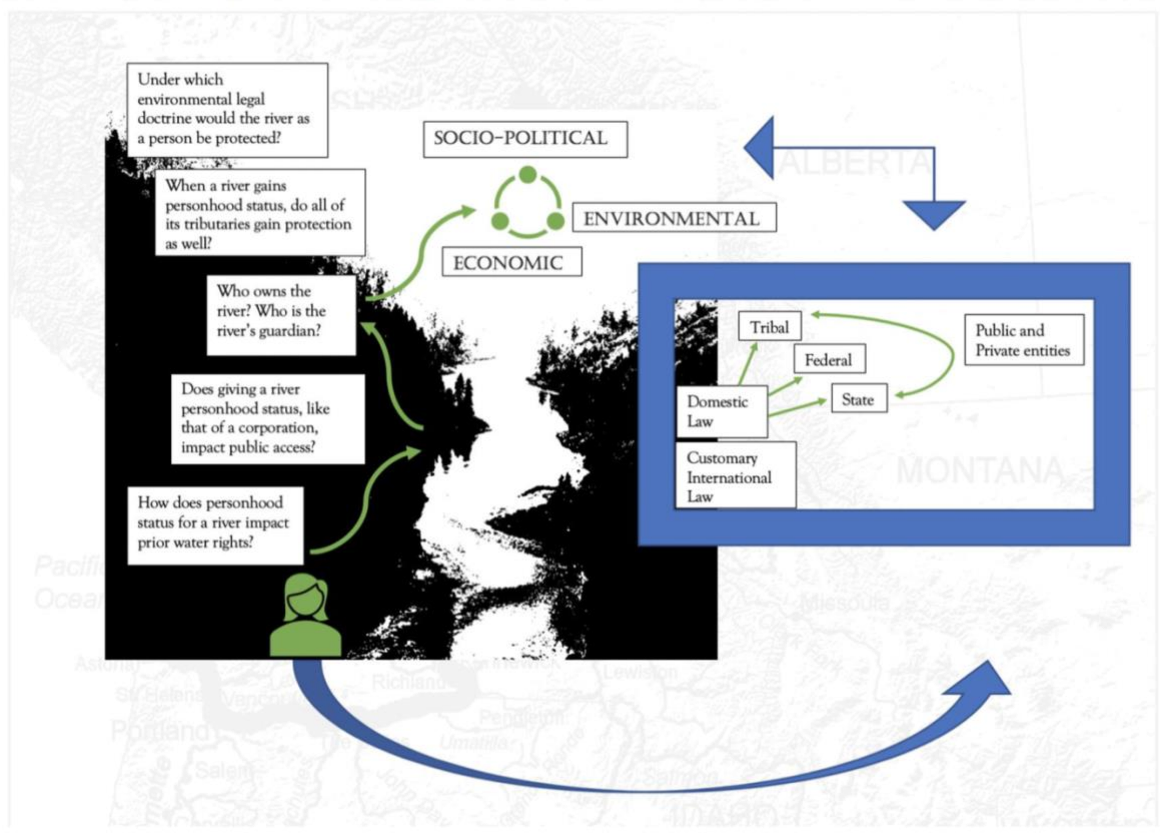

Figure 2: A conceptual model of legal personhood for the transboundary Columbia River

Chapter 2 - Rights for Rivers

> Places come to generate their own fields of meaning. So too, they give rise to their own aesthetic immediacies, their shifting moods and relevancies, their character and spirit… places may seem to speak.[50]

Rivers and streams do not follow political boundaries. They are vibrant ecosystems, when not mismanaged, that have been and will continue to be the center of life. Water is life and if that is the case, why should the natural bodies that hold water not be treated as entities with legal protection? This section will discuss the relevant aspects of United States Federal law - the issue of standing and federal laws that seek protection at the landscape scale - that are needed to establish legal environmental personhood, the concept of personhood, and how legal personhood has been proposed in the environmental context. Overall, if the business entities of a material capitalist society can have legal personhood, then the natural entities that provide the resources that sustain that material society, should also have legal personhood.

A Broad Sweep Overview of Federal and State Law and the Protection of Rivers

Public water protection is managed under federal natural resource laws such as Wild and Scenic designation and state laws governing instream flow rights.[51] The Clean Water Act and the Endangered Species Act also protect water but are not as specifically focused on protection at the landscape level like the Wild and Scenic Rivers Act and the Wilderness Act are. Both federal and state water law that concentrates on protection at the landscape level, and specific management that focuses on the prevention of harm (e.g., water pollution) or protection of ecosystem health (e.g., species protection) are important for river system management. Personhood designation of rivers would allow for a combined landscape and specific river rebalancing approach to be applied.

Allocation of water is difficult to manage, especially with the balance of human rights and multiple uses. The human right to water is an international law concept that everyone should have access to sufficient, safe, accessible and affordable water.[52] As a common pool resource, there is a human right to water yet not everyone has access to water because there is

[50] Basso (1996): 108.
[51] It is important to note that both state and federal laws provide protection. There are instream flows under state law and Wild and Scenic acts in some states such as California.
[52] UN Water. "Human Rights to Water and Sanitation," United Nations. https://www.unwater.org/water-facts/human-rights/.

high demand. To prevent a complete 'Tragedy of the Commons' situation,[53] scholars have promoted incorporating regulation, property, and self-organization into a management regime.

A key component of protecting a person is to protect and promote a healthy life. To protect the health of a watershed, there needs to be established authority to regulate water quality once the water has been allocated to private or public use. Within the United States legal system, the members of the community who have the longest standing knowledge base on how to manage ecosystem, Native Americans, often times cannot gain the regulatory authority to set water quality standards under the EPA's Clean Water Act (see Chapter 3).

Current Protections within the Modern Legal System for Rivers of the United States

The current legal and policy protections for the environment in the United States have been formed around the idea that nature is something to commodify and extract from,[54] whether that extraction is for natural resources or just the recreational and aesthetic value of the land. The protections have not been built around the notion of protecting nature as a living system and a sacred place.

Environmental management and protection is not just about preserving natural beauty, it is about protecting the sacred places. In the mid to late 20th century, river guides and enthusiasts altered the Western dialogue surrounding natural landscape management. Through innovative rhetoric, these places became personified and viewed as entities to fall in love with. The death of landscape became a call to action. Friends of the River[55] changed the rhetoric around fighting for rivers and river canyons in the modern environmental era. In 1973 FOR was founded from the momentum of the Stanislaus campaign, a fight to save a river in the foothills of the Sierra Nevada, and one of the three main tributaries of the San Joaquin River in California. This environmental organization plays a role of key importance in the turning point of the modern environmental movement. Overall, this effort can be viewed as a campaign developed from a Western way of knowing that viewed a river as a sacred living

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[53] Hardin, Garrett. "The tragedy of the commons." *Science* 162, no. 3859 (1968): 1243-1248.

[54] There are two approaches to establishing environmental regulation, the risk based approach and the feasibility based, or cost-benefit analysis, approach. The risk based approach is used when the goal is to eliminate all risk. The feasibility based approach takes into account the economics at play when eliminating risk. (Angelo, Mary Jane. "Embracing uncertainty, complexity, and change: An eco-pragmatic reinvention of a first-generation environmental law." *Ecology LQ* 33 (2006): 105, 107.)

[55] Stanislaus River Fact Sheets (c. 1980), CTN 1, Folder 41. Mark Dubois Papers. Bancroft Library, University of California Berkeley.

entity that would be murdered if the dam were to be built. The Stanislaus campaign, although rooted in a Western way of knowing and doing, opened up a larger conversation and possible bridge to how river activists and recreationists' deep love and connection to a river system could begin to lay the foundation for a better common understanding between Western and Traditional ways of knowing. "Spiritual identity is a way of knowing. Land and spiritual identity are in fact salient/fundamental analytical concepts offering an entry point in understanding the lived experience of those who are Indigenized."[56] To further clarify, the connection to place that Traditional ways of knowing have articulated is a much deeper spiritual connection than that of a Western knowing individual. These levels of knowing could be explained through tiers, the Western recreationists and activists being a tier lower than the Traditional knowers. This does not discount the validity of either level of spirituality, but merely shows the potential of bridging ways of knowing to better manage the environment in the future.

The sacredness of land and a connection to nature has been romanticized in modern Western society.[57] Throughout history writers, scholars, and philosophers discussed the importance of going out into nature to connect to the land and to oneself.[58] Overtime, environmental activists adopted this same message.[59] Those activists who recreated in the outdoors, even found that their spiritual space, their sacred place, was in nature, and that was something they wanted to protect. This Western understanding of how humans can relate to and live with the natural world, is what could be considered a second tier of understanding. It is on a different level than what Traditional knowledge articulated through oral history, teaches Indigenous' peoples about their connection to sacred land. This separation of understanding should be respected and celebrated as something to be observed, never fully understood by the outsider *but protected, nonetheless*.

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[56] Dei (2011): 28.

[57] "Wilderness is not a luxury but a necessity of the human spirit, and as vital to our lives as water and good bread. A civilization which destroys what little remains of the wild, the spare, the original, is cutting itself off from its origins and betraying the principle of civilization itself." — Edward Abbey, Desert Solitaire

[58] "Land, then, is not merely soil; it is the foundation of energy flowing through a circuit of soils, plants, and animals .... An ethic to supplement and guide economic relation to land presupposes the existence of some mental image of land as a biotic mechanism. We can be ethical only in relation to something we can see, feel, understand, love, or otherwise have faith in." -Aldo Leopold, A Sand County Almanac

[59] "We don't inherit the earth from our ancestors, we borrow it from our children." — David Brower

Wild and Scenic[60]

The National Wilderness Preservation System, created by the 1964 Wilderness Act,[61] along with the Wild and Scenic Rivers System, are the two systems subject to statutory guidelines, that have been established to manage and protect land in the United States.[62] Under Wilderness designation, no permanent roads or structures, commercial enterprises, and motorized or mechanical means of access are allowed. [63] Additionally, there are 3,660,000 river miles in the United States and less than one quarter of one percent of those river miles are protected under the Wild and Scenic Rivers Act.[64] Whereas, there are around 600,000-750,000 river miles behind dams. After fifty-two years of the policy being in place, and despite an effort to implement the policy to counter the dam building era, a large quantity of rivers still remain unprotected.[65]

In 1968, the Federal Wild and Scenic Rivers Act was passed into law by President Lyndon B. Johnson in an effort to establish precedent of protecting designated free-flowing rivers for the "*benefit and enjoyment of present and future generations*."[66] When enacted, the

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[60] Phase 2 of this research will provide a more in-depth analysis of the WSRA in public administration and show why it has proven to be an inadequate method of protecting rivers.
[61] 16 U.S.C. § 1131-1136.
[62] Comay, L. B. (2013).; See also, Vincent, C.H. "National Park Management." Library of Congress, Congressional Research Service (2008) https://www.crs.gov/Reports/RL33484?source=search&guid=23041175c92540b695e52e7114d6b8ba&index=4.
[63] Johnson and Comay (2015).; See also, Vincent, C.H. "National Park Management." Library of Congress, Congressional Research Service (2008) https://www.crs.gov/Reports/RL33484?source=search&guid=23041175c92540b695e52e7114d6b8ba&index=4.
[64] P.L. 90-542, 16 U.S.C. §1271 et seq; See also, National Wild and Scenic Rivers System. https://www.rivers.gov/index.php; See also, "Map of Wild and Scenic Rivers." American Rivers. https://www.americanrivers.org/threats-solutions/protecting-rivers/map-wild-scenic-rivers/.
[65] "The twentieth century saw an era of big dam building projects for water storage and hydropower across the West…The New Deal era launched the boom of dam building and served as the core of the Hydraulic era of the twentieth century… As more water infrastructure was established throughout California and the West, some of the key battles to preserve sacred natural places arose in Hetch Hetchy, Dinosaur National Park and Glen Canyon. These fights paved the way for a battle that would change the way the modern environmental movement thought about rivers. The Hydraulic Era ended with the launch of the modern environmental movement. Since then, there have been huge steps taken to deconstruct unnecessary dams throughout the United States." (Goodman, D. *The Personification of Natural Waterscapes: A Brief History of Friends of the River (1970-1992)*, History Thesis, College of Letters and Science, University of California, Berkeley (2017): 7. http://www.stanislausriver.org/story/the-personification-of-natural-waterscapes-a-brief-history-of-friends-of-the-river-1970-1992/.)
[66] Wild and Scenic Rivers Act, 90 P.L. 542, 82 Stat. 906 (1968). https://www.rivers.gov/documents/act/complete-act.pdf; See also, Johnson, S.L., Comay, L.B. "The National Wild and Scenic Rivers System: A Brief Overview." Library of Congress, Congressional Research Service (2015). https://www.crs.gov/Reports/R42614?source=search&guid=f429e39383784835bf12abe617911c34&index=0.

WSRA pre-designated a selection of river miles to protect and be listed in the Wild and Scenic River System (WSRS).[67] Additionally, the Act set a procedure in place for new designations to be made after the enactment of the original policy.[68] For a river to become designated as a Wild and Scenic River, it must enter the system by congressional designation or state nomination to the Secretary of the Interior or the Secretary of Agriculture if the river is in a national forest area.[69] The river must also have "outstanding remarkable values" (ORVs).[70] Under Wild and Scenic designation, a stretch of river is protected under a tiered system of Wild, Scenic, or Recreational with established values in the following areas: "esthetic," scenic, historic, archaeological, and scientific.[71] These ORVs are important components in the management and protection of the designated river because they provide the foundation for evaluating the impact of proposed future use or project proposals.

There are three designations in the National Wild and Scenic Rivers Act: Wild, Scenic and Recreational.[72] Currently there are approximately 6,472 Wild river miles, 2,975 Scenic river miles, and 3,967 Recreational river miles.[73] "Wild" rivers are mostly undeveloped, except for pre-existing development that needs to be upkept. For example, historical buildings can be maintained under the Antiquities Act along Wild river corridors. A "scenic" designated river is protected from all future development except for road access. Recreational rivers can have shoreline development, instream infrastructure, and road access. This tiered system implements different management policies for each designation. A river that is dammed can be designated as Wild and Scenic. However, once this river or stretch of river has been designated, expansion of infrastructure is limited,[74] which is important for restoration projects on a river.

After a river, or section of river, is designated, there is a statutory timeline that must be followed. "Detailed boundaries" and its classification as wild, scenic or recreational must be created and established within a year after designation.[75] Additionally, a comprehensive

[67] 16 U.S.C. §1274(a)(1)-(a)(8)
[68] 16 U.S.C. § 1237(a).
[69] 16 U.S.C. § 1281 (c)-(d)
[70] 16 U.S.C. §1271
[71] Johnson and Comay (2015).
[72] 16 USCS § 1273(b)
[73] National Wild and Scenic Rivers System.
[74] 16 USCS § 1278
[75] 16 U.S.C. §1273(b)

management plan (CMP) must be established within three years after designation.[76] This CMP is meant "to provide for the protection of the river values" and "shall address resource protection, development of lands and facilities, user capacities, and other management practices necessary or desirable to achieve the [WSRA's] purposes."[77]

Wilderness

The 1964 Wilderness Act, [78] established the National Wilderness Preservation System giving the National Park Service the authority to manage wilderness areas.[79] The National Wilderness Preservation System was established "for the use and enjoyment of the American people in such manner as will leave them unimpaired for future use and enjoyment as wilderness, and so as to provide for the protection of these areas, the preservation of their wilderness character, and for the gathering and dissemination of information regarding their use and enjoyment as wilderness."[80] 9.1 million acres of federal land were designated by the initial Act, which allowed for more federal land to be designated by subsequent acts. The Act defines wilderness as:

> an area where the earth and its community of life are untrammeled by man, where man himself is a visitor who does not remain. An area of wilderness is further defined to mean in this Act an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value.[81]

In addition to the NPS, the BLM, the USFS and the USFWS also help manage designated wilderness areas. Designation of land as wilderness is one of the methods used to protect the environment, including rivers, from further harm.[82]

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[76] 16 U.S.C. §1274(b)
[77] 16 U.S.C. §1274(d)(1)
[78] 16 USCS § 1131; Wilderness Act, 88 P.L. 577, 78 Stat. 890 (1964)
[79] 16 USCS §1131(b)
[80] 16 USCS §1131(a)
[81] 16 USCS §1131(c)
[82] "Wilderness is for all." National Park Service (2020). https://www.nps.gov/subjects/wilderness/index.htm.

Instream (Environmental) Flows, Prior Appropriation and Riparian Rights

Instream environmental flows are water rights that are associated with keeping water in a river, stream or other body of water, instead of being extracted.[83] These types of water rights follow the prior appropriation doctrine, when established by a state using that doctrine.[84] Prior appropriation is a use right. If there is a water shortage, the right is allocated based on priority but overall the state owns the water. The general common law requirements under prior appropriation is that the water is put to a beneficial use by means of diversion.

> Whoever appropriates water for a reasonable use has priority over later appropriators. The prior appropriation doctrine assures those who first appropriate water from a watercourse for a reasonable use that this appropriation will have priority as against a later appropriation for a different use by a different appropriator. The reasonableness of the use by the first appropriator is essential to establish and to maintain the benefit of the doctrine, but the reasonableness of the intended use by the later appropriator does not affect its application.[85]

Prior appropriation has been more generally adopted throughout the western part of the United States, whereas Riparian rights are used in the East. Riparian rights share shortage and do not allocate based on priority.

> Ownership interest in a river or stream derived from ownership of one of the banks. Riparian ownership is ownership in lands that reach the banks of a river or stream. As a result of ownership of at least one bank, the riparian owner acquires a riparian interest in the river or stream itself, owning the land under the river or stream to its center (if the watercourse is not navigable) but acquiring a right of entry, use, and reasonable consumption of waters whether it is navigable or not. In some jurisdictions, a riparian owner of both banks has not only the right to take water from the stream but also the right to set dams and weirs upon it and the right to exclude transit across it. These extensive

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[83] Note, States did not begin to recognize instream flow rights until the 1970's when most streams were fully appropriated. An instream flow right is enforced in priority, thus in a very dry year the instream flow is too junior to have an impact.

[84] Note that each state has its own approach to establishing instream flow rights.

[85] Sheppard, Stephen Michael. Bouvier Law Dictionary Prior Appropriation. https://advance.lexis.com/document/?pdmfid=1000516&crid=ed08b310-42a5-4433-8d21-e612e338b9d6&pddocfullpath=%2Fshared%2Fdocument%2Fanalytical-materials%2Furn%3AcontentItem%3A5FXB-8NR0-011T-Y4V7-00000-00&pdcontentcomponentid=422309&pdteaserkey=sr0&pditab=allpods&pdworkfolderlocatorid=NOT_SAVED_IN_WORKFOLDER&ecomp=ppnqk&earg=sr0&prid=78cb55c3-4944-434d-9f8f-50c81b84361e.

> rights have been moderated for navigable streams in all jurisdictions, and states now vary in the extent of these rights afforded to riparian owners.[86]

Other Environmental Acts and Protections

In addition to the Wild and Scenic Rivers Act, the Wilderness Act and instream flow rights, other environmental acts and protections to take note of include: the Clean Water Act, [87] the National Environmental Protection Act, [88] the Endangered Species Act,[89] the Clean Air Act,[90] the Land and Water Conservation Fund,[91] UNESCO World Heritage Sites[92] and customary international environmental law. Overall, these protections are not sufficient in the modern legal system of the United States.[93] The environment continues to be abused and extorted. There are many different demands on the environment ranging from natural resource extraction, to recreation, to Traditional knowledge's spiritual recognition. With the many players and various demands, the environment has not been given proper protections.

The History of the Concept of Environmental Personhood

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[86] Sheppard, Stephen Michael. Bouvier Law Dictionary Riparian Ownership (Riparian Rights). https://advance.lexis.com/document/?pdmfid=1000516&crid=e0c2176d-43c0-4f4f-b96c-e5b0bf72e1d2&pddocfullpath=%2Fshared%2Fdocument%2Fanalytical-materials%2Furn%3AcontentItem%3A5FXB-8NR0-011T-Y4V6-00000-00&pdcontentcomponentid=422309&pdteaserkey=sr0&pditab=allpods&pdworkfolderlocatorid=NOT_SAVED_IN_WORKFOLDER&ecomp=ppnqk&earg=sr0&prid=af203b2f-069f-4500-a202-788f6917f5fa.

[87] Federal Water Pollution Control Act Amendments of 1972, 92 P.L. 500, 86 Stat. 816 (1972) (The Clean Water Act); See also, "The Clean Water Act states: In the development of such comprehensive programs due regard shall be given to the improvements which are necessary to conserve such waters for the protection and propagation of fish and aquatic life and wildlife, recreational purposes, and the withdrawal of such waters for public water supply, agricultural, industrial, and other purposes." (Athens, Allison Katherine. "An Indivisible and Living Whole: Do We Value Nature Enough to Grant It Personhood." *Ecology LQ* 45 (2018): 187, footnote 14.)

[88] National Environmental Policy Act of 1969, 91 P.L. 190, 83 Stat. 852 (1970); See also, "The National Environmental Policy Act's purpose is 'to declare a national policy which will encourage productive and enjoyable harmony between man and his environment.'" (Athens, Allison Katherine. "An Indivisible and Living Whole: Do We Value Nature Enough to Grant It Personhood." *Ecology LQ* 45 (2018): 187, footnote 14.)

[89] Endangered Species Act of 1972, 93 P.L. 205, 87 Stat. 884 (1973); See also: Under section 9 of the Endangered Species Act, destruction of physical habitat amounts to a legal taking. (16 USCS § 1538. Prohibited acts.)

[90] Clean Air Act, 88 P.L. 206, 77 Stat. 392 (1963); See also, The purpose of the Clean Air Act is 'to protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population.' Each environmental protection statute reserves consideration for "productive," or economic, capacitates and is not about a nature that exists outside of human use per se." (Athens, Allison Katherine. "An Indivisible and Living Whole: Do We Value Nature Enough to Grant It Personhood." *Ecology LQ* 45 (2018): 187, footnote 14.)

[91] 88 P.L. 578, 78 Stat. 897

[92] UNESCO World Heritage Centre. https://whc.unesco.org/en/about/.

[93] Note, this is a concept that will be further expanded upon in phase 2 of this research.

Standing and the Right to Sue

Congress has the authority to regulate specific channels, or more generally the movement of goods and people as those channels and movement relate to interstate commerce. More importantly, many environmental issues can be regulated under the Commerce Clause.[94] *United States v. Lopez*[95] was a case that determined which activities affecting commerce can be regulated by Congress. In *Lopez* the court developed what is now known as the Lopez framework. This framework is based on three categories of activity that the court decided Congress could regulate, under the power of the Commerce clause. Every federal environmental law rests on the third category of the Lopez framework,[96] which states, "Congress' commerce authority includes the power to regulate those activities having a *substantial relation* to interstate commerce, *i.e.*, those activities that substantially affect interstate commerce."[97] If an individual seeks to file suit based on a violation of an environmental law, that has caused them harm, they first have to establish that they have standing to sue.

To have standing to sue, a plaintiff must show injury in fact, causation, and avenues for redressability, according to *Lujan v. Defenders of Wildlife.*[98] To prove redressability, a plaintiff must show how the harm will be remedied through a judicial process.[99] The *Lujan* court also brought forward the idea of procedural right injury which was further used in the *Massachusetts v. EPA* case.[100] Procedural rights are created by statutes that authorize individuals, states, or other recognized rights bearers, to sue on behalf of a violation of the established procedural duty or to enforce the duty.

In *Massachusetts v. Environmental Protection Agency*[101] the court addressed the idea of redressability. In *MA v. EPA*, the court was dealing with a redressability problem as it pertained to future climate change harm – damage that would result from not regulating

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[94] U.S. CONST. art. I, § 8, cl. 3.
[95] *United States v. Lopez*, 514 U.S. 549, 558-59, 115 S. Ct. 1624, 1629-30 (1995).
[96] Seamon, Richard. "Constitutional Law." University of Idaho College of Law (Spring 2019).
[97] *United States v. Lopez*, 514 U.S. 549, 558-59 (1995)
[98] *Lujan v. Defs. of Wildlife*, 504 U.S. 555 (1992)
[99] Massey, Calvin. "AMERICAN CONSTITUTIONAL LAW: POWERS AND LIBERTIES," Wolters Kluwer, 5th edition (2016): 74-100.
[100] *Massachusetts v. EPA*, 549 U.S. 497 (2007)
[101] *Massachusetts v. EPA*, 549 U.S. 497, 525-26 (2007)

greenhouse gas emissions - instead of addressing a past harm or retroactive risk, such as a dam. Hypothetically speaking, in establishing standing to sue in court, one could argue that the risk to public health from a dam on a river impacting air and water quality could be redressed by removing or retrofitting that dam, which would be considered a restoration technique. However, if the river already had established standing to sue based on a personhood designation, it would be much more efficient to redress an injury to the system.

In 1972, the *Sierra Club v. Morton*[102] case was decided by the U.S. Supreme Court. Justice Stewart held that the Sierra Club demonstrated aesthetic and recreational value, but did not assert facts that showed they would be personally harmed by the ski development and therefore did not have a "direct stake in the outcome."[103] Additionally, the court decided that by granting Sierra Club standing without showing personal injury, it would undermine the goals of the Administrative Procedure Act "authorize judicial review at the behest of organizations or individuals who seek to do no more than vindicate their own value preferences through the judicial process."[104] This case contains the important dissenting opinion by Justice Douglas that cites the "Rights of Nature" argument Christopher Stone wrote about earlier that same year. Justice Douglas' wrote a dissent to the court's decision not to acknowledge the Sierra Club's standing to sue on behalf of the Sierra Nevada Mountains in the Sequoia National Forest, to protect from the adverse effects a ski development would have on the area. This dissenting opinion inspired Colorado lawyer, Jason Flores-Williams, to file on behalf of the Colorado River, in an effort to designate legal personhood (this case will be discussed in Chapter 3). Despite the court's decision not to grant standing to the Sierra Club on behalf of the environment, the court in *Morton* held that injury in fact could be found from injury to an aesthetic or recreational value.

> Injury to the aesthetics and ecology of an area may amount to an 'injury in fact' sufficient to lay the basis for standing under the provision of the Administrative Procedure Act that a person suffering legal wrong because of agency action, or adversely affected or aggrieved by agency action within the meaning of a relevant statute, is entitled to judicial review thereof; however,

[102] *Sierra Club v. Morton*, 405 U.S. 727 (1972).
[103] *Sierra Club v. Morton*, 405 U.S. 727, 740 (1972).
[104] *Sierra Club v. Morton*, 405 U.S. 727, 740 (1972).

> the ‘injury in fact’ test also requires that the party seeking review be himself among the injured.[105]

The court in *Lujan v. Defenders of Wildlife* incorporated this part of the Morton decision to recognize aesthetic injury.[106] The Lujan decision is based off of the legal standing requirement that the injury at issue can either be actual or imminent. Overall to have standing to sue, a plaintiff must show injury in fact, causation also referred to as traceability of that actual or imminent injury, and show how the injury could be redressed. Redressability more specifically requires that the plaintiff show that through the judicial process, their injury will be remedied.[107]

The Public Trust Doctrine

The public trust doctrine originated from Roman law,[108] which honored the public right to common pool natural resources.[109] Historically, the public trust doctrine (PTD) identifies the sovereign or state government as the trustee, meant to protect the natural resource. According to the Cornell Legal Information Institute, the definition of the PTD is the “principle that certain natural and cultural resources are preserved [held in trust] for public use, and that the government owns and must protect and maintain these resources for the public's use. The doctrine's most frequent application is to bodies of water.”[110] Throughout the United States, the public trust doctrine protects the beds and banks of navigable rivers.[111] In 1971, California applied the PTD to state law in order to better protect aquatic ecosystems and wildlife species, in addition to water based recreation, fishing, navigation, traditional commerce, aesthetics and other environmental benefits.[112] In the 1971 case of *Marks v. Whitney*, the Supreme Court of

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[105] *Sierra Club v. Morton*, 405 U.S. 727, 733 (1972) (Headnote 6).
[106] *Lujan v. Defs. of Wildlife*, 504 U.S. 555 (1992)
[107] Calvin Massey, AMERICAN CONSTITUTIONAL LAW: POWERS AND LIBERTIES (Wolters Kluwer, 5th edition, 2016), pg. 74-100.
[108] Lazarus, Richard J. "Changing Conceptions of Property and Sovereignty in Natural Resources: Questioning the Public Trust Doctrine," Iowa Law Review 71, no. 3 (March 1986): 631-716.
[109] “Public Trust Doctrine.” Water Education Foundation. https://www.watereducation.org/aquapedia/public-trust-doctrine.
[110] “Public Trust Doctrine.” Cornell Law School, Legal Information Institute. https://www.law.cornell.edu/wex/public_trust_doctrine.
[111] See also, “The public trust doctrine has a few main purposes: it guarantees the public access to trust resources; it protects public regulation of private activities from takings claims; it acts as a rule of statutory and constitutional interpretation of explicit language; and it also requires regulatory involvement.” (Blake, Emilie (2017)).
[112] *Marks v. Whitney*, 6 Cal. 3d 251(1971); See also, Mukherjee, Ipshita. “Atmospheric Trust Litigation – Paving the Way for a Fossil Fuel Free World” (2017). https://law.stanford.edu/2017/07/05/atmospheric-trust-litigation-paving-the-way-for-a-fossil-fuel-free-

California decided that "the public uses … are sufficiently flexible to encompass changing public needs"[113] in reference to tidelands. This interpretation of the PTD was later extended beyond tidelands to statewide water rights. Of note is the 1983 landmark decision that came out of the Mono Lake case, *National Audubon Society v. Superior Court*,[114] in which the Supreme Court of California applied the public trust doctrine in their ruling of reasonable and beneficial water uses.[115] The court ruled "that the conservation of such waters is to be exercised with a view to the reasonable and beneficial use thereof in the interest of the people and for the public welfare."[116] In other words, reasonable and beneficial water uses in California must be in accordance with the public trust. This decision has played a crucial role in management of balancing water diversions and upholding instream flow values.

> We can either continue business as usual, leading inexorably to ever-greater user inequities and the almost-certain collapse of our remaining aquatic ecosystems. Or we can chart a different course for the twenty-first century, one that arises from the values embedded in contemporary notions of the public trust and our responsibilities as stewards of water. Water markets are the wrong lens through which to view the problem. Water is not real or personal property. It is essential to life itself, and for that reason the state holds it in trust for California's people and environment and for future generations. The state has given private interests the right to use water, but any such 'usufructuary' rights are subject to the state's ongoing fiduciary supervision, constitutional restrictions on waste and unreasonable use, and other constraints. California courts have repeatedly affirmed the state's ability to reduce or extinguish water allocations to satisfy these constraints, whether obtained through riparian or appropriative use.[117]

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world/#:~:text=Atmospheric%20Trust%20Litigation%20applies%20the,consistent%20with%20the%20public%20trust.

[113] *Marks v. Whitney*, 6 Cal. 3d 251, 259 (1971)

[114] *Nat'l Audubon Soc'y v. Superior Court*, 33 Cal. 3d 419 (1983)

[115] "All uses of water, including public trust uses, must now conform to the standard of reasonable use. (See *Peabody* v. *City of Vallejo* (1935) 2 Cal.2d 351, 367 [40 P.2d 486]; *People* ex rel. *State Water Resources Control Bd.* v. *Forni* (1976) 54 Cal.App.3d 743, 749-750 [126 Cal.Rptr. 851].)… The 1928 amendment did not declare whether the in-stream uses protected by the public trust could be considered reasonable and beneficial uses. In a 1936 case involving Mono Lake, however, the court squarely rejected DWP's argument that use of stream water to maintain the lake's scenic and recreational values violated the constitutional provision barring unreasonable uses. (*County of Los Angeles* v. *Aitken, supra*, 10 Cal.App.2d 460.) The point is now settled by statute, Water Code section 1243 providing that "[the] use of water for recreation and preservation and enhancement of fish and wildlife resources is a beneficial use of water." (See also *California Trout, Inc.* v. *State Water Resources Control Bd.* (1979) 90 Cal.App.3d 816, 821 [153 Cal.Rptr. 672].)" (*Nat'l Audubon Soc'y v. Superior Court*, 33 Cal. 3d 419, 443 (1983)).

[116] *Nat'l Audubon Soc'y v. Superior Court*, 33 Cal. 3d 419, 443 (1983).

[117] Sivas, Deborah A., Molly Loughney Melius, Linda Sheehan, Earth Law Center, John Ugai, and Heather Kryczka. "California Water Governance for the 21st Century." (2017).

The public trust doctrine (PTD) could serve as a policy foundation for a personhood for rivers proposal, in the United States.[118] We are now living in the age of water scarcity and the various, sometimes conflicting, approaches to water resources management (e.g. riparian versus prior appropriation) continue to display the need for more a more sustainable management structure.[119] International approaches to modernizing water governance have come in the form of legal personhood designation and recognizing the Rights of Nature.[120] Legal personhood recognizes the legal fiction of the 'person's' rights, it does not recognize the designated entity as a moral person, therefore, the law does not recognize these designations as entities that can think rationally.[121] Designating legal personhood to rivers would give rivers legal protection and recognition (the ability to establish legal standing). Designation of legal personhood for rivers would protect those natural resources from harm, similar to how the public trust doctrine protects natural resources from harm. The public trust doctrine has been used to establish instream flow rights to protect ecological, recreational and aesthetic values. "The public trust doctrine has been 'fine-tuned to meet the necessities of local situations.' The same could occur with environmental personhood rights as injury standards are defined and the body of law develops in each jurisdiction-in essence, capturing the chameleon-like qualities of the public trust doctrine."[122] The addition to the public trust doctrine that designating legal personhood status would provide is the requirement that the

[118] "Nature, the environment, and even single complex ecosystems, are seldom easily quantifiable as bounded entities with geographically clear borders. Within the complex spectrum of establishing where a legal subject ends and another begins, however, rivers are more easily identifiable. A river's very being is premised on historicized boundaries that measure its watery ambit from riverbed to riverbank. Still, rivers elude a final, clearly defined, and uncontroversial description. As a result, they inhabit a liminal space, one that is at the same time geographically bounded, yet metaphorically transcendent, physically shifting, and culturally porous." (Clark, Cristy, Nia Emmanouil, John Page, Alessandro Pelizzon. "Can You Hear the Rivers Sing: Legal Personhood, Ontology, and the Nitty-Gritty of Governance," Ecology Law Quarterly 45, no. 4 (2018): 787-844).
[119] Blake, Emilie. "Are Water Body Personhood Rights the Future of Water Management in the United States," Texas Environmental Law Journal 47, no. 2 (September 2017): 197-216.
[120] "New Zealand gave personhood rights to a river because of the river's importance to a local Indigenous tribe.8 The Whanganui River, the third longest in New Zealand, now officially has standing as a person in the eyes of the
law, giving it the ability to sue against injury. Representatives from the tribe and the government of New Zealand will act as the Whanganui's custodians to protect the river's best interests." (Blake, Emilie. "Are Water Body Personhood Rights the Future of Water Management in the United States," Texas Environmental Law Journal 47, no. 2 (September 2017): 197-216.)
[121] Blake, Emilie "Are Water Body Personhood Rights the Future of Water Management in the United States," Texas Environmental Law Journal 47, no. 2 (September 2017): 197-216
[122] Blake (2017).

water body has a legal guardians to represent it.[123] The public trust does not need to solely interpret the government as the only trustee to manage public resources. Instead, it is the social responsibility of the public to manage those natural resources and the public should act as stewards to the land as part of their social responsibility.[124] "The public trust principle underlying the public trust doctrine also impresses social responsibilities upon the stakeholders regarding the protection of public space. Through the enforcement of social responsibilities, the doctrine promotes a stewardship ethic of protecting the public spaces in society."[125] Similar to the steward's social responsibilities to effectively manage natural resources for the good of all living entities that depend on those resources, guardians of a river will advocate on behalf of that body of water. Lastly, to counter the argument that personhood status would just be another form of the PTD, "some scholars criticize the public trust doctrine as non-substantive and having no intrinsic standards, whereas the right to personhood is based on an injury standard." [126] Michael Blumm explained how the doctrine is best understood from the legal remedies it produces. There are "at least four different types of public trust remedies: 1) a public easement guaranteeing access to trust resources; 2) a restrictive servitude insulating public regulation of private activities against constitutional takings claims; 3) a rule of statutory and constitutional construction disfavoring terminations

[123] These guardians have been private in previously established models. Depending on the state's water law and policy, the private guardianship model may conflict with public ownership law. However, once a private guardianship model is established as a baseline, a public form of guardianship can be later implemented.; See also, "Public trust law, in other words, is very much a species of state common law. Moreover, as with other forms of common law, states have evolved their public trust doctrines in light of the particular histories and the perceived needs and problems of each state… in the West, four factors have been most important in the evolution of state public trust doctrines: (1) the severing of water rights from real property ownership and the riparian rights doctrine; (2) subsequent state declarations of public ownership of fresh water; (3) clear and explicit perceptions of the scarcity of water and the importance of submerged lands and environmental amenities; and (4) a willingness to consider water and other environmental issues to be of constitutional importance and/or to incorporate broad public trust mandates into statutes. From these factors, two important trends in western states' public trust doctrines have emerged: (1) the extension of public rights based on states' ownership of the water itself; and (2) an increasing, and still cutting-edge, expansion of public trust concepts into ecological public trust doctrines that are increasingly protecting species, ecosystems, and the public values that they provide." (Craig, Robin Kundis. "Comparative Guide to the Western States' Public Trust Doctrines: Public Values, Private Rights, and the Evolution toward an Ecological Public Trust," Ecology Law Quarterly 37, no. 1 (2010): 53-198.)

[124] Sun, Haochen. "Toward a New Social-Political Theory of the Public Trust Doctrine," Vermont Law Review 35, no. 3 (Spring 2011): 563-622.

[125] Sun, Haochen (2011).

[126] Blake (2017).

of the trust; and 4) a requirement of reasoned administrative decision making."[127] Blumm argued that the legal remedies that result from the public trust doctrine are the key to promoting the access to those resources.

As climate disasters continue to rise and events in connection to climate change catch the attention of more individuals, the call for solutions to mitigate against this change and better manage public trust natural resources, is increasing. Personhood for rivers is one solution to provide better representation to watersheds and uphold the social value of rivers in water resources management. The public trust doctrine provides a sound legal foundation for establishing a new policy concerning rights of rivers. The PTD has already been used as a legal framework to expand environmental and natural resource management and protection. Professor Mary Wood of the University of Oregon School of Law developed a macro-approach to climate change mitigation called atmospheric trust litigation that applies the public trust doctrine to the atmosphere so that it can be held in trust for the public.[128] According to Wood, "the purpose of this litigation is not to ask courts to devise a solution to climate change, but to compel the other branches of the government to protect human health and the environment by devising a comprehensive strategy."[129] Similarly, the purpose of personhood designation for rivers of the United States would not be to have policy and lawmakers devise a solution on how to better manage water resources in the era of water scarcity, but to encourage the guardians of the river to speak on behalf of their river of concern to come up with communal solutions to issues at hand in that watershed. The guardians will be encouraged first by not having to establish legal standing for the body of water or natural resource at risk, but knowing that the river already has been granted legal

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[127] Blumm, Michael C. "Public Property and the Democratization of Western Water Law: A Modern View of the Public Trust Doctrine," Environmental Law 19, no. 3 (Spring 1989): 573-604.
[128] Mukherjee, Ipshita. "Atmospheric Trust Litigation – Paving the Way for a Fossil Fuel Free World" (2017). https://law.stanford.edu/2017/07/05/atmospheric-trust-litigation-paving-the-way-for-a-fossil-fuel-free-world/#:~:text=Atmospheric%20Trust%20Litigation%20applies%20the,consistent%20with%20the%20public%20trust.
[129] Mukherjee, Ipshita. "Atmospheric Trust Litigation – Paving the Way for a Fossil Fuel Free World" (2017). https://law.stanford.edu/2017/07/05/atmospheric-trust-litigation-paving-the-way-for-a-fossil-fuel-free-world/#:~:text=Atmospheric%20Trust%20Litigation%20applies%20the,consistent%20with%20the%20public%20trust.; See also, Wood, Mary Christina. "Atmospheric trust litigation across the world." *Fiduciary duty and the atmospheric trust* (2012): 99-163.; See also, Wood, Mary Christina. "Atmospheric Trust Litigation: Securing a Constitutional Right to a Stable Climate System." *Colo. Nat. Resources Energy & Envtl. L. Rev.* 29 (2018): 321.

standing through legal personhood designation. Standing for rivers will allow for the rights of rivers – that honor the social value of rivers - to be further expanded.

Standing for Nature and The Public Trust Doctrine

In 1970 Joseph Sax published an article titled, "The Public Trust Doctrine in Natural Resource Law: Effective Judicial Intervention," in the Michigan Law Review.[130] Sax argued that based on the public trust doctrine, nature should have legal standing. The public trust doctrine is a doctrine that comes from Roman law[131] and asserts that "the state holds land lying beneath navigable waters as trustee of a public trust for the benefit of its citizens."[132] In other words, the public trust doctrine recognizes the property rights in the sea, the seashore and rivers. The protection of public navigable waters has grown in importance as expansion in the use of groundwater has grown and environmental function has become more of a concern. This Roman law was adopted into English Common Law, which became the basis for the legal system in the United States. The use of the public trust doctrine in the United States has expanded from its original intent. In 1892 the court in *Illinois Central Railroad v. Illinois*, held that "the State holds title to soils under tide water… it is a title held in trust for the people of the State that they may enjoy the navigation of the waters, carry on commerce over them, and have liberty of fishing therein freed from the obstruction or interference of private parties."[133] The court goes onto assert that "the trust with which they ("the navigable waters of the harbor and of the lands under them") are held, therefore, is governmental and cannot be alienated."[134] The public trust doctrine is a public right. This landmark ruling set the foundation for the public trust doctrine to be adopted into environmental law. Sax used the public trust doctrine in his 1970 analysis by arguing that:

> Of all the concepts known to American law, only the public trust doctrine seems to have the breadth and substantive content which might make it useful as a tool of general application for citizens seeking to develop a comprehensive

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[130] Sax, Joseph L. "The public trust doctrine in natural resource law: effective judicial intervention." *Michigan Law Review* 68, no. 3 (1970): 471-566.
[131] Michael C. Blumm; Rachel D. Guthrie, "Internationalizing the Public Trust Doctrine: Natural Law and Constitutional and Statutory Approaches to Fulfilling the Saxion Vision," UC Davis Law Review 45, no. 3 (February 2012): 741-808
[132] *Merriam-Webster.com Legal Dictionary*, s.v. "public trust doctrine," accessed May 1, 2020, https://www.merriam-webster.com/legal/public%20trust%20doctrine
[133] *Ill. C. R. Co. v. Illinois*, 146 U.S. 387, 452 (1892)
[134] *Ill. C. R. Co. v. Illinois*, 146 U.S. 387, 455-56 (1892)

> legal approach to resource management problems. If that doctrine is to provide a satisfactory tool, it must meet three criteria. It must contain some concept of a legal right in the general public; it must be enforceable against the government; and it must be capable of an interpretation consistent with contemporary concerns for environmental quality.[135]

Overall, Sax concluded by suggesting steps for the courts to establish publish trust law. Twenty years later he published his article on "The search for environmental rights"[136] in which he continued to advocate for better protection of the environment and tackled the issue of why for the past several decades the world had been struggling with formulating a legal right for the environment. Sax concluded by suggesting that:

> Three basic precepts may thus be elicited from the central values of the modern world and adapted as the source of basic environmental rights: (1) fully informed open decision making based upon free choice, (2) protection of all at a baseline reflecting respect for every member of the society, and (3) a commitment not to impoverish the earth and narrow the possibilities of the future.[137]

Sax's suggestion for how to establish environmental rights is important concept to weave into designation of environmental legal personhood.

Sax's public trust doctrine argument from 1970 was later incorporated, by means of providing standing for people in environmental litigation, into the Michigan Environmental Protection Act. In section 324.1701 of the Act, the Michigan law clearly suggests that "any person may maintain an action against any person for the protection of the air, water, and other natural resources and the public trust in these resources from pollution, impairment, or destruction."[138] The "Sax Act" laid the foundation for other states to follow suit and establish standing for nature. While the public trust doctrine has not been broadly adopted for protection of common pool resources, a similar concept that overcomes the problem of standing has arisen in the idea of personhood.

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[135] Sax, Joseph L. "The public trust doctrine in natural resource law: effective judicial intervention." *Michigan Law Review* 68, no. 3 (1970): 471-566, 474.
[136] Sax, Joseph L. "The search for environmental rights." *J. Land Use & Envtl. L.* 6 (1990): 93-106.
[137] Sax, Joseph L. "The search for environmental rights." *J. Land Use & Envtl. L.* 6 (1990): 93-106, 105.
[138] MCLS § 324.1701(Notes to Decisions).; See also, "The attorney general or any person may maintain an action in the circuit court having jurisdiction where the alleged violation occurred or is likely to occur for declaratory and equitable relief against any person for the protection of the air, water, and other natural resources and the public trust in these resources from pollution, impairment, or destruction." (MCLS § 324.1701(1)).

Corporate Personhood and Environmental Personhood

Given the fact corporations have been legally recognized as having personhood status in the United States and are business entities that work with a specific resource, why have rivers in the United States not gained legal personhood status?

There is an irony woven into the modern Western legal system. Corporations, non-human, non-living, imaginary business entities have legal rights. However, rivers and the environment, do not have any rights to defend against the harms of humankind and the extractive, materialistic society that is supposed to act as a guardian and protect against the very harms it enacts. These harms include the value of recreation[139] in addition to the extractive value the natural world provides. Indigenous scholars, with the support of some environmental advocates, are pushing for a reintegration of a more Traditional understanding of how to interact with the natural world in the United States. Scholars and advocates are not alone, the legal system has recognized the importance of Traditional knowledge as expert testimony.[140] Indigenous peoples throughout the world transfer deep understandings of their connection to the natural world from generation to generation. This was an important recognition by the government, in the New Zealand personhood case and needs to be recognized in the United States through environmental personhood. Legal personhood is the basis for giving legal rights. Gwendolyn J. Gordon defines legal personhood as the concept that "determines the rights and duties of an individual or entity under statutory law and the Constitution."[141] Throughout modern history, there has been activist movements by minority groups fighting for their legal rights (e.g., black voting rights and women's right to vote). Now, there is a global Rights of Nature movement that is fighting on behalf of nature for legal rights.

Corporations are legal business associations established to further the economic and social goals of the association as a whole. This association is made up of human and non-human actors. Due to the fact that corporations are entities, meant to aid human actors in

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[139] Comparing the value of recreation to the intrinsic value of nature.
[140] *Coos Bay, Lower Umpqua, & Siuslaw Indian Tribes v. United States*, 87 Ct. Cl. 143 (U.S. 1938); *Wally v. United States*, 148 Ct. Cl. 371, 373-74 (U.S. 1960); *Pueblo De Zia v. United States*, 165 Ct. Cl. 501, 505 (U.S. 1964); *Confederated Tribes of Warm Springs Reservation v. United States*, 177 Ct. Cl. 184, 204 (U.S. 1966); Zuni Tribe v. United States, 12 Cl. Ct. 607, 1987 U.S. Cl. Ct. LEXIS 89; See also, *Pueblo of Jemez v. United States*, No. CIV 12-0800 JB\JHR, 2019 U.S. Dist. LEXIS 171639, at *498-99 (D.N.M. Sep. 27, 2019).
[141] Gordon, Gwendolyn J. "Environmental Personhood," COLUM. J. ENVTL. L. 43 (2018): 49, 50.

accomplishing the economic and social goals, they were acknowledged as proprietors of legal personhood.[142] Other recognized rights of corporations include right to enter into contract under the contracts clause,[143] owning property, fifth amendment rights from double jeopardy[144] and takings,[145] sixth amendment rights concerning right to counsel[146] and right to trial by jury,[147] seventh amendment rights, protections under the fourth amendment,[148] due process[149] and equal protection[150] under the fourteenth amendment, and freedom of religion under RFRA.[151] Brandon Garrett suggested that corporations are "persons" with legal standing to assert constitutional rights given the list of recognized rights the courts have recognized. The landmark decision establishing the scope of corporate personhood was *Citizens United v. Federal Election Commission* in which the court found that corporations have first amendment rights. The rule that came out of this case extended, to corporations, the already established legal rule that "political speech must prevail against laws that would suppress it, whether by design or inadvertence. Laws that burden political speech are 'subject to strict scrutiny,' which requires the Government to prove that the restriction 'furthers a compelling interest and is narrowly tailored to achieve that interest.'"[152] However, the court in *Citizens United* did not directly address whether or not corporations have standing to litigate constitutional rights. Garrett argues that even though the courts have "gingerly avoided addressing the issue directly"[153] corporations exercise constitutional rights and therefore the question to whether or not they have Article III standing rights needs to be addressed. Garrett also alludes to the famous *Sierra Club v. Morton* decision when discussing how the Court has articulated that one cannot establish standing with just a mere interest in the issue but has to also show personal harm. He concludes his argument stating that:

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[142] Garrett, Brandon L. "The Constitutional Standing of Corporations," U. PA. L. REV. 163 (2014): 95, 111-112.
[143] *Trs. of Dartmouth Coll. v. Woodward*, 17 U.S. (4 Wheat.) 518, 638-39 (1819)
[144] *United States v. Martin Linen Supply Co.*, 430 U.S. 564, 575 (1977)
[145] *Russian Volunteer Fleet v. United States*, 282 U.S. 481, 489 (1931)
[146] *United States v. Rad-O-Lite of Philadelphia, Inc.*, 612 F.2d 740, 743 (3d Cir. 1979)
[147] *United States v. Greenpeace, Inc.*, 314 F. Supp. 2d 1252, 1261 (S.D. Fla. 2004)
[148] *Marshall v. Barlow's, Inc.*, 436 U.S. 307, 325 (1978); *United States v. Morton Salt Co.*, 338 U.S. 632, 650-52 (1950)
[149] *Helicopteros Nacionales de Colombia, S.A. v. Hall*, 466 U.S. 408, 413-14 (1984)
[150] *Metropolitan Life Insurance Co. v. Ward*, 470 U.S. 869, 881 (1985)
[151] *Burwell v. Hobby Lobby Stores, Inc.,* 134 S. Ct. 2751, 2759 (2014)
[152] *Citizens United v. FEC*, 558 U.S. 310, 340 (2010)
[153] Garrett, Brandon L. "The Constitutional Standing of Corporations," U. PA. L. REV. 163, no. 95 (2014): 111-112.

> Chief Justice John Marshall called a corporation 'an artificial being, invisible, intangible, and existing only in contemplation of law.' That is precisely why judges must carefully examine whether an organization has Article III standing to litigate constitutional rights. If in the past standing doctrine has been 'one of the most criticized aspects of constitutional law,' then a selective application of that doctrine raises still more cause for concern. A central lesson from the jurisprudence of constitutional litigation by organizations - perhaps sobering to those who value the individual's day in court - is that constitutional rights may be at their strongest when non-individualized and readily litigated by groups and not just individuals. Conversely, the cost of allowing an 'artificial being,' an organization, to assert rights at the expense of individuals or without adequately representing individuals can be too great for a constitutional democracy to permit. As the Court has stated, the law of standing 'is founded in concern about the proper - and properly limited - role of the courts in a democratic society.' A focus on the constitutional standing of organizations serves to ensure that artificial entities themselves play a valuable and proper, but limited, role in our democratic society"[154]

Theories of corporate personhood are being used to help buffer the argument on why the environmental should gain legal personhood. Legal scholars have analyzed the three recognized theories of corporate personhood that has been adopted by the courts. These theories include: the grant theory, the entity theory, and the association theory.[155] The two predominant theories are the grant theory, also referred to as the concession, artificial person, or fiction theory, and the entity theory, also referred to as the real entity theory.[156]

> The natural entity theory requires an uncomfortable cognitive leap to acknowledge the legal personhood of nonhuman entities. Conversely, the association theory establishes a direct connection between human beings and the entity. While the natural entity theory offers the more direct route for a Rights of Nature argument, the association theory's foundation in the inseparability of nature and humans is more persuasive.[157]

The grant theory is best explained by Justice Marshall in the case *Dartmouth College v. Woodward: "*A corporation is an artificial being, invisible, intangible, and existing only in contemplation of law. Being the mere creature of law, it possesses only those properties which the charter of its creation confers upon it, either expressly, or as incidental to its very

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[154] Garrett, Brandon L. "The Constitutional Standing of Corporations," U. PA. L. REV. 163 (2014): 95, 111-112.
[155] Hope M. Babcock, "A Brook with Legal Rights: The Rights of Nature in Court," Ecology Law Quarterly 43, no. 1 (2016): 1-52, 35.
[156] Phillip I. Blumberg, "The Corporate Entity in an Era of Multinational Corporations," Delaware Journal of Corporate Law 15, no. 2 (1990): 283-376, 535.
[157] Miller, Matthew. "Environmental Personhood and Standing for Nature: Examining the Colorado River Case." *UNHL Rev.* 17 (2018): 355, 363.

existence."[158] Justice Marshall when explaining the grant theory was articulating that a corporation is an artificial entity created by the state. In other words, it is granted its rights and status from state action.[159]

The entity theory views corporations as "separate and unique entities." It is the theory environmental lawyers, advocates and scholars rely on because it would be the theory that would provide the foundation for environmental constitutional standing because it allows for the corporation to take on more "human qualities."[160] The problem environmental lawyers have faced in the past with trying to apply this theory is that if the courts recognize nature as a unique entity, then where is the limit to recognizing uniqueness, or sacredness?[161] Opening the door to this question without a clear limit to what is considered unique by the law and what is not, could completely disvalue the right to constitutional standing. The entity theory was accepted as one of the theories for analyzing corporate personhood because corporations can be seen as distinct, or unique, from the other participants in the business association.[162]

The association theory of corporate personhood, also referred to as the aggregate theory, is a less dominant theory that views the corporation as an aggregate of individuals instead of the corporation itself as a separate entity.[163] As an aggregate, the corporate rights are seen as an "extension of the rights of individual owners."[164] The natural entity theory was adopted as the preferred theory over the association theory.

Establishing standing is one of the biggest hurdles in any environmental law case. If corporations, artificial entities, can be considered for standing, an ecosystem that sustains life should also be considered for the status of legal personhood and constitutional standing. Yet a river that has "allowed for human life as long as human life has been existent" [165] has yet to

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[158] *Trs. of Dartmouth Coll. v. Woodward*, 17 U.S. (4 Wheat.) 518, 636 (1819)
[159] Phillip I. Blumberg, "The Corporate Entity in an Era of Multinational Corporations," Delaware Journal of Corporate Law 15, no. 2 (1990): 283-376, 293.
[160] Phillip I. Blumberg, "The Corporate Entity in an Era of Multinational Corporations," Delaware Journal of Corporate Law 15, no. 2 (1990): 283-376, 535.
[161] Hope M. Babcock, "A Brook with Legal Rights: The Rights of Nature in Court," Ecology Law Quarterly 43, no. 1 (2016): 1-52, 36.
[162] Lyman Johnson, "Law and Legal Theory in the History of Corporate Responsibility: Corporate Personhood," Seattle University Law Review 35, no. 4 (Summer 2012): 1135-1164, 1165.
[163] Lyman Johnson, "Law and Legal Theory in the History of Corporate Responsibility: Corporate Personhood," Seattle University Law Review 35, no. 4 (Summer 2012): 1135-1164, 1165.
[164] Hope M. Babcock, "A Brook with Legal Rights: The Rights of Nature in Court," Ecology Law Quarterly 43, no. 1 (2016): 1-52, 35.
[165] Amended Complaint at 18-19, Colorado River Ecosystem v. Colorado, No. 17-cv-02316-NYW (D. Colo. Nov. 6, 2017), 2017 WL 9472427).

gain the rights of legal personhood and therefore cannot be considered to have legal standing. The environment's best defense at this point in time in the United States, is that persons with an interest in protecting the environment, might possibly be able to establish legal standing.

Other countries have adopted versions of the Federal Wild and Scenic Rivers Act (WSRA), originally passed into law by Lyndon B. Johnson in 1968. New Zealand, Australia, and Canada all have enacted versions of WSRS laws to help mitigate against instream and riverine corridor development, to preserve the watershed and cultural heritage, and to promote cooperation of state and local governance.[166] Even though the WSRS laws are being adopted internationally, there is concern that this law is not enough to protect river systems in the United States.[167] Without legal standing, current river management and protection is incomplete due to the limitations of the Wild and Scenic Rivers Act and the Wilderness Act.

The Constitutional justiciability requirement of standing is a hurtle for any environmental or public interest lawsuit. Matthew Miller suggests that the two pillars of the Rights of Nature movement, "incorporating environmental personhood and standing for nature doctrines, can help natural entities meet the requirements of Article III."[168] Environmental personhood recognizes natural entities as legal persons with legal rights and duties, and the ability to establish standing, instead of entities to commoditize and treat as merchandise.[169]

The Application of Environmental Personhood

> Must our law be so rigid and our procedural concepts so inflexible that we render ourselves helpless when the existing methods and the traditional concepts do not quite fit and do not prove to be entirely adequate for new issues?[170]

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[166] "Wild and Scenic Rivers." International Rivers. https://www.internationalrivers.org/campaigns/wild-and-scenic-rivers.

[167] Palmer, Tim. *Wild and Scenic Rivers of America*. Island Press, (1993).

[168] Miller, Matthew. "Environmental Personhood and Standing for Nature: Examining the Colorado River Case." *UNHL Rev.* 17 (2018): 355, 359.

[169] Miller, Matthew. "Environmental Personhood and Standing for Nature: Examining the Colorado River Case." *UNHL Rev.* 17 (2018): 355.; See also, "EarthTalk: Should rivers be given the same legal rights as people in order to protect them?" AZ Daily Sun (Feb 27, 2021). https://azdailysun.com/opinion/columnists/earthtalk-should-rivers-be-given-the-same-legal-rights-as-people-in-order-to-protect/article_5917a2f6-10b5-5a6a-9d35-93f890b6ce05.html.

[170] *Sierra Club v. Morton*, 405 U.S. 727, 755-56 (1972) (Justice Blackmun dissenting).

Should rivers have standing? Throughout the world, countries are grappling with this question and some have pushed an agenda to give rivers the same legal rights as people.

The movement to protect the natural world with legal rights originated with Christopher Stone's argument titled "Should Trees Have Standing? – Towards Legal Rights for Natural Objects."[171] This article, published in 1972 inspired Justice Douglas to write the famous dissenting opinion in *Sierra Club v. Morton*.

> The river, for example, is the living symbol of all the life it sustains or nourishes -- fish, aquatic insects, water ouzels, otter, fisher, deer, elk, bear, and all other animals, including man, who are dependent on it or who enjoy it for its sight, its sound, or its life. The river as plaintiff speaks for the ecological unit of life that is part of it. Those people who have a meaningful relation to that body of water -- whether it be a fisherman, a canoeist, a zoologist, or a logger -- must be able to speak for the values which the river represents and which are threatened with destruction.[172]

Douglas advocated early on for the creation of a legal system where the natural world could sue to protect and preserve itself and inspired many environmental organizations to continue pursuing methods of granting rights to nature. "In 2004, the Ninth Circuit Court of Appeals determined that Article III standing is not solely limited to humans, and Congress and other legislative bodies could authorize legal standing to animals. Therefore, the question was and is whether Congress or other legislative bodies would pass laws granting standing for nature in court."[173] Since the 2004 ruling, the international Rights of Nature movement has picked up momentum as it has gained popularity as a method of protecting the environment, the highest level of protection known, especially as the impacts of climate change are being felt in more places.

Internationally there have been successes and failures in the push to designate personhood status for rivers. In 2008, Ecuador granted legal rights to rivers, forests, and other natural entities through its constitution,[174] which was upheld in a 2011 provincial court decision to protect the Vilcabamba River.[175] Then in 2010, Bolivia adopted the Universal

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[171] Stone, Christopher D. "Should Trees Have Standing--Toward Legal Rights for Natural Objects." *S. CAl. l. rev.* 45 (1972): 450.
[172] *Sierra Club v. Morton*, 405 U.S. 727, 743 (1972)
[173] Thompson, Geneva E. B. "Codifying the Rights of Nature: The Growing Indigenous Movement," Judges' Journal 59, no. 2 (Spring 2020): 12-15.
[174] Constitution of the Republic of Ecuador. National Assembly Legislative and Oversight Committee (October 20, 2008). https://pdba.georgetown.edu/Constitutions/Ecuador/english08.html.
[175] Cano Pecharroman, Lidia. "Rights of Nature: Rivers that can stand in court." *Resources* 7, no. 1 (2018): 13.

Declaration of the Rights of Mother Earth.[176] Several years later in 2012, Bolivia passed the Framework Law of Mother Earth and Holistic Development for Living Well.[177] In 2011, the state of Victoria, Australia, attempted to apply the legal Rights for Nature concept in an effort to protect rivers. Despite failures in Australia, in 2017 the Yarra River Protection Act was enacted.[178] New Zealand successfully designated the Whanganui River as a legally recognized person in 2017.[179] Then in March of 2017, the High Court of the state of Uttarakhand, declared the rivers Ganga and Yamuna as persons. However, the Supreme Court overruled this declaration in July of 2017. The Supreme Court of India ruled that the declaration from the High Court was legally unsustainable.[180] In 2018, the Supreme Court of Colombia recognized the Amazon River as having legal rights.[181] Bangladesh followed suit in 2019 by designating legal personhood to the Turag River.[182] The later cases from Australia,[183] New Zealand, India, and Bangladesh all had specific objectives for designation of personhood. In Australia there were concerns about the over-extraction of water, in New Zealand there were

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[176] Bolivian Law 071, Ley de Derechos de la Madre Tierra, 21 December 2010. http://ilo.org/dyn/natlex/docs/ELECTRONIC/92470/107736/F1549363084/BOL92470.pdf & http://www.worldfuturefund.org/Projects/Indicators/motherearthbolivia.html.

[177] Bolivia. Ley marco de la madre tierra y desarrollo integral para vivir bien, Law No. 300. (2012). http://ilo.org/dyn/natlex/docs/ELECTRONIC/92468/107732/F-1782935448/BOL92468.pdf.

[178] Yarra River Protection (Wilip-gin Birrarung murron) Act 2017 (Vic) s 1(a) (Austl.). http://www.legislation.vic.gov.au/Domino/Web_Notes/LDMS/PubStatbook.nsf/51dea49770555ea6ca256da4001b90cd/DD1ED871D7DF8661CA2581A700103BF0/$FILE/17-049aa%20authorised.pdf.

[179] New Zealand. Te Awa Tupua [Whanganui River Claims Settlement] Act 2017, Public Act, 2017 No 7 (2017). http://www.legislation.govt.nz/act/public/2017/0007/latest/whole.html & http://files.harmonywithnatureun.org/uploads/upload711.pdf.

[180] State of Uttarakhand & Ors. v. Mohd. Salim & Ors. Supreme Court of India (2017).

[181] "Rights of Nature Law and Policy – Colombia." United Nations Harmony with Nature. https://www.elespectador.com/noticias/judicial/la-amazonia-colombiana-tiene-los-mismos-derechos-que-una-persona/ & http://files.harmonywithnatureun.org/uploads/upload605.pdf.

[182] "Rights of Nature Law and Policy – Bangladesh." United Nations Harmony with Nature. https://www.clientearth.org/projects/access-to-justice-for-a-greener-europe/updates/legal-rights-of-rivers-an-international-trend/.

[183] "Although falling short of granting legal rights to the Birrarung/Yarra River, this legislation has centered the worldview and values of Traditional Owners, created a new framework for sustainable development, and created a voice for the river. In the north-west of Australia, the Mardoowarra/Martuwarra/Fitzroy River is an example in which Indigenous people are strategically adopting a range of legal and policy tools to showcase their leadership in environmental management, as well as raising the profile of their worldview on the obligations that humanity owes to Country. Significantly, in this case, the concept of personhood is further tested by moving beyond the existing boundaries of artificial – and even environmental – personhood, and rather proposing the category of 'ancestral' personhood to refer to the spiritual, ontological, and relational connotations of what is otherwise still cast as a 'natural' feature. Although this example is still in the formative stages, the active role of multiple Traditional Owners coming together to develop new governance arrangements, and engage with the opportunities of Rights of Nature, makes this a compelling case for detailed analysis." (O'Donnell, Erin, Anne Poelina, Alessandro Pelizzon, and Cristy Clark. "Stop Burying the Lede: The Essential Role of Indigenous Law (s) in Creating Rights of Nature." *Transnational Environmental Law* 9, no. 3 (2020): 403-427.)

ongoing ownership battles, and in India and Bangladesh there remains a concern over how to manage the severe pollution of the rivers and more generally environmental degradation.[184]

Ecuador

In 2008, mountains, rivers and land gained legal rights through Ecuador's constitution. This was the first time a natural entity was given legal rights. The basis for this addition of rights language into Ecuador's constitution was rooted in Traditional knowledge. The "Rights of Nature" framework, written into the Ecuadorian Constitution in reaction to the misuse of the Amazon and Andes' natural resources, gave citizens the ability to bring claims against the misuse on behalf of the natural entity.[185] Ecuador effectively laid a foundation for other countries to adapt and expand upon the "Rights of Nature" framework.[186] The foundational declaration from 2008 that inspired a global Rights of Nature movement to pick up speed, continues to influence the water management in Ecuador. In 2011 the Vilcbamba River defended its rights as a plaintiff in a lawsuit and won a judgement for restoration.[187] Then in February 2021 a coalition on behalf of the Upper Nangaritza River Basin Protected Forest filed an amicus brief to apply the Rights of Nature to the region to protect the ecosystem from mining harms.[188] The coalition is requesting that 1) the rights of the Nangaritza River be upheld, 2) Article 41 of the Organic Environmental Code be declared unconstitutional, 3)

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[184] O'Donnell, Erin, and Julia Talbot-Jones. "Creating legal rights for rivers: lessons from Australia, New Zealand, and India." *Ecology and Society* 23, no. 1 (2018).

[185] "The "Rights of Nature" movement began with one country recognizing the importance of protecting natural resources and creating a means through which to do so within their domestic legal system. In 2008, Ecuador approved a new constitution containing provisions granting such rights--the first of its kind. The articles granted inalienable rights to nature, stating that it "has the right to integral respect for its existence and for the maintenance and regeneration of its life cycles, structure, functions and evolutionary processes." These articles fall under the section of the constitution outlining fundamental rights, and the article that declares "[p]ersons, communities, peoples, [and] nations . . . [as] bearers of rights" also states that "Nature [is] subject [to] those rights that the Constitution recognizes for it." The Preamble to the amended constitution even includes nature in its very purpose, declaring that nature and Pachamama are to be celebrated and vowing to "build [a] new form of public coexistence, in diversity and in harmony with nature . . . ." Pachamama, meaning "World Mother" or "Mother Earth," is the goddess of the Indigenous peoples of the Andes Mountains and is believed to preside over everything that creatures of the Earth need to sustain life. 9" (White, Hannah. "Indigenous Peoples, the International Trend Toward Legal Personhood for Nature, and the United States." *American Indian Law Review* 43, no. 1 (2018): 129-165.)

[186] Fairbrother, Alison. New Zealand's Whanganui River Gains A Legal Voice." *Huff Post* (2012).

[187] Wilson, G., and D. M. Lee. "Rights of rivers enter the mainstream." *The Ecological Citizen* 2, no. 2 (2019): 183-187.

[188] "Coalition Submits Amicus Brief in Nangaritza Case Calling for a Bold Application of the Rights of Nature in Ecuador." Earth Law Center (2021). https://www.openpr.com/news/2235236/coalition-submits-amicus-brief-in-nangaritza-case-calling-for.

guardians be appointed on behalf of the Protected Forest, 4) the Ministry of Energy and Renewable Natural Resources and the Ministry of the Environment and Water protect the Rights of Nature, and 5) the court require that the Indigenous people are consulted for the mining project.[189] This case represents exciting progress and promise in the Ecuadorian constitutional model for the Rights of Nature in terms of protecting rivers and their surrounding ecosystems.

Bolivia and Belize

Bolivia and Belize government have also recognized the importance of legally viewing nature as more than property with the support of the Community Environmental Legal Defense Fund. In 2010, Bolivia hosted the World People's Congress on Climate Change and the Rights of Mother Earth which resulted in drafting the Universal Declaration on the Rights of Mother Earth.[190] Then in 2012, the Legislative Assembly of Bolivia voted in support of the "Law of Mother Earth," or *Ley de Derechos de La Madre Tierra*.[191] This law upholds traditional Andean values. Andean culture views "Mother Earth as 'a sacred home' and a 'living dynamic system made up of the undivided community of all living beings.' This spiritual ideology places Mother Earth at the center of all life and views humans as equal to all other entities. The law passed in Bolivia consistent with this ideology creates new rights for Mother Nature, including the right to life, diversity, water, clean air, equilibrium, restoration, and pollution-free living."[192] 2010 was also the year that the Belizean courts recognized nature as

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[189] "Coalition Submits Amicus Brief in Nangaritza Case Calling for a Bold Application of the Rights of Nature in Ecuador." Earth Law Center (2021). https://www.openpr.com/news/2235236/coalition-submits-amicus-brief-in-nangaritza-case-calling-for.

[190] Vidal, John. "Bolivia enshrines natural world's rights with equal status for Mother Earth." *The Guardian* (2011). https://www.theguardian.com/environment/2011/apr/10/bolivia-enshrines-natural-worlds-rights.

[191] Act of the Rights of Mother Earth. Plurinational Legislative Assembly (2010). http://f.cl.ly/items/212y0r1R0W2k2F1M021G/Mother_Earth_Law.pdf.; See also, Hewlett, Ryan. "Bolivia's Law of Mother Earth," DAILY GOOD (2016). http://www.dailygood.org/story/1337/bolivia-slaw- of-mother-earth-ryan-hewlett/.; see also: "The guiding principles of environmental governance are further specified in Framework Law No. 300 of Mother Earth and Integral Development for Living Well 2012 (Bolivia, 2012)." (Eckstein, Gabriel, Ariella D'Andrea, Virginia Marshall, Erin O'Donnell, Julia Talbot-Jones, Deborah Curran, and Katie O'Bryan. "Conferring legal personality on the world's rivers: A brief intellectual assessment." *Water International* 44, no. 6-7 (2019): 804-829.)

[192] "Pursuing the Law of Mother Earth is a large step for Bolivia, considering its history is one built upon extractive industries that have greatly contributed to its environmental desolation. Since the discovery of silver by the Spanish in the sixteenth century, Bolivia has exploited its natural resources and exported them to European countries…. The goal is not to immediately shut down all mines, but to gradually transition away from the exploitative extraction industry and invest in sustainable development models." (White, Hannah. "Indigenous

more than property[193] in an effort to utilize Indigenous belief systems to better protect the Barrier Reef. The Belizean government utilized the language of "guardian" to describe their role in protecting the reef and the court interpreted this role as the government being a "custodian and keeper of the precious environmental resource."[194]

New Zealand

New Zealand's, Whanganui River was protected in 2017 due to the continued advocacy by the Whanganui iwi people, that lasted over 100 years.[195] Under the New Zealand law, the river and its tributaries, have been granted the same rights as a company. Under the law this river is seen as a living whole from mountains to sea. This is an important case study for comparing to the Columbia River because of the crucial role that the Indigenous community played in ensuring the river has a legal voice. The Iwi did not assume ownership of the river from this case. Their goal in advocating for the river was not ownership but to protect the natural entity that they viewed as owning them. Within Iwi culture, the community believes they have obligations to the river. The case in New Zealand also showcased for the world the relationship between Indigenous communities and the natural world. The legal agreement recognized the river as Te Awa Tupua, which means it is recognized as an integrated living whole.[196] In addition to recognizing the status of the river, the New Zealand court established the need to appoint river guardians, one by the Crown and the other by the Iwi people, and develop a Whole River Strategy, which would involve the collaboration of the Iwi, central

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Peoples, the International Trend Toward Legal Personhood for Nature, and the United States." *American Indian Law Review* 43, no. 1 (2018): 129-165.)

[193] In the Court of Appeal of Belize, A.D. 2011. Civil Appeal No. 19 of 2010. http://www2.ecolex.org/server2.php/libcat/docs/COU/Full/En/COU-159759.pdf.

[194] In the Court of Appeal of Belize, A.D. 2011. Civil Appeal No. 19 of 2010, http://www2.ecolex.org/server2.php/libcat/docs/COU/Full/En/COU-159759.pdf.

[195] Roy, Eleanor Ainge. "New Zealand river granted same legal rights as human being." *The Guardian* 16 (2017).; See also, Davison, Isaac. "Whanganui River Given Status of a Person under Unique Treaty of Waitang Settlement." *New Zealand Herald* 15 (2017).; See also, Environment News Service. "New Zealand's Whanganui River Gets Personhood Status." *Newswire* (2012). Received from: https://ens-newswire.com/2012/09/13/new-zealands-whanganui-river-gets-personhood-status/.; See also, Fairbrother, Alison. New Zealand's Whanganui River Gains A Legal Voice." *Huff Post* (2012).; See also, Finlayson, Hon Christopher. "Whanganui River deed of settlement initialled." *Scoop Independent News* (2014). Received from: https://www.scoop.co.nz/stories/PA1403/S00514/whanganui-river-deed-of-settlement-initialled.htm.

[196] New Zealand. Te Urewera Act 2014, Public Act 2014 No 51 (2014). http://www.legislation.govt.nz/act/public/2014/0051/latest/whole.html.; See also, New Zealand. Te Awa Tupua [Whanganui River Claims Settlement] Act 2017, Public Act, 2017 No 7 (2017). http://www.legislation.govt.nz/act/public/2017/0007/latest/whole.html & http://files.harmonywithnatureun.org/uploads/upload711.pdf.

government, local government, commercial users, recreational users and the community more generally. The purpose of a collaborative strategy is to manage the river in a sustainable manner taking into account the long-term environmental, economic, cultural, and socio-political factors necessary to ensure the health and well-being of the river.

The New Zealand designation is different than other international efforts to protect the natural world, because it specifically gives the third largest river in the country a legal voice instead of generally giving rights to nature through a declaration or the constitution.[197] By gaining a legal voice, it means that the river no longer lacks standing to sue with a designated guardian. The role of the guardians are to act like trustees for the river, advocating for the river, upholding the established River Values and exercising landowner responsibilities for the parts of the river that are owned by the Crown.[198] Concerns that were voiced about the agreement in New Zealand before it was set into law included whether or not private rights holders would be impacted, if public access would be limited, and if the Iwi people gained ownership of the river with the agreement. The private owners of the riverbed were not affected by the legal agreement. Under the Whole River Strategy, all stakeholders are represented, including the catchment community. This means that the public access was not impacted either. Nor did the agreement impact water rights or surface water activities.[199]

India and Bangladesh

Following the landmark decision by New Zealand, India attempted to follow suit by attempting to designate the Ganges and Yamuna Rivers. New Zealand's legal structure around personhood for natural entities was adopted, by India, almost immediately after coming into

[197] Roy, Eleanor Ainge. "New Zealand river granted same legal rights as human being." *The Guardian* 16 (2017).; See also, Davison, Isaac. "Whanganui River Given Status of a Person under Unique Treaty of Waitang Settlement." *New Zealand Herald* 15 (2017).; See also, Environment News Service. "New Zealand's Whanganui River Gets Personhood Status." *Newswire* (2012). Received from: https://ens-newswire.com/2012/09/13/new-zealands-whanganui-river-gets-personhood-status/.; See also, Fairbrother, Alison. New Zealand's Whanganui River Gains A Legal Voice." *Huff Post* (2012).; See also, Finlayson, Hon Christopher. "Whanganui River deed of settlement initialled." *Scoop Independent News* (2014). Received from: https://www.scoop.co.nz/stories/PA1403/S00514/whanganui-river-deed-of-settlement-initialled.htm.

[198] New Zealand. Te Awa Tupua [Whanganui River Claims Settlement] Act 2017, Public Act, 2017 No 7 (2017). http://www.legislation.govt.nz/act/public/2017/0007/latest/whole.html & http://files.harmonywithnatureun.org/uploads/upload711.pdf.

[199] New Zealand. Te Awa Tupua [Whanganui River Claims Settlement] Act 2017, Public Act, 2017 No 7 (2017). http://www.legislation.govt.nz/act/public/2017/0007/latest/whole.html & http://files.harmonywithnatureun.org/uploads/upload711.pdf.

fruition. This effort was backed by the belief that water is sacred in the Hinduism religion[200] and that the Ganges is the most sacred of rivers.[201] The High Court of the state of Uttarakhand copied the guardianship model to establish personhood for the Ganges and Yamuna Rivers. However, the Supreme Court ruled against the High Court's decision because the roles of the guardians in Uttarakhand were unclear.[202] Additionally, concerns over the transboundary nature of the rivers led to jurisdictional questions.[203] The state brought the appeal because with the rivers extending beyond the boundaries of the state, they were uncertain on how to carry out the responsibilities the High Court had given them as guardians of the river. Despite the foundation of Environmental Human Rights in India,[204] the legal personhood designation for the Ganges and Yamuna Rivers initially failed.[205] The immediate adoption of the guardianship model from New Zealand and the concerns coming out of the case in India are lessons that must be considered, if the United States and Canada are to adopt a model of personhood for the Columbia River. Despite the Yamuna and Ganges River case not being upheld by the Indian Supreme Court, in May of 2017, a month after the High Court personhood declaration, the Madhya Pradesh Government declared the Narmada River a

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[200] O'Donnell, Erin L. "At the intersection of the sacred and the legal: rights for nature in Uttarakhand, India." *Journal of Environmental Law* 30, no. 1 (2018): 135-144.
[201] White, Hannah. "Indigenous Peoples, the International Trend Toward Legal Personhood for Nature, and the United States." *American Indian Law Review* 43, no. 1 (2018): 129-165.
[202] Mohd. Salim v. State of Uttarakhand & others, (2017) (PIL No. 126), UKD HC.; Lalit Miglani v. State of Uttarakhand & others, (2017) (PIL No. 140), UKD HC.
[203] Samuel, Sigal. "This country gave all its rivers their own legal rights," Vox News (2019). https://www.vox.com/future-perfect/2019/8/18/20803956/bangladesh-rivers-legal-personhood-rights-nature.
[204] "Article 21 of India's constitution declares: 'No person shall be deprived of his life or personal liberty except according to procedure established by law.' Laws that conflict with or abridge fundamental rights named in the constitution are voided.' Citizens are allowed to challenge violations of these rights directly, and in fact citizen suits are the most rapid means to challenge actions that threaten fundamental rights.'" (Takacs, David. "The Public Trust Doctrine, Environmental Human Rights, and the Future of Private Property," New York University Environmental Law Journal 16, no. 3 (2008): 711-766).
[205] "The two rulings of the High Court of the state of Uttarakhand in India are groundbreaking statements of the legal Rights of Nature. They extend the role of the Courts by recognising a moral duty to act to protect the environment against urgent future threats posed by climate change and pollution, and they strengthen the idea that the 'sacred' should receive legal protection. However, they also blur the line between human rights and legal rights, and make broad, and sometimes inconsistent, statements about the Rights of Nature and the potential liability for causing harm to nature. Following the decision of the Supreme Court to allow an appeal of the Ganges and Yamuna case, the legal personhood of these rivers has been withdrawn, pending the outcome of the appeal. It is hoped that the Supreme Court can provide greater clarity on the specific legal rights, and the responsibility of individuals charged with upholding them. (O'Donnell, Erin L. "At the intersection of the sacred and the legal: rights for nature in Uttarakhand, India." *Journal of Environmental Law* 30, no. 1 (2018): 135-144.)

living entity.[206] Again, this declaration was rooted in the Hindu faith. Eckstein et. al, pointed out that the guardianship model that emerged from the New Zealand case, was grounded in Indigenous knowledge and faith, as well as, sustainability goals, and very well researched institutional and legal frameworks.[207] The assigning of trusteeship for the river and the guardians' responsibilities were also a long time in the making. Even though, the cases of personhood for rivers in India were initially not upheld by the Supreme Court, this does not mean that the inspiration that came from the New Zealand case was misplaced. The guardianship model when encompassing both religious, spiritual, cultural, and social values along with a well thought out legal and policy framework, can be very effective as the New Zealand model has exhibited.

The Ganges and Yamuna Rivers are transboundary rivers that flow across several states in India and into Bangladesh. In January 2019, Bangladesh entered into the Rights of Nature movement when the High Court of Bangladesh gave legal personhood status to the Turag River.[208] Later that year, the Bangladeshi Supreme Court granted legal personhood status to all of its rivers making Bangladesh the first country to do so.[209] The Bangladeshi government created the National River Conservation Commission, a type of guardian who is responsible for suing people who cause harm to a river, which are now considered a legal living entities with the right to life. However, this designation has not come without its

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[206] "After a long debate that saw legislators quoting Upanishads and Puranas on the floor of the Assembly, the Madhya Pradesh government on Wednesday passed a resolution granting river Narmada the status of a living entity and committed itself to the protection of its legal rights."
(Ghatwai, Milind."Madhya Pradesh Assembly declares Narmada living entity," The Indian Express (2017). https://indianexpress.com/article/india/madhya-pradesh-assembly-declares-narmada-living-entity-4639713/.)

[207] Eckstein, Gabriel, Ariella D'Andrea, Virginia Marshall, Erin O'Donnell, Julia Talbot-Jones, Deborah Curran, and Katie O'Bryan. "Conferring legal personality on the world's rivers: A brief intellectual assessment." *Water International* 44, no. 6-7 (2019): 804-829.; See also, "In India… this was grounded in Hindu religious beliefs, and elevated the relationship of Hindu practitioners with the river above those of non-Hindus, thus excluding all other religious ontologies of the river." (O'Donnell, Erin, Anne Poelina, Alessandro Pelizzon, and Cristy Clark. "Stop Burying the Lede: The Essential Role of Indigenous Law (s) in Creating Rights of Nature." *Transnational Environmental Law* 9, no. 3 (2020): 403-427.)

[208] "Rights of Nature Law and Policy – Bangladesh." United Nations Harmony with Nature. https://www.clientearth.org/projects/access-to-justice-for-a-greener-europe/updates/legal-rights-of-rivers-an-international-trend/.; See also, Eckstein, Gabriel, Ariella D'Andrea, Virginia Marshall, Erin O'Donnell, Julia Talbot-Jones, Deborah Curran, and Katie O'Bryan. "Conferring legal personality on the world's rivers: A brief intellectual assessment." *Water International* 44, no. 6-7 (2019): 804-829.

[209] "EarthTalk: Should rivers be given the same legal rights as people in order to protect them?" AZ Daily Sun (Feb 27, 2021). https://azdailysun.com/opinion/columnists/earthtalk-should-rivers-be-given-the-same-legal-rights-as-people-in-order-to-protect/article_5917a2f6-10b5-5a6a-9d35-93f890b6ce05.html.; See also, Samuel, Sigal. "This country gave all its rivers their own legal rights," Vox News (2019). https://www.vox.com/future-perfect/2019/8/18/20803956/bangladesh-rivers-legal-personhood-rights-nature.

problems and concerns. "In Bangladesh, millions — fishers, farmers, and their families — live in informal settlements or slums alongside the rivers and depend on the waters for their livelihoods. Now some are being evicted."[210] In addition to the humanitarian problems that are being stressed due to this designation, there are jurisdictional questions and concerns, as well as the issue of legal fees. "Rivers don't obey borders — they often traverse more than one country. If a certain country has granted rights to a river but a neighboring country hasn't, that makes it difficult to legally protect the waterway from environmental harm. Bangladeshi environmental activists are already talking about how they won't be able to compel India to comply with the new law on rivers."[211] Lastly, there is the concern over funding and that those who have the economic means will be the individuals able to enforce the issues they care about. Ben Price from the Community Environmental Legal Defense Fund stated that "the idea that we can be separate from nature is really a Western reductionist way of looking at the world — we can trace it back to Francis Bacon and the scientific method."[212] Ben Price along with Eduardo Gudynas, the executive secretary of the Latin American Center for Social Ecology in Uruguay, and many other Rights of Nature scholars, are calling for a paradigm shift. He stated that, "the debate around the Rights of Nature is one of the most active frontlines in the fight for a non-market-based point of view… it's a reaction against our society's commodification of everything."[213] Overall, Gudynas suggested that this shift should come in the form of a complete abandonment of capitalism.

Australia

New Zealand's legal developments regarding the better management and protection of rivers also inspired action to be taken in Australia. In late 2017, the Yarra River Protection Act was enacted, by the State of Victoria, to recognize the river as "one living and integrated natural entity."[214] The Yarra River was originally, and still is, known by the Wurunderi (Woi-wurrung) as the Birrarung. This river system, like many other rivers, has been highly

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[210] Samuel (2019)
[211] Samuel (2019)
[212] Samuel (2019)
[213] Samuel, Sigal. "This country gave all its rivers their own legal rights," Vox News (2019). https://www.vox.com/future-perfect/2019/8/18/20803956/bangladesh-rivers-legal-personhood-rights-nature.
[214] Yarra River Protection (Wilip-gin Birrarung murron) Act 2017 (Vic) s 1(a) (Austl.). http://files.harmonywithnatureun.org/uploads/upload1000.pdf.

impacted by industrialization. The case for recognizing the Yarra/Birrarung as a living entity integrated with society, allows for the development of better protections.[215] The act was co-named in the English and Woi-wurrung languages, Wilip-gin Birrarung murron, which means "keep the Yarra alive."[216] The Yarra/Birrarung Act does not recognize legal rights to the river but lays the foundation for further legislative action to be taken in the future. "This legislative move, although not resulting in legal status for the river, marks an important shift from an anthropocentric towards an eco-centric approach to river governance, and an ontological shift in how settler society identifies the river. Recognizing rivers as 'living beings' in Australia is significant, given a deep-rooted epistemological and ontological blindness to First Peoples' realities, initiated and perpetuated since early colonization."[217] As such, the Yarra Act still provides an important piece of the puzzle for establishing personhood for rivers in the United States, another settler society, due to its recognition of Traditional knowledge.

Colombia

In Spring of 2018, following the New Zealand, India and Australia cases in 2017, the Supreme Court of Colombia recognized the Amazon's waterways and ecosystems as an entity with rights.[218] Previously, Colombia's Constitutional Court had granted rights to the Atrato River in 2012.[219] Even though Colombia took the Rights of Nature approach, the case of the Amazon still shows how important of an influence the New Zealand case made on the international river management community.

The Canadian Adoption of Environmental Personhood

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[215] "Translation of community stories, values, and visions for the river into the Act as protective principles, and the explicit inclusion of the Birrarung story in the preamble, appear to be only the first steps in capturing the stories and songs of river-people-Country." (Clark, Cristy, Nia Emmanouil, John Page, Alessandro Pelizzon. "Can You Hear the Rivers Sing: Legal Personhood, Ontology, and the Nitty-Gritty of Governance," Ecology Law Quarterly 45, no. 4 (2018): 787-844).
[216] O'Bryan, Katie. "New Law Finally Gives Voice to the Yarra River's Traditional Owners," Conversation (Sept. 25, 2017), http://theconversation.com/new-law-finally-gives-voice-to-the-yarra-rivers-traditional-owners-83307.
[217] Clark, Cristy, Nia Emmanouil, John Page, Alessandro Pelizzon. "Can You Hear the Rivers Sing: Legal Personhood, Ontology, and the Nitty-Gritty of Governance," Ecology Law Quarterly 45, no. 4 (2018): 787-844.
[218] "Rights of Nature Law and Policy – Colombia." United Nations Harmony with Nature. https://www.elespectador.com/noticias/judicial/la-amazonia-colombiana-tiene-los-mismos-derechos-que-una-persona/ & http://files.harmonywithnatureun.org/uploads/upload605.pdf.
[219] Wilson, G., and D. M. Lee. "Rights of rivers enter the mainstream." *The Ecological Citizen* 2, no. 2 (2019): 183-187.

In section 25 of the Canadian Constitution Act of 1982,[220] the First Nations were able to push for the protection of treaty and Indigenous rights to be "recognized and affirmed."[221] The recognition and knowledge regarding the spirit of the land has been known by Indigenous peoples since time immemorial. This knowledge, commonly passed down through oral histories and storytelling techniques, is not always quick to be recognized as knowledge in Western legal systems. However, in February 2021, the Muteshekau-shipu Alliance in Canada recognized official rights and granted legal personhood to the famous Magpie River, also known by the Innu people as Muteshekau-shipu.[222] Western knowledge systems have recognized the recreational and aesthetic, as well as the economic value of this river for quite some time, as it is one of the top ten rivers in the world for whitewater rafting, and also a major source of hydroelectric power. Two resolutions, from the Innu Council of Ekuanitshit[223] and the Minganie Regional County Municipality,[224] were combined in this granting of legal personhood, despite Hydro-Québec's best efforts to stop the declaration. These twin resolutions identified nine legal rights that the river is now entitled to and allows for the possibility of legal guardians to be appointed.

> In accordance with Innu customs and practices, the Alliance has granted the river nine rights: 1) the right to flow; 2) the right to respect for its cycles; 3) the right for its natural evolution to be protected and preserved; 4) the right to maintain its natural biodiversity; 5) the right to fulfil its essential functions within its ecosystem; 6) the right to maintain its integrity; 7) the right to be safe from pollution; 8) the right to regenerate and be restored; and perhaps most importantly, 9) the right to sue.[225]

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[220] CONSTITUTION ACT, 1982. Government of Canada. https://laws-lois.justice.gc.ca/eng/const/page-15.html.
[221] Craft, Aimée. "Reading beyond the lines: Oral understandings and Aboriginal litigation." *Available at SSRN 3433234* (2013).
[222] "For the first time, a river is granted official rights and legal personhood in Canada." PR Newswire (Feb 23, 2021). https://www.prnewswire.com/news-releases/for-the-first-time-a-river-is-granted-official-rights-and-legal-personhood-in-canada-301233731.html.; See also, "For the first time, a river is granted official rights and legal personhood in Canada." Alliance Muteshekau-shipu (Feb 23, 2021). http://files.harmonywithnatureun.org/uploads/upload1070.pdf.
[223] "Rights of Nature Law and Policy – Canada." United Nations Harmony with Nature. http://files.harmonywithnatureun.org/uploads/upload1072.pdf & http://files.harmonywithnatureun.org/uploads/upload1069.pdf.
[224] "Rights of Nature Law and Policy – Canada." United Nations Harmony with Nature. http://files.harmonywithnatureun.org/uploads/upload1072.pdf & http://files.harmonywithnatureun.org/uploads/upload1069.pdf.
[225] Stuart-Ulin, Chloe Rose. "Quebec's Magpie River becomes first in Canada to be granted legal personhood." Canada's National Observer (Feb 24, 2021). https://www.nationalobserver.com/2021/02/24/news/quebecs-magpie-river-first-in-canada-granted-legal-personhood.

This designation combines concepts from the international Rights of Nature campaigns and the concept of designating legal personhood to a river utilizing the guardianship model. The Alliance, a collection of environmental groups and the Innu Council, sought to legally recognize the river as part of the same ecosystem that humans are a part of by granting it legal rights so that the rivers protectors could continue protecting it, and better protect it.[226] Jean-Charles Piétacho, chief of the Innu Council of Ekuanitshit, articulated that the granting of legal personhood does not mean the guardians now own the river, but that they will serve as protectors of the rivers against further exploitation. Additionally, further economic development and infrastructure projects on the river could be subject to legal action now that the river has been granted legal personhood and can challenge potential legal harm in court.[227] However, the Canadian government and the provincial government of the province of Quebec, still have yet to formally protect the river.

The Alliance strategized granting the Magpie River personhood status as a test case for Canada due to its international recognition.[228] This is an important tactic to keep in mind for granting national legal personhood to rivers in the United States; the Colorado River serves as a great test case already, and will be discussed in the next chapter. The Columbia River is proposed as another case testing this tactic. In conclusion, it should be noted that the personhood declaration for the Magpie River acts similarly to the Wild and Scenic Rivers Act in the United States - protecting a stretch of river, as it is presently, and not removing already established infrastructure projects, but aiming to protect the waterbody from further harm. This is important because the WSRA therefore provides an important policy foundation for establishing environmental personhood in the United States, because it sets precedent for better protection and management into the future.

The Magpie River case also shows the need to establish a robust policy in the United States that advances water resources policy, management, and protection for rivers beyond the WSRA. A river with legal personhood can voice concern, through its guardians, about future infrastructure projects and not lose out on protection because of economic interests in future

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[226] Stuart-Ulin (Feb 24, 2021).
[227] Stuart-Ulin (Feb 24, 2021).
[228] Ross, Selena. "In Canadian first, Quebec whitewater river declared legal 'person' with its own rights." Montreal Digital Reporter (Feb 23 2021). https://montreal.ctvnews.ca/in-canadian-first-quebec-whitewater-river-declared-legal-person-with-its-own-rights-1.5321268.

infrastructure projects. Designation of legal personhood opens up a platform for collaborative adaptive management and discussions regarding the allocation and use of water resources. Overall, the over-industrialization of rivers has harmed ecosystems and negatively impacted water quality. Beyond the shortcomings of the WSRA, there is the issue of the Clean Water Act's inconsistencies, which further highlights the need for a more robust policy of river protection in the United States. "Legal personality could be a useful alternative approach for river management, provided that the new legal rights are given sufficient force and effect."[229] Lastly, the international cases discussed provide important insights for establishing legal personhood for rivers in the United States.

A Growing International Movement

> It's a shift of paradigm.
> - Yenny Vega Cardenas, President of the International Observatory on the Rights of Nature

The United Nations established the Harmony with Nature Programme in 2009 in an effort to help the international community to define the "nonanthropogenic relationship with nature" and track global efforts to designate rights to nature.[230] Since 2011 when Ecuador's provincial court recognized the Rights of Nature on behalf of the Vilcabamba River to protect the river from road construction,[231] the international community has increasingly recognized the importance of the Rights of Nature movements, some of which have concentrated on legal personhood designation for rivers to be recognized as an indivisible living being.[232]

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[229] O'Donnell, Erin, and Julia Talbot-Jones. "Creating legal rights for rivers: lessons from Australia, New Zealand, and India." *Ecology and Society* 23, no. 1 (2018).
[230] Harmony with Nature Report of the Secretary-General. United Nations (2019). https://undocs.org/pdf?symbol=en/A/74/236.; See also, Wilson, G., and D. M. Lee. "Rights of rivers enter the mainstream." *The Ecological Citizen* 2, no. 2 (2019): 183-187.
[231] Stuart-Ulin (Feb 24, 2021).
[232] "Rooted in an Indigenous respect for land, nature rights are being implemented worldwide through laws, judicial decisions, constitutional amendments and United Nations resolutions… In May, the United Nations is set to negotiate a new global agreement on protecting nature in China. This is expected to include a commitment to protect at least 30% of the planet's lands and seas by 2030, an ambition backed by some 50 countries… the new 'Rights of Nature' trend could be a 'step change' and that the Magpie River case 'represents the rising waters of this powerful movement.;" (Graham, Jack. "The Magpie River wins legal rights in global push to protect nature." Thomas Reuters Foundation (Feb 17, 2021). http://www.netnewsledger.com/2021/02/27/the-magpie-river-wins-legal-rights-in-global-push-to-protect-nature/.); See also, "As a practical tool for groups wishing to pursue this approach to the protection of rivers, Earth Law Center and partners developed a Universal Declaration of the Rights of Rivers (Earth Law Center, 2017). This Declaration also aims to build international consensus on the fundamental rights to which all rivers are entitled. It is based on international legal precedent as

Throughout the world, the Vilcabamba River in Ecuador, the Atrato River in Colombia, the Whanganui River in New Zealand, the Ganges and Yamuna Rivers in India, the Yarra River in Australia, [233] and now more recently the Magpie River in Canada, have all been subject to these discussions. Along with Ecuador and New Zealand, the United States is one of the dominant interest groups involved in the Rights of Nature movements based on the Lake Erie case despite the federal court striking down the city of Toledo's personhood resolution (which will be discussed in the next chapter).[234]

In addition to the countries, states, provinces and cities already tackling the concept of the Rights of Nature and attempting to integrate it into modern law, as the movement grows, South Africa may be a location to keep in mind.[235]

> The constitution of the Republic of South Africa['s] … Bill of Rights includes Section 24's explicit, fundamental environmental rights: Everyone has the right: a) to an environment that is not harmful to their health or well-being; and b) to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that: i) prevent pollution and ecological degradation; ii) promote conservation; and iii) secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.[236]

These recognized Environmental Human Rights could provide a basis for the recognition of the Rights of Nature and eventually legal personhood for rivers. At the core of the Rights of Nature movement, also recognized as "Earth law," is the idea of honoring Traditional knowledge, and legally viewing the environment as part of the human ecosystem instead of an exploitative resource.[237] The Earth Law Center's 2017 Universal Declaration of the Rights of

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well as ecological principles of river health. Already, the Declaration is a primary basis for rights of rivers campaigns around the world." (Wilson and Lee (2019)).

[233] Cristy Clark; Nia Emmanouil; John Page; Alessandro Pelizzon, "Can You Hear the Rivers Sing: Legal Personhood, Ontology, and the Nitty-Gritty of Governance," Ecology Law Quarterly 45, no. 4 (2018): 787-844

[234] Stuart-Ulin (Feb 24, 2021).

[235] "South African environmental attorney Cormac Cullinan published Wild Law in 2002 (with a second edition in 2011), building on Stone's arguments to offer practical applications and reach a broader audience." (Wilson and Lee (2019)).

[236] S. AFR. CONST. 1996 § 24.; See also, Takacs, David. "The Public Trust Doctrine, Environmental Human Rights, and the Future of Private Property," New York University Environmental Law Journal 16, no. 3 (2008): 711-766

[237] "By offering a solution to the environmental challenges of our day, Earth law may be the next great rights-based movement. The belief that non-human nature – including the species and ecosystems that comprise our world – has inherent rights has galvanized an international movement… Empowering nature also empowers communities because when advocates see themselves as rights defenders, the stakes are raised, and the relationships between people and the environment are transformed." (Wilson and Lee (2019)).

Rivers[238] has provided a foundation for campaigns to be started throughout the world, including Mexico,[239] Nigeria,[240] Serbia,[241] Pakistan,[242] France,[243] and Chile.[244] Lastly, there are also Rights of Nature movements in Argentina,[245] Brazil,[246] Costa Rica,[247] and El Salvador,[248] Guatemala,[249] the Netherlands,[250] Peru,[251] Portugal, Spain, Switzerland, and Uganda.[252]

The international Rights of Nature and legal personhood cases all are rooted in honoring and upholding Traditional knowledge to better manage and protect the natural

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[238] "Universal Declaration of the Rights of Rivers." https://www.rightsofrivers.org/.
[239] "One is the Magdalena River – the last free-flowing river in Mexico City from an original complement of 45. Another is the heavily polluted Atoyac River in Puebla, where the 2018 Living Rivers Forum brought together rights of rivers experts from across the world with the goal of restoring this troubled waterway to health. The third is the San Pedro Mezquital, a near pristine river ecosystem threated by a large dam project." (Wilson and Lee (2019); See also, Inzunza A. "Mexico City's invisible rivers." CityLab (9 June 2016).
[240] "Earth Law Center and the River Ethiope Trust Foundation have launched an initiative to establish legal rights for the River Ethiope in Nigeria. This waterway is sacred to local communities and is believed the be the deepest inland waterway in Africa. If this campaign is successful, the River Ethiope could be the first river in Africa to gain legal rights recognition." (Wilson and Lee (2019)); See also, Cano Pecharroman, Lidia. "Rights of Nature: rivers that can stand in Court." *Resources* 7, no. 1 (2018): 13.; see also, "Rights of Nature Law and Policy – Nigeria." United Nations Harmony with Nature. http://files.harmonywithnatureun.org/uploads/upload975.pdf.
[241] "Earth Law Center, Earth Thrive and International Rivers are seeking legal rights for rivers in Serbia. Serbia is home to many of Europe's last free flowing rivers, especially in the Balkans. But these waterways are under threat from over 800 planned dams in Serbia alone. Establishing legal rights for rivers would give local communities and environmentalists the ability to enforce the right of these rivers to flow." (Wilson and Lee (2019)).
[242] *Islamabad Wildlife Management Board through its Chairman v. Metropolitan Corporation Islamabad through its Mayor & 4 others*. Judgment Sheet in the Islamabad High Court, Islamabad (Judicial Department) W.P. No.1155/2019. http://files.harmonywithnatureun.org/uploads/upload1079.pdf/.
[243] "Rights of Nature Law and Policy – France." United Nations Harmony with Nature. http://files.harmonywithnatureun.org/uploads/upload716.pdf.
[244] Benöhr, Jens, and PATRICK J. Lynch. "Should rivers have rights? A growing movement says it's about time." *Yale environment* 360 (2018): 14.
[245] "Rights of Nature Law and Policy – Argentina." United Nations Harmony with Nature. http://files.harmonywithnatureun.org/uploads/upload1037.pdf.
[246] "Rights of Nature Law and Policy – Brazil." United Nations Harmony with Nature. http://files.harmonywithnatureun.org/uploads/upload1008.pdf.
[247] "Rights of Nature Law and Policy – Costa Rica." United Nations Harmony with Nature. http://files.harmonywithnatureun.org/uploads/upload741.pdf.
[248] "Rights of Nature Law and Policy – El Salvador." United Nations Harmony with Nature. http://files.harmonywithnatureun.org/uploads/upload990.pdf.
[249] "Rights of Nature Law and Policy – Guatemala." United Nations Harmony with Nature. http://files.harmonywithnatureun.org/uploads/upload958.pdf.
[250] "Rights of Nature Law and Policy – Netherlands." United Nations Harmony with Nature. http://files.harmonywithnatureun.org/uploads/upload974.pdf.
[251] "Rights of Nature Law and Policy – Peru." United Nations Harmony with Nature. http://files.harmonywithnatureun.org/uploads/upload1055.pdf.
[252] "Rights of Nature Law and Policy." United Nations Harmony with Nature. http://www.harmonywithnatureun.org/rightsofnature/.

resource at stake. More commonly, the broad Rights of Nature approach has been utilized, as it is a more flexible approach. However, as more Rights of Nature movements emerge on the local level in the United States, it raises the question of how to apply the guardianship model nationally. The New Zealand case presents a great example for how the guardianship model can be applied and fully recognized by the federal government. It is important to note why this model was voted down by the Supreme Court in India and the Senior U.S. District court for the City of Toledo in regard to the Lake Erie case, dismissed in court for the Colorado River case, and has not yet been fully recognized by the federal government in Canada. According to the Colorado Attorney General, the agreed upon dismissal of the Colorado case was mutual because both parties realized the attempt “unacceptably impugned the state's sovereign authority to administer natural resources for public use.”[253] Underlying the Attorney General’s choice of the word “use” as it relates to natural resources, under a Western ways of knowing framework, is the primacy given to private property and commodification. Under a value analysis, one of the failures of the Colorado case was to emphasize the social and cultural value of the river as a reason for further protection, instead of the economic value. However, noting the foundation of protecting economic value in the Western legal system is of great importance. Corporations, what could be considered the symbol of capitalism, are recognized as legal persons. Corporations are seen to provide social value by ways of the contributions to society. Similar to corporations, rivers provide economic and social value as well. Perhaps the easier route would be to follow the Rights of Nature campaign framework,[254] as was done in other industrial economies such as Ecuador and Bolivia,[255] or continuing to issue Rights of Nature ordinances at the local level like what was seen in Pennsylvania (which will be discussed in the following chapter). That would not provide as strong of protections for the resource we depend upon for life.

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[253] Fendt, Lindsay. “Colorado River 'Personhood' Case Pulled by Proponents,” ASPEN JOURNALISM (Dec. 5, 2017). https://www.aspenjournalism.org/2017/12/05/colorado-river-personhood-case-pulled-by-proponents/.
[254] “These expressions share general normative beliefs regarding the intrinsic value of Nature, the need for humans to see themselves as part of Nature, and humans’ obligation to live in harmony with Nature. Like many international norms, RoN meta-norms remain relatively vague. Ambiguity over what exactly constitutes “living in harmony with nature” leaves many normative questions about definitions and obligations unanswered. These normative questions are being answered in different ways by RoN legal provisions in different countries, owing to variation in domestic context.” (Kauffman, Craig M., and Pamela L. Martin. "Constructing Rights of Nature norms in the US, Ecuador, and New Zealand." *Global Environmental Politics* 18, no. 4 (2018): 43-62.)
[255] White (2018)

In almost every culture there is an aspect of the Sacred.[256] Most cultures do not view water as a mere commodity.[257] Despite the United States being one of the few countries that views rivers as a commodity, there are smaller subgroups of citizens who advocate for rivers and understand the aspect of the Sacred that has been lost in the legal system. The co-sovereign Indian nations view water as life. Over the last fifty years, river runners and environmental activists have started to personify rivers as they fall in love with them.[258] Even with the shift in perspective on how to view and manage river systems, the United States water rights scheme is based in the English Common Law of property and has since evolved with two major water rights allocation laws dominating management and regulation. In the East, water rights are allocated under riparian law and in the West, prior appropriation law mostly dominates. The riparian water law doctrine follows the reasonable use standard, which allows unrestricted reasonable allocation of water to landowners whose property neighbors the body of water.[259] In comparison to legal personhood rights for rivers, riparian rights are currently a better tool in water conservation policy, however once established legal personhood for rivers could become a more powerful policy and management tool. Personhood for rivers under the guardianship model, which will be discussed in more detail below, would allow the guardians to manage the consumption and use of water supply for the

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[256] The aspect of the Sacred can be traced and seen through religious and spiritual practices. Some references on this topic are listed here.; See also, Bird-David, Nurit. "“Animism” revisited: personhood, environment, and relational epistemology." *Current anthropology* 40, no. S1 (1999): S67-S91.; See also, Carmichael, David L., Jane Hubert, Brian Reeves, and Audhild Schanche, eds. *Sacred sites, sacred places*. Routledge (2013).; See also, Yelle, Robert A. *Semiotics of religion: Signs of the sacred in history*. A&C Black, (2012).; See also, Graham, William A., and William Albert Graham. *Beyond the written word: Oral aspects of scripture in the history of religion*. Cambridge University Press, (1993).; See also, DeVore, Donald E. "Water in sacred places: Rebuilding New Orleans black churches as sites of community empowerment." *The Journal of American History* 94, no. 3 (2007): 762-769.

[257] Some references on the topic of water as more than a commodity are listed here; Finn, Marcus, and Sue Jackson. "Protecting indigenous values in water management: a challenge to conventional environmental flow assessments." *Ecosystems* 14, no. 8 (2011): 1232-1248.; See also, Brandshaug, Malene K. "Water as More than Commons or Commodity: Understanding Water Management Practices in Yanque, Peru." *Water Alternatives* 12, no. 2 (2019).; See also, Logar, Ivana, Roy Brouwer, and Amael Paillex. "Do the societal benefits of river restoration outweigh their costs? A cost-benefit analysis." *Journal of environmental management* 232 (2019): 1075-1085.; See also, Sepulveda, Charles. "Our Sacred Waters." *Decolonization: Indigeneity, Education & Society* 7, no. 1 (2018): 40-58.

[258] Goodman, D. *The Personification of Natural Waterscapes: A Brief History of Friends of the River (1970-1992)*, History Thesis, College of Letters and Science, University of California, Berkeley (2017). http://www.stanislausriver.org/story/the-personification-of-natural-waterscapes-a-brief-history-of-friends-of-the-river-1970-1992/.

[259] Note, this is the American version on the English common law which requires maintenance of the natural flow.

body of water in question.[260] The prior appropriation doctrine follows the concept of beneficial use[261] in water law and management. This doctrine, used more in arid regions than in water abundant areas, gives priority rights to those who come first. Legal personhood for rivers, as compared to the prior appropriation doctrine, would provide a more robust conservation policy and management tactic if the definition of injury that comes out of the legal personhood designation is broad enough, and could provide an opportunity to even out the playing field for 'first in time, first in right.' There are concerns in relation to the prior appropriation doctrine over the unfairness involved with the seniority system. Additionally, under the guardianship model, legal personhood for rivers would also shift and distribute responsibility of water consumption cost and regulation from the state to the guardians, which would still include the state among other parties.[262] The concerns that legal personhood would eliminate priority dates for existing property rights are easily resolved by closely following the New Zealand guardianship model, which did not impact private rights.[263] Overall, the water rights scheme concentrates on the management of private uses of water.

In the era of water scarcity and climate change, it is crucial that rivers are given more protection, and that protection should be in the form of legal standing, which could be a result of legal personhood designation. Legal personhood recognizes the specific entity in discussion as being capable of bearing the rights and duties of the law, it does not recognize the entity as a moral person. However controversial this issue may be,[264] the rights a river would gain when designated legal personhood would include the ability to enter and enforce contractual agreements, property rights surrounding the ability to own and manage property, and legal standing, which is the right to sue and be sued; legal standing gives a river the legal

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[260] Blake, Emilie "Are Water Body Personhood Rights the Future of Water Management in the United States," Texas Environmental Law Journal 47, no. 2 (September 2017): 197-216

[261] Note that there are current efforts to add spiritual values as recognized beneficial use under California water rights law.

[262] Blake (2017).

[263] See Part 2, Section 16 regarding private rights. (New Zealand. Te Awa Tupua [Whanganui River Claims Settlement] Act 2017, Public Act, 2017 No 7 (2017). http://www.legislation.govt.nz/act/public/2017/0007/latest/whole.html & http://files.harmonywithnatureun.org/uploads/upload711.pdf.)

[264] "River rights can polarize communities (but they don't have to). Early lessons from these experiences include: Building and maintaining community support for why rivers need protecting, and the benefits of healthy rivers to all of us; centering First Nations' perspectives and values, which encompass millennia of learning how to live sustainably with rivers; and if we do expect rivers to compete for outcomes, ensuring they have adequate funding and organizational support." (Eckstein et. al (2019)).

ability to protect itself through legal action without having to establish standing by demonstrating the harm at issue and how to redress that harm.[265]

> The main purpose of granting personhood rights to a river or lake is to protect against injury.' From a conservation perspective, if injury means any non-natural depletion, this legal theory is a brilliant idea for water conservation. However, if courts interpret injury to require a substantial injury, then personhood rights might not be very helpful.' Regardless of the injury standard, the guardian of a personhood right will ensure continued observation of a water body and planning for its sustainable future. This guardianship sets personhood rights miles ahead of not only the riparian and prior appropriation doctrines, but also ahead of the public trust doctrine in terms of water conservation because of the much stricter standard of guardianship and the eradication of any property rights. Guardians can rigorously oversee how water bodies are used and can sue for potential injury whenever they deem it appropriate.[266]

Additional rights could include the right to exist.[267] Legal personhood designation for rivers would address the ongoing 'tragedy of the commons' issue by protecting water resources from overuse or even annihilation, as a form of harm.[268] This raises concerns for those who are worried about the legal, policy and economic impacts personhood designation for rivers would have. These concerns include the tragedy of the anti-commons due to lack of use of a resource from 'overprotection.'[269] Additionally, there have been concerns raised over how to define injury for a river's personhood rights.[270] A simplified and broad definition will need to

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[265] Eckstein et. al (2019)
[266] Blake, Emilie. "Are Water Body Personhood Rights the Future of Water Management in the United States," Texas Environmental Law Journal 47, no. 2 (September 2017): 197-216
[267] Eckstein et. al (2019)
[268] Blake (2017)
[269] "Accordingly, '[w]hile private ownership usually increases wealth, too much ownership has the opposite effect: it wrecks markets, stops innovation, and costs lives.' The California Supreme Court has said that, as a matter of practical reality, sometimes water use must be allowed even where it results in harm. If courts construe injury to mean any unnatural water depletion, then societies would soon face the tragedy of the anti-commons because no one could access the water resource. This would cause populations to face water shortages much faster than anticipated, and communities to fade away. Therefore, states should avoid polarizing water rights between unrestricted access and no access at all. Because this is a possible evolution of personhood rights in water bodies, such a system could render water property rights too binary for effective water management and conservation." (Blake (2017)).
[270] "If legislatures do not particularly and quantitatively define injury, the courts would likely need to formulate a balancing test to identify when a body of water is injured. Although balancing tests for injury exist in today's water law, a new test could pose a difficult challenge for courts…. Additionally, legislatures will need to decide how to approach current water rights. Will existing water rights be grandfathered into the new doctrine? Will current water rights continue to stand or will a river's guardian sue against these rights? In over-appropriated areas under a prior appropriation system, guardians could start suing the most junior appropriator and continue down the priority list until there is no longer an injury to the water body. However, this sort of reworking could cause complete chaos in the realm of well-established property law doctrines." (Blake (2017)).

be decided upon, but since every section of a watershed in every region will be subject to different concerns, that is where the role of the guardians comes to play as the protectors of the river. Just as different water laws have been utilized throughout the nation, different approaches to addressing injury of the river will overtime be established.

Chapter 3 - The Guardianship Model and the Rights of Nature in the United States

We learn by doing, by living our daily lives, by listening to the stories of those around us. We learned that putting cement in a river is detrimental to the health of the riparian ecosystem. We have learned that the technological advances and comforts of modern society result in the runoff of chemicals that harm the environment and human health. We have learned that water is a resource that will be fought for and that instream flow rights are considered so late in the system of water allocation that they are difficult to satisfy within a priority system. Despite all of the previously listed harms, that only brush the surface of damages done to the environment in the pursuit of conquering instead of living with the natural world, there is still a lack of adequate remedies utilized. Why not let the natural entity have a more accessible source of representation? Western culture has decided it is in its better interest to try to dominate rather than live with nature, to extract instead of balancing the giving and taking of natural resources, to place their footprints on the Earth in the form of depletion rather than regeneration. By recognizing social value as a conceptual bridge for communicating between Western and Traditional ways of knowing, it is possible to promote watershed policy and management resilience in the age of climate change. Creating an opportunity for shared understanding provides a foundation for the national recognition of the rights of rivers. The following section will discuss different cases in the United States that have proposed, or successfully designated, environmental personhood (or the recognition of the Rights of Nature) as a means of protection.

Declarations of the Rights of Nature and Environmental Personhood

Past attempts to establish personhood for rivers and lakes have failed due to the hurdles in place that make it difficult to pass environmental cases through the judicial system.[271] There may be a way to establish environmental personhood through the courts by following the persuasive dissent in *Sierra Club v. Morton*, but other solutions outside the judicial system may need to be considered. Establishing personhood for rivers through legislation might be the best step to the establishment of legal rights for nature, since it would set a foundation for

[271] Note, I am referencing the Colorado River lawsuit and Lake Erie cases that will be discussed later in this chapter.

the courts to answer questions regarding the legal standing for nature. However, it is important to note that identifying Rights of Nature through legislation occurred in Pennsylvania, Ecuador, Bolivia, and New Zealand, whereas, a judicial process approach was taken in Colombia, India and the Colorado case.[272] The guardianship model can succeed under either the legislative or judicial approach.

On a very localized level the recognition of the Rights of Nature in the United States has been more successful than pursuing personhood designation through legal proceedings.[273] In 2006, the Tamaqua, Pennsylvania[274] municipality teamed up with the Community Environmental Legal Defense Fund (the same organization that supported the Rights of Nature campaigns in Bolivia and Belize) to draft Rights of Nature laws.[275] The Tamaqua ordinance allows residents to sue on behalf of nature if it is being harmed. This ordinance has inspired other locales to pass similar ordinances.[276] According to Hannah White, "these natural laws are increasingly viewed as necessary in order to protect and preserve resources, especially considering how corporations have flourished since being granted legal personhood."[277] In 2014, another locale in Pennsylvania, the Grant Township of Indiana

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[272] Eckstein et. al (2019)
[273] "In 1972, Pennsylvanians voted to amend the state constitution and became the first state to enshrine environmental rights to clean air and water through the Environmental Rights Amendment (ERA). The amendment states that the Commonwealth is the trustee of the state's natural resources, "common property of all people, including generations yet to come." In 20l3, the ERA was successfully invoked to defeat key provisions of a bill that would have afforded the fracking industry broad powers and exemptions. The Court held that the provisions violated the ERA by preempting local regulation of oil and gas activities and precluding local governments from fulfilling their trustee obligations. This landmark Pennsylvania Supreme Court ruling demonstrated the legal potency of enshrining citizens' right to a healthy environment in state constitutions. In 2017, a landmark case was brought under the ERA against the legislature for allegedly misappropriating environmental protection funds for other uses. In ruling against the legislature, the Court expanded its interpretation of the ERA and held that laws are unconstitutional if they "unreasonably impair" a citizen's ability to exercise their constitutional rights to "clean air, pure water and environmental preservation." The Court reaffirmed that the ERA commits the government to two duties: (1) to prohibit state or private action that results in the depletion of public natural resources; and (2) to take affirmative legislative action towards environmental concerns." (Berman, Devon Alexandra. "Lake Erie Bill of Rights Gets the Ax: Is Legal Personhood for Nature Dead in the Water," Sustainable Development Law & Policy 20, no. 1 (Fall 2019): 15-16).
[274] Tamaqua Borough, Schuylkill County, Pa., Tamaqua Borough Sewage Sludge Ordinance (No. 612, 2006). http://files.harmonywithnatureun.org/uploads/upload666.pdf.
[275] "Advancing Legal Rights of Nature: Timeline." COMMUNITY ENVTL. LEGAL DEF. FUND (Nov. 9, 2016). https://celdf.org/rights/rights-of-nature/rights-nature-timeline/; See also, White (2018); See also, Eckstein et. al (2019).
[276] "Advancing Legal Rights of Nature: Timeline." COMMUNITY ENVTL. LEGAL DEF. FUND (Nov. 9, 2016). https://celdf.org/rights/rights-of-nature/rights-nature-timeline/.
[277] White (2018)

County,[278] adopted an ordinance that aimed to protect the "rights of the natural communities and ecosystems within the Township,"[279] which aimed to include but was "not limited to, rivers, streams, and aquifers, and their rights to exist, flourish and evolve naturally."[280] However, in 2015 the Western District Court of Pennsylvania held the ordinance to be invalid because it was beyond the scope of the Township's legislative authority.[281] In 2013, Santa Monica, California[282] passed an ordinance recognizing Earth law[283] and in 2019 emphasized the importance of the ordinance by placing it at the beginning of the new municipal code environmental law division.[284] Then in 2016, the Ho-Chunk Nation in Wisconsin adopted the Rights of Nature[285] into their constitution in an attempt to mitigate against damaging fossil fuel extraction. Crestone, Colorado followed suit by passing its own resolution in 2018.[286] The White Earth Band of the Ojibwe and 1855 Treaty Authority in Minnesota[287] legally

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[278] Grant Township, Indiana County, Pennsylvania Community Bill of Rights Ordinance. https://s3.amazonaws.com/s3.documentcloud.org/documents/1370022/grant-township-community-bill-of-rights-ordinance.pdf.

[279] Blake (2017)

[280] Hood, Elizabeth. "Pennsylvania and the Ongoing Battle for Environmental Personhood," GEO. Envtl. L. Rev. (2015).

[281] Hood (2015); See also, Blake (2017)

[282] AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF SANTA MONICA ESTABLISHING SUSTAINABILITY RIGHTS. Santa Monica City Council (March 12, 2013). https://www.smgov.net/departments/council/agendas/2013/20130312/s2013031207-C-1.htm#:~:text=(a)%20All%20residents%20of%20Santa,sustainable%20climate%20that%20supports%20thriving

[283] "The next step is to recognize the inherent Rights of Nature, including waterways and species, to exist, thrive, and evolve, and to adjust our actions and governance systems accordingly. Just as we humans claim inherent rights arising out of our existence, so too must we recognize parallel inherent rights on the part of the natural world, with which we co-evolved… Santa Monica's Sustainability Bill of Rights, passed in 2013, states that '[n]atural communities and ecosystems possess fundamental and inalienable rights to exist and flourish in the City of Santa Monica.' It specifically includes the City's groundwater aquifers as holding these fundamental rights. The Ordinance includes a citizen suit provision as well, stating that to 'effectuate those rights on behalf of the environment, residents of the City may bring actions to protect these natural communities and ecosystems.' In October 2016, the City's Task Force on the Environment recommended strongly to the City Council against the permitting of new private wells in the City in order to protect the aquifer's rights to flourish pursuant to the Ordinance – a far higher standard than provided in SGMA. (Sivas, Deborah A., Molly Loughney Melius, Linda Sheehan, Earth Law Center, John Ugai, and Heather Kryczka. "California Water Governance for the 21st Century." Earth Law Center and Stanford University (2017)).

[284] Harmony with Nature Report of the Secretary-General. United Nations (2019). https://undocs.org/pdf?symbol=en/A/74/236.

[285] "Press Release: Ho-Chunk Nation General Council Approves Rights of Nature Constitutional Amendment." Community Environmental Legal Defense Fund (2016). https://celdf.org/2016/09/press-release-ho-chunk-nation-general-council-approves-rights-nature-constitutional-amendment/.; See also, The Constitution of The Ho-Chunk Nation (2019). https://ho-chunknation.com/wp-content/uploads/2019/05/Constitution-of-The-HoChunk-Nation.pdf.

[286] Wilson(2019); See also, Harmony with Nature Report of the Secretary-General. United Nations (2019). https://undocs.org/pdf?symbol=en/A/74/236.

[287] In partnership with the 1855 Treaty Authority, an organization that upholds treaty rights for Chippewa band.

recognized the rights of wild rice, in 2019.[288] Recognizing of the rights of the Manoomin[289] was based on the knowledge that legally protecting wild rice and freshwater resources would be crucial to protecting the food sources for future generations. While this Rights of Nature designation did not specifically concentrate on rivers, but on the rights of plant species, this is still an important step in utilizing these methods of protection in the United States in partnership with tribal sovereign nations.

> The Rights of Manoomin reaffirms the Anishinaabe relationship and responsibility to wild rice, its sacred landscape, and traditional laws. Wild rice is also the only grain explicitly listed in a treaty as a guarantee. 'Treaties are the supreme law of the land and we Chippewa have (U.S.) constitutionally protected, usufructuary property rights to hunt, fish, trap, and gather wild rice… We understand that it is the individual tribal members' usufructuary rights to gather food and earn a modest living that are essential to our lives and important for the success of future generations' ability to maintain our culture and traditions, essentially to be Anishinaabe… We understand that *water is life* for all living creatures and protecting abundant, clean, fresh water is essential for our ecosystems and wildlife habitats to sustain all of us and the Manoomin.'[290]

Lastly, the Menominee Indian Tribe of Wisconsin recognized the rights of the Menominee River in 2020.[291] As a tribal resolution, the Tribe declared that:

> 1) The Menominee River possesses inherent and legal rights including the right to naturally exist, flourish , regenerate, and evolve; the right to restoration, recovery, and preservation; the right to abundant, pure, clean, unpolluted water; the right to natural groundwater recharge and surface water recharge; the right to a healthy natural environment and natural biodiversity; the right to natural water flow; the right to carry out its natural ecosystem functions; and the right to be free of activities or practices, as well as obstructions, that interfere with or infringe upon these rights; and
> 2) The Tribe is dedicated to recognizing and protecting the inherent and legal rights of the Menominee River and assisting our neighboring Tribes, as well as

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[288] "CHIPPEWA ESTABLISH RIGHTS OF MANOOMIN ON WHITE EARTH RESERVATION AND THROUGHOUT 1855 CEDED TERRITORY." 1855 Treaty Authority (2019). http://files.harmonywithnatureun.org/uploads/upload764.pdf.; See also, Laduke, Winona. "The White Earth Band of Ojibwe Legally Recognized the Rights of Wild Rice," Yes Magazine (2019). https://www.yesmagazine.org/environment/2019/02/01/the-white-earth-band-of-ojibwe-legally-recognized-the-rights-of-wild-rice-heres-why/.

[289] Public Documents from the White Earth Band of the Ojibwe's Declaration of the Rights of Wild Rice. https://whiteearth.com/assets/files/public_documents/Letter%20to%20Tim%20Walz%20re%20Rights%20of%20Manoomin.pdf.

[290] Laduke (2019)

[291] "RECOGNITION OF THE RIGHTS OF THE MENOMINEE RIVER." MENOMINEE INDIAN TRIBE OF WISCONSIN RESOLUTION NO. 19-52 (2020). http://files.harmonywithnatureun.org/uploads/upload981.pdf.

> other governments, to recognize and protect the legal rights of the Menominee River.[292]

All of these Rights of Nature cases provide an important foundation for designating legal personhood to rivers in the United States.[293] Overall, from 2006 to 2021 there have been other smaller cases to note[294] but the previously mentioned Rights of Nature cases have carried more weight in shaping the declarations that will be discussed in more detail below.

Colorado River Ecosystem v. State of Colorado

In 2017, Jason Flores-Williams, a civil rights and environmental attorney, filed suit against the state of Colorado on behalf of the Colorado River Ecosystem, in an effort to gain legal personhood status for the river to establish standing.[295] Flores filed under the case category of federal statutory claim[296] with a description of the potential case to be an: "action seeking judicial declaration that Colorado River ecosystem is a 'person' possessing rights."[297] This filing attempted to follow the New Zealand guardianship model. Deep Green Resistance and several members from the Southwest Coalition of the group, filed as "next friends" with Flores so that they could act as guardians of the river. In some cases, to meet the standing for nature requirement, advocates have documented themselves as "next friends" to ecosystems claiming harm as the plaintiff, in order to issue further protections for the environment they

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[292] "RECOGNITION OF THE RIGHTS OF THE MENOMINEE RIVER." MENOMINEE INDIAN TRIBE OF WISCONSIN RESOLUTION NO. 19-52 (2020). http://files.harmonywithnatureun.org/uploads/upload981.pdf.
[293] "In U.S. case law, corporations are considered natural persons and protected legally. In the meantime, much of the "commons," or natural world—including water, sacred places, and sacred landscapes—have not been protected. This law begins to address that inequality, and challenges the inadequacy of U.S. and Canadian legal systems. "Remember, at one time, neither an Indian nor a Black person was considered a human under the law," Bibeau reminds us. "Legal systems can and will change," and in the meantime, the Ojibwe move forward." (Laduke (2019)).
[294] Other regulations to note include Halifax, VA, Mahonoy, PA, and Nottingham, NH in 2008; Newfield, NJ in 2009; Licking, PA, Packer, PA, and Pittsburgh, PA in 2010; Baldwin, PA, Forest Hills, PA, Mountain Lake Park, MD, State College, PA, Wales, NY, Westhomestead, PA in 2011; Broadview Heights, OH and Yellow Springs, OH in 2012; Mora County, NM in 2013; Mendocino County, CA and San Francisco, CA in 2014; Waterville, OH in 2016. (Rights of Nature Law and Policy. United Nations Harmony with Nature. http://www.harmonywithnatureun.org/rightsofnature/.)
[295] Complaint, Colorado River Ecosystem v. Colorado, No. 17-cv-02316-NYW (D. Colo. Sept. 25, 2017). http://blogs2.law.columbia.edu/climate-change-litigation/wp-content/uploads/sites/16/case-documents/2017/20171106_docket-117-cv-02316_complaint.pdf.
[296] 28 U.S.C. 1343
[297] Colorado River Ecosystem v. State of Colorado – Climate Case Chart. Sabin Center for Climate Change Law Climate Change Litigation Databases. http://climatecasechart.com/case/colorado-river-ecosystem-v-state-colorado/?cn-reloaded=1.

wish to protect. In Flores' complaint he detailed the declaration of Colorado River legal personhood and the actions that would violate the River's rights if it gained legal personhood status.[298] Unfortunately, only several months after the complaint was filed, Flores also filed a motion to dismiss with prejudice,[299] which was granted by the District Court of Colorado in December of 2017.[300] Flores faced the reality he would not be able to meet all of the requirements to establish standing if the case went to trial. Despite the justiciability requirements of standing once again presenting a hurdle for an environmental lawsuit, Flores was able to reintroduce the concept of the Rights of Nature in the modern legal system.

In the case, *Colorado River Ecosystem v. State of Colorado*, Jason Flores-Williams on behalf of the Colorado River Ecosystem implicitly asserted in his complaint, that the corporate personhood – natural entity – theory, could be used.[301]

> The concept that nature should have the right to sue for its own protection has been recognized by members of the United States Supreme Court. In his dissenting opinion in the landmark environmental law case, *Sierra Club v. Morton*, 405 U.S. 727 (1972), Justice Douglas argued that 'inanimate objects' should have standing to sue in court: '*Contemporary public concern for protecting nature's ecological equilibrium should lead to the conferral of standing upon environmental objects to sue for their own preservation'*... But as Justice Douglas stated in his dissent, inanimate objects who do not have the ability to testify themselves are commonly parties in litigation… The corporation, sole a creature of ecclesiastical law, has been deemed to be an acceptable adversary and large fortunes ride on its cases. The ordinary corporation has been repeatedly recognized as a 'person' for purposes of constitutional protection and enforcement. Corporate rights provide an instructive analogy.[302]

Later upon request for dismissal of the case, Flores-Williams recognized that this natural entity theory could only be adopted if he could also, and firstly, establish legal standing for the Colorado.

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[298] Complaint, Colorado River Ecosystem v. Colorado, No. 17-cv-02316-NYW (D. Colo. Sept. 25, 2017).
[299] Defendants Motion to Dismiss Amended Complaint, Colorado River Ecosystem v. Colorado, No. 17-cv-02316-NYW (D. Colo. Dec. 1, 2017). http://blogs2.law.columbia.edu/climate-change-litigation/wp-content/uploads/sites/16/case-documents/2017/20171201_docket-117-cv-02316_motion-to-dismiss.pdf
[300] Unopposed Motion to Dismiss Amended Complaint with Prejudice, Colorado River Ecosystem v. Colorado, No. 17-cv-02316-NYW (D. Colo. Dec. 3, 2017); See also, Order, Colorado River Ecosystem v. Colorado, No. 17-cv-02316-NYW (D. Colo. Dec. 4, 2017)
[301] Amended Complaint, Colorado River Ecosystem v. Colorado, No. 17-cv-02316-NYW (D. Colo. Nov. 6, 2017): 18-19.
[302] Amended Complaint at 18-19

To establish standing, a plaintiff must establish injury in fact, causation through traceability of an actual or imminent injury and redressability.[303] The complaint and amended complaint, written and filed by Flores, emphasized legal personhood but did not delve into how the Colorado River Ecosystem would meet the standing requirements. Upon reflection, Flores knew that he would have had to discuss the standing requirements if there was any hope in getting the case through the modern legal system. In the complaint he discussed four different counts of declaratory and injunctive relief for the river but did not provide adequate details on the injury in fact or redressability. The first count states: "declaratory judgement: (lack of legal recognition violates the due process and petition clause rights of plaintiff Colorado River ecosystem as protected by the first and fourteenth amendment of the United States Constitution)."[304] Flores argued that

> because threats to the Colorado River Ecosystem are threats to life, the Colorado River Ecosystem must possess the ability to protect itself from threats to its survival…. The Defendant fails and refuses to recognize the rights of the Colorado River Ecosystem, including by refusing to recognize the Ecosystem's right to appear in court. Therefore, Plaintiff Colorado River Ecosystem, appearing in this case through its next friends, requests that this Court declare that the Colorado River Ecosystem is a 'person' capable of possessing rights and securing those rights through enforcement and defense of those rights, and that the Plaintiffs may serve as 'next friends' to seek that relief.[305]

Flores based his arguments off of Sax's standing for nature argument. However, actual injury cannot occur from an inability for a river ecosystem to appear in court because it lacks the legal rights to do so, which is why the case was filed (to recognize legal personhood status). The standing for nature argument would have worked if Flores had articulated why the Colorado's "next friends" should be able to represent the ecosystem and what harms they were seeking redress for. However, Flores stuck to an argument that "the failure to recognize

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[303] "The irreducible constitutional minimum of standing is that (1) the plaintiff must have suffered an injury in fact--that is, an invasion of a legally protected interest which is (a) concrete and particularized, meaning that the injury must affect the plaintiff in a personal and individual way, and (b) actual or imminent, not conjectural or hypothetical, (2) there must be a causal connection between the injury and the conduct complained of--that is, the injury has to be fairly traceable to the challenged action of the defendant and not the result of the independent action of some third party not before the court, and (3) it must be likely, as opposed to merely speculative, that the injury will be redressed by a favorable decision." (*Lujan v. Defs. of Wildlife*, 504 U.S. 555, 557 (1992)).

[304] Amended Complaint, Colorado River Ecosystem v. Colorado, No. 17-cv-02316-NYW (D. Colo. Nov. 6, 2017): 23.

[305] Amended Complaint, Colorado River Ecosystem v. Colorado, No. 17-cv-02316-NYW (D. Colo. Nov. 6, 2017): 23-24.

Plaintiff Colorado River Ecosystem as the real party in interest violates its due process and petition clause rights."[306] On its own, the argument that the Colorado should be considered a "legal person" because it has not yet been recognized as having personhood, is not an adequate argument to prove actual injury. An entity that does not have the legal rights that are being violated, in theory, cannot actually have its rights violated. Lastly, the harms claimed were not specified and therefore the court would not have been able to analyze a specific injury.

In count two, "declaratory judgement relief: (recognition of the plaintiff Colorado river system's rights)"[307] Flores still did not provide an argument that would prove actual injury. Actual injury cannot be shown through the lack of recognition of legal rights that have not yet been established and are sought to be established, which is the reason for filing suit in the first place.

> Basic rights necessary for the protection of the Colorado River Ecosystem inherently include the Colorado River Ecosystem's right to exist, the right to flourish, the right to regenerate, the right to be restored, and the right to naturally evolve. The substantive Due Process Clause of the Fourteenth Amendment of the U.S. Constitution further secures these inherent rights by protecting the right to life. The substantive due process clause protects the rights of the Colorado River Ecosystem essential to its life.[308]

Flores' argument centers around what rights of the Colorado River, if it were a legal person, would be violated. This argument could work once a river system has already been designated legal personhood, but the actual injury that needs to be shown to establish legal personhood is <u>not</u> a violation of person's rights, but *the harm that is currently being done to a system that is considered both sacred and provides life for part of the western United States*. Flores would have been more successful expanding on the environmental science and Indigenous studies understandings of what harm has been done to the Colorado: why the river needs to be restored and encouraged to naturally regenerate. Rivers are amazing forces that if given the

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[306] Amended Complaint, Colorado River Ecosystem v. Colorado, No. 17-cv-02316-NYW (D. Colo. Nov. 6, 2017): 24

[307] Amended Complaint, Colorado River Ecosystem v. Colorado, No. 17-cv-02316-NYW (D. Colo. Nov. 6, 2017): 25.

[308] Amended Complaint, Colorado River Ecosystem v. Colorado, No. 17-cv-02316-NYW (D. Colo. Nov. 6, 2017): 25.

opportunity will naturally restore, as has been seen with dam removal.[309] The argument that was presented was too big of a request to the court. It tried to establish new substantive due process rights while pushing for the Colorado to have legal personhood status and legal standing.[310]

The third count: "declaratory judgement (violation of plaintiff Colorado river ecosystem's right to equal protection)" [311] continued along the same line of analysis, that the Colorado River has been harmed by "recognizing the 'rights' of corporations, but refusing to recognize the rights of the Colorado River Ecosystem" and as such the "Defendant has violated the Colorado River Ecosystem's equal protection rights."[312] *A defendant cannot recognize or violate rights that do not yet exist*. Even if those rights were to be established by the case, there was still a need to articulate which specific equal protection rights were being violated.

Lastly, Flores asserted that the state of Colorado had violated the rights of the River Ecosystem to "exist, flourish, regenerate, be restored, and naturally evolve."[313] The count four: "declaratory judgement: state actions violating the rights of plaintiff Colorado river ecosystem"[314] argument is the first of the counts in the nature of declaratory judgement that showed actual injury but still did not detail how that injury could be redressed.

> Examples of the failure of Defendant to recognize rights of Plaintiff Colorado River Ecosystem, and the harm caused by this failure, are many. [1] In August 2015, the portal of the Gold King Mine was breached, releasing an estimated three million gallons of mine wastewater and 880,000 pounds of heavy metals down the Animas and San Juan Rivers (two of the Colorado River's tributaries). This waste flowed into the Colorado River and injured downriver

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[309] Dam Removal Case Studies. Headwaters Economics (October 2016). https://headwaterseconomics.org/economic-development/local-studies/dam-removal-case-studies/.; See also, Oliver, Allison A., Randy A. Dahlgren, and Michael L. Deas. "The upside-down river: Reservoirs, algal blooms, and tributaries affect temporal and spatial patterns in nitrogen and phosphorus in the Klamath River, USA." *Journal of Hydrology* 519 (2014): 164-176.; See also, Pipkin, Whitney. "Removing a Dam Could be a Net Win for the Planet." The Age of Human Living in the Anthropocene. Smithsonian (Dec 2015). http://www.smithsonianmag.com/science-nature/removing-dam-can-be-net-win-planet-180957502/?no-ist.

[310] Miller, Matthew. "Environmental Personhood and Standing for Nature: Examining the Colorado River Case." *UNHL Rev.* 17 (2018): 355, 370.

[311] Amended Complaint, Colorado River Ecosystem v. Colorado, No. 17-cv-02316-NYW (D. Colo. Nov. 6, 2017): 26.

[312] Amended Complaint, Colorado River Ecosystem v. Colorado, No. 17-cv-02316-NYW (D. Colo. Nov. 6, 2017): 27.

[313] Amended Complaint at 27-28, Colorado River Ecosystem v. Colorado, No. 17-cv-02316-NYW (D. Colo. Nov. 6, 2017), 2017 WL 9472427.

[314] Amended Complaint at 27, Colorado River Ecosystem v. Colorado, No. 17-cv-02316-NYW (D. Colo. Nov. 6, 2017), 2017 WL 9472427.

> communities. The spill is part of decades of toxic drainage from mines at the headwaters of the Animas River near Silverton, Colorado… [2] Over-Allotment: One reason the Colorado River rarely reaches the sea is the compacts and laws that regulate how much water can be diverted from the River allow humans to take more water from the River than physically exists. The State of Colorado takes more water from the River than any of the other jurisdictions, save California. [3] Dams: Another reason the Colorado River rarely reaches the sea is the presence of dams that block the river's flow. The State of Colorado operates dams on the Colorado River including the Price-Stubb Dam, Grand Valley Diversion Dam, Windy Gap Dam, Granby Dam, and Shadow Mountain Dam. The State also operates dams on major tributaries of the Colorado River including the Blue Mesa Dam and the Morrow Point Dam on the Gunnison River, the Dillon Dam and Green Mountain Dam on the Blue River, and the McPhee Dam on the Dolores River.[315]

Where this count falls short in checking off all of the requirements of standing, is in its failure to show how the injury could be redressed.

Flores put the cart before the horse but in doing so provided a strong foundation for future environmental personhood for river's arguments to occur. The defendant's motion to dismiss stated that:

> the Amended Complaint requests this Court declare that the ecosystem is a 'person' capable of possessing rights. In doing so, it asks the Court to transfer sovereign authority over the State's public natural resources and bestow control on a handful of 'next friends.' The Amended Complaint, however, is not based in law. Rather, its arguments are based in rhetoric that fails to establish this Court's jurisdiction or to present a valid legal argument to support its claims. As such, the Amended Complaint should be dismissed.[316]

Flores also filed an unopposed motion to dismiss the amended complaint with prejudice, in which he agreed with the defendants in the necessary step of dismissing the case.

> The Complaint represented a good faith attempt to introduce the Rights of Nature doctrine to our jurisprudence…. The undersigned continues to believe that the doctrine provides American courts with a pragmatic and workable tool for addressing environmental degradation and the current issues facing the Colorado River. That said, the expansion of rights is a difficult and legally complex matter. When engaged in an effort of first impression, the undersigned has a heightened ethical duty to continuously ensure that

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[315] Amended Complaint at 28-31, Colorado River Ecosystem v. Colorado, No. 17-cv-02316-NYW (D. Colo. Nov. 6, 2017), 2017 WL 9472427.

[316] Defendants Motion to Dismiss Amended Complaint at 2, Colorado River Ecosystem v. Colorado, No. 17-cv-02316-NYW (D. Colo. Dec. 1, 2017).

> conditions are appropriate for our judicial institution to best consider the merits of a new canon.[317]

This case is a good example of using the concept of 'standing for nature.' However, it also shows that a strong case needs to be made so that legislation is passed recognizing personhood and conveying statutory standing before the specific rights of personhood are raised in court. Under the natural entity theory, a river should be given legal personhood but must present at least one violation of a legal right. This example of a right's violation allows the court to determine that as a legal entity, the river is being harmed by having its rights violated. Once personhood is established, further rights violation arguments can move forward because there would be a stronger basis for establishing standing. However, granting of legal personhood is not the key to granting of constitutional standing rights, as has been shown in corporate personhood cases where the court has avoided answering the question of whether corporations have the rights to constitutional standing.

Lake Erie

The Lake Erie case is a good example of how the right of people to a clean and healthy environment, inspired a movement to grant personhood status for the Lake through a legislative approach to recognize the legal rights of a water body and address the right to sue. In the summer of 2014, Toledoans for Safe Water was established, and discussion commenced around the possibility of protecting Lake Erie by designating it legal personhood status to protect against toxic blue green algae blooms.[318] The bloom of 2014 cut off water supply to 500,000 people for three days. This blue green algae bloom was caused from agricultural runoff and other point and nonpoint source pollution. [319] Four years later, a charter

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[317] Unopposed Motion to Dismiss Amended Complaint at 2-3, Colorado River Ecosystem v. Colorado, No. 17-cv-02316-NYW (D. Colo. Dec. 3, 2017).

[318] "On a Saturday morning in August 2014, City of Toledo officials issued a warning to residents: Don't drink the water. The City water supply contained unsafe levels of a toxic substance, and pollution in Lake Erie was the culprit. The water remained undrinkable for nearly three days. In response, Toledo residents began a multi-year campaign to add a Lake Erie Bill of Rights ("LEBOR") to the City Charter (Doc. 10-3 at ¶ 6). They collected over ten thousand petition signatures, triggering a February 2019 special election under Article XVIII, Section 9 of the Ohio Constitution (Doc. 41 at 37-38). LEBOR won about sixty percent of the 16,215 votes cast, so it became part of the Charter the next month. (*Drewes Farms P'ship v. City of Toledo*, No. 3:19 CV 434, 2020 U.S. Dist. LEXIS 36427, at *1-2 (N.D. Ohio Feb. 27, 2020)).

[319] Daley, Jason. "Toledo, Ohio, Just Granted Lake Erie the Same Legal Rights as People." Smithsonian Magazine (March 1, 2019). https://www.smithsonianmag.com/smart-news/toledo-ohio-just-granted-lake-erie-same-legal-rights-people-180971603/.

amendment was passed by Toledo voters, that established the lake as a person with legal rights.[320] Once the lake gained rights, the residents of the city of Toledo, Ohio took on the role of guardians to ensure the lake would be protected. This successful method of protection led to the establishment of the Lake Erie Bill of Rights.[321] The LEBOR states that Lake Erie, including its watershed and ecosystems, "possess the right to exist, flourish, and naturally evolve,"[322] and that the citizens of Toledo "possess the right to a clean and healthy environment"[323] as they are part of the ecosystem. According to the LEBOR, residents of Toledo, the City of Toledo, and the ecosystem of Lake Erie had the right to sue, or be a party in a lawsuit,[324] in state court to enforce the LEBOR. The LEBOR made violation of the rights by a corporation or government subject to criminal conviction and fines[325] and damages to be measured by the cost of restoration then paid to the city.[326] Lastly, the LEBOR insured that state laws would be valid in the city if they did not conflict with the terms of the Bill, and invalidated any corporate or government, permit or other authorization, that would be in violation of the rights.[327] Corporations could not assert preemption as a defense to a permit or other authorization.[328] Overall, the LEBOR laid a framework for establishing a form of guardianship through the Rights of Nature approach in the United States, while addressing some of the bigger legal questions about standing and damages.

In February 2019, Toledoans voted the Bill of Rights into law so as to protect the lake from further outbreaks of invasive species. Immediately after the LEBOR was voted into law, Drewes Farms Partnership filed suit against the City of Toledo seeking the LEBOR to be

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[320] McGraw, Daniel. "Ohio city votes to give Lake Erie personhood status over algae blooms." The Guardian (February 28, 2019). https://www.theguardian.com/us-news/2019/feb/28/toledo-lake-erie-personhood-status-bill-of-rights-algae-bloom.
[321] Lake Erie Bill of Rights.
https://www.beyondpesticides.org/assets/media/documents/LakeErieBillofRights.pdf
[322] Lake Erie Bill of Rights, Charter of the City of Toledo, Ch. XVII, §§ 253-260, § 254(a).
https://codelibrary.amlegal.com/codes/toledo/latest/toledo_oh/0-0-0-158818.
[323] Lake Erie Bill of Rights, Charter of the City of Toledo, Ch. XVII, §§ 253-260, § 254(b).
https://codelibrary.amlegal.com/codes/toledo/latest/toledo_oh/0-0-0-158818.
[324] The Lake Erie Ecosystem had the right to be a party or a party in interest through a lawsuit brought by a citizen of Toledo or the City of Toledo, to uphold the LEBOR.
[325] Lake Erie Bill of Rights, Charter of the City of Toledo, Ch. XVII, §§ 253-260, § 256(a).
https://codelibrary.amlegal.com/codes/toledo/latest/toledo_oh/0-0-0-158818.
[326] Lake Erie Bill of Rights, Charter of the City of Toledo, Ch. XVII, §§ 253-260, § 256(d).
https://codelibrary.amlegal.com/codes/toledo/latest/toledo_oh/0-0-0-158818.
[327] Lake Erie Bill of Rights, Charter of the City of Toledo, Ch. XVII, §§ 253-260, § 255(b), § 257(b).
https://codelibrary.amlegal.com/codes/toledo/latest/toledo_oh/0-0-0-158818.
[328] Lake Erie Bill of Rights, Charter of the City of Toledo, Ch. XVII, §§ 253-260, § 257(a).
https://codelibrary.amlegal.com/codes/toledo/latest/toledo_oh/0-0-0-158818.

deemed invalid. Drewes Farms and the State of Ohio claimed that the LEBOR violated Federal Civil Rule 12(c), motion for judgement on the pleadings[329] and 28 U.S.C. § 2201, creation of remedy.[330] In the case, *Drewes Farms Partnership v. City of Toledo,* Justice Zouhary wrote about the Lake Erie Bill of Rights.

> LEBOR declares that 'Lake Erie, and the Lake Erie watershed, possess the right to exist, flourish, and naturally evolve.' Additionally, the Charter amendment grants Toledo residents 'the right to a clean and healthy environment.' Under LEBOR, Toledoans also 'possess both a collective and individual right to self-government in their local community, a right to a system of government that embodies that right, and the right to a system of government that protects and secures their human, civil, and collective rights.' LEBOR contains no definitions or other provisions that would clarify the meaning of these rights, although it does indicate that the protected Lake Erie watershed includes 'natural water features, communities of organisms, soil [sic] as well as terrestrial and aquatic sub ecosystems.' 'The City of Toledo, or any resident of the City,' may sue to enforce the three rights enumerated in LEBOR. Businesses and governments that infringe the rights 'shall be guilty of an offense and, upon conviction thereof, shall be sentenced to pay the maximum fine allowable under State law for that violation.' LEBOR applies to businesses and governments 'in or from any jurisdiction,' and 'implementing legislation shall not be required,' State laws, regulations, permits, and licenses are declared invalid in Toledo to the extent they conflict with LEBOR. LEBOR also purports to supersede federal permits and licenses.[331]

Unfortunately, the Lake's Bill of Rights was deemed unconstitutional in February 2020 by Senior U.S. District Judge Jack Zouhary.[332] "For all the power the law gave the city and its

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[329] 12(c) Motion for Judgment on the Pleadings. After the pleadings are closed—but early enough not to delay trial—a party may move for judgment on the pleadings. (USCS Fed Rules Civ Proc R 12).

[330] § 2201. Creation of Remedy (a) In a case of actual controversy within its jurisdiction, except with respect to Federal taxes other than actions brought under section 7428 of the Internal Revenue Code of 1986 [26 USCS § 7428], a proceeding under section 505 or 1146 of title 11, or in any civil action involving an antidumping or countervailing duty proceeding regarding a class or kind of merchandise of a free trade area country (as defined in section 516A(f)(10) of the Tariff Act of 1930 [19 USCS § 1516a(f)(10)]), as determined by the administering authority, any court of the United States, upon the filing of an appropriate pleading, may declare the rights and other legal relations of any interested party seeking such declaration, whether or not further relief is or could be sought. Any such declaration shall have the force and effect of a final judgment or decree and shall be reviewable as such.
(b) For limitations on actions brought with respect to drug patents see section 505 or 512 of the Federal Food, Drug, and Cosmetic Act [21 USCS §§ 355 or 360b], or section 351 of the Public Health Service Act [42 USCS § 262]. (28 USCS § 2201); *Drewes Farms P'ship v. City of Toledo*, No. 3:19 CV 434, 2020 U.S. Dist. LEXIS 36427, at *2 (N.D. Ohio Feb. 27, 2020).

[331] *Drewes Farms P'ship v. City of Toledo*, No. 3:19 CV 434, 2020 U.S. Dist. LEXIS 36427, at *2-4 (N.D. Ohio Feb. 27, 2020)

[332] ORDER INVALIDATING LAKE ERIE BILL OF RIGHTS. https://www.courthousenews.com/wp-content/uploads/2020/02/lake-erie.pdf

residents, the judge wrote that its language does not clearly spell out key issues, such as what constitutes an infringement on the lake's rights, how a judge would decide what was a violation or even what constitutes a 'clean and healthy environment.'"[333] Overall, Judge Zouhary found the language in the Bill of Rights to be too vague and asserted that it superseded state and federal law, which is unconstitutional. He concluded, "LEBOR is unconstitutionally vague and exceeds the power of municipal government in Ohio. It is therefore invalid in its entirety."[334] He suggested that the language chosen did not balance the Toledoans desire for greater environmental protection with realistic and necessary economic activity.[335] Despite the Lake Erie Bill of Rights being held as too vague and therefore invalid, it is still a significant step forward in establishing legal personhood for water bodies in the United States.

Montana Right to a Clean and Healthy Environment

The recognized right of people to a clean and healthy environment is a reoccurring theme in environmental protection. The Montana state constitution plays an important role in this discussion especially as it pertains to lessons learned from the Lake Erie case and the right of people to a clean and healthy environment. This right could be another way to establish rights for nature in the United States. The Montana state constitution has incorporated this concept into its constitution.

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[333] Heisig, Eric. "Federal judge strikes down Toledo's Lake Erie Bill of Rights as unconstitutional, says sweeping law is too vague". Cleaveland.com (February 28, 2020). https://www.cleveland.com/court-justice/2020/02/federal-judge-strikes-down-toledos-lake-erie-bill-of-rights-as-unconstitutional-says-sweeping-law-is-too-vague.html.

[334] *Drewes Farms P'ship v. City of Toledo*, No. 3:19 CV 434, 2020 U.S. Dist. LEXIS 36427, at *12 (N.D. Ohio Feb. 27, 2020).; See also, "It is hard to fault the judicial branch for killing LEBOR. While the amendment was well-intentioned, LEBOR was also legally flawed, and not just for the reasons relied upon in Judge Zouhary's decision. For example, according to LEBOR no permit or authorization issued to a corporation by a federal or state entity is valid in Toledo if it would violate rights under LEBOR, and corporations which violate LEBOR cannot assert preemption by state or federal laws as a defense. So a corporation sued for violating the rights of a clean and healthy Lake Erie by discharging pollutants into the lake could not defend itself on the basis of the discharge being authorized by a Clean Water Act permit issued by a state or federal government agency. LEBOR impermissibly turned principles of preemption and the Supremacy Clause upside down; municipal law cannot supersede state or federal law on such matters." (Kilbert, Kenneth. "Lake Erie Bill of Rights: Stifled by All Three Branches Yet Still Significant." Oregon State University (2020)).

[335] "In my view, the legislative branch is perhaps the most blameworthy regarding LEBOR. While LEBOR was legally flawed, it seems like an over-reaction to pass a bill to ban all "Rights of Nature" laws of every stripe." (Kilbert (2020), referencing, Act of July 17, 2019, Am. Sub. H.B. No. 166, 133d Gen. Assy. (Ohio 2019): 482 (codified at Ohio Rev. Code § 2305.011) (barring all state court actions by or on behalf of "nature" or an "ecosystem")).

> Constitution of Montana -- Article IX -- ENVIRONMENT AND NATURAL RESOURCES
> Section 1. Protection and improvement.
> (1) The state and each person shall maintain and improve a clean and healthful environment in Montana
> for present and future generations.
> (2) The legislature shall provide for the administration and enforcement of this duty.
> (3) The legislature shall provide adequate remedies for the protection of the environmental life support system from degradation and provide
> adequate remedies to prevent unreasonable depletion and degradation of natural resources.[336]

In the case, *Montana Environmental Information Center v. Department of Environmental Quality*, the court concluded that the right to a clean and healthy environment written into the state constitution is self-implementing (i.e., that a constitutional provision can be enforced without any legislation to implement it).

> We conclude that for purposes of the facts presented in this case, § 75-5-303, MCA is a reasonable legislative implementation of the mandate provided for in Article IX, Section 1 and that to the extent § 75-5-317(2)(j), MCA (1995) arbitrarily excludes certain 'activities' from nondegradation review without regard to the nature or volume of the substances being discharged, it violates those environmental rights guaranteed by Article II, Section 3 and Article IX, Section 1 of the Montana Constitution.[337]

If a similar right were to be written into state constitutions - for other states in the Columbia River Basin - it would allow for the basis of standing to be established if the right to a clean and healthy environment were to be violated. This could provide a foundation to further argue for legal personhood designation as a remedy.

The Yurok Tribe designates Environmental Personhood to the Klamath River

The Klamath River Basin, located on the border area of Northern California and Southern Oregon, has been a location of management discussions as water scarcity issues have increased throughout the 21st century. This watershed is host to the Bureau of Reclamation's Klamath Water Project[338] and one of the sites for California's Central Valley Project.[339]

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[336] Mont. Const., Art. IX § 1
[337] *Mont. Envtl. Info. Ctr. v. Dep't of Envtl. Quality*, 296 Mont. 207, 231 (1999)
[338] "Klamath Project." Bureau of Reclamation. https://www.usbr.gov/projects/index.php?id=470
[339] "Central Valley Project." Bureau of Reclamation. https://www.usbr.gov/mp/cvp/

Within the basin are public lands surrounding national forest area and five nationally recognized wildlife refuges.[340] In the summer of 2019,[341] the Yurok Tribal Council declared rights of personhood for the Klamath River.[342] Inspired by the Rights of the Manoomin, the Yurok Nation wanted their laws to reflect the nation's values. According to Geneva Thompson, the associate general counsel for the tribe, "by granting the rights of personhood to the Klamath River, not only does it create laws and legal advocacy routes, but it's also an expression of Yurok values."[343] Thompson explained how the Tribe's goal was to procure the highest possible protections for the river there is available in the world to honor and codify the rights that in the Tribe's view, the Klamath has always possessed. These rights include, the right "to exist, flourish, naturally evolve, have a clean and healthy environment free from pollutants, have stable climate free from human-caused climate change impacts, and be free from contamination from genetically engineered organisms."[344] The Klamath River watershed suffers from water scarcity, in addition to overall health concerns for the river from point and nonpoint source pollution and increased water temperatures, which lead to toxic algal blooms.[345] The Yurok culture is intertwined with the Klamath River and has been since time immemorial. From ceremonies, to religion, fisheries, subsistence, economics, and residence, the tribe

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[340] Powers, Kyna, Pamela Baldwin, Eugene H. Buck, and Betsy A. Cody. "Klamath River basin issues and activities: an overview." Congressional Research Service, the Library of Congress (2005).
[341] Myers, Frankie. "Yurok Tribe Testimony Regarding Natural Solutions to Cutting Pollution and Building Resilience." United States House of Representatives, Select Committee on the Climate Crisis (October 22, 2019): 8. https://www.congress.gov/116/meeting/house/110110/witnesses/HMTG-116-CN00-Wstate-MyersF-20191022.pdf.
[342] "On May 9, 2019, the Yurok Tribal Council passed a resolution declaring the rights of the Klamath River and provided a legal avenue for the Klamath River to have its rights adjudicated in Yurok Tribal Court. The Yurok Tribe's goal in passing the resolution was to secure the highest protections for the Klamath River in direct response to its imperiled health. The Klamath River has seen increasing harms of point and nonpoint source pollutants entering its waters, rises in temperature due to dams and climate change, and large toxic algae blooms poisoning its waters. The Yurok Tribe is not the first Indigenous nation to pass legislation declaring rights to nature, but it is one of the leaders in the growing movement to ensure legal forums are available for representing nature when it suffers from ecological harm." (Thompson, Geneva E. B. "Codifying the Rights of Nature: The Growing Indigenous Movement," Judges' Journal 59, no. 2 (Spring 2020): 12-15.)
[343] "This river is our umbilical cord. What feeds us, what nurtures us. This reciprocal relationship that we have with it. I would do anything for this river, just like I would my own children. I would die for it, I would do anything before I would give up on it." (Hillman, Annelia. Klamath Justice Coalition. https://www.americanrivers.org/rivers/films/guardians-of-the-river/.); See also, Smith, Anna. "The Klamath River now has the legal rights of a person, A Yurok Tribe resolution allows cases to be brought on behalf of the river as a person in tribal court." High Country News (Sept. 24, 2019). https://www.hcn.org/issues/51.18/tribal-affairs-the-klamath-river-now-has-the-legal-rights-of-a-person.
[344] Thompson (2020)
[345] Thompson (2020)

depends on a healthy river, which has been continuously impacted by the colonial legacy of this country.[346]

An additional source of inspiration for this declaration was the United Nations Declaration on the Rights of Indigenous People.[347]

> *Article 8*
> 1. Indigenous peoples and individuals have the right not to be subjected to forced assimilation or destruction of their culture.
> 2. States shall provide effective mechanisms for prevention of, and redress for:
> (a) Any action which has the aim or effect of depriving them of their integrity as distinct peoples, or of their cultural values or ethnic identities;
> (b) Any action which has the aim or effect of dispossessing them of their lands, territories or resources;
> (c) Any form of forced population transfer which has the aim or effect of violating or undermining any of their rights;
> (d) Any form of forced assimilation or integration;
> (e) Any form of propaganda designed to promote or incite racial or ethnic discrimination directed against them.
>
> *Article 26*
> 1. Indigenous peoples have the right to the lands, territories and resources which they have traditionally owned, occupied or otherwise used or acquired.
> 2. Indigenous peoples have the right to own, use, develop and control the lands, territories and resources that they possess by reason of traditional ownership or other traditional occupation or use, as well as those which they have otherwise acquired.
> 3. States shall give legal recognition and protection to these lands, territories and resources. Such recognition shall be conducted with due respect to the customs, traditions and land tenure systems of the Indigenous peoples concerned.[348]

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[346] “As time has passed, the Yurok people have seen and fought against the gold rush mining operations destroying
the landscape and polluting the river, the intensive logging industry decimating the redwood forests, non-Native ocean and river fishing industries overharvesting and destroying the salmon and steelhead fish populations, increased uses of agricultural fertilizers and pesticides causing harmful water runoff into the river, and the construction of the four major dams preventing the free-flowing movement of the Klamath River waters and blocking the natural migration of fish species.” (Thompson (2020)).

[347] “United Nations Declaration on the Rights of Indigenous Peoples.” United Nations. https://www.un.org/development/desa/Indigenouspeoples/declaration-on-the-rights-of-Indigenous-peoples.html & https://www.un.org/esa/socdev/unpfii/documents/DRIPS_en.pdf.

[348] “United Nations Declaration on the Rights of Indigenous Peoples.” United Nations. https://www.un.org/development/desa/Indigenouspeoples/declaration-on-the-rights-of-Indigenous-peoples.html & https://www.un.org/esa/socdev/unpfii/documents/DRIPS_en.pdf.; See also, “Further, article 26 acknowledges the right of Indigenous peoples to develop and control traditionally owned lands, territories, and resources. States are charged with protecting Indigenous peoples' customs and traditions. The Declaration requires the "free, prior, and informed consent" of Indigenous peoples before governing bodies relocate individuals, take property, adopt legislation affecting them, or otherwise use or develop lands and resources belonging to them.” (White, Hannah.

The UN Declaration on the Rights of Indigenous People, as is seen in Article 8, reserves the right of Indigenous people to manage land and natural resources. This is foundational in codifying Indigenous knowledge to establish environmental personhood. David Boyd, U.N. special rapporteur on human rights and the environment of the Yurok Tribe's resolution, stated that "we must no longer view the natural world as a mere warehouse of commodities for humans to exploit, but rather a remarkable community to which we belong and to whom we owe responsibilities." As was argued in previous Rights of Nature cases, and highlighted from the New Zealand case and now the Yurok declaration, the environment needs to be viewed as a rights-holder instead of just a resource. This paradigm shift will allow for rivers to become whole again.[349] The Yurok Tribal Council's declaration of rights of personhood for the Klamath will allow the Tribe, as a trustee, to represent the river in Yurok Tribal Court if the river's rights are violated.[350] The tribe as trustee will have a fiduciary duty to ensure that remedies from the harms are used to better manage, protect and restore the river. Under tribal law, polluting the Klamath is now in violation of Yurok law. Therefore, the Yurok Tribe has the jurisdiction to adjudicate the claims regarding harm to the river, which is also harm to the "political integrity, economic security, and health and welfare" of the tribe.[351]

Congressional "plenary power" to qualify or revoke treaties and subsequent provisions to those treaties also gives Congress the power and duty, as trustee, to federally regulate or authorize state regulation, for the protection of tribal resources on and off reservation.[352] The court in *United States v. Washington* ("The Boldt Decision") recognized tribal sovereignty

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"Indigenous Peoples, the International Trend Toward Legal Personhood for Nature, and the United States." *American Indian Law Review* 43, no. 1 (2018): 129-165.)

[349] "The resolutions give tribal nations new legal strategies for use in court, especially in regard to climate change… And they also encourage a change in mindset, says Maia Wikaira, an environmental law attorney who worked with the Yurok Tribe's legal team, and a member of the Ngāti Tūwharetoa, Te Rarawa and Ngāpuhi tribes of New Zealand. As tribal nations establish rights for nonhumans, it creates an opportunity for states to follow suit, and incorporate the concept into their own court systems. 'It's another example of where long-held Indigenous perspectives and association with the natural world are not only being embedded within our legal system — they're being seen in popular environmental movements as an innovative way forward and a necessary step,' Wikaira says. 'So, old is new again.'" (Smith, Anna. "The Klamath River now has the legal rights of a person, A Yurok Tribe resolution allows cases to be brought on behalf of the river as a person in tribal court." High Country News (Sept. 24, 2019). https://www.hcn.org/issues/51.18/tribal-affairs-the-klamath-river-now-has-the-legal-rights-of-a-person.)

[350] Thompson (2020)

[351] Thompson (2020)

[352] United States v. Washington, 384 F. Supp. 312, 338 (W.D. Wash. 1974)

when acknowledging and therefore establishing tribes right to fish and manage fishing at usual and accustomed locations on and off reservation.[353] As trustee, the Federal government has a duty to guarantee that sufficient quantities of water are allocated to tribes to meet the purposes of the reservation.[354] Implied water rights are reserved to fulfill the purposes of the reservation,[355] which include the establishment of a homeland for the tribe, or the maintenance of rights not expressly ceded in the treaty establishing the reservation.[356] Therefore, if there is an implied right to a measure of water essential for the maintenance of hunting and fishing and ensuring a homeland for the tribe, there should also be an implied right to clean water necessary to achieve these results. However, there have historically been issues regarding tribal civil regulatory authority over non-tribal members within a reservation when regulating water quality on non-Indian fee land located on a reservation. Water quality is regulated by the Clean Water Act through the National Pollution Discharge Elimination System permit program.[357] In 1987, Congress amended the Clean Water Act[358] to allow tribes to achieve Treatment of State (TAS) status, and therefore the authority to set water quality standards, by meeting four criteria. First, the tribe must be federally recognized. Second, the tribe must have a governing body carrying out substantial powers and duties. Third, the functions that will be exercised by the tribe must be within its jurisdiction. Fourth, the tribe must be reasonably expected to be capable of carrying out the functions to be exercised in a manner consistent with the terms and purposes of the Safe Drinking Water Act and all applicable regulations.[359] To satisfy the third criterion, a tribe had to establish under the *Montana v. United States* test that it had the inherent civil regulatory authority over nonmembers on the reservation.[360] Under the second prong of the *Montana v. United States* test, a tribe may have inherent power to exercise civil authority, when non-Indian conduct on non-Indian fee land has some “direct effect on the political integrity, the economic security, or

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[353] United States v. State, 448 P.3d. 322, 371-75 (Idaho 2019)
[354] Arizona v. California, 373 U.S. 546, 600 (1963).
[355] Winters v. United States, 207 U.S. 564, 577 (1908).
[356] United States v. Adair, 723 F.2d 1394, 1410 (9th Cir. 1983)
[357] Federal Water Pollution Control Act Amendments of 1972, 92 P.L. 500, 86 Stat. 816 (1972) (The Clean Water Act)
[358] 33 U.S.C. §§ 1313(a)(3)(A), (C), 1377(e) (2012).
[359] 40 C.F.R. § 131.8(a) (2014); 33 U.S.C. § 1377(e)(1)-(3) (2012).
[360] Lee, Jin Hyung. *Establishing Applicable Water Quality Standards For Surface Waters on Indian Reservations* 66 Emory L.J. 965, 980 (2017)

the *health and welfare of the tribe.*"[361] However, establishing jurisdiction under *Montana* for a tribe to set its own water quality standards was a strenuous and costly process that often led to litigation,[362] which resulted in only fifty-four tribes achieving TAS status by 2017. [363] Due to these difficulties, the EPA reinterpreted the 1987 amendment in 2016, eliminating the requirement of satisfying the *Montana* test.[364] This reinterpretation did not alleviate the barriers of attaining TAS status because there is still the issue of limited financial resources. Overall, "while Native nations must navigate these complex regulatory and adjudicatory limitations, rights-of-nature laws [will serve as] effective tools to regulate the conduct of members and nonmembers to ensure the protection of culturally significant natural resources and landscapes."[365] To protect a river as a whole, like a person or entity (i.e., a corporation), the guardians of that river need to have a standard set for managing water rights and quality. That standard should be environmental personhood designation.

The declarations of environmental personhood that originate from Traditional knowledge, such as the designations from the White Earth Band of the Ojibwe and the Yurok, have been more successful in the United States than the declarations coming from other environmental efforts. Perhaps the best route forward is to support tribal nations in recognizing environmental personhood throughout the country as a foundation for further action to be taken.

> While there is debate on standing Rights of Nature in U.S. courts, it is clear that Native nations have the ability and authority to legislate Rights of Nature under their respective laws, to have those rights adjudicated in Tribal Courts and upheld in federal courts. Since time immemorial, Native nations have had inherent authority to develop, exercise, and enforce civil and criminal regulatory and adjudicatory authority over the individuals throughout their territories. Through colonialization, war, violence, and executive, legislative, and judicial actions, the U.S. government has worked to diminish this authority. Today, Native nations have retained the inherent authority to regulate the conduct of their members and, in limited situations, nonmembers. While limited by U.S. law, Native nations do have regulatory and adjudicatory authority over nonmembers. The limitations to this authority have been developed through federal common law and the *Montana v. United States* line

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[361] *Montana v. United States*, 440 U.S. 147 (1979)
[362] Wisconsin v. EPA, 266 F.3d 741 (7th Cir. 2001).
[363] Lee (2017): 980.
[364] Lee (2017): 999; See also, Jana L. Walker, Jennifer L. Bradley & Timothy J. Humphrey, Sr., *A Closer Look at Environmental Injustice in Indian Country*, 1 Seattle J. Soc. Just. 379, 393 (2002).
[365] Thompson, Geneva E. B. "Codifying the Rights of Nature: The Growing Indigenous Movement," Judges' Journal 59, no. 2 (Spring 2020): 12-15.

> of cases, where Native nations can regulate nonmembers' conduct if it meets one or both of the two Montana exceptions.[366]

Overall, tribal sovereign nations have the jurisdiction to declare and enforce Rights of Nature and environmental personhood. These declarations are for the protection, better management and representation of nature, as well as for upholding the social, cultural, political and economic integrity of the tribal nations.

Rivers Gain Rights in Florida

The initiative in Orange County, Florida originated from concern over dying rivers. In the summer of 2020, the Little Wekiva River ran dry, a tributary of the Wekiva River, which is polluted from high levels of nitrogen and phosphorus. The Econlockhatchee River also suffers from high levels of pollution causing deadly algal blooms in Lake Okeechobee. Similar to the Lake Erie case, residents of Orange County grew concerned about their access to clean water. Thomas Linzey, senior legal counsel for the Center for Democratic and Environmental Rights, and one of the proponents for the Lake Erie Bill of Rights, also aided in the Orange County legislation which recognizes the human right to clean water.[367]

In November of 2020, The Wekiva River and Econlockhatchee River Bill of Rights was passed in Orange County, Florida.[368] This amendment, sponsored by the nonprofit Speak

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[366] Thompson (2020); See also, In *Montana v. United States* the court establish two exceptions to regulating nonmembers, based on the general rule "the inherent sovereign powers of an Indian tribe do not extend to the activities of nonmembers of the tribe" unless there is a consensual relationship; or the "conduct threatens or has some direct effect on the political integrity, the economic security, or the health or welfare of the tribe." (*Montana v. United States*, 450 U.S. 544, 565-66, (1981)).

[367] Renner, Rebecca. "In Florida, a River Gets Rights, How Orange County became the most populous area in the US to recognize rights for nature," Sierra Magazine (Feb. 9, 2021).https://www.sierraclub.org/sierra/2021-2-march-april/protect/florida-river-gets-rights.

[368] "TEXT OF CHARTER AMENDMENT." The Right to Clean Water. https://righttocleanwater2020.com/text-of-charter-amendment; See also, Renner, Rebecca. "In Florida, a River Gets Rights, How Orange County became the most populous area in the US to recognize rights for nature," Sierra Magazine (Feb. 9, 2021).https://www.sierraclub.org/sierra/2021-2-march-april/protect/florida-river-gets-rights.; See also, Smith, Anna. "When Nature Speaks for Itself" (Nov, 28 2020). https://slate.com/technology/2020/11/suicide-of-our-troubles-environmental-personhood.html.; See also, Walton, Brett. "2020 Election Recap: Florida County Overwhelmingly Supports Granting Legal Rights to Rivers," Circle of Blue (Nov 4, 2020). https://www.circleofblue.org/2020/world/2020-election-recap-florida-county-overwhelmingly-supports-granting-legal-rights-to-rivers/.; See also, "On Election Day, a breathtaking 89% of Orange County voters approved the Right to Clean Water Charter Amendment. Orange County is now the largest jurisdiction in the nation to pass this kind of legislation." (Bonasia, Joseph. "Rights of Nature Bolstered by Orange Charter vote," Orlando Sentinel (NOV 12, 2020). HTTPS://WWW.ORLANDOSENTINEL.COM/OPINION/GUEST-COMMENTARY/OS-OP-ORANGE-RIGHTS-OF-NATURE-INVADING-SEA-20201112-JYR36YQPGVDUNPTSNASVDHCNVM-STORY.HTML).

Up Wekiva and the Country Charter Review Commission, applies rights to all the waterways in Orange County, including the right to exist and to not be polluted. "It shows that business should not be conducted at the expense of the environment and the public welfare, and that the so-called choice between a healthy environment and a healthy economy is a false one."[369] Additionally, the WRERBOR allows citizens to file lawsuits on the river's behalf. However, in July of 2020 the Floridian Governor, Ron DeSantis signed a bill that prohibited local governments from pursuing recognizing Rights of Nature. Even though environmental groups are working to appeal this bill, it is not the only barrier for success in Orange County. The CELDF has expressed concern with the WRERBOR saying that "it capitulates to existing laws, and … 'the fulfillment of ecosystem rights requires the wholesale transformation of existing law—not its reiteration.' It neither decolonizes by dismantling harmful colonial structures nor radically changes the law, and as Florida sinks, that is not enough."[370] Despite the concerns, there is hope for similar initiatives to be launched throughout the state.[371] According to Joseph Bonasia, the Southwest Florida Regional Director of the Florida Rights of Nature Network, there are plans to launch Rights of Nature initiatives for the Caloosahatchee River Watershed, the Pensacola Bay Watershed, the St. Lucie River Watershed, and the Biscayne Bay.

Rights of Nature for the Colorado River being reproposed

Save the Colorado and Earth Law Center launched a new Rights of Nature campaign for the Colorado River in January 2021, in an effort to once again designate higher protection to the river.[372] This effort sponsored by the organizations Save the Colorado and Earth Law Center, aims to designate Rights of Nature laws for the Colorado River at the local municipal level.

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[369] Bonasia (2020)
[370] Smith, Anna. "When Nature Speaks for Itself" (Nov, 28 2020). https://slate.com/technology/2020/11/suicide-of-our-troubles-environmental-personhood.html.
[371] Bonasia, Joseph. "Rights of Nature Bolstered by Orange Charter vote," Orlando Sentinel (NOV 12, 2020). HTTPS://WWW.ORLANDOSENTINEL.COM/OPINION/GUEST-COMMENTARY/OS-OP-ORANGE-RIGHTS-OF-NATURE-INVADING-SEA-20201112-JYR36YQPGVDUNPTSNASVDHCNVM-STORY.HTML.
[372] Wockner, Gary. "Press Release: Save The Colorado Launches "Rights of Nature" Program to Counter Wall Street Takeover of Colorado's Rivers," Save the Colorado (Jan. 27, 2021). http://savethecolorado.org/press-release-save-the-colorado-launches-rights-of-nature-program-to-counter-wall-street-takeover-of-colorados-rivers/.

The goal is to combat the increasing interest coming from Wall Street[373] to invest in water rights of the Colorado as water scarcity, combined with growing urban and suburban populations, increases the demand for water in the basin. Some of the local areas Save the Colorado and Earth Law Center are already working with, or could work with, include: Boulder Creek, the Cache la Poudre River, Saint Vrain Creek, Clear Creek, the South Platte River, the Yampa River, the Blue river, the Eagle River, the Arkansas River, the Las Animas River, the San Miguel River, and the Roaring Fork River. To promote the campaign, the two organizations have developed a Rights of Nature toolbox to "assist local people and communities that includes: examples of ordinances that have been successful in the U.S. and around the world, connections to other local groups in the U.S. that have organized around the ordinances, legal consulting advice for wording of ordinances and legal ramifications, and consulting advice for organizing strategies.[374]

Designations in Idaho

In Spring of 2020,[375] the Nez Perce Tribe's General Council recognized the Snake River's rights. The council recognized the river as a living entity that has the rights to exist, flow, evolve, flourish and regenerate, as well as to be restored.[376] This rights resolution would

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[373] Blevins, Jason. "Colorado's ornery, independent water guardians finally agree on one thing: Wall Street can look elsewhere," Colorado Sun (Jan. 18, 2021). https://coloradosun.com/2021/01/28/colorado-wall-street-water-buyers/.; See also, Marston, Dave. "Who Calls the Shots on the Colorado River?" (Jan 11, 2021). https://www.writersontherange.org/weekly-feed/kmk1dmii3pbhenn0u5qxzh7e765cp3.; See also, Clark, Moe. "Water speculators could face more obstacles based on work by new group 2020 bill directs state to study improvements to Colorado's water anti-speculation law," Colorado News (Sept. 12, 2020). https://coloradonewsline.com/2020/09/12/water-speculators-could-face-more-obstacles-based-on-work-by-new-group/.; See also, Howe, Ben Ryder. "Wall Street Eyes Billions in the Colorado's Water," New York Times (Jan. 3, 2021). https://www.nytimes.com/2021/01/03/business/colorado-river-water-rights.html.; See also, Sackett, Heather. "Western Colorado water purchases stir up worries about the future of farming," Aspen Journalism (May 29, 2020). https://aspenjournalism.org/western-colorado-water-purchases-stir-up-worries-about-the-future-of-farming/.

[374] Wockner, Gary. "Press Release: Save The Colorado Launches "Rights of Nature" Program to Counter Wall Street Takeover of Colorado's Rivers," Save the Colorado (Jan. 27, 2021). http://savethecolorado.org/press-release-save-the-colorado-launches-rights-of-nature-program-to-counter-wall-street-takeover-of-colorados-rivers/.

[375] "Rights of Nature Law and Policy – Nez Perce Tribe." United Nations Harmony with Nature. http://files.harmonywithnatureun.org/uploads/upload980.pdf.

[376] Wells, Michael. "Resolution recognizes rights of Snake River," Lewiston Tribune (Jun 20, 2020) https://lmtribune.com/northwest/resolution-recognizes-rights-of-snake-river/article_508d6e05-fb04-5b74-a828-0b1a6ceaecaf.html; see also, https://www.earthlawcenter.org/snake-river#:~:text=Update%3A%20In%20June%202020%2C%20the,as%20a%20subject%20of%20rights.

designate legal guardians to represent the river if it is accepted by the Tribe's executive committee.

There is momentum and interest to continue creating and building Rights of Nature campaigns, that concentrate on the rights of rivers and nature or environmental personhood, throughout the United States. Since 2006, local communities throughout the United States have come together to establish creative and adaptive solutions for bettering water resources and natural resources management.[377]

Personhood Proposal Analysis

As of 2004, under the Ninth Circuit Court of Appeals ruling, Article III legal standing is not solely limited to humans.[378] Since then, Rights of Nature movements have sparked the interest of many different groups of people wishing to secure higher protections for the environment. Local municipalities and tribal nations have begun recognizing Rights of Nature. "As these new laws are adopted, judges in Tribal, federal, and state courts will likely begin seeing Rights of Nature claims brought before them. When hearing these cases, judges are not evaluating whether nature has standing but what rights legislative bodies have codified for nature and what remedies to order; not only to make nature 'whole,' but to apply the enactments of the legislative body."[379] In addition to declarations of the Rights of Nature, the United States legal system has the framework to recognize non-natural bodies as legal

[377] "It should be acknowledged and respected through study and use. Hundreds of communities have adopted laws or resolutions recognizing Nature's rights; and in securing the adoption of those laws, thousands of people learned more about their democratic rights and were empowered to become participants in their local governments and a cause much larger than themselves and their communities. Local governments responded to their concerns. Local legislation was adopted. Industry and state governments responded. Legal conflicts arose; and the courts addressed them. City leaders and governments made course corrections based on judicial guidance and developments in state law. Obstacles arose; people learned, increased, or altered their efforts, and persisted. Progress was made, but much more is needed, and time is perilously short. Fortunately, help is available from around the world. The global scientific community continues to teach vital lessons about the web of life and what must be done to protect it. Indigenous peoples are translating their wisdom and experience into bold action and serving as role models. Governments and organizations are providing expertise and resources. Religious leaders are providing inspiration and guidance about caring for our common home and all creation." (Moutrie, Marsha. "The Rights of Nature Movement in the United States: Community Organizing, Local Legislation, Court Challenges, Possible Lessons and Pathways." *Environmental and Earth Law Journal (EELJ)* 10, no. 1 (2020): 2.)

[378] *Cetacean Cmty. v. Bush*, 386 F.3d 1169 (9th Cir. 2004)

[379] Thompson (2020)

persons.[380] Legal personhood in the United States is split into two categories, the natural person and the artificial person. According to Black's Law Dictionary, a natural person is defined as a human being[381] whereas an artificial[382] person is

> an entity, such as a corporation, created by law and given certain legal rights and duties of a human being; a being, real or imaginary, who for the purpose of legal reasoning is treated more or less as a human being. An entity is a person for purposes of the Due Process and Equal Protection Clauses but is not a citizen for purposes of the Privileges and Immunities Clauses in Article IV § 2 and in the Fourteenth Amendment.

Artificial, or non-natural persons, have the right to sue or be sued and due to not having the capacity of free will or decision-making, can only be assigned rights, duties or obligations that a representative must carry out. There may be many doubts and concerns over how to standardize the definitions of injuries to an environmental person, however, this should not dissuade from taking necessary action to establish legal standing through environmental personhood for rivers, and other natural entities. Overall, recognizing environmental personhood in the United States will aid in protecting natural resources, as well as legally recognize and honor, Traditional knowledge and spiritual connection to the land.

When rivers, including the surrounding ecosystems, can defend their rights through the representation of their guardians, a new paradigm will have been established that recognizes the importance of policy and management concentrating on the interest of all life, not just that of a capital economy. The guardianship model for environmental personhood will shift the legal burden of proof to activities that could be harmful to nature.[383] In Colombia and New Zealand water bodies were given legal status as a legal person without property rights (e.g. Colombia) or water rights (e.g. New Zealand).[384] Whereas, in India and Bangladesh, the rivers were granted hybrid legal personhood.[385] In comparison to both the full legal and hybrid legal personhood designations, the water bodies in the United States, that have not

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[380] White (2018)
[381] PERSON, Black's Law Dictionary (11th ed. 2019)
[382] PERSON, Black's Law Dictionary (11th ed. 2019)(Also termed *conventional person*; *fictitious person*; *juristic person*; *juridical person*; *legal person*; *moral person).*
[383] Wilson and Lee (2019)
[384] O'Donnell, Erin, Anne Poelina, Alessandro Pelizzon, and Cristy Clark. "Stop Burying the Lede: The Essential Role of Indigenous Law (s) in Creating Rights of Nature." *Transnational Environmental Law* 9, no. 3 (2020): 403-427.
[385] O'Donnell et. al (2020)

been designated by a tribe, have been designated ecosystem rights without explicit personhood status (e.g. Lake Erie and the Wekiva River and Econlockhatchee River Bill of Rights).

The methods of recognition of these various Rights of Nature designations also differ. Colombia's Atrato River was recognized by the Constitutional Court of Columbia with the goal of protecting the human right to a healthy environment. New Zealand's Whanganui River was recognized through legislation in response to the Treaty of the Waitangi Settlement with the goal of vesting ownership of the river to the river, while recognizing the Indigenous communities' relationships with the river. India's Ganga and Yamuna Rivers were recognized by the state of Uttarakhand High Court before being stricken down by the Supreme Court with the goal of addressing pollution. Bangladesh's rivers were recognized by the High Court Division of Supreme Court with the goal to address environmental degradation. Lastly, the Lake Erie Bill of Rights was recognized through a local ballot before being stricken down in federal court with the goal to address pollution. The Lake Erie and the Wekiva River and Econlockhatchee River Bill of Rights cases are more similar to the Rights of Nature cases that have taken place in Ecuador, Bolivia, and Australia. The guardianship model was adopted by Colombia, New Zealand, India, and Bangladesh, whereas, under a Rights of Nature framework, any connected individual (e.g., resident, government entity, or business entity) can file a lawsuit on the river's behalf.

The successful guardianship model, environmental personhood designations, have maintained strong Indigenous community support. This should not be taken for granted in evaluating the success and failures of various proposals that have occurred since 2006 in the United States. Acknowledging the validity and importance of recognizing, honoring and integrating Traditional knowledge into the various political, social and economic systems in the United States is a crucial foundation for establishing environmental personhood for rivers. By utilizing both Western and Traditional ways of knowing to shape new water resources management, the social value of rivers will be better known, promoted and able to be protected. In Table 1 (below), I summarize the key factors in the varying degrees of success of these cases. As noted in Chapter 1, "success", here, is defined as law or policy that has been maintained and endorsed, or law or policy that has been expanded upon to further progress the restructuring of water resources management in that location. "Partial success" is

when the law or policy was not recognized initially but inspired further action to be taken, or when the law or policy was initially authorized but later overturned, it still showed signs of progress towards restructuring water resources management for that location. "No success" was assigned to cases that were dismissed or overturned and have not yet been revisited. The final degree of success in the chart is "ongoing," which means there has been a declaration of rights or personhood that is waiting to be adopted by the government, or a campaign has launched to protect a waterbody. Note, I was unable to cover all of the recent campaign launches and declarations of 2021.

Table 1: Comparative case chart of knowledge systems at play and degrees of success

Places	Legislative or Judicial	Type of designation:	History of commodification of natural resources?	Degrees of Success
International Rights of Nature (RoN) cases				
Traditional knowledge and social values				
Ecuador, 2008/2011	Legislative	Rights of Nature framework	Historically built on extractive industries and agricultural exports	Yes
Bolivia, 2010/2012	Legislative	Universal Declaration on the Rights of Mother Earth	Historically built on extractive industries	Yes
Belize, 2010	Judicial	"Guardian" language utilized	Recognize nature as more than property	Yes
Columbia, 2012/2018	Judicial	Guardianship model under RoN methodology	Historically built on extractive industries and agricultural exports	Yes
International Rights of Nature (RoN) with a focus on Personhood cases				
Traditional knowledge and social values				
New Zealand, 2017	Legislative	Guardianship model for environmental personhood	Ownership (property) battles	Yes
India, 2017	Judicial	Guardianship model for environmental personhood	Severe water pollution	No
Australia, 2011/2017	Legislative	Pursuing "ancestral" personhood designation based on RoN framework failures	Concerns regarding the over-extraction (consumption) of water in a country with a deep-rooted colonial history	Partially
Bangladesh, 2019	Judicial	Guardianship model for environmental personhood	Environmental degradation	Partially
Canada, 2021	Local resolution that has yet to be adopted by the Federal government	Guardianship model for environmental personhood and RoN methodology	Over-industrialization of rivers	Ongoing

National Rights of Nature (RoN) cases				
Western knowledge and market values				
Pennsylvania, 2006/2014	Legislative	Rights of Nature and Rights of Rivers	Protection of the local environment, ecosystem and waterbodies	Partially
Santa Monica, 2013/2019	Legislative	Earth Law	Protection of the local environment, ecosystem and waterbodies	Yes
Crestone, Colorado, 2018	Local resolution	Rights of Nature	Protection of the local environment, ecosystem and waterbodies	Yes
Lake Erie, 2014	Local resolution and Judicial	Legal personhood and Guardianship model under RoN methodology through the Lake Erie Bill of Rights	Mitigation against toxic algal blooms for access to clean water	No
Florida, 2020	Legislative	Rights of Nature through the Wekiva River and Econlockhatchee River Bill of Rights	Mitigation against water pollution	Ongoing
Colorado River, 2021	Regional campaign	Rights of Nature laws for the Colorado River	Protect against the growing interests in Colorado River water rights from Wall Street	Ongoing
National Rights of Nature (RoN) cases				
Traditional knowledge and social values				
Ho-Chunk Nation, 2016	Tribal resolution	Rights of Nature	Mitigation against fossil fuel extraction	Yes
The White Earth Band of the Ojibwe and 1855 Treaty Authority, 2019	Tribal resolution	Rights of Manoomin	Protection of wild rice and freshwater resources	Yes
Menominee Tribe, 2020	Tribal resolution	Rights of Rivers	Protection of the Menominee River	Yes
Nez Perce Tribe, 2020	Tribal resolution	Guardianship model under RoN methodology for the Snake River	Protection of the Snake River	Ongoing
National Rights of Nature (RoN) with a focus on Personhood cases				
Western knowledge and market values				
Colorado River Ecosystem v. State of Colorado, 2017	Judicial	Legal personhood for the Colorado River	Establish legal standing for the Colorado River	No
National Rights of Nature (RoN) with a focus on Personhood cases				
Traditional knowledge and social values				
Yurok Tribe, 2019	Tribal resolution	Legal personhood designation for the Klamath River	Protect the Klamath River from issues of water scarcity and pollution	Yes

The Guardianship Model Applied

Guardianship in Colombia and New Zealand are new co-management frameworks, in which the guardians are appointed by the Indigenous communities and government entities.[386] However, as Wilson and Lee[387] discuss,

> multiple human stakeholders with conflicting interests can make appointing guardians difficult. Property and commercial interests can complicate the enforcement of river rights, particularly since few judges and lawmakers have in-depth knowledge about Earth jurisprudence. The consideration of local community rights also needs to be factored into any decision for river health, so the complexity of balancing different rights increases when rivers gain legal rights.

The guardians also need to have "sufficient funding, organizational identity and (some of them need to have) independence from government."[388] However, promoting the rights of rivers should not come at the cost of a positive relationship with the river. The relationship between stakeholders and the river should not become adversarial. Questions have arisen out of less well-established guardianship model cases about if individuals can sue a river and its guardians for injury, such as flood damage. "In Uttarakhand (India), the court-appointed guardians in the state government cited the fear of being sued when the Ganga and Yamuna Rivers flood as one reason for immediately appealing against the decision to appoint them."[389] Despite these concerns, the guardianship model will still provide the best framework for designation of environmental personhood to the Columbia River watershed, which already has an excellent management framework through the Columbia River Treaty off of which to build a guardianship model. Giving the Columbia River legal personhood rights would honor Traditional knowledge, values and laws, as well as provide higher levels of protection to the river, allow for the river to "advocate for its own interests in policy debates (private interest regulatory theory)," and "enable the river to participate in water and ecosystem services markets (market environmentalism)."[390] Recognizing the rights of rivers upholds concepts from ecocentrism which "recognizes that we are all part of the one system, emphasizing the

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[386] O'Donnell et. al (2020)
[387] Wilson and Lee (2019)
[388] Eckstein et. al (2019)
[389] O'Donnell et. al (2020)
[390] Eckstein et. al (2019)

collective good."[391] This recognition and the ability for rivers to participate in ecosystem services markets will aid in combatting the commodification of nature.

What would personhood for rivers in the United States look like? More specifically, what would personhood for the transboundary Columbia River and its tributaries look like? The transboundary Columbia River is managed by entities in Canada and the United States. The original motivation for developing infrastructure on the Columbia was for ship and barge navigation. Historically this management has been processed under the Columbia River Treaty (CRT), which is now in the stages of renegotiation. The CRT was implemented in 1964 for the purposes of flood control and power. In addition to flood control and power, there are new considerations for integrating ecosystem-based functionality into the treaty and a push for Indigenous voices to be heard with the current renegotiations.

Personhood for the Columbia River

When the guardianship model is adopted for the Columbia River in the United States, the Federal government would be amiss if they did not allow for guardians to be appointed from the Federal and relevant state governments, as well as from the co-sovereign Indian Nations in the Columbia River Basin. In the United States American Indian tribes are viewed as "domestic dependent nations" that have internal sovereignty but lack external sovereignty.[392] As co-sovereigns with the Federal government, Indian nations have complicated jurisdictional boundaries. However, as co-sovereigns, under the *Winters* doctrine tribes have established reserved water rights and under the *Adair* ruling tribes have established aboriginal water rights.[393] Prior to the tribal water rights scheme being recognized, *United States v. Winans*, set the foundation for ambiguous Treaty language, under the canons of construction, to be interpreted in favor of the tribe.[394] The court in *Winans* established the legal rule of allowing Indian's access to "usual and accustomed places." This implied right of access argument set the foundation for the *Boldt* decision and later the *Herrera* decision.[395] The court's ruling in *United States v. Washington*, "the Boldt decision", increased tribal sovereignty by allowing

[391] Eckstein et. al (2019)
[392] *Cherokee Nation v. Georgia*, 30 U.S. 1 (1831); *Worcester v. Georgia*, 31 U.S. 515 (1832)
[393] *Winters v. United States*, 207 U.S. 564 (1908); *United States v. Adair*, 723 F.2d 1394 (9th Cir. 1983)
[394] *United States v. Winans*, 198 U.S. 371, 25 S. Ct. 662 (1905)
[395] *United States v. Washington*, 384 F. Supp. 312 (W.D. Wash. 1974); *Herrera v. Wyoming*, 139 S. Ct. 1686 (2019)

for the Quinault tribe to manage fishing. In May 2019, the Supreme Court of the United States ruled that Indian treaties "must be interpreted in light of the parties' intentions, with any ambiguities resolved in favor of the Indians," and the words of a treaty must be construed "in the sense in which they would naturally be understood by the Indians."[396] Combined with higher sovereignty status, the *Herrera* decision could lead to an important change in SCOTUS' approach to Federal Indian law, especially within the Rights of Nature context. Under International law, treaties with Indigenous communities are interpreted against the party whose language it is written in. This was the case in New Zealand with the Maori people.

In addition to the adoption of a guardianship model for the Columbia River System, the difference in the guardianship model for a transboundary versus domestic river system must be considered. Domestically, the United States federal government regulates navigable waters, private hydropower projects and water quality. This authority originates from the Commerce Clause in the U.S. Constitution.[397] The Commerce Clause also gives Congress the authority to pass environmental laws. This authority differs from the authority to manage federal lands, which stems from the Property Clause of the U.S. Constitution.[398] These lands are held in public trust and are passed to the states upon the establishment of statehood, and in some cases to Tribes. The guardianship model failed in India with transboundary systems because there was not clear guidelines on the roles of the guardians within the segments of the river that gained legal rights. For the transboundary Columbia River there is an international treaty set in place with current proposals to make that treaty more robust by means of active adaptive management techniques that would be integrated through the creation of an International River Basin Organization.[399] With international cooperation in place already, the concerns from the guardianship model in India failing will be more easily mitigated. Customary international law must be taken into account as well, in the context of the Columbia. Under some of the emerging pillars of Customary International Law - ecological

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[396] *Herrera v. Wyoming*, 139 S. Ct. 1686, 1699 (2019)
[397] United States Constitution, Article 1, Section 8, Clause 3
[398] United States Constitution, Article IV, Section 3, Clause 2
[399] Harrison, John. "International Columbia River Conference Attracts Nearly 300 people from the United States and Canada," Northwest Power and Conservation Council (Sept 2019).
https://www.nwcouncil.org/news/columbia-river-conference-highlights-transboundary-issues &
https://www.nwcouncil.org/sites/default/files/Sept%2026%202019%20Future%20of%20CRB%20Governance_Sense%20of%20the%20Meeting_Final.pdf.

necessity and sustainable development - there can be a push for personhood statutes for a river that crosses international boundaries. A river does not recognize boundaries, only the people of either side of the border can see the ‘line in the sand.’ Therefore, rivers should not be subjugated to the destructive and greedy decisions of the modern capitalistically driven world.

Overall, the Transboundary Columbia River, like all other natural entities, should gain the Rights of Nature and personhood status. Additional questions need to be answered in order to create a more robust proposal for a transboundary system under the guardianship model. These questions aside, the smaller water bodies within the Basin, such as Coeur D’Alene lake, could adopt a model similar to New Zealand’s Whanganui River. Due to the fact that the Tribe’s ownership of the beds and banks of the southern portion of the lake within the reservation was recognized in 2001, it is within the boundaries of the United States, and there are natural resource management systems already in place, it could be argued that the Lake should gain legal status. If the Coeur D’Alene Tribe can declare legal personhood for the lake, it could establish a foundation in the courts to designate personhood for the entire transboundary river. Similarly, the framework for environmental personhood designation has been developed by the Yurok Tribe’s rights of personhood designation for the Klamath River. These federally recognized tribes have deep cultural and spiritual ties to the local waterbodies and the right of self-government through tribal sovereignty. If tribal nations continue recognizing and declaring legal personhood for rivers there will be a solid foundation to establish environmental personhood throughout the United States.

Guardianship Designation for a Multi-Jurisdictional River

There is constant natural and artificial change occurring in our local environments. Combined these local environments make up mother earth; the world as we know it. No human civilization has left the earth untouched, we leave behind a history as time moves on and ancestors are forgotten. The changes we see today may have been triggered from us but not all of the transformations originated in a contemporary context. Certain areas are more untouched than others; seen through population count and explained through terrain.[400]

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[400] This is a topic explored by William Cronon in “Changes in the Land”, along with other historians and environmentalists.

The Columbia River, the fourth largest river in the United States, is a transboundary river that originates in the Rocky Mountains of British Columbia and flows 1,243 miles before crossing the border into the United States. Its headwaters are located in the Rocky Mountains of British Columbia, Montana and Idaho and the river reaches its mouth along the borders of Oregon and Washington at the Pacific Ocean. The watershed spans 259,500 square miles, fifteen percent of that being in British Columbia, Canada and the remaining eighty-five percent in the Pacific Northwest region of the United States.[401] The Columbia River, a spectacular but over-industrialized[402] waterbody, provides resources for the entire PNW region including hydropower, flood management, irrigation, municipal water use, industrial use, navigation, recreation, and cultural and spiritual uses.

In 1964 the Columbia River Treaty between the United States and Canada was entered into force after being signed by both countries in 1961.[403] The two entities, one from each country, that are designated to execute agreed upon plans and procedures under the Treaty include representatives from the Bonneville Power Administration, the Northwestern Division Engineer of the United States Army Corps of Engineers, and B.C. Hydro. These designated and appointed officials provide the basis of a framework for a guardianship model to be established under an environmental personhood designation. Additionally, the federally recognized tribes, the representatives in the basin states[404] and the other prominent stakeholders who have been involved in the renegotiation process, would be good potential guardians.[405] Given the size of the watershed and the many interested parties, utilizing natural and already established political, cultural and social boundaries, on a local and regional level,

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[401] Referencing material noted during the: Columbia River Basin Transboundary Conference (September 12-14, 2019) http://transboundaryriverconference.org.
[402] Some scholars suggest it is one of the most industrialized rivers in the world.
[403] "Columbia River Treaty." U.S. Department of State. https://www.state.gov/columbia-river-treaty/.
[404] The basin states include Washington, Oregon, Idaho, Montana, Utah, Wyoming, Nevada
[405] The formal international governance entities within the basin include the International Joint Commission established by the Boundary Waters Treaty between the United States and Canada in 1909 and the Entities established under the Columbia River Treaty - BC Hydro, the Administrator of Bonneville Power Administration, and the Northwest Division Manager of the United States Army Corps of Engineers. Numerous private and economic entities also participate in water governance, including environmental organizations focused on recovery of wild salmon, economic organizations focused on the continuation of cheap hydro power, and bridging organizations like the Pacific Northwest Economic Region. Additionally, Native American Reservations and First Nations have collaborated to form governance organizations including Columbia River Inter-Tribal Fish Commission, Upper Columbia United Tribes, Upper Snake United Tribes, and Okanagan Nation Alliance. Finally, numerous formal and informal watershed organizations exist within the basin. While substantial collaboration exists among formal and informal governance entities, no coordinating body exists to ensure exchange of information, inclusive dialogue, public education, and transparency in decision-making.

and assigning representatives and stakeholders to guardianship roles on the regional level would be a logical framework to launch environmental personhood. For example, the Nez Perce Tribe has already taken initiative in beginning the process of assigning rights to the Snake River, a major tributary of the Columbia. Additionally, the Coeur d'Alene Tribe could be guardians of Lake Coeur d'Alene, the Yakama Nation could be guardians of the Yakima River, the Kootenai[406] guardians of the Kootenai River, so on and so forth for all fifteen Native American reservations that have historic ties and continue to manage tributaries or other waterbodies within the watershed.[407]

The Columbia River Inter-Tribal Fish Commission (CRITFC)[408], a group of tribes on the Columbia Plateau, the Upper Columbia United Tribes (UCUT),[409] the Upper Snake River Tribes (USRT),[410] and lastly, the Affiliated Tribes of the Northwest Indians (ATNI),[411] are four important and well-established groups that could act as "leader" guardians. These "leader" guardians could provide organization, unity and oversight, as well as act as a resource, for the appointed guardians of each major tributary or ecosystem in the Columbia river watershed. As recognized co-managers of the watershed,[412] in addition to the well-established international guardianship model framework, which is rooted in Indigenous leadership and knowledge, it makes sense to assign guardianship status based on traditional

[406] "The Kootenais have never lost sight of their original purpose as guardians of the land. Today, the Kootenai Tribe of Idaho seeks to fulfill this purpose by developing and implementing innovative, scientific approaches to guardianship of the land that consider the whole ecosystem at the watershed/subbasin scale, are socially and economically responsible, are supported by the local community and other partners within the watershed, and that incorporate adaptive management principles." ("Kootenai River Habitat Restoration Program." http://www.restoringthekootenai.org/)

[407] "Tribal Nations." Columbia River Keeper. https://www.columbiariverkeeper.org/columbia/tribal-nations

[408] CRITFC member tribes include: the Nez Perce, the Confederated Tribes of the Umatilla Indian Reservation, the Confederation Tribes of the Warm Springs Reservation, and the Confederated Tribes and Bands of the Yakama Nation. ("Columbia River Inter-tribal Fish Commission." https://www.critfc.org/member_tribes_overview/#:~:text=The%20Columbia%20Plateau%20is%20home,Bands%20of%20the%20Yakama%20Nation.)

[409] UCUT member tribes include: the Coeur d'Alene Tribe, the Confederation Tribes of the Colville Reservation, the Kalispel Tribe of Indians, the Kootenai Tribe of Idaho, and the Spokane Tribe of Indians. ("Upper Columbia United Tribes." https://ucut.org/)

[410] USRT member tribes include: the Shoshone-Bannock Tribes, the Shoshone-Paiute Tribes, the Burns Paiute Tribe and the Ft. McDermitt Paiute Shoshone Tribe. ("Upper Snake River Tribes." https://uppersnakerivertribes.org/).

[411] "Affiliated Tribes of the Northwest Indians." https://atnitribes.org/.

[412] The 1974 *Boldt Decision* ruling established tribal nations' fishing rights on the Columbia River establishing a foundation for the tribal nations to co-manage fishing.

territories. The sovereign entities already contribute to management of the basin through numerous agencies, regulations, as well as informal collaboration.

Similarly, if all eighteen First Nation communities in B.C. were to declare environmental personhood and become the guardians of segments of the upper Columbia,[413] a comprehensive system of guardianship could be introduced. Since there is already a basic framework in Canada for declaring environmental personhood, after the declaration of the Magpie River's rights in February 2021, local declarations in British Columbia should lay the groundwork just as the collaborative local and Indigenous groups did in Quebec. Lastly, guardians for state and other local municipal entities throughout the basin will also need to be assigned to provide a fair representation of stakeholder interest; similar to how Save the Colorado and Earth Law Center are re-approaching assigning rights to the Colorado River.

Management of transboundary river systems has always posed challenges, but the Columbia River Treaty has been a somewhat successful tool in bringing together the two countries in order to establish agreed upon management plans for the river. With three hundred and ten river basins that cross international borders,[414] and a growing Rights of Nature movement, the Columbia River presents as a perfect case study for designating environmental personhood under the guardianship model to display to the global community that the transboundary nature of river systems does not need to be a barrier – as it was in India – for designating legal personhood to rivers. The Columbia River Treaty has succeeded in dealing with management of hydropower and flood control for the river system. However, in the modern era of climate change and water scarcity, a more flexible and holistic system needs to be considered.

Columbia River Treaty renegotiations between the United States and Canada have been in effect since 2018, to prepare for the expiration of the flood risk management Treaty provisions in 2024, which is also the earliest date the Treaty can be terminated. Growing social, economic and environmental concerns led to a more in-depth review of the treaty and overall management of the Columbia River as part of the renegotiations. The broad support for better environmental management and the integration of ecosystem services into a

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[413] "Columbia River Inter-tribal Fish Commission." http://ccrifc.org/
[414] "Transboundary Freshwater Dispute Resolution Database." Program in Water Conflict Management and Transformation, Oregon State University. https://transboundarywaters.science.oregonstate.edu/content/transboundary-freshwater-dispute-database.

renegotiated treaty, once again lays the groundwork for an environmental personhood designation as a way to solve the issue of making the treaty more adaptable to climate change and water scarcity. However, to address the problem of an outdated treaty, a proposal of an international river basin organization (IRBO) has been brought into the discussion regarding treaty renegotiations. According to Jain et. al. in their article titled, Water Resources Systems Planning and Management,

> the basic premise behind management of international river basins is that the interest of international community is supreme, superseding the interest of individual countries. There are a number of bi- and multi-lateral agreements among the basin countries for the management of international river basins. The cooperation in management of international basins depends on the mutual relations of the countries involved. If the relations are good … problems can be easily resolved through across the table discussions and meetings… A major aspect of many river basin treaties is the establishment of a river basin organization. There are two types of national river basin organizations: river basin commissions with primarily a coordinating task; and river basin authorities with decision-making and policing powers. The same type of organizations can be found in international basins.[415]

An IRBO would establish an innovative system of water governance with the authority to balance environmental and economic needs of stakeholders while providing transparency and better public education through a repository for information sharing. The IRBO structure would also provide a forum for contributions from sovereign entities to be shared. IRBO's are platforms for applying adaptive management techniques in water governance. An IRBO for the Columbia River has the potential to focus on three main concerns that are not addressed by the Treaty, including allowing and encouraging the participation of First Nations and tribes in the basin, encouraging and increasing public participation, and correctly incorporating ecosystem management. Overall, a collaborative adaptive governance structure could be established if Columbia Basin water governance is able to evolve to include both the Columbia River Treaty and an IRBO. Additionally, an IRBO would be an excellent platform to launch a basin-wide declaration of environmental personhood for the Columbia River because there would already be an organization in place to assign guardianship appointments.

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[415] Jain, S.K., Singh, V.P., "Water Resources Systems Planning and Management", in Developments in Water Science (2003). http://www.sciencedirect.com/topics/earth-and-planetary-sciences/international-river-basin.

The Guardianship Model and the Rights of Nature in the United States - Conclusion

Recognizing the legal Rights of Nature for all rivers in the United States seems like an impossible goal to some individuals. Environmental policy and management, and the primacy of private property rights, in the United States is rooted in settler colonial relations. Corporations gained legal personhood status in a legal system that is partly responsible for protecting economic interests specific to capitalist arrangements, thus these economic entities successfully argued that a corporation is a collection of people that can become party in a contract so that the individuals themselves are not legally responsible. However, just as a corporation collects people, it could be possible under the law for a river to collect people - landowners, recreationists, water rights holders, other property owners and invested groups - as *guardians*. This move to balance the rights between corporations and environmental personhood is critical in slowing down and overcoming environmental devastation since, as Anna Smith notes, "Often, it is corporations with legal personhood that are doing the most destruction to the rivers, lakes, and forests that lack the same designation."[416]

The legal concerns regarding environmental personhood are valid, however, it is important to keep in mind that the goal in designating legal personhood to a river or recognizing the Rights of Nature is not to just have a cleaner method to establish legal standing, but to remind society of the *social value* of rivers. The goal is to help bring together Western and Traditional ways of knowing to better environmental management and aid in the evolution of how Western systems view nature – more specifically, changing how governments, business entities and individual citizens interact with the river systems.

[416] Smith, Anna. "When Nature Speaks for Itself" (Nov, 28 2020). https://slate.com/technology/2020/11/suicide-of-our-troubles-environmental-personhood.html.

Conclusion

> Ecological models have been consistently formulated at a 'systemic' level that is well removed from the level of the individual – and it is individuals, not social institutions, who make and act on cultural meanings. Conventional ecological studies proceed on the tacit premise that what people think about the environment – how they perceive it, how they conceptualize it, or, to borrow a phrase from the ethnomethodologists, how they 'actively construct' it – is basically irrelevant to an understanding of man-land relationships. To accept this premise is to conclude that cultural meanings are similarly irrelevant and that the layers of significance with which human beings blanket the environment have little bearing on how they lead their lives.[417]

Cultural meanings of the connection between human society and the land are not irrelevant, and should no longer be seen as such, in order to justify the status quo of dominance and extraction. To revolutionize water resources management and better prepare for the inevitable changes that will occur due to climate change and water scarcity, recognizing the legal personhood rights of rivers in the United States must be established. Integrating resilience theory into water resources adaptive management through environmental personhood designation will lay the foundation to bridge the gap in understanding between Western and Traditional ecological management, as well as honor the various value systems involved in guiding the direction of these practices. Social value should play equally along with maintaining Western political and economic values in river management.

Social value is the Western way of understanding the values associated with Traditional ecological knowledge. Social value from a Traditional knowledge perspective that utilizes Western ways of knowing and value systems - that uphold the commodification of natural resources for the market economy or human health and enjoyment - displays the understanding that Environmental personhood is questioned due to the domination of nature standard so deeply woven into Western systems. However, social value from a Traditional knowledge perspective that utilizes Traditional knowledge and value systems - the unseen values of place, space, the environment and natural resources - highlights that environmental Personhood has been recognized for time immemorial through the recognition of the spirit of place. Further, social value from a Western knowledge perspective that utilizes Western ways of knowing and value systems – the cultural values that are not accounted for in law, policy,

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[417] Basso, Keith H. *Wisdom sits in places: Landscape and language among the Western Apache*. UNM Press (1996): 67.

management or the economic sphere – recognizes reacknowledgement of Genius Loci would help bridge the communication gap between Traditional ways of doing and knowing in Western law, policy, management, and economics. Lastly, social value from a Western knowledge perspective that utilizes Traditional knowledge and value systems – the spiritual connection to the land Indigenous people honor to this day – establishes the bridge through promoting the acknowledgement of Rights of Nature and designation of legal personhood for rivers.

The Rights of Nature approach to declaring rights for rivers can be effective in a political situation that will more easily amend state and federal constitutions. In systems that face challenges of addressing justice issues stemming from an ongoing colonial legacy and a capital present, the guardianship model has been a success. It is important to note the concerns regarding private and public property rights, defining legal injury for rivers that gain rights, and the authority to manage transboundary systems, but these apprehensions do not need to act as stop signs. There are three hundred and ten river basins that cross international borders in the world and a system to address the concerns of authority through International River Basin Organizations (IRBOs). Additionally, the United Nations' Harmony with Nature programme,[418] launched in 2009, has created a centralized platform to connect global Rights of Nature efforts. In 2010, the Universal Declaration of the Rights of Mother Earth and Tribunal[419] emerged as an international document to codify the Rights of Nature and led to the founding of the International Rights of Nature Tribunal.[420] The information, knowledge, models, and momentum to back a campaign is ripe.[421] The time to act is now, we can no longer wait to properly manage the lifeblood of Mother Earth.

[418] "Harmony with Nature Programme." United Nations. http://www.harmonywithnatureun.org/.
[419] "Universal Declaration of the Rights of Rivers." GARN. https://www.therightsofnature.org/universal-declaration/.
[420] "Rights of Nature Tribunal." International Rights of Nature Tribunal. https://www.rightsofnaturetribunal.org/.
[421] Advocacy within applied science is crucial. Objectivity is built into the scientific method, however neutrality only goes so far when the research is pointing to solutions for issues that are often construed as value-based. Advocacy and the scientific method are mutually beneficial (Garrard (2016): 208-212). Each sharpens the focus of their counterpart. Advocacy can help distill the question for the underlying issue of a research project. The continued application of research findings in the same circles of epistemologies only serves to support the status quo instead of breaking down barriers to accelerate the societal changes needed.

References

"About the WSR Act." National Wild and Scenic Rivers System. https://www.rivers.gov/wsr-act.php.
"A Brief History of the AAAS's Activities on Scientific Freedom, Responsibility and Law." AAAS. https://www.aaas.org/programs/scientific-responsibility-human-rights-law/history.
Act of July 17, 2019, Am. Sub. H.B. No. 166, 133d Gen. Assy. (Ohio 2019): 482 (codified at Ohio Rev. Code § 2305.011).
Act of the Rights of Mother Earth. Plurinational Legislative Assembly (2010). http://f.cl.ly/items/212y0r1R0W2k2F1M021G/Mother_Earth_Law.pdf.
"Advancing Legal Rights of Nature: Timeline." COMMUNITY ENVTL. LEGAL DEF. FUND (Nov. 9, 2016). https://celdf.org/rights/rights-of-nature/rights-nature-timeline/.
"Affiliated Tribes of the Northwest Indians." https://atnitribes.org/.
Allen, Craig R., David G. Angeler, Ahjond S. Garmestani, Lance H. Gunderson, and Crawford S. Holling. "Panarchy: theory and application." *Ecosystems* 17, no. 4 (2014): 578-589.
Alley, Kelly D. "River goddesses, personhood and rights of nature: implications for spiritual ecology." *Religions* 10, no. 9 (2019): 502.
Amended Complaint, Colorado River Ecosystem v. Colorado, No. 17-cv-02316-NYW (D. Colo. Nov. 6, 2017). http://blogs2.law.columbia.edu/climate-change-litigation/wp-content/uploads/sites/16/case-documents/2017/20171106_docket-117-cv-02316_complaint.pdf
"An Equitable Water Future: A National Briefing Paper." US Water Alliance (2017).
"Announcing the Launch of the Water Equity Network." US Water Alliance (2020). http://uswateralliance.org/news/announcing-launch-water-equity-network.
"An Ordinance of the City Council of the City of Santa Monica Establishing Sustainability Rights." Santa Monica City Council (March 12, 2013). https://www.smgov.net/departments/council/agendas/2013/20130312/s2013031207-C-1.htm#:~:text=(a)%20All%20residents%20of%20Santa,sustainable%20climate%20that%20supports%20thriving.
Anderson, Elizabeth P., Sue Jackson, Rebecca E. Tharme, Michael Douglas, Joseph E. Flotemersch, Margreet Zwarteveen, Chicu Lokgariwar et al. "Understanding rivers and their social relations: a critical step to advance environmental water management." *Wiley Interdisciplinary Reviews: Water* 6, no. 6 (2019): e1381.
Angelo, Mary Jane. "Embracing uncertainty, complexity, and change: An eco-pragmatic reinvention of a first-generation environmental law." *Ecology LQ* 33 (2006): 105.
Araral, Eduardo, and Yahua Wang. "Water governance 2.0: A review and second generation research agenda." *Water Resources Management* 27, no. 11 (2013): 3945-3957.
Araiza, William D. "Democracy, Distrust, and the Public Trust: Process-Based Constitutional Theory, the Public Trust Doctrine, and the Search for a Substantive Environmental Value," UCLA Law Review 45, no. 2 (December 1997): 385-452.
Arumugam, Sankar, Mukhopadhyay, Sudarshana, Shipman, Matt. "Hydrology Data Tool Helps Users Manage Water Resources, Protect Infrastructure." NC State University (2020). https://news.ncsu.edu/2020/10/hydrology-data-tool/.
"2017 Infrastructure Report Card." American Society of Civil Engineers (2020). https://www.infrastructurereportcard.org/cat-item/dams/.
Athens, Allison Katherine. "An Indivisible and Living Whole: Do We Value Nature Enough to Grant It Personhood." *Ecology LQ* 45 (2018): 187, footnote 14.
Atuahene, Bernadette. "Dignity takings and dignity restoration: creating a new theoretical framework for understanding involuntary property loss and the remedies required." *Law & Social Inquiry* 41, no. 4 (2016): 796-823.
Ausness, Richard. "Water Rights, the Public Trust Doctrine, and the Protection of Instream Uses," University of Illinois Law Review 1986, no. 2 (1986): 407-438.

Babcock, Hope M. "A Brook with Legal Rights: The Rights of Nature in Court," Ecology Law Quarterly 43, no. 1 (2016): 1-52.

Babcock, Hope M. "[This] I Know from My Grandfather: The Battle for Admissibility of Indigenous Oral History as Proof of Tribal Land Claims." *Am. Indian L. Rev.* 37 (2012): 41.

Barnhardt, R., & Oscar Kawagley, A. Indigenous knowledge systems and Alaska Native ways of knowing. *Anthropology & education quarterly 36,* no. 1 (2005): 8-23.

Barrett, Mereana, Krushil Watene, and Patty McNicholas. "Legal personality in Aotearoa New Zealand: an example of integrated thinking on sustainable development." *Accounting, Auditing & Accountability Journal* (2020).

Barry, John. *Environment and social theory*. Routledge (2007).

Basso, Keith H. *Wisdom sits in places: Landscape and language among the Western Apache*. UNM Press (1996).

Benöhr, Jens, and PATRICK J. Lynch. "Should rivers have rights? A growing movement says it’s about time." *Yale environment* 360 (2018): 14.

Bentham, Jeremy. “On the principle of utility.” Classics of PA # 3 (1780).

Berger, Margaret A., and Lawrence M. Solan. "The uneasy relationship between science and law: An essay and introduction." *Brook. L. Rev.* 73 (2007): 847.

Berman, Devon Alexandra. "Lake Erie Bill of Rights Gets the Ax: Is Legal Personhood for Nature Dead in the Water," Sustainable Development Law & Policy 20, no. 1 (Fall 2019): 15-16.

Bernauer, Thomas. “Explaining Success and Failure in International River Management.” Aquatic Sciences 64 (2002):19.

Berros, María Valeria. "Defending rivers: Vilcabamba in the South of Ecuador." *RCC Perspectives* 6 (2017): 37- 44.

Bishop, Alan J. "Western mathematics: The secret weapon of cultural imperialism." *Race & Class* 32, no. 2 (1990): 51-65.

Bird-David, Nurit. "“Animism” revisited: personhood, environment, and relational epistemology." *Current anthropology* 40, no. S1 (1999): S67-S91.

Birol, Ekin, Phoebe Koundouri, and Yiannis Kountouris. "Assessing the economic viability of alternative water resources in water-scarce regions: Combining economic valuation, cost-benefit analysis and discounting." *Ecological Economics* 69, no. 4 (2010): 839-847.

Blake, Emilie. "Are Water Body Personhood Rights the Future of Water Management in the United States," Texas Environmental Law Journal 47, no. 2 (Sept. 2017): 197-216.

Blevins, Jason. “Colorado’s ornery, independent water guardians finally agree on one thing: Wall Street can look elsewhere,” Colorado Sun (Jan. 18, 2021). https://coloradosun.com/2021/01/28/colorado-wall-street-water-buyers/.

Blumberg, Phillip I. "The Corporate Entity in an Era of Multinational Corporations," Delaware Journal of Corporate Law 15, no. 2 (1990): 283-376.

Blumm, Michael C. "Public Property and the Democratization of Western Water Law: A Modern View of the Public Trust Doctrine," Environmental Law 19, no. 3 (Spring 1989): 573-604.

Blumm, Michael C., Rachel D. Guthrie. "Internationalizing the Public Trust Doctrine: Natural Law and Constitutional and Statutory Approaches to Fulfilling the Saxion Vision," UC Davis Law Review 45, no. 3 (Feb. 2012): 741-808.

Blumm, Michael C., Zachary A. Schwartz. “The Public Trust Doctrine Fifty Years After Sax and Some Thoughts on Its Future.” *Available at SSRN 3567536* (2020).

“Bolivia.” *Earth Law Center* (2016). https://www.earthlawcenter.org/international-law/2016/8/bolivia.

Bolivian Law 071, Ley de Derechos de la Madre Tierra (Dec. 21 2010). http://ilo.org/dyn/natlex/docs/ELECTRONIC/92470/107736/F1549363084/BOL92470.pdf. & http://www.worldfuturefund.org/Projects/Indicators/motherearthbolivia.html.

Bolivia Ley marco de la madre tierra y desarrollo integral para vivir bien, Law No. 300 (2012). http://ilo.org/dyn/natlex/docs/ELECTRONIC/92468/107732/F- 1782935448/BOL92468.pdf.

Bonasia, Joseph. “Rights of Nature Bolstered by Orange Charter vote,” Orlando Sentinel (Nov 12, 2020). https://www.orlandosentinel.com/opinion/guest-commentary/os-op-orange-rights-of-nature-invading-sea-20201112-jyr36yqpgvdunptsnasvdhcnvm-story.html.

Bookchin, Murray. "Social ecology versus deep ecology: A challenge for the ecology movement." *Socialist Review 88* (1987): 11-29.

Borrini-Feyerabend, Grazia. *Collaborative management of protected areas: Tailoring the approach to the context*. Gland: IUCN-The World Conservation Union (1996).

Bowker, J. M., and John C. Bergstrom. "Wild and scenic rivers: An economic perspective." *International Journal of Wilderness* 23, no. 2 (2017): 22-33.

Brandshaug, Malene K. "Water as More than Commons or Commodity: Understanding Water Management Practices in Yanque, Peru." *Water Alternatives* 12, no. 2 (2019).

Brayboy, Bryan McKinley Jones. "Toward a tribal critical race theory in education." *The Urban Review* 37, no. 5 (2005): 425-446.

Brierley, Gary, Marc Tadaki, Dan Hikuroa, Brendon Blue, Charlotte Šunde, Jon Tunnicliffe, and Anne Salmond. "A geomorphic perspective on the rights of the river in Aotearoa New Zealand." *River Research and Applications* 35, no. 10 (2019): 1640-1651.

Bryner, Nicholas. “Colombian Supreme Court Recognizes Rights of the Amazon River Ecosystem.” *IUCN* (2018). https://www.iucn.org/news/world-commission-environmental-law/201804/colombian-supreme-court-recognizes-rights-amazon-river-ecosystem.

Burkett, Paul. "Nature's ‘Free Gifts' and the Ecological Significance of Value." *Capital & Class* 23, no. 2 (1999): 89-110.

Burwell v. Hobby Lobby Stores, Inc., 134 S. Ct. 2751, 2759 (2014).

Cajete, Gregory. *Native science: Natural laws of interdependence*. Clear Light Pub (2000).

Cajete, Gregory PhD. Native American Studies, The University of New Mexico. https://nas.unm.edu/people/faculty/cajete-gregory.html.

Cajete, Gregory. “Philosophy of Native Science.” Anne Waters. "American Indian Thought: Philosophical Essays." Chapter 5 (2004): 56.

Callicott, J. Baird. "The land ethic." *A companion to environmental philosophy* (2001): 204-217.

Candiani, Vera S. *Dreaming of dry land: environmental transformation in colonial Mexico City*. Stanford University Press (2014).

Cano Pecharroman, Lidia. "Rights of nature: Rivers that can stand in court." *Resources* 7, no. 1 (2018): 13.

Cárdenas, Yenny Vega. “Quebec's Magpie River becomes first in Canada to be granted legal personhood.” Canada’s National Observer (2021). https://www.nationalobserver.com/2021/02/24/news/quebecs-magpie-river-first-in-canada-granted-legal-personhood.

Carpenter v. Murphy, 139 S. Ct. 398 (2018).

Carmichael, David L., Jane Hubert, Brian Reeves, and Audhild Schanche, eds. *Sacred sites, sacred places*. Routledge (2013).

“Central Valley Project.” Bureau of Reclamation. https://www.usbr.gov/mp/cvp/.

Cetacean Cmty. v. Bush, 386 F.3d 1169 (9th Cir. 2004)

Chaffin, Brian C., Robin Kundis Craig, Hannah Gosnell, "Resilience, Adaptation, and Transformation in the Klamath River Basin Social-Ecological System," Idaho Law Review 51, no. 1 (2014): 157-194.

Charpleix, Liz. "The Whanganui River as Te Awa Tupua: Place-based law in a legally pluralistic society." *The Geographical Journal* 184, no. 1 (2018): 19-30.

Cheever, Federico, and Michael Balster. "The take prohibition in Section 9 of the Endangered Species Act: contradictions, ugly ducklings, and conservation of species." *Environmental Law* (2004): 363-396.

Cherokee Nation v. Georgia, 30 U.S. 1 (1831).

Chesterton, Steve, Alan Watson. “A watershed moment for river conservation and science.” International Journal of Wilderness 23, no. 2 (2017). https://www.fs.usda.gov/treesearch/pubs/56395.
“Chippewa Establish Rights of Manoomin on White Earth Reservation and throughout 1855 Ceded Territory.” 1855 Treaty Authority (2019). http://files.harmonywithnatureun.org/uploads/upload764.pdf.
Citizens United v. FEC, 558 U.S. 310, 340 (2010).
City of Pittsburgh Code of Ordinances. “Chapter 618: Marcellus shale natural gas drilling, title six, conduct, article 1 regulated rights and actions,” supplement 33 update 4 (2019). https://library.municode.com/pa/pittsburgh/codes/code_of_ordinances?nodeId=COOR_TITSIXCO_ARTIRERIAC_CH618MASHNAGADR.
Clark, Cristy, Nia Emmanouil, John Page, Alessandro Pelizzon. "Can You Hear the Rivers Sing: Legal Personhood, Ontology, and the Nitty-Gritty of Governance," Ecology Law Quarterly 45, no. 4 (2018): 787-844.
Clark, Moe. “Water speculators could face more obstacles based on work by new group 2020 bill directs state to study improvements to Colorado’s water anti-speculation law,” Colorado News (Sept. 12 2020). https://coloradonewsline.com/2020/09/12/water-speculators-could-face-more-obstacles-based-on-work-by-new-group/.
Clean Air Act, 88 P.L. 206, 77 Stat. 392 (1963).
“Coalition Submits Amicus Brief in Nangaritza Case Calling for a Bold Application of the Rights of Nature in Ecuador.” Earth Law Center (2021). https://www.openpr.com/news/2235236/coalition-submits-amicus-brief-in-nangaritza-case-calling-for.
Cobern, William W. "The nature of science and the role of knowledge and belief." *Science & Education* 9, no. 3 (2000): 219-246, 223.
Colorado River Ecosystem v. State of Colorado – Climate Case Chart. Sabin Center for Climate Change Law Climate Change Litigation Databases. http://climatecasechart.com/case/colorado-river-ecosystem-v-state-colorado/?cn-reloaded=1.
Columbia River Basin Transboundary Conference (September 12-14, 2019) http://transboundaryriverconference.org
“Columbia River Inter-tribal Fish Commission.” https://www.critfc.org/member_tribes_overview/#:~:text=The%20Columbia%20Plateau%20is%20home,Bands%20of%20the%20Yakama%20Nation.
“Columbia River Treaty.” U.S. Department of State. https://www.state.gov/columbia-river-treaty/.
Comay, L. B.. Congressionally Designated Special Management Areas in the National Forest System. Library of Congress, Congressional Research Service (2013). https://www.crs.gov/Reports/R41285?source=search&guid=e7300a240b244f9ba3f478d7d3d3e8fc&index=5.
Complaint, Colorado River Ecosystem v. Colorado, No. 17-cv-02316-NYW (D. Colo. Sept. 25, 2017). http://blogs2.law.columbia.edu/climate-change-litigation/wp-content/uploads/sites/16/case-documents/2017/20171106_docket-117-cv-02316_complaint.pdf.
Confederated Tribes of Warm Springs Reservation v. United States, 177 Ct. Cl. 184, 204 (U.S. 1966).
Constitution of the Republic of Ecuador. National Assembly Legislative and Oversight Committee (October 20, 2008). https://pdba.georgetown.edu/Constitutions/Ecuador/english08.html.
Constitution Act, 1982. Government of Canada. https://laws-lois.justice.gc.ca/eng/const/page-15.html.
Cooley, Scott. Human relations theory of organizations. In A. Farazmand (ed.), Global Encyclopedia of Public Administration, Public Policy, and Governance, 2018 Edition (2018).
Coos Bay, Lower Umpqua, & Siuslaw Indian Tribes v. United States, 87 Ct. Cl. 143 (U.S. 1938).
Cosens, Barbara. "Introduction to the Special Feature Practicing Panarchy: Assessing legal flexibility, ecological resilience, and adaptive governance in regional water systems experiencing rapid environmental change." (2018).

Cosens, Barbara. “WR 504 Lecture Notes.” *University of Idaho* (2019).
Cosens, Barbara A., and Mark Kevin Williams. "Resilience and water governance: adaptive governance in the Columbia River basin." *Ecology and Society* 17, no. 4 (2012).
Coulthard, Glen, and Leanne Betasamosake Simpson. "Grounded normativity/place-based solidarity." *American Quarterly* 68, no. 2 (2016): 249-255.
Council of Australian Governments. “Australia National Water Initiative” (2004). http://www.agriculture.gov.au/water/policy/nwi
Craft, Aimée. "Reading beyond the lines: Oral understandings and Aboriginal litigation." *Available at SSRN 3433234* (2013).
Craig, Robin Kundis. "Comparative Guide to the Western States' Public Trust Doctrines: Public Values, Private Rights, and the Evolution toward an Ecological Public Trust," Ecology Law Quarterly 37, no. 1 (2010): 53-198.
Cronon, William. *Changes in the land: Indians, colonists, and the ecology of New England*. Hill and Wang (2003).
Crosby, Alfred W. *The Columbian exchange: biological and cultural consequences of 1492*. Greenwood Publishing Group (2003).
“Cultural Ecosystem Services.” Freshwater Information System. http://fis.freshwatertools.eu/index.php/infolib/ecoservices/cultural-ess.html.
“Cultural Ecosystem Services – A gateway to raising awareness for the importance of nature for urban life.” URBES. https://www.iucn.org/downloads/urbes_factsheet_08_web_1.pdf.
Dafe I. River Ethiope. International Rivers (2013). https://www.internationalrivers.org/resources/.
Daily, Gretchen C., Tore Söderqvist, Sara Aniyar, Kenneth Arrow, Partha Dasgupta, Paul R. Ehrlich, Carl Folke et al. "The value of nature and the nature of value." *Science* 289, no. 5478 (2000): 395-396.
Daley, Jason. “Toledo, Ohio, Just Granted Lake Erie the Same Legal Rights as People.” Smithsonian Magazine (March 1, 2019). https://www.smithsonianmag.com/smart-news/toledo-ohio-just-granted-lake-erie-same-legal-rights-people-180971603/.
Dam Removal Case Studies. Headwaters Economics (October 2016). https://headwaterseconomics.org/economic-development/local-studies/dam-removal-case-studies/.
Danter, K. Jeffrey, Debra L. Griest, Gary W. Mullins, and Emmalou Norland. "Organizational change as a component of ecosystem management." *Society & Natural Resources* 13, no. 6 (2000): 537-547, 544.
Davison, Isaac. "Whanganui River Given Status of a Person under Unique Treaty of Waitang Settlement." *New Zealand Herald* 15 (2017).
Davidson, Nick. “Colorado Sits at the Center of the Rights of Nature Debate.” *5280 Magazine* (2018). https://www.5280.com/2018/04/colorado-sits-at-the-center-of-the-rights-of-nature-debate/.
Defendants Motion to Dismiss Amended Complaint, Colorado River Ecosystem v. Colorado, No. 17-cv-02316-NYW (D. Colo. Dec. 1, 2017). http://blogs2.law.columbia.edu/climate-change-litigation/wp-content/uploads/sites/16/case-documents/2017/20171201_docket-117-cv-02316_motion-to-dismiss.pdf
Dei, George Jerry Sefa, ed. *Indigenous philosophies and critical education: A reader*. Peter Lang, (2011).
Delmas, Magali A., and Oran R. Young, eds. *Governance for the environment: New perspectives*. Cambridge University Press (2009).
DePuy, Tara. "Ownership of Abandoned Navigable Riverbeds: To Whom Does the Windfall Blow." *Pub. Land L. Rev.* 8 (1987): 115.
DeVore, Donald E. "Water in sacred places: Rebuilding New Orleans black churches as sites of community empowerment." *The Journal of American History* 94, no. 3 (2007): 762-769.
De Young, Raymond. "Tragedy of the Commons." Kluwer Academic Publishers (1999): 601.
Dividing the Waters. https://www.judges.org/dtw/.

Downs, Anthony. "The life cycle of bureaus." *Inside bureaucracy* 296 (1967): 309.
Drewes Farms P'ship v. City of Toledo, No. 3:19 CV 434, 2020 U.S. Dist. LEXIS 36427, at *1-2 (N.D. Ohio Feb. 27, 2020).
Earth Law Center, Champions for the Rights of Nature. https://www.earthlawcenter.org/#:~:text=Earth%20Law%20is%20the%20idea,court%2C%20just%20like%20people%20can.&text=Because%20our%20current%20laws%20protect,usually%20takes%20priority%20over%20Nature.
"EarthTalk: Should rivers be given the same legal rights as people in order to protect them?" AZ Daily Sun (Feb 27, 2021). https://azdailysun.com/opinion/columnists/earthtalk-should-rivers-be-given-the-same-legal-rights-as-people-in-order-to-protect/article_5917a2f6-10b5-5a6a-9d35-93f890b6ce05.html.
"Ecosystem Services." The National Wildlife Federation. https://www.nwf.org/Educational-Resources/Wildlife-Guide/Understanding-Conservation/Ecosystem-Services#:~:text=The%20Millennium%20Ecosystem%20Assessment%20(MA,regulating%2C%20cultural%20and%20supporting%20services.
Echeverria, John D. "State Judicial Elections and Environmental Law: Case Studies of Montana, North Carolina, Washington, and Wisconsin." *Vt. J. Envtl. L.* 16 (2014): 363.
Eckstein, Gabriel, Ariella D'Andrea, Virginia Marshall, Erin O'Donnell, Julia Talbot-Jones, Deborah Curran, and Katie O'Bryan. "Conferring legal personality on the world's rivers: A brief intellectual assessment." *Water International* 44, no. 6-7 (2019): 804-829.
Ecuadorian Constitutional Court Ruling, Number 017-12-SIN-CC, Case Number 0033-10-IN.
Edelenbos, Jurian, and Ingmar van Meerkerk. "Normative theory." In *Handbook on theories of governance*. Edward Elgar Publishing, 2016.
Emerson, Kirk, Tina Nabatchi, and Stephen Balogh. "An integrative framework for collaborative governance." *Journal of Public Administration Research and Theory* 22, no. 1 (2012): 1-29.
Endangered Species Act of 1972, 93 P.L. 205, 87 Stat. 884 (1973).
Engle, Nathan L., Owen R. Johns, Maria Carmen Lemos, and Donald R. Nelson. "Integrated and adaptive management of water resources: tensions, legacies, and the next best thing." *Ecology and society* 16, no. 1 (2011).
Environmental and Natural Resource Division. "Wild and Scenic Rivers Act." The United States Department of Justice (2015).
"Environmental Degradation." Science Direct. https://www.sciencedirect.com/topics/earth-and-planetary-sciences/environmental-degradation.
"Environmental Justice." Environmental Protection Agency. https://www.epa.gov/environmentaljustice/learn-about-environmental-justice#:~:text=Environmental%20justice%20(EJ)%20is%20the,environmental%20laws%2C%20regulations%20and%20policies.
Environment News Service. "New Zealand's Whanganui River Gets Personhood Status." *Newswire* (2012). https://ens-newswire.com/2012/09/13/new-zealands-whanganui-river-gets-personhood-status/.
"Executive Order on Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis." The White House Briefing Room (Jan 20, 2021). https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/20/executive-order-protecting-public-health-and-environment-and-restoring-science-to-tackle-climate-crisis/.
Fairbrother, Alison. New Zealand's Whanganui River Gains A Legal Voice." *Huff Post* (2012).
Finlayson, Hon Christopher. "Whanganui River deed of settlement initialled." *Scoop Independent News* (2014). https://www.scoop.co.nz/stories/PA1403/S00514/whanganui-river-deed-of-settlement-initialled.htm.
Finn, Marcus, and Sue Jackson. "Protecting indigenous values in water management: a challenge to conventional environmental flow assessments." *Ecosystems* 14, no. 8 (2011): 1232-1248.

Federal Water Pollution Control Act Amendments of 1972, 92 P.L. 500, 86 Stat. 816 (1972) (The Clean Water Act).

Federal Water Pollution Control Act, 33 U.S.C. § 1342 (2012).

Fendt, Lindsay. "Colorado River 'Personhood' Case Pulled by Proponents," ASPEN JOURNALISM (Dec. 5, 2017). https://www.aspenjournalism.org/2017/12/05/colorado-river-personhood-case-pulled-by-proponents/.

Ferris, James M., and Shui-Yan Tang. "The new institutionalism and public administration: An Overview." *Journal of Public Administration Research and Theory* 3, no. 1 (1993): 1-10.

"For the first time, a river is granted official rights and legal personhood in Canada." Alliance Muteshekau-shipu (Feb 23, 2021). http://files.harmonywithnatureun.org/uploads/upload1070.pdf.

"For the first time, a river is granted official rights and legal personhood in Canada." PR Newswire (Feb 23, 2021). https://www.prnewswire.com/news-releases/for-the-first-time-a-river-is-granted-official-rights-and-legal-personhood-in-canada-301233731.html.

Fradkin, Philip L. *A River No More: the Colorado River and the West*. Univ of California Press (1981).

Frederickson, H. George. "Towards a new public administration." Classics of PA # 29 (1971).

Fried, David. "How a River Was Granted Personhood." The Atlantic (2019). https://www.theatlantic.com/video/index/587689/river-me/.

Gaia Free Translation / Not Oficial Executive Executive Decree, No. 39659-MINAE-MCJ-MEP. https://www.imprentanacional.go.cr/pub/2016/06/21/COMP_21_06_2016.html.

Garmestani, Ahjond, Robin K. Craig, Herman Kasper Gilissen, Jan McDonald, Niko Soininen, Willemijn van Doorn-Hoekveld, and Helena FMW van Rijswick. "The role of social-ecological resilience in coastal zone management: A comparative law approach to three coastal nations." *Frontiers in Ecology and Evolution* 7 (2019): 410.

Garrard, Georgia E., Fiona Fidler, Bonnie C. Wintle, Yung En Chee, and Sarah A. Bekessy. "Beyond advocacy: making space for conservation scientists in public debate." *Conservation Letters* 9, no. 3 (2016): 208-212.)

Garrett, Brandon L. "The Constitutional Standing of Corporations," U. PA. L. REV. 163 (2014): 95, 111-112.

Ghatwai, Milind. "Madhya Pradesh Assembly declares Narmada living entity," The Indian Express (2017). https://indianexpress.com/article/india/madhya-pradesh-assembly-declares-narmada-living-entity-4639713/.

Goodman, D. *The Personification of Natural Waterscapes: A Brief History of Friends of the River (1970-1992)*, History Thesis, College of Letters and Science, University of California, Berkeley (2017). http://www.stanislausriver.org/story/the-personification-of-natural-waterscapes-a-brief-history-of-friends-of-the-river-1970-1992/.

Gordon, Gwendolyn J. "Environmental Personhood," COLUM. J. ENVTL. L. 43 (2018): 49, 50.

Gorski, Paul C. "Good intentions are not enough: A decolonizing intercultural education." *Intercultural education* 19, no. 6 (2008): 515-525.

Graham, Jack. "The Magpie River wins legal rights in global push to protect nature." Thomas Reuters Foundation (Feb 17, 2021). http://www.netnewsledger.com/2021/02/27/the-magpie-river-wins-legal-rights-in-global-push-to-protect-nature/.

Graham, William A., and William Albert Graham. *Beyond the written word: Oral aspects of scripture in the history of religion*. Cambridge University Press, (1993).

Grande, Sandy. "American Indian identity and intellectualism: The quest for a new red pedagogy." *International Journal of Qualitative Studies in Education* 13, no. 4 (2000): 343-359.

Grant, Richard. "Do Trees Talk to Each Other?" Smithsonian Magazine (2018). https://www.smithsonianmag.com/science-nature/the-whispering-trees-180968084/.

Grant Township, Indiana County, Pennsylvania Community Bill of Rights Ordinance. https://s3.amazonaws.com/s3.documentcloud.org/documents/1370022/grant-township-community-bill-of-rights-ordinance.pdf.

Graymore, Michelle. "The Value of Rivers: how to integrate social values into river management decision making." University of Ballarat, International River Symposium.

Groenfeldt, David, and Jeremy J. Schmidt. "Ethics and water governance." *Ecology and Society* 18, no. 1 (2013): 1.

Gunderson, Lance H. "Resilience in theory and practice." *Annual Review of Ecology and Systematics* 31, no. 1 (2000): 425-439.

Hallenbeck, Jessica, Mike Krebs, Sarah Hunt, Kanishka Goonewardena, Stefan Andreas Kipfer, Shiri Pasternak, and Glen Sean Coulthard. "Red skin, White masks: Rejecting the colonial politics of recognition." *The AAG Review of Books* 4, no. 2 (2016): 111-120.

Hanley, Nick, Robert E. Wright, and Begona Alvarez-Farizo. "Estimating the economic value of improvements in river ecology using choice experiments: an application to the water framework directive." *Environmental value transfer: Issues and methods*, Springer, Dordrecht (2007): 111-130.

Hardin, Garrett. "The tragedy of the commons." *Science* 162, no. 3859 (1968): 1243-1248.

Harmony with Nature Programme." United Nations. http://www.harmonywithnatureun.org/.

Harmony with Nature Report of the Secretary-General. United Nations (2019). https://undocs.org/pdf?symbol=en/A/74/236.

Harrison, John. "International Columbia River Conference Attracts Nearly 300 people from the United States and Canada," Northwest Power and Conservation Council (Sept 2019). https://www.nwcouncil.org/news/columbia-river-conference-highlights-transboundary-issues & https://www.nwcouncil.org/sites/default/files/Sept%2026%202019%20Future%20of%20CRB%20Governance_Sense%20of%20the%20Meeting_Final.pdf.

Hartman, Fay. "Why Wild? The Importance of Wild and Scenic Protections." American Rivers. https://www.americanrivers.org/2018/01/wild-importance-wild-scenic-protections/.

Harvey, Mark WT. *A Symbol of Wilderness: Echo Park and the American Conservation Movement*. University of Washington Press (2011).

Healy, Meredith N. "Fluid Standing: Incorporating the Indigenous Rights of Nature Concept into Collaborative Management of the Colorado River Ecosystem." *Colo. Nat. Resources Energy & Envtl. L. Rev.* 30 (2019): 327.

Hedden Nicely, Dylan. "Native American Law Lecture Notes." *University of Idaho* (2019).

Heisig, Eric. "Federal judge strikes down Toledo's Lake Erie Bill of Rights as unconstitutional, says sweeping law is too vague". Cleaveland.com (February 28, 2020). https://www.cleveland.com/court-justice/2020/02/federal-judge-strikes-down-toledos-lake-erie-bill-of-rights-as-unconstitutional-says-sweeping-law-is-too-vague.html.

Helicopteros Nacionales de Colombia, S.A. v. Hall, 466 U.S. 408, 413-14 (1984).

Helland, John. "The National River Organizations." *Open Rivers: Rethinking The Mississippi*, 5 (2017). http://openrivers.umn.edu/article/the-national-river-organizations/.

Herrera v. Wyoming, 139 S. Ct. 1686, 1699 (2019).

Hewlett, Ryan. "Bolivia's Law of Mother Earth," DAILY GOOD (2016). http://www.dailygood.org/story/1337/bolivia-slaw- of-mother-earth-ryan-hewlett/.

Hillman, Annelia. Klamath Justice Coalition. https://www.americanrivers.org/rivers/films/guardians-of-the-river/.

Hillman, Brett, Ellen M. Douglas, and David Terkla. "An analysis of the allocation of Yakima River water in terms of sustainability and economic efficiency." *Journal of environmental management* 103 (2012): 102-112.

Hollander-Blumoff, Rebecca. "Social Value Orientation and the Law," William & Mary Law Review 59, no. 2 (November 2017): 475-540.

Hood, Elizabeth. “Pennsylvania and the Ongoing Battle for Environmental Personhood,” GEO. Envtl. L. Rev. (2015).

Houck, Oliver A. "Noah's Second Voyage: The Rights of Nature as Law," Tulane Environmental Law Journal 31, no. 1 (Winter 2017): 1-50.

Howe, Ben Ryder. “Wall Street Eyes Billions in the Colorado’s Water,” New York Times (Jan. 3, 2021). https://www.nytimes.com/2021/01/03/business/colorado-river-water-rights.html.

Huffman, James L. "A Fish out of Water: The Public Trust Doctrine in a Constitutional Democracy," Environmental Law 19, no. 3 (Spring 1989): 527-572.

Huffman, James L. “The Limits of the Public Trust Doctrine,” Property and Environmental Research Center 38, no. 1 (Summer 2019). https://www.perc.org/2019/06/19/the-limits-of-the-public-trust-doctrine/.

Hundley Jr, Norris. *The Great Thirst: Californians and Water—A History*. Univ of California Press (2001).

Hutchison, Abigail. "The Whanganui River as a Legal Person," Alternative Law Journal (Gaunt) 39, no. 3 (2014): 179-182.

Ill. C. R. Co. v. Illinois, 146 U.S. 387, 452 (1892).

“India's Ganges and Yamuna rivers are 'not living entities'.” *BBC News* (2017). https://www.bbc.com/news/world-asia-india-40537701.

Ingram, B. Lynn, and Frances Malamud-Roam. *The West without Water: What Past Floods, Droughts, and Other Climatic Clues Tell us About Tomorrow*. Univ of California Press (2013).

Ingram, Helen, Oggins, Cy R. "The Public Trust Doctrine and Community Values in Water," Natural Resources Journal 32, no. 3 (Summer 1992): 515-538.

In the Supreme Court of Belize, A.D. 2009, Claim no. 45 (2009). http://files.harmonywithnatureun.org/uploads/upload698.pdf.

In the Court of Appeal of Belize, A.D. 2011. Civil Appeal No. 19 of 2010. http://www2.ecolex.org/server2.php/libcat/docs/COU/Full/En/COU-159759.pdf.

Inzunza A. “Mexico City’s invisible rivers.” CityLab (9 June 2016).

Iorns Magallanes, Catherine J. "From rights to responsibilities using legal personhood and guardianship for rivers." *Responsability: Law and Governance for Living Well with the Earth, B Martin, L Te Aho, M Humphries-Kil (eds)(Routledge, London & New York, 2019)* (2018): 216-239.

Islamabad Wildlife Management Board through its Chairman v. Metropolitan Corporation Islamabad through its Mayor & 4 others. Judgment Sheet in the Islamabad High Court, Islamabad (Judicial Department) W.P. No.1155/2019. http://files.harmonywithnatureun.org/uploads/upload1079.pdf/.

Jain, S.K., Singh, V.P., “Water Resources Systems Planning and Management,” Developments in Water Science, (2003). http://www.sciencedirect.com/topics/earth-and-planetary-sciences/international-river-basin.

Jiménez, Alejandro, Panchali Saikia, Ricard Giné, Pilar Avello, James Leten, Birgitta Liss Lymer, Kerry Schneider, and Robin Ward. "Unpacking water governance: A framework for practitioners." *Water* 12, no. 3 (2020): 827.

Johnson, Lyman. "Law and Legal Theory in the History of Corporate Responsibility: Corporate Personhood," Seattle University Law Review 35, no. 4 (Summer 2012): 1135-1164.

Johnson, S.L., Comay, L.B. The National Wild and Scenic Rivers System: A Brief Overview. Library of Congress, Congressional Research Service (2015). https://www.crs.gov/Reports/R42614?source=search&guid=f429e39383784835bf12abe617911c34&index=0.

Kauffman, Craig M., and Pamela L. Martin. "Constructing rights of nature norms in the US, Ecuador, and New Zealand." *Global Environmental Politics* 18, no. 4 (2018): 43-62.

Kauffman, Craig M., and Pamela L. Martin. "When rivers have rights: Case comparisons of New Zealand, Colombia, and India." In *International Studies Association Annual Conference, San Francisco*, vol. 4. (2018).

Kilbert, Kenneth. "Lake Erie Bill of Rights: Stifled by All Three Branches Yet Still Significant." Oregon State University (2020).

Kimmerer, Robin Wall. *Braiding sweetgrass: Indigenous wisdom, scientific knowledge and the teachings of plants*. Milkweed Editions (2013).

King, Jackie, Cate Brown, and Hossein Sabet. "A scenario-based holistic approach to environmental flow assessments for rivers." *River research and applications* 19, no. 5-6 (2003): 619-639.

King, Sarah J. "Context Matters: Studying Indigenous Religions in North America." *Religion Compass* 7, no. 11 (2013): 498-507.

"Klamath Project." Bureau of Reclamation. https://www.usbr.gov/projects/index.php?id=470

Knauß, S., "Conceptualizing human stewardship in the Anthropocene: The rights of nature in Ecuador, New Zealand and India." *Journal of Agricultural and Environmental Ethics*, *31*, no. 6 (2018): 703-722.

Kondolf, G. Mathias. "River restoration and meanders." *Ecology and Society* 11, no. 2 (2006).

Kondolf, G. Mathias. "Lessons learned from river restoration projects in California." *Aquatic Conservation: marine and freshwater ecosystems* 8, no. 1 (1998): 39-52, 39.

"Kootenai River Habitat Restoration Program." http://www.restoringthekootenai.org/

Krosby, Meade, David M. Theobald, Robert Norheim, and Brad H. McRae. "Identifying riparian climate corridors to inform climate adaptation planning." *PloS one* 13, no. 11 (2018): e0205156. https://conservationcorridor.org/digests/2018/11/riparian-restoration-as-a-way-to-create-climate-corridors/.

Laduke, Winona. "The White Earth Band of Ojibwe Legally Recognized the Rights of Wild Rice," Yes Magazine (2019). https://www.yesmagazine.org/environment/2019/02/01/the-white-earth-band-of-ojibwe-legally-recognized-the-rights-of-wild-rice-heres-why/.

Ladson-Billings, Gloria. "Toward a theory of culturally relevant pedagogy." *American educational research journal* 32, no. 3 (1995): 465-491.

Land and Water Conservation Fund. 88 P.L. 578, 78 Stat. 897.

Lake Erie Bill of Rights. https://www.beyondpesticides.org/assets/media/documents/LakeErieBillofRights.pdf.

Lake Erie Bill of Rights, Charter of the City of Toledo, Ch. XVII, §§ 253-260, § 254(a). https://codelibrary.amlegal.com/codes/toledo/latest/toledo_oh/0-0-0-158818.

Lake Erie Bill of Rights, Charter of the City of Toledo, Ch. XVII, §§ 253-260, § 254(b). https://codelibrary.amlegal.com/codes/toledo/latest/toledo_oh/0-0-0-158818.

Lake Erie Bill of Rights, Charter of the City of Toledo, Ch. XVII, §§ 253-260, § 256(a). https://codelibrary.amlegal.com/codes/toledo/latest/toledo_oh/0-0-0-158818.

Lake Erie Bill of Rights, Charter of the City of Toledo, Ch. XVII, §§ 253-260, § 256(d). https://codelibrary.amlegal.com/codes/toledo/latest/toledo_oh/0-0-0-158818.

Lake Erie Bill of Rights, Charter of the City of Toledo, Ch. XVII, §§ 253-260, § 255(b), § 257(b). https://codelibrary.amlegal.com/codes/toledo/latest/toledo_oh/0-0-0-158818.

Lake Erie Bill of Rights, Charter of the City of Toledo, Ch. XVII, §§ 253-260, § 257(a). https://codelibrary.amlegal.com/codes/toledo/latest/toledo_oh/0-0-0-158818.

Lalit Miglani v. State of Uttarakhand & others. Writ Petition (PIL) No.140 of 2015. High Court of Uttarakhand at Nainital (2017).

Lame Deer, John F., and Richard Erdoes. *Lame Deer, Seeker of Visions*. Simon and Schuster (1973).

Law of Mother Earth the Rights of our Planet a Vision from Bolivia. http://www.worldfuturefund.org/Projects/Indicators/motherearthbolivia.html.

Lazarus, Richard J. "Changing Conceptions of Property and Sovereignty in Natural Resources: Questioning the Public Trust Doctrine," Iowa Law Review 71, no. 3 (March 1986): 631-716.

Lee, Jin Hyung. “Comment, *Establishing Applicable Water Quality Standards For Surface Waters on Indian Reservations*,” Emory L.J. 66 (2017): 965, 980.

Leonard, Kelsey. “Why lakes and rivers should have the same rights as humans.” TED (2019). https://www.ted.com/talks/kelsey_leonard_why_lakes_and_rivers_should_have_the_same_rights_as_humans/footnotes?referrer=playlist-itunes_podcasts_new_politics.

Leuenberger, Deniz Zeynep, and Michele Wakin. "Sustainable development in public administration planning: An exploration of social justice, equity, and citizen inclusion." *Administrative Theory & Praxis* 29, no. 3 (2007): 394-411.

Lieber, Harvey. "Public administration and environmental quality." *Public Administration Review* (1970): 277-286.

Limerick, Patricia Nelson. *The legacy of conquest: The unbroken past of the American West*. WW Norton & Company (1988).

Lindblom, Charles. “The Science of Muddling Through.” Classics of PA # 21 (1959).

Logar, Ivana, Roy Brouwer, and Amael Paillex. "Do the societal benefits of river restoration outweigh their costs? A cost-benefit analysis." *Journal of environmental management* 232 (2019): 1075-1085.

Lomawaima, K. Tsianina, and Teresa L. McCarty. *" To Remain an Indian": Lessons in Democracy from a Century of Native American Education*. Teachers College Press (2006).

Lone Wolf v. Hitchcock, 187 U.S. 553, 566 (1903).

Loomis, John B. "Environmental valuation techniques in water resource decision making." *Journal of water resources planning and management* 126, no. 6 (2000): 339-344.

Lujan v. Defs. of Wildlife, 504 U.S. 555 (1992).

Maclurcan, Donnie. “Post-Growth Futures are Already here.” Resilience (Feb 22, 2020). https://www.resilience.org/stories/2021-02-22/post-growth-futures-are-already-here/.

Macpherson, Elizabeth, and Felipe Clavijo Ospina. "The pluralism of river rights in Aotearoa, New Zealand and Colombia." (2020).

“Map of Wild and Scenic Rivers.” American Rivers. https://www.americanrivers.org/threats-solutions/protecting-rivers/map-wild-scenic-rivers/.

March, James G., and Zur Shapira. “Managerial perspectives on risk and risk taking.” *Management Science* 33, no. 11 (1987): 1404-1418.

Marks v. Whitney, 6 Cal. 3d 251(1971).

Marshall v. Barlow's, Inc., 436 U.S. 307, 325 (1978).

Maslow, Abraham H. "A theory of human motivation.” (1943).

Massachusetts v. EPA, 549 U.S. 497 (2007).

Massey, Calvin. “AMERICAN CONSTITUTIONAL LAW: POWERS AND LIBERTIES,” Wolters Kluwer, 5th edition (2016): 74-100.

Marston, Dave. “Who Calls the Shots on the Colorado River?” (Jan 11, 2021). https://www.writersontherange.org/weekly-feed/kmk1dmii3pbhenn0u5qxzh7e765cp3.

Marx, Leo. "The machine in the garden." *New England Quarterly* (1956): 27-42.

McCurdy, Howard E. "Public Administration in the Wilderness: The New Environmental Management." (1982): 584-590.

McGraw, Daniel. “Ohio city votes to give Lake Erie personhood status over algae blooms.” The Guardian (February 28, 2019). https://www.theguardian.com/us-news/2019/feb/28/toledo-lake-erie-personhood-status-bill-of-rights-algae-bloom.

MCLS § 324.1701(Notes to Decisions).

MCLS § 324.1701(1).

Merriam-Webster.com Dictionary, s.v. “genius loci,” accessed March 4, 2020, https://www.merriam-webster.com/dictionary/genius%20loci.

Merriam-Webster.com Dictionary, s.v. “oral history,” accessed February 29, 2020, https://www.merriam-webster.com/dictionary/oral%20history.

Merriam-Webster.com Legal Dictionary, s.v. “public trust doctrine,” accessed May 1, 2020, https://www.merriam-webster.com/legal/public%20trust%20doctrine.

Merriam-Webster.com Dictionary, s.v. “science,” accessed March 3, 2020, https://www.merriam-webster.com/dictionary/science.

Metropolitan Life Insurance Co. v. Ward, 470 U.S. 869, 881 (1985).

Milam, Robin R. “Rivers and Natural Ecosystems as Rights Bearing Subject.” *Global Alliance for Nature.* https://therightsofnature.org/rivers-and-natural-ecosystems-as-rights-bearing-subjects/.

Miller, Matthew. "Environmental Personhood and Standing for Nature: Examining the Colorado River Case." *UNHL Rev.* 17 (2018): 355.

Moe, Terry M. "Integrating politics and organizations: Positive theory and public administration." *Journal of Public Administration Research and Theory: J-PART* 4, no. 1 (1994): 17-25.

Moe, Terry M. 2012. Delegation, control, and the study of public bureaucracy, The Forum 10(2).

Moe, Terry M. 2006. Political control and the power of the agent. Journal of Law, Economics, & Organization 22(1).

Mohai, Paul, David Pellow, and J. Timmons Roberts. "Environmental justice." *Annual review of environment and resources* 34 (2009): 405-430.

Mohd. Salim v. State of Uttarakhand & others. Writ Petition (PIL) No.126 of 2014. High Court of Uttarakhand at Nainital (2017).

Montana v. United States, 440 U.S. 147 (1979).

Mont. Const., Art. IX § 1

Mont. Envtl. Info. Ctr. v. Dep't of Envtl. Quality, 296 Mont. 207, 231 (1999).

Morris, Aldon. "Reflections on social movement theory: Criticisms and proposals." *Contemporary Sociology* 29, no. 3 (2000): 445-454.

Morcom, Lindsay A., and Stephanie Roy. "Is early immersion effective for Aboriginal language acquisition? A case study from an Anishinaabemowin kindergarten." *International Journal of Bilingual Education and Bilingualism* 22, no. 5 (2019): 551-563.

Moutrie, Marsha. "The Rights of Nature Movement in the United States: Community Organizing, Local Legislation, Court Challenges, Possible Lessons and Pathways." *Environmental and Earth Law Journal (EELJ)* 10, no. 1 (2020): 2.

Mudd, Michelle Bryan. "A Constant and Difficult Task: Making Local Land Use Decisions in States with a Constitutional Right to a Healthful Environment." *Ecology LQ* 38 (2011): 1.

Mukherjee, Ipshita. “Atmospheric Trust Litigation – Paving the Way for a Fossil Fuel Free World” (2017). https://law.stanford.edu/2017/07/05/atmospheric-trust-litigation-paving-the-way-for-a-fossil-fuel-free-world/#:~:text=Atmospheric%20Trust%20Litigation%20applies%20the,consistent%20with%20the%20public%20trust.

Mulgan, Geoff. “Measuring Social Value.” Stanford Social Innovation Review (2010). https://ssir.org/articles/entry/measuring_social_value.

Myers, Frankie. “Yurok Tribe Testimony Regarding Natural Solutions to Cutting Pollution and Building Resilience.” United States House of Representatives, Select Committee on the Climate Crisis (October 22, 2019): 8. https://www.congress.gov/116/meeting/house/110110/witnesses/HMTG-116-CN00-Wstate-MyersF-20191022.pdf.

Nash, Roderick Frazier. *The rights of nature: a history of environmental ethics*. Univ of Wisconsin press (1989).

Nat'l Audubon Soc'y v. Superior Court, 33 Cal. 3d 419 (1983).

National Environmental Policy Act of 1969, 91 P.L. 190 (1970).

National Wild and Scenic Rivers System. https://www.rivers.gov/index.php.

National Wilderness Preservation System. 16 USCS §1131-1136

Nationwide Rivers Inventory. National Park Service. https://www.nps.gov/subjects/rivers/nationwide-rivers-inventory.htm.

Navajo Nation v. United States Forest Serv., 408 F. Supp. 2d 866 (D. Ariz. 2006)

Navajo Nation v. United States Forest Serv., 479 F.3d 1024 (9th Cir. 2007).

Navajo Nation v. United States Forest Serv., 535 F.3d 1058 (9th Cir. 2008).

Nelson, Lisa S., and Louis F. Weschler. "The watershed as a focus for public administration: Conventional and bioregional approaches." *Administrative Theory & Praxis* 23, no. 1 (2001): 10-24.

New Zealand. Te Urewera Act 2014, Public Act 2014 No 51 (2014). http://www.legislation.govt.nz/act/public/2014/0051/latest/whole.html.

New Zealand. Te Awa Tupua [Whanganui River Claims Settlement] Act 2017, Public Act, 2017 No 7 (2017). http://www.legislation.govt.nz/act/public/2017/0007/latest/whole.html & http://files.harmonywithnatureun.org/uploads/upload711.pdf.

Nikolic, Sara JS, and Tomas M. Koontz. "Nonprofit organizations in environmental management: A comparative analysis of government impacts." *Journal of Public Administration Research and Theory* 18, no. 3 (2008): 441-463.

Norgaard, Kari Marie, and Ron Reed. "Emotional impacts of environmental decline: What can Native cosmologies teach sociology about emotions and environmental justice?." *Theory and Society* 46, no. 6 (2017): 463-495.

O'Bryan, Katie. “New Law Finally Gives Voice to the Yarra River's Traditional Owners,” Conversation (Sept. 25, 2017), http://theconversation.com/new-law-finally-gives-voice-to-the-yarra-rivers-traditional-owners-83307.

Odenbaugh, Jay, "Conservation Biology", The Stanford Encyclopedia of Philosophy (2019). https://plato.stanford.edu/archives/fall2019/entries/conservation-biology/.

O’Donnell, Erin L. "At the intersection of the sacred and the legal: rights for nature in Uttarakhand, India." *Journal of Environmental Law* 30, no. 1 (2018): 135-144.

O’Donnell, Erin, and Elizabeth Macpherson. "Voice, power and legitimacy: the role of the legal person in river management in New Zealand, Chile and Australia." *Australasian Journal of Water Resources* 23, no. 1 (2019): 35-44.

O'Donnell, Erin, and Julia Talbot-Jones. "Creating legal rights for rivers: lessons from Australia, New Zealand, and India." *Ecology and Society* 23, no. 1 (2018).

O'Donnell, Erin, Anne Poelina, Alessandro Pelizzon, and Cristy Clark. "Stop Burying the Lede: The Essential Role of Indigenous Law (s) in Creating Rights of Nature." *Transnational Environmental Law* 9, no. 3 (2020): 403-427.

Ogden, Laura. "The Everglades ecosystem and the politics of nature." *American Anthropologist* 110, no. 1 (2008): 21-32.

Oliver, Allison A., Randy A. Dahlgren, and Michael L. Deas. "The upside-down river: Reservoirs, algal blooms, and tributaries affect temporal and spatial patterns in nitrogen and phosphorus in the Klamath River, USA." *Journal of Hydrology* 519 (2014): 164-176.

O’Neill, John. "The varieties of intrinsic value." *The Monist* 75, no. 2 (1992): 119-137.

Opperman, Jeff. “Valuing Rivers.” World Wildlife Fund (2018). https://awsassets.panda.org/downloads/wwf_valuing_rivers__final_.pdf.

Opperman, Jeff, Stuart Orr, Hannah Baleta, Dustin Garrick, Marc Goichot, Amy McCoy, Alexis Morgan, Laura Turley, and Aaron Vermeulen. "Valuing Rivers: How the diverse benefits of healthy rivers underpin economies." (2018).

Oral History Association, “Oral History: Defined,” accessed February 29, 2020, https://www.oralhistory.org/about/do-oral-history/.

Order, Colorado River Ecosystem v. Colorado, No. 17-cv-02316-NYW (D. Colo. Dec. 4, 2017). http://blogs2.law.columbia.edu/climate-change-litigation/wp-content/uploads/sites/16/case-documents/2017/20171204_docket-117-cv-02316_order.pdf.

Order Invalidating Lake Erie Bill of Rights. https://www.courthousenews.com/wp-content/uploads/2020/02/lake-erie.pdf.
Ostrom, Elinor. *Governing the commons: The evolution of institutions for collective action*. Cambridge university press, 1990.
Oxford Languages Dictionary. Spirit.
Pacific Institute. https://pacinst.org/.
Palmer, Gary B. "Toward a Theory of Cultural Linguistics." University of Texas Press (1996): note 118.
Palmer, Margaret A., E. S. Bernhardt, J. D. Allan, Phillip Spencer Lake, G. Alexander, Shane Brooks, J. Carr et al. "Standards for ecologically successful river restoration." *Journal of applied ecology* 42, no. 2 (2005): 208-217.
Palmer, Margaret A., Holly L. Menninger, and Emily Bernhardt. "River restoration, habitat heterogeneity and biodiversity: a failure of theory or practice?." *Freshwater biology* 55 (2010): 205-222, 207.
Palmer, Tim. *Wild and Scenic Rivers of America*. Island Press, (1993).
Perry, James L., and Lois Recascino Wise. "The motivational bases of public service." *Public administration review* (1990): 367-373.
PERSON, Black's Law Dictionary (11th ed. 2019).
PERSON, Black's Law Dictionary (11th ed. 2019) (Also termed *conventional person*; *fictitious person*; *juristic person*; *juridical person*; *legal person*; *moral person).*
Pipkin, Whitney. "Removing a Dam Could be a Net Win for the Planet." The Age of Human Living in the Anthropocene. Smithsonian (Dec 2015). http://www.smithsonianmag.com/science-nature/removing-dam-can-be-net-win-planet-180957502/?no-ist.
Pisani, Donald J. *To Reclaim a Divided West*. University of New Mexico Press (1992).
Plaintiff's Motion to Dismiss case with Prejudice Granted. Colorado River Ecosystem v. Colorado, No. 17-cv-02316-NYW (D. Colo. Dec. 4, 2017). http://blogs2.law.columbia.edu/climate-change-litigation/wp-content/uploads/sites/16/case-documents/2017/20171201_docket-117-cv-02316_motion-to-dismiss.pdf.
Postel, Sandra. "A River in New Zealand Gets A Legal Voice." *National Geographic* (2012). http://newswatch.nationalgeographic.com/2012/09/04/a-river-in-new-zealand-gets-a-legal-voice/.
Powell, John Wesley. "Arid Lands of the West."
"Press Release: Ho-Chunk Nation General Council Approves Rights of Nature Constitutional Amendment." Community Environmental Legal Defense Fund (2016). https://celdf.org/2016/09/press-release-ho-chunk-nation-general-council-approves-rights-nature-constitutional-amendment/.
Pring, George, Pring, Catherine. "Environmental Courts and Tribunals." UNEP (2016) https://wedocs.unep.org/bitstream/handle/20.500.11822/10001/environmental-courts-tribunals.pdf.
Provan, Keith G., and Patrick Kenis. "Modes of network governance: Structure, management and effectiveness." *Journal of Public Administration Research and Theory* 18, no. 2 (2008): 229-252.
Powers, Kyna, Pamela Baldwin, Eugene H. Buck, and Betsy A. Cody. "Klamath River basin issues and activities: an overview." Congressional Research Service, the Library of Congress (2005).
Public Documents from the White Earth Band of the Ojibwe's Declaration of the Rights of Wild Rice. https://whiteearth.com/assets/files/public_documents/Letter%20to%20Tim%20Walz%20re%20Rights%20of%20Manoomin.pdf.
"Public Trust Doctrine." Cornell Law School, Legal Information Institute. https://www.law.cornell.edu/wex/public_trust_doctrine.
"Public Trust Doctrine." Water Education Foundation. https://www.watereducation.org/aquapedia/public-trust-doctrine.

Pueblo De Zia v. United States, 165 Ct. Cl. 501, 505 (U.S. 1964).
Pueblo of Jemez v. United States, No. CIV 12-0800 JB\JHR, 2019 U.S. Dist. LEXIS 171639, at *498-99 (D.N.M. Sep. 27, 2019).
Raadschelders, Jos C.N. Understanding Government: Four Intellectual Traditions in the Study of Public Administration. *Public Administration* 86, no. 4 (2008): 925-949.
"Recognition of the Rights of the Menominee River." Menominee Indian Tribe of Wisconsin Resolution No. 19-52 (2020). http://files.harmonywithnatureun.org/uploads/upload981.pdf.
Reisner, Marc. *Cadillac Desert: The American West and its Disappearing Water*. Penguin (1993).
Renner, Rebecca. "In Florida, a River Gets Rights, How Orange County became the most populous area in the US to recognize rights for nature," Sierra Magazine (Feb. 9, 2021). https://www.sierraclub.org/sierra/2021-2-march-april/protect/florida-river-gets-rights.
REPÚBLICA DE COLOMBIA CORTE CONSTITUCIONAL, Sala Sexta de Revisión, T-622 de 2016. http://cr00.epimg.net/descargables/2017/05/02/14037e7b5712106cd88b687525dfeb4b.pdf.
"Resilience." Resilience Alliance. https://www.resalliance.org/resilience.
Revised Interpretation of the Clean Water Act Tribal Provision. 40 C.F.R. § 131.8(a) (2014).
"Rights of Nature Law and Policy." United Nations Harmony with Nature. http://www.harmonywithnatureun.org/rightsofnature/.
"Rights of Nature Law and Policy – Argentina." United Nations Harmony with Nature. http://files.harmonywithnatureun.org/uploads/upload1037.pdf.
"Rights of Nature Law and Policy – Bangladesh." United Nations Harmony with Nature. https://www.clientearth.org/projects/access-to-justice-for-a-greener-europe/updates/legal-rights-of-rivers-an-international-trend/.
"Rights of Nature Law and Policy – Brazil." United Nations Harmony with Nature. http://files.harmonywithnatureun.org/uploads/upload1008.pdf.
"Rights of Nature Law and Policy – Canada." United Nations Harmony with Nature. http://files.harmonywithnatureun.org/uploads/upload1072.pdf & http://files.harmonywithnatureun.org/uploads/upload1069.pdf.
"Rights of Nature Law and Policy – Colombia." United Nations Harmony with Nature. https://www.elespectador.com/noticias/judicial/la-amazonia-colombiana-tiene-los-mismos-derechos-que-una-persona/ & http://files.harmonywithnatureun.org/uploads/upload605.pdf.
"Rights of Nature Law and Policy – Costa Rica." United Nations Harmony with Nature. http://files.harmonywithnatureun.org/uploads/upload741.pdf.
"Rights of Nature Law and Policy – France." United Nations Harmony with Nature. http://files.harmonywithnatureun.org/uploads/upload716.pdf.
"Rights of Nature Law and Policy – Guatemala." United Nations Harmony with Nature. http://files.harmonywithnatureun.org/uploads/upload958.pdf.
"Rights of Nature Law and Policy – El Salvador." United Nations Harmony with Nature. http://files.harmonywithnatureun.org/uploads/upload990.pdf.
"Rights of Nature Law and Policy – Mexico." United Nations Harmony with Nature. http://files.harmonywithnatureun.org/uploads/upload1052.pdf.
"Rights of Nature Law and Policy – Netherlands." United Nations Harmony with Nature. http://files.harmonywithnatureun.org/uploads/upload974.pdf.
"Rights of Nature Law and Policy – Nez Perce Tribe." United Nations Harmony with Nature. http://files.harmonywithnatureun.org/uploads/upload980.pdf.
"Rights of Nature Law and Policy – Nigeria." United Nations Harmony with Nature. http://files.harmonywithnatureun.org/uploads/upload975.pdf.
"Rights of Nature Law and Policy – Peru." United Nations Harmony with Nature. http://files.harmonywithnatureun.org/uploads/upload1055.pdf.
"Rights of Nature Tribunal." International Rights of Nature Tribunal. https://www.rightsofnaturetribunal.org/

Roch, Sylvia G., and Charles D. Samuelson. "Effects of environmental uncertainty and social value orientation in resource dilemmas." *Organizational Behavior and Human Decision Processes* 70, no. 3 (1997): 221-235.

Rose, Carol M. "Joseph Sax and the Idea of the Public Trust," Ecology Law Quarterly 25, no. 3 (1998): 351-362.

Rosenbaum, Allan. "Putting first things first: Critical issues for public administration education." *Teaching Public Administration* 32, no. 1 (2014): 80-94.

Rosenbloom, David H. "Public administrative theory and the separation of powers." *Public Administration Review* (1983): 219-227.

Ross, Selena. "In Canadian first, Quebec whitewater river declared legal 'person' with its own rights." Montreal Digital Reporter (Feb 23 2021). https://montreal.ctvnews.ca/in-canadian-first-quebec-whitewater-river-declared-legal-person-with-its-own-rights-1.5321268.

Roy, Eleanor Ainge. "New Zealand river granted same legal rights as human being." *The Guardian* 16 (2017).

Ruhl, J. B., Salzman, James. "Ecosystem Services and the Public Trust Doctrine: Working Change from Within," Southeastern Environmental Law Journal 15, no. 1 (Fall 2006): 223-240.

Ruseva, Tatyana, Megan Foster, Gwen Arnold, Saba Siddiki, Abigail York, Riley Pudney, and Ziqiao Chen. "Applying policy process theories to environmental governance research: Themes and new directions." *Policy Studies Journal* 47 (2019): S66-S95.

Russian Volunteer Fleet v. United States, 282 U.S. 481, 489 (1931).

Rutgers, Mark R., and Patrick Overeem. "Public values in public administration." *Journal of Public Administration Research and Theory* 24, no. 3 (2014): 806-812.

Ryan, Erin. "Public Trust and Distrust: The Theoretical Implications of the Public Trust Doctrine for Natural Resource Management," Environmental Law 31, no. 2 (Spring 2001): 477-496.

Sackett, Heather. "Western Colorado water purchases stir up worries about the future of farming," Aspen Journalism (May 29, 2020). https://aspenjournalism.org/western-colorado-water-purchases-stir-up-worries-about-the-future-of-farming/.

Safi, Michael. "Ganges and Yamuna rivers granted same legal rights as human beings." *The Guardian* (2017). https://www.theguardian.com/world/2017/mar/21/ganges-and-yamuna-rivers-granted-same-legal-rights-as-human-beings.

S. AFR. CONST. 1996 § 24.

Sagoff, Mark. "The Limits of Justice," Yale Law Journal 92, no. 6 (May 1983): 1065-1082.

Samuel, Sigal. "This country gave all its rivers their own legal rights," Vox News (2019). https://www.vox.com/future-perfect/2019/8/18/20803956/bangladesh-rivers-legal-personhood-rights-nature.

"Sand dunes can 'communicate' with each other," Science Daily (Feb. 4, 2020). https://www.sciencedaily.com/releases/2020/02/200204091403.htm.

Sanders, Larry D., Richard G. Walsh, and John R. McKean. "Comparable estimates of the recreational value of rivers." *Water Resources Research* 27, no. 7 (1991): 1387-1394.

Sax, Joseph L. "The public trust doctrine in natural resource law: effective judicial intervention." *Michigan Law Review* 68, no. 3 (1970): 471-566.

Sax, Joseph L. "The search for environmental rights." *J. Land Use & Envtl. L.* 6 (1990): 93-106.

Schulte, Peter. "Defining Water Scarcity, Water Stress, and Water Risk." Pacific Institute. https://pacinst.org/water-definitions/.

Schussman, Heather, Smith, Edward. "Historical Range of Variation." USDA Forest Service (2006). https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fswdev7_018534.pdf.

Schwartz, Shalom H. "Cultural value orientations: Nature and implications of national differences." *Moscow: Publishing house of SU HSE* (2008).

Scott, Tyler A., and Craig W. Thomas. "Unpacking the collaborative toolbox: Why and when do public managers choose collaborative governance strategies?" *Policy Studies Journal* 45, no. 1 (2017): 191-214.

Seamon, Richard. “Constitutional Law.” *University of Idaho College of Law* (Spring 2019).
Sepulveda, Charles. "Our Sacred Waters." *Decolonization: Indigeneity, Education & Society* 7, no. 1 (2018): 40-58.
Shafritz, Jay M., and Albert C. Hyde. *Classics of public administration*. Nelson Education (2016).
Sharifian, Farzad. *Cultural Linguistics*, 38 ETHNOLINGUISTIC 34 (2017). DOI: 10.17951/et.2016.28.31
Sheppard, Stephen Michael. Bouvier Law Dictionary Prior Appropriation. https://advance.lexis.com/document/?pdmfid=1000516&crid=ed08b310-42a5-4433-8d21-e612e338b9d6&pddocfullpath=%2Fshared%2Fdocument%2Fanalytical-materials%2Furn%3AcontentItem%3A5FXB-8NR0-011T-Y4V7-00000-00&pdcontentcomponentid=422309&pdteaserkey=sr0&pditab=allpods&pdworkfolderlocatorid=NOT_SAVED_IN_WORKFOLDER&ecomp=ppnqk&earg=sr0&prid=78cb55c3-4944-434d-9f8f-50c81b84361e.
Sheppard, Stephen Michael. Bouvier Law Dictionary Riparian Ownership (Riparian Rights). https://advance.lexis.com/document/?pdmfid=1000516&crid=e0c2176d-43c0-4f4f-b96c-e5b0bf72e1d2&pddocfullpath=%2Fshared%2Fdocument%2Fanalytical-materials%2Furn%3AcontentItem%3A5FXB-8NR0-011T-Y4V6-00000-00&pdcontentcomponentid=422309&pdteaserkey=sr0&pditab=allpods&pdworkfolderlocatorid=NOT_SAVED_IN_WORKFOLDER&ecomp=ppnqk&earg=sr0&prid=af203b2f-069f-4500-a202-788f6917f5fa.
Sierra Club v. Morton, 405 U.S. 727, 733 (1972).
Sierra Club v. Morton, 405 U.S. 727, 755-56 (1972) (Justice Blackmun dissenting).
Sivas, Deborah A., Molly Loughney Melius, Linda Sheehan, Earth Law Center, John Ugai, and Heather Kryczka. "California Water Governance for the 21st Century." Earth Law Center and Stanford University (2017).
Slaughter, Richard A., and John D. Wiener. "Water, Adaptation, and Property Rights on the Snake and Klamath Rivers 1." *JAWRA Journal of the American Water Resources Association* 43, no. 2 (2007): 308-321.
Smith, Anna. “The Klamath River now has the legal rights of a person, A Yurok Tribe resolution allows cases to be brought on behalf of the river as a person in tribal court.” High Country News (Sept. 24, 2019). https://www.hcn.org/issues/51.18/tribal-affairs-the-klamath-river-now-has-the-legal-rights-of-a-person.
Smith, Anna. “When Nature Speaks for Itself” (Nov, 28 2020). https://slate.com/technology/2020/11/suicide-of-our-troubles-environmental-personhood.html.
Smith, Linda Tuhiwai. *Decolonizing methodologies: Research and indigenous peoples*. Zed Books Ltd. (2013).
Stanislaus River Fact Sheets (c. 1980), CTN 1, Folder 41. Mark Dubois Papers. Bancroft Library, University of California Berkeley.
Stankey, George H., Roger N. Clark, and Bernard T. Bormann. "Adaptive Management of Natural Resources: Theory, Concepts, and Management Institutions. Portland (OR): US Department of Agriculture, Forest Service." *Pacific Northwest Research Station. General Technical Report no. PNW-GTR-654* (2005).
State of Uttarakhand & Ors. v. Mohd. Salim & Ors. Supreme Court of India (2017).
State v. Tinno, 94 Idaho 759 (1972)
Sternberg, R. J., & Grigorenko, E. L. Cultural intelligence and successful intelligence. *Group & Organization Management* 31, no. 1 (2006): 27-39.
Stone, Christopher D. "Should Trees Have Standing--Toward Legal Rights for Natural Objects." *S. CAl. l. rev*. 45 (1972): 450.
Stuart-Ulin, Chloe Rose. “Quebec's Magpie River becomes first in Canada to be granted legal personhood.” Canada’s National Observer (Feb 24, 2021). https://www.nationalobserver.com/2021/02/24/news/quebecs-magpie-river-first-in-canada-granted-legal-personhood.

"Sumak Kawsay: Ancient Teachings of Indigenous Peoples." Pachamama Alliance. https://www.pachamama.org/sumak-kawsay.
Sun, Haochen. "Toward a New Social-Political Theory of the Public Trust Doctrine," Vermont Law Review 35, no. 3 (Spring 2011): 563-622.
Takacs, David. "The Public Trust Doctrine, Environmental Human Rights, and the Future of Private Property," New York University Environmental Law Journal 16, no. 3 (2008): 711-766.
Tamaqua Borough, Schuylkill County, Pa., Tamaqua Borough Sewage Sludge Ordinance (No. 612, 2006). http://files.harmonywithnatureun.org/uploads/upload666.pdf.
Taylor, Paul W. "The ethics of respect for nature." *Environmental ethics* 3, no. 3 (1981): 197-218.
Tiebout, Charles. "A pure theory of local expenditure." *Journal of Political Economy* 44 (1956): 416-424.
"Text of Charter Amendment." The Right to Clean Water. https://righttocleanwater2020.com/text-of-charter-amendment.
The Constitution of The Ho-Chunk Nation (2019). https://ho-chunknation.com/wp-content/uploads/2019/05/Constitution-of-The-HoChunk-Nation.pdf.
Thompson, Geneva E. B. "Codifying the Rights of Nature: The Growing Indigenous Movement," Judges' Journal 59, no. 2 (Spring 2020): 12-15.
"Traditional Knowledge," World Intellectual Property Organization. https://www.wipo.int/tk/en/tk/.
"Transboundary Freshwater Dispute Resolution Database." Program in Water Conflict Management and Transformation, Oregon State University. https://transboundarywaters.science.oregonstate.edu/content/transboundary-freshwater-dispute-database.
"Tribal Nations." Columbia River Keeper. https://www.columbiariverkeeper.org/columbia/tribal-nations.
Trs. of Dartmouth Coll. v. Woodward, 17 U.S. (4 Wheat.) 518, 638-39 (1819).
Turkewitz, Julie. "Corporations Have Rights. Why Shouldn't Rivers?" *New York Times* (2017). https://www.nytimes.com/2017/09/26/us/does-the-colorado-river-have-rights-a-lawsuit-seeks-to-declare-it-a-person.html.
Turner, Frederick Jackson. "The Significance of the Frontier in American History" (1920).
UN Water. "Human Rights to Water and Sanitation," United Nations. https://www.unwater.org/water-facts/human-rights/.
UNESCO World Heritage Centre. https://whc.unesco.org/en/about/.
"United Nations Declaration on the Rights of Indigenous Peoples." United Nations. https://www.un.org/development/desa/indigenouspeoples/declaration-on-the-rights-of-indigenous-peoples.html & https://www.un.org/esa/socdev/unpfii/documents/DRIPS_en.pdf.
United States Constitution, Article 1, Section 8, Clause 3.
United States Constitution, Article IV, Section 3, Clause 2.
United States v. Adair, 723 F.2d 1394 (9th Cir. 1983).
United States v. Greenpeace, Inc., 314 F. Supp. 2d 1252, 1261 (S.D. Fla. 2004).
United States v. Lopez, 514 U.S. 549, 558-59 (1995).
United States v. Martin Linen Supply Co., 430 U.S. 564, 575 (1977).
United States v. Morton Salt Co., 338 U.S. 632, 650-52 (1950).
United States v. Rad-O-Lite of Philadelphia, Inc., 612 F.2d 740, 743 (3d Cir. 1979).
United States v. Washington, 384 F. Supp. 312 (W.D. Wash. 1974)
United States v. Winans, 198 U.S. 371 (1905).
"Universal Declaration of the Rights of Rivers." https://www.rightsofrivers.org/.
"Universal Declaration of the Rights of Rivers." GARN. https://www.therightsofnature.org/universal-declaration/.
Unopposed Motion to Dismiss Amended Complaint with Prejudice. Colorado River v State of Colorado, No. 17-cv-02316-NYW (D. Colo. Dec. 3, 2017).

http://blogs2.law.columbia.edu/climate-change-litigation/wp-content/uploads/sites/16/case-documents/2017/20171203_docket-117-cv-02316_motion-to-dismiss.pdf.

"Upper Columbia United Tribes." https://ucut.org/.

"Upper Snake River Tribes." https://uppersnakerivertribes.org/.

USCS Fed Rules Civ Proc R 12(c).

USGS. "Water Quality information by topic." Water Science School. https://www.usgs.gov/special-topic/water-science-school/science/water-quality-information-topic?qt-science_center_objects=0#qt-science_center_objects.

Vaughn, K. J., Porensky, L. M., Wilkerson, M. L., Balachowski, J., Peffer, E., Riginos, C.,Young, T. P . "Restoration Ecology." *Nature Education Knowledge* 3, no. 10 (2010): 66.

Victor, David G. *A political theory of water governance*. No. 19. ILAR Working Paper (2013).

Victoria, Davion. "Ecofeminism." *A Companion to Environmental Philosophy. Oxford, Blackwell* (2003).

Vidal, John. "Bolivia enshrines natural world's rights with equal status for Mother Earth." *The Guardian* (2011). https://www.theguardian.com/environment/2011/apr/10/bolivia-enshrines-natural-worlds-rights.

Vincent, C.H.. National Park Management. Library of Congress, Congressional Research Service (2008). https://www.crs.gov/Reports/RL33484?source=search&guid=23041175c92540b695e52e7114d6b8ba&index=4.

Walker, Jana L., Jennifer L. Bradley & Timothy J. Humphrey, Sr., *A Closer Look at Environmental Injustice in Indian Country*, 1 Seattle J. Soc. Just. 379, 393 (2002).

Wally v. United States, 148 Ct. Cl. 371, 373-74 (U.S. 1960).

Walston, Roderick E. "The Public Trust Doctrine in the Water Rights Context: The Wrong Environmental Remedy," Santa Clara Law Review 22, no. 1 (1982): 63-94.

Walton, Brett. "2020 Election Recap: Florida County Overwhelmingly Supports Granting Legal Rights to Rivers," Circle of Blue (Nov 4, 2020). https://www.circleofblue.org/2020/world/2020-election-recap-florida-county-overwhelmingly-supports-granting-legal-rights-to-rivers/.

Warne, Kennedy. "A Voice for Nature." *National Geographic* (2019). https://www.nationalgeographic.com/culture/2019/04/maori-river-in-new-zealand-is-a-legal-person/.

Wäscher, Sebastian, Nikola Biller-Andorno, and Anna Deplazes-Zemp. ""I Don't Want to Do Anything Bad." Perspectives on Scientific Responsibility: Results from a Qualitative Interview Study with Senior Scientists." *NanoEthics* (2020): 1-19, 15.

Water Courts. Colorado Judicial Branch. https://www.courts.state.co.us/Courts/Water/Index.cfm.

Water Governance Facility. "Water Governance." UNDP and SIWI. https://www.watergovernance.org/water-governance/.

"Water Scarcity." United Nations. https://www.unwater.org/water-facts/scarcity/.

Watson-Verran, H., & Turnbull, D. Science and other indigenous knowledge systems. *Handbook of science and technology studies* (1995): 115-139.

Wegner, David (Spring 2021).

Wells, Michael. "Resolution recognizes rights of Snake River," Lewiston Tribune (Jun 20, 2020) https://lmtribune.com/northwest/resolution-recognizes-rights-of-snake-river/article_508d6e05-fb04-5b74-a828-0b1a6ceaecaf.html; see also, https://www.earthlawcenter.org/snake-river#:~:text=Update%3A%20In%20June%202020%2C%20the,as%20a%20subject%20of%20rights.

"What is Ecological Restoration?" Society for Ecological Restoration (2020). https://www.ser-rrc.org/what-is-ecological-restoration/.

"What is Rights of Nature?" GARN. https://www.therightsofnature.org/what-is-rights-of-nature/.

"What is Social Value?" Social Value International. https://socialvalueint.org/social-value/what-is-social-value/.
"What is social value?". The Social Value Portal. https://socialvalueportal.com/what-is-social-value/.
"What Makes a River?" American Rivers. https://www.americanrivers.org/rivers/discover-your-river/river-anatomy/.
White, Hannah. "Indigenous Peoples, the International Trend Toward Legal Personhood for Nature, and the United States." *American Indian Law Review* 43, no. 1 (2018): 129-165.
"Why do we need wild rivers?" American Rivers. https://www.americanrivers.org/threats-solutions/protecting-rivers/the-value-of-wild-river/.
Whyte, Kyle Powys. "On the role of traditional ecological knowledge as a collaborative concept: A philosophical study." *Ecological processes* 2, no. 1 (2013): 1-12.
"Wild and Scenic Rivers." International Rivers. https://www.internationalrivers.org/campaigns/wild-and-scenic-rivers.
Wild and Scenic Rivers Act, 90 P.L. 542, 82 Stat. 906 (1968).
"Wild and Scenic Rivers Act." Fish and Wildlife Service. https://www.fws.gov/laws/lawsdigest/WILDRIV.HTML.
"Wild and Scenic Rivers Program." National Park Service. https://www.nps.gov/orgs/1912/whatwedo.htm.
"Wild and Scenic Rivers." U.S. Department of the Interior Bureau of Land Management. https://www.blm.gov/programs/national-conservation-lands/wild-and-scenic-rivers#:~:text=The%20BLM%20has%20the%20responsibility,study%20rivers%20across%20the%20country.
"Wild & Scenic Rivers." U.S. Forest Service. https://www.fs.usda.gov/managing-land/wild-scenic-rivers#:~:text=Designation%20as%20a%20wild%20and,Wild%20and%20Scenic%20Rivers%20System.
Wilderness Act, 88 P.L. 577, 78 Stat. 890 (1964)
"Wilderness is for all." National Park Service (2020). https://www.nps.gov/subjects/wilderness/index.htm.
Wilson, G., and D. M. Lee. "Rights of rivers enter the mainstream." *The Ecological Citizen* 2, no. 2 (2019): 183-187.
Wilkinson, Cathy. "Social-ecological resilience: Insights and issues for planning theory." *Planning theory* 11, no. 2 (2012): 148-169.
Winters v. United States, 207 U.S. 564 (1908).
Wisconsin v. EPA, 266 F.3d 741 (7th Cir. 2001).
Wockner, Gary. "Press Release: Save The Colorado Launches "Rights of Nature" Program to Counter Wall Street Takeover of Colorado's Rivers," Save the Colorado (Jan. 27, 2021). http://savethecolorado.org/press-release-save-the-colorado-launches-rights-of-nature-program-to-counter-wall-street-takeover-of-colorados-rivers/.
Wohl, Ellen, Stuart N. Lane, and Andrew C. Wilcox. "The science and practice of river restoration." *Water Resources Research* 51, no. 8 (2015): 5974-5997.
Wood, Mary Christina. "Atmospheric trust litigation across the world." *Fiduciary duty and the atmospheric trust* (2012): 99-163.
Wood, Mary Christina, and Dan Galpern. "Atmospheric Recovery Litigation: Making the Fossil Fuel Industry Pay to Restore a Viable Climate System." *Envtl. L.* 45 (2015): 259.
Wood, Mary Christina. "Atmospheric Trust Litigation: Securing a Constitutional Right to a Stable Climate System." *Colo. Nat. Resources Energy & Envtl. L. Rev.* 29 (2018): 321.
Worcester v. Georgia, 31 U.S. 515 (1832).
Worster, Donald. *Rivers of Empire: Water, Aridity, and the Growth of the American West*. Oxford University Press, USA (1985).
Yarra River Protection (Wilip-gin Birrarung murron) Act 2017 (Vic) s 1(a) (Austl.). http://www.legislation.vic.gov.au/Domino/Web_Notes/LDMS/PubStatbook.nsf/51dea497705

55ea6ca256da4001b90cd/DD1ED871D7DF8661CA2581A700103BF0/$FILE/17-049aa%20authorised.pdf.
Yarra River Protection (Wilip-gin Birrarung murron) Act 2017 No. 49, Authorised Version No. 005, incorporating amendments as at 6 April 2020. http://files.harmonywithnatureun.org/uploads/upload1000.pdf.
Yelle, Robert A. *Semiotics of religion: Signs of the sacred in history*. A&C Black, (2012).
Zamora, Diomy, Blinn, Charlie. "Water Quality and Quantity." Wood Energy Extension (2019). https://wood-energy.extension.org/water-quality-and-quantity/#:~:text=Water%20quantity%20is%20the%20timing,other%20wildlife%20(Neary%202002).
Zuni Tribe v. United States, 12 Cl. Ct. 607 (U.S. 1987).
16 U.S.C. § 1237(a)
16 U.S.C. §1271
16 U.S.C. §1273(b)
16 U.S.C. §1274(a)(1)-(a)(8)
16 U.S.C. §1274(b)
16 U.S.C. §1274(d)(1)
16 U.S.C. § 1281
16 U.S.C. §1281(b)-(c)
16 U.S.C. § 1281(c)-(d)
16 U.S.C. §1283(a),(c)
28 U.S.C. 1343
28 USCS § 2201
33 U.S.C. §§ 1313(a)(3)(A),(C)
33 U.S.C. § 1377(e)(1)-(3) (2012)