Dams, the Dust Bowl, and Dispossession: Climate Security through Hydropower Construction in the Early American West

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ABSTRACT

Our climate crisis poses twin challenges that may contribute to increased investment and reliance on hydropower. Meeting the Paris Climate Agreement requires that renewable energy must provide 65% of the world's energy supply by 2050. Growing unpredictability in rainfall patterns also make advanced water management for agriculture and drinking water paramount to health and economic wellbeing.

To understand the possibilities and limitations of the growth of hydropower and large-scale environmental infrastructure projects, this article examines the cultural and political history of dam building in the North American West in the early 20th century. It takes the construction of the Bonneville Dam (1933-1937) as a case study to examine how environmental crises shape hydropower and infrastructure development writ large.

Employing the framework of "sociotechnical futures", the article undertakes a comparative analysis of President Franklin Roosevelt's speeches, Woody Guthrie's Bonneville Power Administration-commissioned songs, and Chief Johnny Jackson's oral history. It argues that politicians and cultural leaders leveraged narratives of environmental mismanagement from the devastation of the Dust Bowl to imagine federal dam-brought prosperity in the Pacific Northwest. In doing so, they developed clear images of the settler American who would benefit.

Analysing these perspectives can reveal how ideas about the Dust Bowl and regional identity transformed the physical landscape of the Columbia River Basin. Engaging with this history highlights how political contexts and environmental anxieties may legitimise infrastructure projects that advance dominant groups' interests while harming the interests of others.

I. **Introduction**

"We like Oregon. It's green and cool and there's not so much dust", recounted a recent migrant to Oregon to a reporter in the summer of 1938. Speaking from a "half-tent, half-shack home", the mother of two had fled with her family from Kansas, joining tens of thousands of refugees escaping the disastrously dry plains of the "Dust Bowl" of the North American Midwest for the safer climate and employment opportunities of the Pacific Northwest.[1] While the state's economy struggled to accommodate the sudden influx in farming hopefuls, an article in the Medford Mail Tribune brought some reason for optimism: with accelerated construction and the use of proper "irrigation, drainage, clearing and flood control" migrants and residents could benefit from an additional 10 million acres of farmland across Oregon, Washington, and Idaho. Oregon's reputation as a "land of promise" would thus depend on its water management.[2]

Dams likely figured as a crucial component of the technological mastery envisioned by the Tribune. Less than a year prior, the Bonneville Dam on the Columbia River had begun operation as the first federally-sponsored dam on the river. Today, it is one of the 470 dams on the river's main stem and tributaries that make it one of the most hydroelectrically developed river systems in the world.[3] The scale of such a project is difficult to overstate. Crossing more than 1,200 miles from the snow-capped mountains of British Columbia to the Oregon coast, the Columbia drains more water into the Pacific than any other river in North or South America. Its traditional nomenclature pays homage to its magnitude—in the language of the Chinook tribe who live near the lower Columbia, the river is "Wimahl", meaning "the big river".[4] For millennia, it has also been a hub of human and animal life; human presence dates back to 9,000 BP and its waters once boasted the largest Chinook, coho, and steelhead runs on Earth.[5] The Bonneville's appeal was varied: the dam promised rural electrification, easier navigation, continued employment opportunities, and, at least during the years in which the Dust Bowl raged, climate security. This development has come at a steep environmental, social, and spiritual cost—devastating salmon populations, halting the flow of sediment, and inundating settlements and sacred sites.

The damming of the Columbia was not done in one blow. Instead, over 42 years from 1933 to 1975, federal and state governments supported the construction of a number of dams.[6] Such dams now offer cheap, renewable electricity to more than 60% of people in the Pacific Northwest—an increasingly valuable asset in the era of the climate crisis.[7] Simultaneously, these dams are the subject of legal action.[8] In November of 2023, the White House agreed to settle a lawsuit led by Nez Perce, Yakama, Warm Springs, and Umatilla tribal nations over restoring northwestern

[1] My use of the term "climate" follows present-day scholarly conventions rather than the categories available to the Americans of this period. The documents I engage with reveal they did not understand their environmental uncertainties through a lens of "climate" or "climate change". However, their worries about potentially permanent drought, desiccation, and shifting seasonal patterns align closely with contemporary meanings of climate, justifying this anachronism for analytical clarity.

[2] "New Pioneer from Dust Bowl Finds Life Hard, Rough in Oregon." *Medford Mail Tribune*, 7 Jun. 1938. *Historic Oregon Newspapers*, University of Oregon.

[3] "Columbia Basin: Dams and Hydroelectricity." *Columbia Basin Trust,* 2018.

[4] "Naming the Columbia." *National Park Service,* 4 Jun. 2021. For Sahaptin-speaking peoples in present-day Washington, it is the "Nch'i-Wàna", also meaning "big river". Carriker, Robert, and William Lang. *Great River of the West: Essays on the Columbia River*. University of Washington Press, 2013, at 4.

[5] Early archaeological evidence of fishing communities points to human settlement having been established at least 9,000 years before present (before January 1, 1950): Carriker & Lang (n 4) *supra* at 8. *see also* Brown, Bruce. *Mountain in the Clouds: A Search for the Wild Salmon.* University of Washington Press, 1995, at 25.

[6] "Dams: History and Purpose." *Northwest Power and Conservation Council*, 2023.

[7] Wendel, JoAnna. "Hydropower Generation Projected to Rise, but Climate Change Brings Uncertain Future." *Pacific Northwest National Laboratory*, 21 Aug. 2024.

[8] *see*, for instance, Mize, Jeffrey. "Two Tribes Want Three Columbia River Dams Removed." *The Columbian,* 14 Oct. 2019.

salmon to the tune of one billion dollars.[9] Tension between environmental infrastructure development for some and justice for others is not a unique feature of the dams of the Columbia, and is instead visible in energy infrastructure and geoengineering investments around the world. Such clashes often trace back to a project's origins and intentions, prompting questions like: what did orchestrating figures perceive the benefits of dam building to be? For whom? What do their intellectual origins reveal about technological ambitions for managing nature in the early American West? And what can such lessons teach us about environmental infrastructure development today?

As the first major hydroelectric dam constructed on the Columbia, the Bonneville Dam provides a useful case study to examine the rise of hydropower in the region. Using three distinct voices—President Franklin Roosevelt in 1937, Woody Guthrie in 1941, and Chief Johnny Jackson in 1999—we can begin to make sense of such questions. All three come from different backgrounds. There is Roosevelt, the institutional power, a well-educated politician; Guthrie, the rambling counterculture figure who sang about the common man; and Jackson, a Cascades Indians Chief and fishing rights activist—and yet, all three illuminate the Bonneville. As this article will show, the Bonneville was a product of New-Deal-inspired dam building. Guthrie and Roosevelt leveraged the central and high plains climate insecurity of the Dust Bowl to justify the Bonneville and federal dam projects in the Pacific Northwest, while employing clear images of the white settler American who would benefit. Their omission of the impact of the dam on the Native Americans of the Columbia is complicated in the light of Chief Jackson's retelling of the creation of the Bonneville and the destruction it has brought his community.[10] Analysing these perspectives together reveals how ideas about the Dust Bowl and American identity transformed the physical landscape of the Columbia River Basin.

In the ensuing pages, the article argues that Roosevelt and Guthrie used Dust Bowl narratives to frame hydropower as a guarantor of white settler environmental security, obscuring the dispossession and ecological harm experienced by Native communities. It begins with a brief overview of relevant research within the fields of Science and Technology Studies (STS) and environmental history before clarifying its methodological approach. Next, it turns to the writings and recordings of Roosevelt, Guthrie, and Jackson to gain insights into the discursive practices that shaped the Bonneville, adding clarifying legal analysis from researcher Roberta Ulrich. The article concludes by connecting these historical arguments to present-day debates surrounding energy, climate governance, and infrastructure development.

II. **Literature Review**

Building from Jasanoff and Kim's foundational concept of "sociotechnical imaginaries", this paper contends that Roosevelt and Guthrie's imagined dam prosperity can reveal the cultural frameworks that underpinned hydropower and infrastructure investment in the Northwest. Jasanoff and Kim define sociotechnical imaginaries as "[c]ollectively held, institutionally stabilized, and publicly performed visions of desirable futures, animated by shared understandings of forms of social life and social order attainable through, and supportive of, advances in science and technology".[11] In doing so, it joins a growing body of scholarship that make sense of the form, function, and future of renewable

[9] Yachnin, Jennifer. "White House Pledges $1B to Restore Pacific Northwest Salmon, Steelhead." *Politico*, 14 Dec. 2023.

[10] Keeping with existing literature in the field and guidance from the National Museum of the American Indian, I use the terms Native American and Indigenous when referring to various Native peoples in the Columbia River region. Whenever possible, I attempt to use the specific names of individual tribes. *see* "Teaching & Learning about Native Americans." *National Museum of the American Indian*.

[11] Jasanoff, Sheila, and Sang-Hyun Kim,. *Dreamscapes of Modernity: Sociotechnical Imaginaries and the Fabrication of Power*. University of Chicago Press, 2015, at 4.

energy and geoengineering investment by centring its imagined impacts and assumed social contexts.[12] The value of this task is summarised by Jasanoff thus: the "ways in which we know and represent the world (both nature and society) are inseparable from the ways in which we choose to live in it".[13] Scholars have conducted similar investigations on different infrastructural projects at different times. For instance, O'Malley examines how oil pipeline expansion debates reflect "sociotechnical controversies over desirable sociotechnical futures", examining what visions it reflects "about those living within these borders".[14] This critical lens thus puts the Bonneville in conversation with modern stories of gas and pipeline construction, renewable energy initiatives, and other projects that derive form and function from their political and geopolitical contexts. This article thus produces new empirical evidence to unpack a historic example of infrastructure investment through this critical approach.

This study contributes to what Fladvad has called an "infrastructural turn in the social sciences".[15] Rather than treating the dam as a neutral entity, it acknowledges that "dams, roads and bridges and energy technologies ... are imbued with power relations and normative orders, as well as social meanings and imaginaries of the future".[16] While documenting both potentials and pitfalls of this early infrastructure investment, this article reflects the increasing acknowledgment of the potential of infrastructure to shape sociotechnological futures and effect ecological change.[17] Prior scholars have written on the ways in which infrastructure can organise people and land to benefit settler colonial states' control.[18] This article extends those insights by applying this framework to a case in the early 20th century.

Lastly, this paper builds on histories of environmental colonialism that study how settler anxieties about the climate have inspired large-scale utopian projects. Lehmann's *Desert Edens: Colonial Climate Engineering in the Age of Anxiety* is of particular relevance. Lehmann traces how European explorers, planners, and colonial officials attempted to remake the Sahara into productive farmland, harnessing "technological advances and colonial fears" for "utopian geoengineering projects".[19] By examining the Pacific Northwest, this study adds evidence of how climate anxiety and settler colonialism worked in tandem to produce imagined dam-brought utopias. Meaningfully addressing climate change and climate-focused infrastructure will undoubtedly need to depart from an understanding of its origins. Following Lehmann's lead, this article aims to place an early instance of green infrastructure development within its milieu to examine how the intellectual tracks which it carved steer modern environmental decision.

III. **Methodological Reflection**

To approach the origins of hydropower in the Pacific Northwest, this article focuses on the

[12] *see*, for instance, Rudek, Tadeusz Józef. "Capturing the Invisible: Sociotechnical Imaginaries of Energy." *Science and Public Policy*, vol. 49, no. 2, 2022, pp. 219-245.
[13] Jasanoff, Sheila. *States of Knowledge: The Co-Production of Science and Social Order.* Routledge, 2004, at 2. Jasanoff uses this phrase in defining the term "co-production". More remains to be said regarding the co-production of a "managed" Pacific Northwest, but that is outside the scope of this article.
[14] O'Malley, Alana. *Workers in Canada's Energy Future: Sociotechnical Imaginaries, Settler-Colonialism, and the Coastal Gaslink Pipeline*. Ph.D. Dissertation, University of Ottawa, 2023, at 7.
[15] Fladvad, Benno. "Infrastructuring Environmental (In)Justice: Green Hydrogen, Indigenous Sovereignty and the Political Geographies of Energy Technologies." *Geographica Helvetica*, vol. 78, no. 4, 2023, p. 493.
[16] ibid.
[17] *see*, for instance, Degens, Philipp, et al. "Analyzing Infrastructures in the Anthropocene." *Historical Social Research,* vol. 47, no. 4, 2022, pp. 7-28.
[18] Some recent research on infrastructure highlights its potential for harm. *see*, e.g., Spice, Anne. "Fighting Invasive Infrastructures: Indigenous Relations against Pipelines." *Environment and Society*, vol. 9, 2018, pp. 40-56.
[19] Lehmann, Phillip. *Desert Edens: Colonial Climate Engineering in the Age of Anxiety*. Princeton University Press, 2022. For more on the history of geoengineering, *see* Lagercrantz, Oona. "Turning Deserts into Paradises: Geoengineering in Science, Practice, and Fiction in the 19th and Early 20th Centuries." *Cambridge Journal of Climate Research*, vol. 1, no. 2, 2024, pp. 237-244.

intellectual roots and intended impacts of dam construction, comparing it with its real impact on Native American communities. It draws on digital archives, choosing key sources based on their reach and public-facing nature. Roosevelt's speeches at the Bonneville Dam offer insight into the institutional, national perspective, and Guthrie's songs reveal information about the dam's appeal for both the Bonneville Power Administration and the folk movement. These documents represent some of the only ways in which Americans outside of the Northwest heard about and understood the Bonneville and federal dam-building in the 1930s and 1940s. They are thus used as representative pieces of dominant discourse. Roosevelt's political speeches and Guthrie's folk songs help the investigation "gain insight into broad processes of collective formation in relation to sociotechnical imaginaries".[20] Their work is supplemented with contemporary newspaper reports, government reports, and regionally focused secondary sources for additional context of how such topics were treated.

To account for the lack of Native American consideration in Roosevelt and Guthrie's work and in other widely disseminated media of the 1930s and 1940s, I read into the silences in these documents. I make note of intentional omissions and elisions of Native American presence, participation, and protest. I supplement my analysis with the oral history of Chief Jackson and the legal scholarship of Roberta Ulrich. Jackson's publicly accessible oral history provides a glimpse of the crucial Native perspective on issues like land use rights, salmon sustainability, and environmental change.

IV. **Argument**

A. *Roosevelt*

The Pacific Northwest, which possessed 40% of the nation's potential hydroelectricity, played a prominent role in the early history of hydropower. In 1889, the first long-distance transmission of electric energy in the United States occurred when the Willamette Falls Electric Company transmitted electricity from its station at Oregon Falls to Portland, Oregon, 14 miles away. As cities in the Northwest soon adopted electric power grids—McMinnville led the way with its 1889 city light system—rural lands near the Columbia lagged behind.[21]

Demand for electricity and optimism about its potential to positively transform American society skyrocketed over the ensuing decades, drawing federal attention to the enormous potential of the Columbia River. In 1932, shortly before Roosevelt's election as president, the Army Corps of Engineers published its 308 Report, analysing the river basin as an integrated system. The engineers set forth a plan for the Columbia involving ten multi-purpose dams, beginning at Grand Coulee in Washington and ending at what would become Bonneville Dam. Alongside the generation of public power, engineers highlighted the benefits of flood control, irrigation, and navigable waterway that the dams would bring.[22]

Although national momentum gathered behind hydropower, it was not until the shock of the Great Depression and the election of President Roosevelt that dam building took on an entirely new scale and rapidity—both nationally and in the Pacific Northwest. The economic downturn of the Great Depression left millions out of work, hitting hard in the logging- and mining-dependent states of Washington, Oregon, and Idaho. By 1933, half as many people were working in the Pacific Northwest as had been in 1926.[23] Roosevelt's New Deal programs that targeted poor and unemployment relief and economic recovery through government spending provided a strong foundation for support of dam building. In the words of historian Carl Bauer, "President Roosevelt's New Deal marked the

[20] O'Malley (n 14) *supra* at 15.
[21] Spring, Vera. *Power and the Pacific Northwest: A History of the Bonneville Power Administration.* US Department of the Interior, 1976, at 4-6.
[22] Kramer, George. *Corridors of Power: The Bonneville Power Administration Transmission Network Historic Context Statement,* Kramer & Company, 2010, at 15.
[23] "The Great Depression and the New Deal." *The National Archives,* 15 Aug. 2016.

entrance of hydropower to a leading role in river development."[24] Most important for dam building was Roosevelt's creation of the Public Works Administration (PWA) in 1933, which set forth a large-scale construction agency for public works.[25] The PWA exemplified the collectivist notion of government investment to break free from economic depression: creating the infrastructure necessary for a thriving economy would jumpstart the creation of that economy.

Damming the Pacific Northwest, as laid out in the 308 Report, likely appeared as the perfect PWA project for both administrators and many Depression-affected locals. Building a major dam required thousands of workers contracted for years at a time. Until this point, the difficulty of the work and scale of employment had been intimidating enough to prevent any prior construction.[26] Dams also returned desirable public goods: cheap electricity, increased commerce, and irrigation. Such a scheme appealed greatly to the impoverished Northwest; perhaps unsurprisingly, the development of the Columbia through government investment was a key part of Roosevelt's 1932 election platform. Speaking in Portland on his campaign trail, Roosevelt focused greatly on the "the vast possibilities of power development on the Columbia River".[27] Roosevelt promised the crowd, in "definite and certain terms, that the next great hydro-electric development to be undertaken by the Federal Government must be that on the Columbia River".[28] To a region filled with unemployed individuals, the prospect of guaranteed employment through dam development would have appeared essential. When Roosevelt returned in 1934 after construction had commenced, he also focused on the economic promises of the dam, explaining that he viewed "the Columbia River as one of the greatest assets not only of the Northwest, but of the whole United States", which could unleash power for the whole region.[29]

By 1937, construction on the Bonneville had been underway for four years and Roosevelt's promise had begun to materialise in earnest—realised with new significance for regional spatial identity politics against the backdrop of the Dust Bowl. When the Bonneville Dam neared completion in fall of 1937, Roosevelt returned to the site to dedicate the dam's spillway. There, he hit the switch to start the two hydroelectric generators of the dam.[30] Addressing an assembled crowd and a tuned-in radio audience, Roosevelt offered a new justification for the creation of the Bonneville Dam, characterising the dam as the antidote to the policy failures of the environmental havoc of the Plains. Roosevelt referenced the well-known and ongoing drought and dust storms of the Plains which had begun roughly six years prior, an event now referred to as the Dust Bowl. He argued that such devastation sprung from management neglect—one that the nation could learn from. He noted that, if we had "known as much and acted as effectively twenty and thirty and forty years ago as we do today in the development of the use of land", the "abandonment of thousands and thousands of farms in portions of ten states would have been preventable".[31] Roosevelt singled out an array of environmental management techniques as retroactive solutions, contending that avoiding vast ploughing, applying "stricter regulations to prevent over-grazing", checking soil erosion, protecting forests, and controlling fires might have left the region

[24] Bauer, Carl. "The Long View of the Water / Energy Nexus: Hydropower's First Century in the U.S.A." *Natural Resources Journal*, vol. 60, no. 2, 2020, p. 176.
[25] Smith, Jason Scott. *Building New Deal Liberalism: The Political Economy of Public Works, 1933-1956*. Cambridge University Press, 2006, at 94.
[26] Spring (n 20) *supra* at 12.
[27] Roosevelt, Franklin Delano. "A Campaign Address on Public Utilities and Development of Hydro-Electric Power, Portland, Oregon, 21 September 1932." *American Presidency Project*.
[28] ibid.
[29] "Roosevelt Pledges Control of Power for Whole People." *The New York Times,* 4 Aug. 1934.
[30] Vandy, Greg, and Daniel Person. *26 Songs in 30 Days: Woody Guthrie's Columbia River Songs and the Planned Promised Land in the Pacific Northwest*. Sasquatch Books, 2016, at 147.
[31] Roosevelt, Franklin Delano. "Speech of the President, Bonneville Dam September 28, 1937." *The National Archives*, Speech File, 1081, at 2.

unblemished.[32] Viewed in the context of admitted absence and failure of environmental management in the Plains, the plan to rework the hydrology of the Northwest to deliver more water to the agricultural fields of Oregon, Washington, and Idaho become a preventative step against future environmental disaster and the guarantor of climate security.

Roosevelt posited the dam as an answer to larger current environmental anxieties; people across the nation noticed the problems of the Depression intensified by the dissipation of natural resources. As historian Wesley Arden Dick recounts, individuals saw "floods, drought, dust storms, and erosion ... jeopardizing the organic stability of the United States".[33] And yet, by juxtaposing the situations in the Plains and the Northwest, Roosevelt characterised the Bonneville as a healing instrument that "[could establish] a rapprochement with nature".[34] It was in the untarnished lands of Oregon and Washington that dam construction could act upon the lessons of the Dust Bowl—setting up the region as a permanently stable lush idyll a world apart from the environmental disasters of the Plains.

But Roosevelt defined the future of the Northwest not only against the physical characteristics of the dry Plains, but against its human characteristics as well. Residents of the Pacific Northwest encountered the impacts of the Dust Bowl primarily through the waves of new migrants it sent west from the Midwestern Plains.[35] Between 1930 and 1940, about 3.5 million people moved out of the Plains, with over two-thirds departing after 1935.[36] The vast majority of these migrants headed to Washington, Oregon, and California.[37] These migrations peaked in Oregon not long before Roosevelt spoke.[38] Oregonian and Washingtonians viewed these migrants with apprehension—one economist explained that "many farmers in Oregon and Washington have been hesitant to welcome these new families who, they believe, will add to existing problems of relief and unemployment".[39] Roosevelt acknowledged this reality in his Bonneville speech, trading in Northwesterners' contemporary anxieties about their own environmental futures. He claimed the scientific knowledge that the government now had could prevent environmental degradation and any repeat of "the migration of thousands of destitute families from [the Midwest] into the States of Washington and Oregon and California".[40] While the migrants of the Dust Bowl had already fallen victim to poor environmental management, and were then struggling to find safe living conditions, Roosevelt reassured the residents of the Pacific Northwest that they need never fear of being forced to leave their homes.[41] The dam would serve as a technological solution to environmental problems, guaranteeing both security and environmental stability in the face of the uncertainty and disruption of the Dust Bowl.[42]

Such a focus on the impacts of the Dust Bowl also hints that the central characters in Roosevelt's narrative were Americans of European descent: omitting Native Americans. White Americans could likely see themselves in the "Oakies" of the Dust Bowl and thus needed reassurance that they were not bound to that same fate. Throughout the speech, Roosevelt catered his words to a very specific "American" audience, relating his focus on the

[32] ibid.
[33] Dick, Wesley Arden. "When Dans Weren't Damned: The Public Power Crusade and Visions of the Good Life in the Pacific Northwest in the 1930s." *Environmental Review*, vol. 13, no. 3-4, 1989, pp. 113-153.
[34] ibid.
[35] Hoffman, Charles. "Drought and Depression Migration into Oregon, 1930 to 1936." *Monthly Labor Review*, vol. 46, no. 1, 1938, p. 28.
[36] Worcester, Donald. *Dust Bowl: The Southern Plains in the 1930s*. Oxford University Press, 1979, at 49.
[37] ibid at 50. In the 1930s, two out of five migrants across state lines were heading to California.
[38] Hoffman (n 35) *supra* at 28. Hoffman's data, while incomplete, shows migration to rural Oregon tapering off in 1936.
[39] ibid at 27.
[40] Roosevelt (n 31) *supra* at 2.
[41] Ibid.
[42] Roosevelt was not alone in this view; social theorist Stuart Chase echoed it in 1938: "[t]he chief purpose of the great dams is to restore equilibrium". Dick (n 35) *supra* at 132.

Columbia to "the future of the United States".[43] He himself was part of this vision of an American identity, referring to "our children".[44] The promises of increased economic activity, irrigation, and electricity focused on a uniform American, and he touted those benefits to those who were thousands of miles away.[45] Not once did Roosevelt acknowledge the diversity of peoples that called the region and the Columbia River home—the Chinook, Wanapum, Nez Perce, Yakama, Umatilla, Warm Springs, Cowlitz, and Grand Ronde; he made no explicit mention of their existence or their uniqueness. Instead, he targeted his appeal to those who could identify with a homogenous American identity, addressing only the concerns of the white populace. These absences indicate that speechwriters and the President considered Americans of European descent as important enough to make it into a President's speech—Native Americans, by contrast, were not.

Roosevelt also omitted any discussion of the impact of the dam on salmon populations, further relegating concerns of Indigenous populations. Many Native American tribes depended on the fisheries of the Columbia as the guarantor of their own survival. The abundant salmon, steelhead, and sturgeon of the river had served as a consistent source of food and trade for generations.[46] Moreover, the waters and the salmon held an important role in spiritual practice. Columbia River Basin tribes believed that their souls were connected to the natural world and all of its inhabitants, with special reverence for salmon, which held a central cultural role.[47] While it is unclear whether Roosevelt understood the full impact that this dam project would have on fisheries, it was clear that the Bonneville threated salmon runs and would submerge Native American fishing spots.[48] The April before his speech, the New York Times ran a story titled "Fear Bonneville May Doom Salmon", recounting the worries of men in the salmon industry regarding their likely future catches. The article devoted two brief sentences to note that "[a]mong those skeptical of the dam are the Indians" as they "insist ... that the white man will now destroy their fishing grounds".[49] Moreover, just weeks before Roosevelt came to visit the dam, Native Americans were working with the Bureau of Indian Affairs (BIA) to document the dam's damage for compensation claims. As scholar Roberta Ulrich reveals, a dozen tribal elders travelled in a Corps of Engineers boat from the nearby town of the Dalles to the dam, pointing out traditional fishing sites to the BIA officials that accompanied them. BIA officials took photographs of each site, to be joined by a second of the same site the next year after the sites had been flooded by the dam's reservoir.[50] The imminent loss of fishing sites was thus apparent to those on the ground. By characterising the Bonneville as the key to environmental safety and prosperity for nearby residents—and omitting any mention of loss—Roosevelt rejected the river and its fish as sources of that same safety and prosperity for generations of Columbia River Native Americans. In this, it becomes clear who stood to benefit from the dam in Roosevelt's eyes: it was not those that relied on the waters and salmon of the Columbia for millennia, but rather the population that has settled in the basin in the past 200 years.

B. *Guthrie*

Four years later, another iconic American voice joined Roosevelt to promote the

[43] Roosevelt (n 31) *supra* at 3.
[44] ibid at 11.
[45] ibid at 10.
[46] Beckham, Stephen. *An Interior Empire: A Historical Overview of the Columbia River Basin*. Eastside Ecosystem Management, 1995, at 2. Salmon were a main source of sustenance and income. For example, one fisherman, John Polk, estimated "the value of the fish he caught to feed his family of six was $300 per year. He also sold and traded about $900 worth of fish for whatever else his family needed ... Meagre as Polk's income sounds ... he and the other river people considered that the river provided a good living before Bonneville Dam was built": Ulrich, Roberta. "Empty Promises, Empty Nets." *Oregon Historical Quarterly,* vol. 100, no. 2, 1999, p. 137.
[47] "We Are All Salmon People." *Columbia River Inter-Tribal Fish Commission*, 2021.
[48] Ulrich (n 46) *supra* at 136.
[49] "Fear Bonneville May Doom Salmon: Fishermen Threaten Suit Over Baneful Effects of Big Hydroelectric Dam." *The New York Times,* 18 Apr. 1937.
[50] Ulrich, Roberta. *Empty Nets: Indians, Dams and the Columbia River*. Oregon State University, 1991, at 21.

Columbia dam—elaborating on a settlor Northwestern identity in opposition to the Plains. Guthrie differed from Roosevelt in many facets. When he was hired by the Bonneville Power Administration (BPA) to write songs about the Bonneville, he was 28 years old, a father of three, and an itinerant left-wing songwriter.[51] As opposed to the presidential position of Roosevelt, Guthrie had a reputation for going against the grain, and was coming off a recent stint as a columnist in Los Angeles for the communist newspaper, *People's World*.[52] Desperately in need of a job, Guthrie was connected to the BPA by his friend, Allen Lomax, who was the head of the Archive of Folk Song at the Library of Congress. The BPA had been looking to produce a second documentary on the benefits of the Bonneville as well as the Grand Coulee dam, which had opened that year. The BPA ended up hiring Guthrie for 30 days, paying him a rate of ten dollars per song.[53]

Guthrie, an otherwise anti-establishment dissident, viewed the dam project optimistically. As music critic Paul de Barros writes, "Guthrie saw the Grand Coulee project as a Rooseveltian populist endeavour that would not only bring electric power to the people ... but also irrigate a gigantic 'pasture of plenty' east of the Cascades, which could accommodate the Dust Bowl refugees".[54] Over the course of his month of employment, Guthrie wrote 26 songs which, when viewed as Guthrie's own songs, offer insight into the ways Guthrie himself perceived the Northwest and the dam building project—and as government-endorsed propaganda, offer insight into the ways in which the BPA justified the Bonneville.

In many ways, Guthrie echoed Roosevelt's efforts to contrast the Pacific Northwest with the Plains. However, he repeatedly credited dams with establishing the Northwest as a safe haven for Dust Bowl migrants, not just Pacific Northwesterners. In "Pastures of Plenty", Guthrie established this argument, describing the struggles of Plains migrants: "it's a mighty hard row that my poor hands have hoed / My poor feet have travelled a hot dusty road / Out of your Dust Bowl and Westward we rolled".[55] When the Midwestern Plains failed, the characters of Guthrie's lyrics turned their hopes to the West. In subsequent verses, Guthrie characterised the Northwest as a solace for migrants made possible through the irrigation of dams, writing, "Green pastures of plenty from dry desert ground / From the Grand Coulee Dam where the waters run down".[56] Undoubtedly influenced by his childhood in Oklahoma and dust-stricken rural Texas as well as time spent traveling with migrants in the spring of 1938, Guthrie spoke on behalf of suffering migrants.[57] Unlike Roosevelt, who had tailored his speech to a largely Pacific Northwest audience, Guthrie opened up his scope, including migrants as a core stakeholder group.

Like Roosevelt, Guthrie also linked the damming of the Columbia to the tale of white Americans. In "Oregon Trail", Guthrie reinvented the narrative of the Oregon Trail to represent the Dust Bowl migration, once again setting up the devastation of the plains: "I been a grubbin' on a little farm on the flat and windy plains / I been a list'nin to the hungry cattle bawl".[58] And again, Western migration was the solution for his protagonist: "I'm gonna hit that western road / I'm gonna hit that Oregon Trail this comin' fall".[59] In calling

[51] Carriker, Robert. "Ten Dollars a Song: Woody Guthrie Sells His Talent to the Bonneville Power Administration." *Columbia Magazine*, vol. 15, no. 1, 2001, p. 34.
[52] Briley, Ronald. "'Woody Sez': Woody Guthrie, the 'People's Daily World,' and Indigenous Radicalism." *California History*, vol. 84, no. 1, 2006, p. 30.
[53] Carriker (n 51) *supra* at 32.
[54] de Barros, Paul. "26 Songs in 30 Days: How Woody Guthrie Wrote Those Great Songs—For $266." *The Seattle Times,* 11 Apr. 2016.
[55] Guthrie, Woody. "Pastures of Plenty." Moe Asch, 1941, *Rounder Records,* 16, 1987.
[56] ibid.
[57] Carriker (n 51) *supra* at 33.
[58] Guthrie, Woody. "Oregon Trail." Moe Asch, 1941, *Rounder Records,* 1, 1987.
[59] ibid.

upon the historic Oregon Trail, which had sent hundreds of thousands of settlers to the West in the mid-19th century, Guthrie connected the draw of the dam for migrants to settler history. Dams were the successor to earlier land grants that had attracted settlers; it was the lush productive land of hydropower that would entice migrants. Those who travelled on the trail were the same Americans of European ancestry that Roosevelt had appealed to four years prior; Native Americans had not participated in the Oregon Trail. Moreover, national press had depicted Native Americans as the primitive antagonist of settlers, suggesting that Oregon and Washington were blank slates open for settlement. Through Oregon Trail symbolism, Guthrie cast the Bonneville and the dam project as a draw for a white populace.

Guthrie joined in the erasure of Native American presence not only by glorifying settler narratives, but also by depicting Indigenous tribes as vanquished. "Roll on Columbia" highlights Guthrie's connection of settler victories over Native Americans to the modern victory of man over the Columbia itself. Guthrie wrote about the struggles of early settlers journeying to the Columbia: "year after year we had tedious trials, / Fighting the rapids at Cascades and Dalles. / The Injuns rest peaceful on Memaloose Isle".[60] The battle against the rapids of the pre-dammed river was one fought in tandem against Native Americans. Guthrie also used an implicit "we", extending Roosevelt's identification with a settler population, and thereby excluding Native Americans. Moreover, the first mention of Native Americans is to the dead: "Memaloose Isle" refers to one of what was once several islands in the Columbia where Chinook people lay their dead to rest.[61] Guthrie associated white settlement with Native American death. His reference to "peaceful rest" reads as ironic; the dam whose power he extolled in that very song submerged almost all Memaloose islands.[62]

Guthrie linked dam building to the American Indian wars of the late 19th century that occurred when Native Americans resisted the ethnic cleansing and incursion of white settlers. He commemorated the murder of "wild" Native Americans, writing, "Remember the trial when the battle was won, / The wild Indian warriors to the tall timber run, / We hung every Indian with smoke in his gun".[63] Circling back to the triumphant chorus once more ("your power is turning our darkness to dawn / roll on Columbia, roll on"), Guthrie wove the murder of Native Americans into the tale of the modern Bonneville's power and fortune, creating a continuous narrative that defined the dam as a project for the white settler victors he described.[64] "Roll on Columbia's" endorsement by the BPA highlights that such narratives were readily accepted by major institutions.[65] The fact that the only Native Americans listed in either of Guthrie's work are dead ultimately diminished the voices of the Native Americans who still lived in the Columbia region. Such lyrics and speeches painted Native American peoples as a feature of the past, not the present. Whether conscious or unconscious, such texts thus wrote Native American needs and desires out of the story of the Bonneville.

C. *Jackson*

Native Americans lived in the Columbia region as Guthrie and Roosevelt wrote—and their recollections, like those of Chief Johnny Jackson of the Cascade Band of the Yakama

[60] Guthrie, Woody. "Roll on Columbia." Moe Asch, 1941, *Rounder Records,* 5, 1987.
[61] "Memaloose Island." *Northwest Power and Conservation Council*. The name *Memaloose* comes from the Chinook word *memalust*, which means "to die".
[62] ibid. The dams of the Columbia disturbed all such burial sites. While a "Memaloose island" exists today in Memaloose State Park, it is submerged two thirds by water today compared to what explorers Lewis and Clark first noted.
[63] Guthrie (n 60) *supra.* This is likely a reference to the narrative that Sheridan hanged a Native American he "suspected of disloyalty, solely on the evidence that his gun was still hot": "Woody Guthrie and Sherman Alexie Narrate the Columbia." *Cascadia Chronicles,* 2012.
[64] Guthrie (n 60) *supra*. Most of Guthrie's verses detailing the Indian Wars have been removed from modern official lyrics. The Washington State official song version leaves out this section.
[65] Vandy & Person (n 30) *supra* at 182.

Tribe, offer an important counterpoint to the relentless dam optimism of Guthrie and Roosevelt. Jackson, who grew up along the Columbia River, recalled the process of dispossession at an oral history interview conducted in 1999. To Jackson, speaking about the Bonneville meant speaking of the theft of land from Native Americans. Jackson remarked that Underwood, Washington, where he had lived as a child during fishing season, "used to be a village" before the Bonneville, and the government "never paid for it".[66] Money was offered on paper, but never ultimately made it into the hands of his people; "[the government] paid [us] for Bonneville, fifty-thousand. But we've never seen it".[67] Roberta Ulrich provides clarity on the process Jackson described: the government acquired "flowage easements" from local residents—permission to flood the land—not title to riverside property, making it easier for them to pay little or no money to Native land owners.[68] By highlighting the injustice in the process of construction, Jackson complicates the narrative of the Bonneville as a guarantor of freedom and safety.

Furthermore, Jackson pointed to the broken promises of the federal government, which had sworn to replace the homes in villages it depopulated and razed—dwellings with significance far beyond economic terms. He noted that "[s]ome people lived here year round. They took [the homes] out and told them that they were going to replace them, and promised them a lot, which didn't happen".[69] Jackson's experience is representative of many other Native Americans in the region. 50 years later, the government had provided only five replacement fishing sites for those flooded by the Bonneville, equivalent to one-tenth of the land they had promised.[70] Jackson thus offers information about the Bonneville that would otherwise be obscured in the propagandist works of Roosevelt or Guthrie. Jackson's perspective casts the government as complicit in the exploitation of Native Americans and expropriation of their sites.

D. *Ulrich*

Roberta Ulrich's legal analysis can also help to piece back in Native voices to the narrative—highlighting that in the years between Roosevelt and Guthrie, Native Americans had actively resisted the federal government's theft of their property and ancestral fishing sites. Drawing from court briefs, Ulrich notes that in January 1939, Native Americans submitted their claim for damages from flooded spots, "listing twenty-three locations, each including at least several fishing sites". They addressed their claim to the officer in charge of Bonneville construction, Theron Weaver. They wrote: "[w]e have duly considered these losses at our tribal meetings" and "it is the opinion of our people that an effort should be made to have the United States Government, through your department, take steps to provide us with additional fishing sites and facilities".[71] Such evidence that Native Americans made their grievances known to authorities by demanding justice in court casts doubt on the notion that Roosevelt, the BPA, or even tangentially, Guthrie, were ignorant of the impact of the dam on Native Americans. While Jackson and Ulrich thus provide some clarity as to the role of the Bonneville in the dispossession of American peoples—acting as a counterpoint to the works of Roosevelt and Guthrie—these texts come over 60 years after the dam's creation, highlighting the dearth of contemporary Native American voices in the archive. It is clear that some Native Americans spoke out against the Bonneville, but little remains by way of primary sources. For instance, there are no contemporary reports or textual accounts written by Native Americans when they gathered at Kettle Falls in 1940 for their Ceremony of Tears, commemorating the

[66] "Chief Johnny Jackson: Interview by Piper Hackett." *Radical Elders Program*, 28 Mar. 1999, at 1; Ulrich (n 45) *supra* at 142.
[67] ibid.
[68] Ulrich (n 46) *supra* at 136.
[69] Jackson (n 66) *supra* at 1.
[70] Ulrich (n 46) *supra* at 156.
[71] ibid at 145. For more on Native American resistance to fishing rights changes, *see* Ulrich (n 50) *supra*.

flooding of Kettle Falls in dam backwaters.[72] While government-sponsored propagandist sources have been catalogued and digitised, the voices of most Native American activists have not. Progress is being made; Roberta Ulrich interviewed Native Americans and pored over legal documents in the late 1990s, and Jackson was interviewed in 1999. However, more action is needed.

V. **Conclusion**

Roosevelt and Guthrie used the narrative of poor environmental management in the devastation of the Dust Bowl to support federal dam-building projects in the Pacific Northwest, equating large-scale engineering with stability, prosperity, and environmental control for a settler populace. Such narratives cast aside the desires of Indigenous peoples, either by omitting them completely or by depicting them as vanquished. Put differently, Roosevelt and Guthrie's ability to speak optimistically about the populist appeals of the dams relied on their exclusion of Native Americans as Northwesterners. The arguments by which the Bonneville was justified formed the intellectual foundation upon which the dam building fervour of the ensuing forty years would build. Disregard for Native American concerns and their exclusion continued in dam construction, treatment of fish, and fishing rights legislation. Moreover, this analysis demonstrates that looking only at the words of Roosevelt and Guthrie provides an incomplete view of the history of the Bonneville, eliding the fact that controversies around dams are as old as the projects themselves. Harnessing an array of primary sources offers richer insight into the ever-important history of the Bonneville. As debates about dams bubble up today, understanding the ways in which the dam was a product of its time—one that assuaged contemporary anxieties around the Dust Bowl and served a limited portion of Americans—allows for more nuanced consideration of the relevance of dams. Internationally, large-scale environmental infrastructure projects around the world continue to rely on similar narratives of prosperity through engineered landscapes. In 2024, the World Bank approved financing for the first of five "mega dams" in developing nations, returning to its role as a powerful hydropower backer after a ten-year freeze.[73] The World Bank-funded Rogun Hydropower Project in Tajikistan will be the world's tallest dam once completed in 2033. While its supporters claim it will promote economic productivity, support a clean energy future, and protect downstream areas from extreme flooding, critics point out that the dam will displace at least 50,000 people.[74] Desertification also remains a pressing concern motivating infrastructure development. Begun in 1978, China's Great Green Wall aims to create a barrier of forest approximately 4500 km long by 2050 to hold back the expansion of the Gobi Desert.[75] A similar project is underway around the Sahel.[76] Back in the United States, nine states have embraced cloud seeding technology as a mitigation instrument for increasing drought intensity and frequency.[77] As this in-depth reading of the Bonneville highlights, such projects can be viewed as technological responses to environmental anxieties. Developers make decisions based on established power structures, harnessing infrastructure to reconfigure the landscape and secure the futures of some at the cost of others. As governments continue to turn to large-scale infrastructure projects to confront ecological uncertainty, the Bonneville invites recognition that attempts to configure nature through technological infrastructure also have implications for the configuration of society.

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[72] Sprague, Holly. "Unjust Compensation: Grand Coulee Dam, Indian Claims, and the Colville Nation." University of Massachusetts Amherst Commonwealth Honors College Theses and Projects No. 11, 2011, pp. 39-40.

[73] "Why the World Bank Should Stop Funding New Dams." *Yale e360*, 20 Apr. 2023.

[74] "Rogun Hydropower Plant Project (HPP): FAQs." *World Bank*; "Why Development Banks Should Not Fund the Rogun Mega-Dam in Tajikistan." *The Coalition for Human Rights in Development*, 13 Mar. 2024.

[75] "China's Great Green Wall." *Royal Geographical Society*, 2015.

[76] "Great Green Wall Initiative (GGWI)." *United Nations Convention to Combat Desertification*.

[77]. *Cloud Seeding Technology: Assessing Effectiveness and Other Challenges.* United States Government Accountability Office, GAO-25-107328, Dec. 2024.