

Indigenous Community Exclusion in U.S. Environmental Impact Assessments

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By

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Indigenous Community Exclusion in U.S. Environmental Impact Assessments

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Abstract

The United States National Environmental Policy Act (NEPA) intends for federal agencies to consider the adverse environmental impacts of a project before action. While NEPA and the environmental impact assessment (EIA) process have certainly resulted in some agencies making more environmentally conscious decisions, numerous cases indicate a phenomenon of inadequate consideration and adverse environmental and cultural impacts on Indigenous communities in the United States. Such cases suggest that Indigenous concerns are not heavily weighted in decision-making and, instead, input from Indigenous peoples is solicited to simply check the boxes of the NEPA procedural requirements. This dissertation explores the phenomenon of Indigenous community exclusion in EIAs through an illustrative case study structure. Using a latent content analysis approach, I study three case studies where Indigenous communities opposed infrastructure projects that they alleged would adversely impact their communities, including their culture, health, and the environment. The cases analyzed are, (1) the South Lawrence Trafficway construction through the Wakarusa Wetlands and its impacts on students and faculty of Haskell Indian Nations University, (2) the Dakota Access Pipeline construction beneath the Missouri River and through the unceded territory of the Standing Rock Sioux Nation, and (3) the opening of the Arctic National Wildlife Refuge to oil exploration and its effect on Alaskan Natives, particularly the traditions and cultural values of the Gwich'in peoples. This dissertation produces three articles for publication, each exploring a specific flaw in the EIA process – authorship power, public participation, and environmental justice analyses – through theoretically and empirically grounded work.

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Introduction

To move away from the perspective that a researcher must be value-free and removed from the research she conducts; I position myself in my research as a settler, colonizer, and non-Indigenous ally. My interest in the coexistence of Indigenous and non-Indigenous perspectives and issues such as environmental racism and justice stems from my experience as a person of European (German-Russian, Norwegian, and Irish) descent growing up in what is now called South Dakota. South Dakota has one of the highest Indigenous population percentages and some of the most socioeconomically disadvantaged Indigenous communities in the United States. As a child, I would observe the racist and classist overtones consistently used to other the Lakota, Dakota, and Nakota peoples living on reservations. With little knowledge provided about Indigenous history and culture in the South Dakota public school system, I worked to educate myself in my early adulthood about the systematic processes that have been and continue to oppress Indigenous peoples. Research on decolonization and justice necessarily challenges my position of privilege. I am aware that I and my fellow settlers may benefit by maintaining the status quo, but the social conditioning of colonialism supports the oppression of others in a multitude of ways, and I do not want to be complicit in this injustice. Decolonization is not an easy process, but it is through this work that I can engage with the lifelong process of breaking out of the colonially conditioned mold. My aim as an ally is not to substitute Indigenous voices with my own but to research Indigenous issues for and with Indigenous peoples. Through this position and experience, I approach my research on Indigenous representation in environmental impact assessments with a critical lens.

The intention of the United States National Environmental Policy Act (NEPA) is for federal agencies to consider the adverse environmental impacts of a project before action. While

NEPA and the environmental impact assessment (EIA) process have encouraged agencies to make more environmentally conscious decisions, numerous cases indicate a phenomenon of inadequate consideration and adverse environmental and cultural impacts on Indigenous communities in the United States. Such cases suggest that Indigenous concerns are not heavily weighted in decision-making and, instead, input from Indigenous peoples is solicited to simply check the boxes of the NEPA procedural requirements. This dissertation explores the phenomenon of Indigenous community exclusion in EIAs through an illustrative case study structure. Using a latent content analysis approach, I study three case studies where Indigenous communities opposed infrastructure projects that they argued would adversely impact their communities, including their culture, health, and the environment. The cases analyzed are, (1) the South Lawrence Trafficway (SLT) construction through the Wakarusa Wetlands and its impacts on students and faculty of Haskell Indian Nations University (HINU or Haskell), (2) the Dakota Access Pipeline (DAPL) construction beneath the Missouri River and through the unceded territory of the Standing Rock Sioux Nation, and (3) the opening of the Arctic National Wildlife Refuge (ANWR or the Refuge) to oil exploration and its effect on Alaskan Natives, particularly the traditions and cultural values of the Gwich'in peoples.

This dissertation is written in the integrated article format. The first article is published and accessible through *Environment & Planning: F*. The other two articles have been prepared to meet the aim and scope of specific journals and will be submitted following any committee revisions. The first article explores how the power of authorship allows agencies to create a narrative that serves agency interests. The article utilizes an Indigenous environmental geopolitics framework to assess this power imbalance through findings from the SLT and DAPL case studies. The second article delves into the flaws of the public participation process through

an analysis of the comments submitted during the draft environmental impact statement public review and comment period for the ANWR case study. This article aims to assess the influence of Indigenous comments on document changes and project outcomes. The third article reviews all three case studies through an environmental justice lens. The temporal significance of each case study is utilized to explore how environmental justice analyses have changed over time. This article intends to provide insight into the influence of environmental justice theory in environmental justice policy and practice. Overall, this dissertation analyzes a few of the flaws of EIA practice – particularly as it relates to the inclusion or exclusion of Indigenous community knowledge and concerns – to contribute to ongoing conversations aimed to improve the environmental impact assessment process.

Controlling the narrative: Critiquing the geopolitical narratives of US environmental impact assessments and exclusion of Indigenous communities

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Abstract

Environmental policy, while often well-intentioned, can fall short when environmental issues intersect with Indigenous community concerns. The intention of the United States National Environmental Policy Act (NEPA) is for federal agencies to consider the adverse environmental impacts prior to action. While NEPA has resulted in some agencies making more environmentally conscious decisions, agency self-interest is sometimes prioritized over socio-ecological well-being. Rather than using environmental impact assessments (EIAs) for their potential to inform just and sustainable environmental decisions, in practice federal, state, and private agencies have the power as assessment document authors to create geopolitical narratives. These narratives can be utilized to legitimize the outcomes that best serve their interests rather than the well-being of the surrounding physical and social environment. This article further explores the details of these narratives through two case studies in which Indigenous communities argued that the EIA documents did not adequately consider their worldviews or holistic adverse impacts. Through the utilization of a case study structure, a

qualitative content analysis of EIA documents, and an environmental geopolitics framework informed by Indigenous scholarship, this article illustrates how the EIA process, in its current form, allows for agencies to justify or obscure geopolitically motivated actions, often at the expense of Indigenous communities. This work aims to critically enrich EIA scholarship by exploring the phenomenon of inadequate consideration of Indigenous worldviews through an Indigenous environmental geopolitics framework, building on conceptual understandings of the shortcomings of the EIA process and encouraging changes that make strides toward more equitable environmental assessment practice.

Introduction

In an era of environmental degradation and anthropogenic climate change, policy needs to adapt to ensure a future of equity, wellness, and longevity. While environmental policies may have good intentions and the capacity to result in environmentally-conscious decisions, in practice environmental impact assessments (EIAs)¹ often fall short of sustainable and equitable decisions (Connelly and Richardson 2005; McGregor 2004; Wilkins 2003). In turn, this threatens the cultures and sovereignty of Indigenous peoples and the physical environment. Rather than using EIAs for their potential to inform just and sustainable environmental decisions, federal, state, and private agencies have the power as the approving agencies and authors of these documents to create geopolitical narratives to legitimize the outcomes that best serve their interests rather than the well-being of the surrounding physical and social environment or Indigenous communities. When authoring agencies have the power to set research agendas and

¹ This term is used in this work to refer to the assessment process and documents in a broad sense. If a document is a specific type of assessment such as an EIS, EA, or FONSI, these terms will be used.

frame their narrative, Indigenous communities then have little power in how their concerns are represented within the assessment document that informs the outcome of a project.

This article aims to critically enrich EIA scholarship by integrating perspectives from Indigenous scholars with work on critical geopolitics. Geopolitics literature is often centered on issues of power and inequality; when the issues at hand concern Indigenous communities, those geopolitical critiques must foreground Indigenous voices, whether academic or non-academic, as their knowledge will critically enhance the work. While EIA scholarship has established that Indigenous perspectives are inadequately considered in EIA practice (Arsenault et al. 2019; Dokis 2015; Howitt 2001; McCreary and Milligan 2014), this article further explores how EIAs are utilized as tools to legitimize geopolitical agendas and maintain unequal power dynamics between federal governments, corporations, and Indigenous communities. Guided by the environmental geopolitics framework developed by Shannon O’Lear (2020b), this paper explores a few geopolitical narratives through two case studies where Indigenous communities argued that the EIA documents did not adequately consider their worldviews, sovereignty, or holistic adverse environmental impacts. In addition to this article’s contribution to EIA scholarship, this work aims to contribute to the growing scholarship on environmental geopolitics by adapting O’Lear’s work into a critical Indigenous environmental geopolitics framework. Utilizing case studies as illustrations of this phenomenon of inadequacy, this article considers, (1) what geopolitical narratives are embedded in EIAs that consider Indigenous communities, (2) how are these narratives framed to justify the outcome of the project, and (3) how are Indigenous communities excluded from the EIAs? While empirically grounded, answering these questions also contributes to the contextualization of the United States (U.S.)

EIA process shortcomings and the larger goal of critiquing the opaque ways in which powerful actors justify and support their geopolitical alignments.

EIAs

The National Environmental Policy Act (NEPA) of 1969² is designed to require agencies of the federal government to undertake environmental planning – to “look before it leaps” and consider agency decision-making impacts on the human environment³ (Eccleston and Doub 2012, 3). NEPA’s procedural requirements apply when a federal agency is involved in an action, such as providing permits or funding to a project (Council on Environmental Quality 2007). NEPA requires federal agencies to disclose expected impacts of agency actions through the creation of environmental impact assessment documents – which can include environmental impact statements (EIS), categorical exclusions, or an environmental assessment (EA) that determines either a finding of no significant impact (FONSI) or that an EIS should be completed⁴ (see Figure 1) (Council on Environmental Quality 2007). NEPA does not prevent agencies from adversely affecting the environment by choosing the least environmentally impactful alternative. Federal agencies conducting environmental impact analyses are also influenced by other concerns and policy considerations in the decision-making process including “social, economic, technical or national security interests” (Council on Environmental Quality 2007, 5). Courts have

² The National Environmental Policy Act (NEPA) of 1969, *as amended*, 42 U.S.C. §§ 4321-4347, is available at www.nepa.gov (*National Environmental Policy Act of 1969* 1970)

³ The *human environment*, as defined in 40 CFR 1508.1(m), “means comprehensively the natural and physical environment and the relationship of present and future generations of Americans with that environment” and *effects or impacts*, as defined in 40 CFR 1508.1(g), “means changes to the human environment from the proposed action or alternatives that are reasonably foreseeable and have a reasonably close causal relationship to the proposed action or alternatives...” and can include either detrimental or beneficial ecological, cultural, economic, social, historic, aesthetic, or health effects (*Code of Federal Regulations* 2021a). A complete list of definitions can be found in the Code of Federal Regulations, Title 40, Section 1508.1 at www.ecfr.gov

⁴ Federal agencies involved in the proposed actions are responsible for complying with NEPA but the responsibility of overseeing the implementation and reviewing and providing comments on the assessments falls to the Council on Environmental Quality (CEQ) and the Environmental Protection Agency (EPA), respectively (Council on Environmental Quality, 2007).

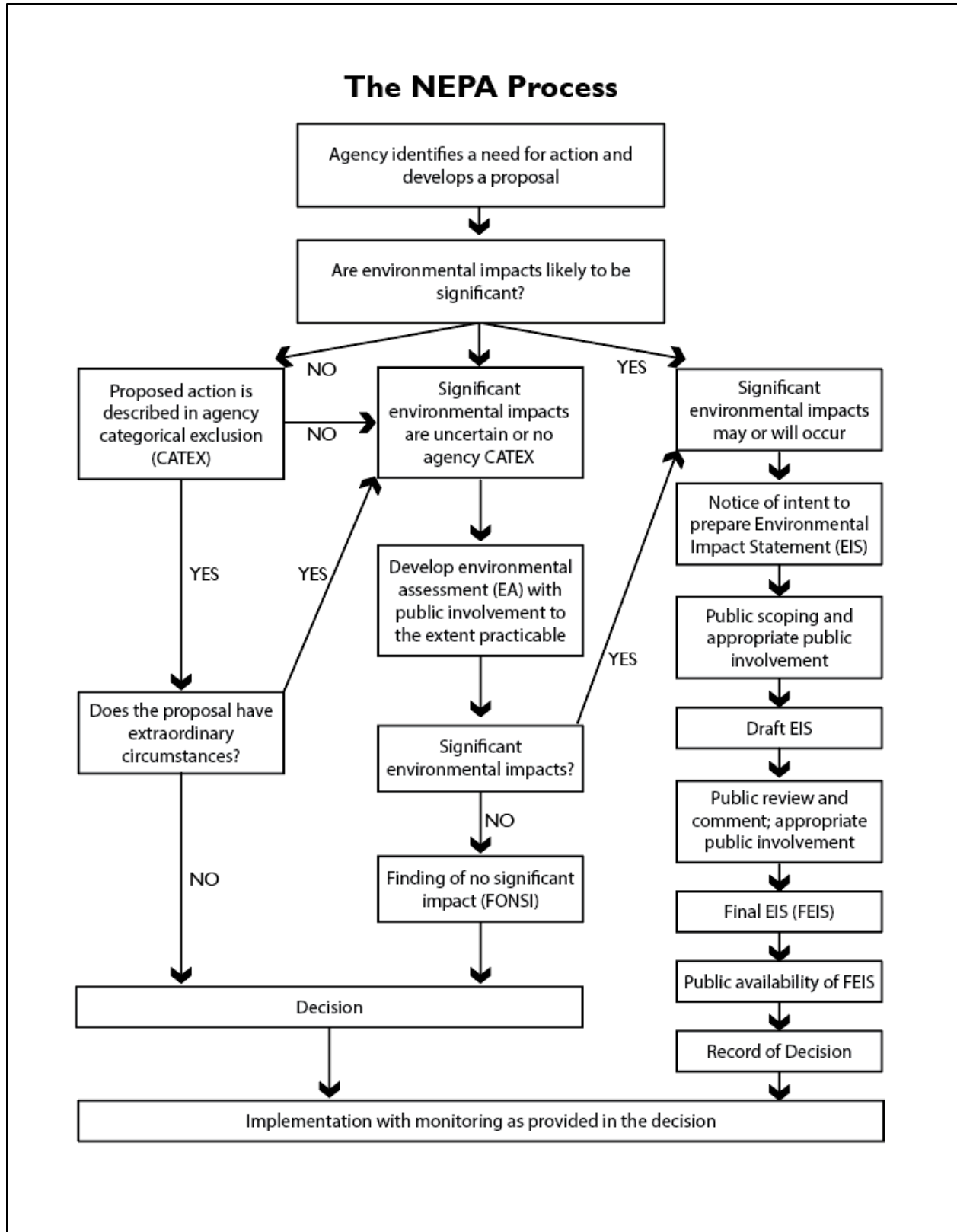


Figure 1: Environmental impact assessment process for federal actions

commonly maintained that NEPA is a procedural law; if the proposing agency complies with other environmental laws and conducts a systematic, impartial, and scientifically justifiable analysis, the courts will generally uphold an agency's final decision (Eccleston and Doub 2012). NEPA requires agencies to conduct an "early and open process"⁵ in which the NEPA process needs to be integrated into other early planning and authorization procedures (Eccleston and Doub 2012, 32). It is intended both to ensure that agencies use NEPA as a tool to consider environmental impacts in planning and decision-making, as well as to avoid delays and potential conflicts later in the process (*Code of Federal Regulations* 2021b). Under NEPA agencies are required to inform and make concerted efforts to involve the public in preparing and executing their NEPA implementation procedures through hearings, public meetings, and publicly available documents (Eccleston and Doub 2012). However, public participation in the assessment process is not a "vote" and agencies are not required to base their final decision on public opinion (Council on Environmental Quality 2007, 7).

In both practice and academic literature, whether EIAs should be driven by technical and rational expertise or participatory and democratic processes is continually debated. The origins of EIAs are rooted in rational planning within which objective, neutral experts and scientific knowledge are the pillars of the assessment process (Connelly and Richardson 2005; Lawrence 2000; Munn and International Council of Scientific Unions 1979; Serafin, Nelson, and Butler 1992). However, this technocratic view of EIAs has been challenged by critics who emphasize the guise of objectivity and the importance of public participation (Connelly and Richardson 2005; Ellis 2010). Proponents of the participatory approach argue that technical expertise alone is insufficient, and that non-technical community members have knowledge that is invaluable to

⁵ Details of an "early and open process" are found in the Code of Federal Regulations, Title 40, Section 1501.2 at www.ecfr.gov

adequately assessing the impacts of an agency action (Howitt 2001). Although the participatory approach to assessment has gained popularity, like the technocratic approach, it too has deficiencies. There is a growing body of literature that cites the challenges of public participation in assessments, particularly in cases where Indigenous communities are impacted (Arsenault et al. 2019; Awâsis 2020; Dahl and Hansen 2019; Dokis 2015; Howitt 2001; McCreary and Milligan 2014). Connelly and Richardson note that participation in EIAs often hides the process behind the curtain, so to speak. They state, “Such practices of exclusion are often cloaked under a rhetoric of consensus... that political processes are conducted in closed, nontransparent ways under the guise of a different, more publicly acceptable kind of policymaking” (Connelly and Richardson 2005, 401). In practice, EIAs often appear to be consulting with the public or non-technical stakeholders, but research agendas and decision-making is driven by the values of project proponents (Dokis 2015). Therefore, many EIAs remain fixed in technocratic tendencies and capitalist-driven values (O’Faircheallaigh 2007).

While NEPA and the environmental impact assessment process have certainly resulted in some agencies making more environmentally conscious decisions, it is arguable that there is a phenomenon of inadequate consideration of adverse environmental and cultural impacts on Indigenous communities in the United States – and beyond, although that is out of the scope of this paper (Awâsis 2020; Dokis 2015; McCreary and Milligan 2014). In addition to the case studies in this paper, cases such as the impacts of the Lake Powell Pipeline Project on the Kaibab Band of Paiute Indians (Kaibab Band of Paiute Indians and Richard Stoffle 2020), the Mauna Kea Thirty Meter Telescope impacts on Native Hawaiians (Manuel-Sagon 2020), and effects of the Imperial Valley solar power plant on the Quechan Tribe (Dreveskracht 2012), to name a few, are examples of inadequate consideration of Indigenous connections to place, sacred sites, or

other negative environmental and cultural impacts. Time and time again, Indigenous concerns are not heavily weighted in decision-making. For example, Dahl and Hansen (2019) created a framework to analyze the influence that public participation, and specifically Indigenous participation, had on the project scope for multiple cases in Greenland. Their findings indicated that the level of influence from Indigenous knowledge holders was low in every case (Dahl and Hansen 2019). When the influence of public participation is minimal, then input from Indigenous peoples are solicited with the intention of simply checking the boxes of the NEPA procedural requirements. Dokis (2015, 61) writes, “There tends to be a general assumption that because people are invited to participate in environmental assessments, or to voice their concerns in a community hearing, they will automatically be heard.” As many EIA scholars have explored, EIAs led by technical experts often disregard Indigenous values, practices, and contextual knowledge, instead, establishing EIA research agendas rooted in values of colonialism and capitalism (Connelly and Richardson 2005; Ellis 2010; Howitt 2001; Paci, Tobin, and Robb 2002; Robson 2013). This practice has been challenged by scholars and communities urging improved Indigenous consultation and co-management in decision-making (Arsenault et al. 2019; McGregor 2009b). The phenomenon of inadequate consideration is imbued with a power imbalance between federal agencies tasked with assessing environmental impacts and local Indigenous communities with deep connections to the places under review.

Indigenous environmental geopolitics

To further explore the power imbalance of the EIA process in practice, a critical geopolitics perspective is used throughout this paper. Critical geopolitics, in a general sense, resides at the intersection of place and power. While classical geopolitics makes assumptions about the relationships between space and power, critical geopolitics is a critique of the taken-

for-granted that instead questions the social construction of space and its meaning to geopolitical actors and their motives (Agnew 2013; Dodds 2013). An example of this ‘taken-for-granted’ is the Cold War era simplistic view of Central America as a space that was vulnerable to communist intervention, therefore, legitimizing U.S. intervention in the region (Dodds 2013). Geopolitical actions, then, can encompass the power that is exerted over a place or activities related to place as a way to gain or maintain control, or it can be a challenge to power, particularly when considering non-state actors (O’Lear 2020b). The weaving of place and power has allowed academics, particularly political geographers, to consider a breadth of topics through a critical geopolitics lens, such as gender and sexuality, militarization, neoliberalism, and much more (see Kuus and Dodds 2013). The focus of this paper is on two often separate – but occasionally related – geopolitical topics: Indigenous geopolitics and environmental geopolitics. Existing literature on Indigenous geopolitics often centers on issues of territory, identity, and sovereignty, particularly of Indigenous communities faced with the challenges of erasure by settler colonial societies (Gibson 2013; Medby 2021; Velednitsky, Hughes, and Machold 2020). On the other hand, environmental geopolitics literature is widespread as environmental features are increasingly entangled in geopolitical issues including concerns over climate change, conservation, resource supply chains, and much more (Dalby 2014; Gray, Acton, and Campbell 2020; Le Billon and Shykora 2020; O’Lear and Dalby 2015). Although there has been some work that encompasses both of these categories (B. Blue and Tadaki 2020; Fox and Sneddon 2020), this article aims to fill in the gap in scholarly work on Indigenous environmental geopolitics.

While not exclusively so, Indigenous concerns such as sovereignty and recognition, land rights, and cultural preservation are often demonstrated through environmental issues and

movements. In the cases of the pipeline, telescope, and solar power plant mentioned above, as well as the case studies explored in more depth throughout this article, Indigenous communities often appear to be opposing projects that have adverse environmental impacts. While this is partially true, this opposition and the activist movements that are often associated with them, cannot be simply reduced to concerns over ecological or physical environmental impacts (Nadasdy 2005). Instead, the environmental effects are often connected to other concerns such as project infringement on land that has been stolen through broken treaties, a lack of recognition of Indigenous sovereignty when communities are not properly consulted, or the erasure of ‘the environment’ as a living, non-human entity with agency (Curley 2019; Grote and Johnson 2021; Larsen and Johnson 2017; Youdelis 2016). Each scenario is complex, just as each of the Indigenous communities represented in this article are diverse in their cultures and worldviews. The purpose of this article is not to generalize the concerns of Indigenous communities but to explore a few of the issues at the intersection of place, power, environment, and Indigenous sovereignty – i.e., Indigenous environmental geopolitics – as it relates to Indigenous representation in the U.S. environmental impact assessment process.

So how can an environmental geopolitics framework help our understanding of the exclusion of Indigenous worldviews in U.S. EIA documents? O’Lear (2020b) provides three points of entry into implementing a research agenda for environmental geopolitics. To structure questions related to environmental geopolitics, researchers may consider the following: (1) investigate the assumptions about “the environment;” (2) question how unequal power relationships impact the portrayal of human agency as it relates to assertions about environmental issues; and (3) identify how limited spatial focus may legitimize a particular viewpoint or geopolitical interest (O’Lear 2020b, 5). For the scope of this work, the first and

third entry points will be explored in greater depth. While these entry points into research on environmental geopolitics can be used broadly, this article uses this framework to critique cases involving Indigenous communities. I am conscious that the following case studies are not solely environmental issues, they are interwoven and inseparable from Indigenous issues; therefore, a geopolitical critique of these case studies cannot ignore Indigenous scholarship. This article brings together different bodies of literature to explore a critical Indigenous environmental geopolitics framework.

Although commonly used, ‘the environment’ is rarely defined in each use of the phrase though it can mean many different things. O’Lear (2020b, 5) writes, “Representations of environmental features can only ever be partial and selective.” Therefore, questioning the assumptions used in understandings of the environment, particularly in government documents that are intended to assess impacts on the environment, may expand understanding of whose definition is being used and what role it plays in a particular geopolitical agenda. Indigenous scholars have written expansively on the legacies of colonialism and the ongoing promotion of a singular and Western worldview and suppression of other ways of knowing the world, including Indigenous worldviews (Little Bear 2000; Tully 1995; Howitt and Suchet-Pearson 2003). Howitt and Suchet-Pearson (2003, 565) argue for the integration of ontological pluralism in knowledge production, stating, “Simply acknowledging the existence and possibility of multiple knowledges is not enough. The ontologies of other peoples need to be understood and engaged with in active partnerships in the construction of knowledge (and power).” For processes like EIA, bridging this divide requires approaches that address the power imbalance in Indigenous participation such as creating assessment documents with Indigenous communities as equal partners, following Indigenous research methodologies, and hiring Indigenous scientists (Arsenault et al.

2019). While NEPA provides a broad definition of what is considered impacts on ‘the environment,’ – including ecological, cultural, economic, social, historic, aesthetic, or health effects – in practice, the EIA process is far from the point of valuing ontological pluralism and Indigenous ways of understanding the environment (Dokis 2015; Robson 2013; Wilkins 2003). Indeed embracing other forms of knowledge, especially Indigenous knowledge, is a threat to the EIA structure that is rooted in the values of capitalism and colonialism (Ellis 2010). Through this entry point, this article considers the components of the environment that were excluded from consideration in assessments because they did not fit within a parameter that may not encompass Indigenous worldviews holistically.

In this critique of EIA documents, I also aim to understand the selective spatial focus of each project and how it is used to further the narrative created by agency authors. One tool for implementing a limited spatial focus in assessments is with maps. Although critical cartography is a subdiscipline of its own, it is closely related to critical geopolitics as it too questions spatial focus and how power is manifested within and through maps (Thatcher 2018). Critical cartography asserts that maps are social constructs, they both produce and are products of knowledge but this knowledge is imbued with politics and power relations (Crampton 2001; Crampton and Krygier 2006; Harley 1988; Pickles 1995; Wood and Fels 1986). Therefore, it is important to deconstruct maps in a way that attempts to understand the underlying geopolitical narratives. Through the third entry point of the environmental geopolitical framework and work on critical cartography, this paper questions what is included and obscured in the EIAs of each case study and how this concentrated spatial focus furthers a particular environmental geopolitical narrative. O’Lear (2020b, 8) reminds us, “To be persuasive, a geopolitical narrative will focus on spatial elements that support the overarching view. A carefully cultivated, selective

spatial focus may serve to obscure other aspects of the situation that challenge that view.”

Although they often try to appear apolitical, environmental assessment documents are influenced by geopolitical narratives and the assessing authors or agencies make choices – whether consciously or subconsciously – that further these narratives and justify project decisions. EIAs are not value-free documents; there is a “subjective nature of judgements and microlevel decisions” (Connelly and Richardson 2005, 396) that is masked as objective, expert evidence (see also Campbell 2002; Wilkins 2003). At best the seemingly apolitical narratives are negligent of non-Western worldviews; at worst the narratives insidiously attempt to create universalized truths.

Method

To explore the phenomena of Indigenous inclusion or exclusion in EIAs and the motivation behind agency authorship power, a case study structure is used. Case study research includes the examination of a select occurrence(s) of a phenomenon to “explore in-depth nuances of the phenomenon and the contextual influences on and explanations of that phenomenon” (Baxter 2016, 130). A single powerful example can persuade readers through motivation, inspiration, and illustration (Siggelkow 2007). The two case studies used in this research are not an adequate sample size to draw generalizations or conclusions about Indigenous exclusion in EIAs, at least not from the empirical work alone. The themes presented in the analysis below will likely not be present in other case studies, but they are presented in this work as illustrative examples of geopolitical narratives controlled by powerful stakeholders. This article builds on the work of existing scholarship regarding inadequate consideration of Indigenous worldviews and relies on the case studies to illustrate *how* Indigenous communities are excluded through a critical Indigenous environmental geopolitics lens.

A qualitative, or latent, content analysis of the final EIA document for each case study is used in this research. While summative content analysis is often associated with a more quantitative technique in which the appearance of terms, phrases, or actions are simply counted (Cope 2016), latent content analysis in qualitative research goes beyond the quantification of content to interpret the data as it relates to themes and social context (Berg 2008). Moving past the positivist and reductionistic approach of quantitative content analysis to include perspective, specifically Indigenous worldviews, allows for a greater understanding of social reality and phenomena. It is important to reiterate that EIAs are produced by agencies, with authority and power over the assessment narratives; employing a critical lens throughout this analysis aids in not just understanding what authorities are specifically stating, but what the motivation may be for including or excluding specific information. In this study, I used qualitative/latent content analysis as a method for examining the EIA documents and interpreting the findings⁶ through a critical environmental geopolitics' framework informed by Indigenous scholarship.

Case Studies

The case studies used in this paper are (1) the Haskell Indian Nations University's resistance to the South Lawrence Trafficway (SLT) construction through the Wakarusa Wetlands in Kansas and (2) the resistance of the Standing Rock Sioux Tribe to the Dakota Access Pipeline (DAPL) in North Dakota. While important to the larger topic of Indigenous representation in EIAs, Indigenous resistance to inadequate consideration of impacts on Indigenous communities is out of the scope of this paper but will be explored in more depth through future work. Rather, the primary focus will be the agency narratives used to justify final decisions despite Indigenous

⁶ Once accessed, the documents were coded and analyzed utilizing Atlas.ti Qualitative Data Analysis software program, following manual and computational techniques guided by the work of Susanne Friese (2019).

claims of inadequate consultation and representation using the EIA documents for each case study. Below is a brief overview of each case study that focuses on the development projects and the assessment process, rather than the Indigenous-led resistance movements.

Wakarusa Wetlands, SLT, and HINU

The first case study in this research relates to the Wakarusa Wetlands, in Northeastern Kansas. For centuries, the wetlands have been a place of nourishment and healing, fostering the needs of Indigenous peoples who came to know it as a place with its own agency. The Potawatomi, Delaware, Kickapoo, Shawnee, Kansa, Pawnee, Osage, and other Indigenous peoples used the wetlands for hunting, ceremonies, medicinal plants, and other materials and resources (Larsen and Johnson 2017; Martin 1994). In the 1980s, the Kansas Department of Transportation and the Federal Highway Administration proposed constructing a four-lane highway, known as the South Lawrence Trafficway, or SLT, through the Wakarusa Wetlands. In addition to being federally protected through Section 404 of the Clean Water Act, the Wakarusa Wetlands have educational, ecological, cultural, historical, and spiritual significance to regional tribes and Haskell Indian Nations University, founded as an American Indian residential school in 1884 (Larsen and Johnson 2017).

The EIA process for the South Lawrence Trafficway was particularly long, as there were two distinct eras of proposed project action and impact assessment. The lead agency in the first era of the project was the Federal Highway Administration (FHWA); however, this era of the project was de-federalized by segmenting the highway construction project in two and allocating all federal funds to the western – and less controversial – leg of the highway construction (see U.S. Army Corps of Engineers and Kansas Department of Transportation 2002). The U.S. Army Corps of Engineers was the lead agency in the second era of the SLT construction project

because the construction included the destruction of wetlands and, therefore, required a Clean Water Act, Section 404 permit. Despite the resistance to the SLT which included protests and litigation (see *Prairie Band Pottawatomie v. Federal Highway* 2010), the Kansas Department of Transportation completed the project construction in 2016. For the scope of this paper, I will consider the environmental impact statement that was used to approve the appropriate permits for the construction of the SLT through the Wakarusa Wetlands – rather than the earlier environmental impact statements from the first era of the project proposal (U.S. Army Corps of Engineers and Kansas Department of Transportation 2002).

Mni Sose, DAPL, and the Standing Rock Sioux Tribe

The second case of this research relates to the construction of the Dakota Access Pipeline (DAPL) underneath Mni Sose,⁷ or the Missouri River. In 2015, Dakota Access, LLC proposed the construction of a new crude oil pipeline stretching from the Bakken and Three Forks oil fields in North Dakota, through South Dakota and Iowa, to an oil hub in Patoka, Illinois (Dakota Access, LLC 2016). The 1,172-mile pipeline cost \$3.8 billion and is estimated to transport half a million barrels of oil daily (Estes and Dhillon 2019a). Both the draft and final EAs were authored by Dakota Access, LLC, although the U.S. Army Corps of Engineers was technically the lead agency due to their federal status and permit granting permission.⁸ The DAPL project sparked controversy, particularly with members of the Standing Rock Sioux Tribe and other local, national, and even international Indigenous communities, who recognized the injustice in a lack of consultation and consideration of Indigenous concerns (Curley 2019). In North Dakota, the

⁷ Mni Sose or Mnisose (muh-nee-show-shay) is the name for the Missouri River, a living being and kin to the Lakota people (Howe and Young 2019).

⁸ The Dakota Access Pipeline route crossed underneath the Missouri River at two intersections, therefore, the U.S. Army Corps of Engineers had the authority to grant permissions under Section 14 of the Rivers and Harbors Act of 1899, codified 33 U.S.C. Section 408 (Dakota Access, LLC 2016)

pipeline route crosses through the unceded territory of the 1851 and 1868 Fort Laramie Treaties. The route is just upstream of the Standing Rock Sioux Reservation boundary and crosses upstream of the tribe's water source.

Despite Indigenous community concerns that both the construction and operation of DAPL would adversely impact their culture and health, as well as the environment and overall wellness of other communities downstream (Grote and Johnson 2021), Dakota Access proceeded with construction after the completion of an environmental assessment – not the longer EIS – with a mitigated FONSI. However, the controversial decision was met with activism through the 'NoDAPL' movement which included Indigenous communities, as well as non-Indigenous allies, celebrities, and veterans opposed to the pipeline construction and the mistreatment of Indigenous peoples by local and regional authorities and private security (Estes and Dhillon 2019b). The DAPL environmental assessment has been criticized among its opponents and this case is also an example of executive branch involvement in environmental impact review. In December 2016, President Barack Obama stepped in to deny an easement permit for Dakota Access, LLC, shortly after President Donald Trump took office he issued an executive order for DAPL to proceed with the construction which concluded in 2017 (Baker and Davenport 2017). After years of litigation and a new presidential administration, Dakota Access, LLC and the U.S. Army Corps of Engineers were ordered to prepare a full EIS due to the highly controversial impacts on the human environment (U.S. Army Corps of Engineers 2020). At the time of writing this paper, the pipeline is currently operating, EIS preparation is ongoing, and litigation brought by the Standing Rock tribe has been dismissed (AP News 2021).

A critical Indigenous environmental geopolitical perspective is used to illuminate how geopolitical narratives are embedded in each EIA document. Environmental geopolitics reminds us to question the narratives created by federal and state agencies, corporations, and other project stakeholders involved in EIAs. This article takes a critical approach to analyze EIA narratives, looking for how the “pieces of information are strung together to make an argument” (O’Lear 2020a, 195). Furthermore, this work will be critical of what kind of information is absent from the narrative, the justification for the project, and the recommended post-assessment action (O’Lear 2020a; 2018). Throughout the exploration of these narratives, it is also important to consider what agency decision makers understand as ‘the environment.’ While it seems that the understanding of what is included in the environment is very broad, including physical, social, health, and economic factors – I consider both how the environment is defined and what components of this broad definition are the most influential in decision-making. Each case study is critiqued for the agency’s role in legitimizing geopolitical narratives, including providing a limited understanding of the environment, providing a limited spatial focus of development projects and their impacts, and excluding and obstructing Indigenous worldviews. From the assessment documents, two narrative themes emerge, namely that the project is needed to increase safety and security and that adverse impacts within a specific spatial area are limited or do not outweigh the project benefits.

Safety, risk, and security

Both case studies stated ‘safety’ as an essential factor of the proposed project. Critical environmental geopolitics literature has often focused on safety and security, although from the perspective that the primary security issue in the 21st century is climate change and its associated impacts (Dalby 2014). While safety is certainly an important factor to consider, looking at this

justification through a critical lens invites consideration of what geopolitical purposes this argument may also be legitimizing. When arguments connect features to risk or security, this focuses the narrative “like a magnifying glass on particular, spatial aspects of human–environment relationships” (O’Lear 2020a, 196–97). Here the narrative of safety makes the construction of the SLT and DAPL seem noble and unproblematic, however, there are many other aspects of environmental impacts that the assessment needs to weigh.

Prior to the construction of the SLT, the route of Kansas Highway 10 (K-10) transitioned from a four-lane highway to the city streets of Lawrence, Kansas. The purpose and need of the Final EIS for the SLT states, “In addition to degrading the safety and efficiency of the regional transportation system, this condition contributes to congestion, pollution, and higher accident rates within the city of Lawrence” (Kansas Department of Transportation 2002, 1–1). The primary justification of the proposed trafficway is to improve the safety conditions of motorists traveling on K-10. Additionally, projections for increased development indicated that vehicles traveling the K-10 corridor would only increase in the coming years. The EIS (Kansas Department of Transportation 2002, 1–7) states, “In order to meet KDOT’s purpose and need statement, an alternative must provide a safe facility as measured by capacity and access control.” The comparison of alternatives indicated that the route with the highest impacts on the Wakarusa Wetlands corridor was the best choice for the safety criteria. There was a projected difference of approximately 250 accidents and six million dollars over 20 years. Safety appears to be rated most highly in the EIS, yet it is also closely associated with cost and efficiency. For example, another route considered would bypass the Wakarusa Wetlands corridor entirely, have significantly lower ecological impacts, and would still improve safety conditions substantially.

However, the extra length of the route would mean more mileage for travelers, which would have a greater impact on both cost and efficiency.

The purpose and need statement of the SLT EIS also cites long-term health and safety concerns over the contribution of traffic on K-10 to pollution within the city of Lawrence. Despite the narrative that pollution is one of many reasons for the proposed action to move the route of K-10 to the south of city limits, assessments of the long-term air pollution impact of the new trafficway are limited in the rest of the EIS. The assessment does note the intention of minimizing pollution of surface water, pollution to groundwater during construction, and light pollution of the trafficway. Here the authoring agency cites one topic – i.e. health risks of pollution exposure – as a justification for the project, but the same concerns are mentioned conservatively when considering the negative impacts of the new project development. The SLT involved the relocation of an existing road, therefore, assessors were not required to conduct an air quality emissions analysis for the new route. The absence of this assessment despite the increased traffic projections on the new K-10 route creates a narrative that air pollution would not be significant for the surrounding areas, which include the Wakarusa Wetlands, Haskell Indian Nations University Medicine Wheel, and sweat lodges.

Using the first entry point of the environmental geopolitical framework and insight from Indigenous scholars (McGregor 2004; Wildcat 2009a), the narrative of the SLT EIS promotes a human-centric and predominant Western view of the environment – that humans are of greater value, often even separated from the physical environment. Many Indigenous worldviews do not consider wetlands to be inanimate and inferior beings. Instead, relationships with non-living or non-human entities, such as wetlands, are reciprocal and respectful (Larsen and Johnson 2017; Martin 1994; Wildcat 2009a). If Indigenous relationship and reciprocity were considered in the

EIS, issues such as pollution impacts on the Wakarusa Wetlands and its abundance of non-human life would not be so easily dismissed (see Martin 1994). During the decades of protest against the SLT by Indigenous peoples, the agency of place and the non-human inhabitants were pillars of the argument against constructing the highway. One former Haskell student, Alex Kimball, states, “People [at Haskell] really care a lot about beings that can’t speak for themselves” (quoted in Larsen and Johnson 2017, 110). The threat that the SLT poses to the reciprocal relationship between Indigenous community members and the wetlands is not represented in the narrative of safety, risk, and security in the assessment analysis. The meaning of the environment, although supposedly broad and comprehensive, diminishes the adverse impacts of the roadway on the safety of wetlands by prioritizing a predominately Western perspective of the environment. Namely, the authoring agencies do not consider the wetlands as a non-human, living entity, sacred site, and a place with its own agency (Larsen and Johnson 2016; 2017)

Safety is also a notable thread in the justification of the crossing of the Dakota Access Pipeline beneath Mni Sose. The purpose and need for DAPL, as stated in the environmental assessment, is to safely transport crude oil from oil fields in North Dakota to a market hub in Illinois (Dakota Access, LLC 2016). The narrative of the DAPL EA is, first and foremost, that constructing a pipeline is the only viable option because it is safer than other transportation alternatives. The document briefly considers alternatives such as trucking transportation, rail transportation, route alternatives, and major waterbody crossing alternatives but eliminated them from detailed analysis. As mentioned in the previous case study, the use of safety as a justification for infrastructure development and subsequent environmental impacts is often an effective geopolitical narrative that aims to portray the project as straightforward. However, this

narrative of risk and safety obscures the human agency involved in this decision (O’Lear 2020b), namely that corporations, agencies, and consumers cause energy demands.

Additionally, the narrative of risk, although prominent in the promotion of the pipeline, does not appear in the form of a comprehensive risk assessment that examines the impacts and management of a potential oil spill. This was one of the primary concerns of the Standing Rock Sioux Reservation and other communities downstream of the Missouri River crossing (Estes and Dhillon 2019b). The assessment states that risks would be limited to workers involved with the construction of the pipeline because of the low population density of the construction area (Dakota Access, LLC 2016). In their comments to the draft EA, the Standing Rock Sioux Tribe submitted substantive, technical, and legal documents with concern over the document’s oil spill analysis, yet the Army Corps of Engineers stated that these comments did not result in new or significant information (Dakota Access, LLC 2016). The lack of risk assessment and, indeed, that the report is an environmental assessment that resulted in a mitigated FONSI approval, indicates a lack of concern for situations where the pipeline may not be as safe as the project proponent and author, Dakota Access, LLC, suggests. Instead, the assessment opts to promote the narrative that, after construction, the pipeline will have no significant impacts other than benefits to the national economy and the goal of oil independence.

Spatial focus and Indigenous communities

Just as the assessments of these case studies are not apolitical and objective manuscripts, the maps used within the documents are also constructed to further specific geopolitical narratives. Crampton and Krygier (2006, 15) write, “Maps are active; they actively construct knowledge, they exercise power and they can be a powerful means of promoting social change.” Maps are utilized as geopolitical tools to represent and re/define boundaries, resources, and

political agendas. Consider, for example, Oren Yiftachel's work on the role of maps in the Bedouin Arab claims of Indigeneity which are disputed, in part, because of the Israeli government's spatial representation of boundaries and cultural sites (Yiftachel 2003; Yiftachel, Roded, and Kedar 2016). While maps are no longer only the tool of the elites, as open access to mapping software and movements of counter-mapping become more and more accessible, federal and state agencies can still utilize maps to further their geopolitical agendas in environmental impact assessment documents. Turning once again to the environmental geopolitics' entry point of spatial focus, it is important to consider at what scale the EIAs are assessing adverse impacts. Scale, whether meaning the spatial extent or the geographical detail of environmental assessments, can shape the outcome of the assessment (João 2002). Both case studies analyzed in this work use maps as one form of conveying the information found in the assessments. However, the degree to which each case utilizes these maps to convey a narrative of openness, or *terra nullius*, varies.

The DAPL EA uses a series of maps with the exact same framing or scale of the area. Figure 2 shows the cultural resources in the area although the subject of the other maps includes the project layout, soils, natural resources, and land cover. However, what is absent and obscured from any of the maps used in the DAPL EA is the presence of Indigenous populations and the boundaries of the Standing Rock Sioux Reservation. Notice the meandering tributary on the bottom left of the map. This is the Cannonball River, which is the northern boundary for the Standing Rock Sioux Reservation. Here the spatial extent (dashed line) conveniently stops short of the reservation boundary, obscuring any visual recognition that any people, let alone a sovereign Indigenous community, are present in the area. The pipeline did not officially cross into the reservation boundary, so it was not included in the spatial extent of this map, or the

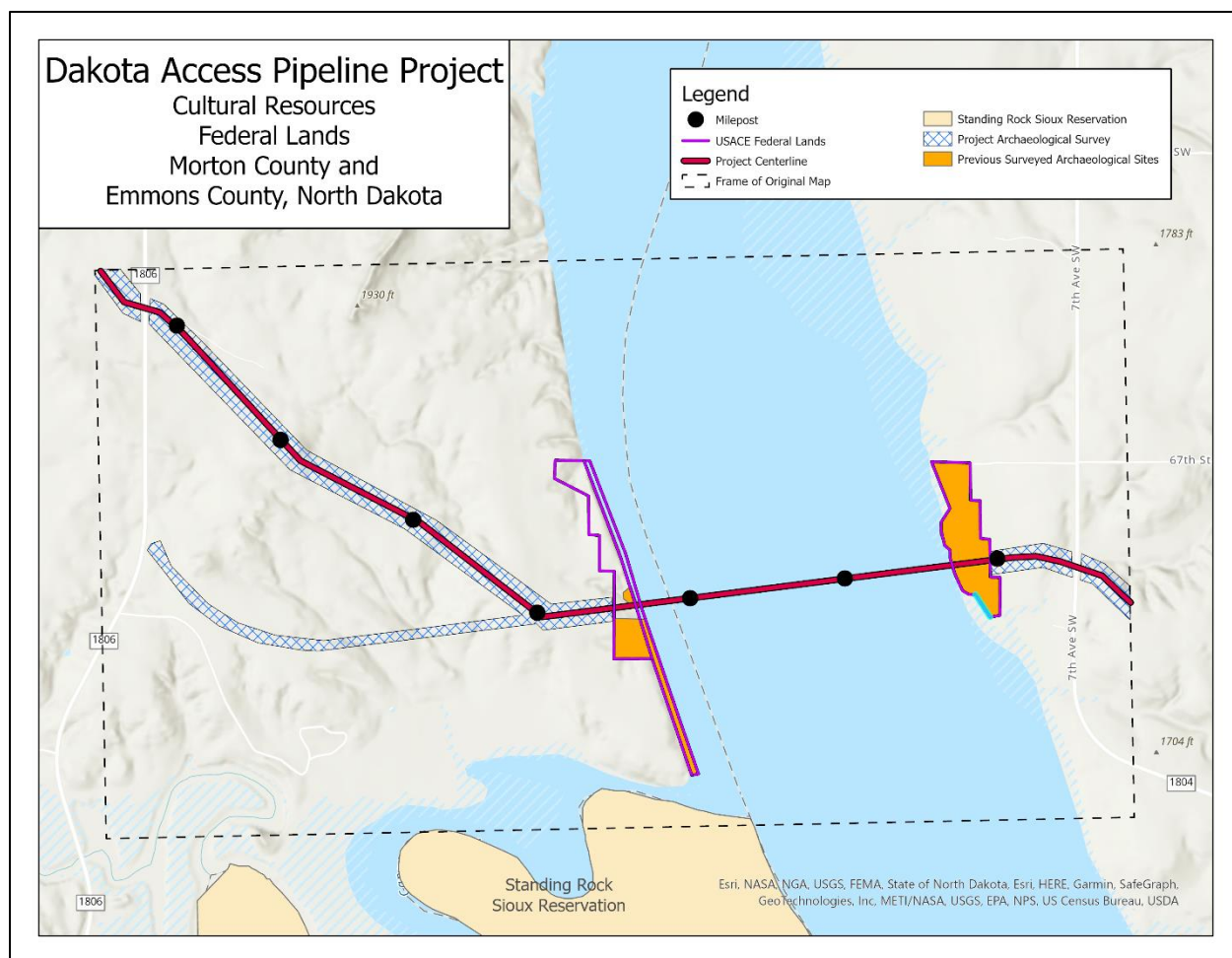


Figure 2: Map of cultural resources used in the Dakota Access Pipeline (DAPL) environmental assessment

majority of the EA. However, the pipeline does cross through the unceded territory of the 1851 and 1868 Fort Laramie Treaties, which is also absent in the assessment. The absence of Indigenous representation in the assessment maps is a form of erasure that attempts to weaken Indigenous claims to sovereignty (Gilio-Whitaker 2019; Tuck and Yang 2012a). The spatial extent of this map in the DAPL EA is just one manifestation of the narrative of the EA, namely that the pipeline will only have temporary and insignificant impacts on the pipeline excavation route. Tribal sovereignty and presence are almost entirely absent from the EA. The lack of

consideration of impacts on the tribe was a major argument of the Standing Rock Sioux Tribe's leaders (Archambault II and Martin 2016).

The extent to which the DAPL assessors consider scale and spatial impact vary by the beneficial or adverse nature of the impact. With the example above in mind, it is compelling that the assessors then use national-scale benefits as an explicit justification for the pipeline. The DAPL EA stated that the proposed project would result in substantial economic benefits and strides toward oil independence. Cited is the project's contribution to "the country's goal of energy independence and support the U.S. consumer's energy demand" (Dakota Access, LLC 2015, 2). They state that construction will have "tremendous secondary and sustainable economic benefits," (Dakota Access, LLC 2015, 60) specifically arguing that once the temporary workers are employed, they will spend their earnings in the communities where they are working and living and support other domestic sectors such as the auto industry, real estate, and the food industry. Here the exploitation of Indigenous peoples' ancestral land is used to support a narrative that the project's economic benefits at a national scale are a universal goal (Blaser, Feit, and McRae 2004; Proulx and Crane 2020). This is a carefully cultivated geopolitical narrative focused on the economic benefits the pipeline would have at the regional and national scale, both short-term and long-term. However, the limited spatial and temporal focus of this narrative is arguably used as a tactic, and scale is quickly reduced to the temporary construction site boundaries when negative impacts to the environment, culture, and health are being considered. Although the spatial focus of the DAPL EA erases the presence of and impacts on Indigenous communities in the area, the SLT EIS visually shows at least a little more consideration of Indigenous populations.

including the southern portion of campus where the Medicine Wheel, sweat lodges, and wetlands are located and many HINU students and affiliates participate in ceremonies (Larsen and Johnson 2017). The EIS dismissed environmental justice concerns as insignificant simply stating that the project was not expected to impact “the unquantifiable spiritual connection, use and/or value expressed by Native Americans regarding the Medicine Wheel, sweat lodges or other areas on the southern HINU campus” (Kansas Department of Transportation 2002, 4–51). It also stated that environmental justice was not a concern because non-minority populations were also present in the alignment corridor and they would be exposed to the same noise and highway-related impacts, therefore it would not be a disproportionate impact on the Indigenous populations of the area. This narrative is manifested in the environmental justice map that does not consider justice to extend to the areas frequently used by minority populations, despite this being a commonly stated concern by these communities. In this case, Indigenous relationships with place are not equally valued within Western-centric definitions of the environment.

Conclusion

EIAs, although they often appear to be objective and apolitical, are documents with entrenched geopolitical narratives. This work has used a critical Indigenous environmental geopolitics framework to question assumptions about the environment and explore how power relations are manifested in these documents. In each of the case studies of this research, federal and state agencies and non-governmental corporations are the authors of the EIAs. They are tasked with considering adverse impacts on the physical and social environments, including impacts on Indigenous communities. The state then has the power to create narratives that legitimize their decisions, even if it is at the expense of Indigenous communities. The EIA process is established and controlled by the legal structures of settler colonial governments – a

system built on the attempted eradication and replacement of Indigenous peoples and cultures (Wolfe 2006). Even with the participatory turn in EIA practice and environmental co-management (Connelly and Richardson 2005), Indigenous peoples are expected to mold their worldviews to fit into a process based on colonialism (Arsenault et al. 2019) with a research agenda created by project proponents and with what some scholars assert are pre-determined project decisions (Dokis 2015). Therefore, it is perhaps unsurprising that there are numerous cases of Indigenous-led opposition to projects, even with an extensive review of environmental impacts, because Indigenous values and cultures were not intended to be part of governments built on settler colonial operations in the first place (Veracini 2015; Wolfe 2006).

In the EIA process, there is an imbalance of geopolitical power between the agents involved, and “deep within the centers of geopolitical power, the ghosts of conquest linger” (Gibson 2013, 454). Integrating the work of Indigenous scholars with geopolitical scholars established the critical Indigenous environmental geopolitics lens that was used to illustrate how the legitimization of geopolitical narratives is embedded in the EIA process. While each case is unique, this work aims to assist in the unveiling of the hidden power dynamics that inhibit the ability of Indigenous peoples to truly be considered in EIAs. This is a foundational step in understanding how to amend the process. The EIA process needs to break away from these narratives used to promote geopolitical agendas and, instead, incorporate a variety of worldviews that could expand understanding of the environment. EIAs need to become documents that integrate ontological pluralism to make holistically informed decisions on projects that adversely impact the environment and Indigenous peoples.

Indigenous Peoples and the Power(lessness) of Public Participation: Assessing effects of Indigenous community input in the Alaskan Coastal Plain oil and gas leasing program environmental impact statement

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Abstract

Public participation in the U.S. environmental impact assessment process is legally required under the National Environmental Policy Act, yet the procedural norms of the process often leave members of the public feeling powerless. While public participation has the appearance of a democratic process, it is imbued with unequal power dynamics and federal agencies maintain decision-making authority. Despite sovereignty and treaty rights, Indigenous communities in the U.S. do not participate in environmental decision-making through a collaborative governance structure. Instead, Indigenous communities interested in project impacts primarily voice their concerns through the public comment process. This paper explores Indigenous participants' impacts on environmental impact decision-making through an illustrative case study structure. The phenomenon is explored in an in-depth analysis of the recent leasing environmental impact statement (EIS) for oil exploration and development in the 1002 Coastal Plain area of the Arctic National Wildlife Refuge in Alaska. This work uses a qualitative content analysis of the Coastal Plain case study to assess how public comments, particularly comments from Indigenous peoples, impact change in the documents that follow public participation processes. From this analysis, this article aims to illustrate a few key issues with how Indigenous input is considered in public participation processes. Findings indicate that

public comments may result in minor changes to assessment documents but, overall, public input has little influence on project outcomes.

Introduction

Public participation is integral to democracy. On Monday, February 4, 2019, Indigenous activists opposed to oil and gas development in the Coastal Plain area of the Arctic National Wildlife Refuge overtook a public scoping meeting led by the Bureau of Land Management. While most public hearings allow community members to provide testimony and share their knowledge about potential impacts to be considered in the environmental impact assessment (EIA) analysis, this particular meeting was organized as an open-house style where agency experts stood near posters intending to inform members of the public about the expected impacts and drafting process (McGroarty 2019). The Indigenous activists overtook the meeting so that they could share their experiences and concerns with assessment practitioners. This event illustrates diverging opinions on what public participation means in practice. Many members of the public conceptualize public participation as a procedure through which they can share their knowledge and concerns to inform agency decision-making; in other words, a bottom-up or grassroots approach to public participation. However, this example illustrates the agency's intention to conduct a top-down approach to public engagement, emphasizing its responsibility to inform the public. The United States National Environmental Policy Act (NEPA) intends for federal agencies to consider adverse environmental impacts before action. NEPA procedures require agencies to conduct an "early and open process"⁹ in which the consideration of environmental and social impacts needs to be integrated into other early planning and

⁹ Details of an "early and open process" are found in the Code of Federal Regulations, Title 40, Section 1501.2 at www.ecfr.gov

authorization procedures. It is intended to ensure that agencies use NEPA as a tool to consider environmental impacts in planning and decision-making and to avoid delays and potential conflicts later in the process (*Code of Federal Regulations* 2021b). In addition to agency consideration, environmental impact documents need to be prepared and made available to the public. Informing decision-makers and the public about the consequences of possible actions is a crucial requirement for agencies engaging with NEPA. Under NEPA, agencies are also instructed to make concerted efforts to involve the public in preparing and executing their NEPA implementation procedures through hearings, public meetings, and publicly available documents. However, public participation in the assessment process is not a “vote” and agencies are not required to base their final decision on public opinion (Council on Environmental Quality 2007, 7). Figure 4 simplifies the NEPA process and indicates the stages in which public input is collected for consideration. Inclusion of Indigenous communities in participation processes is not only required under NEPA (see Sections 1501.2 and 1501.7 of the Council on Environmental Quality Regulations) but it is also supported through Executive Order 13175, Consultation and Coordination with Indian Tribal Governments.

Public participation sounds like a congenial and democratic-centered term. However, theorists and community members have maintained that public participation, in practice, aims to provide a *sense* of participation, rather than genuine influence in agency decision-making (Culhane 1981; Arnstein 1969; Parkins and Mitchell 2005). Many practitioners consider public engagement to encompass representation and involvement, however, democratic-advocating scholars emphasize *inclusion* (Parkins and Mitchell 2005; De’Arman 2020). While there are variations of this concept as it applies to public participation, some refer to a more inclusive participatory process as deliberative democracy – which, in essence, draws decisions from public

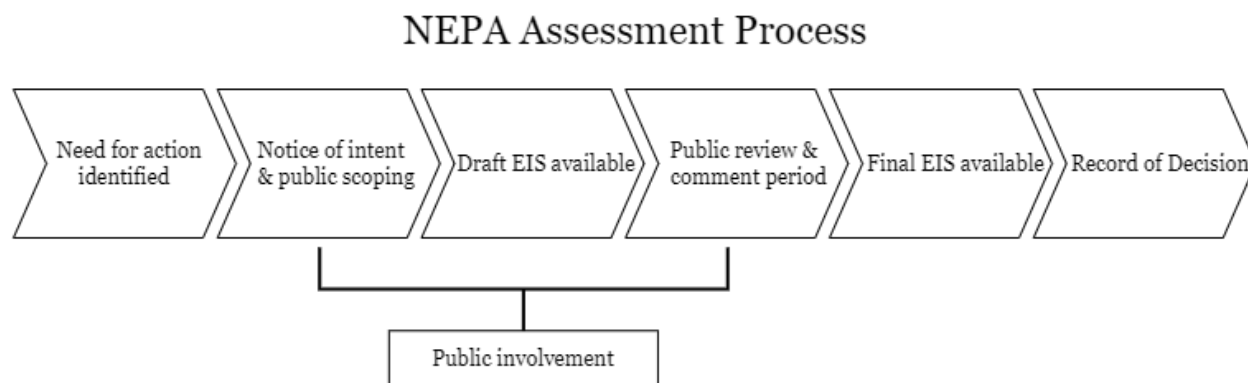


Figure 4: Components of the National Environmental Policy Act environmental impact assessment process

input (Parkins and Mitchell 2005; Cole and Foster 2001). The legally required procedure of the participatory process, such as the public hearings and comment periods required under NEPA, is flawed and – as some scholars argue – ineffective (Innes and Booher 2004). Members of the public often see the state¹⁰ as apathetic to their concerns, and that government, instead, prioritizes the appeals of lobbyists and special interest groups (Nye, Zelikow, and King 1997). While agencies conducting EIAs tend to claim objectivity in their analyses, resource management is political and decision-making is imbued with unequal power relations (Howitt 2001; De’Arman 2020; Cook 2015; Purdy 2012). While public participation in practice is flawed, public inclusion has the capacity to increase equity and minimize conflict in decision-making (Daley and Reames 2015). A deliberative democratic approach to public participation challenges the power dynamics that are woven into the public participation process. Despite rights to sovereignty and requirements for consultation, Indigenous communities and individuals often participate in the same EIA process public comment structures as other members of the public. Consultation with Indigenous communities does not require consent from those

¹⁰ In this manuscript, “the state” refers to the federal government. If a concept refers to the State of Alaska and/or non-federal agencies, it will be specifically referred to as such.

communities in the decision-making process; that power remains with the state (Wynn 2015; Temper 2019).

This paper uses a case study structure to explore Indigenous participation effects on environmental impact decision-making. While there are many examples of public participation in environmental impact reviews, rather than using a large sample size, this work uses one case study to illustrate the potential implications of this technique used to assess the influence of public participation in the NEPA process. The public participation process, specifically as it relates to Indigenous contributors, is explored in an analysis of the recent leasing environmental impact statement (EIS) for oil exploration and development in the Coastal Plain of Alaska. The Coastal Plain, a part of the Arctic National Wildlife Refuge, has long been identified as an area for oil and natural gas development potential (Bureau of Land Management 2019a). This paper uses a qualitative content analysis of the Coastal Plain case study to assess how public comments, particularly comments from Indigenous peoples, affect change in the documents that follow public participation processes. From this analysis, this paper aims to illustrate a few key issues with how Indigenous input is considered in public participation processes. The technique used in this analysis may also be applied in other cases where Indigenous community input is extracted but not heavily valued in assessment decision-making. This paper aims to move one step closer to improving consultation with Indigenous communities in the environmental impact assessment process.

Case Study: Oil Development in the Alaskan Coastal Plain

The northern coast of Alaska is home to both a biologically rich ecosystem and potentially significant oil and natural gas resources. The Arctic National Wildlife Refuge (ANWR, or the Refuge), a 19-million-acre span of land in northeast Alaska, has been a focus of

the energy debate in the United States since the discovery of oil on adjacent state land (Comay, Ratner, and Crafton 2018). However, the area has been preserved as a biological resource to benefit wildlife, fish, migratory birds, and subsistence users. ANWR received status as a wildlife refuge under the Alaska National Interest Lands Conservation Act (ANILCA) of 1980 (*P.L. 96-487* 1980). ANILCA divided much of the Refuge into a designated wilderness area; however, 1.57 million acres known as the Coastal Plain were not included in the wilderness designation under Section 1002 – a move to postpone decision-making regarding development or further protection of the area until further study of potential impacts. Despite the legal non-wilderness status of the Coastal Plain, Section 1003 of ANILCA prohibits fossil fuel production in the entire Refuge unless authorized by an act of Congress (*P.L. 96-487* 1980). Since ANILCA there have been several Congressional attempts to either develop or preserve the area, but the decades-long debate culminated in December 2017 when the United States 115th Congress passed Public Law 115-97, also known as the Tax Cuts and Jobs Act (Tax Act). The Tax Act directs the Department of the Interior, acting through the Bureau of Land Management (BLM)¹¹ to establish a competitive oil and gas leasing and development program in the Coastal Plain – one resolution of reducing the national deficit and offsetting revenue lost through tax cuts (Comay 2018).

The Final EIS for the Coastal Plain Oil and Gas Leasing Program was completed in September 2019, several leases were issued but are currently suspended pending the completion of a supplemental EIS as the original document lacked a proper analysis of “a reasonable range of alternatives” (U.S. Department of the Interior 2021). The purpose of the Leasing EIS was to determine how much land to lease and what protections would be required in the lease

¹¹ The Arctic National Wildlife Refuge is administered by the U.S. Fish and Wildlife Service. However, the BLM manages onshore federal energy resources on other federal agency lands under the Mineral Leasing Act of 1920 (30 U.S.C. §§181 et seq.).

agreements. In the final version of the EIS, the BLM identified Alternative B, which offered the entire 1,563,500-acre area for lease with a portion under no surface occupancy (NSO) stipulations and time limitations, as the preferred alternative (Bureau of Land Management 2019a). Alternative B was shown to have the greatest number of adverse impacts on cultural resource sites and the environment. The Leasing EIS's least impactful consideration was Alternative D2, which offered 800,000 acres for lease – with a portion under no surface occupancy stipulations, timing limitations, and additional required operating procedures (ROPs) to protect wildlife, including additional consideration of caribou calving and post-calving areas. Alternative D2 was created based on public comments and was the preferred actionable alternative of many development-opposed public commenters as the BLM determined the “No Action” alternative impossible to select because it did not satisfy the requirements established in the Tax Act (Bureau of Land Management 2019a). Although Alternative B was shown to have the greatest adverse impacts, the EIS cites the “substantial protections in the form of NSO and other lease stipulations as well as ROPs that would apply to post-lease oil and gas activities to reduce potential impacts” (Bureau of Land Management 2019a, secs. 2–2) as the justification for choosing this as the preferred alternative and later as the official record of decision (Bureau of Land Management 2020). NEPA does not require that agencies chose the least environmentally impactful decisions (Eccleston and Doub 2012). The BLM argued that they adhered to the minimum procedural requirements necessary in the creation of an EIS. The BLM satisfied the requirements of the Tax Act and established stipulations to lease agreements that they found adequate to justify the approval of the Leasing EIS and the decision to lease the entire Coastal Plain area. The nuances of appropriately adhering to NEPA requirements were later challenged

in court (see *Gwich'in Steering Committee v. Bernhardt 2020*) and the Department of Interior issued a requirement for a Supplemental EIS.

While many people – including environmentalists, scientists, and others – revere the Refuge for its pristine wilderness and biodiversity, many Indigenous groups have cultural connections to this place. The Refuge is of particular importance to the Iñupiat, Inuvialuit, and Gwich'in communities of Alaska and Canada. While the boundaries of several Iñupiat corporations are in closer proximity to the Coastal Plain, the migratory patterns of wildlife, such as the Porcupine Caribou Herd (PCH), tie many communities to the land. In spring, the PCH migrates to the Coastal Plain for calving as the coastal landscape and adjacent foothills and mountains relieve the herd from insect harassment and predators. The PCH is important to many Alaskan Native communities, but the Gwich'in communities expressed that caribou are a pillar to their cultural preservation. Gwich'in are caribou people. At the 2009 United Nations Climate Change Conference in Copenhagen, Sarah James (Neet'sai Gwich'in, Arctic Village) stated, “Caribou are not just what we eat; they are who we are. They are in our stories and songs and the whole way we see the world. Caribou are our life. Without caribou we wouldn't exist” (quoted in Banerjee 2012, 262). The Gwich'in call the Coastal Plain *Iizhik Gwats'an Gwandaii Goodlit*, or “The Sacred Place Where Life Begins” and recognize it as vital to the survival of the PCH (Gwich'in Steering Committee 2020; Banerjee 2012). Many Gwich'in peoples opposed *any* oil and gas development in the program area, however, this stance is in direct opposition to the purpose and need of the leasing EIS. The project was justified, and in fact, required to lease land to oil and gas companies based on the Tax Act passed by Congress. Positions on oil and gas development in the Coastal Plain vary by each individual person and even among Alaskan Native corporations. While many Gwich'in expressed their opposition to the development, some

Iñupiat individuals and communities supported the development. For example, the Native Village of Kaktovik, located within the boundaries of the Coastal Plain has expressed support for oil and gas development, citing economic benefits and self-determination. The range of Indigenous opinions on oil and gas development in this case study is a reminder that Indigenous relationships to extractive resource development are complex and cannot be reduced to the boundaries of environmentalism (Nadasdy 2005; Curley 2019). This article analyzes how the BLM responded to Indigenous comments, regardless of the commenter position on resource extraction.

Method and Material

A qualitative, or latent, content analysis of the EIS documents is used in this research, all of which are publicly available through the BLM. While summative content analysis is often associated with a more quantitative technique in which the appearance of terms, phrases, or actions are simply counted (Cope 2016), latent content analysis in qualitative research goes beyond the quantification of content to interpret the data as it relates to themes and social context (Berg 2008). Moving past the positivist approach of quantitative content analysis to include perspective, specifically Indigenous worldviews, allows for a greater understanding of social reality and phenomenon. This analysis primarily uses an inductive approach to the content analysis, in which the codes are formulated out of the data itself (Cho and Lee 2014). This process is cyclical as most qualitative research is not solely deductive or inductive (Baxter 2016). I draw on Indigenous scholarship on resource management (Howitt 2001; Dokis 2015) and Indigenous knowledge (McGregor 2004; Wildcat 2009b; McGregor 2014; Whyte 2018) in other stages of the research process, including the analysis and discussion of the inductively coded results.

Public comment data was drawn from “Appendix S: Public Comments and BLM Responses” of the Final EIS for the Coastal Plain Oil and Gas Leasing Program. As a requirement of NEPA, agencies must respond to all substantive written comments submitted during the public comment period (40 CFR 1503.4). Comments are submitted to the BLM through various methods including electronic submissions, paper submissions, or transcripts from public meetings or hearings. After receiving comments, the BLM determined if a comment was substantive or non-substantive. For this case study, the BLM received a total of 1,066,803 comment letter submissions, of which 3,709 were considered unique submissions. The BLM stated that the other 1,063,094 submissions were part of form letter campaigns and therefore considered non-substantive (Bureau of Land Management 2019b). Form letters are considered non-substantive because they are duplicated, and decision-making agencies also consider comments that express individual opinions or preferences as non-substantive. The politicized nature of oil and gas development drew many comments from individuals and organizations stating their opposition to development in the Refuge. The BLM did not consider these comments substantive because they were outside of the scope of the EIS.

I specifically considered the comments submitted during the draft EIS public comment period, as these were the comments considered closest to the record of decision. After the public comment period closed, the BLM reviewed all comments; statements and questions from substantive comments were categorized by topic and then sent to topical experts within the agency for further review and response. All the comments considered and responded to are compiled in Appendix S of the EIS, therefore, this was the primary material used in the data analysis of this paper. The BLM divided the public comments into forty-six categories encompassing specific concerns related to environmental, sociocultural, economic, legal, and

health topics. Included in the appendix were 3,830 comments extracted from the various letters, reports, and public hearing transcripts.¹² I manually coded these comments based on topic of concern, demographic of commenter, and what type of response the BLM provided to the commenter.¹³ To answer the research question of this article, I focused on which comments were provided by Indigenous peoples, communities, or organizations. In this analysis, a commenter was distinguished as an Indigenous commenter primarily based on the information provided in the “organization name” section of the appendix. Table 1 shows a list of the Indigenous communities represented in the public comment section of the EIS.¹⁴ The agency responses indicated whether the topic of the comment was addressed in a change to the EIS¹⁵ or the agency’s justification for not making a change based on the information in the comment. Changes were coded as either major – such as including impacts to a species that was not previously considered or development of a new required operating procedure – or minor – such as revising definitions, rewording statements, and fixing spelling and grammar. Additionally, justifications, or responses that indicated no changes, were coded based on the work of

¹² This is not the number of individual documents submitted for consideration, instead, the BLM extracted separate “comments” from the submissions. So, in Appendix S, one document may result in multiple comments that received responses from the BLM.

¹³ Manually coding all comments was selected as the best technique after an initial review of data. As the agency responses were provided by a range of experts in their respective fields, the language used for each category varied. Therefore, no distinguishable pattern of language was able to be determined across the entire dataset. My future work will review the Supplemental EIS for this case study and therefore may be able to use auto-coding techniques based on the information gathered from this dataset and content analysis.

¹⁴ Included in Table 1 are two cities and a borough in northern Alaska. These were included in the list because the two cities have a predominately Alaskan Native population (over 85% for each city), and the borough was included because many, although not all, of the comments associated with this organization, were authored by the Iñupiat mayor. Comments that listed the borough but were not authored by the mayor, or another identifiable Indigenous person, were not included in the Indigenous commenter category of this analysis.

¹⁵ The changes presented in the results below indicate *unique* changes. Agency responses often repeated their responses to comments that were similar. *Unique* changes are more appropriate to address public participation influence because considering that the comment-to-change ratio is 1:1 would skew the data. Instead, it often takes many commenters noting an issue to result in a single change to the EIS. I reviewed the codes indicating that a change was made to the document and created additional codes that indicated if that change was major, minor, or repeated.

Table 1: Indigenous organizations identified in the Coastal Plain environmental impact statement

Indigenous Comments' Organization Affiliations	
Arbeitskreis Indianer Nordamerikas	Native Village of Kaktovik
Arctic Slope Regional Corporation	Native Village of Venetie Tribal Government
City of Atkasuk	North Slope Borough
City of Point Hope	Porcupine Caribou Management Board
Council of Athabaskan Tribal Governments	Tanana Chiefs Conference
Gwich'in Steering Committee	Tikigaq Corporation
Gwich'in Tribal Council	Tr'ondëk Hwëch'in First Nation
Ukpeaġvik Iñupiat Corporation	Voice of the Arctic Iñupiat
Inuvialuit Game Council	Vuntut Gwitchin Government
Kaktovik Iñupiat Corporation	Working Circle Indians of North America

De'Arman (2020, 98) who identified five main forms of justification – legal, bureaucratic, scientific, reiteration, and project centered – used by agencies to “deny public comment worth.” Through this technique of content analysis, I share my findings on the influence of public participation in the environmental impact assessment process, specifically as it relates to the Arctic National Wildlife Refuge case study.

Results

As the lead agency responsible for the leasing program and the assessment of its impacts, the BLM is responsible for categorizing and responding to all substantive comments. Considering all comments in Appendix S, I found that comments made by non-federal, or state agencies were much more likely to receive a response that justified the BLM's original statement or process in the draft EIS. Figure 5 shows that, across all forty-six comment topic categories, Indigenous comments received a greater rate of justifications, rather than changes, compared to comments that were made by other federal and state agencies. Although Indigenous peoples seem to have a slightly higher influence than non-Indigenous commenters, this data may be slightly skewed due to the discrepancy in the amount of “other comments” compared to the

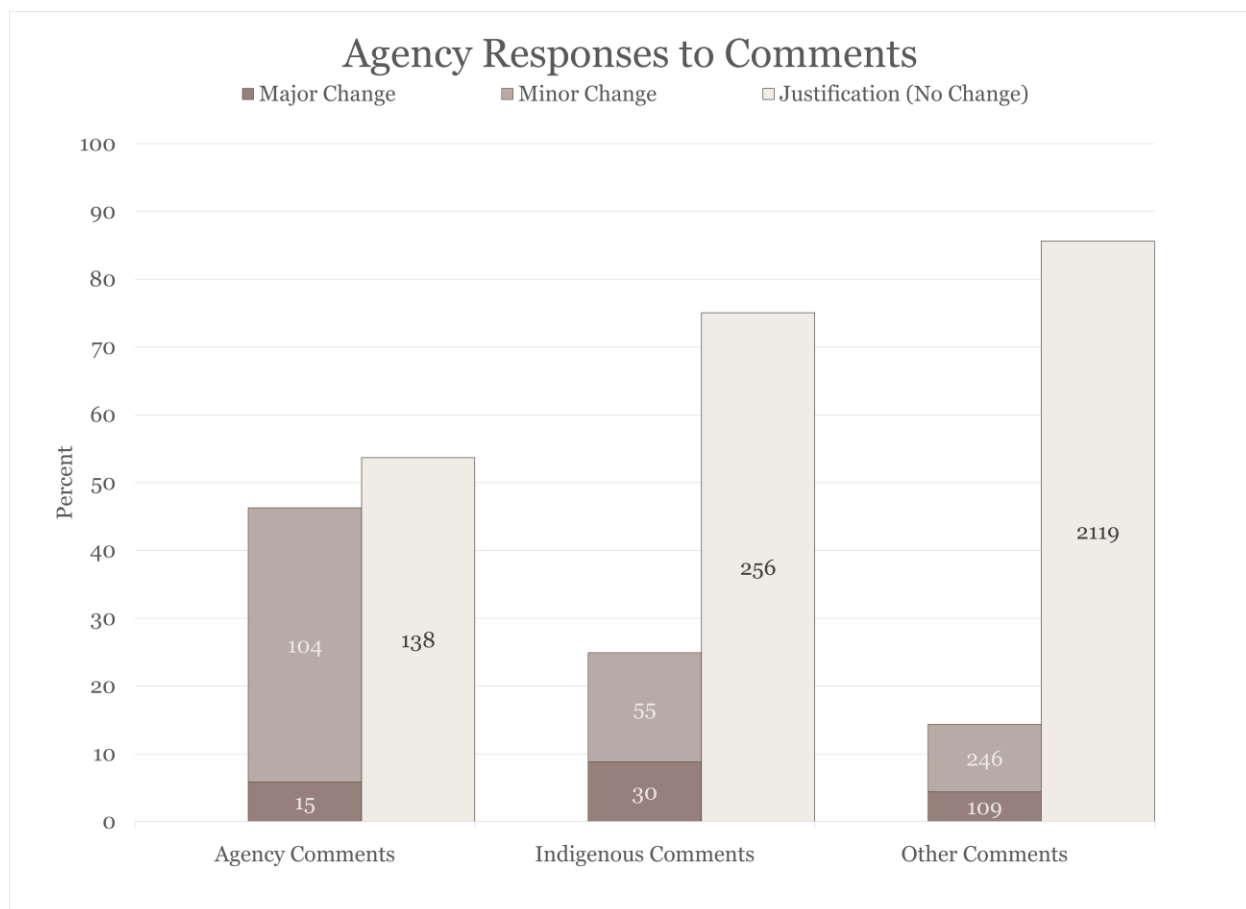


Figure 5: Types of agency responses to public comments

other two categories. What is more intriguing about this finding is the discrepancy between *public* and *non-public* commenters and the influence they have on changes made to the EIS. Comments from non-public government agencies, specifically the U.S. Fish and Wildlife Service and the Alaska Department of Natural Resources, resulted in a higher rate of changes (46.3%) than comments from non-governmental, and non-Indigenous commenters (14.35%) and Indigenous commenters (24.93%). Albeit many of the changes based on other agency's comments were minor; the other agencies' comments tended to criticize specific wording used in the EIS. Agencies would often re-write specific sentences that the BLM could then copy word for word into the Final EIS. These commenters have a familiarity with the NEPA public

comment process through a government perspective. They are more familiar with the types of comments that the BLM is most likely to consider in its editorial process. Additionally, the BLM considers other agency commenters as experts in their field, and thus gives these comments greater consideration than other commenters, and even other types of experts such as scientists, scholars, and Indigenous knowledge holders. While it is not inherently negative that the BLM makes a sizable portion of their changes based on the comments of other governmental agencies, it does bring into question how much emphasis is placed on the *public* component of the *public participation* process.

Figure 6 shows the number of comments and their response type for the top fifteen most commented on categories.¹⁶ Of the top fifteen categories, the topics that Indigenous commenters were most concerned with, cultural resources and sociocultural systems, approximately 35% of the comments resulted in changes to the EIS. This is higher than the percent of change based on all Indigenous comments (see Figure 5). Indigenous peoples made up a sizable portion of the comments (between 45-60%) for the ‘Cultural Resources’ and ‘Sociocultural Systems’ categories and the percent of comments that resulted in change were higher than the overall percent of change by Indigenous peoples.¹⁷ This suggests that the quantity of Indigenous commenters may have a small correlation with the influence on document changes. In other

¹⁶ In this analysis, the “top fifteen” most commented on categories were selected not based on total count but by the most commented on categories across the three demographic groups to ensure that the interests of any one demographic was not ignored due to lower total comments. However, many of the topics were of interest across all three demographic groups.

¹⁷ The categorization of comments may be inherently flawed, particularly in relation to Indigenous peoples’ concerns, due to its weaponization in imperial and colonial expansion. In addition to the oppressive history of categorization, this technique may also be insufficient in understanding comments holistically. In De’Arman’s (2020) interview with a U.S. Forest Service hydrologist, they note that the agency’s practice of categorizing components of comment submissions and sending them to various departments for separate responses can result in mischaracterization and may not have been reflective of the whole comment. While exploring this phenomenon in depth is out of the scope of this article, it has the potential to be informative to efforts to improve the public participation process.

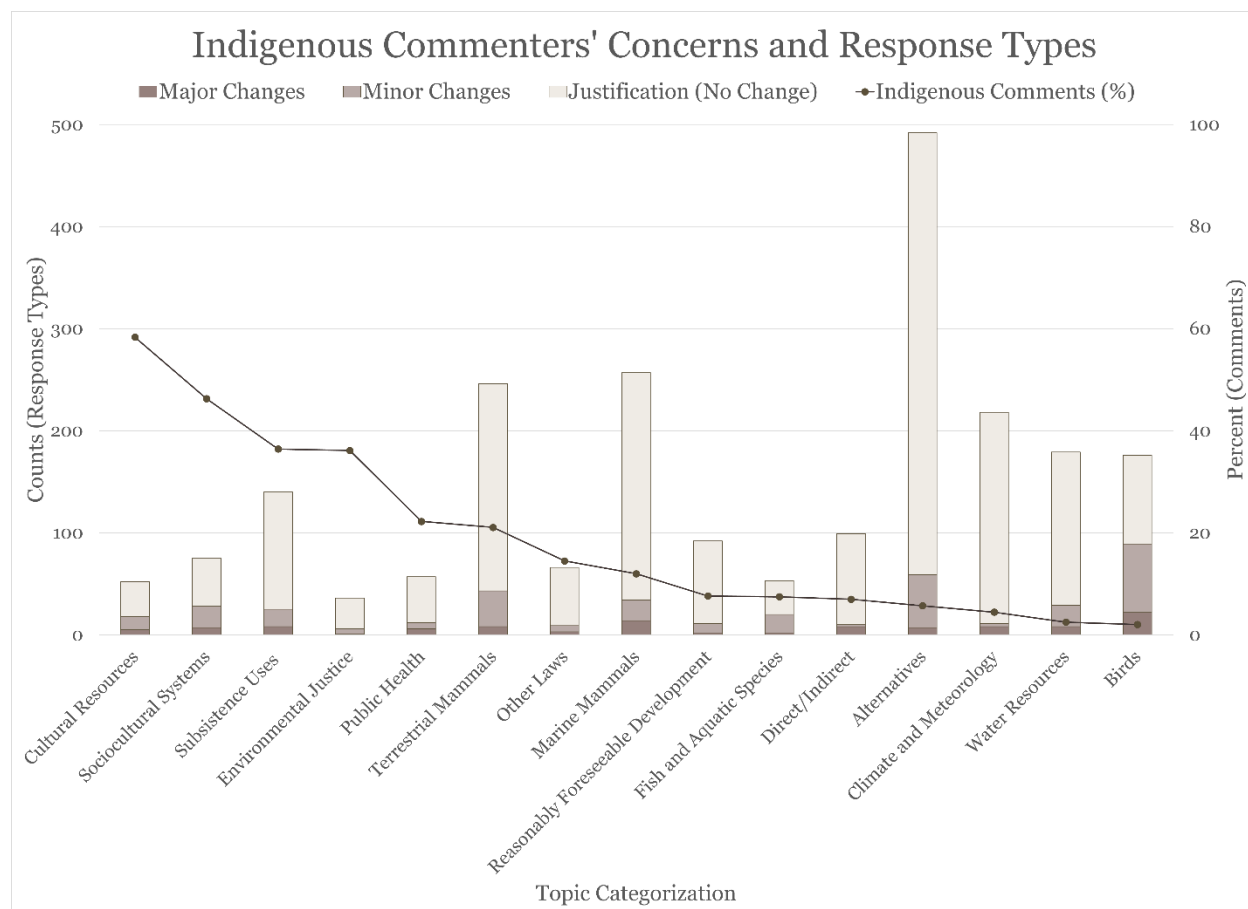


Figure 6: Categories with the highest number of Indigenous comments and agency response types

words, if many Indigenous commenters raise an issue regarding the EIS, there tends to be a more significant percent of change based on the comments provided. However, some of the other categories that have a higher percent of change, such as ‘Fish and Aquatic Species’ and ‘Birds,’ received approximately 7% and 2%, respectively, of their comments from Indigenous peoples. The figure also provides insight into the topics of greatest importance to Indigenous commenters, specifically, cultural resources, sociocultural systems, subsistence uses, environmental justice, public health, and terrestrial mammals.

In her review of public comments in U.S. Forest Service decision-making, De’Arman (2020) identified five common forms of justification – legal, bureaucratic, scientific, project

centered, and reiteration responses – used to deny public comments from being incorporated into the changes made to the EIS. Legal justification refers to laws that guide or constrain agency decision-making. In this case study, many of the legal justifications referred to the Tax Act as it was the law that required the creation of the oil and gas leasing program. Others referred to compliance with laws such as NEPA or ANILCA. Bureaucratic justification refers to agency processes and best practices. Common bureaucratic justifications for this case study refer to the authority of the BLM in the decision-making process and oversight of leases by BLM officials. Scientific justification responses typically included citing a source, explaining EIS scientific findings in greater depth, defending the parameters used for analysis, or devaluing a source cited by the commenter. Project-centered justification indicates that the agency does not need to address a particular issue of concern to the commenter based on the intent, goal, or scope of the project. For this case study, project-centered justifications were common as the EIS focused on establishing a leasing program and a lease, in itself, does not cause any direct impacts to the environment. The BLM responses would often indicate that a concern was out of the scope of the project and would be addressed in later EISs associated with subsequent leases. Reiteration justification points the commenter back to the section of the DEIS where the concern is addressed. In her description of each type of justification, De'Arman (2020, 100) states “I found that this [reiteration] strategy appears as an accusation that the commenter did not read the DEIS and it often does not fully address or remedy the commenter’s concern.” After reading all the BLM responses in this case study, I support this claim. In fact, in many cases a commenter would list specific sections in their comment only for the BLM to refer them back to the same section in what appears to be a manipulation designed to make the commenter doubt their own

perception or understanding of the issue. For example, Bernadette Demientieff, Executive Director of the Gwich'in Steering Committee, submitted a comment stating:

Despite our early and repeated requests for translation of these materials, BLM provided some resources for the Arctic Village Council to undertake translation which was completed on March 10, 2019 – a mere three days before the close of the public comment period. Moreover, only a portion of the EIS was translated into Gwich'in, such as the sections on cultural resources, subsistence uses and resources, and ANILCA 810. Critically, we do not have a translated version of the analysis of impacts to caribou, public health, birds, sociocultural systems, or climate change, which are vitally important to our communities. While we appreciate that BLM provided such resources, translated materials were necessary during the entirety of comment *[sic]* period to allow for meaningful review and comment. We also requested that that *[sic]* translators be available to assist with questions and comments at all public events and meetings. It is gravely concerning that BLM apparently failed to translate many important scoping comments from Gwich'in into English so that they could be incorporated into the agency's analysis. BLM thus ignored important input from affected communities during scoping, and has made continued participation by these communities and our members exceedingly difficult. See e.g., Transcript from Venetie scoping meeting, at 19-20 (Jun. 12, 2018). (Bureau of Land Management 2019b, S-1318)

The BLM responded with the same reiteration justification that it used to respond to many comments on the EIS. It responds, “Using BLM funds provided through the Bureau of Indian Affairs, the Arctic Village Council translated and distributed key sections of the EIS into the Gwich'in language. The key sections were: Executive Summary; Chapter 2: Alternatives; Chapter 3: Cultural Resources, Subsistence Uses and Resources; and Appendix E: ANILCA Section 810 Preliminary Analysis. In addition, translators were available in Arctic Village, Venetie, Kaktovik, and Utqiagvik for public testimony.” (Bureau of Land Management 2019b, S-1318). The BLM reiterated their statement in the draft EIS regarding this issue and restated much of the information provided in Demientieff's comment. Additionally, it ignores Demientieff's concern about the time for translation regarding the public comment period, as well as the missing translated sections of the draft EIS. This is one example of how reiteration justification can be particularly dismissive of public comments. Furthermore, in my analysis of

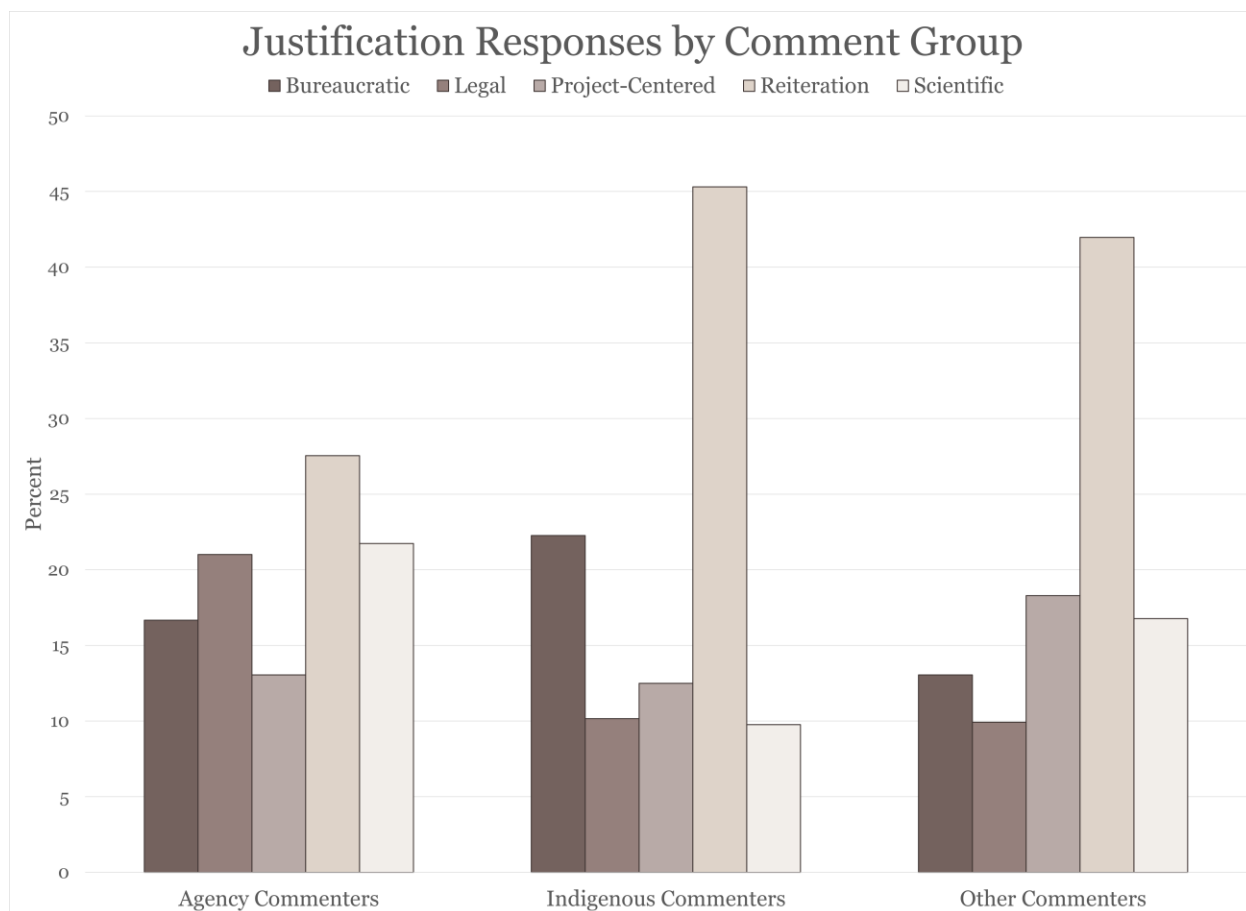


Figure 7: Frequency of distinct types of agency justification responses

all public comments for this case study, a review of justification types across demographics indicate that Indigenous commenters received the highest rate of responses that reiterated the information provided in the EIS (Figure 7). In addition, to the previous finding that agency comments resulted in a higher percentage of changes to the EIS, Figure 7 shows that they also received a more equitable distribution of types of justifications for no changes. Public commenters were far more likely to receive a response that effectively accused them of not reading the EIS, therefore, allowing the BLM to delegitimize the commenters concerns.

The final part of this analysis of public comments goes beyond findings indicated through raw counts and percentages to calculate the approximate amount of power per comment group. To do this, I divided the total number of comments from each group by the total changes made to the EIS. This results in an average number of comments needed per change. Therefore, a comment group has more relative influence and power in the public participation process if the calculation results in a lower number. Table 2 shows the average number of comments per change to the EIS by comment group and topic. On average, Indigenous commenters needed to submit 5.56 comments to result in a single change to the EIS, while agency and other commenters needed to submit approximately 2.6 comments. This data is also visualized in a box and whisker chart in Figure 8. This indicates a lower rate of influence of Indigenous participation, particularly compared to agency participation as other commenters received a greater range of outliers. While Indigenous commenters required more frequent mentions of an issue to illicit a change to the EIS, the influence of Indigenous comments also varies by community affiliation. Of the Indigenous commenters, the Iñupiat had the highest level of influence on changes made to the EIS. The average number of comments per change were 7.40 for multi-tribal organizations, 7.00 for Gwich'in commenters, 6.13 for Inuvialuit commenters, and 4.27 for Iñupiat commenters. The majority of Gwich'in commenters expressed opposition to development in the Coastal Plain because of the cultural significance of the Porcupine Caribou Herd. Several Iñupiat commenters, particularly those located in Kaktovik, expressed support for oil and gas development, citing the economic benefits to their communities. Many of them expressed concerns that Kaktovik was not given as much consideration as the impacts to the Gwich'in in the Draft EIS, despite Kaktovik's closer proximity to the Coastal Plain. The situation is complex; I do not presume to make any definitive or generalized claims regarding the

Table 2: Average number of comments per change to the Coastal Plain environmental impact statement

Average Number of Comments per Change to the EIS				
Topic Categorization	Agency Comments	Indigenous Comments	All Other Comments	Total Comments
Alternatives	4.24	16.50	3.76	4.02
Birds	1.00	4.00	1.76	1.78
Climate and Meteorology	4.00	10.00	21.10	18.75
Cultural Resources	N/A	3.18	1.67	2.31
Direct/Indirect Impacts	1.00	15.00	1.63	1.73
Environmental Justice	N/A	2.60	23.00	6.00
Fish and Aquatic Species	1.92	5.00	1.95	2.03
Other Laws	1.20	N/A	16.36	14.05
Marine Mammals	2.00	1.00	1.97	1.73
Public Health	2.00	6.00	1.90	2.25
Reasonably Foreseeable Development	5.50	8.00	4.10	4.38
Sociocultural Systems	1.00	10.33	0.89	1.54
Subsistence Uses	N/A	4.19	2.19	2.67
Terrestrial Mammals	1.25	6.91	2.00	2.28
Water Resources	2.21	6.00	2.68	2.65
Sum (All comments)	2.65	5.56	2.67	2.87

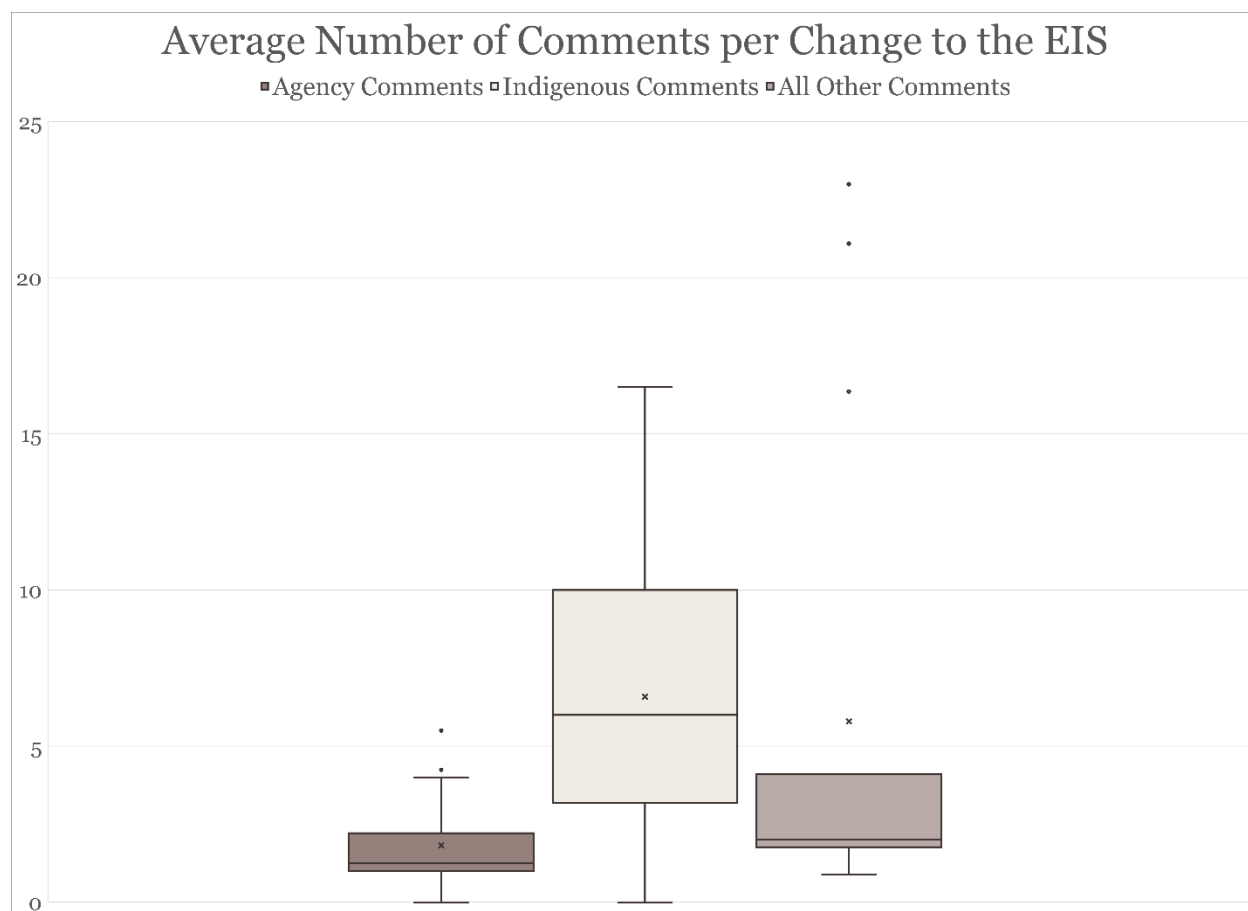


Figure 8: Average number of comments per change to the Coastal Plain environmental impact statement

BLM's consideration of various Indigenous communities in Alaska. However, one explanation of this data is that there may be a relationship between Indigenous community influence and the purpose and need of the EIS. Iñupiat commenters may have had more influence on the changes made to the final EIS because, while issues of subsistence and leasing stipulations were still of importance to Iñupiat commenters, they expressed less opposition to development. On the other hand, when Gwich'in commenters are uncompromising in their assertion that *any* development in the Coastal Plain will have an adverse impact on their culture, it is easier for BLM decision-makers to delegitimize comment worth because it does not meet the purpose and need of the EIS to establish an oil and gas leasing program, as required by the Tax Act.

Discussion

The public comments submitted for the Coastal Plain Oil and Gas Leasing Program EIS resulted in a handful of minor changes to the document, as well as a few major changes – such as the creation of Alternative D2 that would lease the minimum amount of land necessary to satisfying the requirements of the Tax Act, a few changes to required operating procedures, and additional information about impacted species. However, these changes to the document did not appear to influence the record of decision (ROD). The decision-makers selected their preferred alternative which opened the greatest amount of land to leasing and implemented the fewest timing restrictions and mitigation measures. In addition to the changes made based on substantive comments, this case study includes 1,063,094 submissions that the BLM deemed non-substantive form letter comments. While it is procedure across federal agencies to respond to substantive comments, non-substantive form letters are some of the most practical and approachable means of participating in scoping and comment periods (De'Arman 2020). Since they repeat information or opinions, form letter comments are treated as one comment; they are not considered a petition or measurement of public interest (De'Arman 2020). With over a million comments delegitimized by the decision-making agency, the sense of powerlessness in the public participation process only grows.

Despite calls for deliberative democracy and other bottom-up approaches to public participation, agencies maintain the top-down and expert-driven approach to decision making (Howitt 2001; Daley and Reames 2015; Agyeman and Angus 2003). The analysis of this case study finds that the BLM more frequently made changes to the EIS based on comments by other federal and state agencies compared to *public* commenters. While these agency commenters are considered experts in their fields, the BLM does not appear to consider Indigenous commenters

under the same designation. While their expertise may not always fit within the confines of Western conceptions of science, Indigenous knowledge holders are the leading authorities in how to preserve and adapt their culture and traditions in a changing environment (Johnson et al. 2016). Despite this, Indigenous knowledge shared during public comments rarely have significant influence on adjustments to projects' scope or final project decisions (Dahl and Hansen 2019). Although the local Indigenous commenters would experience the impacts of oil and gas development most directly, their participation in the public comment process is an example of the power disparities rooted in the procedural norms of the EIA process. In its current practice, public participation in EIAs does not approach public comments in the context of deliberative democracy. Rather the structure emphasizes “self-referential, censorious, and powerful” *expertocracy* (Johnson et al. 2016, 11).

In the Refuge case study, Indigenous stories and knowledge were contributed to the EIS primarily through the public participation process. Information – from both Indigenous written comments and oral testimonies given during public hearings – was included in the EIS in some capacity. In addition to the categorized public comments in Appendix S, Appendix C of the Final EIS includes several pages of testimony, primarily from Gwich'in people, provided during public involvement. The recurring theme through much of this input from Gwich'in commenters was that oil and gas development in the Coastal Plain would adversely impact caribou and, therefore, would cause irreparable damage to the core of Gwich'in culture. These concerns were mentioned by the BLM in the Final EIS. It states, “Ultimately, cumulative impacts on subsistence could alter subsistence use areas, user access, and resource availability for Iñupiat, Gwich'in, and Inuvialuit subsistence users” (Bureau of Land Management 2019a, 3–249). Additionally, the EIS notes that the preferred alternative would have the highest contribution to adverse impacts on

subsistence and the least comprehensive mitigation measures for this impact – although it also notes that none of the actionable alternatives would be able to eliminate impacts on subsistence users. Although impacts on Gwich'in culture were noted in the EIS and were a major topic of concern among public commenters, the consideration of these adverse impacts was not reflected in the ROD. The ROD signals the influence of industry 'capture' in federal resource management (Cole and Foster 2001). In addition to the pressure to guarantee industry outputs, professional resource managers are also pressured to do so in an efficient manner that minimizes costs and maximizes profits (Howitt 2001).

Although practitioners value efficiency, they cannot truly be efficient without meaningful participation when assessments involve Indigenous communities. While it is the duty of assessment practitioners to consult with Indigenous communities, inadequate participation methods conducted to make the process more efficient tend to inhibit efficiency when Indigenous communities challenge the decisions, either through activism or in the court system. NEPA and the Council on Environmental Quality are clear that public participation in the assessment process is not designed to count as a "vote" toward the project plans and outcomes (Council on Environmental Quality 2007, 7). Therefore, although many Indigenous and non-Indigenous commenters have expressed discontent with the public participation process and its effects on outcomes, it is not a legally enforceable claim. Instead, those who challenge decision-makers must do so under other allegations that are enforceable in the legal system – which, admittedly, may also be numerous depending on the case. After the ROD for the Coastal Plain Oil and Gas Leasing Program EIS was issued the Gwich'in Steering Committee along with other plaintiffs challenged the BLM and the Department of the Interior under violations of the

procedural laws of NEPA and the Administrative Procedures Act¹⁸, as well as the environmental and conservation laws of ANILCA, the Refuge Act, the Wilderness Act, and the Endangered Species Act (Gwich'in Steering Committee v. Bernhardt 2020). The legal implications and supplemental review of the EIS illustrate the importance of meaningful public participation and consideration of Indigenous input. When meaningfulness and efficiency are considered polarizing forces in the EIA process, the result is a lack of both (Udofia, Noble, and Poelzer 2017).

Conclusion

The EIA public participation process gives the illusion that public input has the potential to influence public land projects. However, public comments are often delegitimized by agency responses, particularly if they challenge political directives of the project (De'Arman 2020; Cobb and Ross 1997). Even when members of the public are dedicated enough to submit detailed substantive comments, agency personnel make few meaningful changes to assessment documents. Furthermore, this case study demonstrates that changes made from public comments have little to no impact on project outcomes as the agency's preferred alternative in the Draft EIS was selected for the record of decision. Therefore, it is perhaps unsurprising that a sense of powerlessness and mistrust persists in Indigenous views of the EIA public participation process (Arsenault et al. 2019; McCreary and Milligan 2014). Despite the scholarly and community-based work that has developed frameworks to adequately collaborate with Indigenous communities in resource governance, the practiced norm of public participation reinforces existing structures of power (Dokis 2015; Arsenault et al. 2019; Whyte 2011; McGregor 2009b;

¹⁸ Details of the Administrative Procedure Act can be found in the Federal Register, 5 U.S.C. Part I, Chapter 5, Subchapter II and at <https://www.archives.gov/federal-register/laws/administrative-procedure>

2004). Merely wishing to acknowledge Indigenous knowledge and involvement is not enough. Significant changes to the environmental impact assessment process and resource management paradigms are necessary to establish collaborative governance structures that do not simply solicit input but fully utilize Indigenous knowledge in decision-making processes.

Indigenous Environmental Justice in Theory and Practice: A temporal review of three US environmental impact assessment case studies

Katie M. Grote and Jay T. Johnson

Preparing for publication in *Annals of the American Association of Geographers*, Taylor and Francis

Abstract

Environmental justice initiatives, while well-intentioned, often marginalize Indigenous community concerns. Indigenous communities are habitually fighting for political autonomy against policies of capitalism and colonialism that aim to control their traditional homelands and resources, threatening their worldviews and ways of life. Using qualitative content analysis, this article synthesizes the variations in environmental justice principles based on documents from four factions within environmental justice: the state, academia, community activist movements, and Indigenous peoples. Each group currently defines environmental justice goals to serve their interests and there is no universally recognized understanding of the concept. This paper explores each category to better understand the misrepresentation of Indigenous environmental justice within each category. Indigenous environmental justice moves beyond traditional concepts of justice, including recognition of Indigenous histories, cultures, and worldviews and meaningful participation and consultation in environmental decision-making. This article finds that Indigenous environmental justice concepts are more prominent within academic literature and activist movements. Given the state's role in the historical and ongoing dispossession and destruction of Indigenous lands, Indigenous environmental justice initiatives are limited to recommendations, not enforceable regulation in state policy. This article aims to address environmental justice in both theory and practice. Therefore, three case studies of Indigenous

resistance to federalized development projects are used to illustrate how the “success” of environmental justice initiatives varies based on the standards and interests of each faction. This article aims to examine diverging environmental justice theories and contribute to discussions on why environmental justice in practice often results in vexed relationships between stakeholders, particularly when Indigenous communities pursue justice within, against, and beyond the state.

Introduction

With growing concern for the multi-faceted ecological, economic, and cultural impacts of the climate crisis, it is becoming clear that our current trajectory requires a response other than the pseudo-sustainable actions currently promoted by governing bodies. While the environmental justice (EJ) movement has made significant contributions to improving the lives of people in disadvantaged communities through the development and reform of policy, garnering public awareness, and providing frameworks and guidelines for achieving justice, many EJ advocates agree that the rate of progress does not align with the goals of the movement, particularly as global environmental hazards like climate change continues to put pressure on the well-being of overburdened communities (McGregor, Whitaker, and Sritharan 2020). To address the issues of environmental injustice, significant structural and institutional transformation is necessary to learn our responsibility as human beings to the environment we exploit.

With the growth of the environmental justice movement in the U.S., increased interest in the topic has sparked significant debate about what constitutes *environmental justice*. Various groups and individuals have defined and re-defined the concept, contributing to its continuous evolution and multiple interpretations (Schlosberg 2013; G. Blue, Bronson, and Lajoie-O'Malley 2021). The multiplicity of EJ theory has often deviated from EJ in practice. However, EJ literature often cites the importance of a more cohesive relationship between theory and

practice where each informs the other into successful praxis (Holifield 2014; Sze and London 2008; Schlosberg 2007; 2013). Although the four groups of particular focus in this study – the state, academia, activists, and Indigenous peoples – classify EJ in a variety of ways, they have all played a significant role in the expansion of EJ in both theory and practice. One of the many debates among advocates for EJ regards the best approach for changing the current system in a way that remedies the effects of environmental injustice. In truth, many social movements have had similar debates regarding the best approach to achieving social change (Young 2001). Furthermore, the debate is expanded on in Indigenous scholarship, where some scholars, such as Dale Turner, argue that if Indigenous peoples want to assert their Indigenous philosophies and sovereignty they must do so by engaging with the settler-state’s legal and political discourses more effectively (Turner 2006). Other Indigenous scholars, such as Taiaiake Alfred (2005) and Glen Coulthard (2014), are critical of this approach to working within the settler-state system that perpetuates structural inequality. These resurgence theory scholars recognize that the settler-state structures which oppressed Indigenous peoples for centuries are not confined to the past, but are, instead, ongoing structures that benefit from the elimination of Indigenous political and economic systems. Therefore, they argue, Indigenous philosophies will never be able to exist within state institutions until they are decolonized (Alfred 2005; Coulthard 2014; Tuck and Yang 2012b).

In its early years, the EJ movement applied enough pressure with, often disruptive, *outsider* tactics that the state responded by adopting EJ policies and creating positions within government agencies for EJ-focused staff to begin working on regulatory reforms (Harrison 2019; Perkins 2022). This signaled a significant shift within the EJ movement as many advocates found themselves shedding their more radical activist approaches and instead began

working within the government to produce change through *insider*, or reformist, tactics of achieving social change (Perkins 2022; Cole and Foster 2001). This shift in the movement has kindled debate among EJ advocates regarding the ideal method for effecting change. Some see the increase in EJ staff in government agencies as the state making progress toward achieving EJ through the work of “insider activists” while others see this as a state tactic to maintain power by siphoning EJ leaders away from grassroots organizations and into government positions that require staff to temper their original goals in favor of compromised and incremental change (Harrison 2019, 23). Harrison provides an in-depth exploration of the fight for EJ within government agencies in her book, *From the Inside Out*, in which her findings indicate that EJ staff face significant challenges – such as limitations in resources, technical tools, authority, and unsupportive workplace culture – to accomplishing their desired goals for implementing EJ principles (Harrison 2019). The reality of insider EJ activism is that EJ personnel face many barriers to their goals and instead are only able to create incremental changes to policy (Pellow 2018).

This paper aims to contextualize the changes to EJ in practice as it relates to Indigenous community struggles with environmental injustice. To theoretically ground this work, we first synthesize the variation in interpretation of EJ principles through the perspectives of four groups – the state, academia, activism, and Indigenous communities – before analyzing three case studies where Indigenous communities have expressed their concern regarding the perpetuation of injustice through the adverse environmental impacts of proposed development projects that fail to adequately consider Indigenous perspectives. The case studies have a temporal significance as they span a significant range of time that should putatively indicate an improvement in consideration of Indigenous perspectives and environmental justice that parallels

the timeline of incremental change to environmental justice policy. This paper aims to answer the question: Has the incremental change to environmental justice policy through *insider* tactics had a perceptible change to the achievement of environmental justice goals, particularly in cases that impact Indigenous peoples; and by whose standard, whether theoretically or practice-based, might these cases be considered ‘successful’? These case studies range over almost three decades, yet there are still significant challenges to the inclusion of Indigenous perspectives in assessments of environmental impacts, contributing to continued injustice for Indigenous peoples.

Characterizing Environmental Justice

The term *environmental justice* can be applied in a variety of contexts. This section aims to explore how a variety of groups – the state, academia, community activists, and Indigenous groups – understand and articulate the concept. First, it is important to understand the origins of environmental justice, particularly as a movement in the U.S., because these origins help illustrate how, although these groups often use the meaning of the term differently, their origins are intertwined. The EJ movement grew through the influence of a variety of other social movements, what Cole and Foster (2001, 20) call “tributaries” that contribute to the expansion of the river that is the current EJ movement. Some of the most prominent tributaries include the civil rights movement, the anti-toxics movement, the labor movement, academics, and Indigenous resistances (Cole and Foster 2001). While environmental inequalities have existed for far longer, environmental justice activists began to self-identify as such in the 1980s, indicating what many consider the origin of the EJ movement in the U.S. (Perkins 2022). The grassroots organization for civil rights and against toxics, such as the African-American-led protests against a toxic-waste landfill in Warren County, North Carolina in 1982, were

instrumental in moves to address and define EJ issues (Gilio-Whitaker 2019). Incidents like these led to a cross-sectional national study by Charles Lee – *Toxic Wastes and Race* – to determine the extent to which minority communities were exposed to toxic and hazardous waste sites. The study revealed a smoking gun – that racial minorities were significantly more likely to live in communities with toxic waste and hazardous conditions (United Church of Christ and Lee 1987). These findings electrified the movement and led to EJ advocates working tirelessly to effect meaningful change. Early in the EJ movement’s history, the relationship between academic work and grassroots movements was particularly influential in articulating both the problems of environmental injustice and preliminary solutions to achieving justice (Schlosberg 2013). This early work eventually began to shape environmental policy aimed to ensure that marginalized communities have a voice in state decisions that impact their communities.

To inform this work, we conducted a scoping review of influential EJ literature, policy, and other advocacy documents to synthesize how each faction characterizes EJ and related concepts. While EJ scholarship widely recognizes that these groups have varying definitions and understandings of EJ, it is worth noting that the purpose of synthesizing these understandings is not to confine each group to a specific box. There is often a blending between each category. For example, an EJ scholar can also be a participant in EJ community activism. Additionally, many EJ activists serve on advisory committees or have joined local, state, and federal agency EJ staff positions, furthering their cause by working to effect change within the government. The information provided below is not comprehensive to the entire EJ movement in all its variations. Instead, the information provided attempts to synthesize the literature from many, although not all, forms of information on the characteristics of EJ so that it can better inform the other aim of this paper – to use common EJ theory in an empirically grounded view of Indigenous EJ in

practice, through three case studies at various points in EJ's theoretical and practical progression over time.

EJ and the State: Policy and Regulation

Based on a review of influential EJ-related policies and federal agency guidelines for implementing EJ, we concluded that the state – meaning national scale governing bodies, including federal agencies – generally defines and understands environmental justice as ensuring all people are treated fairly and have equal access to meaningful involvement in the development, application, and enforcement of environmental policies. The goal of environmental justice is to achieve the same level of protection from environmental harms for all citizens (Clinton 1994; US EPA 2014). A closer inspection of this definition reveals several key characteristics of EJ from the view of the state including an emphasis on equity, participation, methodological standardization, as well as some caveats regarding enforcement. *Equity.* The state emphasizes the importance of equity in distributive elements of environmental benefits and hazards. The state does not commit to the elimination of environmental harm for all persons but rather seeks to redistribute such hazards so that harms do not disproportionately impact low-income, minority, and vulnerable communities. Additionally, the state's use of the unidimensional conceptual category "all people" does not give recognition to diverse histories, experiences, or political status among populations (Gilio-Whitaker 2019). *Participation.* The state definition of EJ emphasizes procedural and representational elements as vital to achieving EJ goals. This includes providing the public with access to regulatory decision information and providing opportunities for public comment to include communities in the decision-making process (Harrison 2019). Public participation in procedural processes does not guarantee desired outcomes as public participation is not a vote or a veto in environmental decision-making

(Council on Environmental Quality 2007). *Methodological Standardization*. In its efforts to achieve environmental justice, the state accepts responsibility for developing a methodological approach to measuring disproportionate environmental impacts to quantify and standardize indicators of adverse and unequal impacts (G. Blue, Bronson, and Lajoie-O'Malley 2021; Clinton 1994). *Enforcement*. Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations directs federal agencies to make achieving EJ part of their mission, to the greatest extent possible. EO 12898 is the cornerstone of U.S. EJ regulation, there is no EJ-centered statute in U.S. law. EO 12898 does not establish legally enforceable rights. Obligations to uphold environmental justice are more commonly enforced through statutes such as the Title VI of the Civil Rights Act of 1964, the National Environmental Policy Act of 1969, the Administrative Procedures Act of 1946, or other environmental laws.

EJ and Academia: Building the Theoretical

Academia has played a vital role in the theoretical expansion of EJ concepts. It has worked to better articulate and analyze the nuances of EJ, often working closely with grassroots movements and informing state entities of their findings (Cole and Foster 2001). Generally, scholars have argued that environmental justice can be divided into three conceptualizations of justice: distributive, recognitional, and representational (Fraser 2009; Schlosberg 2007). Early environmental justice scholarship mirrored the state's views on EJ, focusing on the (un)equal distribution of environmental harms and goods, and economic costs and benefits (G. Blue, Bronson, and Lajoie-O'Malley 2021). However, in the theoretical evolution of EJ, scholars helped expand the concept to include not just a redistribution of environmental risks but a reduction of those risks, particularly in communities that are overburdened and

disproportionately impacted (Whyte 2011). Additionally, feminist scholars and community activists criticized the limits of distributive justice in its early form, instead favoring approaches to distributive justice that focused on uneven power dynamics and recognition that achieving justice requires dismantling the social, cultural, and political conditions that cause maldistribution (G. Blue, Bronson, and Lajoie-O'Malley 2021; Foster 1998; Fraser 2009).

In more recent scholarship there have been several ways in which the dialogue has grown, including, but not limited to, the spatial expansion of the term and understanding of the concept at a global scale (Sze and London 2008; Schlosberg 2004), recognition of the need to expand the definition of the 'environment' to include the nonhuman realm (Schlosberg 2013; McGregor, Whitaker, and Sritharan 2020), and more broadly considering EJ as it relates to the climate crisis (Pellow 2018). The initial applications of EJ theory have rapidly expanded in scope and with this breadth of theoretical expansion comes a lively debate about the future of EJ in practice. Much of traditional EJ scholarship centers the state as the means through which change will be made to progress distributive, procedural, or recognitional justice (Schlosberg 2004; Pellow 2018). While most scholars are wary of state power, many still recognize that the state has the potential to support the goals of EJ. In pursuit of procedural or representational justice, advocates are encouraged to deepen their connection with the democratic processes that effect change, whether inside or outside of the state. In principle, scholars note the problematic nature of recognizing the state as the means through which EJ goals are to be achieved because the state is also one force contributing to injustice and systematic violence. However, the actual practice or implementation of EJ is complex. This is one of the examples of how both scholarship and activism see recognition - as in they recognize that the state is a primary cause of

inequality, but they also recognize the authority the state has to allow change to take place. Environmental justice may be radical and transformative in theory but less in practice.

EJ and Activism: Protecting Impacted Communities

Activists are doing important on-the-ground work to combat environmental injustice and their lived experiences provide a particularly distinct perspective on what is encompassed with the concept of environmental justice. The term activist can broadly refer to a person or group that campaigns to bring about political or social change. Therefore, it is incorrect to compartmentalize activism as separate from the other factions mentioned later in this section. While we recognize that activism can be applied broadly, we also distinguish it as its own category in which we focus primarily on activists – meaning the grassroots groups whose communities are most directly impacted and whose lived experience is one of environmental injustice. Activists define the "environment" in EJ in a very place-based connection - recognizing that it is not just the ecological impacts on a place but the social and cultural aspects that also need to be preserved. Adverse environmental effects can have many negative effects on a community - economic, educational, health, social, etc. (Cole and Foster 2001). While grassroots movements are often sparked by localized incidences of environmental harms, they generally recognize that these cases are just one component of larger institutional injustices (Cole and Foster 2001; G. Blue, Bronson, and Lajoie-O'Malley 2021).

How activists view the role of the state in environmental justice may vary. With the recognition of underlying power struggles, activists can be critical of the state as upholding environmental injustice through its refusal to pursue transformative change. Community activists have worked alongside scholars and other EJ advocates to produce comprehensive and transformative recommendations for adequately implementing EJ into policy. For example, the

seventeen-point proclamation document the *Principles of Environmental Justice* document produced from the first People of Color Environmental Leadership Summit conference in 1991, was an intersectional and progressive document outlining the most vital standards of EJ. However, EJ policy largely ignores these recommendations in favor of more amiable policies. Mike Ewall, EJ activist and founder of the Energy Justice Network, criticizes the state's emphasis on environmental *equity* rather than *justice*. This is not simply an issue of semantics; it is a critical distinction that impacts the quality of life of communities overburdened by environmental harms. He states, "It represents the fundamental difference between the concepts of 'poison people equally' and 'stop poisoning people, period!'" (Ewall 2012, 4). Additionally, EJ communities have criticized the state's application of procedural justice, insisting that community input on environmental decision-making is initiated too late to be effective (Council on Environmental Quality 1997). While activists are critical of state implementation of EJ, many activists' goals are to effect change at the national level. Like scholarship on EJ in practice, activism recognizes the role that the state plays in producing environmental harms and, therefore, primarily looks to the state as the party that either has the responsibility to, or the authority to rectify environmental injustices through transformative reform of regulatory practices.

Indigenous EJ: Decolonization as Justice

At its core, Indigenous environmental justice is distinct from other definitions of EJ because it is grounded in Indigenous philosophies, ontologies, and epistemologies. While every Indigenous community is unique, many share commonalities such as the historical and ongoing impacts of colonization, unique knowledge systems rooted in place and experience, and reciprocal relationships with the non-human world (McGregor 2004; Johnson and Madge 2016). Indigenous activism was an influential part of the growth of the EJ movement and, even in its

infancy, many activists and scholars recognized the importance of intersectionality. Indigenous concepts of EJ have been incorporated in the recommendations including the *Principles of Environmental Justice* document produced from the first People of Color Environmental Leadership Summit in 1991 (Gilio-Whitaker 2019). Policy, however, holds tight to the dualist view of the human-nature relationship, where nature is a passive object which human beings have a ‘right’ to exploit and commodify (Temper 2019). Even in some of the EJ literature that explores injustices to the nonhuman, it is often unclear what the motive is for protecting and preserving the non-human realm. For example, some Indigenous EJ scholars are critical of the pluralist understandings of justice proposed by classic EJ scholars, citing their privileging of academic perspectives on non-human rights rather than those of Indigenous community members (Whyte 2011; Temper 2019; McGregor 2009a).

Indigenous criticism of environmental justice has led to a call for the decolonization of EJ (Temper 2019). The pillars of a decolonized EJ include self-governing – where communities have the power to provide consent instead of merely being consulted– authority, reframing the human-nature relationship, and recognizing that knowledge is value-laden through an epistemic justice frame (Temper 2019). However, in its current form, the state would not accommodate such transformative changes to EJ. Gilio-Whitaker (2019, 33) observes, “The extent to which the US government has incorporated Indigenous peoples into its environmental justice policy regime has, predictably, mirrored and replicated its hegemonic relationship to Native peoples in the language of benevolent supremacy.” Recommendations provided by Indigenous communities, scholars, and activists are often disregarded by government agencies; documents such as *Recommendations for Fostering Environmental Justice for Tribes and Indigenous Peoples* do not serve as guiding documents and, therefore, are rendered largely ineffective (National

Environmental Justice Advisory Council 2013). Therefore, one of the things that set Indigenous EJ apart from other definitions of EJ is that many Indigenous EJ advocates reject the idea that the state can be the means through which effective change will be made. Instead, Indigenous EJ advocates promote moving beyond the state and recognizing that sovereignty for Indigenous peoples includes the development of an EJ model by and for Indigenous peoples that affirms decolonization efforts.

Method

The previous section of this work aimed to articulate the theoretical groundwork that exists among various voices within environmental justice. This paper aims to contextualize some of the views surrounding EJ by examining three illustrative case studies where EJ was, or should have been applied., The environmental impact assessment (EIA) process required by the National Environmental Policy Act (NEPA) requires that environmental justice be considered by any projects with federalized components – as in projects that either receive federal funding, require federal permitting, or cross federal land (Council on Environmental Quality 2007; *National Environmental Policy Act of 1969* 1970). As discussed above, EJ policy is often not legally enforceable on its own. Therefore, by looking at case studies that require a comprehensive analysis of project impacts on the human environment, which includes social and community concerns, we can see what should be, some of the most robust environmental justice analyses in practice. The use of a case study structure is intended to explore the nuances of phenomena and their contextual influences (Baxter 2016). In this work, we use three case studies to *illustrate* how the Indigenous perspective is, or is not, included in applied environmental justice at various points in the progression of EJ theory and practice. These three case studies are not a sufficient sample size to draw generalizations or conclusions from the empirical work of

this paper. Furthermore, they are not representative of all aspects of Indigenous experiences with environmental justice analyses or grassroots movements against injustices. Rather, the goal of the case study structure is to use motivation, inspiration, and illustration to persuade our readers (Siggelkow 2007) that these case studies are illuminating some of the complex and evolving facets of the phenomenon of environmental injustice. Specifically, this paper argues that environmental justice in practice lags behind the more transformative concepts of EJ in theory and that this disconnect between the two is doing little to improve the lived experiences of Indigenous communities suffering injustice.

To explore EJ in practice, we use a qualitative, or latent, content analysis particularly focused on the environmental justice analyses of each final EIA report. Content or textual analysis is often associated with summative and quantitative techniques, however, while there can be a quantitative element to latent content analysis, the approach focuses more on the themes and social context that inform the content (Berg 2008; Cope 2016). Consistent with the themes of this paper, a particular focus will be given to Indigenous-centered content to deductively approach the analysis. This approach aims to answer research questions related to Indigenous representation, particularly how it can be improved in the environmental assessment process. All documents will be analyzed through a critical lens, recognizing the power dynamics of authorship and biases. It is not our goal to substitute the Indigenous voices within each local activist struggle with our own. Instead, we aim to contribute to the goal of decolonizing environmental policy through meaningful engagement with Indigenous perspectives represented in scholarly literature, documents, and testimony, to produce a critique of how environmental justice goals are pursued in practice.

The nuances of environmental (in)justice are explored in three case studies where Indigenous communities voiced concerns about adverse environmental impacts from the proposed projects. They are, (1) the South Lawrence Trafficway (SLT) construction through the Wakarusa Wetlands and its impacts on students and faculty of Haskell Indian Nations University (HINU or Haskell), (2) the Dakota Access Pipeline (DAPL) construction beneath the Missouri River and through the unceded territory of the Standing Rock Sioux Nation, and (3) the opening of the Arctic National Wildlife Refuge to oil exploration and its effect on Alaskan Natives, particularly the traditions and cultural values of the Gwich'in peoples. These were selected in part because they form a representative cross-section of several federal agencies proposing development projects impacting Indigenous communities over the past decade. All three of the case studies demonstrate claims by Indigenous communities who were not adequately consulted and incorporated in the assessment process, nor were the impacts on Indigenous communities adequately represented and assessed. In other words, the Indigenous communities expressed the injustice of each of the project's impacts on the environment, including Indigenous cultures and all their more-than-human relations. Additionally, these case studies were selected because of their temporal significance. The EIAs and EJ analyses were conducted several years apart, which may better illustrate how EJ policy, and its applied context, may differ through time as expanding EJ theory influences policy progression.

Case Study 1: Haskell Indian Nations University and the South Lawrence Trafficway

The proposed rerouting of Kansas Highway 10 (K-10), known as the South Lawrence Trafficway, sparked a decades-long resistance movement in northeastern Kansas. This area south of Lawrence, Kansas is home to the Wakarusa Wetlands, a significant place with its own agency that has nourished, healed, and fostered the needs of numerous Indigenous communities for

centuries (Larsen and Johnson 2017; Martin 1994). Despite the significance of the environment to local Indigenous communities, including Haskell Indian Nations University community members, the Kansas Department of Transportation (KDOT) and the Federal Highway Administration (FHWA) proposed to route a four-lane highway through the wetlands complex in the 1980s. It was the concern of the HINU community that the construction of the SLT and its accompanying pollution (air, water, noise, etc.) would adversely impact the ecological, historical, cultural, spiritual, and academic significance of the wetlands. The proposed construction of the SLT ignored the history of suffering and resilience of Indigenous peoples. In 1884, this land was the site of an off-reservation industrial boarding school for Indigenous youth (Martin 1994). Now recognized as systematic cultural genocide, the U.S. boarding school program was the liberal solution to assimilating, educating, and ‘civilizing’ Indigenous peoples in Western ways of life, including cultivation. To educate in Western-style cultivation, in 1916, the majority of the wetlands on the Haskell campus were drained using a system of levees and canals with subterranean clay-tile pipes and student labor (Larsen and Johnson 2017). The students were then expected to farm the land for over twenty hours per week (Larsen and Johnson 2017). Yet, as Larsen and Johnson (2017, 83) write, “The Wakarusa Wetlands nurtured Indigenous resistance and resurgence among the students.” The Wakarusa floods would often reach the buildings of the campus, damaging the farmland humans tried to replace the wetlands with. Additionally, some students tried to escape the boarding school by fleeing into the wetlands. In some cases, it is said that the Wakarusa is the final resting place for students who died in the early days of the boarding school era (Larsen and Johnson 2017; Martin 1994). Throughout Haskell’s history as a boarding school, the Wakarusa Wetlands stood as a place of refuge and ceremony for many of the Indigenous students trying to maintain their way of life.

They have been a place for healing and renewal. Although most of the Wakarusa Wetlands are not owned by Haskell today, the southern portion of the campus still hosts wetlands, sweat lodges, and a medicine wheel that are used for ceremonies.

The selection of the SLT as a case study has an additional benefit to the aim of this paper as it is what some have called a “zombie” project. The construction of the highway was first proposed during the 1980s, the same time that the EJ movement was gaining momentum. During its first proposal and EIA, the project received considerable opposition, particularly from the HINU community. Only one leg of the highway was completed before the controversy surrounding the section crossing through the Wakarusa Wetlands and the HINU property effectively ended the project. However, a few years later, a new proposal was produced with a slightly different route that still bisected the wetlands but avoided the HINU boundaries, bringing the project “back to life,” so to speak, this time with the U.S. Army Corps of Engineers as the lead federal agency for the project¹⁹ (Kansas Department of Transportation 2002). This second era also saw significant resistance from the Indigenous and non-Indigenous communities, including protests and litigation (Prairie Band Pottawatomie v. Federal Highway 2010). However, the project was eventually approved, and the Kansas Department of Transportation completed construction in 2016. Between the two eras of the project, environmental justice was federally recognized through EO 12898 and other policy reforms. Therefore, this case study can offer some important insight into how this recognition of environmental injustice by the state may have impacted the assessment of environmental impacts on Indigenous communities.

¹⁹ The western portion of the K-10 relocation did not cross through wetlands or HINU property boundaries, so it was less controversial. Therefore, in an attempt to de-federalize controversial segment of the highway (and subsequently null the need for an EIS), the FHWA funding for the project was allocated to the western leg so construction was able to be completed despite resistance. However, because the second era proposal crossed through wetlands it required a permit as enforced by Section 404 of the Clean Water Act, making the USACE the federal agency involved in the assessment.

Environmental Justice

As the earliest and longest-running case study, the SLT environmental impact statements show an interesting progression in the procedural justice element of EJ theory and practice. In the first phase of the SLT protest, the proposed alignment was to relocate K-10 away from the city center but along a route that intersected the southern portion of the Haskell Indian Junior College (later known as HINU) campus. Despite the impacts that the preferred alignment would have on the Haskell community, Haskell was not informed or consulted during the draft EIS (Wildcat 2001; Haines 1997). Thus, Haskell was only mentioned four times in the first environmental impact statement (EIS) of 1990 (U.S. Department of Transportation Federal Highway Administration, Kansas Department of Transportation, and Douglas County, Kansas 1990). The lack of consultation and the incomplete assessment of impacts was an environmental injustice that sparked activism, a response from Haskell officials, and prompted the supplemental environmental impact statement (SEIS) completed in 1995 (Larsen and Johnson 2017). An interdisciplinary team of Haskell faculty, staff, and students created documents that addressed many of the issues originally left out of the EIS, from an Indigenous point of view, as a contribution to the Supplemental EIS (SEIS). This document “reflected the holistic indigenous philosophy of our institution” (Wildcat 2001, 359).

The Haskell community and Indigenous activists successfully conveyed to the state and federal agencies that they would not be ignored. Indeed, the 1995 SEIS included 139 references to the Haskell community. Despite Haskell’s contribution of Indigenous knowledge to the SEIS, many students still believed the SEIS to inadequately address Indigenous spiritual and cultural concerns – hence they created another document addressing Indigenous perspectives on the SLT (Haskell Indian Nations University 1997). In the response, titled *Interconnectedness*, the authors

opposed “any alignment north of the Wakarusa River through the wetlands complex” (Haskell Indian Nations University 1997, 1). The elimination of a “South of the Wakarusa River alternative” from full consideration prompted the Haskell community to deem the SEIS as incomplete because it did not consider a full range of alternatives as required by NEPA. While the completion of the first EIS and the SEIS straddles the time that EJ was recognized in policy through EO 12898, it is not likely that the EO had a significant impact on the shift toward improved justice in the procedural process. The activist efforts from the Haskell community were likely more influential as the EO does little to enforce meaningful public participation which was already a requirement in the first EIS under the provision of NEPA. Therefore, the agencies involved in the project proposal were likely more influenced by the “outsider” tactics of the Haskell community than the incremental changes in EJ policy.

During the second era of the SLT project proposal, the backlash received during the first era impacted the changes made to the 2002 EIS. First, it is worth noting the number of times HINU was mentioned in this iteration of the project impacts grew to a count of 270. Second, the proposed routes were changed to avoid further criticism from the HINU community. The preferred route no longer crossed through the HINU property boundary – although still near the border. Additionally, the other route given greater analysis did not bisect the wetlands and, instead, ran south of the Wakarusa River (Kansas Department of Transportation 2002). The environmental justice analysis in the EIS reflects the early EJ theory emphasis on distributive equity. It uses the state’s definition of environmental justice and, as the EIS states, it follows the guidance of EO 12898 and focuses the EJ assessment on procedure and distribution. The EIS cites that it determined the presence of minority and low-income populations based on census block data, indicating that HINU was the only potentially impacted minority population, with a

total of nine hundred students representing different tribes. However, this quantitative EJ analysis is misleading. By visualizing the minority data through census blocks, the analysis finds that 1 of 21 census blocks are predominately minority, however, this obscures the total minority population (43.5%) in the area. Figure 9 shows alternative visualizations that better depict the presence of minority populations. The collection of public input included the comments provided during the first era of the project, as well as additional comment periods and hearings. The EJ analysis includes quotes and references from the HINU community regarding their concern that the agency-preferred route for the trafficway would adversely impact the ceremonies performed on the southern part of the HINU campus and the wellbeing of the wetlands complex.

Despite the public comments received from HINU community members, the USACE concluded that the same noise and highway-related impacts would affect both the HINU resident population and the white populations in the area, even though the white populations do not perform the traditional ceremonies as HINU members do (Grote 2022). Without evidence as to how the USACE and KDOT drew their conclusions, they state: “The project is not expected to significantly impact the *unquantifiable spiritual connection*, use and/or value expressed by Native Americans regarding the Medicine Wheel, sweat lodges or other areas on the southern HINU campus” (Kansas Department of Transportation 2002, secs. 4–51, emphasis added). Furthermore, in their summary on the EJ analysis, USACE and KDOT state that they considered “all available information” but we argue that it rather seems they considered the available *quantifiable* information (Kansas Department of Transportation 2002, secs. 4–52). In their earlier statement, they specifically refer to the unquantifiable nature of the spiritual connection that HINU members have to the wetlands, medicine wheel, and sweat lodges. This qualitative information was made available to the agencies through input from the HINU community, and

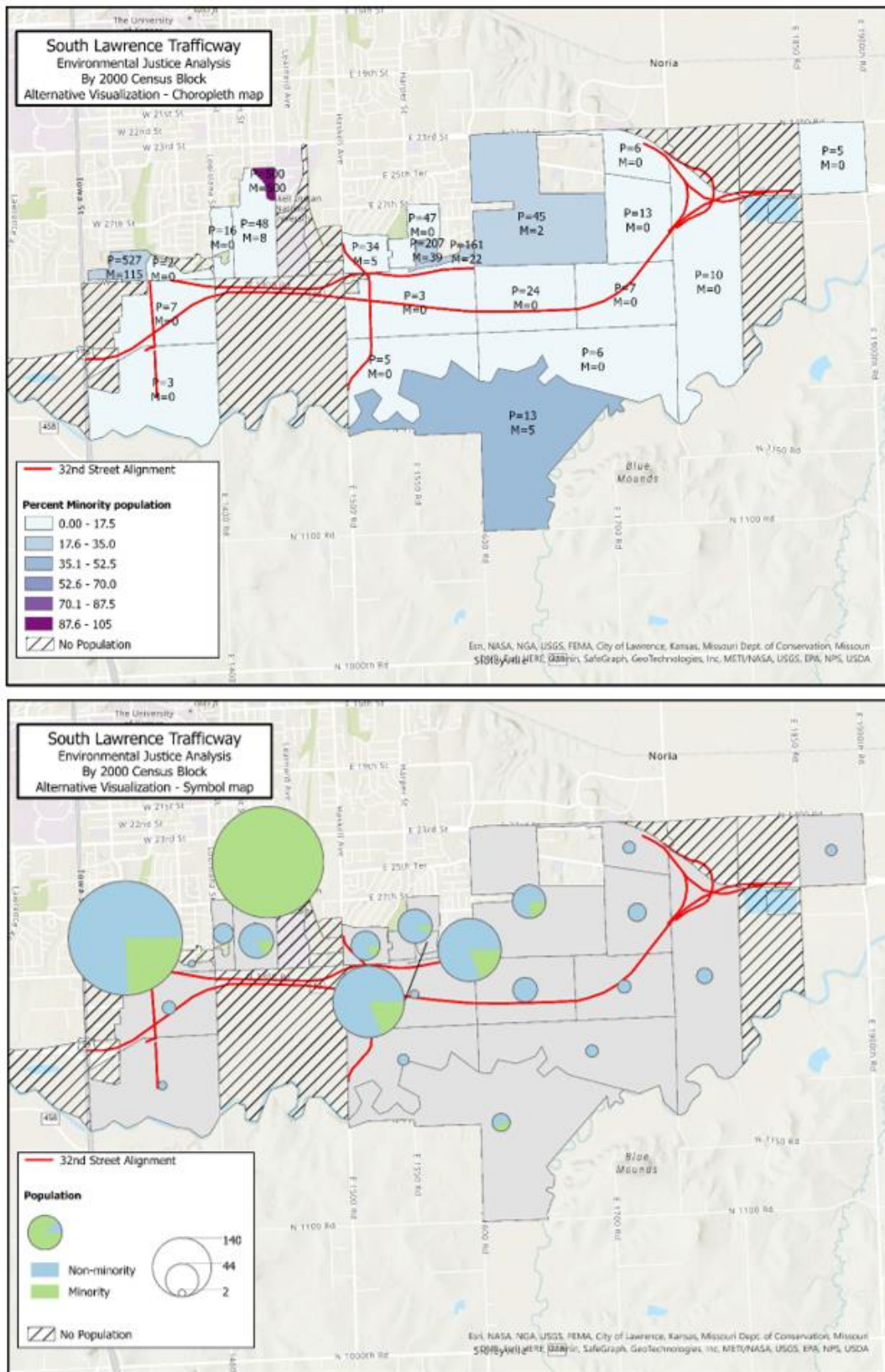


Figure 9: Alternative visualizations of the South Lawrence Trafficway environmental justice analysis

therefore the specific uses of the areas should have determined that the impacts on minority and non-minority populations would not be the same and were, therefore, disproportionate.

Case Study 2: The Standing Rock Sioux Nation and the Dakota Access Pipeline

The construction of the Dakota Access Pipeline, a project of Energy Transfer Partners, incited national and even international attention as an environmental injustice, particularly to Indigenous peoples of the Standing Rock Sioux Tribe and the Oceti Sakowin [oh-CHEH-tee shaw-KOH-we]. In 2015, Dakota Access, LLC proposed constructing a portion of the 1,172-mile pipeline beneath the Missouri River, 0.55 miles upstream of the Standing Rock Sioux reservation boundary and through the unceded territory of the 1851 and 1868 Fort Laramie treaties (Estes and Dhillon 2019b; Grote and Johnson 2021; U.S. Army Corps of Engineers 2016). This siting decision was made after the originally proposed route of the pipeline, which crossed beneath the Missouri River just upstream from the predominately white city of Bismarck, North Dakota, was recognized as a threat to the city's drinking water (Whyte 2017; Lakota Peoples Law Project 2020). This area became a place of Indigenous resistance, as Indigenous peoples, referring to themselves as Water Protectors, created camps near the construction sites to display their opposition to DAPL and its crossing of the Missouri River, or Mni Sose [muh-nee-show-shay], a non-human relative of the Lakota peoples. What began with a few Indigenous peoples trying to protect their community, both human and nonhuman relatives, quickly expanded to a large-scale resistance movement. Solidarity with Standing Rock was shown by non-Indigenous allies as well as Indigenous communities at local, national, and even international scales as the lack of consultation and recognition of Indigenous sovereignty was a well-known experience (Curley 2019).

Unlike Western perspectives that tend to view water as a resource and property, Lakota understand their relationship to water as reciprocal in nature (Valandra 2019). In Lakota culture, Mni Sose is a relative and the Lakota peoples have a responsibility to protect it as an entity of Creation (Wilson and Inkster 2018; Valandra 2016). In the Indigenous resistance against DAPL, the Lakota phrase “Mni Wiconi” meaning “water is life” or more accurately “water is alive” became widespread (Curley 2019). In addition to the protection of non-human relatives, the Standing Rock Sioux Tribe and numerous Indigenous and non-Indigenous allies opposed the pipeline river crossing for a wide variety of reasons – including, but not limited to water security, spiritual significance, and sacred sites, treaty rights, tribal sovereignty and recognition, economic vulnerability, climate change, and present manifestations of colonial history (Grote and Johnson 2021). Despite Indigenous community concerns that both the construction and operation of DAPL would adversely impact their culture and health, as well as the environment and overall wellness of other communities downstream, Dakota Access proceeded with construction after the completion of an environmental assessment, instead of a full environmental impact statement.²⁰ This became a point of contention as the pipeline opposition demanded the completion of an EIS to assess the potential impacts in greater depth. While the pipeline is constructed and operating, in 2020 the District Court for the District of Columbia ordered USACE to prepare an EIS because of the highly controversial effects on the human environment (U.S. Army Corps of Engineers 2020). At the time of writing this manuscript USACE is working on the DEIS and the public release is expected to occur in the spring of 2023 (U.S. Army Corps of Engineers 2023)

²⁰ In the NEPA process, environmental assessments (EA) are created when a federal action does not qualify for a categorical exclusion (CATX) from further NEPA review. In this circumstance, an EA is prepared to determine if the action qualifies for a Finding of No Significant Impact (FONSI) or if it requires a full EIS.

Environmental Justice

Unlike the other two case studies in this article, the impacts of the DAPL project at the Lake Oahe crossing were analyzed through an environmental assessment (EA), which is considered a preliminary assessment document that determines that the impacts are either expected to be significant, therefore, requiring a more detailed analysis through an EIS or if the project can be granted a finding of no significant impacts (FONSI). The determination that an EIS was not needed for the project may, in itself, be considered an environmental injustice against the Standing Rock tribal members as they requested further analysis on the cumulative adverse impacts of the pipeline on the environment and their community (Archambault II and Martin 2016).

The EA cites its responsibility to identify disproportionately impacted communities as defined by EO 12898. Compared to the SLT EJ analysis, the DAPL analysis of EJ impacts at least shows an improvement in the clarity of parameters used in its identification of minority and low-income communities. However, this analysis is not without its flaws. First, the EA considers the affected environment to be within a 0.5-mile radius around the construction site which they state is the typical distance considered for EJ analyses under the Federal Transit Administration and the Federal Energy Regulatory Commission. This area buffer conveniently positions the Standing Rock Sioux Reservation boundary just outside of the area considered part of the affected environment. Additionally, in their analysis of the minority population presence in the affected area, the analysis, citing the 0.5-mile buffer, only considers two census tracts located in two different counties in the affected area, however, it compares this to baseline area data that in addition to those two counties, arbitrarily decides to include the county across the reservation boundary in their baseline area data, even though it lies outside of the 0.5-mile radius and their

analysis does not include any census tracts within that county or on the reservation. This skews their data so that the baseline area indicates a larger minority population allowing them to claim that the census tracts under analysis “have a meaningfully lower minority percentage (29% lower) than the Baseline Area” (U.S. Army Corps of Engineers 2016, 85) and, therefore, that there are no environmental justice concerns to minority populations in the area.

While the pipeline crossing beneath the Missouri River maintained the minimum 0.5-mile distance to mitigate impacts to the Tribe, the Indigenous community of Standing Rock was still required to be considered in the EJ analysis because of their status as a federally recognized Tribe. However, the EA cited the distance from the reservation boundary as sufficient to claim no direct or indirect impacts (U.S. Army Corps of Engineers 2016). However, one of Standing Rock’s numerous concerns with the project was the adverse impacts on their community if the pipeline were to leak into the Missouri River (Grote and Johnson 2021). The EA does not sufficiently assess the risks associated with an oil spill and the fluidity of potential impacts well beyond the established 0.5-mile buffer considered to be the extent of the area affected (Lakota Peoples Law Project 2020).

Case Study 3: The Gwich’in Nation and Oil and Gas Development in the Arctic National Wildlife Refuge

The third case in this research is the opening of the Arctic National Wildlife Refuge (the Refuge), specifically the Coastal Plain region, for leasing contracts to oil and gas companies. At the time of its establishment in 1960, the Refuge was created for four stated purposes: conserving animals and plants in their natural diversity, providing a place for hunting and gathering activities, protecting water in both quality and quantity, and satisfying international wildlife treaty obligations (U.S. Fish & Wildlife Service 2013). Although the refuge has a reputation for

wildlife conservation, Section 1002 of the Alaska National Interest Lands Conservation Act of 1980 also identified the Coastal Plain as an area for oil and natural gas development potential (Bureau of Land Management 2019a). In December 2017, the United States Congress passed Public Law 115-97, also known as the Tax Cuts and Jobs Act, to establish a competitive oil and gas leasing and development program in the Coastal Plain of the Refuge (Bureau of Land Management 2019a). In accordance, the Bureau of Land Management through the authority of the U.S. Department of the Interior began to conduct an environmental impact statement for the leasing program under NEPA regulations.

With a decades-long history of attempts to open the Coastal Plain, there is also a long history of attempts to protect the Refuge and all its inhabitants. In June 1988, a rare gathering of peoples – *Gwich'in Niintsyaa* – from all the Gwich'in communities²¹ was called to address what they could do to maintain their culture and traditional values for future generations. All of the leaders made a promise to protect the calving and post-calving grounds (the Coastal Plain) of the Porcupine Caribou Herd and the Gwich'in way of life (Solomon 2012). From this gathering, the Gwich'in Steering Committee was established to oppose oil and gas development in the Coastal Plain or, in the Gwich'in language, *Iizhik Gwats'an Gwandaii Goodlit* – “The Sacred Place Where Life Begins” (Gwich'in Steering Committee 2020; Banerjee 2012). Despite a long history of opposition to oil development from Indigenous communities, the project was justified, and in fact, required to lease land to oil and gas companies based on the Tax Cuts and Jobs Act of 2017 passed by Congress. The Final EIS for the Coastal Plain Oil and Leasing Program was completed in September 2019 and was considered to have no direct impacts on the environment

²¹ While there are numerous Indigenous communities in Alaska involved in the environmental review, such as the Iñupiat and Inuvialuit, this paper narrows the scope of this case study through a focus on impacts to the Gwich'in communities as they have been prominent actors in the fight against oil exploration in the Refuge through the Gwich'in Steering Committee.

because, by itself, leasing does not authorize on-ground activities related to oil and gas development; however, impacts were indirect because the lease granted the right for drilling and extraction that may adversely impact the environment. Due to the indirect impacts, the Leasing EIS included an analysis of potential impacts from post-lease activities. The Leasing EIS emphasized that it alone did not authorize any activity associated with oil development and that any future exploration would need BLM approval and would need to undergo another environmental assessment process in accordance with NEPA (Bureau of Land Management 2019a). After the EIS was completed, several leases were issued but are currently suspended pending the completion of a supplemental EIS as the record of decision lacked a proper analysis of “a reasonable range of alternatives” (U.S. Department of the Interior 2021). While the SLT case study was selected, in part, because of its two eras which took place before and after the implementation of EJ policy at a national scale, the ANWR case study offers a similar opportunity for future exploration of this research question. Any future EISs produced as provisions of the oil and gas lease agreements may benefit from the preliminary work regarding ANWR environmental justice issues. Therefore, this case study has the potential to provide additional insight into the progression of EJ analyses and Gwich’in’s fight for environmental justice in future work.

Environmental Justice

Compared to the previous case studies discussed in this article, the EJ analysis of the Arctic Refuge case study is the most comprehensive. One notably different component in this EJ analysis is the recognition of climate change as an environmental justice issue. The analysis notes issues like thawing permafrost, reduction of sea ice, and coastal erosion which all impact subsistence activities. While the EIS recognizes climate change as an environmental justice

issue, it does not include a connection with the purpose and need of the EIS. The EJ section of the assessment does not recognize that the establishment of an oil and gas leasing program in the Coastal Plain will result in emissions that contribute to climate change. While scale was used in the DAPL case to avoid comprehensively analyzing the adverse impacts of the project to Indigenous communities, this case study considers a much more expansive spatial scale. EJ analysis focuses on four villages with predominately Alaskan Native populations - Kaktovik, Nuiqsut, Arctic Village, and Venetie. All four villages meet the state established definition of minority populations; Arctic Village and Venetie are also considered predominately low-income populations. Additionally, the analysis is not limited to the Coastal Plain boundary; the BLM recognizes in the analysis that Indigenous peoples and other rural Alaskans rely on subsistence lifestyles that are often dependent on migratory species.

One of the primary environmental justice concerns of the Gwich'in was the adverse cumulative impacts that oil development would have on migratory wildlife like caribou. While many people – including environmentalists, scientists, and others – revere the Refuge for its pristine wilderness and biodiversity, many Indigenous groups have a deeper connection to the territory. The Refuge is of particular importance to the Iñupiat, Inuvialuit, and Gwich'in communities of Alaska and Canada. While the boundaries of several Iñupiat corporations are in closer proximity to the Coastal Plain, the migratory patterns of wildlife, such as the Porcupine Caribou Herd (PCH), tie many communities to the land. In spring, the PCH migrates to the Coastal Plain for calving as the coastal landscape and adjacent foothills and mountains relieve the herd from insect harassment and predators. This article focuses on the input of members of the Gwich'in Nation, who identify as caribou people. In a speech during the 2009 United Nations Climate Change Conference in Copenhagen, Sarah James (Neet'sai Gwich'in, Arctic Village)

stated, “Caribou are not just what we eat; they are who we are. They are in our stories and songs and the whole way we see the world. Caribou are our life. Without caribou we wouldn’t exist” (quoted in Banerjee 2012, 262). The BLM recognizes that development in the Coastal Plain will have “potential lasting adverse effects on cultural practices, values, and beliefs through its impacts on subsistence” (Bureau of Land Management 2019a, 3–283). A sizable portion of the EJ analysis is focused on the economic benefits that the oil and gas development may have, particularly for Kaktovik and other villages located in the North Slope Borough. While the EJ analysis recognizes that development will adversely impact subsistence uses and resources for all the villages, its economic EJ analysis focuses on the benefits of oil development for Iñupiat individuals and communities. The BLM does not explicitly state that the villages least likely to experience economic benefits are the two low-income Gwich’in villages considered in the analysis. Therefore, Gwich’in will experience the adverse impacts related to subsistence activities without the economic benefits to offset these impacts.

The Leasing EIS informed the BLM’s decision regarding the amount of land to lease and the protections to be required in the lease agreements. The BLM chose to offer the entire 1,563,500-acre area for lease with a portion under no surface occupancy (NSO) stipulations and time limitations (Bureau of Land Management 2019a). The BLM recognized that this alternative had the greatest number of adverse impacts on cultural resource sites and the environment. Although the selected alternative was shown to have the greatest adverse impacts, the EIS cites the “substantial protections in the form of NSO and other lease stipulations as well as ROPs that would apply to post-lease oil and gas activities to reduce potential impacts” (Bureau of Land Management 2019a, 2–2) as the justification for their decision. NEPA does not require that agencies chose the least environmentally impactful decisions, instead it is

intended to ensure that agency decisions are *informed* of the direct and indirect impacts of agency actions (Eccleston and Doub 2012). The BLM satisfied the requirements of the Tax Act and established stipulations to lease agreements that they found adequate to justify the approval of the Leasing EIS and the decision to lease the entire Coastal Plain area, despite environmental injustices, particularly for Gwich'in communities. The nuances of appropriately adhering to NEPA requirements were later challenged in court (see Gwich'in Steering Committee v. Bernhardt 2020) and the Department of Interior issued a requirement for a Supplemental EIS. Despite the substantial number of public comments, from Indigenous and non-Indigenous peoples, opposing the oil development because of its adverse impacts on the environment and Indigenous ways of life, the input was not reflected in the record of decision. This case study supports the claims – from activists, scholars, and even state-led reviews of EJ policy in praxis – that procedural injustice persists in environmental decision-making (Council on Environmental Quality 1997).

Discussion

Thus far, this work has analyzed some of the EJ elements present, or absent, in three case studies of environmental impact assessment documents for projects that Indigenous communities stated would contribute to environmental injustices against their ways of life. The selection of case studies that conducted their assessments decades apart was intentional to help clarify how the incremental changes in EJ policy have impacted the consideration of EJ principles in the practical application of environmental impact assessments. The findings above indicate a growing understanding and deeper consideration of EJ, to an extent. For example, the SLT EIS analysis of EJ impacts was comparatively short with minimal, if any, evidence to support its claims that minority communities would not be disproportionately impacted by the project, while

the DAPL and ANWR documents provided much more information on their data collection and measurement standards. Every assessment document references EO12898 in their definitions of EJ, however, the ANWR EIS references other state policy and agency strategic planning documents as establishing the guidelines for the methodological approach to analyzing EJ.

Whereas the DAPL EA goes to great lengths to avoid conducting any comprehensive analysis regarding the impacts on nearby Indigenous communities, the ANWR EIS covers a large swath of land, therefore, considers the unique subsistence patterns for multiple Alaskan Native communities as an EJ issue that may be impacted by leasing for oil and gas development.

Additionally, climate change is recognized as an environmental justice issue in the ANWR EJ analysis. While the detail in each assessment's EJ analysis has a similar trajectory to the progression of EJ principles in environmental policy, the final decision made based on each document does not indicate the same progress for the more transformative goals of EJ as indicated by academics, activists, and Indigenous communities. Therefore, based on our analysis of each case study, while federal agencies have improved their representation of EJ principles in practice, these principles have minor impact on the actual decision-making process and Indigenous peoples still suffer environmental injustices at the hand of the state. Particularly when Indigenous communities assert their right to sovereignty and 'difficult to swallow' concepts, it becomes apparent that federal agencies conduct more thorough EJ analyses to appease the minimum standards of EJ policy and regulation so that they may still maintain their power through institutional oppression.

EIAs are created by state agencies that are often "captured" by their economic, political, and social connection to an industry entrenched in neoliberalism (Cole and Foster 2001; Harrison 2019). Neoliberal policies rely on the exploitation of the natural environment and are

fueled by unsustainable practices. Tuck and McKenzie (2015) describe neoliberalism as closely related to practices of colonialism and, thus, allow them to criticize neoliberalism and its relation to the environment through a decolonization approach. The tendency of neoliberal ideologies to influence governments to favor corporations and economic growth over the protection of the environment and sustainable practices invites criticism by Indigenous communities that aim to protect the environment as a part of their reciprocal relationships and stewardship to non-human beings (McGregor 2004). Indeed, Indigenous resistance to neoliberalism, colonialism, and slow violence is growing in Indigenous resistance efforts and scholarly literature promoting decolonization and post-human perspectives (Fitz-Henry 2020; Arsenault et al. 2019). Neoliberal practices are also woven into the environmental assessment process as development project proponents are generally the ones creating the environmental assessment documents, allowing them the chance to draft them to influence public opinion and government support for development (Arsenault et al. 2019; Grote 2022).

Conclusion

Indigenous knowledge and perspectives on environmental justice have long been identified by Indigenous peoples as a truly productive solution to achieving sustainability – or flourishing, as scholars Ehrenfeld and Hoffman (2013) would say in an attempt to move away from the pseudo-sustainability standards of mainstream rhetoric – necessary to address the climate crisis. The concept of flourishing is not unique as Indigenous communities and scholars have made similar critiques of how Western societies interpret and use sustainability. For example, McGregor criticizes Western sustainability by stating: “The purpose of sustainable development is to enable future generations to continue indefinitely with the same exploitive practices that have caused the problems we face in the first place...In recent times, this growth

has been threatened because environmental resources are running out” (McGregor 2004, 73–74). This concept of sustainability recognizes an unbalance in the world, but its goal is to prolong, not end, the tension between environmental and economic components. In its current form, sustainability does not challenge a paradigm shift of the worldview and practices that have perpetuated climate change (Johnson et al. 2016). Instead of this definition of sustainability, a “cultural climate change” or “a change in our thinking and actions” is needed to mitigate the effects of ecological climate change (Wildcat 2009b, 77). Indigenous knowledge offers the wisdom needed to shift how human beings see themselves in relation to the rest of the Earth. However, Indigenous knowledge and philosophies cannot just be cherry-picked and thrust into a neoliberal and capitalist system that aims to prolong the exploitation of nature and continue harming Indigenous and vulnerable communities. Instead, structural change through decolonization is necessary to move toward true sustainability.

Conclusion: Limitations and Future Work

Throughout my doctoral coursework and research experience, I have gained invaluable knowledge about Indigenous research methods and protocols centered on building meaningful relationships and earning trust. My intent was to use a latent content analysis method to approach two of the articles for my dissertation, analyzing the specific information included (or excluded) in the EIAs regarding Indigenous communities. The third article was intended to solely focus on the Arctic National Wildlife Refuge case study, as it occurred most recently. To engage more fully with Indigenous methodologies and perspectives, I planned to conduct semi-structured interviews with the Gwich'in community members who contributed to the public participation process. While formulating my dissertation research plan, I began drafting a proposal for a Doctoral Dissertation Research Improvement Grant through the Arctic Social Sciences Program at the National Science Foundation as a source of funding to conduct these interviews. However, the Covid-19 pandemic began in the U.S. several months before I completed my dissertation research proposal (November 2020). Therefore, my desire to conduct in-person, community-based research with Indigenous Nations was hindered as it became more important to prioritize the health and safety of the Alaskan Native communities. The drafted grant proposal remains unsubmitted.

As many researchers also experienced, the pandemic required that I pivot from the originally planned approach to my research. While some researchers were able to conduct interviews virtually, this was not a viable option for my research plan as it would not allow me to build meaningful relationships with the Indigenous community members. Instead, I used latent content analysis to approach all three articles of my dissertation. Between the three case studies and the size of each EIA document, I found more than enough data to analyze for my three

articles. While I am guided by the work of many Indigenous scholars, I am aware that the Indigenous perspective is a significant component missing from this research focused on Indigenous representation in EIAs. While this research is intended to bring me to the end of my degree requirements, it is, by no means, the end of my interest in this research topic. I plan to pursue an academic career and will continue researching this topic, including in my position as a post-doctoral research fellow at the University of Denver Interdisciplinary Research Institute for the Study of (in)Equality (DU IRISE). The faculty at DU IRISE have expressed their support for my continued research on this topic and my desire to conduct semi-structured interviews and community-based research in the Arctic. After the completion of my doctoral degree, I plan to revise my draft proposal for the Arctic Social Sciences Program. Considering that the Arctic National Wildlife Refuge case study (and the Dakota Access Pipeline case study) is currently in the drafting and analysis process for a Supplemental EIS, there will still be timely and relevant opportunities to continue conducting research on this case study. While I am interested in continuing my research on this specific topic and these specific case studies, my next position as a post-doctoral research fellow will also allow me to work on other projects that center on community-based research. While it is bittersweet to complete my time at the University of Kansas, I am excited about the support I will receive as a post-doctoral fellow to continue developing my skills and growing as a scholar.

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