

A Confluence of Anticolonial Pathways for Indigenous Sacred Site Protection

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Abstract: The confluence of the Little Colorado and Colorado Rivers is an Indigenous socio-ecological landscape, revolving in large part around water resources. Substantial surface and groundwater use within the Little Colorado River (LCR) basin threatens the water sources of the confluence, springs in the LCR basin, and specifically the Hopi *Sipapuni*—a sacred site of cultural emergence. To address concerns about diminished flows of sacred springs, we engaged in praxis through collaborative, reciprocal, community-based research processes. Through the lens of anticolonial theory, we ask: Can federal policies be employed in an anticolonial pursuit of water and sacred site protection? How do Indigenous grassroots organizers envision protection and work to re-Indigenize water management? Semi-structured interviews with Indigenous community organizers and federal land managers were coupled with policy analysis of the National Historic Preservation Act/Traditional Cultural Properties, the ongoing LCR Adjudication, and the Treaty of Guadalupe Hidalgo. Findings point to multifaceted, complex, and contradictory themes that elucidate the continued influence of colonization on water governance and the degree to which protection solutions can be anticolonial. Criteria were generated for anticolonial protective pathways that highlight the centrality of reciprocal relationships, Indigenous Knowledges, and meaningful inclusion. While details about protection pathways for the confluence and *Sipapuni* are many, the salient finding is that the struggle for water protection in the LCR is the struggle for protection of inherent Indigenous rights.

Keywords: *Indigenous water rights, federal reserved water rights, Little Colorado River Adjudication, traditional cultural properties, National Historic Preservation Act*

The confluence of the Colorado and Little Colorado Rivers (LCR) (hereinafter “the Confluence”) exemplifies Indigenous struggles for water protection across multiple scales. This area is sacred to seven tribes: Hopi, Zuni, Navajo (Diné), Havasupai, Southern Paiute, Apache, and Hualapai. It is a profoundly significant socio-ecological landscape that revolves around water resources. The waters of the LCR basin are considered here as “biocultural” to reflect their inherent interconnectedness as biological and cultural resources (The Center for Sustainable Environments et al. 2002; Maffi and Woodley 2010). Nonetheless, extensive surface and groundwater use within the LCR basin threatens the Confluence water sources, springs in the LCR basin, and specifically the Hopi *Sipapuni*

(also known as *Sipàapu*). In Hopi cosmology, this over 7-meter travertine mound-form spring on the LCR, upstream from the Confluence, is central and sacred as their place of emergence. Beyond its physical dimension, the religious, cultural, and symbolic understandings of *Sipapuni* for Hopi are profoundly complex and diverse (Ferguson 1998). In turn, Hopi relationships with water are intimately related to *Sipapuni* concerns. Hopi elders warn that *Sipapuni* waters are decreasing and it is, therefore, dying. Vernon Masayesva, Executive Director of Black Mesa Trust (BMT) conveys:

Here’s the problem, *Sipapuni* is the umbilical cord to the Colorado Plateau, we call the fourth world. That’s our link. And so *Sipàapu* is slowly dying because of

the diminishing water flow, not only just to surface, but underground rivers, aquifers. There's less and less water feeding *Sípàapu* to keep the heart beating, the heart of the mother earth (Personal communication, February 2019).

Translating the significance of these concerns across cultures and across the divides of colonization is challenging. Masayesva asks, "What would you do if your mother was dying? How would you respond if the Sistine Chapel was burning? If the Garden of Eden was being destroyed? If Jerusalem was demolished?" (personal communication, March 2019). For Hopi, *paatuwaqatsi* or "water is life." Yet current cultural protection and water management policies for the LCR inadequately regulate the hydrologic systems integral to the Confluence and LCR springs. Both historical and contemporary forces of colonization drive these inadequacies. To identify protection pathways for the Confluence, *Sipapuni*, and the LCR watershed, our research is guided by Hopi-led BMT and Indigenous interests within the ongoing LCR Adjudication, and is grounded in anticolonial theory.

The physical Confluence is situated within the bounds of Grand Canyon National Park (GCNP) and Navajo Nation (NN) (see Figure 1). The multi-jurisdictional nature of this territory complicates management, yet it may also provide an opportunity for collaborative and inclusive protection pathways. For now, GCNP and NN do not offer comprehensive protection for cultural sites and attendant waters in the Confluence. Protective measures are further complicated by culturally-constructed definitions of the Confluence's boundaries. Not unlike challenges faced by communities located near other protected areas in the world (Holmes 2014), protecting the Confluence presents a formidable hurdle when boundary definitions vary widely between Indigenous groups and federal land managers. Moreover, Western policies are generally predicated on concrete and bounded definitions of natural resources that are in marked contrast to the holistic or landscape-scale views of natural resources reflected by many Indigenous peoples (Tuck et al. 2014; Berkes 2018).

Restricted by a broader cultural and governance structure not designed to facilitate Indigenous

people having control over their own water or sacred sites, protection pathways still must be forged with the available, imperfect tools. We examined certain tools "at hand" including the National Historic Preservation Act (NHPA)/Traditional Cultural Properties, Federal reserved water rights, and the Treaty of Guadalupe Hidalgo. Ultimately, protection is pursued through multifaceted pathways that follow both state recognition-based strategies (governance mechanisms) and out-of-state community-based strategies (Indigenous grassroots organizing) (Wilson 2014) that influence one another through dynamic responses to the impacts of colonization. While details about water protection pathways are many, these two points are fundamental: water is sacred and the struggle for control of water resources between Western society and Indigenous peoples is the struggle for protection of inherent Indigenous rights.

Background and Theoretical Context

Water-Energy Nexus of the Little Colorado River Basin

Ground and surface water interactions in the lower LCR are an influential, albeit little understood, control on water distributions throughout the basin (Pool et al. 2011). Most groundwater flow likely discharges along the lower LCR reaches as illustrated in Figure 2. Discharges, largely from Blue Springs, come primarily from the Coconino aquifer after downward leakage into the Redwall-Muav aquifer, and make the lower 13-mile reach perennial to the Confluence (Hart et al. 2002). Springs downstream from Blue Springs, such as *Sipapuni*, are more saline and likely derive from a deeper aquifer (L. Stevens, personal communication, May 2019). Significant Western science data gaps exist in understanding the remaining intricacies of LCR groundwater. Consequently, neither the exact source of *Sipapuni's* waters, nor how aquifer changes affect such springs, is known.

Arizona Department of Water Resources' (ADWR) Eastern Plateau Planning Area (EPPA) provides further context. The EPPA is predominately comprised of the LCR watershed and contains only one groundwater basin, the LCR plateau basin. Here, groundwater contributes 61 percent of the



Figure 1. Mines and generating stations in the LCR watershed among a multijurisdictional patchwork of territories including the Hopi and Navajo Reservations and Grand Canyon National Park. (Map by: James Major)

water supply with the industrial sector being the largest user. From 2001-2005, industry accounted for 49 percent of all water demand, two-thirds of which was met by groundwater and used primarily for energy production at the stations indicated in Figure 1 (ADWR 2009). Though tribal lands comprise 63.9 percent of the EPAA, tribal water demand is approximately ten percent of overall demand. This disparity in consumption rates is exemplified by Peabody Western Coal Company (PWCC), which in 1968 began pumping over 3.8 million gallons *per day* from the Navajo aquifer to slurry coal to Mohave Generating Station. Before Mohave closed on December 31, 2005, PWCC pumped approximately 4,400 acre-feet of water per year (AFA).¹ Withdrawal reduced to 1,235

¹ One acre foot of water is approximately 326,000 gallons – this extraction totals over 1.4 billion gallons.

AFA after Mohave closed, continuing to facilitate coal mining for Navajo Generating Station (NGS) until late 2019. For comparison, total annual water demand on the Hopi Reservation is approximately 1,000 AFA (ADWR 2009) or 23 percent of PWCC's historical use.

Due to withdrawals, Navajo and Hopi wells near PWCC mines have declined more than 100 feet and the majority of monitored artesian spring discharges have decreased over 50 percent (NRDC 2001; Stevens and Nabhan 2002). The Navajo aquifer and related spring and wash discharge shows continued evidence of declining integrity (Grabiel 2006; Higgins 2010). Other major industrial users pull from the Coconino aquifer near the LCR headwaters farther south. Cholla, Coronado, and Springerville generating stations pull a combined 36,100 AFA (ADWR 2009) creating cones of depression where aquifer levels have declined

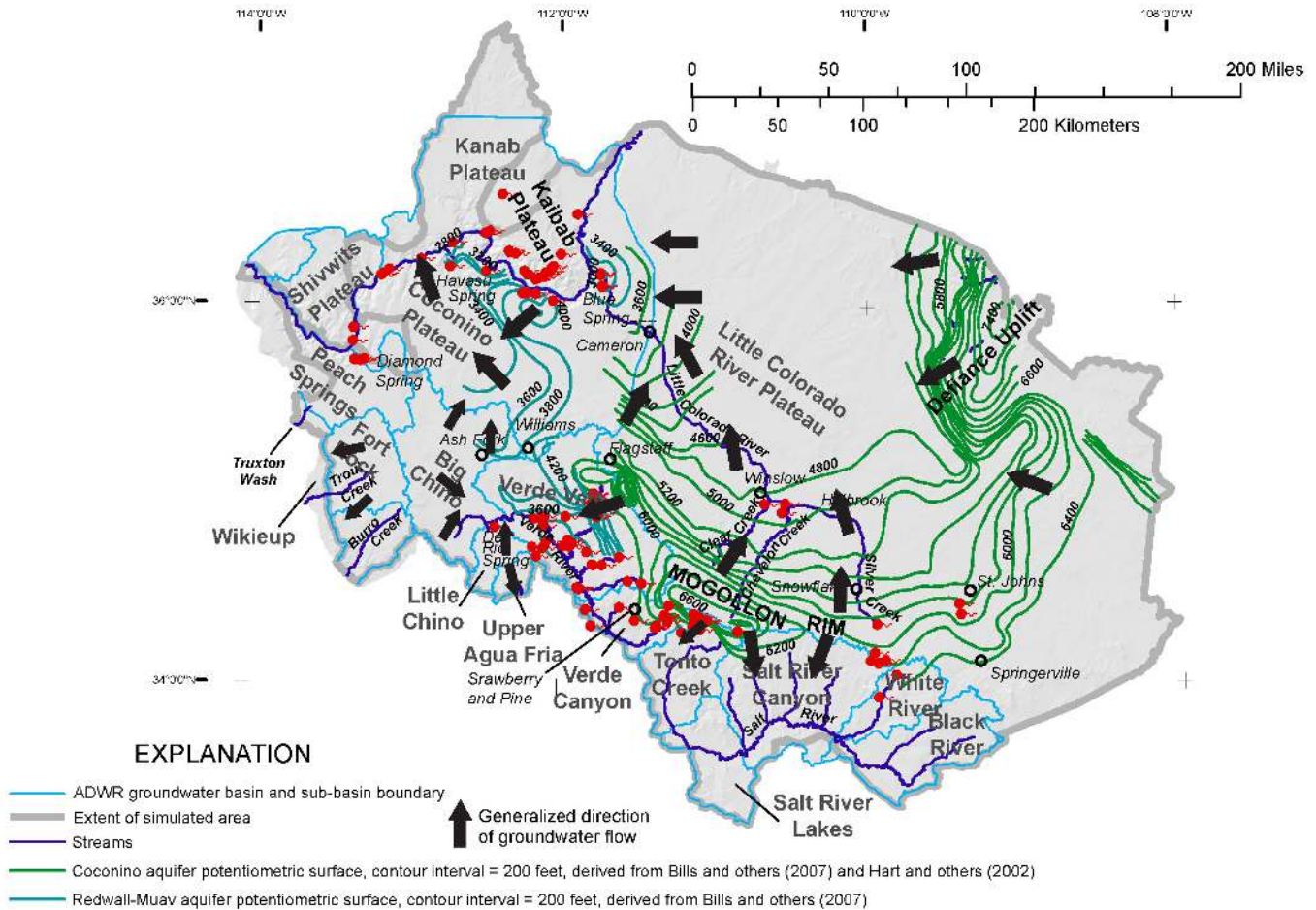


Figure 2. Generalized groundwater-flow system of major aquifers in the Northern Arizona Regional Groundwater-Flow Model study area with red dots indicating springs (Pool et al. 2011, 26).

as much as 100 feet (Hart et al. 2002). Industrial energy production annually withdraws from the Coconino aquifer over seven times the amount of water that the nearby City of Flagstaff withdraws to meet demands for 71,000 people (CPTAC 2016). Current and future water demand in the southern portion of the LCR watershed (i.e., ADWR’s “East Plateau” planning area) is of vital concern, given that combined projections for energy production water use total between 100,000 and 155,000 AFA by 2060. All uses will continue to rely on groundwater through this period (ADWR 2014, 3), thus further stressing the resource.

The primary groundwater management policy in Arizona is the 1980 Groundwater Management Act. The Act established “Active Management Areas” (AMAs) to regulate withdrawals from certain aquifers of concern but does not apply to the LCR basin (except for the Joseph City Irrigation

Non-Expansion Area). In fact, many municipalities located in AMAs (e.g., Phoenix) reduce their groundwater reliance by accessing Colorado River water via the Central Arizona Project (CAP) canal, which was conveyed by power generated by NGS until November 18, 2019. The coal to fire NGS was mined via withdrawal of the Navajo aquifer within the LCR basin. In short, the access Arizona, California, and Nevada have had to cheap water and power has been unjustly subsidized by Indigenous peoples’ water, land, and health. This exploitation proves highly consequential for Indigenous cultural renewal in the LCR basin.

Colonial Legacies, Legal Confluences, and Anticolonial Theory

Colonialism—more accurately understood in the U.S. as settler colonialism—is a complex and ongoing system of oppression with well documented

structures and impacts (e.g., Wolfe 2006; LeFevre 2015; Kēhaulani Kauanui 2016; Whyte 2017). Contemporary manifestations of colonization are also referred to as neocolonialism (Rossiter 2004). For simplification, we use “colonization” or “colonialism” to refer to historical and ongoing colonial actions of the U.S. as a settler state to occupy, control, and exploit Indigenous lands and people. For Indigenous peoples, Alfred (2017) explains, “The essential harm of colonization is that the living relationship between our people and our land has been severed” (11).

Colonization of present-day northern Arizona dates from the invasion of Spanish conquistadors into the Americas during the mid-1500s. As with many Indigenous lands around the globe, colonial acts of territorialization created and re-created reservation boundaries constricting, changing, or outright destroying access to homelands and sacred sites (Lindford 2000; Whiteley 2008). In the endless attempt to control and exploit Indigenous lands, colonialism also drives water, mineral, and other natural resource extraction (McCool 2006; Whyte 2017; Powell 2018; Yazzie 2018; Gilio-Whitaker 2019). Such industrialization degrades water, air, plant, animal, and human health on Indigenous lands (Benson 2012; Colombi 2012; Vogel 2012; Taylor 2014; Montoya 2017; Berry et al. 2018; Bair et al. 2019; Estes 2019). Colonization, in the name of conservation, also created National Parks (e.g., GCNP) and other land management boundaries, dispossessing Indigenous people from their lands for the strange concept of nature untrammelled by humans (Smyth 2002; Guyot 2011; Kelly 2011; Sletto 2011; Stevens 2014). Colonialism renamed Indigenous sites with the names of invaders (Lindford 2000; LaDuke 2005) while colonial “mentalities” were made manifest in dominant Western epistemologies and socioeconomic policies (Dongoske et al. 2008; Tuck et al. 2014; Black and McBean 2016; Dongoske and Curti 2018).

In association, self-determination, autonomy, and sovereignty are employed here to refer to the *inherent* rights to self-governance, independence, and freedom (Alfred 2001)—including the inherent right to make decisions about traditional waters and lands (Wilson 2014). Broadly, sovereignty is a complicated term (Wilson 2014)

and should be understood as pluralistic. In the classic sense, sovereignty refers to self-rule by people in a specific territory (Agnew 2009). However, the legal understanding and application of tribal sovereignty is convoluted in practice in the U.S. (Wilkinson 1988). Tribal sovereignty is legally complicated by the Trust Doctrine which established U.S. guardianship, trustee, and fiduciary responsibilities towards tribes (*Seminole Nation v. United States* 1942; Miller et al. 2012). In other words, there is constant tension between legal notions of sovereignty and tribes’ inherent rights of self-determination and autonomy. Effectively, tribal sovereignty can be understood as a continual process achieved through both state-recognition *and* Indigenous community-based mechanisms (Simpson 2011; Wilson 2014; Barker 2017).

Anticolonial theory lays the groundwork for addressing the social and ecological devastation caused by colonization. The value and epistemological orientations of critical theory within a localized context guide anticolonial analyses (Denzin and Lincoln 2008; Tuhiwai Smith 2012). Anticolonial theory categorizes a broad scope of work to rectify the harms of colonization while not diluting the more specific objectives of “decolonization”—understood here specifically as physical land repatriation (Simpson 2004; Unsettling Minnesota Collective 2009; Tuck and Yang 2012; Patel 2014; Dhillon 2018). A universally agreed upon definition does not exist for anticolonial theory and decolonization is often used synonymously; however small a semantic difference (which is an ongoing scholarly debate [e.g., Daza and Tuck 2014]), we utilize “anticolonial” because it is a more appropriate term in this research, given it does not explicitly address physical land repatriation—though arguably that is the ultimate protection pathway. Here, anticolonial theory is understood as a continuum of ways to challenge dominant colonial systems of oppression. Within the context of our study, this continuum includes deconstructing colonial mentalities, incorporating Indigenous Knowledges (IK), building inclusive decision-making processes, and adapting colonial policies to recognize and protect inherent Indigenous rights to land and water.

In addition to anticolonial theory, “re-Indigenizing” and Critical Indigenous Research Methodologies work to *restore* Indigenous approaches to change and research (Denzin and Lincoln 2008; Brayboy et al. 2012; Eyers 2017; Lemley 2018). The “Four Rs”—relationships, responsibility, respect, and reciprocity—guide human, physical, and spiritual world interactions (Kirkness and Barnhardt 1991; Brayboy et al. 2012). Re-Indigenizing and Critical Indigenous Research Methodologies are important *restoration* frameworks for building protection pathways, and provide depth to anticolonial theory.

This research is a case study centering Indigenous water protectors’ concerns within the LCR, while simultaneously exploring the limitations and potential for federal governance pathways to address those concerns. Indigenous Knowledges (LaDuke 1994; Houde 2007; Whyte 2017; Berkes 2018), understood as knowledge-action-value-spiritual constructs, provide a lens for valuing Hopi elders’ concerns about *Sipapuni*’s diminishing water *and* the principles of protecting *Sipapuni*, the LCR basin, and, consequently, people in the region. Against this backdrop, the questions remain: Can federal policies be employed in an anticolonial pursuit of water and sacred site protection? How do Indigenous grassroots organizers envision protection and work to re-Indigenize water management?

Methods

This research was in response to a request from BMT for support in pursuing protection for the Hopi *Sipapuni*. Our objectives were to bring research capacity to BMT, support their advocacy work, and to contribute to a broader coalition of efforts to protect the Confluence and LCR. We have been honored with relationships with specific Hopi and Diné activists and the primary objective of the research has been to be accountable to those relationships. Thus, while the relationship between research and activism is not easy (Tuhiwai Smith 2012), praxis is central to this work. Praxis, articulated by a long line of scholar-activists (Freire [2000] most prominently), connects theory, practice, reflection, and a moral framework of liberation. We intentionally pursued praxis through

collaborative, reciprocal research processes while “sharing back” in culturally appropriate and accessible ways (Tuhiwai Smith 2012, 16).

To answer the research questions, we intersect critical qualitative interview methods with policy/law analyses to engender a greater understanding of extant protection pathways and ways in which those pathways align—or not—with Indigenous water protectors’ visions and values regarding *Sipapuni* and the Confluence. Interview subjects came from four groups: 1) Indigenous community organizers (n=6) working to protect the Confluence region through community-based organizations BMT and Save the Confluence; 2) Federal agency employees (n=3) from GCNP, the United States Geological Survey (USGS), and the Bureau of Reclamation (BOR), engaged in Confluence related work; 3) Cultural resource management experts (n=4) from Grand Canyon tribes; and 4) a Grand Canyon springs expert (n=1). All interviews were voluntary, conducted in Flagstaff, and followed requisite Institutional Review Board protocols.

Interviews were based on Carspecken’s (1996) Semi-Structured Interview Protocol and lasted between 60-150 minutes. A set of 15 questions was asked concerning: 1) the significance of various water resources in the Confluence region; 2) threats to these resources; and 3) policy options for protecting water resources. By eliciting narratives of experiences with water advocacy, policy, colonization, and the complexities therein, interviews with Indigenous water protectors and federal agency employees enable the integration of multiple perspectives and the description of processes (Weiss 1995). Numerous follow-up communications occurred for continued clarification and verification. Interviews and notes were coded using NVivo Qualitative Data Analytic software, revealing two dominant themes summarized in Figure 3. Using Carspecken’s (1996) Systems analysis, these emergent themes were then analyzed using anticolonial theory as the macrolevel social theory to better understand the systemic dimensions of the interviewees concerns.

Interview Findings: Perceptions of Problems and Solutions Interwoven with Policy

The two themes emerging from interviews centered on “threats” and “protections” to the

Perceptions of colonialism's impacts and threats to the Confluence	Western "bordered" sense of land and water devoid of spiritual meaning
	Western science hegemony in federal management of land and water resources
	Treatment of water as a commodified property lacking spiritual/cultural purpose
	Hopi and Navajo Nation (Diné) tensions stoked by colonial territorialization
	Hopi Tribal Council seen as a Neocolonial government
	Unsustainable and unregulated groundwater withdrawal in the LCR basin
Strategies for Confluence protection	Relationship building between tribes, NGOs, agencies, and stakeholders
	Advocating for inclusion of Indigenous Knowledges (IK) in resource governance
	Invoke federal trust duty to protect resources vital to a permanent homeland
	Strategic adaptation of colonial policies to achieve anticolonial protections

Figure 3. Both problems and solutions for Confluence governance emerged from interviews.

Confluence, LCR, *Sipapuni*, and water. The first theme concerns how colonization has shaped over time the degradation and continued threats to the Confluence through Western science, boundary making, driving tensions between Indigenous groups, installing puppet governments, and exploiting groundwater for capital gains. The second theme concerns developing protection strategies through relationship building, incorporating diverse perspectives in governance, taking responsibility for duties, and reframing policies for anticolonial protections.

Broadly, the interviews emphasized relationships, responsibility, respect, reciprocity, accountability, and centering Indigenous ways of knowing in ways consistent with the literature on re-Indigenizing and Critical Indigenous Research Methodologies (Kirkness and Barnhardt 1991; Denzin and Lincoln 2008; Brayboy et al. 2012; Eyers 2017; Lemley 2018). Prioritizing relationships and connection can be interpreted as a distinct anticolonial strategy countering colonization's fundamental goal of disconnecting people and place (Alfred 2017). Moreover, the interviews articulate why colonization makes water resource protection so complicated on Indigenous lands. In the following section, quotes from interviews are woven throughout the policy analysis to further illustrate the two themes.

Policy Findings: Limitations and Potential for Anticolonial Pathways Towards Protection

While many extant policies could be considered in this study, those we analyzed were selected due to Indigenous priorities that manifested in

the interview sub-theme *strategic adaptation of colonial policies to achieve anticolonial protections*. As Save the Confluence community organizer Sarana Riggs reflected, "When you're looking at protection, you've got to see what you have *at hand* already. And, who are the players, who are the people involved who make it happen... [and] it's not just policies and laws but an uplift of song and prayer that gives these sacred places needed voices" (personal communication, March 2019). Thus, we examined three policies repeatedly referenced in interviews: the NHPA and Traditional Cultural Property/Place, Federal Reserved Water Rights, and the Treaty of Guadalupe Hidalgo.

The National Historic Preservation Act and Traditional Cultural Property/Place²

In 2011, the BOR and State Historic Preservation Officer determined the "Canyons from Glen Canyon Dam to River Mile 277 (i.e., GCNP), and the lower gorge of the LCR, are a rim-to-rim, National Register of Historic Places eligible site as a Traditional Cultural Property/Place (TCP) under Criteria (a), (b), (c), and (d)" (USDOI 2018, 8). In fall 2018 the BOR, as lead federal agency for Glen Canyon Dam management, released its Historic Preservation Plan (HPP) to comply with the NHPA

² In the NHPA, TCP refers to "Traditional Cultural Property." However, in this research TCP will refer to "Traditional Cultural Place." According to Joe et al. (2002), "'Properties' connotes non-Indigenous concepts of land ownership, rather than stewardship rights and privileges held in common, with inherent obligations to past and future generations" (69). Replacing "Property" with "Place" is an important distinction.

(USDOJ 2018). The HPP includes and concerns the Confluence and *Sipapuni* and stands as the most current articulation of the NHPA applied to this region. Figure 4 summarizes both the potential and challenge of using these policies in anticolonial protection framings for the Confluence.

Critical anticolonial analysis of NHPA and TCP reveals the policy often favors both federal control and Western science by emphasizing archeological “mitigation” instead of cultural preservation that considers intangible/associative values and affects (K. Dongoske and M. Yeatts, personal communications, March/April 2019). In the case of *Sipapuni*, its death can be understood literally (physical-state) or metaphorically (culturally-informed concerns about its health).

While the HPP seemingly has anticolonial dimensions in prioritizing tribal consultation and inclusivity in decision-making, interviewees recognize a duality here in that any claim of harm must be proven by definitive Western science hydrology and monitoring—data which are currently nonexistent. Moreover, at present it is difficult, if not impossible, to make distinctions between natural and human generated impacts to *Sipapuni*. Policy analysis of the HPP reveals it is possible for the BOR to fund *Sipapuni* water

monitoring. However, by the time groundwater withdrawal impacts are documented in a definitive “scientific” way, damage to aquifers and springs will likely be irreversible. Hopi and Diné have already seen how the arch of “objective” science bends to political pressure, in the decimation of the Navajo aquifer by PWCC (Nies 1998; Grabiell 2006). It is a repetitive story: those who bear the greatest burden also bear the burden of proof (Taylor 2014).

Further TCP analysis suggests this policy designation better reflects IK perspectives but is no magic bullet for protecting sacred places. TCP limitations partially derive from delineating protective boundaries. While tribes make the documentation for site eligibility, the State Historic Preservation Officer and BOR must agree with their suggestions. Leigh Kuwanwisiwma, who served as Director of the Hopi Cultural Preservation Office for 30 years explains, “With the many sites that we have, it’s hard for us to put boundaries around sacred sites” (personal communication, December 2018). Similarly, Riggs articulates:

“You can’t rate sacred on a scale from 1-10 in Diné perspective. The Confluence is not just one aspect of one place to be saved or

Potential as Anticolonial Pathway	Challenges as Anticolonial Pathway
BOR considers <i>Sipapuni</i> and LCR as eligible TCPs and manages these sites accordingly	NHPA & TCP status do not guarantee protection, only a review of federal actions
HPP attempts to incorporate IK perspectives to reflect holistic recognition of water/land and recognizes IK as equal to Western knowledge (USDOJ 2018, 8)	HPP concerns the Confluence region but whether BOR’s management of Glen Canyon Dam affects <i>Sipapuni</i> is not established
Considers “intangible” or “associative” cultural values and impacts (e.g., spiritual, emotional, psychological)	Agencies often deprioritize intangible associations with TCPs while still checking the NHPA “compliance” box through physically-biased archeology methods
Facilitates inclusive process for documenting sacred sites while considering cultural sensitivity in publicizing information without affecting site eligibility	Analysis of NHPA’s protection discourse versus its actions is necessary—the degree to which protection is implemented is contextual and inconsistent
HPP addresses “boundaried” issues of TCPs in the Confluence region through adaptability/flexibility	Neither the NHPA nor TCP status effectively address broader LCR watershed governance concerns
TCP designations have an important role in strategic, protective policy layering (i.e., TCPs are basis for greater protection)	<i>Sipapuni</i> and the LCR have TCP eligibility documentation from Hopi and Zuni but the State Historic Preservation Officer still has to concur with nominations

Figure 4. Relevance of NHPA & TCP designation to Confluence and *Sipapuni* Protections.

preserved or protected. There's more to it than just that one area. That's one, basically, one grain of sand. There's a whole list of things that need to be protected, preserved, educated, all of that is Grand Canyon above and below" (Personal communication, March 2019).

Though tribes and agencies increasingly do agree on which sites should be protected, the final decision-makers are nonetheless colonial entities, demonstrating the dominance of colonial decision-making powers. Thus, compliance with NHPA via the HPP is one viable but incomplete policy option for protection of this region. At best this designation protects sites from federal actions and can be used in the layering of other policies; at worst TCP is a kind of tokenism and detraction from future protection efforts because a site is seemingly already protected. To engage this policy in anticolonial ways, Indigenous water protectors can increasingly collaborate with federal agencies to pursue groundwater studies of the lower LCR and *Sipapuni* while also reaffirming the importance of intangible values in site selection and protection.

LCR Adjudication, Federal Reserved Water Rights, and the Treaty of Guadalupe Hidalgo

Paramount in addressing interviewees concerns is a review of *In re the General Adjudication of All Rights to Use Water in the Little Colorado River System* (hereinafter, "LCR Adjudication" or "the Adjudication") in which the Apache County Superior Court of Arizona determines surface water rights to the LCR. Groundwater pumping affecting appropriable baseflow contributions to the LCR is also taken into consideration (ADWR 2009). The Adjudication has monumental implications for the LCR basin, and arguably for the availability of water at the Confluence and for *Sipapuni*. In 2016, the *Navajo-Hopi Observer* reported "over 3,100 claimants have filed more than 11,300 claims in the case" (Hopi and Navajo continue fight for water rights, para. 7) including the United States, the Hopi Tribe, NN, Flagstaff, Winslow, Holbrook, Show Low, Snowflake, Springerville, and St. John. Claims also include industrial interests such as Salt River Project and Arizona Public Service as well as numerous individual, farm, and ranch claims

(Laban 2018). *In re Hopi Tribe Priority (CV 6417-201)* is a sub-trial to determine the Hopi Tribe's rights to the LCR.

The Hopi Tribe has federal reserved water rights, or *Winters* rights (*Winters v. United States* 1908), that reserve the right to water necessary to fulfill the primary purposes for which a reservation was created (Anderson 2015). The Hopi Tribe, and the U.S. on behalf of the Hopi Tribe, argue that *Winters* rights can apply to water sources not appurtenant to current reservation boundaries (e.g., the LCR, *Sipapuni*) if necessary for the purposes of providing a "permanent homeland."³ Masayesva states, "Hopi cannot be sustained as a permanent homeland when the roots (i.e., *Sipapuni*) are severed" (personal communication, March 2019). As the Hopi place of emergence, *Sipapuni* protection is essential to the permanent homeland promise, yet limited precedent exists for such claims (Nania and Guarino 2014). While reserved rights claims can be made in the LCR Adjudication for cultural, ecological, and instream-flow uses (i.e., non-consumptive uses), including a water right related to *Sipapuni*, it is difficult to reconcile IK with Western water law quantification requirements.

In December 2015, ADWR completed the "Final Hydrographic Survey Report for the Hopi Indian Reservation" (ADWR 2015). The report is being used in the related sub-case *In re Hopi Reservation HSR (CV6417-203)* to address Hopi and U.S. water rights claims on behalf of the Tribe, including claims for "a non-diversionary right for instream flows in the lower Little Colorado River" (Ibid, 4-39). Treating water as a quantifiable "property right," however, is difficult for Hopi, who understand water as fundamentally sacred. This fact begs an important question: Can sacred waters for sacred places be quantified? Most IK frameworks would say no. One Hopi water protector explains:

"When I think about water rights, I think to myself that it's not about the Hopi Tribe

³ In 2001, the Arizona Supreme Court in *In re General Adjudication of All Rights to Use Water in the Gila River System & Source (Gila V)* determined that the purpose of reservations was to establish a "permanent homeland."

having actual water rights on paper, it's about letting the water flow freely back down to where *Sipapuni* is....I'm not saying let's take all the water from these cattle ranchers and all these people who need water down there, or further up, but we have to think in a positive way to where we can work together...how can we get water guaranteed to *Sipapuni* forever, down there, because she's entitled to it. This is her water, not theirs" (Personal communication, November 2018).

In the Adjudication, the Hopi Tribe did not specify a quantity of water necessary to sustain *Sipapuni*. In response, ADWR did not propose a related water right (Ibid, 5-8) and, therefore, the Adjudication is currently not considering Hopi claims to waters in the lower LCR gorge or to *Sipapuni*.

Cultural and/or ecological instream flow claims could still potentially be amended to secure a reserved water rights solution for the Confluence and *Sipapuni*. For instance, prioritizing relationship building and reciprocity could lead to a combined claim by Hopi, Navajo, and other federal reserved water rights holders (e.g., GCNP and National Forests). Arguably the largest barrier to such a joint claim would be overcoming NN's opposition to LCR claims by Hopi, a point explained in further detail below. However, even if such a water right were to be allocated, the lack of hydrologic data still impedes the allocation of a quantifiable instream flow. Here, the dominance of Western science sustains colonial power via Western water law. While federal reserved water rights may sometimes achieve anticolonial ends (e.g., prioritizing tribal water rights with senior priority dates over states) it does so through colonial means and reaffirms the role of state governments to "give" rights. In this light, federal reserved water rights are perhaps the most powerful tool for securing tribal water rights and for denying them. Ultimately, they remain an invaluable tool for tribes (Getches 2005). However problematic or ineffective water rights may be, possessing a federal reserved right would give Hopi agency in LCR decision-making. Otherwise, without a claim, Kuwanwisiwma lamented, "The LCR Adjudication is going to erode our sovereignty more" (personal communication, December 2018).

Among BMT and other Indigenous water protectors, strong hope centers on the Treaty of Guadalupe Hidalgo⁴ (hereinafter, the "Treaty") as a stronger legal path for tribal claims to the LCR than federal reserved water rights. While the use of the Treaty would be problematic at best as an anticolonial approach—using one colonizer's structure against another's—this strategy provides another example of employing state recognition-based mechanisms. Based on Aboriginal water use, the Treaty's Article VIII protections, and precedents for Pueblo water rights in New Mexico, the Hopi Tribe has argued for a "time immemorial" priority date to rights in the LCR (Clare and Mentor 2012). The fact the Hopi Tribe never signed a treaty with the U.S., but instead had Reservation boundaries imposed in 1882 by Executive Order, bolsters validity to the argument of using the Treaty's articulation of Hopi rights. However, the Treaty's boundary description of Hopi (*Moqui*) territory was vague, and unlike other Pueblo lands, there was no specific *Moqui* land grant from Spain (Kessell 2010). Nevertheless, substantial evidence exists (e.g., Whiteley 2004; Adams 2007) of historic LCR use by the Hopi, especially ranging from its confluence with the Rio Puerco to that of the Colorado. In fact, Homolovi State Park's ancestral Puebloan ruins are recognized primarily as Hopi sites; the Arizona state park *abuts* the

⁴ Present-day northern Arizona came under Mexican rule after the United States of Mexico won its independence from Spain in 1821. Shortly thereafter, the ensuing Mexican-American War (1846-1848) was ended by the Treaty of Guadalupe Hidalgo and Mexico ceded most of the present-day southwest U.S., including the vast majority of Arizona. Signed in 1848, the Treaty transferred citizens' rights held under Mexico to the U.S. Articles VIII and IX required that "property of every kind...be inviolably respected" for Mexican citizens who remained in the now U.S. territory, including Indigenous peoples (Treaty of Guadalupe Hidalgo 1848). Both Mexico and Spain had paternalistically treated tribes as a protected, legal minor status. Generally, the Pueblos' rights, as regionally-established and agricultural cultures, were favored over nomadic non-Puebloan rights (Whiteley 2004; Kessell 2010). Consistent with its treatment of other treaties, the U.S. did not honor many components of the Treaty, including continuing to consider Indigenous people U.S. citizens (which did not happen until 1924).

LCR. Notwithstanding, the courts fail to recognize Hopi priority rights to the LCR.

A pivotal decision for both the *Priority* and *HSR* subcases came in 2009 when Judge Ballinger decided the Hopi Tribe did not have a right to LCR water sources “that neither abut nor traverse Hopi lands” (Minute Entry, March 2, 2009 in CV-6417, as cited in Report of the Special Master Regarding LCR Coalition’s Motion 2017, 2). Despite being contested, the Court continues to uphold the decision. These decisions are based on colonial reservation boundaries that siloed the Hopi on an island within NN and gave NN jurisdiction over *Sipapuni*. Consequently, any action concerning *Sipapuni* requires NN permission. Ballinger’s decision ignores the fact that Hopi are original LCR users whose traditional homelands “abut” the LCR. Hopi interviewees expressed that not having jurisdiction over their most fundamentally sacred site is disturbing and unjust and contributes to tensions between Hopi and NN. This scenario is indicative of colonial territorial acts that divide Indigenous groups to maintain control. Figure 5 highlights the key points the court “Special Master” used to rationalize the denial of Hopi water rights.

The Special Master’s first point is key and refers to the 1976 Indian Claims Commission settlement in which the Hopi Tribe received \$5 million from the U.S. in remuneration for 4 million acres of lost (i.e., taken) Aboriginal lands. In the LCR Adjudication, the Court maintained that “acceptance” of the 1976 settlement

extinguished Aboriginal land and water titles. However, interviewees described the settlement as an imposition of a neocolonial, undemocratic government in order to support the colonial state and market. At the time of the settlement, the Hopi Tribal Council severely under-represented the autonomous Hopi villages (ILRC 1979). Five times the number of Hopi who voted for the settlement petitioned against accepting money in exchange for taken lands. Further, the Tribe’s attorney, John Boyden, was known as a controversial figure in land settlements and partitions that paved the way for mining leases—not land repatriation or “just” compensation (Nies 1998; Wilkinson 2004). Ultimately, the Hopi Tribal Council tabled acceptance of the award and, aside from Boyden paying himself 10 percent (\$500,000) of the settlement, the money was never used, for fear of legitimizing the “sale” of Aboriginal titles (ILRC 1979; Clemmer 1995; Nies 1998; Whiteley 2008). Whether the settlement amounted to a technical “sale” of land (or not) is a remaining legal uncertainty and one that begs the question of whether Aboriginal title was ever extinguished.

Nevertheless, Judge Ballinger’s 2009 decision dismissing Hopi claims was upheld again on August 24, 2017 (Report of the Special Master Regarding LCR Coalition’s Motion 2017, 11). This time, the Special Master affirmed the decision based on a broad coalition’s motion to deny the Hopi Tribe’s claims. The coalition entities include: the LCR Coalition (a coalition of cities, ranches, and water districts within the LCR watershed), City

Special Master Key Points on Hopi Rights to LCR
Hopi hold time immemorial water rights only within Land Management District 6 and excludes such rights on other tribal lands within the 1882 Executive Order Reservation or Moenkopi Island. The extinguishment of Hopi’s Aboriginal title, as determined by the Commission, terminated Aboriginal water rights to those lands.
Hopi do not hold water rights with a priority date of 1848 as a result of the Treaty of Guadalupe Hidalgo, 9 Stat. 922 (Feb. 2, 1848). The Treaty did not create or establish water rights but protected existing property rights within the lands acquired by the U.S.
Hopi Tribe holds an implied reserved water right with a priority of December 16, 1882, to the Hopi Partitioned Lands within the 1882 Executive Order Reservation. President Chester A. Arthur’s Executive Order of December 16, 1882, impliedly reserved water for the Hopi Tribe.
The Hopi Tribe holds an implied reserved water right to Moenkopi Island with a priority of June 14, 1934, pursuant to the Act of June 14, 1934, 48 Stat. 960.

Figure 5. Findings of the Court re: Hopi Priority (Report of Adoption 2013, 4).

of Flagstaff, Salt River Project Water Agricultural Improvement and Power District, and the NN. The decision was upheld again on March 11, 2019.

The 2009 decision and subsequent confirmations are prime examples of Western water law functioning as a colonial tool to territorialize water resources. A different ruling seems highly unlikely within the Superior Court, as that would constitute a horizontal appeal. If this decision is appealed to higher courts, it is unclear whether the Hopi priority date and territorial boundaries could be argued differently. While the priority date will predate most other claims regardless, Hopi land boundaries are drastically different when viewed through the lens of Aboriginal lands (Figure 6), historical treatment under Spain and the Treaty of Guadalupe Hidalgo, or the 1882 Executive Order. Based on court precedent, the Claims Commission “extinguishment” of Aboriginal entitlement seems

unlikely to be overturned, but the settlement’s validity urgently needs further legal research, as it determines Hopi’s place in the present-day LCR Adjudication. If denial of any legal right to LCR waters continues when water rights are the primary mechanism for “ownership,” what legal recourse will Hopi have if and when the waters of the LCR continue to run dry? If *Sipapuni* continues to diminish? The answer is very little.

Beyond the court rulings, to some Hopi interviewees the continued illegitimacy of the Hopi Tribal Council is still of concern. They described how the present-day Council does not respect or include religious elders, does not represent a majority of villages (only 5 of the 12), and is distorted in its decision-making by a government budget generated from mining royalties. In contemporary efforts to be ostensibly fair and equitable, the U.S. created a policy of government

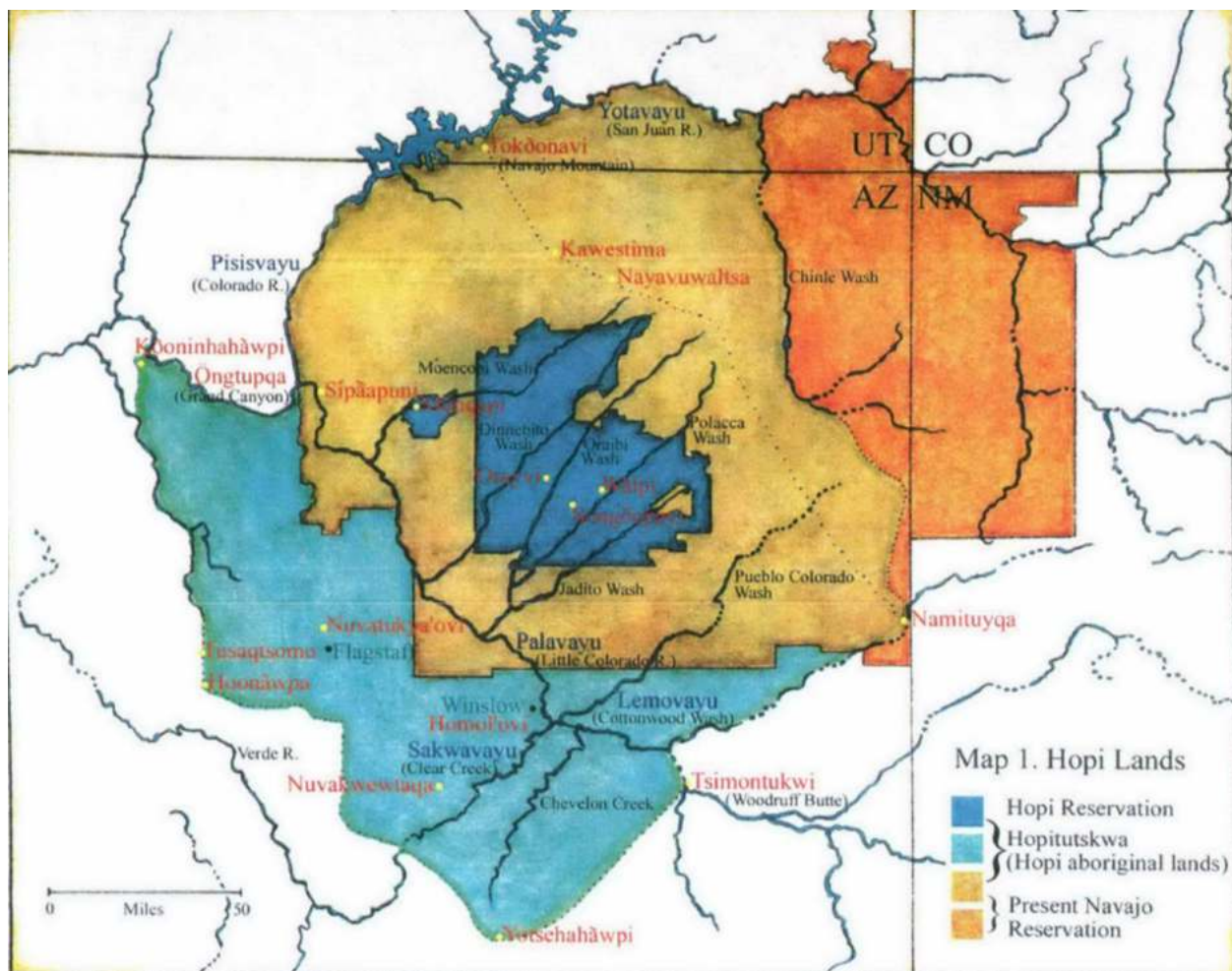


Figure 6. Hopitutskwa, Hopi Aboriginal land in relation to modern reservation boundaries (Whitely 2008, 33).

to government relations with tribes which has had the effect of restructuring Indigenous societies into miniature colonial governments. The imposition of colonial forms of government has replaced traditional governance structures (e.g., Deloria 1969; Nadasdy 2003; Coulthard 2014), and in the case of the Hopi Tribal Council, certain interviewees consider it a “failed experiment.”

Overall, the governance pathways detailed above emerged from interviewees’ concerns and suggestions. Given the complexities of protecting water in the LCR and Confluence, TCP designation is the most concrete protection at this time, as limited as it is. While it deserves further research, the use of the Treaty of Guadalupe Hidalgo as a means to secure waters rights appears unlikely to provide Hopi with greater legal standing in the LCR Adjudication. However, a combined claim from Hopi, NN, and GCNP for federal reserved water rights for instream flows in the LCR could provide more robust legal protection. Moving forward, all protection strategies must certainly be multiscale and layered. Water does not flow within isolated boundaries and political strategies for water protection must also reflect fluidity (Cohn et al. 2019). While none of the pathways briefly described here are straightforward, they do possess potential for devising protections for the Confluence and *Sipapuni*.

Conclusion

Within the foundational contexts of water as sacred and respecting Indigenous rights, this research illuminates a case about the struggle for water and protection of the Confluence of the Colorado and Little Colorado Rivers. This case is, ultimately, about the struggle for inherent Indigenous rights and self-determination. The Confluence and the broader LCR watershed are a confluence of cultural and ecological resources, IK and Western science, colonization and Indigenous resistance. This work considers Hopi elders’ concerns that waters in *Sipapuni*, a fundamentally sacred travertine spring near the Confluence, are dying. *Sipapuni* shapes Hopi identity and fosters cultural renewal, all of which is now at stake for the Hopi. Elders’ warnings illuminate unsustainable groundwater withdrawal in the LCR basin and

unjust water right adjudications. *Sipapuni* is at the hydrologic AND spiritual nexus of watershed concerns. In the matrix of multiple tribal lands, culturally complicated but significant sites, a National Park, and a watershed that drains 1/3 of Arizona, the reality of implementing multi-scale strategies to protect the Confluence is extremely complex, but necessary. Pathways toward ensuring integrity and renewal of biocultural resources within the relatively site-specific Confluence area must include basin-scale analysis and policy intervention.

Anticolonial analyses are relevant in the examination of federal policy, water governance, and Indigenous community organizing. Any attempts to protect *Sipapuni*, the Confluence, and the LCR must examine if and how such efforts either continue or challenge the colonial legacy of severing Indigenous people from their homelands and culture in the name of conservation or compliance. While it is perhaps incongruous to assess anticolonial dimensions of federal policy tools, the critique is still needed as a component of systemic anticolonial strategies. A comprehensive anticolonial protection pathway arguably starts with deconstructing “colonial mentalities.” This can be done by incorporating IK as knowledge-action-value-spiritual constructs equal to Western science and then building genuine, collaborative, and inclusive decision-making processes that prioritize Indigenous sovereignty and self-determination. The next step requires recognizing that Indigenous rights to land and water are inherent, while understanding advocacy strategies must simultaneously adapt colonial policies to achieve anticolonial ends. The final step entails progressing toward repatriation of Indigenous lands (i.e., physical decolonization). Anticolonial pathways further support re-Indigenizing water management through a heavy emphasis on the role that relationships, responsibility, respect, reciprocity, and accountability play in interactions with the human, physical, and spiritual world.

There is tension between using federal policies as anticolonial pathways to protection and how Indigenous grassroots organizers envision re-Indigenizing water. Our goal was to examine both governance pathways and Indigenous organizers’ perspectives in order to better understand the

limitations and potential for protecting the Confluence, LCR, and *Sipapuni*. The short answer is that both federal governance strategies and re-Indigenizing strategies exist in a dynamic, interdependent relationship. Federal policies and water law pathways are needed to protect the LCR, Confluence, and *Sipapuni*. Indigenous community organizing is needed to challenge and change the limitations of these inadequate colonial tools. Protection pathways simultaneously need both colonial tools and anticolonial approaches to protect *inherent* Indigenous rights—better said as inherent Indigenous *relations* (Dhillon 2018).

Moving forward, it is yet to be seen if land and water management can be responsive to Indigenous grassroots efforts in the Confluence region and shift trajectories to better serve re-Indigenizing. Indigenous and non-native peoples alike are *all* distorted by historic and contemporary colonization. We all suffer from its separation of people and place, but we do not all suffer equally. We must reflect on how our efforts continue such separation, such continued colonization, if we are to save what is sacred in the Confluence, the LCR, and, ultimately, in ourselves.

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