# HISTORICAL AND CONTEMPORARY DYNAMICS OF WATER IN RELATION TO DINÉ PEOPLEHOOD

By

CHRISTOPHER MICHAEL DZIADOSZ

---

A Thesis Submitted to the Honors College

In Partial Fulfillment of a Minor
With Honors in

American Indian Studies

THE UNIVERSITY OF ARIZONA

MAY 2020

Approved by:

_____

Dr. Aresta Tsosie-Paddock

Table of Contents

Abstract

The Navajo peoples, who refer to themselves as Diné, are one among many Indigenous cultures whose rich history is inextricably linked to water. The Diné word for water—*tó*—is found as a prefix to the names of clans, sacred places, and ceremonies. The lands where they have resided since time immemorial are located in the Colorado Plateau region of the American Southwest. This territory is noted for harsh climatic conditions that place the presence of water as a vital and necessary component for the continued success of their way of life. Water is part of the Diné way of being and, as such, can be thought of as an element of identity or *peoplehood*. Indigenous cultures that have been negatively influenced by the encroachments of settler colonization have invariably found themselves in legal battles to secure the right to have access to water. The relatively large land area of the Navajo Nation, coupled with an ever-growing population, has made access to water a prime concern of Diné leaders dating back to the 19th century and continues to this day. The dynamic interplay between those who have wished to usurp the Navajo claim to water—federal and state officials, industrial developers, and non-Native agriculturalists—and Diné herdsmen, farmers, spiritual leaders, and tribal councils, is an ongoing battle that remains poignant in the present day and shows no sign of letting up. This is a story of Diné identity and the sovereignty that is inherent when a people assert their rightful claim to the resources found within their land base.

## Statement of Purpose

*Water is Life*. This phrase has become a popular rallying cry in opposition to industrial developments that threaten to harm waterways that are vital to the survival of Native American communities across the United States. The controversial Dakota Access Pipeline, which ultimately crossed several states from North Dakota to Illinois, brought Native activism to the forefront of public consciousness in a series of protests in 2016 and 2017 (Brady, 2018). When President Donald Trump quickly rescinded Obama-era concessions to halt construction of the pipeline with an executive order in 2017 (2018), the controversy just as rapidly faded out of the spotlight, leaving Native peoples in a position consistent with historical federal policy generated out of colonial aspirations. As inconvenient bystanders in the march toward American "progress," Native peoples and their unique relationship with water have repeatedly been under attack by interests that rarely consider the cultural and spiritual ramifications of degraded and diminished water supplies in Indian Country. Perhaps no single American Indian tribe has been impacted more by misguided and willfully harmful development than the Navajo of the American Southwest. Known as Diné in their native language, Navajo peoples have carved their unique culture out of the arid lands of northeast Arizona, northwest New Mexico, and southern Colorado and Utah. The importance of water in the creation of Diné identity is the central concept of this thesis.

The purpose of this paper is to provide an in-depth analysis of the relationship between water and the manifestation of identity known in American Indian Studies as *peoplehood*. In section one, I will examine Diné cosmology and the primary function of water in creation stories and the origins of clans. Section two will provide a study of the historical interactions between

the Navajo and the varied colonizing forces that have attempted to usurp Diné sovereignty while also compromising traditional access to water. Particular attention will be devoted to the Long Walk and subsequent return to Diné Bikéyah. Section three will review and scrutinize 19th century settler colonialist developments, both on and off reservation, that have altered the landscape of the Navajo Nation, including expanding and contracting reservation boundaries and the coming of the Atlantic and Pacific Railroad. Section four will investigate the impacts of 20th century legal decisions Native regarding water rights and the many Colorado River damming projects that impacted Navajos and other Native peoples. The Black Mesa Coal Slurry Pipeline. Section five will cover the current state of water and the Navajo Nation, including access to clean, potable water and the effects of climate change. Finally, in the conclusion, I will revisit the discussion of water as a component of Indigenous peoplehood.

## Statement of Relevance

This paper will attempt to add to the general body of knowledge in the field of American Indian Studies by synthesizing anthropological, historical, and scientific approaches with the ontology and epistemology of traditional Diné worldviews. While identifying the contributing factors of failed federal policy and rampant colonial exploitation of Native peoples is not a new concept, the addition of highlighting the role of climate change in impacting Indigenous livelihoods and cultural identity adds relevance and timeliness to the present conditions facing these often-marginalized populations. It should be noted that the use of "marginalized" is in no way a reflection of how Native peoples view themselves but rather an indictment of the attempts by non-Native forces to push Indigenous peoples off their traditional territories and into geographic isolation from resources and services taken for granted by the dominant society.

My positionality as a non-Native scholar has greatly influenced my approach to this subject matter and the analyses that result from a year of careful research on the topic. As an outsider to the Navajo culture, I can only offer my interpretations of events through the lens of my own experience. That experience has recently been influenced and enriched by the worldview of Diné and other Indigenous philosophies as a result of my education in American Indian Studies at The University of Arizona. There is relevance in this final project of my undergraduate career in that it is a reflection of my years of study as well as a reflection of the skills of my esteemed professors and the field of American Indian Studies in general. In *Peoplehood: A Model for the Extension of Sovereignty in American Indian Studies*, Holm, Pearson, and Chavis reflect that "American Indian Studies has been caught in an academic catch-22. Because it is a multi- or interdisciplinary field of study, it does not have a central paradigm and presumably cannot stand alone as a discipline" (2003, p. 8). Further expounding on this

theme, the authors note that my chosen field of study for this thesis is often viewed as a "tributary field of anthropology, ethnology, history, political science, and sociology" (2003, p. 10). It is my intention to produce a work that is reflective of the multidisciplinary approach inherent in American Indian Studies while emphasizing that it is the worldview and temporal perspective that makes the discipline unique to those that it is accused of being derivative of.

The question that must always be asked is *how does this research benefit those being studied*? As an analysis of historical and contemporary events, this thesis draws attention to actions of the past as a means to frame conditions of the present for consumption by those that influence and make policy. In contemporary terms, the policy makers should be the Navajo Nation, whose sovereignty must be respected by those outside their territorial borders. In regard to climate change, the ideal audience are the nation-states that have contributed to and have the power to curtail carbon emissions that have contributed to worldwide warming trends. It is the actions of those outside Indigenous territories that have had the greatest negative impact within those same lands. This work is the first step in my personal goal of helping illuminate a situation that can no longer be ignored or dismissed.

Grand proclamations aside, my research has allowed me to immerse myself in the Diné worldview and apply it to my own life. One need not be Native to recognize the value of a philosophy that emphasizes a connectedness to all beings, sentient and non-sentient alike. The concept of *hózhǫ́*, perhaps the most central tenet of Diné belief, has been interpreted by Western scholars to mean peace and harmony, but this definition is lacking because it fails to recognize the holistic nature of the term. Navajo scholar Vincent Werito, in reflecting on what hózhǫ́ means to him offers

> The word “hózhǫ́” takes on a metaphysical meaning to imply, “I walk in a manner with beauty all around me.” As an adult, I now realize that while the essence of the meaning of hózhǫ́ could be interpreted as a fixed or constant idea to imply a state of peace and harmony, it can also be interpreted and understood as an ever-changing, evolving, and transformative idea, especially in how an individual applies and interprets its meaning to her or his life (Lee, 2014, p. 29).

Studying Diné philosophy challenges us to realize that we all must seek to embrace our own interpretation of hózhǫ́ for the betterment of ourselves and the communities around us. The ultimate relevance of this work lies in the recognition of that fact.

## Methods

The research for this thesis was conducted primarily by the reading of primary and secondary literary sources available through The University of Arizona library system. I spent the better part of a year tracking down every available text that mentioned the keywords *Diné, Navajo, peoplehood*, and *water* in any combination. Much of this extensive list will be examined in the Literature Review section to follow. I did not limit myself, however, to only studying topics that centered on the Diné experience because it quickly became apparent that nearly all Indigenous groups have a connection with water that transcend the biological necessities for sustaining life. Indeed, my rationale for including water as an inextricable component of peoplehood emerged out of the collective experiences of Indigenous cultures across the globe.

I would be remiss if I did not include my many hours spent in classrooms at The University of Arizona, particularly those in the discipline of American Indian Studies. The student composition of those classes allowed me the privilege of hearing first-hand the perspectives of Native people that I otherwise would be unaware of. While human research protection policies prevent me from including their words, there is no mistaking their impact on how I viewed the literature that I did use and how I internalized the implications of failed federal policies, unbridled industrial development, and the threats of climate change.

I visited the lands of the Navajo Nation. I stood atop Glen Canyon Dam to fully appreciate the impact of harnessing the Colorado River while pondering the Navajo lands now submerged beneath Lake Powell. I hiked the South Kaibab Trail into the Grand Canyon and I felt the reverence of countless generations of Diné who had stood there before me. Lastly, I dipped my toes into the gentle flow of the Little Colorado River near Holbrook, Arizona to appreciate the implications of recent damming proposals. Some research must be lived, not read.

## Literature Review

It has been speculated that no group of people has been written about more than the Diné, and as I added my name to the lengthy list of scholars with an interest in Navajo culture, it became readily apparent that few scholarly sources existed that focused primarily on water and its relation to Diné identity. Given the location of the Navajo Nation in one of the most arid regions of the country, it surprised me to find so little had been written about my topic of choice. That is not to say little had been written as a rule but plucking out references to water required a deep dive into the literature.

The place to begin was to immerse myself in Diné philosophical themes (Lee, 2014) and an understanding of Native sovereignty as it specifically related to Navajo lifeways, past and present (Lee and Denetdale, 2017). Lloyd Lee has masterfully assembled some of the foremost contemporary Diné thinkers in *Diné Perspectives: Revitalizing and Reclaiming Navajo Thought,* including Justice Raymond Austin, whose *Navajo Courts and Navajo Common Law: A Tradition of Tribal Self-Governance* is the gold standard for providing an understanding of the traditional practice of peacemaking in creating a sense of restorative justice to Navajo communities (2009).

Prior to recent decades, Navajo history was often told by non-Natives whose understanding of the culture was tainted by their own Eurocentric views. I am not unaware that I fall into the category of those on the outside looking in, so I chose my sources judiciously to balance the perspective. For every non-Native offering (Bailey and Bailey, 1986; Sundberg, 1995), I looked for a corresponding Navajo voice (Iverson and Roessel, 2002). In a more recent work, Klara Kelley co-authored *A Diné History of Navajoland* (2019) with Diné consultant Harris Francis. Their use of oral histories and first-hand Navajo accounts of contemporary issues is a refreshing addition to the growing list of Navajo literature. It was slightly disheartening,

however, to find the relative lack of Diné scholarship readily available, a situation that only worsened with the COVID-19 outbreak that relegated all of us to remote accessors of online materials. Nevertheless, the sources I did find proved rich in both content and understanding. As Sundberg points out in *Dinétah: An Early History of the Navajo People* and I wholeheartedly concur,

> I wanted the book to represent a Navajo view as much as the accepted historical point of view, so I used the Navajo people's own accounts whenever possible. It is, after all, their story. Occasionally my telling of events is different from those told by traditional Navajo people. I do not want my readers to think that I disagree with those accounts. I was simply not knowledgeable enough to write about them (1995).

I tried to take this one step further in that I readily accepted the Diné perspective without bothering to interject archaeological "evidence" that might counter a history born out of the oral tradition. There is no point to include anything outside of that which has contributed to the formation of the Diné perception of identity. This is not to say that I ignored historical accounts; rather I took those accounts into consideration based on how the Navajos were impacted by them. When the Diné began to populate the American Southwest is far less important than the fact that they did.

When water is the core component of a work about any Native population, water rights and the legal ramifications thereof are a crucial element of the narrative. Felix Cohen's *Handbook of Federal Indian Law* (1942) is the earliest comprehensive study of the legalities created out the numerous court cases that have impacted Indian Country and is referenced by nearly every subsequent legal volume since published. I used Fletcher's *Federal Indian Law* extensively in all descriptions of Supreme Court rulings. The 1908 landmark case *Winters v.*

*United States* is the first ruling that established a connection of water rights with the creation of reservations and is the genesis for all further legal renderings on the subject (Fletcher, 2016).

## Pre-Contact Diné in the Diné Bikéyah

### The Peoplehood of the Diné

Important distinctions between the terms Diné and Navajo must be made, and I will attempt to do so for clarification purposes. Diné, in the Athapaskan language spoken by the people of this research, is commonly translated to mean "the People," although Navajo historian Wally Brown notes "Diné is a word that we use to refer to ourselves…meaning up, where there is no surface, and down, where there is the Mother Earth" (Navajo Traditional Teachings, 2020). Navajo, conversely, is a term derivative of the Tewa Puebloan word *navahu'u*, meaning "farm fields in the valley" ("The Origin of the Name," 2014). Spanish colonizers who first encountered the Diné during the 16th century modified the Tewa term and called these Athapaskan speakers "Apaches de Nabajó" (2014), in likely reference to the linguistically similar Apaches of the same region. The distinction between the terms, however, is not one that can be divided in a binary manner. There is no consensus as to which terminology is preferred and, as is common among many Indigenous groups post-colonization, the lines of identity can often be blurred as cultures adapt to the changing worlds around them. In this thesis, I will use Diné when speaking of sacred, philosophical, and pre-colonial cultural aspects and Navajo when referring to the post-colonial political unit that is present today. At times the terms will be used interchangeably when a blending of cultural and political aspects is necessary.

The concept of identity is crucial among Indigenous peoples who have suffered from attempts to be externally "defined" by others not within their culture. Accordingly, the notion of peoplehood as an identity marker has been explored extensively by Indigenous scholars. Holm,

Pearson, et al.'s Peoplehood Matrix lists four components essential to Indigenous identity—territory (land), language, ceremonial cycle, and sacred history—with no one component more important than the others (2013). Other scholars (Trosper, Tsosie-Paddock, personal communication) have argued that land should occupy a central position in any matrix of components, much like the hub of a spoked wheel. As this thesis is focused on the role of water in the shaping of Diné peoplehood, the centrality of land is a preferable model if it acknowledges the unique place that water holds in the formation of Indigenous and, more specifically, Diné identity. It is nevertheless true that all of the components of the Peoplehood Matrix are linked regardless of positionality. It is beneficial to begin with the sacred history of the Diné to gain insight into the role of water in relation to their own distinctive manifestation of peoplehood.

## Diné Cosmology

Diné origin stories, while containing subtle differences dependent upon the perspective of specific clans, generally describe an emergence of their people into their historical territory, known as Diné Bikéyah, after a lengthy and arduous journey through several worlds (Iverson and Roessel, 2002, p. 8). Brown refers to the Diné Bikéyah as "the soil beneath the feet of the Diné," which Emerson also describes as "sacred" (Navajo Traditional Teachings, 2020; Lee, 2014, p. 55). It was in the difficult trek through the Black World that First Man (Áłtsé Hastiin) and First Woman (Áłtsé Asdzą́ą́) were formed (2002, p. 8). Soon thereafter, First Man and First Woman, along with numerous animals and insects, were engaged in a quarrel instigated by the trickster Coyote. The chaos that endued eventually led to a great flood that carried all creation to the Glittering World (2002, p. 8). The significance of the flood to Diné sacred history is paramount, as the Glittering World is home to the four scared mountains: Blanca Peak (Sis Naajiní) in the east, Mount Taylor (Tsoodził) in the south, San Francisco Peaks (Dook'o'oosłíid) in the west,

and Mount Hesperus (Dibé Nitsaa) in the north. The four sacred mountains form the traditional boundaries of the Diné Bikéyah and their importance to Diné identity cannot be understated. Navajo Justice Raymond Austin, describing the deep connection to this location, states, "The Holy Beings planted a mountain in each cardinal direction and blessed each with tangible and intangible properties, including knowledge, governance, leadership, laws, and everything that the Diné would need to grow and prosper as a people or nation" (Lee and Denetdale, 2017, p. 33). That humankind was brought to the site that was to become the future home of the Diné as well as the location for the contemporary Navajo Nation reveals the first vital role of water to the Diné belief system.

Once in the Glittering World, the beginning of the Diné clan system emerged through the actions of creation deity Changing Woman (Asdzáá Nádleehé). Her role as a protector of the Diné was already established, as she gave birth to twin sons Born for Water (Tóbájíshchíní) and Monster Slayer (Nayee' Neizghání), whose exploits saved the Diné from enemies who plagued their people (Iverson and Roessel, 2002, p. 11). It is no coincidence that one of the twins is named for the life-giving substance water, nor is it surprising that when Changing Woman created the first Diné clans by rubbing the skin throughout her body, two of the original four were named after water-related elements: Bitter Water (Tódích'íi'nii) and Mud (Hashtł'ishnii) (2002, p. 12). An early account from the Franciscan Fathers refers to one of the original four clans as Big Water People (Tótsohnii), although most modern accounts place this group under the grouping of the Mud Clan (1910, p. 427; Navajo Tribal Clans, 2002)). From a cosmological sense, the water-themed clans are said to have been created from the sweat glands under the arms of Changing Woman (Franciscan Fathers, 1910, p. 425). This water is sacred, as it came from within her body and sanctified the ground where these groups of Diné have called home since

time immemorial. Other accounts refer to Changing Woman creating a new form of humans, the Water People, who traveled from her Pacific Ocean home in the west and populated the lands to the east (Kelley and Francis, 2019, p. 69). It is not by accident that Changing Women would choose Water People to reclaim the eastern territories. These lands would require the intimate knowledge of water for Diné to thrive and prosper.

Peopling of the Diné Bikéyah

The emergence of clans can be seen as the post-creation expression of Diné identity, and the kinship expressed by those within the Diné Bikéyah is referred to as the core value of *k'é* (Lee, 2014, p. 105-106). Kinship is critical to the personhood of all Diné in that it is a responsibility to one's immediate clan, established matrilineally, but also representative of the obligation to show love, kindness, and respect to the greater community (Carey, Jr., 2013). K'é is essential to maintaining hózhó and would have been paramount in keeping peace and order among the many newcomers that became absorbed into the Diné world. As contact was made with other peoples within the Diné Bikéyah, many were adopted into the clan system, a practice that was critical to the continued growth of their population. The Franciscan Fathers rightfully noted that "the numerical increase of the clans is not due to a process of segmentation of existing clans, but to one of adoption of new peoples which were met in the course of the journey" (1910, p. 425).

With the natural increase in the number of clans corresponding to the addition of those welcomed into the ever-growing Diné community, the references to water in clan nomenclature expanded accordingly. Clans such as Near the Water (Tó'áhani), Deer Spring (Bįįh bitoodnii), Salt Water (Tódik'ǫzhi), Two Who Came to Water (Tó baazhni'ázhi), Water's Edge (Tábąąhá), Red Running into the Water (Táchii'nii), The Water Flows Together (Tó'aheedlínii), and Light Water People (Tó'azólí) are among the many groups of Diné whose geographic and sacred

origins placed water in a primary role of their identity (Navajo Tribal Clans, 2002). This collection of peoples, dispersed throughout the vast swaths of Diné Bikéyah territory, were not unified as a singular unit, but rather an aggregate of independent groups who shared significant commonalities, among them, language, rituals, and values (Iverson and Roessel, 2002, p. 25). Even within the unique local variation of traditions, ceremonies, and origin stories that were reflective of the relative autonomy of the clans, a sense of unity brought Diné together.

From a religious aspect, water has played a definitive role in the rituals shared by these numerous clams that call themselves Diné. The ceremonies that predate contact with Euro-American colonizers and missionaries were passed down from generation to generation via oral tradition, specifically by those religious practitioners known as *singers* and whose songs were referred to as *hózhóji* (Burlin, 1923, p. 349). The root of hózhóji is unmistakably the ever-present force of hózhó and, through song, Diné have sought to bring balance and restoration to their communities. As one collaborator explained to Burlin, "the Hózhóji songs are holy songs, given to us by the gods. They are songs of peace and of blessing. They protect the people against all evil" (1923, p. 349).

After contact, mission priests, soldier-historians, and anthropologists alike tried to capture the essence of the rituals they observed, noting such ceremonies as the Hail Chant, Water Chant, and the Waterway. Waterwheel describes the Hail Chant as "a spring fête, celebrated to usher the spring rains. These are announced by thunder… as an expression of the stirring chthonic fertility power, waxing, with the spring storms, to produce the spring burgeoning" (1946, p. 122). The Water Chant likewise is described as a call for spring rains and representative of fertility (1946, p. 142). Van Valkenburgh, in his thorough geographic treatise *Navajo Sacred Places*, identifies the rock formation Window Rock (Tséghádzáni), which had

once had a spring associated with the Waterway ceremony, and that "Navajo Medicine men went with their woven water bottles to obtain water for the ceremony which was held for the purpose of producing abundant rain" (1974, p. 172,183). In addition to fertility and renewal, the Waterway ceremony was also a way to rid the Diné of the harmful Water Monsters, whose nefarious intent was to draw people into the water and hold them in a state of drowning (Circle, et al., 1978, p. 4).

The symbolism of these ritual aspects of Diné culture is clearly evident. Water is associated with life and, as is the case of Water Monsters and their evil hold over people, potentially death, be it of the physical or spiritual sort. Accounts of these ceremonies were obtained from Navajo collaborators during the 1920s and 1930s and were presented to the world of academia as a snapshot of ancient practices that were on the verge of disappearing, along with the people who practiced them. Salvage anthropology may have prematurely forecast the demise of Diné culture, vastly underestimating the resiliency of those whose spiritual beliefs were deeply rooted in the physical world around them. Those early inhabitants of the Diné Bikéyah, some of whom had traversed great distances throughout the North American continent to find their home, recognized the tangible quality of water to their existence. Later descendants of those pioneering Diné continued to realize that the ceremonial aspects of water not only represented life, but the journey to achieve hózhó. A Navajo collaborator with linguist and anthropologist Gladys Reichard, in *Navaho Religion: A Study of Symbolism*, explains the origins of this journey,

> Our earth was formed out of the crucible of heat and light, water and oxygen—so, too, does the emergence theme of the Waterway deal with the dark incubation of life as it travels through the watery womb of the Mother into the sphere of the Sun Father's light.

> All of the stories, but especially the Waterway, move through dark tunnels or night lit places, to a field of light (1950, p. 103).

That movement from dark to light, via the medium of water, represented a way of healing that which had fallen out of the balance of hózhó. Diné before contact had to achieve harmony with the land, other clans, and groups of other Native peoples who would be considered enemies. That delicate equilibrium would become nearly untenable with the arrival of Europeans.

## Post-Contact Realities of Colonization

### Dinétah and the Spaniards

Within the vast expanses of the Diné Bikéyah lies the traditional homeland of the Diné, said to be the birthplace of Changing Woman, called the *Dinétah*, a rugged swath of land located in present-day northwestern New Mexico (Iverson and Roessel, 2002, p. 20); (Figure 1). At the time of Spaniard Francisco Coronado's first expedition into this area of the American Southwest in 1540, it is unknown if he made contact with Diné, despite archaeological evidence that places ancestral Navajo in the region as early is the 1400s, if not earlier (Towner, 2003). Some have speculated that Coronado's reference to coming into contact with people he called *Querechos* were, in fact, Diné (Hammond and Ray, 1966). It has never been in the scope of this thesis to debate the great anthropological and historical question of *when did the Diné arrive in the American Southwest*? My focus is centered, rather, on the *effects of colonization* in how they impact Diné access to water, which, in turn, effect the formation of the collective identity of their people. There can be no doubt that the coming of the first Europeans to the Dinétah and the greater Diné Bikéyah impacted the Diné in numerous ways, not the least of which was the introduction of horses, cattle, and the culturally symbolic sheep (Iverson and Roessel, 2002, p. 22). These new resources required water to survive, but the Europeans who claimed this territory

in the name of the Spanish crown and called it *New Spain* initially concentrated on lands to the east of the Dinétah. The Diné, despite living in arid regions of the American Southwest, had ready access to the available riverine waterways that flowed through their territory and extensive knowledge of the natural springs that dotted the landscape.

This is not to paint an idyllic portrait of Diné/Spanish relations. By the time the Spaniards had set up permanent settlement in present-day New Mexico in 1598, they immediately began setting up Catholic missions designed to convert the Native "barbarians" to Christianity (Bailey and Bailey, 1986, p. 13: Iverson and Roessel, 2002, p. 24). These efforts were more successful on the relatively sedentary town-dwelling Pueblos at Acoma, Zuni, and Hopi, but far less so with the mobile Diné, who took advantage of these settlements by raiding for livestock and other goods (1986, p. 13). The Spanish, in turn, set their sights on those they called *Navajo* as slaves for the lucrative silver mining operations in present-day Mexico. It is uncertain which raiding action precipitated which, but there is no doubt that no other Native group suffered more from the Spanish slave trade than the Diné, despite "the enslavement of Indians (being) forbidden by Spanish law" (McNitt, 1990, p. 12).

Displaying remarkable resiliency in the face of these hardships, the Diné effectively transformed the negative characteristics of colonization into a cultural show of strength by adding the introduction of livestock into the weave of identity. Navajo horsemen quickly became admired for their skills and their relationship with sheep became integral to the formation of Diné peoplehood. In a culture that identified its lineage matrilineally, the connection between motherhood and the life-giving sustenance of sheep was easily adopted into Diné ritual and ideology. As Percy Deal, former Navajo County Supervisor and current activist explains, "my mother taught us that the sheep is our mother. They will take care of you" (Iverson and Roessel,

2002, p. 23). That same sentiment is expressed in the Navajo saying: “Dibé wolyéii nimá át’é; dibé iiná niliínii át’é” (“Those called sheep are your mother; sheep are life”) (2002, p. 23). The impact of the transformation to a livestock-centered economy and existence would be played out numerous times in the coming years and will be explored in greater detail later in this thesis. At this time, it is important to note that there is a deep connection between the two life-giving forces thus far mentioned: water and sheep, with the latter being greatly dependent upon access to the former.

Another Diné cultural change affected by the coming of the Spaniards was the consolidation of previously disparate clans into a more cohesive collection of people. The Pueblo Revolt of 1680 had temporarily driven the Spanish out of territory perilously close to the eastern edge of the Dinétah, but their return in 1692 brought the conflict into traditional Diné lands (Sundberg, 1995, p. 30). The uneasy alliances between Navajos, Pueblos, and Spaniards were rather fluid, with equal parts cooperation and treachery. Spanish encroachment into the Dinétah, coupled with intense Ute raiding, caused a near-complete depopulation of Navajo in this area by the mid-1750s, with wholescale movements of Diné into areas of the Diné Bikéyah north, south, and west of the traditional homeland (Towner, 2003, p. 20). These migrations placed the Navajo into lands further away from one of their sacred rivers, the Rio Grande (Tooh Ba’áadii), and closer in proximity to three others: the San Juan (Bits’íís Doo ninít’i’í), the Colorado (Tooh Dibé Nitsaa Hahoodzo), and the Little Colorado (Bits’íís Nineez) (Martin, 2002).

As Navajo dependence upon raising livestock increased, so too did a corresponding reliance upon agricultural endeavors and, by the late 1700s, the Canyon de Chelly area in present day northeastern Arizona proved excellent for both grazing and growing corn and peach trees (Iverson and Roessel, 2002, p. 28). Temporarily protected from both Ute predations and the

Spanish colonial ambitions, the Navajo flourished in this oasis-like region that became the heart of the Diné Bikéyah during this time. The sheer sandstone cliffs that walled the verdant canyon below, cut by the meandering waters of Chinle Creek, a tributary of the sacred San Juan River, had protected Indigenous North Americans for better than 4,000 years (History & Culture, 2019).

The safety afforded by this natural citadel proved attractive to outlying Diné clans, who moved their people and livestock into this region, while other clans continued to combat the Spanish incursions with strategic raids. It would be a contentious co-existence that was destined to end badly for the Diné. Spanish colonial ambition showed no sign of diminishing and, coupled with a desire to seek retribution for the continued Navajo raiding, the military forces of the colonizers converged in Canyon de Chelly in 1805, killing Navajos and destroying hogans with a vengeance (Sundberg, 1995, p. 37). Diné leaders signed treaties with Spanish officials in 1805, and later in 1819, which temporarily provided some measure of peace to the region, but the effects of colonization would change the Diné forever (Iverson and Roessel, 2002, p. 29). The Spanish would be followed by Mexican settlers after the latter's independence from the former in 1821. The patterns of Navajo raiding, followed by wholescale movements of people and livestock to avoid the inevitable retaliation, continued unabated with the introduction of new intruders into the Diné Bikéyah. One thing remained constant regardless of the identity of the colonizers: Diné reliance upon water to maintain their burgeoning populations of adopted clans and their growing herds of horses and sheep, in particular. The ability of Diné to thrive despite the adversity associated with nonstop incursions into their territories required knowledge of and access to water that their deep-seated connection to the land provided for them. This connection and corresponding Diné resilience would be tested in ways that few could have imagined with the coming of American settlers from the ever-increasing colonial power of the United States.

Black Clouds Rising and Manifest Destiny

On a blisteringly hot summer day in 1868, Navajo leader Barboncito, representing the many Diné who had been forcibly rounded up and exiled to Fort Sumner (Bosque Redondo) in eastern New Mexico, found himself in intense negotiations with General William Tecumseh Sherman (Bailey and Bailey, 1986, p. 11). As the official agent of the U.S. federal government, Sherman heard the impassioned words of Barboncito, who plead the case for a return to the sacred lands of the Diné Bikéyah,

> Our grandfathers had no idea of living in any country except our own… When the Navajos were first created, four mountains and four rivers were pointed out to us, inside of which we should live, that was to be our country and was given to us by the first woman of the Navajo tribe… I hope to God you will not ask me to go to any other country except my own (Iverson and Roessel, 2002, p. 7-8).

One can only imagine the impact of these words upon Sherman, who had been tasked with convincing the Navajo that their best option was to relocate to Indian Territory in present-day Oklahoma. Against all odds, Barboncito managed to persuade Sherman that a Navajo return to their traditional homelands was warranted, an agreement that was formalized by the Treaty of 1868 (Bailey and Bailey, 1986, p. 29). In his exuberance upon learning that his people would be returning to lands that his ancestors had called home for centuries, Barboncito joyously added, "After we get back to our country it will brighten up again  and the Navajos will be as happy as the land, black clouds will rise and there will be plenty of rain" (Iverson and Roessel, 2002, p. 8).

It is not by coincidence that Barboncito used the example of rain as a metaphor for the rebirth of his people. In their arid homelands, the Navajo had always relied upon life-giving rains coupled with ample amounts of snowmelt to replenish the water supplies that maintained their

crops and sustained their livestock. Despite the often-fickle nature of weather patterns on the Colorado Plateau, a region described by the National Park Service as "arid to semiarid with sparse vegetation in the lowlands, forests in the mountains, and lush vegetation along the watercourses" (NPS, n.d.), the Navajo had successfully adapted to the climate of this environment. The mutability of weather patterns required the ability to mobilize during periods of drought as well as when the monsoon rains flooded the low-lying areas preferred for grazing. It was the extensive knowledge of these varying conditions in addition to a complete mental catalogue of perennial springs that allowed the Navajo to grow to an estimated 10,0000 strong during the period of Spanish and Mexican intrusion despite being in a near-constant state of warfare, especially in early nineteenth century (Bailey and Bailey, 1986, p. 19-20; Sundberg, 1995, p. 49). The coming of the American settler colonialists in the aftermath of the defeat of Mexico in the Mexican-American War in 1846, however, made the difficulties that Navajos endured under Spanish-speaking invaders pale in comparison.

Initially there had been a curiosity about these newcomers, referred to as *Bilagáana* in the Navajo tongue, that quickly transitioned to unease and uncertainty (1995, p. 46). Diné leader Narbona had been given reports of massive American armies gathered to the east of New Mexico, having dispatched of the Mexican armies rather handily and intent on pressing on westward. Clearly these Bilagáana were intent on remaining and when Narbona was approached by U.S. Infantry representatives of Colonel Alexander Doniphan, he thought the prudent move was to make peace with the Americans. The Bear Springs Treaty was signed in November of 1846, the first of many agreements between the two peoples but certainly not the last to end in misunderstandings and broken promises (Bailey and Bailey, 1986, p. 18). The choice of Bear Springs as a location for peace, favored by the Navajos, is significant in the fact that this was a

sacred watering hole used by generations of Diné for ceremonial as well as practical occasions (Van Valkenburgh, 1974).

As a regional power, but not consolidated in the sense that there was no accepted Navajo central authority, the many Diné clans were a formidable presence. Strategic raids against the Spanish and Mexicans had allowed the Navajos to prosper, with their teeming herds of livestock a sign of considerable wealth and prosperity. The Americans could not fail to notice that the Navajos would be an impediment to colonial aspirations. Newly installed governor of the New Mexico Territory Charles Bent described the Navajos as "a warlike and wealthy tribe, there being many individuals among them whose wealth is estimated as far exceeding that of any other person in the Territory" (Iverson and Roessel, 2002, p. 38). The Bear Springs Treaty may have established formal relations between the many Diné peoples, now officially referred to as Navajos in the American legal lexicon, and the American settlers, but the raiding and lust for territory, initiated by both parties, respectively, continued unabated. The many battles that ensued between these two entities, one defending their hold on the land and the other desirous of realizing the doctrine of Manifest Destiny, has been the subject of many previous scholarly efforts and need not be repeated here. When the harsh winter of 1863 had finally exacted its toll on the starving and embattled Navajo people, forcibly removed to the barren and desolate reservation at Fort Sumner, the dynamics of water and their significance to Diné identity come fully into play.

## The Long Walk

If there is a watershed moment in Navajo history, the forced exile of thousands of Diné to the Bosque Redondo Reservation on the Pecos River in New Mexico would be that point in time. The centerpiece of this new Navajo territory was Fort Sumner, an omnipresent military force that

caused Diné to refer to these lands as *Hwéeldi,* the Navajo word for "fort" (Sundberg, 1995, p. 70). In terms of mainstream American history, it is an event rarely discussed outside of academic circles and, even then, often glossed over, minimized, or grossly misrepresented. Historian Gerald Thompson described the coerced trek as "a unique experiment… (by) the federal government… to find a humanitarian solution to the vexing problem posed by the depredations of the Apache and Navajo Indians" (1976, p. 1). Such a problematic view fails to recognize that many of the "depredations" were in response to the New Mexican habit of continuing slave raids against Native peoples (McNitt, 1990, p. 388). This practice dated back centuries under the Spanish and was one in which the American government turned a blind eye to in the newly annexed New Mexico Territory.

As Navajos were rounded up, their livestock, crops, and fruit trees destroyed in an actual and psychological show of force by the Americans, those making the arduous walk were quickly faced with a reality that imperiled their identity as a people. Creation stories had placed the Diné in the safe confines of the four sacred mountains and rivers. Now, forced to leave the birthplace of their ancestors, Diné were confronted with the prospect that the Rio Grande River, one of the boundaries that signified the lands of Changing Woman, would be the spector of death for many of their people. Navajo historian Luci Tapahonso recalls the tragic story that had been handed down from her great-grandmothers, one in which, "Some babies, children, and some of the older men and women were swept away by the river current. We must never forget their screams and the last we saw of them—hands, a leg, strands of hair floating" (Iverson and Roessel, 2002, p. 35). It is not difficult to imagine the horror and devastating irony of watching the closest members of their clans being consumed by what until then had been the life-giving and sacred force of water.

Those that survived the dangerous journey were faced with a new affront to their relationship with water. The choice of Bosque Redondo as a location for inhabitation had been a calamitous if not intentional decision by the federal government, whose own officers had recommended against the site when planning for Fort Sumner a decade earlier, noting, "The water of the Pecos contains much unhealthy mineral matter (and) a large part of the valley is subject to inundation by the spring floods" (2002, p. 50). The brackish water that was available to the Navajo exiles was heavily laden with alkali, which caused intestinal problems and other diseases (Adamson, 2015).

One of the goals of the "humanitarian solution" was to transform the pastoral ways of the Navajos into that of a lifestyle dedicated to farming. Forced to dig irrigation ditches to harness the waters of the Pecos, the Diné farmers had adapted to agricultural methods that differed from those they used in the lowlands of Canyon de Chelly. That adaptation, a sign of Diné resiliency, was unable to anticipate or deter the swarms of insects that devastated crops in the summer of 1864. General James H. Carleton, tasked with running the reservation for the U.S., lamented,

> We had a field of nearly three thousand acres which promised to mature finely, when, after it had tasseled and the ears formed, it was attacked by what they call here the cut worm or army worm, and the whole crop was destroyed! (Thompson, 1976, p. 46)

In the best of circumstances, the Navajos could have made the transition to full-time agriculturalists despite a cultural proclivity for raising livestock. Conditions at Bosque Redondo were far from ideal, however, and with the continued difficulties in growing crops always a reality, the federal government began to ship in sheep and cattle from neighboring areas to supplement the struggling agricultural efforts (1976, p. 57). These new herds were subjected to harsher conditions than those of the sheltered watercourses of Canyon de Chelly and many

perished during the extreme winter conditions of the high plains of eastern New Mexico. Mescalero Apache chief Cadette, whose people had been corralled to Bosque Redondo along with the Navajos implored his "benefactors,"

> We have lost a good many of my people, and many are now sick. All but one of my horses have died from starvation. We could live better in our old country than in this. The water and grass are better there. Tell the Great White father that we would like to go back to our old country (1976, p. 84).

The experiment had been an abject failure and by the time Barboncito made his impassioned plea to General Sherman, even the Americans knew definitively that a change of scenery was in order. When Barboncito remarked, "We know the land does not like us. Neither does the water," Sherman could only agree because he had witnessed firsthand the emaciated Navajos, their paltry agricultural output, and the brackish water that refused to produce good crops (Sundberg, 1995, 87).

The Navajos had convinced the Americans that a return to the Diné Bikéyah was in the best interest of all involved. Terms of the Treaty of 1868 included a Navajo agreement to cease all future raiding activities in exchange for a new reservation in their traditional homelands. Also promised were a replenished stock of sheep and goats, a promise that took over a year to be realized. Difficulties would not cease, however, simply by reclaiming the land of the Diné ancestors. Barboncito had explained to Sherman that "our grandfathers told us to never move east of the Rio Grande River nor west of the San Juan River" (1995, p. 87). Unlike the previous crossings of the Rio Grande that claimed the lives of many, the return trek was accomplished by fording the mighty river without disaster (Iverson and Roessel, 2002, p. 67). It was as if the sacred river had calmed itself to welcome back its people to the lands of their creation. Within

the Diné Bikéyah and on the right side of those cool, life-giving waters, the Diné were home again. Despite the jubilation and relief of setting foot on ancestral soil, home was not the same as before the forced exile to Hwéeldi. The Bilagáana were there to stay, bringing changes to the landscape that would impact the waters of the sacred rivers in ways that could not have been comprehended.

## Treaties, the Navajo Reservation, and Industrial Development

### The "New" Navajo Reservation

The Treaty of 1868 (Figure 2), officially known as the *Treaty Between the United States of America and the Navajo Tribe of Indians*, among other provisions, delineated the boundaries of the newly created reservation. Article II describes these boundaries as lands,

> bounded on the north by the 37th degree of north latitude, south by an east and west line passing through the site of old Fort Defiance, in Canon Bonito, east by the parallel of longitude which, if prolonged south, would pass through old Fort Lyon, or the Ojo-de-oso, Bear Spring, and west by a parallel of longitude about 109' 30' west of Greenwich, provided it embraces the outlet of the Canon-de-Chilly, which canon is to be all included in this reservation, shall be, and the same is hereby, set apart for the use and occupation of the Navajo tribe of Indians (Kessel, 1981, p. 262-263).

It is not clear if Barboncito and his Navajo contingency were cognizant of the ramifications of degrees latitude and longitude, but Sherman has assured them that,

> We have marked off a reservation for you, including the Cañon de Chelly, and part of the valley of the San Juan, it is about (100) one hundred miles square. It runs as far south as Cañon Bonito, and includes the Chusca mountain, but not the Mesa Calabesa you spoke

> of; that is the reservation we suggest to you, it also includes the Ceresca (Carrizo) mountain, and the bend of the San Juan River, not the upper waters (1981, p. 263).

Overtures from Sherman during negotiations had indicated that Navajos willing to live outside the newly created boundaries would be allowed to do so provided the same lands were not occupied by white settlers (Brugge, 1980, p. 50). The virtual absence of such settlers in the 1860s ensured that those in the Diné homeland were relatively unaware that the actual delineated land base of the reservation was approximately half the size as that described by Sherman. Another provision of the treaty, buried in ambiguity at the time of signing, would bring the reduced land area into clearer view in the coming years.

## The Atlantic and Pacific Railroad

Article IX of the Treaty of 1868 declared that the Navajos agree "that they will make no opposition to the construction of railroads now being built or hereafter to be built, across the continent" (Navajo Nation Treaty of 1868, n.d.). This may have been a minor point from the perspective of Navajo negotiators, who were unaware that the U.S Congress had already passed the Atlantic and Pacific Railroad Act of 1866, which made into law the federal government's right to "extinguish, as rapidly as possible… the Indian title to all lands falling under the operation of this act and acquired in the donation to the road named in the act" (Atlantic & Pacific Railroad Company, 1870, p. 10). In the agreed upon terms of the treaty it was also omitted that the proposed route of the railroad, which included "from Albuquerque, it continues westward across Arizona along the 35$^{th}$ parallel of latitude" would be a mere twelve miles from the southern boundary of the reservation (1870, p. 5; Kessel, 1981, p. 265).

This proximity came into play when Navajo herdsmen, with newly replenished stock of sheep and goats, ventured southward in search of grazing lands and water. The Atlantic and

Pacific Railroad Act of 1866 "granted to the Atlantic and Pacific Railroad Company… every alternate section of public land… designated by odd numbers, to the amount of twenty alternate sections per mile, on each side of said railroad line" (Atlantic & Pacific Railroad Company, 1870, p. 10). In the New Mexico and Arizona Territories, these sections often overlapped with traditional Diné lands, outside the boundaries of the reservation, but understood by the Navajo to be theirs to use as promised by Sherman. A large portion of territory south and west of the reservation, known as the Chambers Checkerboard due to those alternating sections of land, became some of the first of traditional Diné lands to be occupied by American settlers, lured by the prospect of having their cattle transported to eastern markets via the railroad (Kelley and Francis, 2001, p. 74).

The Rio Puerco is the main waterway through much of this area and was a perennially flowing river during this time. Its numerous tributaries and adjacent natural springs made this a prime location for Navajo livestock grazing prior to the permanent settling of the Bilagáana and their vast herds of cattle. The seeming abundance of water was not shared equally, however, as the Americans quickly claimed lands to control access to this precious resource. Ancient watering holes suddenly had names such as Navajo Springs, Tanner Springs, Coyote Springs, and Squaw Springs and were off-limits to Navajos and their flocks (2001, p. 75-77). Federal General Land Office (GLO) surveys from 1882 and 1883 indicate that virtually all dependable water sources in the Chambers Checkerboard were under non-Native control, in part because Navajos did not locate their homesites as close to water as did the Americans (Kelley and Whiteley, 1989, p. 99). Such an arrangement led to inevitable conflicts over this resource, as evidenced by the murder of the son of Chief Tsi'naajinii Biye' by cowhand C.P. Owen,

presumably in a dispute over water and the ownership of horses in 1883 (Kelley and Francis, 2001, p. 82).

Concurrent with the expanded presence of the settler colonialists in the Diné Bikéyah, the Diné managed to flourish, doubling their population from roughly 9,000 in 1868 to over 18,000 by 1892 (Bailey and Bailey, 1986, p. 28). The federal government, recognizing the limitations of the original Treaty of 1868 reservation boundaries, expanded the size of the Navajo land base several times within that time frame by means of executive orders (Figure 3). The executive order of December 16, 1882 by President Chester A. Arthur would have the most detrimental future consequences, as he created a reservation for "the Moqui (as the Hopi were colloquially referred to by the American government and settlers, alike) and such other Indians as the Secretary of Interior may see fit to settle thereon" (Iverson and Roessel, 2002, p. 73). Those "other Indians" included significant numbers of Navajos who had lived in the area for generations. Without specifying whose land was whose, events were set into motion that would pit the two Native peoples against one another, with devastating consequences in the coming decades.

The expanded Navajo land base was designed to alleviate tensions between the growing Diné population and the ever-expanding presence of non-Native settlers, and to accommodate the increasing presence of livestock in the region. Navajos, Hispanic ranchers, and Anglo-American ranchers were all competing for the same rangeland, particularly on the margins of each's territory. It is estimated that Navajo livestock reached its 19$^{th}$ century zenith in 1892, with over 1.7 million animals foraging on lands that were increasingly becoming less capable of sustaining them (Bailey and Bailey, 1986, p. 95). Rainfall in the 1880s was unusually and historically heavy, nourishing the grazing lands and replenishing water resources (1986, p. 105).

By 1893, severe drought had changed the dynamic, a condition that would continue for most of the decade.

Diné herdsmen and farmers had survived numerous episodes of drought in their post-contact history, but those climactic occurrences were not accompanied by the aggressive settler colonialism that impacted their existence during the final years of the 19th century (Towner, 2003, p. 172-175). Prior to and immediately after their exile to Hwéeldi, Navajos were less dependent on agriculture and pastoralism, and thus less susceptible to fluctuations in precipitation. The first years after the creation of the Navajo Reservation saw an uptick in the hunting of large game as Diné waited for their promised replenishment of livestock, but by 1874, it was reported that "the game has been nearly hunted out of the country" (Bailey and Bailey, 1986, p. 47). Navajos rallied around the development of their livestock herds and in so doing became an economic powerhouse in the region. This prosperity took a tremendous hit with the compounded impacts of overgrazed land, severe drought conditions, and the economic collapse of the Panic of 1893 (Campbell, 1938). Navajo livestock dwindled to 401,882 head by 1900, and as the new century dawned, Diné found themselves intertwined with the forces of settler colonialism as never before (Bailey and Bailey, 1986, p. 95). No longer an entity isolated from the outside world, Navajos were surrounded by special interest groups who wished to claim the valuable resources available in its territory; none more precious than the life-giving supply of water that had sustained their people since Changing Woman first drew breath.

## Navajo Water in the 20th Century

### Indian Water Rights and the U.S. Supreme Court

The Navajos were by no means alone in what had become a fight for water in Indian Country. Native peoples of the arid regions of the western United States were increasingly facing

competition from non-Native agricultural and mining interests. While the eastern half of the country tended to follow riparian water rights, which stated that, "water users closest to the source of water (receive) the strongest claim," the western territories followed a dictum of "first in time, first in right" (Fletcher, 2016, p. 491). In practicality, this was interpreted to mean whomever established the first beneficial use of the water could lay claim to it. This was a convenient interpretation for settler colonists who populated the western lands via homesteading while the federal government continued to marginalize indigenous peoples by shrinking their land bases. The Dawes Act of 1887 (also known as the General Allotment Act) effectively reduced the size of Native land holdings by 2/3, or roughly 100 million acres (Dawes Act of 1887, 2002). While seemingly an anomaly during this time, as the Navajo Reservation actually increased in size, the original lands of the Diné Bikéyah had similarly been reduced, leaving the Diné with a small island of territory surrounded by Anglo encroachment.

To establish a precedent for water rights claims, the federal government sued non-Indian users of the Milk River, who had diverted water upstream of the Fort Belknap Indian Reservation in Montana. The case eventually went to the Supreme Court and was settled in the landmark *Winters v. United States* decision in 1908, which held "that the creation of Indian reservations by federal action automatically reserve Indian water rights necessary to effectuate the purposes of the reservation" (Fletcher, 2016, p. 490). The caveat to this ruling was that those purposes must include irrigation for agricultural endeavors. Subsequent rulings, including *Arizona v. California* in 1952, which adopted the "practically irrigable acreage" standard for current and future water usage, and *Colorado River Water Conservation District v. United States* in 1976, indirectly addressed Navajo water claims, as the rulings include Indian tribes that are "dependent upon the

(Colorado) river for water" (Arizona v. California, 460 U.S. 605, 1983; Fletcher, 2016, p. 491-493).

While not exclusively dependent upon the Colorado River for its water, Diné sacred history is inextricably woven into the waters of Tooh Dibé Nitsaa Hahoodzo. Among the many western Indian nations that survived and thrived despite the arid environments of their homelands, the Navajos have had "reverence and understanding for the life-giving propensities of water" that "inspired an ethos, often reflected in ceremonies and tabus, of protecting water quality and preventing overexploitation of water-dependent resources" (Getches, 1988, p. 515). Whether it was the Waterway Ceremony, the Water Chant, or the simple act of praying for rain, the cultural aspect of Diné peoplehood has always incorporated water as a vital component. Supreme Court rulings helped confirm this, not because their intent was to acknowledge the ceremonial aspect of water, but rather since it was held that water was essential to the survival and existence of Native peoples. Justice Black, in summation of *Arizona v. California,* stated, "Without water there can be no production, no life" (Fletcher, 2016, p. 492).

The Taming of the Colorado River

Despite the rulings of the Supreme Court, there would be no end to the systematic impacts on or elimination of Navajo claims to water. The early years of the 20th century saw the entering of both Arizona and New Mexico into statehood as well as the continued ballooning of populations in California. As cities such as Los Angeles and Phoenix grew, so did their insatiable need for water, primarily sourced by the Colorado River. Harnessing the waters of main watercourses and tributaries of the Colorado River basin became an obsession with groups ranging from small and large irrigators, industrial developers, city planners, and a wide range of local, state and federal governments. The importance of this elaborate riverine system, spiderwebbing across the vast,

arid lands of the American Southwest, has long been known to those who have chosen to live there.

Devising ways to manipulate the flow of these waters for human benefit was not, however, a new phenomenon to the 20th century. The first known irrigation canals on the North American continent were constructed by the Indigenous populations living in the Santa Cruz River basin near present-day Tucson, Arizona over three thousand years ago (Boyer and Webb, 2007, p. 14). The Hohokam culture that emerged from those early irrigators created a brilliantly engineered system of canals on the Gila, Salt, and Verde Rivers between the 7th and 12th centuries AD (Plog, 2008, p. 81). The first ambitious American plan for radically taming the Colorado River for human use was articulated in director of the United States Geologic Survey John Wesley Powell's 1878 *Report on the Lands of the Arid Regions of the United States* (Boyer, et al., 2007, p. 16). His proposals were framed by the belief that but "for the great purposes of irrigation… the water has no value in its natural channel" (2007, p. 16). Powell advocated for the creation of water districts, organized into a hierarchy of irrigators that completely discounted the established water needs of Native populations in the region, including the Navajos. (2007, p. 17). No value was placed on the less tangible aspects of water that included the sacred histories and ceremonial practices of the many Indigenous cultures that lived in the Colorado River basin.

Powell's proposal ultimately failed to generate public support and was scrapped by the early 1890s. The seed for intensive taming of the Colorado River, however, had germinated, with numerous small-scale water diversion projects of varying degrees of success implemented throughout the basin. Limiting the expansion of any serious large-scale irrigation and damming proposals was the severe drought that impacted the region from 1891 to 1904 (2007, p. 27). Massive flooding accompanied the heavy rains that ended the drought in 1905, causing

widespread damage to fledgling irrigation projects near Yuma, Arizona (2007, p. 28). Despite these environmental hardships, those that wished to develop the American Southwest continued to scheme of ways to divvy up the precious contents of the main watercourse in the region.

1922 Colorado River Compact

When representatives of seven western states gathered at the high-toned Bishop's Lodge in Santa Fe, New Mexico in 1922, they agreed to divide the waters of the Colorado River into Upper Basin states—Colorado, New Mexico, Utah, and Wyoming—and Lower Basin states—California and Nevada (Candrian, 2011, p. 164). An interesting conundrum created by the creation of these two geographic areas is that one state—Arizona—resided in both basins, with the most of its portion of the Upper Basin contained within the lands of the Navajo Reservation. The formula for apportionment allowed for both Upper and Lower Basins receiving 7.5 million acre-feet with the Lower Basin also securing the added bonanza of increasing its portion by an additional 1 million acre-feet annually (Steiner, 1971, p. 408-410). With the rapidly growing populations in the Lower Basin and their allotment set to increase accordingly, it quickly became apparent that the Upper Basin would eventually be shortchanged in the transaction. Exacerbating the situation for the Navajo Reservation, in addition to its disadvantaged location within the Upper Basin, was the exclusion of any Native presence at the negotiating table in drawing up the Compact. Only one vague sentence in the entire agreement—found in Article VII—makes any reference to the Native populations that rely upon the Colorado River: "Nothing in this compact shall be construed as affecting the obligations of the United States of America to Indian Tribes" (Candrian, 2011, p. 164).

It is highly unlikely that this group of state representatives was unaware of the then-recent *Winters v. United States* decision regarding Indian water rights. Delph Carpenter,

representing Colorado, was referred to as the "shrewdest water-rights lawyer in the United States" and would certainly have been cognizant that the Colorado, San Juan, and Little Colorado rivers flowed through Navajo lands (2011, p. 165). The intentionality of leaving out Native input in creating guidelines for the Compact was apparent and not surprising given the political climate of the 1920s and the assimilationist federal policies prevalent at the time. The inclusion of Article VII as a vaguely worded afterthought set the stage for future Navajo water claims that would have major implications both for the tribe and all other parties of interest.

## The Era of Dams on the Colorado River

When Arizona finally ratified the terms of the Colorado River Compact in 1944, becoming the last state to join the agreement, the physical makeup of the river had already been radically changed. With the other six states already in tow, President Herbert Hoover signed the statute into law on June 25, 1929 and thus paved the way for the Boulder Canyon Project Act and authorized the construction of the Boulder Dam (now known as Hoover Dam) at Black Canyon on the boundary of Arizona and Nevada (Young, 2011, p. 70). One of the interesting provisions of the law was the inclusion of the wording, "that California should agree to limit her use of water to the benefit of the six other states," a promise that would prove difficult if not impossible to fulfill considering the rapid explosion of population that would soon follow (2011, p. 70). The number of California residents increased from 5.6 million in 1930 to nearly 40 million today, in large part due to the construction of Hoover Dam and the creation of Lake Mead as the main supplier of fresh water to the region (California's Population, 2020).

Concurrent with growing demands on the Colorado River water supply was the equally increasing desire for electricity to satisfy the requisite needs of users in the Lower Basin. In 1956, Congress passed the Colorado River Storage Act, which resulted in the creation of Glen

Canyon Dam and its adjacent reservoir, Lake Powell, near Page, Arizona (Smith, 2006, p. 148). This satisfied two needs—hydroelectric power for the burgeoning populations of the American Southwest and storage capacity for Upper Basin users. Lost on many involved in the conception of the project and subsequent construction was the chosen location of the site on Navajo lands. To address this potentially troublesome detail, the federal government initiated a land exchange with the Navajo Tribal Council, an agreement that offered the potential of much-needed economic development for the Navajo Nation at the expense of environmental and cultural degradation of the Diné Bikéyah (Dickey, 2011, p. vii). The short-term gains of increased construction work for Navajos as the dam was built were soon offset by the realization that Lake Powell had inundated lands that contained sacred prayers sites, destroyed natural springs that had ceremonial significance, and even "drowned several gods" ("Glen Canyon Dam," 2002).

The impacts of Glen Canyon Dam on Diné peoplehood were profound, as the place of land and water in the creation of Navajo identity was relegated as secondary to the prospect of improved livelihoods. Robert Begay, in *Doo Dilzin Da: Abuse of the Natural World,* explains the importance of undammed canyons to the well-being of the Navajo people,

> The Colorado River is also considered to be a living entity which runs through the Glen and Grand Canyons and acts as a natural boundary for the Navajo people, who thus depend on it for protection. The Colorado River, with its vast tributary system, is a source of power. This power is summoned when the songs of water are sung in certain ceremonies, such as Ti'eeji. Offerings are deposited into the river or in certain places throughout the canyon. These offerings also summon the deities that reside in locations within the canyon, to protect, to heal, to bring rain" (2000, p. 22).

No doubt Navajo Tribal Council members were faced with the unenviable task of choosing between maintaining traditional ways of the Diné and the resurrection of an economy still reeling from the federally implemented Navajo stock reduction program of the 1930s (Henderson, 1989, p. 379). Much has been written about the effects of this disastrously managed intrusion into Navajo lifeways and I will allow others to speak as to the long-term damage of such policies. Of interest to this study of water in relation to Diné peoplehood was the justification for such draconian measures, in part due to the allegation that Navajo overgrazing was contributing to the silting of the Colorado River, which "threatened to bury the Hoover Dam" (Boyce, 1974, x).

The reality of the creation of the Glen Canyon Dam is that Navajos were promised economic prosperity which did not come to fruition. The sacred chasm that provided a welcome respite for Diné herders and their flocks of sheep was filled with water that suited the needs of nearly everyone but the Navajos. To persuade Navajo Tribal Council members that the land swap was in the best interest of the reservation, U.S. lawmakers dangled the prospect of a Navajo Indian Irrigation Project (NIIP), designed to create a water-delivery system to Navajo lands near Shiprock, New Mexico (Dickey, 2011, p. 87). Chairman Sam Ahkeah, whose home of Shiprock stood to benefit the most from the proposed construction of Navajo Dam on the San Juan River, envisioned a large scale moving of Navajo families to the irrigation zone to operate small farming plots (2011, p. 99). The move would have facilitated a transformation of Diné away from their sheep-herding ways and into a lifestyle more in line with an assimilationist dream scenario of Native farmers sowing the earth. This plan failed to account for the intimate Navajo connections to the lands of the Dinétah and the greater Diné Bikéyah as well as an apparent lack of recognition of the painful history of relocation. When Congress approved the Colorado River

Storage Project in 1956, the final wording of the act eliminated the NIIP, despite making provisions for the building of Navajo Dam (2011, p. 110). The federal government got everything it wanted while the Navajos were left with empty promises. Diné medicine man Norris Nez reflected bluntly, "the Navajo people were deceived to build the dam. No one told them (Lake Powell) would fill up these sacred areas with water and sediment" (2011, p. 98).

## The Black Mesa Coal Slurry Pipeline

Electricity generated from hydroelectric plants created by damming sections of the Colorado River proved incapable of satisfying the insatiable power consumption needs of the continued population expansion of the American Southwest in the 1960s and 1970s. Desert oases that sprung up in locations that regularly exceeded 120 degrees Fahrenheit would only become attractive to such large numbers of people if reliable air-conditioning—fueled by electricity—could be counted on to tame the unbearable heat. It is with some measure of cruelty that Indigenous populations, who had lived in these same areas since time immemorial, often in numbers that were some of the largest settlements in precontact North America (Plog, 2008, p. 136) and without the aid of such amenities, would make the greatest sacrifices in realizing this chapter of the American Dream. The powering of the western United States would be accomplished through the construction and operation of numerous coal-fired electricity-generating plants, many of which relied upon resources extracted from Native lands.

The 1580 mega-watt Mohave Generating Station, built in Laughlin, Nevada and in full operation by 1971, was unique among the many western power plants in that it was the first in the world to be supplied by a slurry mixture of coal and water (Josephson, 1976, p. 1086). A 273-mile pipeline aided by five pumping stations, running from the Navajo and Hopi lands of Black Mesa and across the rugged Arizona landscape, moved vast amounts of strip-mined coal

combined with water extracted from the Navajo Aquifer (Nies, 2014, p. 49); (Figure 4). The water required for such a massive operation amounted to a staggering 1.2 billion gallons a year and resulted in a drop in the water table from ten to seventy feet, rendering the shallow wells used by Navajo and Hopi families unusable while also drying up natural springs (Padget, 2013, p. 364). In a promotional video that touted the breathtaking advances in technology that would run the generating station, Williams Technologies president of technology Morgan Greenwood falsely proclaimed the water needed for the pipeline "would have no effect on the Indians water supply," while adding, "The final decision was theirs. Indians, too, want the better things in life" (Nies, 2014, p. 49).

As is the case so often in deals involving Native peoples, the means to secure the rights to this project were fraught with intrigue, deception, and outright fraud. The underhanded dealings of Peabody Western Coal Company, including their attorney John Boyden (who incredibly *also* represented the Hopi Tribal Council), set into motion legislative action that pitted Navajo against Hopi and culminated in the Navajo-Hopi Land Settlement Act of 1974 (Tsosie-Paddock, 2018). Hundreds of Navajo families were uprooted from the only lands they had ever known, all in the name of progress for the non-Native users of electricity in urban areas far removed from those whose lives were negatively impacted and whose water sources were either depleted, contaminated, or both. Greenwood's flippant remark about Indians wanting the better things in life seems incredibly tone-deaf when taken in the context that for many Native families even the barest necessity of water was out of reach. Pauline Whitesinger, among the Navajos relocated when the boundaries of the Hopi Reservation were redrawn, reflected on the sad state of the condition of land and water after the degradation inflicted by extractive industries. "We have

many beliefs: the river that flows is our mother. A mountain is our mother… (Now) the springs and the hills have been killed… and the water is red now" (Benally, 2011, p. 51, 53).

## The Navajo Nation Today and Beyond

One of the dangers of analyzing the history of Native peoples is the promulgation of the perception that they are victims, at the mercy of their often-contentious relationships with the federal and state governments and hopelessly caught in machinations designed to strip them of agency. Equally disingenuous is any view that *fails* to recognize the all-out assault on Native lifeways that began with the first steps of Europeans on Indigenous soil over 500 years ago. Somewhere between these two extremes is the recognition that, despite the well-documented legacy of interference by settler colonialists, Native sovereignty is alive and well, even if the playing field remains uneven. As the 21st century enters its third decade, the Navajo Nation has taken the lead on numerous initiatives that have emboldened their claim on water and reinforced their cultural identity's connection to this essential life-giving force.

### Navajo Water Rights Settlements

The Supreme Court decisions in *Winters v. United States* and *Arizona v. California* clearly state that the water rights of Native tribes and nations, dependent upon the date of the creation of reservations, are senior to those of non-Natives (Fletcher, 2016, p. 490-491). Despite the backing of the highest law of the United States, the Congressional Research Service, in their 2019 report on Indian Water Rights Settlements, describe an arrangement that is less than straightforward in terms of Native claims to water. "Despite the priority of Indian reserved water rights, non-Indian populations frequently have greater access to and allocations of water through infrastructure. This discrepancy leads to disputes that typically have been litigated or, more recently, resolved by negotiated settlements" (2019, p. 2). The Navajo Nation currently has two such agreements,

with New Mexico and Utah, respectively, although at the time of this writing, the Utah deal still lacks Congressional approval (Bishop and Roberts, 2020). Both deals combined would guarantee over 617,000 acre-feet of water to be used by the Nation, where it is estimated that more than 30% of its citizens have no access to running potable water (Lynette, 2010, p. 27). Current Navajo Nation President Jonathan Nez, in stressing the importance of such deals at a hearing before Congress, testified,

> Safe drinking water is a basic human need, and the consequences of lack of access to reliable, potable water supplies can be staggering. With this guarantee of water, we will be able to live in a more harmonious state in our permanent homeland for generations to come (Cronkite News, 2019).

Absent from the list of water rights settlements is a deal with Arizona, where the majority of Navajos live. The proposed Navajo-Hopi Little Colorado Water Settlement has been bogged down with lawmakers for years despite initial tribal consent for the agreement. Then Navajo Nation President Ben Shelly, in a 2012 press release, stated, "Under the settlement the Navajo Nation has the right to use ALL of the water arising on, running through, or under the Navajo Reservation, without limits except with respect to water sources shared with the Hopi Tribe" (Yazzie, 2013, p. 26). Despite Shelly's assurances otherwise, the settlement *does* in fact have serious potential limitations, as evidenced by the wording that Navajos must agree to waive "past, present, and future claims for water rights for Navajo land and land of the Navajo Nation" based on the least amount of water that the Nation might use in the future (2013, p. 28). Such wording may have impacted the future of the Navajo-Utah Water Settlement if in fact the Little Colorado deal had been ratified. As is the case with all water rights negotiations, interpretations

of the numerous laws on the books can prove challenging, with a tendency to favor those with the greatest amount of resources.

In a remarkable show of the Navajo citizenship taking control of addressing the issue of water rights for the betterment of the whole, the Navajo Nation Tribal Council listened to their constituents and rejected the terms of the settlement. Council delegate Katherine Benally then introduced a modified proposal that eliminated all wording of waiving future claims, which passed a Council vote of fifteen to one (2013, p. 34). The vote signified an exercise in tribal sovereignty that placed the needs of Diné citizens ahead of those of outside water users. The significance of such grassroots action was not lost on Council delegate Russell Begaye, who issued a passionate proclamation,

> Today is a critical day for our Nation, and I strongly believe it is a beginning of a new era in Navajo life… Let it be said loud and clear to leaders in Washington that we, the Navajo people, are capable of doing what we want and from this day forward we will determine our own future (2013, p. 34).

Water Delivery Infrastructure

A large part of that future will depend on the ability of the Nation to deliver water to the many on the reservation who lack access to it. Creating the necessary infrastructure will take a coordinated effort between tribal and federal entities. Water rights settlements have guaranteed the quantity available for tribal usage, but additional measures must be taken to fund the massive undertaking of getting water to all citizens, many of whom live in remote areas not previously serviced by any utility. Current legislation introduced by Congressmen Raúl Grijalva (D-Ariz.) and Tom Udall (D-N.M.)—the Indian Water Rights Settlement Extension Act—would secure funding to improve existing infrastructure and finance new construction of water-delivery

systems ("Grijalva, Udall", 2019). Grijalva, in presenting the bill to the Senate Committee on Indian Affairs, stated,

> Water is a basic necessity, and tribes shouldn't have to fight for access to basic necessities. Climate change and drought are making water harder to come by across the west. This bill gives tribes the resources they need to build and improve their water systems, sustain cultural practices, improve health, welfare and agriculture, and help their economies grow (2019).

The timeliness and importance of this legislation has become manifestly critical during the current COVID-19 pandemic. The Navajo Nation has been hit hard by this disease, with infection rates trailing only New York and New Jersey and ten times higher than in Arizona (Abou-Sabe, et al., 2020). Chief medical officer Dr. Loretta Christensen notes the cruel irony of "telling people, 'Wash your hands for twenty seconds multiple times a day,' and they don't have running water… (I)t's just a setup for frustration and concern by the population here" (2020).

Climate Change

Exacerbating the issues with a lack of consistent water sources on the Navajo Nation is the ongoing destructive forces of climate change. It is beyond the scope of this research to delve into how and why rising temperatures and concurrent declines in precipitation have become environmental standards in the American Southwest and elsewhere throughout the globe. Based on tree rings, ice core samples, coral samples, and historical data, there is no doubt temperatures have been rising at an alarming rate since the latter half of the 20$^{th}$ century (Figure 5). Concurrent with rising temperatures, dendrochronological records indicate the Colorado Plateau region has sustained severe drought conditions since 1999 (Brice, 2020, p. 127). The combined effects of both phenomena have been especially troublesome for Navajo Nation water managers

tasked with developing strategies to mitigate the effects of climate change while maintaining a cultural sensitivity to existing tribal knowledge in dealing with these conditions. A Navajo Nation water resources report, in an acknowledgement of the scientific aspects of climate change, asserts,

> Warming of the climate system is unequivocal, and since the 1950s, many of the observed changes are unprecedented over decades to millennia. The atmosphere and oceans have warmed, the amounts of snow and ice have diminished, (and the) sea level has risen…" (Atencio, 2015, p. 4).

Declining surface waters and the disappearance of natural springs are a recent occurrence in Diné history but grappling with the effects of climate change are imbedded in oral histories, where cataclysmic environmental events often forced the migration of peoples and a change in ways of living (2015, p. 2). Atencio describes an imbalance in the spiritual realm having the ability to negatively influence the physical realm (2015, p. 29). Hózhó is achieved when all beings are in harmony and balance is maintained or restored. The current plight of the earth, housing billions who neither understand nor respect the need to act as stewards, is a clear example that an adherence to Indigenous principles is in order. Diné and other Indigenous spiritual beliefs may have the answers to reversing the effects of climate change; the question is how to get the rest of the world to listen.

## Conclusion

### Water as a Component of Peoplehood

The demonstrated link between Diné identity and water has been a primary focus of this thesis but the connection of the two applies to the broader conversation of Indigenous peoplehood. Hopi leader Vernon Masayesva, whose words often reflect his people's deep affinity with water,

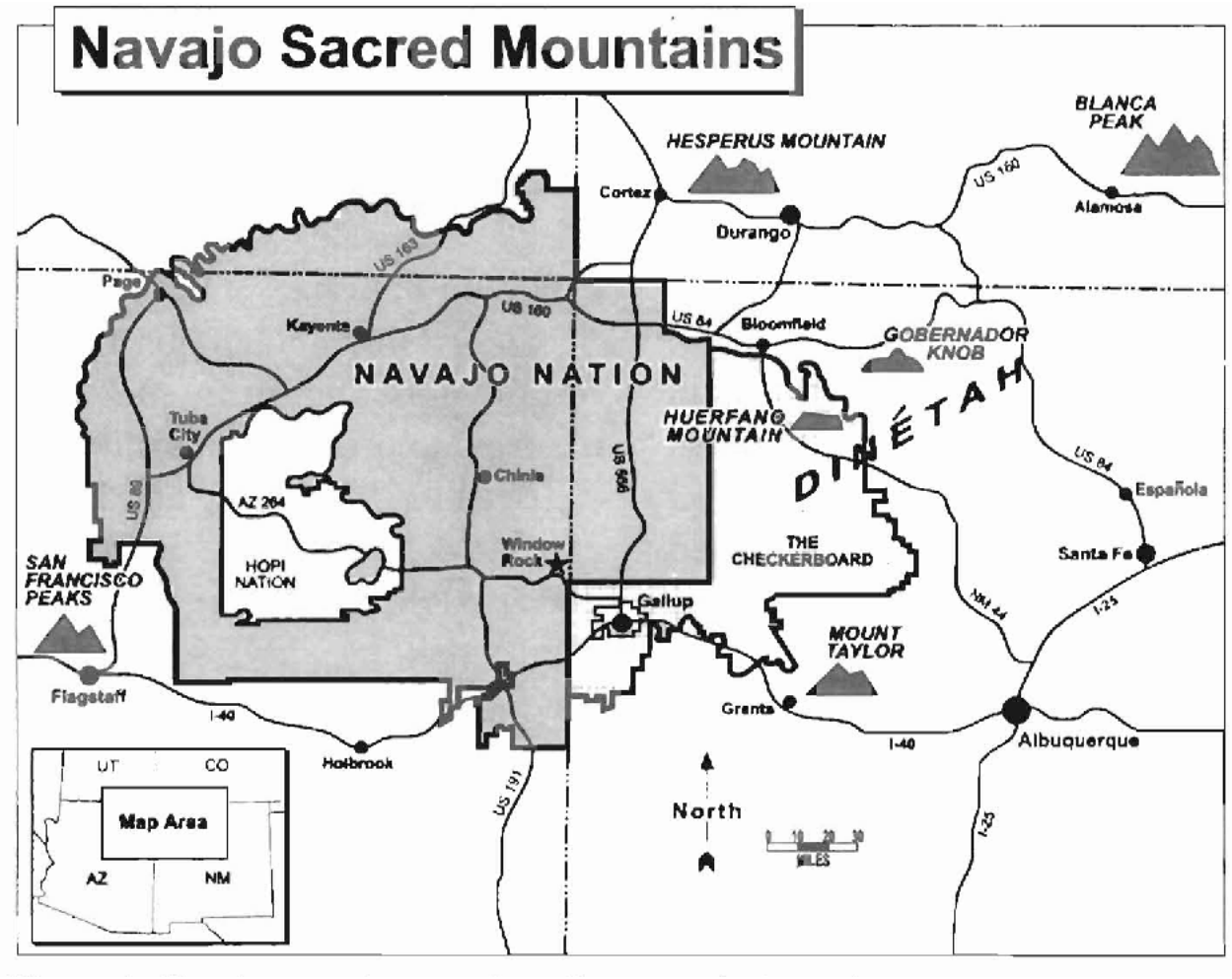
explains, “Time and water are all connected. Rivers flow to the sea, the sea evaporates to make the clouds that rain down into rivers. We are all part of this cycle” (Dickey, 2011, p. 105). In Hopi origin stories, the human form emerged out of water to form a covenant with Masaw—the earth’s guardian and protector—to act as stewards of all creation (Snell, 2007, p. 16). The Blackfeet view water as one of the three sacred realms of existence. Divine water beings, known as the Soyiitapi, instruct humans to protect the water world. Blackfeet cannot eat anything that lives in water and they are expected to refrain from any activity that would disturb or upset the natural balance between water and other living beings (LaPier, 2019). The Maori of New Zealand, who believe in the personhood of water and view rivers as living ancestors, have been successful in incorporating their belief system into government recognition of the need to protect endangered waters. The Te Awa Tupua Whanganui River Claims Settlement Bill, passed in 2017, recognizes the river as having “all the rights, powers, duties, and liabilities of a legal person” (2019).

All cultures depend on water for existence and for survival. Indigenous peoples, with a near-common thread of recognizing the personhood of all beings, sentient and non-sentient. Water is essential to life because *is* life. Water is found in language. The Diné word for water—*tó*—is found as a prefix for clans, towns, and landmarks. Water is found in sacred histories. In Diné creations stories, Changing Woman, after successfully bringing the clans to reside on the earth, completes her task by arriving “at the great water of the West and went to dwell in her floating house beyond the shore. Here she still lives, and here the Sun visits her when his journey is done, every day that he crosses the sky” (Hausman, 1993, p. 128). Water is part of ceremony, as the Diné Waterway, Water Chant, and rain dances would attest. Water is part of the land and a lack of water makes the land harsh, unforgiving, and less productive. Diné identity is so

entrenched in water that in arguably the most critical moment in the continued survival of his people, Barboncito looked General Sherman in the eye at Fort Sumner and sternly proclaimed, “We know this land does not like us. Neither does the water” (Sundberg, 1995, p. 87). He spoke these words with conviction because he knew a place where the land and water did like his people—the Dinétah, with its gorgeous swirls of red sandstone canyons, high plateau juniper forests, and cool, meandering rivers sustaining life in all of its forms. Every Indigenous culture has their own version of a Dinétah and within those sacred territories, one constant resource that none can do without. Water is not only life but an essential marker of identity.

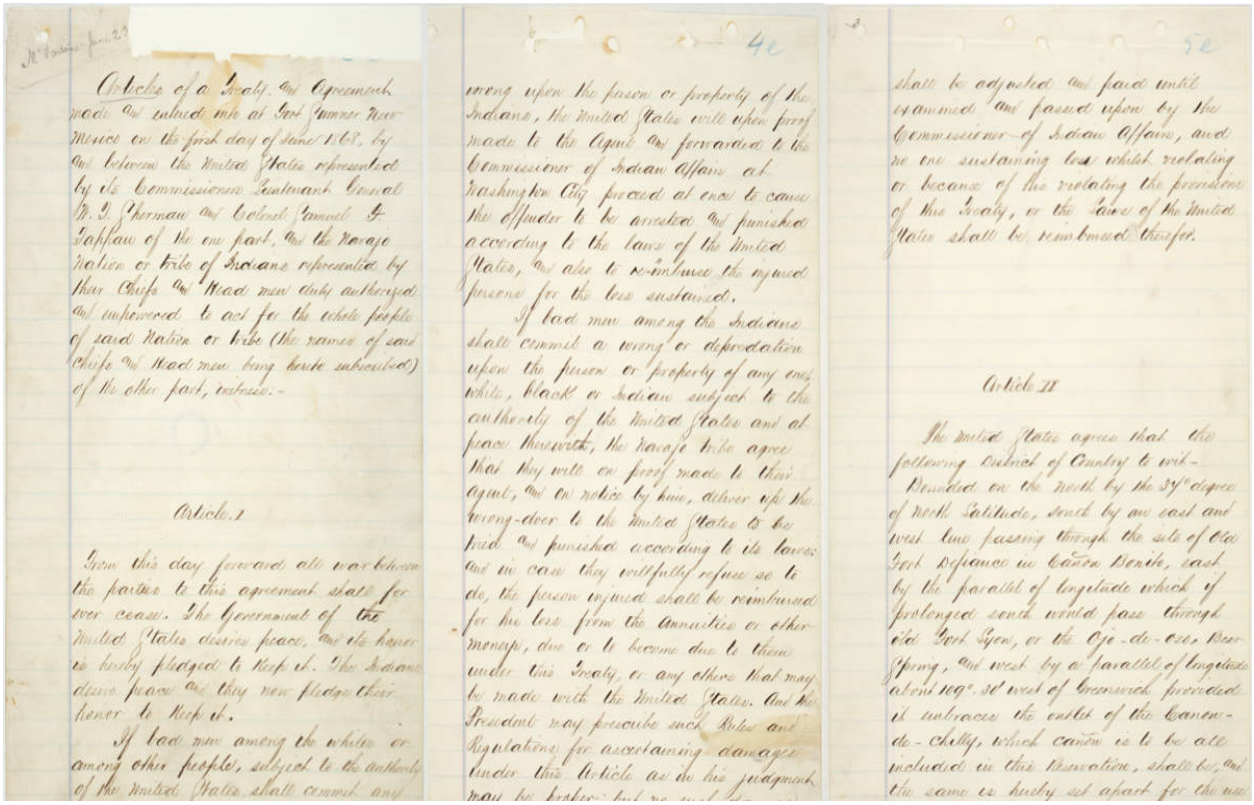
Figures

**Figure 1** *Lands of the Dinétah*




*Note.* https://d3i71xaburhd42.cloudfront.net/ebcaf5af9bfc503de8779f584887d16985f99fad/6-Figure1-1.png

**Figure 2** *Treaty of 1868*



Articles of a Treaty and Agreement made and entered into at Fort Sumner New Mexico on the first day of June 1868, by and between the United States represented by its Commissioners Lieutenant General W. T. Sherman and Colonel Samuel F. Tappan of the one part, and the Navajo Nation or tribe of Indians represented by their Chiefs and Head men duly authorized and empowered to act for the whole people of said Nation or tribe (the names of said Chiefs and Head men being hereto subscribed) of the other part, witness.-

Article I

From this day forward all war between the parties to this agreement shall forever cease. The Government of the United States desires peace, and its honor is hereby pledged to keep it. The Indians desire peace and they now pledge their honor to keep it.

If bad men among the whites or among other people, subject to the authority of the United States shall commit any

4

wrong upon the person or property of the Indians, the United States will upon proof made to the Agent and forwarded to the Commissioner of Indian Affairs at Washington City proceed at once to cause the offender to be arrested and punished according to the laws of the United States, and also to reimburse the injured persons for the loss sustained.

If bad men among the Indians shall commit a wrong or depredation upon the person or property of any one white, black or Indian subject to the authority of the United States and at peace therewith, the Navajo tribe agree that they will on proof made to their Agent, and on notice by him, deliver up the wrong-doer to the United States to be tried and punished according to its laws; and in case they willfully refuse so to do, the person injured shall be reimbursed for his loss from the annuities or other moneys due or to become due to them under this Treaty, or any others that may be made with the United States. And the President may prescribe such Rules and Regulations for ascertaining damages under this Article as in his judgment may be proper; but no

5

shall be adjusted and paid until examined and passed upon by the Commissioner of Indian Affairs, and no one sustaining loss while violating or because of his violating the provisions of this Treaty, or the laws of the United States shall be reimbursed therefor.

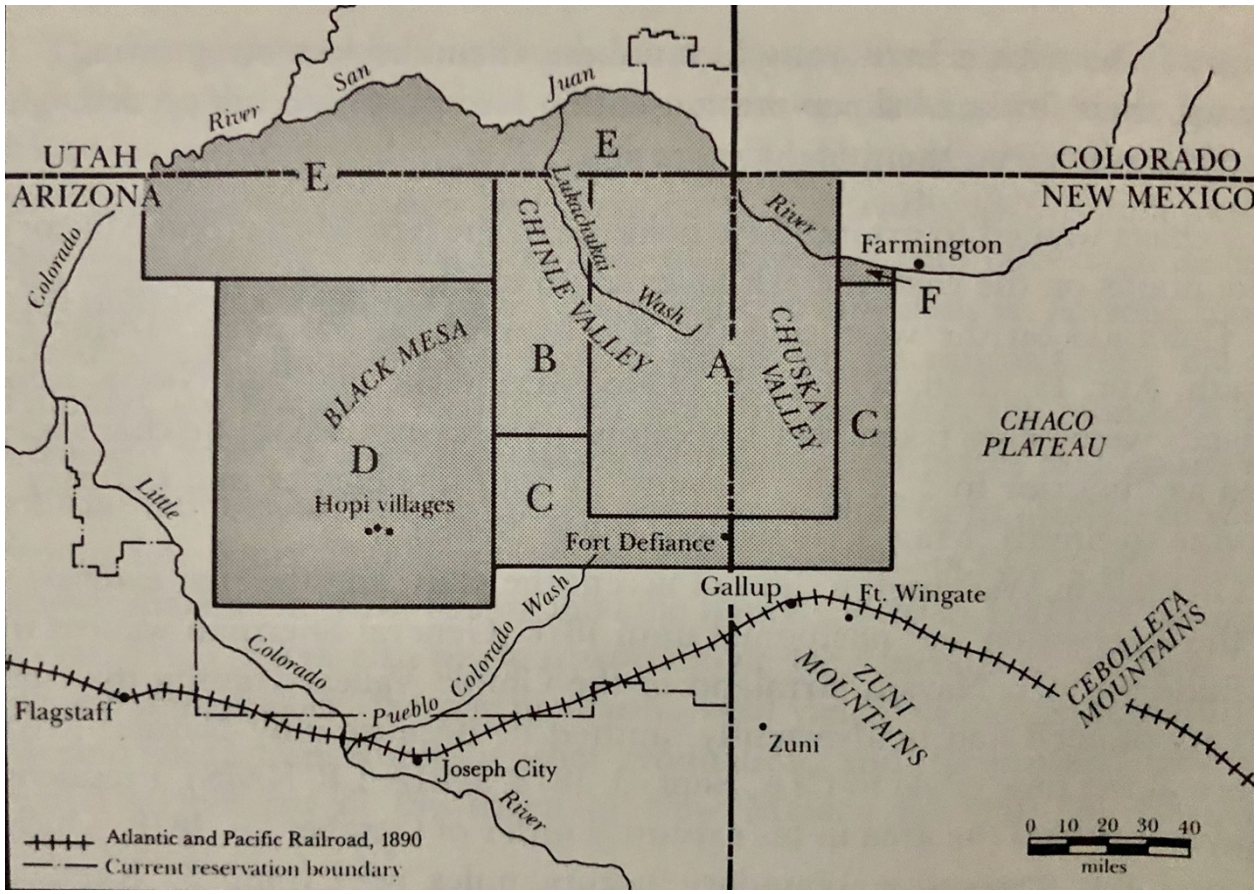
Article II

The United States agrees that the following District of Country to wit-

Bounded on the north by the 37th degree of north latitude, south by an east and west line passing through the site of Old Fort Defiance in Cañon Bonito, east by the parallel of longitude which if prolonged south would pass through Old Fort Lyon, or the Oje-de-ose, Bear Spring, and west by a parallel of longitude about 109° 30' west of Greenwich provided it embraces the outlet of the Canon-de-Chilly, which cañon is to be also included in this reservation, shall be, and the same is hereby set apart for the use

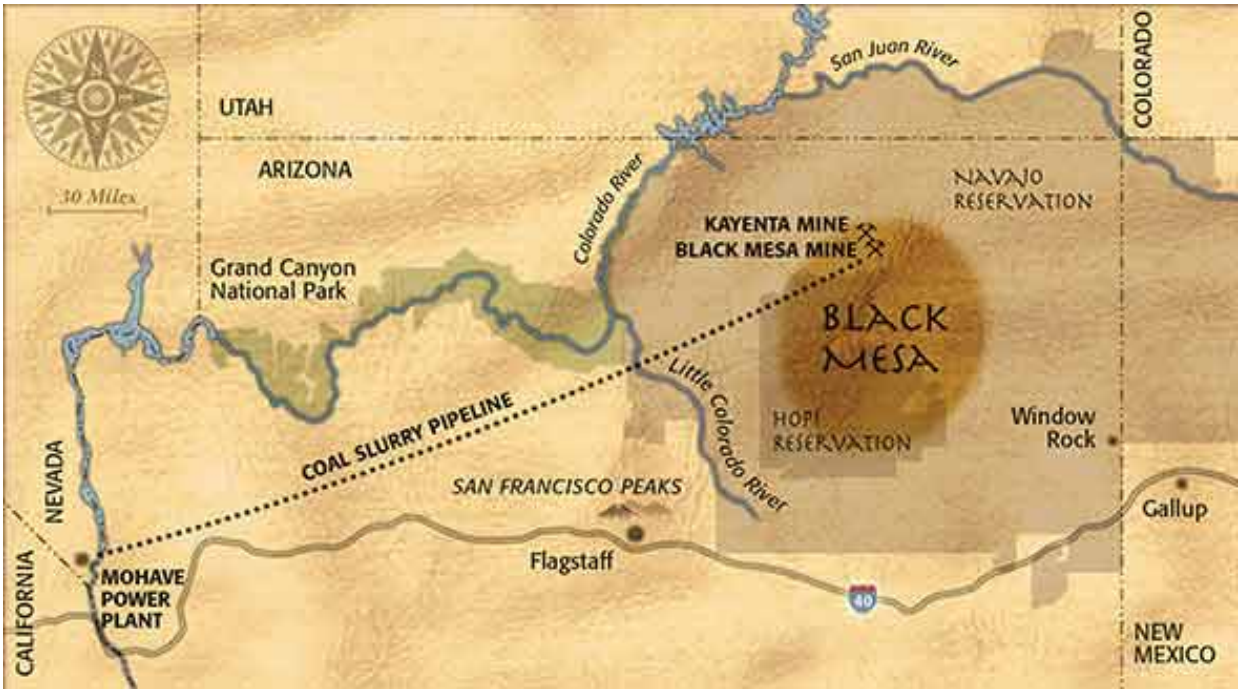
*Note*. https://navajowotd.com/wp-content/uploads/2018/06/IMG_9325.jpg

**Figure 3** *Navajo Reservation Map 1868-1886*



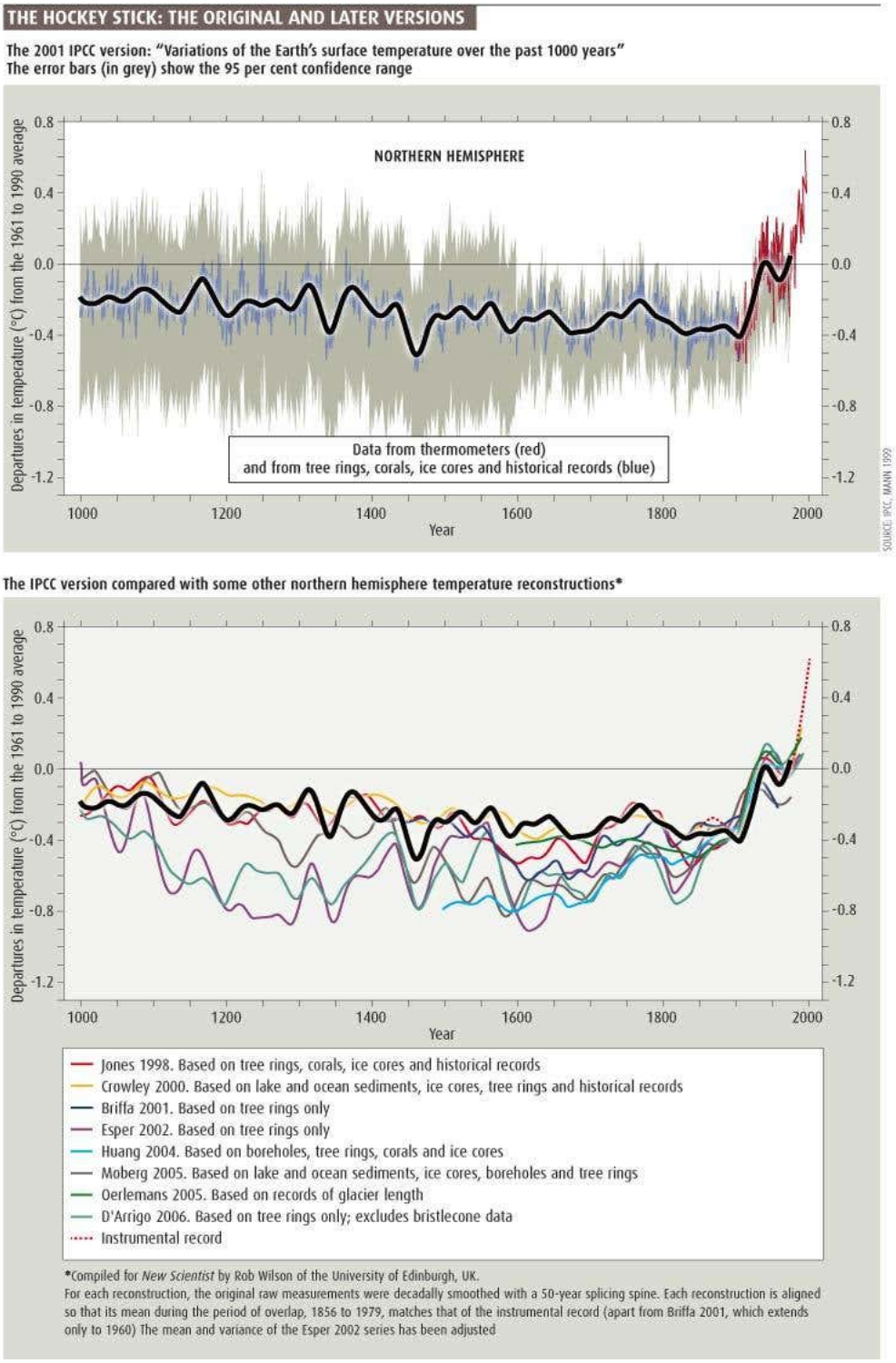

*Note.* Bailey, G. & Bailey, R. G. (1986). *A history of the Navajos: The reservation years.* School of American Research Press.

**Figure 4** *Black Mesa Coal Slurry Pipeline*




*Note.* https://intercontinentalcry.org/wp-content/uploads/blackmesamap.jpg

**Figure 5** *Temperature Data*




*Note.* https://images.newscientist.com/wp-content/uploads/2007/05/mg18925431.400-2_752.jpg?width=800

References

Abou-Sabe, K., McFadden, C., Romo, C., & Longoria, J. (2020, April 20). Coronavirus batters the Navajo Nation, and it's about to get worse. Retrieved from https://www.nbcnews.com/health/health-news/coronavirus-batters-navajo-nation-it-s-about-get-worse-n1187501

Adamson, J. (2015). The Ancient Future: Diasporic Residency and Food-based Knowledges in the Work of American Indigenous and Pacific Austronesian Writers. *Canadian Review of Comparative Literature / Revue Canadienne De Littérature Comparée, 42*(1), 5-17.

Atencio, M. (2015). *A Diné conceptualization of global climate change: An application of a Diné research methodology.* Available from ProQuest Dissertations & Theses Global.

Atlantic & Pacific Railroad. (1870). *Atlantic and Pacific Railroad Stockholders Meeting.*

Arizona v. California, 460 U.S. 605 (1983). (n.d.). Retrieved from https://supreme.justia.com/cases/federal/us/460/605/

Austin, R. (2007). *Navajo courts and Navajo common law.* The University of Arizona.

Bailey, G. A., & Bailey, R. G. (1986). *A history of the Navajos: The reservation years*. School of American Research Press.

Begay, R. (2000). Doo Dilzin Da: Abuse of the natural world. *American Indian Quarterly, 25*(1), 21-27.

Benally, M. (2011). *Bitter water: Diné oral histories of the Navajo Hopi land dispute* (First Peoples: New directions in Indigenous studies). University of Arizona Press.

Berger, B. R. (2011). *Williams v. Lee* and the debate over Indian quality. *Michigan Law Review, 109*(8), 1463, 1466.

Bishop, & Roberts. (2020, February 12). All Info - H.R.644 - 116th Congress (2019-2020): Navajo Utah Water Rights Settlement Act of 2019. Retrieved from https://www.congress.gov/bill/116th-congress/house-bill/644/all-info

Boyce, G. A. (1974). *When Navajos had too many sheep: The 1940's*. The Indian Historian Press.

Boyer, D. E., Webb, R. H., & Collier, M. (2007). *Damming Grand Canyon: The 1923 USGS Colorado River expedition.* Utah State University Press.

Brady, J. (2018, November 29). 2 Years After Standing Rock Protests, Tensions Remain but Oil Business Booms. Retrieved from https://www.npr.org/2018/11/29/671701019/2-years-after-standing-rock-protests-north-dakota-oil-business-is-booming

Brice, R. L. (2020). *Dendrochronological perspectives on seasonal hydroclimate of the Colorado Plateau region, USA.* The University of Arizona.

Brugge, D. M. (1980). *A history of the Chaco Navajos*. Div. of Chaco Research, Nat. Park Service.

Burlin, N. C. (1923). *The Indians' book: An offering by the American Indians of Indian lore: Musical and narrative*. Harper and Brothers.

California's Population. (2020). Retrieved from https://www.ppic.org/publication/californias-population/

Campbell, E. (1938). *The organization of the American railroad system, 1893-1900; a study of the effects of the Panic of 1893, the ensuing depression, and the first years of the recovery in railroad organization and financing*. New York, London: Columbia University Press.

Candrian, J. (2011). Building with blinders on: How policy makers ignored Indian water rights to the Colorado, setting the stage for the Navajo Dam. *Colorado Journal of International Environmental Law and Policy, 22*(1), 159-187.

Carey, Jr., H. (2013). K'é – Diné (Navajo) Kinship System. Retrieved from https://navajopeople.org/blog/ke-dine-navajo-kinship-system/

Circle, B. M., Haile, B., & Goossen, I. W. (1979). *Waterway: A Navajo ceremonial myth*. Museum of Northern Arizona Press.

Cohen, F. (1942). *Handbook of Federal Indian Law*. University of New Mexico Press.

Cronkite News. (2019, December 31). Navajo, Hualapai water-rights bills get warm reception in House hearing. Retrieved from https://cronkitenews.azpbs.org/2019/06/26/navajo-hualapai-water-rights-bills-get-warm-reception-in-house-hearing/

Dawes Act of 1887. (2002). *The New Dictionary of Cultural Literacy*. Houghton Mifflin.

Dickey, S. (2011). *Sacrilege in Dinétah: Native encounters with Glen Canyon Dam.* University of New Mexico Digital Repository of Theses and Dissertations.

Fletcher, M. L. M. (2016). *Federal Indian law.* West Academic Publishing.

Getches, D. H. (1988). Managing and marketing of Indian water: From conflict to pragmatism. *University of Colorado Law Review 58*(4), 515-549.

Glen Canyon Dam: Socio-cultural. (2002, March 26). Retrieved from https://kenyon.edu/projects/Dams/gsc05det.html

Grijalva, Udall Introduce Bill to Fund Water Infrastructure in Indian Country, Help Tribes Meet Longstanding Demand for Guaranteed Water Access: The House Committee on Natural Resources. (2019, March 27). Retrieved from https://naturalresources.house.gov/media/press-releases/grijalva-udall-introduce-bill-to-

fund-water-infrastructure-in-indian-country-help-tribes-meet-longstanding-demand-for-guaranteed-water-access

Hammond, G. P., & Rey, A. (1966). *The Rediscovery of New Mexico: 1580-1594: The explorations of Chamuscado, Espejo, Castaño de Sosa, Morlete, and Leyva de Bonilla and Humaña*. The University of New Mexico Press.

Hausman, G. (1993). *The gift of the gila monster: Navajo ceremonial tales.* New York: Simon & Schuster.

Henderson, E. (1989). Navajo livestock wealth and the effects of the stock reduction programs of the 1930s. *Journal of Anthropological Research, 45*(4), 379-403.

History & Culture. (n.d.). Retrieved from https://www.nps.gov/cach/learn/historyculture/index.htm

Holm, T., Pearson, J. D., & Chavis, B. (2003). Peoplehood: A Model for the Extension of Sovereignty in American Indian Studies. *Wicazo Sa Review, 18*(1), 7-24.

Iverson, P., & Roessel, M. (2002). *Diné a history of the Navajos*. University of New Mexico Press.

Josephson, J. (1976). How the coal slurry pipeline in Arizona is working. *Environmental Science & Technology, 10*(12), 1086.

Kelley, K., & Francis, H. (2019). *A Diné history of Navajoland.* University of Arizona Press.

Kelley, K., & Francis, H. (2001). Many Generations, Few Improvements: "Americans" Challenge Navajos on the Transcontinental Railroad Grant, Arizona, 1881–1887. *American Indian Culture and Research Journal, 25*(3), 73-101.

Kelley, K. B., & Whiteley, P. M. (1989). *Navajoland: Family settlement and land use*. Navajo Community College Press.

Kessell, J. L. (1981). General Sherman and the Navajo Treaty of 1868: A Basic and Expedient Misunderstanding. *The Western Historical Quarterly, 12*(3), 251. doi:10.2307/3556587

LaPier, R. R. (2019, May 18). *Why is water sacred to Native Americans?* Retrieved from http://theconversation.com/why-is-water-sacred-to-native-americans-74732

Lee, L. L. (2014). *Diné perspectives: Revitalizing and reclaiming Navajo thought*. University of Arizona Press.

Lee, L. L., & Denetdale, J. (2017). *Navajo sovereignty: Understandings and visions of the Diné people*. The University of Arizona Press.

Lynette, J. (2010). Navajo Nation: 30% Without Access to Regulated Drinking Water. *Journal - American Water Works Association, 102*(10), 28-29.

McNitt, F. (1990). *Navajo Wars: Military campaigns, slave raids, and reprisals*. University of New Mexico Press.

Navajo Nation Treaty of 1868. (n.d.). Retrieved from http://www.navajocourts.org/Treaty1868.html

Navajo Traditional Teachings Home. (2020). Retrieved from https://navajotraditionalteachings.com/

Navajo Tribal Clans. (2002). Retrieved from http://www.nativestudy.com/navajo-tribal-clans.html

Nies, J. (2014). *Unreal city: Las Vega, Black Mesa, and the fate of the West*. Nation Books.

NPS (n.d.). Retrieved from https://www.nps.gov/cach/planyourvisit/index.htm

Padget, M. (2013). Hopi film, the Indigenous aesthetic and environmental justice: Victor Masayesva Jr.'s Paatuwaqatsi—water, land, and life. *Journal of American Studies, 47*(2), 363-384.

Plog, S. (2008). *Ancient peoples of the American Southwest.* Thames & Hudson.

Reichard, G. A. (1950). *Navaho religion: A study of symbolism*. Pantheon Books.

Smith, T. G. (2006). *Green republican: John Saylor and the preservation of America's wilderness.* University of Pittsburgh Press.

Snell, M.B. (2007). The rainmaker. *Sierra, 92*(1), 16-20.

Steiner, W. E. (1971). *Politics of the Colorado River.* Arizona Water Commision.

Sundberg, L. D. (1995). *Dinétah: An early history of the Navajo people*. Sunstone Press.

The Origin of the Name "Navajo": Peoples of Mesa Verde. (2014). Retrieved from https://www.crowcanyon.org/EducationProducts/peoples_mesa_verde/post_pueblo_navajo_name.asp

Thompson, G. (1976). *The army and the Navajo*. The University of Arizona Press.

Towner, R. H. (2003). *Defending the Dinetah: Pueblitos in the ancestral Navajo homeland*. University of Utah Press.

Tsosie-Paddock, A. (2018). Second-generation Navajo relocatees: Coping with land loss, cultural dispossession, and displacement. *Wicazo Sa Review 33*(1), 87-116.

Unites States. (2012). *Colorado River Storage Act* (Legislative Insight). Bethesda, MD.

Water Rights. (n.d.). Retrieved from https://www.nnwrc.navajo-nsn.gov/Water-Rights

Wheelwright, M. C. (1973). *Hail chant and water chant*. Microfilming of America.

Yazzie, M. (2013). Unlimited limitations: The Navajos' *Winters* rights deemed worthless in the 2012 Navajo-Hopi Little Colorado River settlement. *Wicazo Sa Review, 28*(1), 26-37.

Young, W. R. (2011). Significance of Boulder Canyon Project. *Civil Engineering 80*(11), 66-70.