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PERSPECTIVES

A SMALL BUT ULTIMATE PRESENCE

By Isaac Espósto

This year the heat of the desert grew, and the absence of water only became more stark against that rapidly rising contrast. Tucson, my home, set a new record of 11 consecutive days of temperatures exceeding 111 degrees Fahrenheit by the middle of July, 2023. In other areas of the state where I travel, such as the community of Ajo, we have experienced even hotter temperatures with multiple days' highs hitting 114 degrees Fahrenheit. Even the saguaro/Ha:sañ, forever existing in this place, began to curl in on

themselves in a concave dehydrated bow.^[1] In Southern Arizona, where we write of the dry river beds and the wall corralling (some in, some out), it might appear paradoxical to highlight water—this small but ultimate presence—as the center of things. However, the story of water in the Sonoran Desert is a story of the body, of bodies, their movements and health and management and survival. Only so much can be told in academic questioning, but the rest is left meandering and subterranean. What we are left



This sunset view of the Sonoran Desert shows the distinctive form of saguaro cacti. Image courtesy of Isaac Esposto.

with is a sort of unworded rage that quiets the cattle and landlocks the eastern winds.

I've been thinking for a while about what to say towards this issue on the politics of water, mobility, the body, and where to even start. Where there is hope and where there is theft. There is so much to understand about water in the desert. It's been gathering for years. As people often do when stuck with too much, I turned to someone who knows more precisely. Tohono O'odham

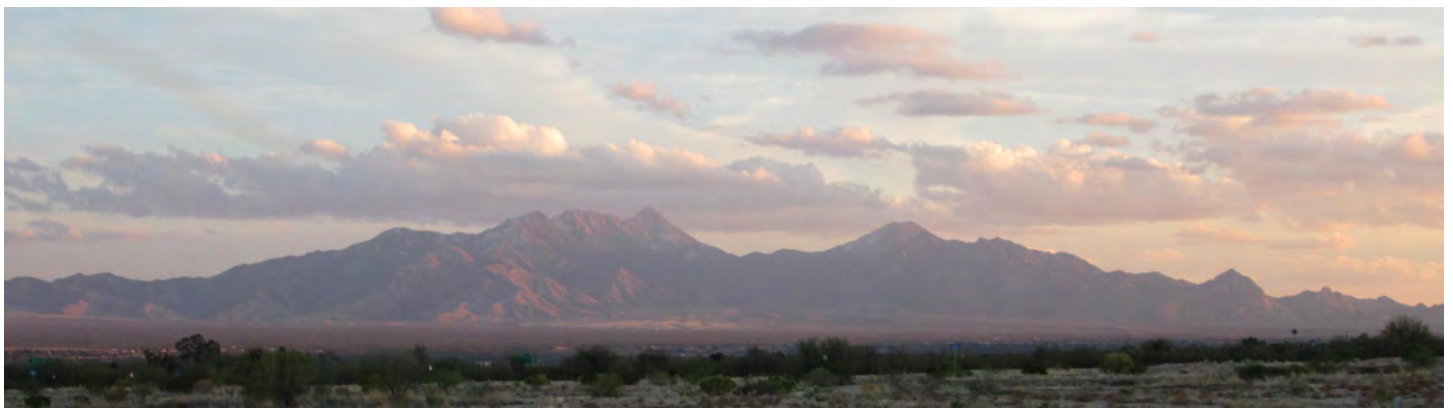
scholar Ofelia Zepeda, in her poem "Pulling Down the Clouds," stories the moment women pull down the monsoon rains with hooks offering us a moment where "the change in the molecules is sudden, / they enter the nasal cavity."^[2] Its scent, even in dreams, is something I hope this piece considers down to the level of the unseeable. Water in the desert is bodied, is embodied. Sitting across the table from me, from you.

Incomplete History of Water, of Blood: New Spain's Expansion into the Sonoran Desert

Years ago, when my father ended up having to move, he ended up next to a mine—a tall beige one with boxy edges. You can see the tailing ponds' aquamarine glimmer from many of the long mountain ranges in the area (aptly known as Sky Islands) if you're up high enough, looking from the Santa Ritas to the East, the Sierritas to the West. I spent days worried about his drinking water, his air quality, his residence in the long genealogy of communities rendered disposable for extraction's sake, led towards sacrifice by the tumefied god of profit. I woke up at night wondering where this tunnel, carved by the logic of digging at all costs, would lead us.

The mine, now his neighbor, is a copper mine—often considered singular in its ability to disturb land and produce astronomical amounts

of waste byproducts. The dry and windy seasons of the desert mean it is easy for the mine's tailing to travel farther. These finely ground particles, almost like baking flour, spread into air into soil, into water, and into the body at a great speed. As many scientific studies have shown, the risks of living in proximity of copper mines is no small calculation as sulfide-ore copper is known to release six of the top ten environmental toxins—mercury, lead, arsenic, particulate air pollution, asbestos, and cadmium—in addition to specific sulfates that fuel a chemical process that turns mercury into a more toxic form called methyl mercury.^[3] In 2012, an Earthworks study tracked modern copper mining in the United States and found that 100 percent of all mining operations active for five or more years had polluted groundwater and aquifers.^[4]



View of the Santa Rita Mountains from Sahuarita, Arizona, at sunset.

Years later, after my father's cancer diagnosis, I'm left with questions and the lack of a clear answer on how we got here. Or, to be more honest, not necessarily the how but the why and the slippery when. With certainty, the visceral and tangible present of a place is central to questions of violence and harm in the borderlands today. As Ruth Wilson Gilmore writes there is always a geographical imperative that brings together geography, justice, and the body, as "justice is... always spatial, which is to say, part of a process of making a place." [5] There is also a need to look beyond this moment, looking back towards the first ruptures of harm both in terms of violence against the ecosystem and violence against the body in the Sonoran Desert. This insistence on an attention to time is sparked for me by conceptions of slow violence building up over time, or rather defined as "a violence that occurs gradually and out of sight, a violence of delayed destruction dispersed across time and space, an attritional violence that is typically not viewed as violence at all." [6] What does unspectacular, actuated, or unseen violence mean when it has been left to accumulate for hundreds of years? Possibly dripping away beneath our feet? For that question hanging above the entrance to the phantasmal and haunting past, I've turned to archives and stories. Although colonial records should be held at an arm's distance and interpreted with care, I hope to start here with the interwoven history of Spain's mining forays into the Sonoran desert

in order to better understand how contemporary inequality and dispossession operate as the vestiges of the colonial state's relation to resources, specifically water. We can only understand what has been made today through an awareness of what was unmade in the process.

Copper wasn't where it started; first it was silver and gold. Starting in the sixteenth century, Spanish colonialism inaugurated a violent process of land theft, dispossession, resource hoarding, and extractive material practices here in the Sonoran Desert. We'll start with just a sliver: the author of this text excerpt above, Baltasar de Obregón, was born in Mexico City in January 1544. Inheriting his father's *encomienda* [7] but ultimately unsatisfied and desiring more fame and wealth among other things, Obregón aspired to produce historical chronicles that would gain the attention of King Philip II in order to win him a governorship. During this time of Spain's violent imperial expansion in what is currently known as México, Obregón enlisted as a soldier at the age of 19. Shortly afterward, he joined Francisco de Ibarra with whom he served until 1566; he returned to México after that. Obregón was hardly alone in this thirst for conquest; Francisco de Ibarra himself is a prominent character of note. After having traveled from his place of birth in Spain, and with the financial and political backing of his uncle Diego de Ibarra, a conquistador turned mine owner, Francisco

Care with drinking water; provisions; wars for salt

In this valley and among these nations are found the largest number of poisonous trees. In using them to cause harm, they are more skilful than the natives already seen. Likewise they [the Christians] should bring drinking water, for if the natives happen to throw branches of the poisonous tree in the water, it will kill those who drink it. The water should be blessed and drawn from wells and springs dug during the night in secreted places and covered during the daytime. They are feared and

Excerpt from Baltasar de Obregón's 'History of 16th Century Explorations in Western America, 1584' translated by George Peter Hammond and Agapito Rey, 1928. [9]

was appointed head of an expedition to explore territories northwest of Zacatecas for precious metals.[8] The layers of colonial violence intrinsic to these campaigns and these quests for wealth can not be untangled from the disastrous consequences they held for Indigenous peoples' relations to land and future communities in the Sonoran Desert.

Reaching what is today known as the Sonoran Desert, Obregón described the logistical burden of their campaign, specifically how heavily their expeditions relied on being able to maintain large numbers of healthy troops along with a standing calvary. In addition to their lack of

preparation and inexperience in this dynamic desert landscape, colonizers' plans were upended by Indigenous communities who, having already successfully expelled the Coronado expedition, destabilized colonizers' pre-planned routes through the area. In response to Spanish soldiers' violence against Indigenous communities, such as the sexual assault against Indigenous women, one Indigenous nation, the Opata, strategically undermined the colonizers' attempt to set up permanent settlements along their path.[9]

This form of resistance further highlights the enmeshed relationship between body, land, and violence. As Cutcha Risling Baldy and Melanie



*This view of the Sonoran Desert shows the typical rugged terrain of the region.
Image courtesy of Isaac Esposto.*

Yazzie demonstrate, Indigenous feminist studies understand today that the “interconnectedness between Indigenous women’s bodies and the lands that women caretaker constitutes one of the primary axes of relationality.”^[10] Other scholars have also shown that many Indigenous communities on Turtle Island^[11] were (and continue to be) matrilineal and matrilocal; women often led and continue to lead decision-making processes on issues such as land use, agricultural practices, governance, and housing with gender roles taking on a nuanced, egalitarian structure.^[12] It is therefore irresponsible to isolate the well-being of Indigenous communities and relations to land from the well-being, agency, and bodily autonomy of Indigenous women. As Hilary Weaver argues, colonial violence legitimized by the empire or nation-state is totalizing in its attempts to disempower and eradicate Indigenous lifeways, education, kinship networks, and sovereignty on a structural level.^[13] As a result, we must not decouple the logics of colonial territorial destruction from the dismantling of Indigenous traditional societal organization; both work as an extensions of the same logics that perpetuate

sexual violence against Indigenous women. The body remains central to resistance and refusal in the desert.

Turning back to the excerpt above that was first written in the desert, we see the use of a plant recorded in Baltasar de Obregón’s journal; the plant is today known by many names, including *Sebastiania bilocularis* or Arrow Poison Plant, or yerba de la flecha. Obregón’s chronicle describes the Opata contesting Spanish military expansion by poisoning their water sources with this plant, ultimately forcing these campaigns to continue north instead. Recognizing this extreme vulnerability of the colonizers, this defiance of colonial expansion by Indigenous communities sparked new Spanish military strategies of guarding, hoarding, hauling, and hiding water sources as colonizers expanded incursions toward territorial control into what is currently known as Arizona. Water thus became an integral component to Spain’s successful occupation and future genocidal campaigns, ultimately shaping future strategies of the United States’ incursion into the Sonoran Desert as well.

And You, Longest of Months: Contemporary Settler Colonial Weaponization of Water

The story of the Opata’s defiance of Francisco de Ibarra’s campaign might strike as tangential, as the long before, as the moth-chewed-through question swinging in the closet of “what does this have to do with today?” I seek to highlight this failed attempt at colonial expansion in the sixteenth century as a critical juncture in history’s relation to water here in the Sonoran Desert—in particular, the Spanish military forces’ reckoning with their extreme vulnerability and heightened risk of dehydration and death. I think it is important to recognize how the endoskeleton of the past provides the ossified foundation for the exoskeleton of contemporary border violence we move through today. Or, as Katherine McKittrick

writes in “Plantation Futures,” our “past colonial encounters created material and imaginative geographies that reified global segregations through ‘damning’ the spaces long occupied by Man’s human others.”^[14] This was just the beginning of one of the many wars over water in the desert—the beginning of the damning. The story since then has been a snarled exchange furthered by biopolitical management of Indigenous communities and others living within the wake of settler colonial violence, imperial state formation, enslavement of Black people, and control over racialized labor. This story is so much longer than the source or mouth of a river.

The settler colonial neoliberal state has weaponized water as a critical infrastructure and site of extraction that literally cements its own ongoing materialization into existence. When water is considered a resource that is to be controlled, exploited, bartered over, contained, withheld, or sacrificed, that is the moment we see the harsh clap of contemporary violence as well as its echoes. Instead, as many Indigenous communities and scholars have actively argued, water is a relative which is crucial to our ongoingness. Indigenous-led decolonization struggles firmly center the importance of this relationship where “water is seen as an ancestor and as a relative with agency within this network of life, one who deserves respect, care, and protection.” [15]

Quitobaquito Springs, one of the few freshwater springs in the desert year-round, lives as a sacred site of relation for the Hia C-eḍ O’odham. Since time immemorial, the spring has been a place of ongoing relation, kin, burial, and ceremony until,

as elder Lorraine Eiler shares, in the mid-1900s these communities were pushed from the land by the National Park Service in order to clear the way for the creation of the Organ Pipe National Monument. [16] This purposeful removal of Indigenous presence, projecting the colonial fantasy of an empty wild space, was undergirded by the 1964 Wilderness Act’s insistence on preserving a space “where the earth is...untrammelled by man, where man himself is a visitor who does not remain.” [17] This project made the land open for use (both recreational and militarized), but in need of constant monitoring to prevent specific people from traveling through unimpeded. Legislation such as the Wilderness Act attempted to fracture the relations and caretaking traditions that O’odham communities have maintained in this area of the Sonoran Desert for thousands of years, erasing intricate land stewardship practices in attempts to empty the historical consciousness of Indigenous presence. Decades later, this removal process cleared the literal way for further



Quitobaquito Springs, shown here before the damage done by the construction of the wall, is one of the few reliable above-ground water sources in Organ Pipe Cactus National Monument. Image via National Park Service.

development of the nation-state for the sake of “security” in the form of the border wall. Settler colonial states suture together appropriated federal lands for conservation and security as tangential functions of dispossessing Indigenous communities of land.

The bulldozers came for the spring. In 2020, the federal government contracted construction companies to continue this border-wall-building tour de force. This spring, sitting a little over two hundred yards from the U.S.-Mexico border, became the staging ground for multiple contractors who were hired by the Department of Homeland Security to start construction on a 30-foot-tall border wall across almost 30 miles, intersecting the spring and its fault. One of the few natural water sources around, Quitobaquito “has been the life, for plants, animals, all desert

life and Hia C-eḍ O’odham people. It’s how our people survived...even drilling anywhere near Quitobaquito springs, it is a desecration to us, as Hia C-eḍ O’odham people and to the land,” explained Nellie Jo David of O’odham Anti-Border Collective.[18] This infrastructural expansion and development necessitates the digging of trenches, a widening of roads for equipment to access the area, and maybe most insidiously, the pumping of the spring’s groundwater to mix the concrete which will provide the walls’ foundation.

The calling for this wall was set many years before water met cement, though. In 1994, the U.S. policy titled Prevention Through Deterrence was put into motion through United States Customs and Border Protection (CBP).[19] By closing frequented ports of entry within urban areas along the border, in addition to heavily



The Sonoran Desert is both remote and rugged. Image courtesy of Isaac Esposto.

expanding militarized infrastructure in more remote expanses to force people to travel through rugged terrain, the CBP believed that people making this journey would be deterred at the possibility of finding themselves “in mortal danger” when attempting to enter the U.S. autonomously.[20] Along with these policies’ facade of passive language and deflection of blame came the intentional funneling of migrating[21] people, who have been constructed into the category of “migrant,” into more and more dangerous terrain along the southern border. Here, the dry land is to be utilized as an enemy, a landscape wielded as a nationalist weapon. In the past year alone, 853 people died traveling across the U.S.-Mexico border—the majority of them from Central American Indigenous and mestizo communities. [22]

This is a story that is both local and global. In our contemporary moment, the crisis of water in the desert is ongoing, not only as a consideration of the local but also a crisis with a global scope, particularly in regards to the restriction, destruction, and doling out of access to water unequally. This year, the Climate Central’s Climate Shift Index published research that shows the significant impact of global climate change on desert temperatures in the Southwest, reporting that extreme temperatures are now five times more likely to occur.[23] These rising temperatures and prolonged droughts not only affect the communities who reside long term in the desert, but also the thousands of people making autonomous journey’s through the area every year. Humanitarian aid organizations in the Sonoran Desert, such as No More Deaths, People Helping People, and Humane Borders (among many others), grapple with the thin line between presence or absences of water in the desert. The consequences of this reality can be deadly for the people who have been intentionally funneled into remote areas by immigration policy, such as Prevention Through Deterrence and its localized strategies like Operation Gatekeeper.

These policies of access and expulsion do not simply exist written into the appendix of a quiet book of law, but instead erupt as columns from the earth, scarring their way through the everyday reality of people living and moving through the U.S.-Mexico border. With the implementation of Operation Gatekeeper and Prevention Through Deterrence in 1994 under the Clinton administration, border communities witnessed an exponential growth in border enforcement, funds, and personnel. the intention was to control the Southwest Border by increasing the risks associated with “unauthorized” entry, such as exposure, dehydration, and hyperthermia.[24] These border policies emerged out of a political landscape which needed to ensure the U.S.’s position by constructing the “illegal other” as a danger to its social, cultural, and political stability within the context of globalization. Geographer Joseph Nevins argues that for this process to be naturalized, it required new ways of seeing that are “inextricably tied to evolving hierarchical notions and practices regarding race, class, gender, and geographic origins” particularly as they privileged hegemonic experiences and identity, often endowed to whiteness, masculinity, and ciss-ness. [25] These policies’ goals mean that certain people, certain bodies rendered less than in the mind’s eye of the nation-state, were never intended to make it across the border in the first place; Operation Gatekeeper and Prevention Through Deterrence are, at their core, a weaponization of Indigenous land through the proliferation of colonial technologies of surveillance and carceral architectures in order to assert its unquestionable sovereignty.

Without an immediate end to colonial land theft and unceasing extraction practices, our planetary ecological devastation is only going to get worse—the washes drier and the sun more acute. We are just waiting to learn how much and how suddenly. Turning to the research, not much has been published on how rising temperatures driven by climate change are going to impact people attempting to move through the border’s desert.

However, a study published in the 2021 issue of the journal *Science* examined how this global heating process will end up resulting in dramatically higher numbers of migrant deaths along the U.S.-Mexico border in the years to come.[26] For those communities living and working in the desert, it is assumed that it is already physically impossible to carry the amount of water needed for the roughly eighty mile journey by foot.

This research concluded that as a result of rising temperature the typical amount of water people are able to carry with them, between one to two gallons, will be wholly inadequate to survive off of in this desert terrain.[27] By the year 2050, the models contend that with the estimated spikes in temperature in the region, an individual will need at least a third more water to stay alive during this journey through the Sonoran Desert. That number is an average though. For pregnant people the number of gallons needed rises to 3.6.

But the story of a gallon placed, a gallon carried, a gallon needed, is also a story of a gallon destroyed. As water becomes an exponentially valuable source of life in the desert with these rising temperatures, the viciousness of state sanctioned violence at the border will only continue to grow as well, often in the form of water. In 2018, Dr. Scott Warren, a long term volunteer with the humanitarian aid group No More Deaths/No Más Muertes (NMD), was arrested by Border Patrol in Ajo, Arizona. Many people believe this was retaliation against NMD for having published evidence of Border Patrol agents purposely destroying gallons of water placed in the desert for people suffering from dehydration.[28] This destruction of literally life-saving access to water appeared to most as visual evidence of the ongoing state-sanctioned murder of people migrating through the Sonoran Desert.

See footage of Border Patrol vandalism of humanitarian aid.

Once Thought Cathedrals & Those Imagined: Future Infrastructure

“Settler colonialism will always define the issues with a solution that reentrenches its own power.” — Leanne Betasamosake Simpson, *As We Have Always Done: Indigenous Freedom through Radical Resistance*[29]

The desert is running out of water. The aquifers, the rivers, the clouds, and their cycles are pushed to the edge(s) by settler colonial, capitalist-driven, extractive policies and practices. In order to maintain a pervasive, unquestioned grip on the border’s political, social, and economic systems, the nation-state must find its next evolution to serve its agenda. I argue that we can see this in the joint hands of global corporate capital coming together with the aspiration of the settler state. As Winona LaDuke and Deborah Cohen argue in *Beyond Wiindigo Infrastructure*, we can see

how new developments of critical infrastructure are touted “as a magical means to get desperately needed sustainable infrastructure built to enable a prosperous future.”[30] But who is the intended recipient of that prosperous future?

The state of Arizona began planning to build a pipeline, not for oil, but water. In late 2022, state legislators voted to advance a \$5.5 billion plan which would “build a water desalination plant in Mexico, as well as a 200-mile pipeline and associated infrastructure.” Hired to head the construction is Israeli company IDE Technologies, who first pitched the plan to the Water Infrastructure Finance Authority (WIFA) with its proposed route ripping once again through land sacred to the Hia C-eḍ O’odham.[31] As of 2023, the plans for this desalination plant and pipeline have been halted; Sonoran officials issued a statement

through the government’s official Twitter account that highlighted their lack of consent in the process and ultimately criticized IDE Technologies for a “lack of ethics.” [32]

The prospects of this pipeline arise from the declining water supply typically pulled from the Colorado River. The Colorado itself travels through one of the largest infrastructure projects imagined and carried through to existence. The Central Arizona Project pulls water out of the Colorado River and moves it 336 miles and up over 2,450 feet. [33] In the perpetual cycle of water scarcity and re-entrenchment of political power, the desert is always running out of water. It’s running out of water when industries mine groundwater and move on, leaving the previous wells dry and the once lush perennial streams desiccated. It’s running out of water when the deep and reliable water resources are continuously contaminated. Plumes of the contaminants TCE, PCE, and 1,4-dioxane stretch for miles

through the underbelly of Tucson’s ancient aquifer, emanating like a stain from the sources of Raytheon: the airport, and the military bases. In the borderlands of Southern Arizona, mouth-pieces of the state clasp tightly around the words “the desert is running out of water” yet refuse to acknowledge their complicit policies are central to manifesting this reality.

But the desert is not running out of water. Before the United States existed, and after it ceases to be, the dynamic seasons of living in the Sonoran Desert came and will continue to come with the ebb and flow of water. After it pours in with the monsoon rains or gently creeps along a winter front, the water will always seep slowly through the interstitial space, flowing slowly and deeply back to the aquifers, bringing us all back once again into relation. In the meantime, we continue to care for each other, one cupped handful of water at a time.



The proposed desalination plant in Mexico would pipe fresh water 200 miles to Arizona. Water Infrastructure Finance Authority of Arizona/ENR Southwest. (CC BY-ND)

Footnotes

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- [5] Ruth Wilson Gilmore, *Abolition Geography: Essays Towards Liberation*, eds. Brenna Bhandar and Alberto Toscano (New York: Verso, 2022), 137.
- [6] Rob Nixon, *Slow Violence and the Environmentalism of the Poor* (Cambridge, MA: Harvard University Press, 2011), 2.
- [7] The *Oxford English Dictionary* defines it as “a grant by the Spanish Crown to a colonist in America conferring the right to demand tribute and forced labor from the Indian inhabitants of an area.” *Oxford English Dictionary*, s.v. “encomienda (n.),” accessed February 1, 2024, https://www.oed.com/dictionary/encomienda_n?tab=factsheet#5578376.
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- [10] Cutcha Risling Baldy and Melanie K. Yazzie, “Introduction: Indigenous People and the Politics of Water,” *Decolonization, Indigeneity, Education & Society* 7, no. 1 (2018): 8, <https://jps.library.utoronto.ca/index.php/des/article/view/30378>.
- [11] To many Indigenous peoples, Turtle Island is a reference for North America. The Canadian Encyclopedia, s.v. “Turtle Island,” by Amanda Robinson and Michelle Filice, last modified November 6, 2018, <https://www.thecanadianencyclopedia.ca/en/article/turtle-island>.
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[20] U.S. Border Patrol, *Border Patrol Strategic Plan 1994*.

[21] I pause to look back before moving too far ahead. How do we refuse the colonizer’s language while managing its horrendous contradictions? In a conversation with Dr. Diyah Larasati, she reminded me to push beyond the camouflaged rhetoric of the state. English words such as “crossing” and “migrant” imply agreement with the legitimacy of this settler-colonial border, a hand I do not wish to shake; refusing the border is both linguistic and material.

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[32] Bassler, “Arizona’s Desalination Dreams Dashed.”

[33] Theodore Cooke, “Central Arizona Project 2022/2023 Biennial Budget,” Central Arizona Project, <https://library.cap-az.com/documents/departments/finance/2022-23-Biennial-Budget.pdf>.

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