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A COMPARISON OF TRIBAL SOVEREIGNTY, SELF-  
DETERMINATION, AND ENVIRONMENTAL JUSTICE AT  
THE EPA'S ONONDAGA LAKE AND TAR CREEK  
SUPERFUND SITES

by

THOMAS CLARK

A master's thesis submitted to the Graduate Faculty in Liberal Studies in partial fulfillment of  
the requirements for the degree of Master of Arts, The City University of New York

2020

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This manuscript has been read and accepted for the Graduate Faculty in Liberal  
Studies in satisfaction of the thesis requirement for the degree of Master of Arts.

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## ABSTRACT

## A Comparison of Tribal Sovereignty, Self-Determination, and Environmental Justice at the EPA's Onondaga Lake and Tar Creek Superfund Sites

by

Thomas Clark

Advisor: Christopher Schmidt

The Environmental Protection Agency's Superfund program mandates that Native American tribes are afforded the same treatment as states in the implementation of environmental remediation projects; however, the degree of coordination and consultation between the EPA and sovereign tribal governments varies widely between sites. Two of the Superfund program's highest profile sites with Native American interest, northeast Oklahoma's Tar Creek and central New York's Onondaga Lake, are characterized by such a disparity in tribal participation. While Oklahoma's Quapaw Tribe would ultimately enter into a number of cooperative agreements with the EPA for direct control over remedial projects, New York's Onondaga Nation were largely ignored throughout the Superfund process, and attempted to force their way to the table in federal court. This research addresses whether the EPA's statutory reforms intended to increase tribal participation and coordination have achieved their aim, as well as whether providing direct tribal control over Superfund site remediation is an opportunity for alternative ecological and decolonial approaches to environmental remediation and environmental justice within the EPA.

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## INTRODUCTION

The last five centuries of North American history have been defined by the colonization, exploitation, and systematic eradication of the continent's indigenous populations. Historically reproduced challenges to indigenous human rights are woven into the fabric of the dominant contemporary social, legal, and cultural structures. In the United States, this process began with colonization of indigenous lands by white, European settlers. This process was then codified into law through the federal policies of removal, Americanization, and assimilation which extended into the early 20th century. Progress in advancing the cause of indigenous rights was only achieved through increased tribal activism in the wake of World War II, which raised public consciousness of claims to tribal self-determination and sovereignty. These efforts, along with the powerful activism of the Civil Rights Era, resulted in the Indian Civil Rights Act of 1968, which extended many (but not all) of the guarantees of the Bill of Rights to tribal communities. However, despite the growing assertiveness of Native American populations in national politics in the ensuing years, the relationship between tribal communities and state and corporate actors remains exploitative, especially in the realm of environmental justice, through the forces of natural resource extraction and disproportionate tribal exposure to environmental harm.

Native American reservation lands were initially chosen by the Federal government as they provided little opportunity for resource extraction, property development, and were otherwise unwanted. However, as the industrial appetite for raw material resources continued to expand throughout the 20th Century, reservation lands were targeted for exploitation. As Eve Darian-Smith notes in "Environmental Law and Native Law," reservation lands were "deforested, overgrazed, mined, polluted, and infested with noxious plant species...the process whereby states and companies took advantage of these marginalized communities is consistent with other forms of environmental racism which occurred, and continues to occur, in the United



States...” (2010, 369). With little economic opportunity and with no political organization with which to resist external interference, Native American populations and their lands were viewed as a path of least resistance for the forces of global capital, which continue to threaten indigenous populations nationwide. Of the three hundred and twenty six reservations in the United States, three hundred and seventeen are threatened by environmental hazards, whether from oil and natural gas extraction, uranium or coal mining, chemical manufacturing and refining, or the disproportionate exposure of indigenous populations to the effects of anthropogenic climate change (Taylor 2014, 53).

While many Native American communities were unequipped to resist the forces of environmental racism and exploitative industry which poisoned their land throughout the nineteenth and early twentieth centuries, these same communities, empowered by growing wealth and political influence gained mostly through lucrative gaming operations, are now fighting for recourse through state and federal environmental remediation programs. The US Federal Law which manages the remediation of toxic waste sites is the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), which is administered by the Environmental Protection Agency. Passed by Congress in 1980 after a series of high profile environmental disasters in white, middle class communities, the extent of environmental contamination on tribal lands soon led many reservations to become classified as Superfund sites under the new law. Currently seventy, or about five percent, of Superfund sites are defined as of interest to Native American communities (Bergeron 2017, 364).<sup>1</sup> However, extensive concerns persist in the remediation of toxic waste sites on tribal land, or land of vital interest to

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<sup>1</sup> Per the 2006 EPA report “Consulting with Indian Tribal Governments at Superfund Sites (a Beginner’s Booklet),” a site can be considered “of tribal interest even if it is not located in Indian country or if it is on a tribe’s land where tribal members no longer live. For example, a tribe might have a legally recognized interest in a site where the tribe historically resided. A tribe might have a treaty right to engage in certain uses, such as to take water or to hunt, fish, or gather. A tribe also might have rights regarding areas of cultural or religious significance. Such interests might not be readily apparent...”

tribal communities. Unfortunately, tension stemming from historic distrust of the state, claims to sovereignty and land ownership, and the intersection of environmental and Native American Law hinders tribal representation and limits progress towards environmental justice. In order to better understand the underlying ideological, legal, and cultural conflicts which continue to plague Superfund remediation projects of interest to Native American communities, this thesis will compare two Superfund sites on the EPA National Priorities List (NPL), which are characterized by dramatically diverse levels of tribal consultation and participation: Onondaga Lake in Syracuse, New York, and the Tar Creek site, located in the towns of Picher and Cardin in northeast Oklahoma.

Onondaga Lake is located in the heart of urban Syracuse, NY, and served as the industrial engine of the city throughout the 19th and 20th centuries. However, the lake and its watershed once formed a large part of the territory of the Onondaga Nation, one of the six nations of the Haudenosaunee (or Iroquois) Confederacy, believed to have been formed around 1450, and perhaps as early as 1142 (Johansen 1995, 62). Onondaga Lake, as the site of the historic formation of this tribal confederacy, is symbolically and culturally central not only to the Onondaga people, but to all the tribes of the Haudenosaunee Confederacy. However, the area that is now Syracuse was intensively settled by European settlers in the early 19th century, who through a series of illegal seizures and broken treaty obligations stole the land from the Onondaga. Processes of environmental degradation began shortly afterward, and these processes continued for over a century, with industrial contaminants, agricultural runoff, and municipal waste flowing directly into the lake and its tributaries. The lake was deoxygenated and declared ecologically “dead,” leading Onondaga Lake to be dubbed the most polluted lake in the country (Perreault, 2010, 486). Swimming and fishing were banned, native species declined, and industry, claiming undue environmental regulation, abandoned Syracuse in 1986 (The New York

Times 1985, 3). Congress created the Onondaga Lake Management Conference in 1990 to arrive at a plan for the lake's remediation and management, and the lake was added to the NPL shortly thereafter, in 1994.

The Tar Creek Superfund site is located at the Northeastern corner of Oklahoma, primarily in the towns of Picher and Cardin. Part of the historic Tri-State Mining District, Tar Creek was once the site of the largest lead and zinc mine on earth (EPA, 2017). The Quapaw Tribe of Oklahoma, relocated to northeastern Oklahoma by the Federal government in the 1830s, leased the lands to the mining companies in the 1890s. Mining operations extracted stunning quantities of zinc and lead from the area, with over one hundred and eighty million tons of crude ore extracted from the Oklahoma section of the district. The mining of this quantity of material led to a broad array of environmental contaminants spread over a huge geographic range. "Chat," or residual gravel and sand sized rock fragments, was collected in enormous piles up to twelve stories high, covering thousands of acres of Quapaw land and contaminating both the soil and air with lead and other heavy metals. In addition to the chat piles, ponds used to refine the chat for repurposing cover several hundred acres, most having evaporated and left behind a fine, toxic mining waste residue. Lastly, the mine shafts and underground cavities used in the operation of the mine are estimated at an area of one hundred and sixty one million cubic yards (EPA, 2017). Groundwater has infiltrated nearly all of these spaces, tainting the water table and forming lead-contaminated springs. The oxidation of heavy metals in contaminated Tar Creek, after which the site is named, turned the water a deep red, and killed nearly all downstream life. Based on the variety of environmental contaminants, the disastrous effect on public health, and the geographic range of the problem, the EPA declared Tar Creek one of the most toxic places in the United States, and it was placed on the EPA NPL in 1983 (EPA, 1983).

A comparison of these two NPL Superfund sites of vital interest to Native American communities will provide insight into the EPA's approach to environmental remediation projects in the tribal context in two key areas: the efficacy of EPA tribal participation and consultation reforms during the late 1990s and early 2000s, and the opportunities presented by Oklahoma's ceding of direct control over environmental remediation projects to the Quapaw tribe. As the Onondaga Lake site began large-scale remediation before Tar Creek the project was unable to benefit from EPA reforms to tribal participation and consultation within the statutory framework of CERCLA. This creates a disparate regulatory environment between the two sites, with the Quapaw tribe, whose own project was awarded after the implementation of the CERCLA reforms, benefitting from the full force of the new approaches to tribal coordination and consultation. While the Onondaga people continue to express dissatisfaction with their role in the planning and execution of the remediation in 2014 the Quapaw went beyond project coordination and consultation and entered into a historic cooperative agreement with the state of Oklahoma and the EPA for direct control over the remediation of a site with tribal significance (EPA, 2014). This agreement was the first such tribal-led and managed remediation in EPA's history. Following the success of this project, the Quapaw tribe entered into a number of additional cooperative agreements, and has become a key stakeholder in the continuing remediation of Tar Creek. In comparing these two sites I hope to determine whether the EPA's statutory reforms intended to increase tribal participation and coordination have achieved their aim, as well as whether providing direct tribal control over site remediation is an opportunity for alternative epistemological, ecological, and decolonial approaches to environmental remediation. To do so, I will begin by situating questions of environmental remediation within the larger discourse of Environmental Justice for tribal communities. I will then shift my focus to Superfund itself within the tribal context, documenting its programmatic timeline and the series

of reforms aimed at improving tribal coordination and consultation. I will follow with case studies of the Onondaga Lake and Tar Creek projects, including histories of exploitation and loss of land rights, a narrative of historic processes of resource extraction and environmental degradation, inclusion on the EPA NPL, and the degree of successful coordination and consultation throughout the remediation processes at each site. Concluding with a comparative analysis of the two sites will evaluate the EPA's progress in delivering on its statutory reforms, highlight the efficacy of direct tribal control over remediation projects, and determine whether the CERCLA statutory framework provides an opportunity for the inclusion of decolonial ecological perspectives.

## CHAPTER 1: ENVIRONMENTAL JUSTICE, TRIBAL COMMUNITIES, AND THE EPA

The Environmental Protection Agency's flagship Superfund remediation program creates federal authority for the clean-up of sites contaminated by hazardous substances, and as a result is charged with negotiating the complex relationship between environmental advocates, industry, state environmental regulations, environmental justice, and, for sites on sovereign reservations or of interest to Native American communities, Native American law and historic treaty obligations. As the EPA was founded at the height of the environmental movement of the 1960s and 1970s, Superfund is also a product of the mainstream environmental movement. Therefore, an understanding of each of these disparate movements is essential to an understanding of the application of CERCLA at the Tar Creek and Onondaga Lake Superfund sites, and will demonstrate how current CERCLA coordination and consultation efforts, while much improved, leave much to be desired in the unique context of Native American environmental justice.

### **Classical American Environmentalism**

Prior to the 20th century, the environment was largely viewed by white, European settlers as a resource to be exploited and subordinated to the forces of industry and personal property. With the emerging conservation movement at the end of the 20th century, attitudes towards the environment shifted, however, as urbanites, stifled by the industrial confines of America's fast growing cities, began to turn towards nature for leisure and renewal, inspired by the striking paintings, landscape photographs, and adventure writings of the American Frontier (Merchant 2012, 82). Perhaps no public figure personified the burgeoning movement more than the monastic writer John Muir, founder of the Sierra Club. Muir's advocacy led directly to the federal protection of the Yosemite Valley in 1890, as well as the preservation of thousands of acres of forest. The modern spectrum of environmental perspectives began to take shape during

the early twentieth century period with the juxtaposition of Muir's "preservationist" outlook with the utilitarian "conservationist" movement spearheaded by Gifford Pinchot, who served as the first Chief Forester of the National Forest service. Pinchot viewed the environment as a resource to be preserved, not in service of Muir's romanticized vision of solitude and communion with the natural world, but in order to ensure continued profitability and benefit to the whole of mankind, a strategy which he dubbed "conservation through use" (Committee on Appropriations 1993, 703). Pinchot called for the opening of America's protected lands not only to the general public for tourism and recreation, but to professional logging, mining, and livestock grazing operations with a vision of turning these protected landscapes into economic engines in the rapidly developing American west. Despite the seeming irreconcilable ideological differences between the two men, today the Federal agencies charged with public lands administration, specifically the US Forest Service and the National Parks Service, root their work in the conservation-preservation spectrum established by the Muir and Pinchot in the late 19th century. A 2017 blog post by the Department of Agriculture notes that:

Despite arguments by some, Muir's preservation and Pinchot's conservation philosophies are not at odds. In fact they play, together, a huge role in protecting our natural open spaces—for generations to come. This "working together" philosophy of land management can perhaps best be seen by looking at a map of a large national park, say Yellowstone or Yosemite or Shenandoah. You'll notice that these parks (and many others) are connected to, or completely surrounded by, national forests or grasslands managed by the Forest Service. (Westover, 2017)

Clearly the spectrum established by Muir and Pinchot remains foundational to the modern conception of conservation, and most individuals, environmental organizations, and even state and federal agencies can establish themselves somewhere between Muir and Pinchot, depending on the degree to which they consider the environment to be a utilitarian resource cultivated in order

to better people's lives in perpetuity, or a holistic, pristine space requiring protection and nonintervention.

Despite these claims, an understanding of the true foundations of the American environmental movement raises questions regarding the motivations of Muir, Pinchot, and the early conservationists, whose work has been criticized as a project in service of the preservation of structures of privilege, hierarchy, and power:

For... [the] architects of the country's parks and game refuges, wild nature was worth saving for its aristocratic qualities; where they were lacking, the pioneering conservationists were indifferent...Their preservation work aimed to keep alive this kind of encounter between would-be aristocratic men and halfway wild nature. It was as much about preserving a modern version of England's royal game parks for the elites of industry and the professions as it was about the love of nature. More exactly, the nature they loved was the nature that made them feel noble, socially and, in their imaginations, racially. (Purdy 2019, 114)

Muir, Pinchot, and the other early conservationists, whose legacies are espoused as foundational to modern American conservation and environmentalism, have increasingly come to be criticized as unified not in their desire for a commonwealth of care, but for their "...homogeneous ethnic base...the common denominator among people concerned about the environment throughout the twentieth century was a middle-class socioeconomic status and white Protestant ethnicity" (Darian-Smith 2011, 364). This legacy has continued to plague environmental philosophy and federal environmental policy, and is a particular challenge for Indigenous and minority groups subject to environmental harms, and is one of the main catalysts for the rise of the grassroots environmental justice movement.

### **Modern Environmentalism and Environmental Law**

The environmental movement based on the foundation established by Muir and Pinchot remained relatively stagnant through the early 20th century, until the 1960s, when environmental



issues began to be increasingly politicized and incorporated into mass popular movements, including the Civil Rights movement. Increased visibility of environmental issues, paired with an increasingly well-educated populace, resulted in a wave of institution building and citizen advocacy. The Sierra Club's membership grew from tens to hundreds of thousands throughout the 1960s, and other mainstream environmental organizations demonstrated similar growth (Sierra Club, 2020). With increased popular support, these institutions became formidable forces for change. The size and energy of the environmental movement resulted in a wave of environmental law and legislation, including the National Environmental Policy Act (1970), Clean Air Act amendment (1970), the Federal Water Pollution Act amendment (1972), the Endangered Species Act (1973), and the Safe Drinking Water Act (1974) (Merchant, 2012). The legal infrastructure which emerged around the new federal statutes quickly coalesced into its own branch of law. However, despite these legislative achievements and a wave of popular awareness-of, and concern-over, threats to the environment, the legacy of the old conservation movement remained. It is often seen as a historical paradox that these environmental victories were achieved during the Nixon administration, and his willingness to advance environmental causes is often held up as an example of his more progressive tendencies.

However, in the 1970 State of the Union Address, at the height of the Vietnam War and the associated civil unrest, "he [Nixon] spent less than 100 words on Vietnam, made no explicit reference to race, yet launched a new racialized politics for a 'war' on crime and attacks on the welfare system...Richard Nixon spent almost a thousand words on the environment, which he called 'a cause beyond party and beyond factions.' That meant, of course, that he thought it could be a cause for the white majority he was working to assemble" (Purdy 2019,120). Environmentalism, even in the height of its popularity and influence, was still constrained by a vision of civilization, an escape for a white, privileged class from the realities of war, poverty,

and social conflict. The new branch of environmental law was not immune from such influence, and adopted a “perspective that works on the basis of the environment’s commoditization. This distinction underlies the different logics and values distributed among parties in environmental legal battles” (Darian-Smith 2011, 366). This incompatibility with environmentalist philosophy, as well as the susceptibility of environmental regulatory authorities to partisan political undermining, has limited environmental law mostly to struggles over enforcement and corporate compliance, with little consideration for holistic ecological concerns.

### **Environmental Justice**

While the growing environmental movement brought thousands of citizens into national advocacy organizations and led to the creation of some of the first federal environmental regulations and legislation, the movement’s adherence to its foundation of racial and economic exclusion, paired with environmental law’s focus on commodification, reliance on elite advocacy and litigation, and fear of overregulation, failed to address the stark truth that environmental harms are distributed along the familiar lines of race and socioeconomic class. As Dorceta Taylor notes in her 2014 book *Toxic Communities: Environmental Racism, Industrial Pollution, and Residential Mobility*,

During the 1960s and 1970s, there was a marked shift in minority responses to environmental inequalities that laid the groundwork for the [Environmental Justice Movement]. Minority activists became more deliberate in their environmental activism-- they linked environmental with racial and other kinds of social inequalities and framed the issues in terms of rights to safe and healthy environments. Minorities also agitated for more research on environmental inequalities, treatment of illnesses arising from exposure to environmental hazards, policies to facilitate improvement in conditions, and legal redress of harm suffered. (Taylor 2014, 1)

Minority activists, recognizing the conservation movement’s legacy of racial and economic exclusion as well as the disproportionate exposure of minority communities to environmental

harm, began to highlight environmental concerns in their advocacy. As Luke Cole and Sheila Foster note in their 2001 book *From the Ground Up: Environmental Racism and the Rise of the Environmental Justice Movement*, the environmental justice movement (EJM) can be thought of metaphorically, as a river fed by many tributaries, including the Civil Rights Movement, Anti-Toxics Movement, the Labor Movement, traditional environmentalism, and struggles for Native American rights. As the movement emerged organically through these disparate struggles, it can be difficult to identify a singular moment that can be pointed to as its launch:

Many observers point to protests by African Americans against a toxic dump in Warren County, North Carolina, in 1982 as the beginning of the movement. The sociologist Robert Bullard points to African American student protests over the drowning death of an eight-year-old girl in a garbage dump in a residential area of Houston in 1967. Others note that the Rev. Dr. Martin Luther King Jr. was traveling to Memphis to support striking garbage workers in what is now considered an environmental justice struggle when he was assassinated in 1968. The United Farm Workers' struggle against pesticide poisoning in the workplace, beginning in the 1960s (and continuing to this day), is the starting point for some. Some Native American activists and others consider the first environmental justice struggles on the North American continent to have taken place 500 years ago with the initial invasion by Europeans. (Cole et al., 2001, 19)

Perhaps the most widely recognized catalyst for the EJM, however, is a 1987 study conducted by the United Church of Christ Commission for Racial Justice entitled *Toxic Wastes and Race in the United States*. The groundbreaking report demonstrated the direct correlation between the placement of hazardous waste facilities and the racial and socioeconomic class makeup of the communities targeted for the siting of these toxic facilities throughout the southern United States. The report is seen as seminal to the field of environmental justice research and coined the term "environmental racism," and equipped the EJM with vocabulary necessary to unify its disparate branches.

While the UCC report was groundbreaking and set the stage for the EJM, "it has been widely critiqued for its overly narrow focus on distributive justice and reliance on statistical analysis, to the relative neglect of historical, spatial, and institutional processes" (Perrault 2014,

487). This distinction is as much driven by the realities of the legal landscape as by methodology and analytical framework, as “after the major environmental statutes were largely written, the [Supreme] Court adopted its current constitutional standard, which requires plaintiffs claiming they have been treated unequally to show the government action they object to was affirmatively motivated by discriminatory purpose (Purdy 2019, 131). In other words, the Supreme Court does not act on material inequality if the inequality is not the direct result of a demonstrable bias by a government official. As this largely eliminates the possibility of addressing environmental racism through the courts, scholars worked to examine “procedural and institutional justice... the multi-scalar legal and institutional frameworks that shape rights to access, processes of participation, and modes of social action and state practice...these authors...consider the ways that the social and spatial distribution of environmental injustices are (re)produced through institutionalized processes and historically constituted social relations” (Perrault 2014, 488). This work has brought environmental justice frameworks into further conversation with questions of race, class, indigeneity, gender, and social justice in response to the intensifying socio-political and economic injustices across the globe.

As the pressures of anthropogenic climate change, economic inequality, and authoritarian nationalism have continued to mount, however, the EJM is being reevaluated in light of the movement’s limited gains in closing the environmental racism gap and protecting vulnerable populations. As Geographer Laura Pulido notes, evaluates the efficacy of EJM activists’ appeals to the state have been an overwhelming failure. Activists have filed eight lawsuits under the 14<sup>th</sup> amendment, and all have been rejected. Activists have also attempted to register Title VI complaints with the EPA. However, of the 298 complaints filed, only one has been upheld. Additionally, while President Clinton’s Executive Order 12898 mandates that all federal agencies consider the EJ implications of their activities, a 2003 Civil Rights Commission, in a

study of four major federal agencies including the EP, had failed to incorporate EJ into their programming (Pulido 2016, 3). Pulido concludes that failure on this scale cannot be resolved by continued appeals to the state or by incremental changes to public policy, and that unjust environments are exacerbated by already existing forms of social and environmental injustice within an economic and cultural system of “racial capitalism.” As Julie Sze notes, “[e]nvironmental violence is built into the history of the United States. It is not an aberration, but part and parcel of a political-economic system based on racialized extraction of land and labor, including from Indigenous peoples. Capitalism depends on control, specifically of nature. It also relies on the control and abuse of people of color” (Sze 2020, 7). Environmental justice in this context has become a project of resistance towards state-sanctioned racial violence, a refusal to participate in the performance of environmental regulation without disrupting the status quo. This perspective has become foundational to the EJM, which has decoupled from the adversarial, problematized state, and has emerged as a counter-hegemonic movement of anti-capitalist, post-carbon, and radically democratic international solidarity.

### **Native American Environmental Justice**

While the EJM has widened significantly from its early focus from distributive justice to a broad-based critique of environmental racism, racial capitalism, and state-sanctioned violence, consideration of how these forms of injustice affect Indigenous communities in the United States has been largely absent from the discourse. This has changed in recent years, especially with the rise of the #NoDAPL movement and the standoff at the Standing Rock Sioux Reservation, and Native American EJ has increasingly been brought from the periphery to the center of the EJM: “the battles at Standing Rock are exemplary of environmental justice struggles writ large...Indigenous struggles are at the core of climate change and environmental injustice

fights...their dispossession from the land is the fundamental starting point for injustice. Native nations must be at the root of serious engagement with environmental justice” (Sze 2020, 25-27). However, most environmental justice scholarship has focused around individual case studies of the environmental and public health effects of “external colonialism,” defined as “the expropriation of fragments of Indigenous worlds, animals, plants and human beings, extracting them in order to transport them to - and build the wealth, the privilege, or feed the appetites of the colonizers” (Tuck et al. 2012, 4). Other scholars have focused on another postcolonial theory, “internal colonialism,” which “involves the use of particularized modes of control-prisons, ghettos, minoritizing, schooling, policing-to ensure the ascendancy of a nation and its white elite....Strategies of internal colonialism, such as segregation, divestment, surveillance, and criminalization, are both structural and interpersonal” (Tuck et al. 2012, 4-5). Studies of internal-colonialism evaluate the environmental implications of the reservation system, federal regulation, or education, examining the institutional frameworks which push Native Americans to the periphery both materially and culturally.

Increasingly, however, Native American environmental justice research situates contemporary inequalities within the context of settler colonialism, which

[o]perates through internal/external colonial modes simultaneously because there is no spatial separation between metropole and colony. For example, in the United States, many Indigenous peoples have been forcibly removed from their homelands onto reservations, indentured, and abducted into state custody, signaling the form of colonization as simultaneously internal and external.... The horizons of the settler colonial nation-state are total and require a mode of total appropriation of Indigenous life and land, rather than the selective expropriation of profit-producing fragments. (Tuck et al 2012, 5)

Racial capitalism, environmental racism, and the EJM in the context of settler colonialism differentiates Native American EJ from the EJM. Native American peoples are not just people of color suffering disproportionate exposure to environmental harms, but a threat to settler

sovereignty and dominion, a threat which makes the destruction of Native American peoples a central aim of state-sanctioned environmental violence. In this way the EJM is just catching up to what the Native American EJM has known from the beginning, that “[e]nvironmentally just outcomes cannot be expected within existing liberal and capitalist institutions, and they cannot rely on market-based or technology-dependent solutions” (Sze 2020, 8). What, exactly, a decolonial environmental justice for indigenous communities looks like in practice has emerged as a new branch of Native American Environmental Justice, and the EJM broadly, but has yet to be satisfactorily defined. This inherent incommensurability, which holds Native American EJ as central to, yet distinct from, traditional EJ has thus far limited Native American EJ research to case studies focusing on the environmental impacts of extractive industry or the coercive legal and security structures which disenfranchise Native American communities both materially and culturally, and which often center on questions of Native American sovereignty, and the protections owed by the federal trust responsibility.

### **Tribal Sovereignty and the Federal Trust Responsibility**

Challenges resulting from the distinctiveness of Native American EJ from the EJM broadly center primarily on tribal sovereignty and the federal trust responsibility. In the 2016 article “Native Americans: Where in Environmental Justice Research?,” Jamie Vickery and Lori Hunter identified three unique dimensions of Native American EJ: “(1) Standard EJ indicators may not apply to indigenous experiences of environmental justice, given cultural distinctiveness; (2) there are challenges when defining ‘Native American’; and (3) tribal sovereignty requires different research approaches and policy prescriptions.” As Vickery and Hunter note, the first two challenges are largely a problem of conceptualizing environmental injustices and determining what indicators to observe and analyze. Tribal sovereignty, however, lies at the heart

of environmental justice for Native Americans. Native American tribes are sovereign governments capable of self-governing and self-regulating, and in the context of environmental protection and regulation

sovereignty is *the* critical factor for establishing environmental standards that are recognized as legitimate and that are enforceable. In the United States, standards set by Indian Nations have often been more stringent than those set by the federal government or the states. Recognition of Native sovereignty by the nation-state is essential if standards set by Indian nations are to have the force of law. In addition to its obvious legal underpinnings, Native sovereignty is also a political discourse (a day-to-day language of negotiation) that indigenous groups share with the governmental entities that have the most interest in keeping them part of a larger nation-state. (Ranco et al. 2007)

Tribal sovereignty has undergone a long process of definition and struggles by native nations to create, continue, protect, and justify their institutions in a way that is recognizable and acceptable to the dominant culture. The current legal and cultural status of Native Americans was a product of colonialism, so recognition of Native sovereignty is still contingent on recognition by the United States. This is the result of Chief Justice John Marshall's majority opinions from the 1830s, in which the Court found tribes to be "domestic dependent nations," defining a relationship in which Native American Nations were to receive a level of protection from the federal government in exchange for reduced autonomy, a relationship known as the federal trust responsibility (Ranco et al. 2007):

The trust doctrine—embedded in tribal sovereignty—is another aspect of Native American's political and cultural standing that distinguishes them from other groups seeking EJ restitution...In theory, the trust doctrine is a rule of conduct between tribal governments and the US Federal Government... In accordance with the trust responsibility, the US government is called to safeguard tribal resources to the fullest capacity to ensure the right to tribal sovereignty in maintaining and protecting tribal communities. (Vickery et al. 2016)

The federal trust responsibility and its relationship to Native American sovereignty and rights to self-determination are foundational to the federal-tribal relationship; however, it is often ignored if the exploitation of Native American resources or the limit of tribal sovereignty is done in



service of federal or corporate projects. Tribal sovereignty is often limited by the a tribe's lack of economic power or technical capacity in resisting harmful regulations and development, including projects of resource extraction, resulting in continued exploitation and discrimination towards Native Americans, limiting the self-determination to which the tribes are entitled (Vickery et al. 2016, 42). The failure of the federal trust responsibility, and of the right to sovereignty, is central to environmental injustice within the EPA's flagship Superfund program.

### **Native American Environmental Justice, Superfund, and the EPA**

In its role as the federal government's flagship environmental remediation program, the Superfund program is charged with negotiating the complex interrelationship of the United States' legacy of resource extraction, environmental advocacy, environmental justice, environmental law and, in the case of sites on Native American Reservations, or of interest to Native American tribes, tribal sovereignty and the federal trust responsibility. CERCLA was more favorable to tribal interests than other environmental regulations at the time of its passage, and in an effort to improve tribal involvement and coordination, the EPA has been subject to a number of reforms. At the outset of a remedial project, CERCLA automatically awards "treatment as a state" rights to all Native American tribes, unlike other statutes which require tribes to apply for such status, allowing interested tribes to receive "notification of the release of hazardous substances, consultation on remedial actions carried out by the federal government, access to information, health authorities, and...that tribes be treated as states for purposes of determining the 'applicable or relevant and appropriate standards' of remedial work, which may include tribal water quality standards" (Bergeron 2017, 307). Since the passage of the Superfund Amendments and Reauthorization Act the EPA has worked with tribal governments on a government-to-government basis, and allows for the use of cooperative agreements with tribes in

remediation activities, although the EPA is still the primary decision maker (Bergeron 2017, 308). Further reform came through Executive Order 13175, issued on November 6th, 2000, which mandated that all federal agencies, including the EPA, shall

respect Indian tribal self-government and sovereignty, honor tribal treaty and other rights, and strive to meet the responsibilities that arise from the unique legal relationship between the Federal Government and Indian tribal governments. With respect to Federal statutes and regulations administered by Indian tribal governments, the Federal Government shall grant Indian tribal governments the maximum administrative discretion possible. (Federal Register, 2000)

Other regulatory reforms came through efforts to promote environmental justice broadly, for all marginalized communities, first through Executive Order which called for “each federal agency to identify and address as appropriate the disproportionately high and adverse effects of its programs, policies and activities on minority populations and low-income populations” (EPA, 2017). In 2010, the EPA made “Expanding the Conversation on Environmentalism and Working for Environmental Justice” an EPA priority, which was incorporated into the EPA’s strategic plan from 2011-2015. “Plan EJ 2014” was implemented in 2014, which was the EPA’s plan to integrate environmental justice into its programs, policies, and activities (EPA, 2017). While the EPA has made progress in working environmental justice perspectives into its messaging, the statutory mandates are vague and as Laura Pulido pointed out, ineffective or unenforced.

While Native American sovereignty has benefitted from a number of reforms to federal law including treatment-as-state statutes, the Executive Order mandating respect for tribal self-government and sovereignty, and the broad-based EPA EJ reforms of the last two decades, Native peoples’ involvement in the regulatory process remains insufficient. Superfund projects on Native land or of interest to Native peoples face a host of regulatory challenges, and the reforms are, for the most part, insufficient to ensure substantive tribal involvement. The treatment-as-state approach, while giving the tribes the opportunity to take on the responsibility

of the states in environmental regulation, largely fails due to the simple fact that tribes are not states, and “most tribes...simply do not have the resources to build programs that are comparable to those of the states—and it is for states that these laws and programs were originally set up. Most tribes do not have sources of revenue comparable to the states, nor do they generally have ready access to the full range of federal financial and technical assistance programs for non-federal governments” (Ranco et al., 2007). Tribal governments are often charged with building out regulatory infrastructure and environmental programs without the staff, funding, or technical capacity to do so. This crucial failure is central to the comparison between the Onondaga Lake site and the Tar Creek site. With the two projects serving as bookends for the two decades of reform to Tribal coordination and consultation, as well as two decades of general EJ reform, the Quapaw people were able to secure a seat at the table, and entered into a number of effective cooperative agreements. However, the question remains as to whether “being involved in a regulatory process may not be enough for many environmental justice groups and communities of color. Should ‘getting to the table’ be the ultimate goal for environmental groups, and how should this table be structured? Is there a way to have a different table, and what would it look like?” (Ranco et al., 2007). Tribal communities need to be more than stakeholders, and what the application of tribal coordination and consultation reforms demonstrates is the need for new institutions and infrastructures that empower tribal communities to substantively participate in environmental regulation, while respecting tribal self-determination, the federal trust responsibility, and the unique context of Native American Environmental Justice.

## CHAPTER 2: ONONDAGA LAKE

The Onondaga Lake site is located to the north of the city of Syracuse, New York, covering an area of 4.6 miles. The lake receives water from a 285 square mile drainage basin, which then flows into the Oswego River, ultimately discharging into Lake Ontario. The Superfund site, broken into 12 subsites including the contaminated lake bottom, also includes seven tributaries and upland sources of contamination, although the extent of the total contamination is unknown. Onondaga Lake has been contaminated by municipal runoff and industrial waste for over one hundred years, resulting in devastating ecological and public health impacts throughout the watershed, making Onondaga Lake one of the highest priority Superfund sites in the nation. Compounding the complex nature of the remediation is Onondaga Lake's role within the history of the Haudenosaunee (or Iroquois) Confederacy and the Onondaga people, who maintain that the lake, held to be the founding location of the Confederacy, is sacred ancestral land. Onondaga Creek, one of the major tributaries of Onondaga Lake, also runs through the Onondaga Nation Reservation, located just to the south of Syracuse and Onondaga Lake. In an effort to gain a seat at the table in ongoing remediation negotiations, the Onondaga and the other tribes of the Haudenosaunee Confederacy have mounted a number of land rights claims in federal court, citing historic treaty obligations. Unfortunately for the Haudenosaunee and the Onondaga, these land rights claims unfolded mostly in tandem with reforms to EPA tribal coordination and consultation, as well as ever increasing awareness of the need for environmental justice perspectives within EPA programming. As a result, the Onondaga have been largely ignored through the course of the remediation process, and remain disillusioned with their level of participation and consultation, demonstrating the lack of tribal environmental sovereignty within the EPA prior to the tribal consultation and environmental justice reforms.

## **The Onondaga People, Onondaga Lake, and the Haudenosaunee Confederacy**

The Onondaga People are one of the founding nations of the Haudenosaunee Confederacy, who with the Mohawk, Oneida, Cayuga, Seneca, and Tuscarora nations form a political and cultural union that serves as one of the world's oldest extant representative democracies (Haudenosaunee Confederacy, 2020). The exact date of the founding of the Haudenosaunee Confederacy is hotly contested, with scholars falling into two camps based on oral history accounts and solar eclipse data. Many experts date the foundation of the confederacy to 1451, as in the oral history of the founding of the Haudenosaunee Confederacy, a solar eclipse is held up as a sign of the ratification of the Great Law of Peace. More recent scholarship, however, combining site archaeology, oral history, and improved solar eclipse data points three hundred years earlier, to the year 1142, placing the Confederacy among the oldest continuously operating democracies on earth (Johansen, 1995). Whether founded in 1142 or in 1451, however, the Haudenosaunee quickly emerged as the dominant political and economic power in what is today the Northeastern United States. The Haudenosaunee political system was characterized by

a system of quiet succession of leadership, accountability to future life, and responsibility towards the seventh generation. The Law dictated mutual protection from outside invasions, restricted wars of conquest, and defined the rights of conquered nations or individuals. It established a political structure that replaced warrior leaders with a council of elders whose mission was to maintain peace within the Confederacy, but encouraged individual nations to maintain their own laws and customs (similar to the U.S. concept of states' rights). Duties were assigned to the various leaders of the Nations: women were selected as Clan Mothers, and clans were established to unite the Nations and form a social order. (Bergeron 2017, 27)

These political frameworks gave the Haudenosaunee a strong, centralized government resistant to outside interference and corruption, allowing the Confederacy to quickly expand its borders and bring The Great Law of Peace to neighboring nations, often through conquest. At the height of their power, the territory under direct Haudenosaunee control stretched from the Mississippi

River to the Atlantic, and from just north of present day Montreal to the region which became the Carolinas (NPS, 2015).

The Haudenosaunee, and particularly the Onondaga, benefitted from their geographic position, which allowed for easy travel in all directions and protection from neighboring nations: “Situated upon the headwaters of the Ohio, Hudson, Delaware, Susquehanna, Chenango, Mohawk, and St. Lawrence Rivers, the Six Nations held within their jurisdiction the passageway to the interior of the continent...” (NPS, 2015). At the heart of this vast network of navigable rivers, tributaries, and lakes is Onondaga Lake, just to the north of present day Syracuse, NY. Roughly four and a half miles long and one mile wide, Onondaga is connected to the New York Finger Lakes region to the west, Lake Ontario and the St. Lawrence River to the north, and (loosely) the Mohawk River to the east, providing access to the Hudson River and the Atlantic Ocean. In addition to the lake’s strategic importance, it was on the shore of Onondaga Lake that the five warring nations formed the Haudenosaunee Confederacy, and as such the lake is held as sacred by the Onondaga and all the Nations of the Haudenosaunee Confederacy (Onondaga Nation, 2014).

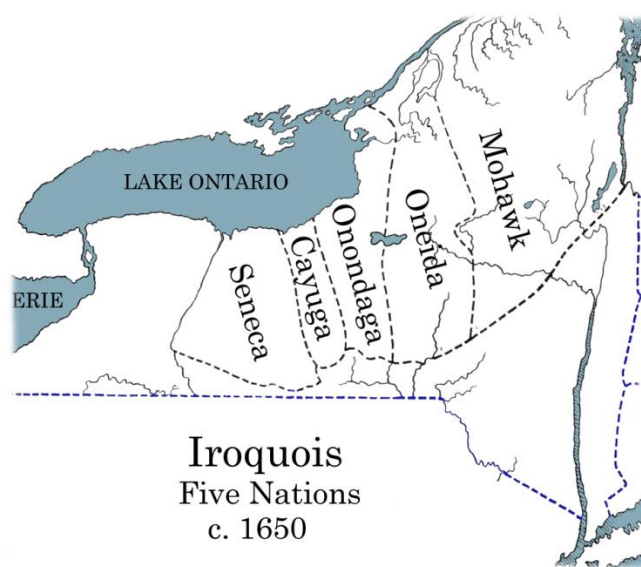


Fig.1: Haudenosaunee Confederacy Lands in New York, 1650

## **European Contact, the Revolutionary War, and Loss of Haudenosaunee Land**

The first documented contact between the Haudenosaunee Confederacy and European settlers took place in 1534, when a French expedition led by Jacques Cartier encountered a band of Iroquoian speakers along the St. Lawrence River (Graymont 2005, 36). As the European colonizing powers looked to expand their influence in North America, the strategically located Haudenosaunee Confederacy became a profitable trading partner and key source of protection, and the Confederacy was variously allied with the French, Dutch, and English from the 16th century contact period through the American Revolution. Following the French and Indian War, however, the victorious British, now occupying the French forts in Canada and the West, increasingly interfered with tribal hunting and fishing practices, accelerated settler speculation and settlement, and committed acts of violence against the Confederacy, leading to widespread unrest. This unrest “flared up in a brief war known as Pontiac’s Conspiracy, after the Ottawa war leader who organized [the] rebellion. The Senecas took an enthusiastic part in this uprising, attempting to drive the British out of the West. The war failed in its objective and was soon over” (Graymont 2005, 67). Although the rebellion was a failure, the skirmishes pressured King George III to issue a proclamation to quell the conflict. Addressing concerns over land speculation and illegal dealings “[t]he Proclamation declared...that no one should cross over the established boundaries either in the new territory or the colonies. The British and Haudenosaunee ‘agreed’ on a line beyond which colonists could not settle, reserving the territory north of Florida and New Orleans, east of the Mississippi River, and west of the Eastern continental divide in the Appalachian Mountains for Native Americans” (Bergeron 2017, 50). These boundaries were formalized by the 1768 Fort Stanwix treaty, which set the legal boundary between the British colonies in the Americas and the lands of the Native Americans (Johnson 2013, 15). The Fort

Stanwix Treaty would later become central to central New York land rights claims by Native American tribes in federal court during the Native American self-determination era.

While the Confederacy had, through a policy of aggressive neutrality, maintained the integrity of their territory in the face of colonial settlement, war, and illegal dealings, “[t]he eight year war that broke out when the first shots were fired at Lexington on 19 April 1775 would give birth to the United States of America, but would bring the Iroquois Confederacy to an end as a significant political and military power” (Johnson 2013, 15). At the war’s onset the newly independent Patriots recognized what all European colonists before them had realized, that cementing a relationship with the Confederacy was paramount, especially in light of the resentments between the settlers and the Confederacy which had recently broken out into armed conflict. Negotiations between the two began at the 1775 Council of Albany, with the colonists looking to secure a Haudenosaunee pledge of neutrality, and an agreement was reached in the Treaty of Fort Pitt, where the Americans promised to rein in illegal settlement and honor the 1768 Treaty of Fort Stanwix (Zotigh, 2018). This agreement began to fracture almost immediately, however, as

[b]eligerent colonists regularly broke their part of the agreement. Changes in the law failed to prevent people from settling on Haudenosaunee lands or from attacking them outright. In addition to crossing over previously negotiated settlement lines, the Patriots supported an embargo against British goods...This restriction violated the...agreement between England and the Haudenosaunee that had promoted trade between the two governments for over a century...Though the Confederacy remained neutral...it became evident that the majority of the Six Nations favored allegiance with the King (Bergeron 2017, 56).

The Mohawk, Onondaga, Cayuga, and Seneca Nations chose to ally with the British, and began a series of devastating raids in partnership with British loyalists against Continental Army assets in western New York and Pennsylvania. In response, George Washington committed a large part of the Continental Army to a campaign to destroy the Six Nations and their homeland. Four



brigades totaling 4,469 men were dispatched, and led by General John Sullivan, the force marched up the Susquehanna River and into Haudenosaunee territory. The scorched earth campaign was a devastating success, and between August and September of 1778 “Sullivan's army had destroyed over forty villages and many isolated homes. They had destroyed at least 160,000 bushels of corn, and an untold number of other vegetables and fruit, with the loss of only 40 men...” (NPS, 2015). The Haudenosaunee were divided, scattered geographically, and had suffered an enormous loss. However, the greatest consequence was perhaps the loss of the Confederacy’s independence: “For the remainder of the war, the Indians would be almost wholly dependent upon the British for food clothing, and equipment. This also strained British resources, and in the end, the British would abandon their Indian allies. The British made no provisions for the Indians in their peace treaty with the Americans in 1783. This left the Six Nations still defiant but ill-prepared to deal with the new United States” (NPS, 2015). Abandoned by their British allies at the end of the Revolutionary War, the Haudenosaunee were now subject to the whims of a vindictive settler state, and they would pay for their allegiances with their lands in the post-war period.

With the defeat of the British, the Haudenosaunee were left at the mercy of the victorious United States. The Continental Congress appointed commissioners to make peace with the four hostile tribes, and the meeting took place at Fort Stanwix. While the commissioners agreed to peace, the terms were punitive: “The treaty set a boundary defining the limits of the Iroquois country. The new limits deprived them of much Seneca land in Western New York and Pennsylvania and all the Ohio lands” (Graymont 2005, 74). In addition to the seizure of this land, the State of New York had created a “Military Tract” to encourage enlistment, a parcel of Native American owned land throughout central New York, which was to be allocated to veterans at the conclusion of the war. The New York Military Tract “comprised approximately

1.8 million acres from Lake Ontario southward to Seneca Lake.” (Gable 2014, 3). Between 1785 and 1795 the Cayugas, Onondagas, and Tuscaroras signed various agreements with the state to abdicate their land in service of fulfilling the state’s Military Tract obligations, while preserving large reservation lands, hunting, fishing, and salt rights. However, “as the years passed and the need for more land became apparent, the Indians were induced to part with more and more territory. The reservations became smaller and arrangements were made to build roads through Indian lands” (Gable 2014, 3). The Onondaga, specifically, were taken advantage of by the state of New York, and entered into three treaties with the state in 1783, 1788, and 1795 in which the Onondaga lost 99% of their land holdings, and the territory of the Haudenosaunee confederacy as a whole was reduced from 2.5 million acres to 7,100 acres (Bergeron 2017, 113). Among the abdicated territory was sacred Onondaga Lake, whose salt lined shores would be central to the explosive growth of the region, as well as the decimation of the Lake as a natural and cultural resource.

### **Industrial Development and the Contamination of the Onondaga Watershed**

A condition of the 1788 treaty of Fort Stanwix recognized the economic potential of the salt preserves along the shores of Onondaga Lake, and “stipulated that the salt lake and the lands for one mile around the same should forever remain for the common benefit of the people of the State of New York and of the Onondagas and their posterity, for the purpose of making salt...”(Clayton 1878, 44). The burgeoning salt industry was a draw to the region, and was critical to the growth of Syracuse well into the 20th century. Industrial scale production began as early as 1797, when the New York State Legislature designated a one mile strip of the lake’s southern half as the Onondaga Salt Springs Reservation, and passed laws on the production, storage, and sale of the salt (USGS 2000, 2). At first, the naturally brackish saltwater brine was

collected from around Onondaga Lake, and was pumped into settling tanks and boiled in order to separate the salt. Starting in the early 1800s the Salt Springs Reservation began producing salt by evaporation, as deforestation driven by the need to continuously construct new brine tanks had decimated the local supply of lumber. The solar method was slower, and just as hard on the environment, as it “required a higher concentration than was available from the springs; therefore, shallow dug wells were constructed in an attempt to find a more concentrated brine. Beginning in 1838, the State authorized the drilling of deep wells at several locations around the lake...none of these wells encountered the source” (USGS 2002, 3). Between 1797 and 1917, the Onondaga Salt Reservation produced more than 11.5 million tons of finished salt (USGS 2000, 3). Meanwhile, construction of the Erie Canal and eventually the New York Central Railroad turned Syracuse into a major industrial hub in central New York. Non-salt producing companies were attracted to the rapidly growing community, and “several of these businesses dug or drilled wells into the underlying sand and gravel aquifers to obtain water for cooling purposes, such as in the production of dairy products and beer, storage of perishable goods, and temperature regulation in office and storage buildings” (USGS 2000, 5). Although these industries did not directly deal with the saline water, “during this time period, an average of nearly six million pounds of salty waste was discharged daily into Onondaga Lake” (Bergeron 2017, 123). The significant disruption of the salinity of the surface water system caused by this extraction and discharge and the drilling of exploratory wells around the Onondaga Salt Springs Reservation created a host of environmental concerns, including mudboils, landslides, and contamination of the aquifer throughout the Onondaga watershed.

The main culprit of the discharge of contaminants into Onondaga Lake, the Solvay Process Company specialized in the production of soda ash, an inorganic compound and salt byproduct used in the production of glass, paper, and other products. “The Solvay Process” was

developed by Belgian chemist Ernest Solvay in the 1860s, and by 1890 it was the dominant means of soda ash production worldwide. The Solvay Process Company was attracted to Syracuse by “[t]he close proximity to the lake, in combination with the natural salt springs and limestone in the area, [which] made Syracuse an ideal location for the soda ash facility” (Onondaga Environmental Institute, 2020). The Solvay Process generates significant byproducts and wastes, and “[d]uring more than a century of operation (1884-1986), the western shore of the lake was inundated with more than 30 chemicals including insoluble sodium, calcium, and chloride waste generated from the soda ash production...The waste surrounds 30% of the lake shoreline and covers more than 8.1 km<sup>2</sup>, with the waste ranging from 2 to 21 m deep” (Onondaga Environmental Institute, 2020). From 1884 to 1970, twenty two pounds of mercury per day were being dumped into the lake (Barran, 2008).The environmental impacts of these contaminants were almost immediately recognizable, and only two years after the Solvay Process Company began operations fish had largely disappeared from the lake: “the US Fishing Commission reported in 1885 that commercial fishing in the Lake dropped from 20,000 pounds to 1,000 pounds in only a year. By 1898 whitefish had disappeared entirely...The pollution also destroyed the ice industry when in 1901 the state banned ice cutting in the Lake because of ‘impurities in the water’ (Bergeron 2017, 124). Concurrent with the rise in industrial contaminants, Syracuse elected to pipe their drinking water from nearby Skaneateles Lake, whose elevation made it cheaper to supply. The shift in water supply also marked a shift in attitude towards Onondaga Lake, and industrial contaminants, municipal runoff, and combined sewer overflows flowed into the lake with impunity, allowing for industrial growth of the new urban center at the expense of the health of the lake and its watershed.

### **The 20th Century Legal Landscape and Early Onondaga Land Claims**

As industrial development, and the contamination of Onondaga Lake and its watershed, continued into the 20th century, the Onondaga began to make claims for their stolen land. The first of these claims was presented in 1925. The suit was a test case intended to gauge the likelihood of securing claims of any size, however, the New York Times noted that “if they win there may be a new factor in international policy: for the Six Nations have been recognized in the past by the United States as a treaty making power (New York Times, 1924). The Land Claim traced the rights of the Haudenosaunee back to the 1768 Fort Stanwix treaty, and that all subsequent land seizures were illegal, as the State of New York had violated federal protections laid out in the Fort Stanwix and subsequently ratified treaties. The suit, however, was thrown out, as was the next major Six Nations lawsuit, the 1929 case *Deere v. St. Lawrence River Power Co. Deere* “was a major test case of the legality of New York State’s acquisition of Six Nations’ land in violation of federal treaties and the Trade and Intercourse Act [the 1790 Act which outlined the inalienability of aboriginal title]. The Mohawk plaintiffs argued that because federal law and federal treaties protected their rights to land, the action arose under federal law and the federal court therefore had jurisdiction... The Deere court rejected the Mohawk suit and held that the federal courts lacked jurisdiction over such claims” (Burkey et al. 2018, 301). The *Deere* court’s “rejection of claims to federal question jurisdiction meant the federal courts were closed to Six Nations’ land rights actions. The denial of access lasted until the 1970s...Throughout this long period, the Six Nations could not have obtained a remedy in federal court...Even when they persuaded the federal government to sue on their behalf during this period, the Six Nations fared no better” (Burkey et al. 2018, 301). Beyond New York, Native Americans nationwide were similarly shut out of the court system through discriminatory public policy and the denial of indigenous civil and territorial rights.

Shut out of the courts and with their ancestral lands increasingly contaminated by heavy industry, the Onondaga were also subject to the whims of federal Native American policy. The Allotment Act of 1887 had broken Native American communities into small landholdings, interspersed with white settler communities, which had the intended effect of being “disastrous for Indian tribes, culturally, politically, and economically. Land held by individual Indians disrupted the idea of community based tribal lands and created spatial distance between and among kinship groups” (Darian-Smith 2010, 369). The federal policy of allotment continued until the 1940s, when the federal government adopted the “Indian Termination Policy,” ostensibly intended to address Native American poverty through forced assimilation into white American society. However, the practical aims of the Termination Policy were to “dismantle tribes’ official status as sovereign governments. It was an expedient policy that released the federal government from its trust obligations to provide health and education to native communities and at the same time allowed private corporations to gain access to former reservation lands for mining, deforestation, dam construction, and so on” (Darian-Smith 2010, 371). The Indian Termination policy subjected Native American tribes to state taxes and stripped them of state funded social services, which had the obvious consequence of increased poverty and public health on reservation lands.

Throughout the 1960s public opposition to the Termination Act mounted, and by 1970 Richard Nixon was advocating for a federal policy of Native American self-determination. Policy reform came through the passage of the Indian Self-Determination and Education Assistance Act of 1975, which provided block grants to tribes to promote public health while leaving the door open for future independence from federal funds (Darian-Smith 2010, 371). Calls for a bottom-up approach to governance in respect to native American sovereignty and self-determination “coincided with a growing concern in environmental justice circles that recognized the

disproportionate harm suffered by marginalized peoples in the exploitation of natural resources” (Darian-Smith 2010, 372). Recognition of indigenous land right, self-determination, and right to freedom from exposure to environmental harm came to a head in 1974, with the landmark Supreme Court decision in *Oneida Indian Nation v. County of Oneida*, the first of three Oneida lands rights cases to reach the highest court. The Court found that the federal government did in fact have jurisdiction when evaluating State violations of the Nonintercourse Act and ratified treaties between the Native American Nations and the Federal Government regarding aboriginal title, contradicting the findings of the *Deere* court. Native American tribes were finally able to bring their land rights claims to federal court, and they would do so in an effort to reclaim ancestral lands and address their environmental contamination and remediation.

### **Onondaga Lake as a Superfund Site and the Onondaga Land Rights Action**

The Solvay process Company (which had been absorbed by Allied Chemical & Dye Company in 1920, and would be purchased by Honeywell International in 1999) closed its doors in 1986, as the passage of bottle return laws in several states greatly increased the use of plastic for beverage containers. The loss of Allied meant “the loss of a \$46 million annual payroll, more than \$3.4 million in local taxes and more than \$150,000 in charitable donations by the company and its employees” (New York Times, 1986). Most destructive, however, was the environmental catastrophe that Allied was leaving behind. In June of 1989, the NY State Attorney General filed suit against Allied-Signal under CERCLA to “compel the company to remediate the impacts of its waste disposal activities on the Onondaga Watershed; and second, to force the company to pay the state damages for the injury, destruction, and loss of natural resources” (Bergeron 2017, 212). Allied was ordered to launch a remedial assessment of the lake, which was initiated in 1989, and which found that

contamination in Onondaga Lake presents risks to human health...the primary sources of these[are] cancer risks and non-cancer health hazards... due to mercury, PCBs, and PCDD/PCDFs as a result of the consumption of Onondaga Lake fish.... Many of the contaminants in the lake are persistent and, therefore, the risks associated with these contaminants are unlikely to decrease significantly in the absence of remediation.... On the basis of these comparisons, it has been determined...that all receptors of concern are at risk. Contaminants and stressors in the lake have either impacted or potentially impacted every trophic level examined.... Based upon the results of the RI and the risk assessments, NYSDEC has determined that active remediation is necessary to protect public health or welfare and the environment from actual and threatened releases of hazardous substances into the environment. (NYSDEC 2004, 38)

Onondaga Lake began to draw attention as it was variously described as “ecologically dead” and “the most polluted lake in America,” and in 1993 Onondaga Lake was added to the CERCLA National Priorities List (NPL), meaning that the lake is among the nation’s highest priorities for remediation. The Honeywell remedial assessment was completed in 2002, and in partnership with the EPA and NY Department of Environmental Conservation, identified 12 subsites which compose the larger Onondaga Lake Superfund site, with the lake bottom serving as the largest subsite, designated as subsite 2 (NYSDEC, 2004).



Fig. 2. The Onondaga Lake Watershed



The 2005 project-wide Record of Decision outlined a wide ranging project seeking to reduce threats to public health, improve water quality and lakeshore habitat, and monitor future toxic releases. The first remedial phase called for the “[d]redging of as much as an estimated 2,653,000 cubic yards of contaminated sediment/waste to a depth that will prevent the loss of lake surface area, ensure cap effectiveness, remove non-aqueous-phase liquids, reduce contaminant protection, and reestablish the littoral zone habitat” (NYSDEC, 2005). Dredging was to be followed by the placement of caps covering almost 600 acres of the lake bottom, and the treatment of the contaminated dredged material at Sediment Consolidation Areas, which were to be constructed on wastebeds which had historically received materials from Honeywell’s operations. While dredging would significantly reduce the level of toxins present on the lake bottom, and their continued release into the water column, there were significant risks acknowledged in the disturbance of such a vast quantity of toxic material, and there were particular concerns regarding the Sediment Consolidation Areas and their potential for odor, leakage, and disruptive lighting in the surrounding communities (NYSDEC, 2006). Additionally, “concern was expressed over sufficiency of the program for “cleaning” the lake. Some believed the plan, which left many contaminated sediments in place, was merely a band-aid, many Syracuse residents, environmental groups, and particularly the Onondaga Nation wanted the lake completely restored regardless of time or cost” (Bergeron 2017, 319). The EPA and the NYDEC moved forward with their preferred remedy, which they claimed met all state environmental regulations, in addition to being cost effective. The Onondaga Nation were one of the groups most vocally critical of the project, and in 2005 attempted to use the courts to force their way to the negotiating table.

On March 11th, 2005 the Onondaga Nation filed suit in federal court against the State of New York, claiming title to their ancestral lands. The Onondaga Nation was not interested in

actually reclaiming these lands, but “as a step towards healing its relationships with all those who live in its traditional homeland. Its [the Onondaga Nation] leaders have expressed the hope that recognition of their nation’s property title would initiate negotiations with New York State regarding the acknowledgement and redress of the many injustices their people have endured over the past two centuries” (Perreault et al 2014, 496). The Onondaga Nation closely tied this land rights action to the unfolding project at Onondaga Lake, naming Honeywell International as a party to the suit, stating that “[the] industrial operations of Honeywell and its predecessor companies have degraded the land to which the Onondaga Nation holds title under federal law....The subject land became populated and developed by non-Indians over the persistent protests of the Onondaga Nation and the Haudenosaunee” (Onondaga Nation, 2005). The Onondaga argued that the Superfund remediation program was the latest in a long line of inadequate public policies which have failed to consider the unique cultural perspectives and sovereignty of its people. The Onondaga’s case was thrown out in 2010, however, the Onondaga appealed the case to the Supreme Court. On October 15th, 2013, the Supreme Court denied certiorari, exhausting the Onondaga Nation’s legal options. The Onondaga press release stated that “the dismissal of the Nation’s historic Land Rights Action is the final proof that there is not justice for Indigenous Nations in the US Court system...This is just another example of the shameful history of broken treaties, land thefts, forced removal and cultural genocide that is the foundation of New York’s and the United States treatment of...indigenous peoples” (Onondaga Nation, 2013). With their legal options exhausted, the Onondaga Nation had little leverage with which to influence the remediation of their sacred lake, and the cap-and dredging project moved forward as planned.

### **Onondaga Objections and Environmental Justice Implications**

In addition to their appeals to the judicial system, the Onondaga attempted to influence the remediation processes directly. At the outset of the project, the Onondaga stated that

contrary to the clear requirement...that Indian nations be consulted by the EPA during the remedial selection process—and, in particular, prior to the selection of the preferred remedy— EPA and its surrogate, DEC, have failed to consult the Nation concerning the remediation of Onondaga Lake. In doing so, EPA and DEC have ignored the crucial spiritual and cultural significance that the Lake has for the Onondaga people, and have utterly failed to incorporate the environmental and health concerns of the Nation (NYSDEC, 2005)

The Onondaga made a multifaceted claim for their increased consultation, making the claim (bolstered by their ongoing Land Rights Action), that the lake lies within the rightful territory of the Onondaga Nation, that the Nation is a trustee for natural resources as defined by the EPA, as Onondaga Lake is fed by a tributary which runs through the Onondaga Reservation, and that the EPA had violated the stipulations of CERCLA and their own Indian Policy in failing to treat the Nation as a sovereign state. The EPA project moved forward, however, and remained unresponsive to the demands of the Onondaga, and in response the Onondaga “kept the issues surrounding the watershed in the public eye by promoting its cause in the press, through community outreach , and through working relationships with environmental groups off the reservation” (Bergeron 2017, 350). The Nation called for the dredging of an additional 18 million cubic yards, the entire in-lake waste deposit, rejection of the use of containment caps, which they alleged were destined to fail, and called for the ultimate goal of making the lake ‘swimmable’ and ‘fishable’, which they identified as a condition of the Clean Water Act. The Nation estimated the cost of their ideal remediation plan at \$2.16 billion, against the \$451 million for the EPA’s ‘inadequate’ cleanup (Onondaga Nation, 2014). The Nation also released their “Vision for a Clean Onondaga Lake,” a holistic vision of the lake’s future seen as the remediation of the “living sum of everything in its watershed,” stating that “Onondaga Lake is central to the Onondaga Nation’s aboriginal territory and is deeply sacred to the people of the

Onondaga Nation... The rhythms and cycles of a healthy lake allow the people living around it to reflect on the rhythms and cycles of their own lives. The Lake will take care of the community just as the community will take care of the Lake. We will continue to strive for innovation and creativity in cleaning up the Lake” (Onondaga Nation, 2014). Continually portraying their role in the remediation process as insufficient, when the dredging of Onondaga Lake was completed in 2014, the Onondaga were excluded from the celebratory event, and refused to view the project as a victory, with their attorney Joe Heath stating that “The Onondaga Nation does not find anything to celebrate as the sacred lake and its shore areas remain heavily polluted and toxic. At least 80 percent of the mercury and 26 other toxic chemicals that are in the lake bottom sediments have been left there for future generations to face” (Onondaga Nation, 2014). As the remediation of the smaller subsites and groundwater contaminants continue today, the Onondaga Nation remain without a voice in the remediation of their sacred ancestral land.

The story of Onondaga Lake is the story of the longstanding inability of indigenous peoples to protect their spiritual, historic, archaeological, and environmental interests in the face of a hostile settler state, and can be pointed to as an example of the limits of environmental law and the dominance of state sanctioned environmental violence. The Onondaga’s ability to practice their traditional lifeways has suffered from direct military campaigns intended to deprive the Onondaga of their lands, deceptive and baseless title claims by New York State, the thievery of individual settlers, and the forces of extractive and toxic industry and capital. Through violence, denial to the processes of justice within the court system, and procedural injustice within existing legal structures the EPA, New York State, and the Federal Government have denied the Onondaga people their right to sovereignty and self-determination. In the case of the Onondaga people and Onondaga Lake, the EPA’s claims to Tribal participation, the treatment of tribal governments as sovereign states, and claim to environmental justice are a performative

activity intended to mask injustices rooted in indigenous dispossession, extractive industry, and capitalist expansion.

### CHAPTER 3: TAR CREEK

The Tar Creek Superfund site extends over forty square miles (although its exact boundary is impossible to identify) and is one of the oldest and most costly Superfund sites in the nation, with estimates for its total remediation ranging between \$540 million to \$61.3 billion (Hu et al. 2007,155). Located in what was the Tri-State mining district, at the intersection of southwest Missouri, southeast Kansas, and northeast Oklahoma, the Tar Creek site demonstrates the devastating environmental impact of what was once the world's largest lead and zinc mining field. As with Onondaga Lake, the extent of the region's contamination made Tar Creek one of the Environmental Protection Agency's highest priorities after the passage of CERCLA in the late 1970s. Additionally, Tar Creek shares with the Onondaga Lake site a contentious history of Native land rights and ownership, harmful resource extraction by protected industry, struggle over levels of tribal coordination and consultation in the remediation process, and the interpretation of federal law to the detriment of Native nations in violation of the federal-tribal trust relationship and tribal self-determination. Tar Creek differs from Onondaga Lake, however, as the project is located on current reservation lands, and in 2012 the Quapaw Tribe signed a cooperative agreement with the EPA and the Oklahoma Department of Environmental Protection to perform the remedial work at the "Catholic 40," a 40-acre tract owned by the Quapaw Nation which holds cultural and historical significance, including the ruins of a Catholic Church and school dating to 1893 (EPA, 2020). The Quapaw has benefitted from the full force of reforms intended to improve relationships with tribes and their participation in the Superfund process and have been able to secure a role in the remediation process, and the Quapaw cooperative agreement is held up as a major step forward for the EPA. The project was widely viewed as a success, and in its wake the Quapaw have signed on to a number of additional cooperative agreements with the EPA and OKDEP. Questions remain, however, as to the efficacy of these

coordination and consultation reforms, as well as to whether direct tribal control is a means of progress towards tribal self-determination against the forces of racial capitalism, or if the Tar Creek project is simply another example of performative regulation in service of the status quo, and in violation of the Federal Trust Responsibility.

### **The Quapaw Tribe and Loss of Quapaw Lands**

Unlike the Onondaga Nation and the Haudenosaunee Confederacy, the Quapaw have been little studied, and no comprehensive modern history of their people has been written. However, the history of the Quapaw is a familiar one of maintaining territorial and cultural integrity through the Revolutionary War, before accepting an empty promise of protection from settler encroachment by the federal government in exchange for millions of acres of their lands, and then slowly being confined to their, unknown at the time, mineral-rich reservation through a series of questionable treaties with the federal government throughout the 19th century. The origins of the Quapaw tribe are contested among scholars and archaeologists, and there are competing claims that the Quapaw have been the inhabitants of the greater Arkansas area since time immemorial, and that the Quapaw are the remnants of an Ohio Valley Mississippian people, who migrated down the Mississippi River to the Arkansas area shortly before their first contact with the French in the late seventeenth century, making the Quapaw recent arrivals. The Quapaw language is linguistically similar to the Dhegiha Siouan language of the southern great lakes region; however, “[s]ome Quapaw cultural traits are shared with southeastern Indian peoples, such as types of clans and stories of their rabbit trickster. Those traits are clearly not Plains. Other Dhegiha Siouan tribes possessed more marked Plains attributes in the oral tradition, such as featuring Coyote as trickster. They all had core social and religious institutions, which advocates for migration believed were derived from a common prehistoric Mississippian source

in the Ohio Valley” (Clark 2009, 303). Whether Mississippian migrants or Arkansas peoples in their ancestral home, the Quapaw tradition is characterized by frequent movement and complex interrelationships with a number of tribes throughout the North American Southeast.

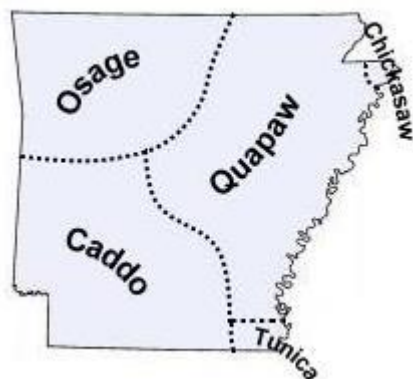


Fig. 1.3. Quapaw Lands in Arkansas before 1818

The French were the first to interact with the Quapaw in July in 1673, and they encountered a society whose belief system was closely intertwined with a direct connection to the environment. The Quapaw worldview was centered on the “Wah’Kon-Tah, who was in all entities of the environment and who was part of man, therefore the Quapaws believed that they had a connection to the earth. The Quapaws thought that they were related to rocks, clouds, and animals, thus the Quapaws respected the animate and inanimate. The sun and the moon were especially important.... The early Quapaws...were sovereign over the land, because they were the land” (Nolan 2015,107). Quapaw women cultivated fields of crops held in common, including corn, beans, pumpkins, and squash, while the men hunted for a variety of local game, and caught a large amount of fish. The main Quapaw village was located at the mouth of the Arkansas River, and its location along a key communication channel in the southeast resulted in frequent contact with both the Spanish and French, with the French becoming the Quapaw’s key ally in the region: “the French and the Quapaws had a symbiotic relationship in which the French



gained a valued Indian ally strategically situated to block English incursions, while the Indians received French firearms and alliance...Historians point out that the French probably would have had no Louisiana Territory...if it had not been for Quapaw loyalty to the French cause..." (Clark 2009, 305-306). As with the Onondaga, however, the Quapaw's loss of their French ally would be a direct catalyst for the loss of their territory in the coming years.

With the 1803 Louisiana Purchase the Quapaw lands were flooded with American settlers, and the Quapaws looked to the new American government for protection from illegal settlement. Negotiations began between the Quapaw and the United States in 1816 and a treaty was signed in 1818, in which the Quapaw agreed to give up 16 million acres of their land, keeping a 1.5 million acre reservation below the Arkansas River (Clark 2009, 306). The Territory of Arkansas was founded by the federal government a year later in 1819, and white settlers continued to flood the region, founding Little Rock within the Quapaw reservation in 1820. In order to escape further settlement, the Quapaw gave up the remainder of their lands and were relocated to the Caddo Nation's land, near present day Shreveport. The Caddos, however, were unwilling to accept the Quapaw, and they were scattered throughout the region, with some Quapaw returning to their homeland, now occupied by white settlers, and others finding a home with various tribes in the region. With the failure of the shared territory, the Quapaws signed a final treaty with the federal government in 1833, which relocated the Nation to their current territory in what would become Ottawa County, Oklahoma, located in the far Northeast corner of the state, to a territory of 96,000 acres. The Quapaw territory was reduced further as, living in harsh and unfamiliar conditions, the Quapaw: "agreed to sell 7,600 acres for \$1.25 an acre to non-Indian settlers, as well as 18,522 acres, the Western fourth of their reservation, to the Peoria Indians for \$1.15 an acre" (Nolan 2015, 112). The Quapaw, in an effort to slow the pace of settler encroachment on their lands, had given millions of acres of lands away in exchange for a

small, barren reservation, and had secured only rhetorical guarantees of continued protection from white settlers.



Fig. 1.4. Quapaw Lands within “Indian Territory,” 1833

### **Federal Allotment and Mining Leases on Quapaw Reservation Land**

In February of 1887 Congress passed the Dawes Act, which allowed for the breaking up of reservations by granting land allotments to individual Native Americans. Congress proposed 200-acre allotments for the Quapaw, and ultimately 234 Quapaws received 240-acre allotments, leaving roughly 12,000 acres of reservation land unallocated (Nolan 2015, 113). While the remainder of the Quapaw land was protected under the conditions of their treaty with the federal government, the Dawes Act made land tenure increasingly complex, as “most of [what would become] the mining settlement in...Oklahoma...was located on Quapaw tribal land, which was administered by the Bureau of Indian Affairs (BIA)... Deemed “restricted lands” by the BIA, the Quapaw were prohibited from selling their property or using it in certain ways. Use by non-Indians was also restricted, but the BIA maintained the right to negotiate farming, grazing, and mining leases to these lands” (Robertson 2010, 5). The Quapaws began to sign mining leases as

early as 1895, which the BIA justified, in light of the land's restrictions, through the perceived inability of the Quapaw landholders to cultivate their own barren allotments. Small quantities of lead and zinc were extracted until 1914, when the full extent of the mineral deposit was discovered. Industry immediately flocked to the lands, and by September of 1914 "the Picher Lead Company was developing four mines in the Tar Creek watershed....Typically the company purchased forty-acre mineral leases from the BIA. These sections were then divided into smaller plots that were subleased to workers and merchants for housing and commercial purposes" (Robertson 2010, 7). This opaque leasing system based on unenforced treaty stipulations and uneven BIA oversight led to the development of haphazard boomtowns throughout the Quapaw reservation. Small squatter camps of miners living in scrap metal shanties scattered the territory and the mining companies invested little of their earnings into the community, developing few social services or local infrastructure. Epidemics like smallpox were common throughout the area, and mine fatalities and dust-induced respiratory diseases ravaged the local population.

Meanwhile, the mines extracted stunning quantities of material from the Quapaw land. The height of production from the Picher Field coincided with the outbreak of World War I, and "as zinc was a component in artillery shells and cartridge brass, Picher supplied a significant volume of ammunitions metals for the war effort. Metal prices were high during the war and in the first five years of the field's operation (1915-1920), lead and zinc production rose from 21,125 to 350,365 tons...In fact, from 1920 to 1930, the area produced more than 70 percent of all U.S Zinc and 35 percent of the metal mined worldwide" (Robertson 2010, 8). While the mining companies secured astronomical profits, the Quapaw were locked into disadvantageous royalty rates by the BIA and the Department of the Interior, and they received only small percentages of the returns: "Non-Quapaw mining companies, from 1906 to 1920, pulled ore valued at \$19,503,459 from Quapaw lands and gave the Quapaws a royalty of just \$1,307,627, at

a rate of 6.7 percent. From 1921 to 1929, non-Quapaw mining companies mined \$92,147,072 of ore on Quapaw land and gave the Quapaws a royalty of \$8,784,424, for a rate of 9.5 percent....large payouts to native peoples were rare...as the interior secretary's primary concern was to ensure large profits for mining companies and small profits for the tribe (Nolan 2015, 115-116). The mining companies would then turn around and sublease the lots to other mining companies for up to twice the rate of what they were paying the Quapaw, anywhere from 12½ to 17½ percent. "Cut overs" were also common throughout the field, a tactic of illegally mining below an unowned tract of land, with the BIA and the courts doing little to protect the interests of the Quapaw. The Quapaw brought their complaints to court in *Whitebird v. Eagle Picher Lead Company*, in which the Quapaw claimed that the secretary of the interior could not sign mineral leases without the approval of tribal heirs. The United States Court of Appeals ruled against the Quapaw, and the secretary of the interior was permitted to continue managing the mineral leases on behalf of the tribe, to the benefit of local industry.

### **The Environmental and Public Health Legacy of the Picher Field**

In the period following World War II, the Oklahoma mines became less lucrative, with the federal government looking abroad for new sources of raw material extraction. Mining on Quapaw land slowed to a fraction of its former production and "during 1956, just thirty-one Quapaw mineral leases, out of 172 tracts covering 16,054 acres, produced ore....By 1957, the mining companies had virtually abandoned the Quapaw lands" (Nolan 2015, 124). When the mining companies retreated, along with much of the boomtown they had fostered, the extent of the environmental catastrophe was made clear. Mining companies within the Tri State mining region had produced more than five hundred million tons of "chat," the dry mine tailings which are the byproduct of ore extraction. The mining companies also left tailing ponds, the byproduct

of “wet” ore extraction, which were unlined ponds at the surface used for the separation of ore, and which today cover almost 800 acres of reservation land. Both the dry chat and the tailing ponds contained large amounts of heavy metals including lead, zinc, and cadmium, which began to leech into the ground. While some chat has been removed and sold to be used in gravel, concrete, and asphalt, even in this area the federal government has denied the sovereignty of the Quapaws, mandating federal approval before the chat can be sold. Additionally the cavernous mining cavities, covering hundreds of acres and some with ceilings of ninety feet, began to fill with water, as did the more than one hundred thousand exploratory holes and over one thousand mine shafts. By 1979 the oxidized sulfide materials within the mines had leaked into the groundwater, contaminating it with lead and other heavy metals (Nolan 2015, 76). The effect of this contamination can be seen in Tar Creek itself, after which the Superfund site is named, which remains a rusty-red color and is completely devoid of life. Perhaps most immediately threatening to the residents of the above Quapaw reservation and the town of Picher, however, were the threats of cave-ins: “In February 1950, Eagle-Picher [Mining Company] officials warned of an imminent cave-in in a five-block area centered on Main Street... [T]rue to form, the company soon issued more than 200 eviction notices, and residents and business owners were given thirty-day notice to leave...although subsidence never occurred in the condemnation zone, gouging [the process of extracting ore from support columns] did produce cave-ins elsewhere...in July 1967, a 300-foot diameter crater engulfed three Picher houses, leaving eighteen homeless” (Robertson 2010, 26). The Tri-State Lead and Zinc mining region had, through roughly half a century of extractive mining, generated enormous profits for the mining companies at the expense of the environment, which had turned into a deadly and alien landscape of heavy metal-tainted chat piles twelve stories high, contaminated local soils, leaking acid mine water, and frequent cave-ins.

The main public health manifestations of these wide ranging contaminants result from the exposure to lead and other heavy metals through the contamination of the air, water, and even of the infrastructure of the area itself by mine residue and heavy metals:

Metals from the acid mine water directly contaminate surface water; metals are also available to leach into the Roubidoux Aquifer, the regional water supply, by downward migration of acid mine water... Metals can also runoff during rainfall, and blow into breathing zones... Further dispersion no doubt occurs as vehicles crush the waste used as road gravel, converting it into airborne road dust... a significant quantity of chat has been dispersed in the community by its removal and use in dirt roads, as an aggregate in concrete, in building foundations, and for sandblasting and landscaping. In particular, there are concerns about the effects of children playing on the chat piles and mobilization of dust from the piles to adjacent residential areas. With respect to children's exposure, the issue of windborne transport may be particularly important (Hu et al 2005, 155)

A 1994 study of the blood lead levels in 192 Native American children found that 34% of children tested from the Tar Creek area had blood lead levels above 10µg/dL, the Center for Disease Control's maximum recommended level. 15% of Native American children tested had more than double the recommended level (EPA, 2017). A follow up study conducted in 1996 by the Oklahoma State Health Department found that 30.4% of the 164 children tested had blood lead levels above the CDC 10µg/dL recommended limit. A 1997 baseline blood level project launched in Ottawa County in 1997 by the University of Oklahoma found that living in one of the former mining towns resulted in a 5.6-fold increased odds of having a blood lead level above the CDC recommended limit, even without incorporating exposure due to lead in soil, paint, floor dust, or exposure as the result of hand-to-mouth behaviors (Malcoe et al. 2002, 226). This level of exposure is to the clear detriment of the region's children, as lead exposure is known to cause a host of challenges to the development of the central nervous system, resulting in learning disabilities and behavioral problems. While there has been no study of the long term effects of this lead exposure in Ottawa County children, the adult health statistics from the county indicate "mortality rates were increased 56.5% for lung cancer; 100% for tuberculosis; 40.0% for

bronchitis, emphysema, and asthma; 69.2% for kidney disease; 100.0% for hypertension; 42.0% for stroke; and 31.8% for heart disease when compared with the state” (Hu et al. 2009, 57). The half-century of resource extraction at the hands of the mining industry, encouraged and protected by the state and federal government, has left a clear legacy of harmful and lingering environmental and public health impacts.

### **Tar Creek as a Superfund Site and Early Quapaw Tribal Coordination**

The remediation of Tar Creek began in 1980, with the creation of a task force made up of twenty-four local, state, and federal agencies charged with evaluating the effects of the draining acid mine water. The task force found that the scale of the necessary remediation required federal intervention, and Tar Creek was added to the National Priority List on July 27th, 1983 (EPA, 2020). The EPA entered into its first cooperative agreement with the Oklahoma State Department of Health for the remediation of Operable Unit 1 (OU1), although the Quapaw were left out of the agreement entirely. The OU1 remediation sought to address the discharge of the acid mine water and subsequent groundwater degradation, as well as the threat of contamination of the local aquifer through downward migration of acid mine water through abandoned wells (EPA, 1991). The EPA ultimately sealed 83 abandoned wells, which stopped the transfer of the acid water to the aquifer, and diverted surface water from three mine-inflow points, reducing the surface water inflow to the mine by 75% (EPA, 1991). The EPA then began a five year monitoring period, which concluded in 1991. The Quapaw to this stage had not participated in the remedial study or subsequent monitoring, and the EPA had no further plans for Tar Creek at this time (EPA, 1991). The EPA discovered the extent of the soil contamination in 1996, however, and designated the soil remediation OU2. The Army Corps of Engineers began soil remediation in January 1998.

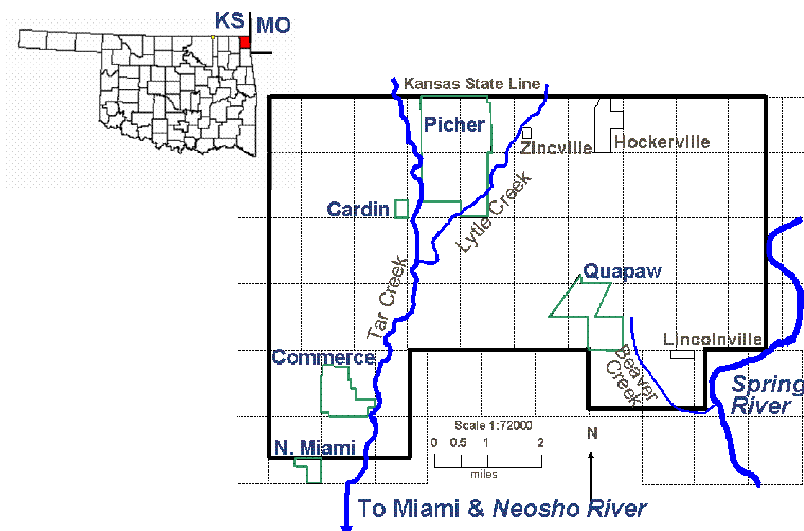


Fig. 1.5. The Tar Creek Superfund Boundary within Ottawa County

In September of 1998, with the groundwater and soil remediation projects already well underway, the EPA entered into a cooperative agreement with the Inter-Tribal Environmental Council of Oklahoma (ITEC) and the Quapaw leadership, with the goal of improving tribal participation in the remediation process, which had been nonexistent to that point. As the result of the agreement, the ITEC

would conduct remediation studies for two industrial properties owned by the Quapaws and provide technical support, training, and a variety of environmental services for the member tribes. The EPA awarded “approximately \$122,000” to the ITEC for the program... In early 1999 the EPA awarded the ITEC and the Quapaw Tribe an undisclosed amount of money in order to conduct a remedial investigation and feasibility study on the mining waste polluting Beaver Creek, which flowed through Quapaw ceremonial grounds (Nolan 2015, 77)

The EPA made additional awards to the Quapaw Tribe and the ITEC in 1999 in an effort to address some of the soil concerns, including “chat” removal, dust suppression and erosion. The Quapaw Tribe felt that their efforts were undermined by the EPA, however, as the funds for the investigation of Beaver Creek were withdrawn after the plan was drafted, and the EPA limited the Quapaw to study of the area, rather than meaningful participation in the remediation (Nolan, 2015:78). The Quapaw Tribe left the ITEC in 2000 and formed their own environmental office,



and began a program designed to ensure the tribe's participation in the Superfund process, the Superfund Management Assistance Program. The EPA awarded the program \$1,981,667 for their assistance in the residential soil remediation under OU2, as well as the hiring of outside consultants to aid the tribal environmental office with the review of technical documents, as well as the surveying of land ownership on the reservation in order to ensure the EPA was honoring property rights. The Quapaw were, at this stage, frustrated with the remediation progress, as attempts at groundwater remediation had drawn to a close, and they were largely dissatisfied with the scope of work they were allowed to perform. In an interview with officials from EPA region 6, Tim Kent, the Quapaw Tribe Environmental Director, stated that

[t]he Tribe has a Cooperative Agreement with the EPA, but there are disputes as to what work he is allowed to perform under the agreement. He stated that under CERCLA, the Tribe has the same participatory rights as the State, and that the Tribe is guaranteed more involvement under CERCLA than is currently being provided...Mr. Kent expressed his desire for the EPA and the Quapaw Tribe to sign a formal Memorandum of Agreement (MOA) that would outline the framework under which the Tribe and EPA would operate cooperatively at the site. He stated that he believed this to be a requirement under CERCLA and has made a request that an MOA be reached. Mr. Kent stated that, regarding work on Tribal lands, the Tribe should be involved in managing the work and be given the resources to do that. (EPA, 2004)

While the Quapaw were able to secure an enhanced role within the remediation process, they were still largely dissatisfied with the scope of the work, their role within the Superfund remediation structure, and called for the participatory rights owed to them under CERCLA. The tribe called for the direct management of remediation work on tribal land, and would soon attempt to win these rights in federal court.

The Quapaw Tribe sued the EPA in 2004 in an effort to force the EPA to coordinate with the tribe's environmental office more closely, as well as to spur the EPA to action in what the Quapaw viewed as insufficient remediation efforts. In *The Quapaw Tribe of Oklahoma et al. v. Blue Tee Corp et al.* the Quapaw argued that "danger from lead exposure and chat piles had

existed since the 1930s and that the EPA should have acted much earlier to clean the region. The EPA, instead, did not begin soil remediation until 1996, even though Tar Creek was added to the National Priority List in 1981. The EPA also did not investigate the chat piles and tailing ponds until two decades after initial discovery. Furthermore, the tribe criticized the EPA for waiting until 1994 to issue its first five- year review (Nolan 2015, 81). Ultimately, however, the Tenth Circuit Court rejected the Quapaw argument, finding that the Quapaw could not claim damages as there was no means of determining value until the remediation was complete. Additionally, in response to the Quapaw claim that the EPA was not “diligently proceeding” with the remediation, interpreting the law in favor of the EPA process, despite their lack of a clear remediation timetable. The federal courts had again ruled against the ability of Native Americans to decide how their own lands were to be remediated.

### **Resident Buyout and the Quapaw Cooperative Agreements**

In 2003 the EPA launched the remediation of Operative Unit 4 (OU4), for the remediation of the chat piles in non-residential areas, as well as OU 5, to treat the pollution of the Spring and Neosho Rivers, however, the mounting studies demonstrating the public health impact of the environmental contamination, as well as the perceived lack of progress by the EPA, resulted in rising calls from local residents for a residential buyout. Local residents turned to Oklahoma’s senior senator, Jim Inhofe, who was chair of the Senate Environment and Public Works Committee. Inhofe initially refused to consider the idea. Media attention from elsewhere in the state eventually forced Governor Brad Henry to act, however, and he signed a bill authorizing the funds necessary to relocate families with young children out of the contaminated area. The state spent “\$3 million to relocate a total of fifty- two families with children under six years of age. That year, the initial round of buyouts compensated \$54,029 per home, or \$37 per

square foot” (Nolan 2015, 79). Inhofe, following the governor’s lead, “began to come around. At first, he secured \$2 million in federal funding to pay for a study that discovered that 286 homes within Tar Creek were at risk of being swallowed up from cave-ins of underground mine shafts. This provided an opportunity for Inhofe to reverse himself on the buyout, supporting it on the grounds of protecting residents from cave-ins (Burnley, 2017). Inhofe announced a joint federal and state program in 2006 for the purpose of voluntarily relocating residents within Tar Creek, and in 2007 the Water Resources Development Act was passed by Congress, allocating \$30 million for the removal of residents who were under threat of chemical exposure. The second round of buyouts “compensated \$65,624 per home, or \$52 per square foot. The relocation trust presented 878 buyout offers, with 51 being rejected. Before the buyouts, Picher had a population of 1,640 residents, the town of Cardin had 150 residents” (Nolan 2015, 79). As of 2010 it was estimated that 20 residents remain in Picher, and none remain in Cardin, with both being considered “ghost towns” (US Census Bureau, 2020). The buyout was administered by the Lead Impacted Communities Relocation Assistance Trust (LEAD), a nine member panel which Inhofe touting the buyout as a small-government exercise in local decision making. The board was composed of local business owners, property owners, town officials, and one leader of the Quapaw tribe. LEAD completed their work in 2010, with Inhofe proclaiming that “This is an example of a government program created for a specific purpose and then dissolves after the job is completed. This is how the government should work” (Gillham, 2010).

Following the federal relocation of the residents of the Tar Creek region, the Quapaw tribe were the only remaining stakeholders in the region. Building on over a decade of experience working with, and against, the EPA, in 2012 the Quapaw Tribe Environmental Office entered into a cooperative agreement with the EPA for leadership of the remediation of the contaminated “Catholic 40” site, the first agreement for tribal leadership of a remediation project

in the EPA's history (EPA 2015, 1). The Catholic 40 was the site of a boarding school, cemetery, and church from 1890 to 1920, and held cultural and historic significance for the Tribe. The Quapaw approached the EPA with an alternative remediation proposal for the property in 2012, and

[w]ith the Tribe taking the lead, cleanup planning focused on how to remove contaminated mining waste (also known as chat) while protecting the site's cultural and historic resources. Areas near structures would require careful excavation, with some done by hand, to avoid the potential for damage by excavators and other large pieces of equipment. Ground-penetrating radar would identify structures and artifacts below ground. A historic preservation officer from the Tribe would be on site to monitor all activities, with stop-work orders issued as needed to protect any items found. (EPA 2015, 3)

The Quapaw were also careful to stabilize the bank of nearby Beaver Creek, another sacred resource central to the Quapaw cultural and religious practices. Ultimately between 2013 and 2014 the Quapaw excavated about 108,000 tons of contaminated material from site, preserving the ruins of the school and church, recovering cultural artifacts, and, crucially, encountering a challenge which led to a more holistic remediation approach for future projects. The Quapaw identified that traditional remediation tactics at the site would strip the thin layer of topsoil, leaving the site as a barren, rocky landscape with no potential for future growth. An EPA team from the Office of Superfund Remediation and Technology Innovation was brought in and they, together with the Quapaw Tribe, developed a technique of using soil amendments to bind heavy metals in place, preventing future contamination while allowing for reseeded and topsoil preservation (EPA 2015, 5). Perhaps most importantly, the report called for a holistic watershed approach to future remediation, finding that “[w]ith the most time-critical risks at the Tar Creek site largely abated, the primary focus should turn to watershed remediation and protection.... Activities would enable natural processes to play a dominant role in reducing ecological impacts to creeks, rivers lakes as well as [plant and wildlife corridors]” (EPA 2015, 6). The site-wide

watershed remediation approach stands in stark contrast to earlier EPA approaches at the site, and offers alternative ecological approaches to other mine remediation projects nationwide. The Quapaw Tribe has since entered into a number of additional cooperative agreements with the EPA, and will continue to serve as a key stakeholder in the remediation of the site.

### **Controversy, Self-Determination, and Lingering Questions at Tar Creek**

While the Quapaw cooperative agreements are rightly held up as a landmark achievement in Native American self-determination in the context of Superfund remediation, the project remains plagued by controversy, and even through the lens of their successful cooperative agreements the Quapaw right to self-determination in Oklahoma is uniquely threatened. The EPA report on the successful Catholic 40 cooperative agreement notes that “[t]he Tribe’s sustained relationship building at senior levels of government was also a key factor. U.S Senator James Inhofe was instrumental in resolving cleanup slowdowns and bureaucratic red tape...” (EPA 2015, 3). Inhofe’s record, however, is one of staunch opposition to tribal self-determination. In 2005, Inhofe attached a rider to a \$286 billion highway transportation bill that completely nullified the Federal Trust Responsibility in Oklahoma, subjecting the sovereignty of Oklahoma tribes to the state. The rider stipulated that:

[n]otwithstanding any other provision of law, the Administrator may treat an Indian tribe in the State of Oklahoma as a State under a law administered by the Administrator only if:

- (1) the Indian tribe meets requirements under the law to be treated as a State; and
- (2) the Indian tribe and the agency of the State of Oklahoma with federally delegated program authority enter into a cooperative agreement, subject to review and approval of the Administrator after notice and opportunity for public hearing, under which the Indian tribe and that State agency agree to treatment of the Indian tribe as a State and to jointly plan administer program requirements. (Committee on Transportation and Infrastructure, 2005)

The rider went against almost 200 years of legal precedent which allowed Oklahoma to have the final say over the EPA in the ability of Native Americans to regulate their own environmental protection systems. The rider inserted the State of Oklahoma into the relationship between the Quapaw and the federal government, meaning that the Quapaw cooperative agreements, including the Catholic 40 are subject to a layer of state oversight in direct violation of their right to self-determination. Inhofe “had always had connections with the oil and gas industry, therefore protection of the oil and gas industry seems to be the reason for the Midnight Rider.... David Conrad, of the National Tribal Environmental Council, [said] that even the governor of Oklahoma was unaware of the provision. Therefore, this was not a power grab by Oklahoma, but instead by...Inhofe [who] acted unilaterally on the issue, completely infringing on the federal trust relationship” (Nolan 2018, 185). Inhofe, as a staunch opponent of tribal self-determination, has allowed the cooperative agreements to proceed but only under the direct control of the state government.

Additionally, the federal buyout program administered by Inhofe and former EPA Chief Scott Pruitt has been plagued by accusations of wrongdoing. Pruitt’s philosophy as EPA chair was “national standards, neighborhood solutions,” and as EPA chair he was eager to offload responsibility for remediation onto local stakeholders. Additionally, residents affected by the buyout “described a program so rife with good-old-boy corruption that certain individuals received outsize payoffs while some homeowners got so little they couldn’t relocate anywhere nearby; meanwhile, they said, the people hired to demolish the homes received inflated contracts through a flawed process” (Burnley et al. 2017). Residents complained of severe disparities in property valuations, actions by LEAD which enriched members of the nine person task force, and coercive tactics intended to bully residents into accepting poor offers. Pruitt, who was State Attorney General at the time of the buyout, chose not to prosecute those involved in mishandling

the trust money or giving sweetheart deals to contractors, and instead used the power of his office to shield an independent audit of LEAD and the buyout process. A 2017 Politico Magazine investigative piece titled “The Environmental Scandal in Scott Pruitt’s Backyard” concludes with this observation:

Tar Creek today looks like an abandoned landfill. Illegal dumping has added a fresh layer of grime to the already ruined patch of earth. Giant craters from collapsed mine shafts, some as large as 200 feet in diameter, are filled with Bud Light cans, shotgun shells and the tangled remains of kids’ playground equipment...Abandoned houses that were not part of the buyout are now coated with graffiti. The charred remains of the former mining museum in Picher, which burned down at the hands of arsonists, stands as a teetering monument to Tar Creek’s former way of life. And the sense of danger and destruction extends beyond the former buyout area: On rainy days, local fields used for football practice bleed a toxic shade of orange...The EPA is continuing its now 33-year-old cleanup effort, and it’s thrust the Quapaws back into stewardship of the land. (Burnley et al. 2017)

While the Quapaw have ultimately achieved what other Native American tribes have not, namely the sovereignty to determine how to remediate environmental contaminants on their own land, it has come at the price of their trust relationship with the federal government, and their lands remain overwhelmingly toxic, neglected by the adversarial state, and subject to the whims of legislators who actively oppose their right to self-determination. While the Catholic 40 project and similar Tar Creek cooperative agreements can serve as a template for constructive tribal partnerships at other Superfund sites, the context of limits to tribal sovereignty and general corruption within the remediation process reveals that there is still necessary reform within CERCLA and its relationship to sovereign Native American tribes and their lands.

## CONCLUSION

A comparison of the Tar Creek and Onondaga Lake Superfund sites demonstrates that, while the EPA has made strides in improving tribal coordination and consultation in the remediation process, respecting tribal sovereignty and self-determination, and incorporating environmental justice perspectives into their programming, there remain a host of challenges to designing successful tribal environmental programs within a federal framework. The case of the Quapaw Tribe and the remediation of Tar Creek, the best example of a tribal-led and -managed remediation project, was a success due to a set of unique circumstances that make similar cooperative agreements impossible for tribes like the Onondaga. The Quapaw Tribe operate a number of casinos and resorts, generating enormous profits: “Since opening, the casino resort has generated a cumulative economic output of almost \$750 million...[T]he expanded \$361 million casino resort has generated a cumulative economic output of more than \$1 billion for the Tri-State Region. Downstream [Casino Resort] distributes \$10 million a year to the Quapaw Tribe that goes toward tribal services such as health care, environmental services, senior services, children’s learning center, scholarships and subsidized housing for Tribal members” (Higdon, 2013). This successful operation has allowed the Quapaw to create an environmental division, consult with scientists and technical experts, and invest in the material necessary to execute a remedial project of this scale. The role of successful gaming operations in achieving sovereignty in environmental regulation is significant, and “[n]otably, of the 46 federally recognized tribes who have achieved TAS status under the EPA Clean Water Act... 41 tribes run casinos.... It is essential to remember that most tribes in the United States do not have equivalent financial resources and face an uphill battle to get basic needs met” (Darian-Smith 2011, 375). While the EPA already treats tribal governments as states as a condition of the Superfund program, lucrative gaming operations allow tribal governments to build familiar environmental



protection infrastructure, hire lawyers and technical experts, and mount lobbying and public relations campaigns that make EPA respect for tribal sovereignty and willingness to cooperate on environmental regulation and remediation significantly more likely.

The history and geography of each site can also contribute to the ultimate role of tribal leadership in environmental regulation. Onondaga Lake lies at the heart of Syracuse, New York's fifth largest city with a population of over half a million. The city served as a major crossroads and industrial hub for over two centuries, and while many of the major manufacturing and industrial operations have since left, the city remains vital and interested in the economic potential of the remediation of Onondaga Lake as a site for potential redevelopment and infrastructure investment. In this context the Onondaga people are only one of a number of interested local and national project stakeholders, severely limiting the opportunity for their meaningful involvement in the project, to say nothing of direct control. The Tar Creek site, however, located in the remote and barren northeast corner of Oklahoma has only a few thousand remaining residents, many of them living on the Quapaw Reservation. It was an acknowledgement by the government of Oklahoma, as well as by the EPA, that there was no potential for the remediation and redevelopment of the region once their plan to relocate the residents of Picher and Cardin through the, ultimately controversial and corruption-ridden, buyout program moved forward. Following the buyout the Quapaw became the only remaining stakeholder in the region, and the EPA took the opportunity to offload responsibility for Superfund remediation onto a local group, and even then only after the Quapaw were subject to an additional regulatory hurdle by Inhofe's midnight rider. It is unlikely that the government of Oklahoma would have entered into similar cooperative agreements with the Quapaw had there been an additional interested stakeholder in the region.

While there remain a number of barriers to the potential of similar cooperative agreements between the EPA and other Native American tribes, the cooperative agreements between the Quapaw and the EPA can be pointed to a template from which to develop new structural and institutional approaches to environmental remediation on tribal lands. Returning to the question of whether a seat at the table is the ultimate goal for environmental groups, Darren Ranco states that “in tribal contexts, the current institutional arrangements for participation are not enough. We do not fix environmental justice problems by merely keeping the system of institutions we have in place and by adding a few more people of color at the decision-making table.... What we need are new institutions that can engender new forms of meaningful participation—a participation that is cognizant of tribal sovereignty and colonial histories” (Ranco et al. 2007). What the failure of the Onondaga Lake remediation and the ultimate success of the Quapaw in the Tar Creek project demonstrate is that tribal governments need to be involved at the highest levels in the creation of institutions and policies that have not only their full participation, but their direct managerial control, in mind. The Tar Creek project allows for the recognition, by Native American communities and the environmental justice movement broadly, that remedial projects on Native American lands offer opportunities not just for performative regulatory participation, but for the creation of new institutions that will protect Native American sovereignty and cultural distinctiveness while acknowledging extractive colonial histories.

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