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# A Native American Water Ethic

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*Glenn C. Reynolds*

When the first Europeans dropped anchor in the pristine coastal waters of North America and stepped ashore, they encountered an Eden that staggered their imaginations. Estuaries, wetlands, and endless untouched lakes and rivers teemed with exotic foods, fish, and wildlife that would meet their every need. This “new world” promised respite from a crowded continent already groaning from the strain of human contact.

There was nothing new about this world, however, to the indigenous cultures that had thrived for millennia within it. As the dazzled Europeans surveyed the bounty before them and imagined the hidden wealth of the unknown interior, not far from where they stood Native Americans poled birch bark canoes silently through ancient wild rice paddies to gather this sacred gift for the coming winter.

Native American cultural traditions, which viewed human beings as a part of nature, soon collided with the European rush to conquer and exploit her riches. This conflict still roils today in a world radically altered by centuries of “development” and “progress.” A profile of a Native American water ethic and its contributions to America’s environmental legacy and evolving cultural ecology is revealed in the controversial proposal to mine sulfide zinc and copper ore in northeastern Wisconsin, in the midst of some of the purist water on earth. The Crandon mine dispute was fueled by the collision of dramatically different and deeply rooted worldviews. In the ensuing controversy, wild rice was destined to become the cultural metaphor for clean water.

Traditionally, Native Americans believed that they have an inextricable physical and spiritual relationship with all elements of nature. Virtually all Native American origin myths explain the creation of human beings from the physical world. Since they are the children of Mother Earth, they are part of her.<sup>1</sup> Traditional knowledge teaches that all facets of the universe are alive and interconnected. The stones and trees can hear, see, and act. Animals are cousins, possess consciousness, and speak in languages that humans understand. The land, sky, and water are imbued with a spirit shared by nature’s living creatures.

By contrast, Europeans embraced a dualistic view that a God dwelling only in heaven endowed human beings with a spirit and fashioned nature for their exclusive use and benefit. The Judeo-Christian ethic counseled human dominion and control over a natural world valued more for its utility than its inherent worth.

For the Western mind, nature can be thoroughly explained by rational thought and science. Mysteries are reserved exclusively for the supernatural. For the Native American, there is no distinction between natural and supernatural. Everything in nature has mystical and spiritual power.

Some of the new arrivals eloquently described the beauty and the bounty of the new land—as a “store of blessings,” “incredible abundance,” “ample rich and pregnant valleys as ever eyes

beheld,” and “Nature’s masterpiece.” Most of the new immigrants, however, saw economic opportunity, and described a “catalogue of commodities” for which markets were readily available.<sup>2</sup>

After establishing a tenuous foothold, the Europeans wasted little time exploiting Eden. Native American efforts to preserve their land and water were brushed aside as impediments to personal fortune; the wilderness was rapidly settled by endless streams of immigrants fleeing famine, oppression, and crowded cities.

The results were staggering and permanent. Within a few hundred years of white settlement and the acquisition of tribal lands, the vast oak forests of New England and the great pineries of Wisconsin fell to the axe. Careless farming practices washed away virgin topsoil and clogged pristine streams, creeks, and estuaries. Fisheries were destroyed. Prairies with two meters of topsoil supporting highly diverse plant communities disappeared under the plow, to be replaced by monocultures and invasive species that impeded any potential recovery from the onslaught. At the end of the twentieth century, 98% of the natural ecosystems the Europeans first encountered in North America had been permanently altered or destroyed.<sup>3</sup>

The native fauna suffered a similar fate. Teeming flocks of passenger pigeons that darkened sunny skies during migration were shot into oblivion. Beaver were trapped to the brink of extinction to satisfy market demands for hats. Millions of buffalo were wiped out by market hunters who neither understood nor respected the animals they slaughtered. The killing of wildlife had little to do with subsistence or survival.

About eighty years after the damage was done, Aldo Leopold partially explained the reasons behind the wanton destruction that the new conservation movement sought to curb:

Conservation is getting nowhere because it is incompatible with our Abrahamic concept of land. We abuse land because we see land as a commodity belonging to us. When we see land as a community to which we belong, we may begin to see it with love and respect. There is no other way for land to survive the impact of mechanized man, or for us to reap from it the esthetic harvest it is capable, under science, of contributing to culture. . . .<sup>4</sup>

The two cultures clashed in their use and respect for America’s rich natural resources because of vastly different relationships with their environment. The pursuit of the “American dream,” promising endless economic prosperity, still poses the greatest challenge to protecting the sustainability of North American water resources. In contrast, Native cultures are far less likely to risk such essential resources for the sake of profit and thus strike a different balance between

conservation and economics. Since Native American natural resources define Native cultures, they are synonymous with cultural resources. To degrade one is to destroy the other.

The unrelenting twenty-five-year battle by the Sokaogon Chippewa to stop the proposed Crandon mine was rooted in their preference for protecting the purity of the water, wild rice, and biodiversity of the Wolf River watershed over the pursuit of profit. An overview of Ojibwe history will explain why this epic battle and its stunning conclusion is the manifestation of a Native American water ethic that has forced the mainstream to rethink its own priorities.

The history and culture of the Ojibwe, commonly referred to as Chippewa, are inextricably intertwined with the rich water resources of northern Wisconsin. Centuries before white settlement, ancestors of the Lake Superior Chippewa migrated west to the Great Lakes region. The migration ended when they found “the food that grows on water”—*manoomin*, or wild rice, a sacred gift from the Creator.<sup>5</sup>

The Sokaogon Chippewa Community is a band of the Lake Superior Chippewa that settled along the shores of Rice Lake, Swamp Creek, and surrounding lakes in northeastern Wisconsin (Figure 1). When European settlers, miners, and loggers made demands for their lands, the tribe agreed to cede its ancestral territory in exchange for the federal government’s promise that the Ojibwe would have the right to hunt, fish, and gather wild rice “upon the lands, the rivers and



Figure 1. Epicenter of lake regions settled by the Sokaogon.

the lakes” in the ceded territory and that they would receive a permanent reservation.<sup>6</sup> During the treaty negotiations of 1837, two Ojibwe chiefs spoke eloquently of their attachment to the lands and waters of their territory without the dominion and control implied by “ownership.”

Magegawbaw (La Trappe), from Leech Lake, told the treaty council:

We wish to hold on to a tree where we get our living, and reserve the streams where we drink the waters that give us life.<sup>7</sup>

The Ojibwe Chief Flat Mouth also spoke:

It is hard to give up the lands. They will remain, and cannot be destroyed—but you can cut down the trees and others will grow up. You know we cannot live, deprived of our Lakes and Rivers. . . . The Great Spirit above, made the Earth, and causes it to produce, which enables us to live.<sup>8</sup>

These treaty negotiations were only the beginning of a long debate between the Ojibwe and European immigrants concerning the preservation of Wisconsin’s unique water resources that would later transcend state politics, involve the exercise of tribal authority under the Clean Water Act, test the profit incentives and resolve of some of the most powerful corporations in the world, and result in the use of tribal gaming revenue to stop the threat of the Crandon mine forever for the benefit of all Wisconsin citizens.

While the 1854 treaty created reservations for most of the Ojibwe bands, the Sokaogon were forced to live as squatters around Rice Lake for eighty-five years before the federal government formally recognized their independent status and purchased the land surrounding Rice Lake in 1939 as a permanent homeland. The federal government strategically purchased the land around Rice Lake to give the Sokaogon exclusive control and access to the lake and its resources, which were so essential to their cultural identity and survival (Figures 2 and 3).<sup>9</sup>

The Sokaogon lived around Rice Lake and its adjacent creeks and wetlands because the water resources produced wild rice and valuable habitat for the fish and wildlife upon which they depended. The wild rice was also the cultural fabric that bound the Sokaogon people together. It was the foundation of their legends, songs, and ceremonies. After white settlement and the creation of a money economy, the wild rice also provided a means for tribal members to attain economic security.<sup>10</sup> Rice Lake and surrounding wetlands continue to be extremely important to the Sokaogon, supplying fresh water, food, medicines, and other raw materials (Figure 4).

In Ojibwe cultural traditions, water has a spiritual component that gives it a key role in stories, ceremonies, religious practices, and daily life. The water spirit can be seen in the shim-



Figure 2. An Ojibwe family ricing in the late 1800s.



Figure 3. A Sokaogon family in winter quarters in late 1800s waits for a homeland.

mering light of sunrise and can speak in the stillness of winter in a voice a European settler would have called cracking ice.<sup>11</sup>

Water was also imbued with feminine roles and symbolism (Figure 5). While men would typically hunt for game, women were expected to gather water and conduct ceremonies to preserve this vital resource. Water's life force was symbolized by its rush from the mother preceding birth.<sup>12</sup> Protecting the purity of springs is still a deep spiritual responsibility felt by Sokaogon



Figure 4. Sokaogon tribal members harvesting rice around 1960.

people, who believe that surface water and groundwater represent the lifeblood of *Nookomisoki*, or Grandmother Earth.<sup>13</sup>

Dramatically different relationships with nature are revealed in the names that both cultures gave to the region's water resources. The Sokaogon called the small, wetland-enveloped creek flowing into Rice Lake from which they still gather herbs and medicinal plants *Mushgigagomongsebe*, meaning "Little River of Medicines" (Figure 6). White settlers renamed it "Swamp Creek."

Over the past fifty years the divide separating Native American and mainstream American perspectives has narrowed. One of Leopold's major contributions to the modern conservation movement was his advocacy of a "land ethic":

All ethics so far evolved rest upon a single premise: that the individual is a member of a community of interdependent parts. His instincts prompt him to compete for his place in that community, but his ethics prompt him also to cooperate. . . . The land ethic simply enlarges the boundaries of the community to include soils, waters, plants and animals or collectively, the land. . . .<sup>14</sup>

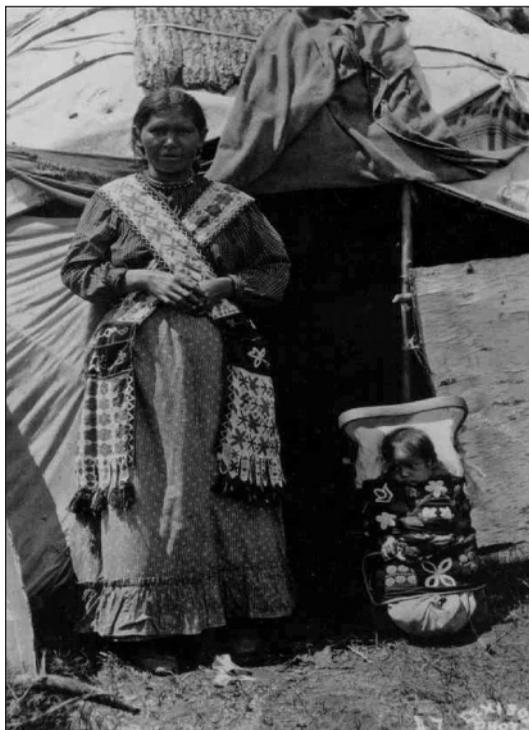


Figure 5. Ojibwe woman with child, c. mid- to late 1800s.

Leopold's "land ethic" was articulated by a scientist but echoed a Native American perspective that never separated human beings from nature and could not conceive that the systematic destruction of wilderness in exchange for an urban utopia could be considered "progress." Leopold's "land ethic" recognized the need for society to find spiritual awareness of the mystery and beauty of life as an interconnected whole, rather than the sum of economically valuable parts:

No important change in ethics was ever accomplished without an internal change in our intellectual emphasis, loyalties, affections, and convictions. The proof that conservation has not yet touched these foundations of conduct lies in the fact that philosophy and religion have not yet heard of it. In our attempt to make conservation easy, we have made it trivial.<sup>15</sup>

A "water ethic" simply recognizes the critical importance of protecting pure water for the health of the biotic community. It becomes a Native American ethic when it prioritizes long-



Figure 6. *Mushgigagomongsebe*, or “Little River of Medicines” (photo by author).

term preservation of water resources over short-term economic benefit. A “land ethic” helped launch the modern conservation movement and began to shift the mainstream view of the environment from “commodity” to “community.” This shift from exploitation to conservation, however, owes a debt to native cultures that retained a reverence for the land and water that sustains all life.

Since the glaciers receded from northern Wisconsin 10,000 years ago, the integrity of the water resources in the traditional Sokaogon territory has been diminished only slightly. The postglacial landforms are characterized by highly diverse wetlands and a multitude of lakes, streams, rivers, and creeks (Figure 7). Although the primeval forests were long ago cut by the



Figure 7. Rice Lake, facing northeast toward proposed mine site (photo by author).

lumber barons, most of the original ecosystems in the area remain intact. Invasive species are rare, biodiversity is high, and the water is pure.

The greatest threat to these waters emerged in the mid-1970s when Exxon discovered a rich zinc and copper deposit two miles upstream from Rice Lake, at the headwaters of the Wolf River, one of the highest-quality wild and scenic rivers remaining in the Midwest. The deposit was formed some two billion years ago when under-sea volcanoes spewed forth a 100-foot layer of sulfide ore laden with rich quantities of zinc and copper, along with highly toxic heavy metals such as lead, cadmium, chromium, and arsenic. Eons of tectonic plate movement rotated the deposit to the vertical, dagger-like position it now occupies (Figure 8).

Since the mid-1980s the Sokaogon and other Wisconsin tribes have fought a succession of national and transnational mining companies seeking federal and state permits to operate the Crandon mine. The controversy dramatized the conflicting values of long-term sustainability of water resources versus short-term economic gain. Unlike earlier struggles to protect their natural resources, this time the Sokaogon gained the fervent support of local and regional environmental groups, as well as nearby towns and villages that shared the tribe's concerns about the risks that the proposed Crandon mine posed to the Wolf River watershed.

The proponents of the Crandon mine sought to extract 55 million tons of sulfide zinc and copper ore from a depth of 2,000 feet over twenty-eight-year period. They argued that the mine was needed to provide jobs and economic development in the Wolf River watershed and that the risks were manageable. The tribes, environmental groups, and downstream towns argued that

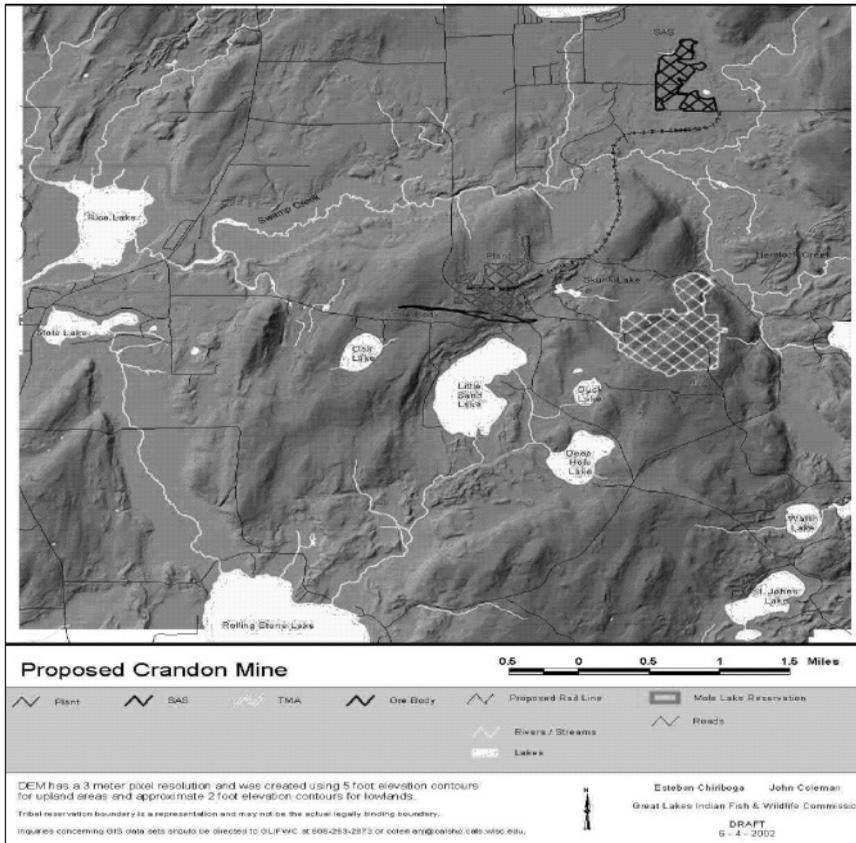


Figure 8. Proposed Crandon mine and Sokaogon reservation (map courtesy John Coleman).

sulfide mines had an abysmal history and that Wisconsin should not risk its precious water resources to test unproven mining technology just to gain a handful of jobs for a few decades.

In 1995 the Sokaogon also convinced the U.S. Environmental Protection Agency to approve strict tribal water quality standards for its reservation under the Clean Water Act that would prevent the approval of any upstream discharge permits needed for mining that threatened the degradation of reservation water quality. The EPA determined that this high level of protection was necessary to protect the tribe’s prolific wild rice, which is highly sensitive to small amounts of water pollution.

The need for Sokaogon nondegradation water quality standards was accentuated by Wisconsin’s failure to recognize the importance of maintaining the purity of the regional water quality. Wisconsin had adopted “fishable and swimmable” water quality standards surrounding the reservation that allowed water quality degradation as long as the upstream development

(such as a mine) produced an economic benefit and did not impede the State’s “designated use” (i.e., fishing and swimming).<sup>16</sup> The state did not recognize the Sokaogon need to protect the purity of these waters to conserve their wild rice or preserve their cultural traditions.

Wisconsin challenged the tribe’s authority to enact tribal water quality standards on the grounds that the federal government had already given Wisconsin primary authority over the state’s water resources and could not rescind that authority and pass it on to tribal governments. Ironically, Wisconsin argued that the Public Trust Doctrine granted the state the exclusive right to regulate, and potentially degrade, the water quality of Rice Lake on behalf of Wisconsin citizens. Naturally, the mining company supported Wisconsin’s stance. Three downstream towns and a village, however, filed a brief in support of the Sokaogon standards. After six years of litigation, the U.S. Supreme Court declined to review a federal appeals court decision that upheld the authority of the Sokaogon to set water standards necessary to protect reservation waters.<sup>17</sup>

Since only engineering solutions could prevent the highly toxic mine waste from polluting unspoiled water resources, the technological hurdles to protect the region’s water purity over the long term were immense. The first challenge was to protect water *quantity*. A 2,000-foot mineshaft surrounded by wetlands, streams, creeks, and lakes guaranteed the need for massive pumping and treatment of mineshaft water inflow. Predictions of impacts to groundwater and surface water bodies depended upon whose model was used. Groundwater inflow estimates ranged from 300 to 2,000 gallons per minute. The mining company predicted that mine dewatering would cause adjacent lake levels to drop only a few inches, while previous studies had calculated that the same lake levels would drop over seven feet.

The second challenge was to protect water *quality*. Since the zinc and copper were chemically embedded in the sulfide ore, they had to be extracted through a process known as froth flotation. This required the ore to be pulverized to the consistency of talcum powder. The ore dust would then be mixed in a slurry with highly toxic reagents such as cyanide to force the ore to float to the surface and be skimmed off as ore concentrate for shipment to the smelter.

The remaining 44 million tons of tailings waste would either be discarded in a landfill along with tons of spent chemicals called a tailings management area (TMA) or mixed with cement and back-filled into the mineshaft. The TMA would contain mine waste piled ninety feet high and cover an area in excess of 250 acres—more than 280 football fields. The walls of similar tailings waste containment structures have collapsed from the enormous side stresses, causing irreparable environmental damage to surrounding water bodies (Figure 9).

The TMA would constitute the largest waste dump in Wisconsin’s history and would need perpetual maintenance to avoid the generation of “acid mine drainage” that is caused by sulfide tail-

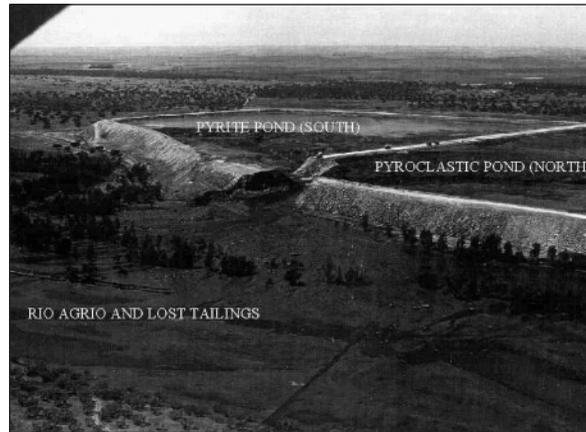


Figure 9. Collapse of a tailings dam in Spain, 1998.

ings waste mixing with oxygen and water to form sulfuric acid. The Crandon ore contained 50%–90% of acid-generating sulfides and a long list of toxic heavy metals such as lead, arsenic, copper, chromium, and cadmium. This raised two insidious features of acid mine drainage. First, once the process of acidification begins, it is impossible to stop until all the sulfur is converted to acid. The EPA has estimated that due to the massive quantities of sulfides in the ore, this process would continue for 9,000 years. Second, the acid leaches all other toxic heavy metals present in the ore to create a deadly poisonous soup (acid mine drainage) that has destroyed more than 12,000 miles of unspoiled rivers and streams in the United States within the past 100 years (Figure 10).<sup>18</sup>

The watershed of *Mushgigagomongebe* with its lakes, diverse wetlands, forests, meadows, and wildlife is a cultural landscape. Its water is regarded as the life source of the Sokaogon Chippewa people.<sup>19</sup> The Sokaogon embrace a responsibility to the “seventh generation,” which requires the current generation to plan for the future needs of at least the next seven generations. The Sokaogon believed that development of the Crandon mine would destroy the cultural resources that define who they are and thus obliterate their future (Figure 11).

Wisconsin mining laws cannot promote sustainable development unless they protect its water resources forever. The Wolf River watershed has remained virtually undisturbed for 10,000 years. Wisconsin law, however, holds a mining company responsible for mine waste and water pollution for only forty years after closure. The state then assumes the responsibility to monitor and remediate the often-unanticipated long-term impacts of mine waste pollution. A major reason for this shortcoming is that lawmakers, mining engineers, planners, and regulators often think in terms of only a single generation—not seven. True sustainability contemplates eons, not lifetimes.



Figure 10. Acid mine drainage.

There were sound reasons for the tribe's assessments of the risks. Rice Lake is the only source of wild rice for the Sokaogon people and one of the most prolific wild rice lakes in North America. Wild rice is selectively sensitive to copper, one of the hazardous substances in the Crandon deposit. Rice Lake is fed by Swamp Creek, which flows from the mine site and then on to the Wolf River—one of the last pure whitewater trout streams in the Midwest free from major upstream development. Bald eagles still nest and fish along its shores. The largest freshwater fish, the lake sturgeon, has lived and spawned in the Wolf River for thousands of years.

Wetlands comprise approximately 600 acres within the proposed mine site boundary and are biologically diverse resources that help preserve the purity of the watershed's ground and surface water and support terrestrial, avian, and aquatic wildlife. Of the plant and animal species recorded in the project area, over eighty-five are listed as endangered, threatened, or of special concern.

The area contains more than 400 acres of high-quality lakes, which sustain northern pike, walleye, bluegill, smallmouth and largemouth bass, pumpkinseed, and yellow perch. Wisconsin fish and macroinvertebrates are sensitive to low concentrations of copper, cadmium, and lead, all of which were predicted to be present in the proposed TMA at toxic concentrations. Small streams fed by natural groundwater seep and springs flow past the TMA into Swamp Creek and Rice Lake. All are excellent trout fisheries and provide diverse habitat for fish and wildlife.

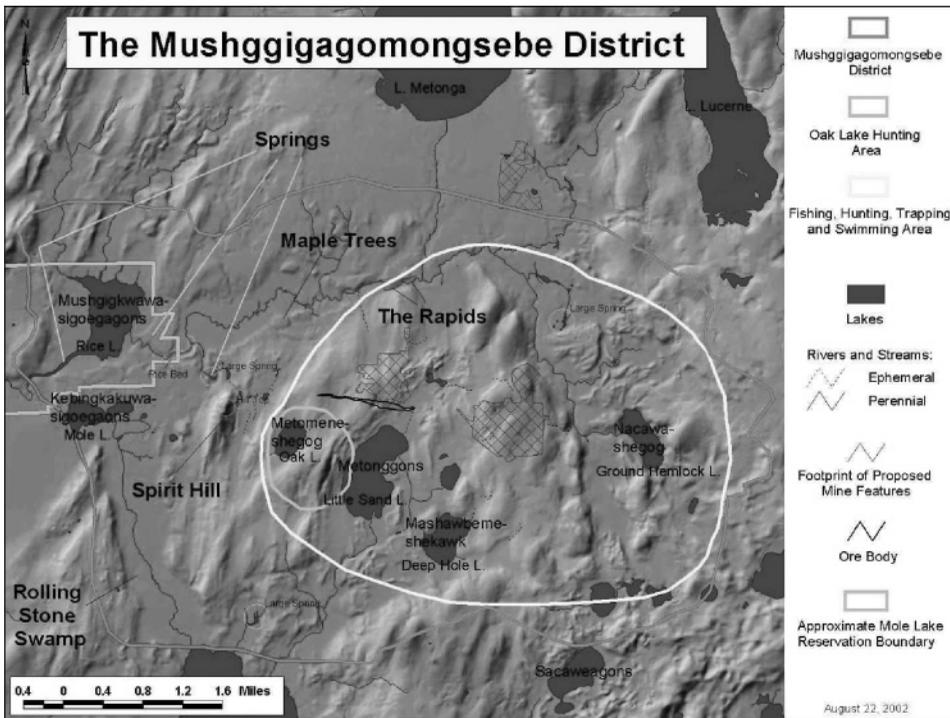


Figure 11. The traditional cultural property of the Sokaogon within the mine site (map courtesy John Coleman).

Preservation of Swamp Creek is paramount to the protection of Rice Lake and its rice beds (Figure 12).

The Crandon mine permit application proposed to use modern yet unproven technologies to minimize risks of water pollution. The TMA would be encapsulated with “geomembrane” plastic liners that would be punctured with monitoring wells to detect the inevitable leakage of mine waste. Massive quantities of grout would be injected into fractured bedrock to reduce surface water and groundwater inflow into the mineshaft. Mitigation wells would pump deep groundwater to maintain water levels in adjacent lakes and streams that would otherwise run dry from twenty-eight years of constant dewatering.

Pyrite, the major source of sulfur in the ore body causing acid mine drainage, would be chemically separated from the mine waste and then mixed with cement and poured back in the open mine shaft. Backfilling of such a high-grade pyrite concentrate has never before been attempted, and no other mines have ever used such massive quantities of grout in such a water-laden area to reduce water inflow. Each water model predicted different impacts. Since no engineer or liner



Figure 12. Hemlock Creek and the proposed site of the TMA (photo courtesy John Coleman).

technician could guarantee that the toxic waste rock and tailings produced by the project could be contained indefinitely, the costs of perpetual replacement of the TMA plastic liners and the pumping and treatment of polluted water in the reflooded mineshaft would be borne by future generations. The word “mitigation,” which has no translation in Ojibwe, offered no comfort to tribal members who did not want to buy wild rice from the grocery store or drink bottled water.

The Sokaogon refused to risk inevitable harm posed by the Crandon mine. On October 28, 2003, the Sokaogon, with financial backing from the Forest County Potawatomi, purchased the Nicolet Minerals Company along with its mineral rights and 4,800 acres of land within the Mushgigamongsebe District for \$16.5 million. The tribes divided the land and own the mineral rights jointly, but the Sokaogon, as the poorest of all Wisconsin’s tribes, was required to pledge much of its lands to secure an \$8 million debt toward the purchase price.

The day after the sale was announced, the Sokaogon withdrew the pending mine permit applications to the Wisconsin Department of Natural Resources and the U.S. Army Corps of Engineers. The “new” tribally owned mining company wrote:

It is NMC's current view that the pending permit application to develop a sulfide zinc and copper mine at the headwaters of the Wolf River poses intolerable risks to the fragile natural and cultural resources of this region.

Some of the engineering features proposed in this application have never been tried in a project of this size that is enveloped by such vast quantities of pristine and irreplaceable water resources. Since most of the proposed pollution prevention technology for this project has eventually failed over the long-term it is highly likely that the citizens of this State would be faced with the burdens of clean up costs in perpetuity if this project were built as designed.<sup>20</sup>

Just as Native American cultures had known the "new world" for millennia before it was "discovered," their religions, philosophies, and convictions embraced the concepts of a land and water ethic long before modern ecologists and philosophers coined these terms a few decades ago. Wisconsin's tradition of stewardship and conservation reached a watershed when the Sokaogon Chippewa, with the strong support of other tribes, citizens, environmental groups, and municipalities, purchased the proposed Crandon mine and immediately withdrew the pending permit applications to protect its wild rice and the waters of the Wolf River. Thirty years after the adoption of the Clean Water Act, a tribal government used modern legal tools to exercise an ancient wisdom by forgoing short-term profit in order to protect an irreplaceable water resource—forever. In taking such a bold step, the Sokaogon have honored their responsibility to future generations to leave a vibrant ecosystem and cultural legacy un sullied by "progress." The tribe will need the generous support and encouragement of all Wisconsin's citizens, whose children also will reap the benefits of such a wise choice. ✱

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#### Endnotes

- <sup>1</sup> C. Vecsey and R. Venables, *American Indian Environments* (New York: Syracuse University Press, 1980); R. Erdoes and A. Ortiz, *American Indian Myths and Legends* (New York: Pantheon Books, 1984).
- <sup>2</sup> S. Krech III, *The Ecological Indian* (New York: W.W. Norton & Company, 1999), pp. 73-75, 173.
- <sup>3</sup> Vecsey and Venables, *American Indian Environment*, p. 49.
- <sup>4</sup> A. Leopold, *A Sand County Almanac and Sketches Here and There* (New York: Oxford University Press, 1949), p. viii.
- <sup>5</sup> P. Lowe, *Indian Nations of Wisconsin* (Madison: Wisconsin Historical Society Press, 2001), pp. 54-56.

<sup>6</sup> 1837 Treaty, 7 Stat. 536 (1837); 1842 Treaty, 7 Stat. 591 (1842); 1854 Treaty, 10 Stat. 1109 (1854); see also *Lac Courte Oreilles v. Voigt*, 700 F.2d 341 (7<sup>th</sup> Cir. 1983); T. Venum, *Wild Rice and the Ojibway People* (St. Paul: Minnesota Historical Society Press, 1988), pp. 257, 259.

<sup>7</sup> R. Satz, *Chippewa Treaty Rights* (Madison: Wisconsin Academy of Sciences, Arts and Letters, 1994), p. 18.

<sup>8</sup> Satz, *Chippewa Treaty Rights*, p. 19.

<sup>9</sup> U.S. Bureau of Indian Affairs anthropologist Charles Wisdom studied the Sokaogon in 1936 and articulated the federal government's rationale for purchasing the Sokaogon reservation:

The Mole Lake area, after the contemplated land purchases are all made, will completely surround Rice Lake, about ten miles south of Crandon. It will include the lake proper and the marshy area around the lake, which contains wild berries and cranberries, and an area farther back that is high and dry and which will be suitable for gardening and pasturing. Thus, the Mole Lake Band will live on land completely surrounding the lake and will, as a result, control the lake and its resources. . . .

I think it is highly important that the natural resources on Indian lands, especially the plant and animal life, be reserved strictly for exploitation by the Indian group. I am told by the land buyers that this can be done by the federal government once the title to land passes into its hands, and that the government can similarly restrict the exploitation of lakes once it owns the land surrounding the lakes. Without such protection, the Indians cannot be expected to maintain much of their traditional form of life and increase their standard of living at the same time. Competition with the local white population would be too great otherwise. Rice is by far the most important cash commodity for the majority of the Chippewa.

C. Wisdom, *Report on The Great Lakes Chippewa* (1936), pp. 8, 15-16. See also *State of Wisconsin v. Lowe*, 109 Wis. 2d 633, 637-639, 327 N.W.2d 166 (Ct. App. 1982), describing Indian Reorganization Act land purchase rationale and Wisdom report.

<sup>10</sup> Venum, *Wild Rice and the Ojibway People*, pp. 58-80, 199-254.

<sup>11</sup> D. Hughes, *North American Indian Ecology* (El Paso: Texas Western Press, 1996), pp. 14-16; F. Densmore, *Chippewa Customs* (St. Paul: Minnesota Historical Society Press, 1979), p. 81.

<sup>12</sup> T. King, L. Nesper, and A. Willow, *The Mushgigagomongsebe District: A Traditional Cultural Landscape of the Sokaogon Ojibwe Community*, EIS background report, submitted to the U.S. Army Corps of Engineers, October 2002, pp. 22-26.

<sup>13</sup> Vecsey and Venables, *American Indian Environments*, pp. 16-26; V. Deloria, *God Is Red* (Golden, Colorado: Fulcrum Publishing, 1992), pp. 81-90.

<sup>14</sup> Leopold, *A Sand County Almanac*, pp. 203-204.

<sup>15</sup> Leopold, *A Sand County Almanac*, pp. 209-210.

<sup>16</sup> See Wisconsin Administrative Code, NR 102.13; NR 102.05 (1)(a).

<sup>17</sup> See *Wisconsin v. EPA and the Sokaogon Chippewa Community* 266 F.3<sup>rd</sup> 741 (7<sup>th</sup> Cir. 2001).

<sup>18</sup> See Mineral Policy Center website, [www.mineralpolicy.org](http://www.mineralpolicy.org).

<sup>19</sup> King et al., *The Mushgigagomongsebe District*, pp. 21-57.

<sup>20</sup> Nicolet Minerals Company to the Wisconsin DNR, 29 October 2003.