THE VILLAGE OF KIVALINA IS FALLING INTO THE SEA: SHOULD CERCLA SECTION 9626(b) BE AVAILABLE TO MOVE THE VILLAGE FROM HARM’S WAY?

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ABSTRACT

The Village of Kivalina, and other similarly situated Native Alaska villages, are in danger of falling into the sea. Regional climate change is melting the permafrost that acts as the foundation of their communities. Sea ice that once acted as a barrier during storm season today melts earlier, and erosion rates are increasing. Kivalina’s situation is further worsened by the threat of contamination from a nearby open dump. Without permanent relocation, Kivalina and its residents face imminent harm.

Congress has given the President authority to permanently relocate an Indian tribe or Alaska Native village under CERCLA Section 9626(b). This article proposes that the President exercise such authority to protect the health and welfare of Kivalina and its residents. In view of the longstanding trust obligation of the United States to Indian tribes and Alaska Native villages, which is embodied in treaties, statutes, executive orders and court decisions, the President should exercise his clear authority to protect the Village from harm.
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I. INTRODUCTION

For thousands of years, indigenous people living in what has become the United States of America have lived in a sustainable balance with the environment, from which they extracted a livelihood, and through which their cultures developed and thrived. Conquest resulted in the loss of aboriginal territories and destruction of traditional economies, significantly compromising the sustainable balance in what has become known as Indian country in the United States. Historically, Inupiaq Nations of the Bering Strait and Northwest Alaska have remained a self sustaining group of communities made up of geographically bounded socio-territorial groups.1 This self sustaining balance has changed in recent years, particularly for Alaska Native Villages such as Kivalina, with these communities facing imminent and severe

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threats of erosion and flooding as a result of regional climate change.

Melting ice and permafrost as well as rising sea levels and severe coastal storms have all contributed to the urgency to explore relocation alternatives. Compounding the problems of erosion, flooding and diminishing permafrost is the effect these problems are having on traditional hunting. The seals and other arctic wildlife relied upon by the Inupiaq are not as abundant as they were even thirty years ago. The number of stranded ringed seal pups is increasing due to earlier melting of the sea ice which induces mothers to abandon the pups. The earlier ice melt has also resulted in more difficulty hunting for other seal species such as the spotted seal. Overall, as ice continues to melt and recede earlier, seals, walruses and polar bears move out of hunting range. In fact, Alaska Native Villages situated on coastal lands are in jeopardy of falling into the sea. The permafrost that acts as the foundation of the villages’ livelihood is melting from underneath. Permafrost is permanently frozen subsoil found in most of Alaska and especially in northern barrier island communities. Permafrost quite literally "helps to hold the land together."

Further, large blocks of sea ice


3 Id.


6 Id. at 7.

7 Id.
that have acted as buffers against storm surges during the rainy season are melting earlier and returning later.\(^8\)

This article examines the narrow issue of whether the tribal permanent relocation authorities of CERCLA section 9626(b) should be available to the Village of Kivalina which is in danger of falling into the sea and is also endangered from severe erosion that affects the stability of a nearby open dump which compounds the imminent harm faced by the community. The Village of Kivalina is quite literally facing imminent environmental hazards of the most significant magnitude. Their dangers are shared by many other Alaska Native Villages located in shoreline areas with open dump sites in close proximity. In the Alaska Native Village of Newtok, sewage has leaked into the only source of community drinking water and storms have wiped out the garbage dump thus endangering local food sources.\(^9\) In fact, approximately "[e]ighty-six percent of Alaska Native Villages are threatened by erosion and flooding."\(^10\) Of this amount, thirty-one Alaska Native Villages face severe threats.\(^11\) Twelve Alaska Native Villages, in particular, have decided to relocate or to explore options for permanent relocation.\(^12\) This article provides a different perspective on the nature of the environmental problems faced by the Village of Kivalina from both climate change and contamination from open dumps. Finally, this article offers the prospect of a remedy to keep the Village from harm's way that is distinct from, and not prejudicial to, alternative remedies predicated solely upon the phenomenon of carbon based global warming.

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\(^10\) NATIONAL WILDLIFE FEDERATION, supra note 4, at 16.

\(^11\) Id.

\(^12\) Id.
II. IMMINENT ENVIRONMENTAL HARMS

The Village of Kivalina sits on a barrier island approximately seventy miles north of the Arctic Circle in Alaska. Kivalina was not the original or principal community location of the Inupiaq. Kivalina became the location it is today when the federal Bureau of Indian Affairs, in 1905, "built a school on the southern tip of the Island and declared that any inhabitants of the barrier reef and surrounding region who did not enroll their children would be imprisoned." 13 Kivalina was established by forced permanent relocation of communities inland as well as north and south along the coast to the new Kivalina created by the federal government.14 This forced permanent relocation under duress had tragic consequences as starvation and disease wiped out more than seventy percent of Kivalina's original population in the early years following removal.15 Not until today has the population reached its original level since forced relocation.16 Tragically, the residents of the Village of Kivalina now face a different kind of permanent relocation under duress, this time from the effects of climate change and environmental contamination.

Kivalina depends on seasonal freezing of surrounding waters for protection from erosion and storms. In addition, erosion attributable to climate change may be accelerating the rate at which the open dump near the Village is degrading and releasing contaminants into the nearby environment. Climate change is used as a point of reference as opposed to global warming. Climate change refers to a range of changes in the overall weather pattern of a region including temperatures, precipitation and cloud cover leading to a

14 Id.
15 Id.
16 Id.
long-term shift in weather patterns in a region.\textsuperscript{17} Global warming, on the other hand, refers to a single aspect of climate change such as a rise in the surface temperature of the surface of the earth.\textsuperscript{18} Climate change may be attributable to natural variability or to human activity.

An open dump is an area where waste is disposed of without proper controls, such as the regular application of cover and controlled access. Open dumps are not consistently maintained, and therefore have no demarcated boundaries. Open dump conditions promote water and soil contamination, disease transmission, fire danger and potential injury to site visitors.\textsuperscript{19} Moreover, open fires in open dumps may release toxic fumes to the surrounding air.\textsuperscript{20} The combination of erosion due to climate change and the prevalence of open dump conditions make for the most profound and imminent environmental harms to the Village of Kivalina.

A. Climate Change

Climate change tends to affect Native communities in the Arctic more than other communities.\textsuperscript{21} Temperatures across the Arctic appear to be rising at a rate twice the global average.\textsuperscript{22} As a result of the

\begin{itemize}
\item \textsuperscript{17} Ecolife, Climate Change - Definition, http://www.ecolife.com/define/climate-change.html (last visited Apr. 4, 2012).
\item \textsuperscript{18} Erik Conway, What’s in a Name? Global Warming vs. Climate Change, http://www.nasa.gov/topics/earth/features/climate_by_any_other_name.html (last visited Apr. 19, 2012).
\item \textsuperscript{19} INTERNATIONAL SOLID WASTE ASSOCIATION, KEY ISSUE: CLOSING OF OPEN DUMPS 2-4, available at www.greenkerala.net/pdf/key_issue_on_open_dumps.pdf.
\item \textsuperscript{20} Id.
\item \textsuperscript{21} GAO2009, supra note 5, at 12.
\end{itemize}
increase in temperatures in the Arctic region, Alaska Native Villages face imminent erosion problems as the ice caps melt at the greatest rate since records have been kept.\textsuperscript{23} Climate change in the region has disrupted the normal cycle of the formation of sea ice.\textsuperscript{24} Every year the sea ice melts during the summer and returns in the winter.\textsuperscript{25} In recent years, the sea ice melts earlier than usual, at a quicker rate, and is not sufficiently replenished before the storm season begins, thus leaving coastal villages such as Kivalina exposed to the dangers of erosion that each storm season brings to the region.\textsuperscript{26}

Additionally, as a result of increasing temperatures in the Arctic, the permafrost which acts as a foundation to many Alaska Native Villages is beginning to soften and melt.\textsuperscript{27} This together with advanced rates of erosion creates the very real prospect of the Village of Kivalina, and other similarly situated villages in Alaska, slipping into the sea. The coastal waters near Kivalina continue to approach the Village. Kivalina once covered approximately fifty-four acres, but erosion activity has reduced it to less than twenty-seven acres, bringing the coastal waters closer to the Village.\textsuperscript{28} The threat of slipping into the sea is of enough likelihood that in 2006 the United States Army Corps of Engineers, based upon a finding of imminent danger, recommended that the Village of Kivalina move away permanently from its


\textsuperscript{25} ICTMN Staff, \textit{supra} note 22.

\textsuperscript{26} \textit{Id.}

\textsuperscript{27} GAO2009, \textit{supra} note 5, at 7.

\textsuperscript{28} KIVALINA RELOCATION PLANNING COMMITTEE, \textit{RELOCATING THE VILLAGE OF KIVALINA DUE TO COASTAL EROSION} 2 (2010), \textit{available at} http://www.tribesandclimatechange.org/docs/tribes_477.pdf.
present location. Since that time, erosion of the Village site has continued and Kivalina has endured more severe winter storms with less and less sea ice as a natural barrier to protect the community. Given the accelerated deterioration of both the permafrost and protective ice barriers, it is difficult to predict exactly how much time Kivalina has left before it slips into the sea. The Village may succumb to the next severe storm. If the sea wall completed by the Army Corps of Engineers in 2008 is properly maintained, it may serve to protect the Village for another ten to twenty years; however, the wall may not remain fully protective. Further, the authority of the Corps to construct such facilities appears to have been repealed in 2009. A conservative estimate is that Kivalina has ten to fifteen years before it is lost to erosion.

B. Open Dumps

Management of solid waste in many Alaska native communities is a problem with over ninety-five percent of Villages using open dumps as opposed to sanitary landfills. One study found that "solid waste management is severely deficient in many of these remote villages" and that "in an attempt to reduce waste volume, dump fires are set, or nonseparated wastes are burned in metal containers in approximately 75 percent of villages, releasing potentially toxic fumes." The study

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29 ICTMN Staff, supra note 22.
30 GAO2009, supra note 5, at 7.
31 Id. at 33.
33 GAO2009, supra note 5, at 10.
35 Id. at 519.
noted different contaminants present in open dumps in proximity to Villages such as arsenic, lead, methyl mercury and petroleum hydrocarbons all of which "are associated with negative birth outcomes." The study further noted that:

Many Villages lack waste management services and are responsible for disposing their own wastes, resulting in potential exposures to hazardous wastes and disposal methods. Approximately 45% of Villages do not have running water to homes and Villages must haul their own wastewater, often discarded at or near dumps, increasing risks of exposure to pathogens when disposing of trash.

This retrospective cohort study evaluated adverse birth outcomes in infants whose birth records indicated maternal residence in Villages containing dump sites potentially hazardous to health and the environment. Birth records from 1997 to 2001 identified 10,073 eligible infants born to mothers in 197 Alaska Native Villages. Outcomes included low or very low birth weights, preterm birth and intrauterine growth retardation.

Clearly, the existence of an open dump 1.25 miles from the Village of Kivalina is a threat to human health and the environment. The Indian Health Service reported that the Kivalina open dump represented a "high health threat" and found, in particular, that the open dump

36 Id. at 526.
37 Id. at 519.
38 Id. at 518.
39 NANA, supra note 13 (noting the facility has no perimeter fence drawing wild animals including bears).
contained municipal, special and hazardous waste. 40 Particularly important are the observations of the State of Alaska in a Coastal Impact Assistance Plan done for the Northwest Arctic Borough (Kivalina is located in the Borough):

Most villages in the region are overwhelmed by the accumulation and growing amount of trash in their backyard. Planes and barges regularly bring in tons of cargo to every village, and most of it never leaves. Much of it ends up in the village dump, an open, unlined, unmonitored site on the bare land, often near waterways or on wetlands, within a mile or two of town.41

The project report notes that:

Leachate forms from the toxic soup of batteries, paint, cleaners, metals, electronics, fluids, honeybucket (raw human) waste, food and other organic waste, and other household and industrial waste that ends up in the dump. Smoke from open burning or self-combustion of trash/waste in the dump produces PCBs, dioxins, and other toxins. This contamination makes its way into the land, air and waterways throughout the coastal area. This also impacts subsistence resources, a bell weather for the health of the environment. Studies show that villagers visiting their dump have an increased risk of illness.42


41 ALASKA DEPT. OF NAT. RES., STATE OF ALASKA COASTAL IMPACT ASSISTANCE PROGRAM, APP. B-2 2 (2010), http://dnr.alaska.gov/commis/CIAP/Fall2010/CPS/NAB.pdf [hereinafter ADNR].

42 Id.
Open dumps, by their very nature, are not properly controlled and are prone to releases of contaminants into nearby soil, water and air. The release of any contaminants from the open dump is likely exacerbated by geologic erosion and subsidence that is otherwise taking place because of storms and melting sea ice and permafrost. As previously noted, such contaminants are likely to contain toxins as well as organic waste.

Compounding the problem of the open dump is the increasing threat of flooding in the Village of Kivalina from climate change. The Village was declared a state flood disaster area in 2006. During October of 2007 Kivalina evacuated almost all of its residents when a sea storm threatened the Village with a twelve to fourteen foot storm surge. It would have covered the Village which was at an elevation of ten feet. Village leaders reported to the government that the temporary "evacuation was so dangerous that it should never be attempted again." Threats of flooding continue with Kivalina experiencing a storm in November of 2011 that was reported to have hurricane force winds. Although water washed over the Village dump it did not displace the dump facility. However, similar storms have caused the Village of Newtok’s garbage dump to wash away. As storms continue and become more severe in the future, the prospect of the Kivalina open dump releasing its contents into the nearby environment becomes more likely.

43 GAO2009, supra note 5, at 17.

44 Id.

45 Id.

46 Id.


Alaska Native Villages historically migrated "between hunting grounds" as the seasons changed. The federal government compelled Alaska Native Villages to settle in more permanent villages around the turn of the 20th century. Federal policies had the consequence of making Alaska Native Villages more dependent upon their immediate surroundings as they were discouraged from moving to and from different locations with the seasons. These policies also had the foreseeable consequence of making Alaska Native Villages more vulnerable to erosion, flooding and contamination events as village populations became more permanent in a fixed location. Moving with the seasons helped decrease levels of exposure to environmental contaminants and provided alternatives to remaining in a single location threatened by the encroaching sea.

Most Alaska Native Villages have subsistence diets with the significant potential for biokinetic uptake of contaminants through the food chain. Kivalina is no exception and there is also the significant potential of exposure through leaching of contaminants from the open dump into the drinking water the Village relies upon. Not to be discounted is the potential for releases of contaminants into the air from intentional or accidental fires at the nearby open dump.

It should also be noted that there appears to be no specific data in connection with reproductive outcomes in the Village of Kivalina along the lines of the findings in the epidemiological study of Alaska Native Villages discussed heretofore. As that study notes with respect to Alaska Native Villages reproductive outcomes, in general, such outcomes are good indicators of environmental harms "as the reproductive system often fails before other systems" in the exposed human body. It would be


50 Id.


52 Gilbreath, supra note 34.
helpful to secure confirmatory testing and studies; however, it is not practical to do so as the federal government has already made a finding of "high health hazard" to the Village from the open dump and there is not enough time remaining to do such analyses in the Village of Kivalina given the rate of erosion.\(^{53}\)

A working diagnosis regarding the environmental impacts of climate change and the potential exposures to contaminants from the open dumps is necessary in view of the time constraints faced by the Village of Kivalina. The Army Corps of Engineers report with respect to the open dumps states that:

Both the current landfill and an older dumpsite (just north of the airstrip) have numerous hazards, including blowing trash, the potential for contamination of surface waters, and the creation of an attractant for nuisance wildlife in close proximity to the airport. Lack of cover material is also a problem. Kivalina has no centralized or coordinated collection or control system in place. No record of waste taken to the landfill has ever been kept and it is not known whether hazardous waste is separated from municipal solid waste.\(^{54}\)

Compounding this situation is that individual residents must manage their own septic waste by transporting it to a honeybucket bunker which is located next to the current landfill. This makes for "spills that would be a threat to human health" as both septic waste and organic trash "can spread across the island and even into the Chuckchi Sea and Kivalina Lagoon."\(^{55}\) It has

\(^{53}\) OPEN DUMP, supra note 40.


\(^{55}\) Id.
been anecdotally reported that "cesspool puddles" have been created along the hauling route to the honeybucket dump.\textsuperscript{56} It is clear that the open dump is "not in compliance with ADEC [Alaska Department of Environmental Conservation] regulations pertaining to the collection of solid wastes."\textsuperscript{57}

A component which must be added to the working diagnosis is the lack of a reliable water system in the Village of Kivalina. The community lacks a water and sewer system with which to consistently supply its population. Water tanks do not appear to be sufficient as residents continue to bring in water from the Kivalina River and cut blocks of river ice in the winter.\textsuperscript{58} In view of the hazard of waste spreading from the open dump itself, as well as from the transportation of waste to the dump into nearby waters from which residents may draw water for consumption, the Village of Kivalina faces a potential threat of exposure to contaminants in its drinking water from waste streams in the open dump. This potential exposure could be avoided if new water and sewer facilities were established. These types of community improvements, however, are not likely to be made due to the threats of erosion and flooding. Federal agencies are not willing to make the investment for sanitation, sewer and water systems. The Army Corps of Engineers has reported that "[s]anitation is insufficient and presents a serious health issue for residents" and that "[r]ecent projects to upgrade sanitation have been cancelled because the funding agencies will not fund projects that are threatened by erosion."\textsuperscript{59}


\textsuperscript{57} ACOE Introduction, \textit{supra} note 54, at 6.

\textsuperscript{58} \textit{Id.} at 5.

C. Working Environmental Diagnosis

The Village of Kivalina faces environmental threats of such immediate magnitude that a working diagnosis based upon the weight of the available evidence is warranted. First, as noted by the Army Corps of Engineers, "it is an indisputable fact that climates are changing over most of the planet, and that some of these changes are most evident in the Arctic."\footnote{ACOE Introduction, \textit{supra} note 54, at 3-4.} Second, as specified by the Corps, "[t]here is ample evidence that environmental conditions in the Arctic, including the Kivalina area, have been changing rapidly."\footnote{ACOE Conclusion, \textit{supra} note 59, at 102.} Such changes include more frequent and severe fall storms, erosion and flooding, and accelerated melting of underlying permafrost all of which may be linked to long term climate change.\footnote{\textit{Id.}} Third, as pointed out by the Corps, the community situation is most "dire" based on the evidence:

Fall storms are increasing in severity and frequency and a significant amount of shoreline has been lost in the last two years alone. Erosion is threatening to damage the airport runway, school and associated housing and the fuel farm . . . [and] [w]ithout action, Kivalina does not have even five years for relocation.\footnote{\textit{Id.} at 103.}

Fourth, the proximity of open dump, landfill and sewage bunker facilities to the Village itself and next to areas of existing and significant erosion like the airport runway make for an imminent environmental hazard from exposure to various contaminants from those facilities. Fifth, it is clear that "with each new storm, the threat of erosion continues."\footnote{\textit{Id.} at 101.} Sixth, the combination of
climate-based and contaminant-based environmental threats make for an even direr situation for the Village of Kivalina.

Based upon its investigation and analysis of the environmental threats confronting the Village of Kivalina, the Army Corps of Engineers recommended the permanent relocation of the community but found that selection of an alternative living site and the availability of a large and near term funding sources were obstacles to the progress of the relocation project.\textsuperscript{65} The Corps found that:

\begin{quote}
Given the number of agencies involved, necessary approvals, facility requirements, and complexity of Kivalina relocation in addition to design, permitting, NEPA compliance requirements, and construction timeframes would result in a schedule of at least 10 years. Relocation of Kivalina cannot wait 10 years, given current conditions and threats to safety and property. A streamlined emergency response approach needs to applied to shortening the schedule, with a single agency involved as overall lead for relocation.\textsuperscript{66}
\end{quote}

The Corps has estimated that the cost of permanent relocation is between $150 to $250 million dollars contingent upon which alternative site is selected by Village of Kivalina residents.\textsuperscript{67} The Village of Kivalina residents expressed a preference years ago "for Kiniktuuraq as the new town site."\textsuperscript{68}

Based upon the weight of the available technical and scientific evidence regarding the climate and contamination threats facing the Village of Kivalina, the clearest and most immediate course of action should be the federally funded permanent relocation of the

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\textsuperscript{65} ACOE Introduction, supra note 54, at 1.
\textsuperscript{66} ACOE Conclusion, supra note 59, at 103.
\textsuperscript{67} Id. at 102.
\textsuperscript{68} ACOE Introduction, supra note 54, at 1.
\end{flushright}
community. There is not sufficient time to do any further confirmatory studies as the Village faces the imminent harm of being washed away in the next severe storm or being exposed to releases from the nearby open dump which has been made more geologically unstable from the combined effects of erosion, flooding and increased loss of permafrost. What is needed is a "single comprehensive proactive federal program to assist Villages with their relocation efforts."\textsuperscript{69} This need may be addressed by the permanent relocation authorities contained in the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and, more specifically, within the tribal permanent relocation provisions of section 9626(b) of the Act. What follows is a working policy diagnosis of the laws; the directives and the trust responsibility of the federal government that apply to the dire situation of the Village of Kivalina.

### III. Working Policy Diagnosis

#### A. The Indian Lands Open Dump Cleanup Act of 1994

The Indian Lands Open Dump Cleanup Act of 1994 establishes an important baseline of data and environmental analysis of the existence of open dumps on Indian lands.\textsuperscript{70} The Act defines an open dump as "any facility or site where solid waste is disposed of which is not a sanitary landfill which meets the criteria promulgated under section 4004 of the Solid Waste Disposal Act (42 U.S.C. 6944) and which is not a facility for disposal of hazardous waste."\textsuperscript{71} The Act made a finding that "these dumps threaten the health and safety of residents of Indian and Alaska Native lands and contiguous areas."\textsuperscript{72} The Act found, in addition, that "many of these dumps were established or are used by

\textsuperscript{69} GAO2009, supra note 5, at 20.


\textsuperscript{71} Id. § 3902(7).

\textsuperscript{72} Id. § 3901(a)(2).
federal agencies such as the Bureau of Indian Affairs and the Indian Health Service.\textsuperscript{73}

The Act further made a presumptive finding that "these dumps threaten the environment."\textsuperscript{74} The Act directed the Indian Health Service (IHS), in cooperation with the Environmental Protection Agency (EPA), to "assess the relative health and environmental hazards posed by such dumps."\textsuperscript{75} Significantly, in making the required assessment, the Director of the IHS was to "obtain the concurrence" of the Administrator of the EPA "in the determination of relative severity made by any such assessment."\textsuperscript{76}

The federal government has made a finding under the Act that the dump near the Village of Kivalina is a "high health hazard."\textsuperscript{77} The federal government made this determination of relative severity based on the threats posed by the Kivalina open dump, very recently assigning a health threat score of 504 to the site.\textsuperscript{78} Such a finding and assignment of high health hazard by the IHS, by operation of the Act, was made with the concurrence of the EPA.\textsuperscript{79}

The federal agencies are required under the Act to close the dump not only in accordance with applicable federal standards and requirements, but also in accordance with "standards promulgated by an Indian tribal government . . . if such standards are more stringent than the federal standards."\textsuperscript{80} Such standards may also be promulgated by Alaska Native entities under the Act which includes an "Alaska Native Village."\textsuperscript{81}

\textsuperscript{73} Id. § 3901(a)(3).
\textsuperscript{74} Id. § 3901(a)(4).
\textsuperscript{75} Id. § 3901(b)(2).
\textsuperscript{76} Id. § 3903(a).
\textsuperscript{77} OPEN DUMP, supra note 40.
\textsuperscript{78} Id.
\textsuperscript{79} 25 U.S.C. § 3903(a).
\textsuperscript{80} Id. § 3901(b)(3).
\textsuperscript{81} Id. § 3902(6).
These kinds of standards would be part of the inherent authority of the Village of Kivalina over matters that affect its health and welfare which could include adopting an ordinance providing for waste management standards; permit requirements and also penalties for violations of those standards and requirements.82

The Village is also likely entitled to ask the EPA for site specific waivers from landfill requirements for its facility under the federal Resource Conservation and Recovery Act (RCRA) but it does not appear to have done so.83 The open dump near the Village of Kivalina contains special and hazardous wastes which increase threats to human health and the environment.84 As no record of waste taken to the open dump has ever been kept, there is no way to rule out that hazardous waste is in the open dump.85

It is also clear from the history of the Village of Kivalina that the federal government forcibly established the Village nearly a century ago.86 Certainly the federal government is responsible for the existence and severity of conditions at the open dump by reason of forcing the establishment of the current Village of Kivalina. Residents were compelled to permanently relocate to the Village in order to send their children to the Bureau of Indian Affair’s school or face imprisonment.87 Location of a federal facility in the community meant, as a practical matter, that the school generated waste streams that ultimately were transported to the open dump nearby the Village of Kivalina. Therefore, the federal government is likely a responsible party that generated

82 Backcountry Against Dumps v. EPA, 100 F.3d 147, 151 (D.C. Cir. 1996); see also Walker & Gover, Commercial Solid and Waste Disposal On Indian Lands, 10 YALE J. REG. 229, 243-48 (1993).

83 See Back Country Against Dumps, 100 F.3d at 151-52; see also Yankton Sioux Tribe v. EPA, 950 F. Supp. 1471, 1479-82 (D. S.D. 1996).

84 ADNR, supra note 41; see also OPEN DUMP, supra note 40.

85 ACOE Introduction, supra note 54, at 6.

86 NANA, supra note 13.

87 Id.
waste disposed at the open dump near the Village of Kivalina.

It is important to recognize that when a federal agency fails to comply with the mandates of its own environmental statutes on Indian lands, that failure may constitute a violation of the federal trust responsibility, as well as a violation of the particular environmental statute. For example, when federal agencies have been found to have engaged in open dumping on Indian lands in violation of federal law, it has been judicially held that "Congress intended the obligations of the BIA [Bureau of Indian Affairs] and the Indian Health Service under the RCRA to be exercised consistent with their trust obligation. BIA and the Indian Health Service have not merely violated the RCRA, but, in so doing, they have violated their fiduciary obligation towards . . . the Tribe." 88


The Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) provided to the federal government, for the first time, broad statutory authority for the removal of hazardous substances from active and inactive disposal sites around the nation. 89 This authority was most needed in those situations where the present or former owners of such sites were not available or lacked the funds necessary to pay for the cost of cleaning up the sites themselves. Many of these sites existed on Indian lands; however, few appeared on the EPA's National Priority List of hazardous waste sites. 90 Besides conferring authority on the EPA to remove hazardous wastes, CERCLA also provided explicit authority to permanently relocate residents away from hazardous waste sites. 91 CERCLA

88 Blue Legs v. United States Bureau of Indian Affairs, 867 F.2d. 1094, 1101 (8th Cir. 1989).


90 See OPEN DUMP, supra note 40.

grants express authority to conduct such relocations by defining a remedial action to include:

[T]he costs of permanent relocation of residents and businesses and community facilities where the President determines that, alone or in combination with other measures, such relocation is more cost-effective than and environmentally preferable to the transportation, storage, treatment, destruction, or secure disposition offsite of hazardous substances, or may otherwise be necessary to protect the public health or welfare . . . . 92

Further, the National Oil and Hazardous Substances Contingency Plan (NCP), which implements CERCLA, provides that "temporary or permanent relocation of residents, businesses and community facilities may be provided where it is determined necessary to protect human health and the environment." 93

Congress amended CERCLA to make clear that Indian tribes and Alaska Native Villages were to have, among other authorities, a direct role in matters of hazardous substance releases affecting their lands and resources. 94 CERCLA also allows recovery of costs incurred by an Indian tribe or an Alaska Native Village for a removal or remedial action in response to a hazardous waste release. 95 Indian tribes or Alaska Native Villages may also recover as trustees for damages

92 *Id.* § 9601(24).


94 42 U.S.C. § 9626(a) (1986) (EPA must consult with Indian tribes and Alaska Native Villages as to appropriate remedial action in cases of hazardous substance releases).

95 *Id.* § 9607(a)(4)(A).
to natural resources "belonging to, managed by, controlled by or appertaining to the Tribe." 96 The Village of Kivalina would have to coordinate and cooperate to pursue damages with such co-trustees as the U.S. Department of the Interior; the National Oceanic and Atmospheric Administration and the State of Alaska. 97 Double recovery of damages is not permitted. 98 Congress, most significantly, addressed the need for permanent relocation of a tribal or Alaska Native Village in its amendments to the CERCLA:

Should the President determine that proper remedial action is the permanent relocation of tribal members away from a contaminated site because it is cost effective and necessary to protect their health and welfare, such finding must be concurred in by the affected tribal government before relocation shall occur. The President, in cooperation with the Secretary of the Interior, shall also assure that all benefits of the relocation program are provided to the affected tribe and that alternative land of equivalent value is available and satisfactory to the tribe. Any lands acquired for relocation of tribal members shall be held in trust by the United States for the benefit of the tribe. 99

The requirement that alternative lands of equivalent value be available and satisfactory and that such lands be held in trust following acquisition is consistent with the major goals of Indian tribes and of federal policy since the Indian Reorganization Act of 1934 which is to conserve and to reconsolidate the Indian land base by preventing any further diminishment of that land

96 Id. § 9607(f)(1).
97 40 C.F.R. § 300.615(a) (1995).
99 Id. § 9626(b).
To require an Indian tribe or an Alaska Native Village to lose their protected land base through a permanent relocation would contravene the federal policy of conserving the Indian land base and would not be in accord with the CERCLA tribal permanent relocation provisions. The EPA observed in its Interim Relocation Policy that "tribal government concurrence on the use of permanent relocation" as required by CERCLA "would be quite limited." The Agency made clear its view was based upon "the close relationship between Native Americans and specific lands" such that relocation would have "a profound impact on community well being and integrity." Where, as here, the Village of Kivalina is caught between twin threats of an eroding land base and contamination from its open dump, such concurrence is unlikely to be withheld as the community is already suffering the profoundest of impacts from these federally confirmed threats to their health and environment.

As to the benefits of the permanent relocation program, the EPA Interim Relocation Policy specifies that:

A permanent relocation funded through CERCLA should be implemented in accordance with the Uniform Relocation and Real Property Acquisition Policies Act (URA), 42 U.S.C. section 4600-4655, and applicable regulations, 49 C.F.R. section 24, et seq. The purpose of the URA is to ensure that persons displaced as a direct result of a project are treated fairly, consistently, and equitably. EPA uses the services of the U.S. Army Corps of Engineers and U.S. Bureau of Reclamation to assist in conducting relocations because of their expertise in applying the URA. All relocations funded by

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101 OSWER, supra note 93.

102 Id.
PRPs, as part of the remedy selected by EPA, should follow procedures comparable to the URA.\textsuperscript{103}

The federal government has recommended, in fact, in the strongest possible terms a "single comprehensive proactive federal program to assist Villages with their relocation efforts."\textsuperscript{104}

Notably, the EPA has determined that potentially responsible parties (PRPs) for a needed permanent relocation "may agree independently with residents (or business owners) to relocate them, as long as the relocation neither compromises, nor interferes with the EPA's actions at a site."\textsuperscript{105} The EPA has specified in its Interim Relocation Policy that it may also "enter into a consensual agreement with PRPs to conduct a relocation, or the EPA may issue a unilateral administrative order to do so."\textsuperscript{106} Further, the EPA's policy states that that "all relocations funded by PRPs, as part of the remedy selected by the EPA, should follow procedures comparable to the URA."\textsuperscript{107} Otherwise, the EPA has affirmed that "for all decisions affecting federally recognized tribes" it is "guided by both statutes and policies."\textsuperscript{108} These include the EPA Policy for the Administration of Environmental Programs on Indian Reservations and Executive Order 13084, Consultation and Coordination with Indian Tribal Governments, describing how the Agency is to "work with federally-recognized Indian tribes and Alaska Native Villages on a government-to-government basis."\textsuperscript{109}

Finally, limitations and parameters on the authority of the EPA to undertake permanent relocations should be noted. First, a "permanent relocation cannot be
performed as part of a removal response.\textsuperscript{110} Generally, the EPA has chosen to use permanent relocation authority only in connection with its use of remedial authority (long-term cleanup) as opposed to removal authority (short-term cleanup).\textsuperscript{111} Within the context of remedial authority, however, the EPA has demonstrated flexibility in execution of permanent relocation. For example, the Agency permanently relocated an African-American community in Pensacola, Florida that was situated next to wood treating facility at which contaminants such as PCP (Pentachrolophenol) were used in a mixed residential and industrial area.\textsuperscript{112} A significant factor in the decision-making process was the frequency and severity of hurricanes affecting the community and the threat of contamination being spread into the nearby residences.\textsuperscript{113} The EPA decided in June of 1995 to select the community as a "National Relocation Pilot Site" to test the extent of the Agency’s authority under CERCLA and to evaluate the range of its decision making and implementation processes when conducting permanent relocations under CERCLA’s Superfund provisions.\textsuperscript{114}

The community understood its permanent relocation away from its storm prone and contaminant-threatened neighborhood as a decision by the EPA to more fully invoke the CERCLA statutes authority by basing a relocation decision not only upon health risks but


\textsuperscript{111} OSWER, supra note 93.

\textsuperscript{112} U.S. ENVTL. PROT. AGENCY OFFICE OF INSPECTOR GEN., Report No. 08-P-0200, FOLLOW-UP REVIEW ON PROGRESS AT ESCAMBA TREATING COMPANY SUPERFUND SITE, PENSACOLA, FLORIDA 1 (2008), available at http://www.epa.gov/oig/reports/2008/20080714-08-P-0200.pdf.


also upon the law’s explicit reference to the protection of public well-being as well as a cost effectiveness argument for remedial alternatives. For example, the Agency could have expressed reliance on any single factor listed in the National Contingency Plan to support permanent community relocation; however, the Agency relied on all eight factors in a "cumulative impacts" analysis in its Record of Decision.115

The decision to permanently relocate the Pensacola community was most significant because of the factual circumstances of the relocation and the authoritative reliance upon "cumulative impacts" the community had to endure until its relocation. The decision sets a precedent, in any event, at the level of a relocation pilot. The decision to relocate this African-American community permanently away from harm's way using CERCLA authority also proves useful within the context of the federal trust responsibility which the government owes to the Village of Kivalina in its dire circumstances.

C. The Federal Trust Responsibility

The United States has a legally enforceable fiduciary obligation owing to Indian tribes which is embodied historically in treaties, federal statutes, executive orders and judicial decisions. The trust responsibility is meant to "protect tribal treaty rights, lands, assets, and resources, as well as a duty to carry out the mandates of federal law with respect to American Indian and Alaska Native tribes and villages."116 Trust obligations become particularly meaningful whenever a trustee exercises management and control over trust property, assets and transactions for a named beneficiary. The United States Supreme Court has consistently reaffirmed the trust obligation of the United States towards Indian tribes:


Though the Indians are acknowledged to have an unquestionable, and, heretofore, unquestioned right to the lands they occupy, until that right shall be extinguished by a voluntary cession to our government; yet it may well be doubted whether those tribes which reside within the acknowledged boundaries of the United States can, with strict accuracy, be denominated foreign nations. They may, more correctly, perhaps, be denominated domestic dependent nations. They occupy a territory to which we assert a title independent of their will, which must take effect in point of possession when their right of possession ceases. Meanwhile they are in a state of pupilage. Their relation to the United States resembles that of a ward to his guardian. They look to our government for protection; rely upon its kindness and its power; appeal to it for relief to their wants; and address the president as their great father.  

The United States government, particularly through the Bureau of Indian Affairs, exercises its fiduciary responsibility by controlling and managing lands, resources, and related transactions for Indian tribes and Alaska Native Villages as the beneficiaries of the trust. It is clear that the trust relationship is far reaching; however, it is also clear that the actions of the federal government as trustee are "subject to limitations inhering in such a guardianship."  

The trust responsibility carries with it measures of accountability. For example, the United States has been held accountable in money damages for breaches of the trust responsibility because the federal government had full responsibility to manage Indian resources and land for Indian beneficiaries and breached its fiduciary obligations. As previously noted, when the federal government

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117 Cherokee Nation v. Georgia, 30 U.S. 1, 17 (1831).  
violates its own environmental laws, it breaches not only the substantive law, but it breaches its fiduciary obligation to an Indian tribe as well; especially when a federal agency has contributed waste to an improper facility.120 These decisions are consistent with "the most exacting fiduciary standards" to which the United States is charged to adhere when managing tribal resources.121 These fiduciary standards represented in judicial holdings for many years are also "tied rationally to the fulfillment of Congress' unique obligation toward the Indians."122 It appears that Congress applied the standards and decisions pertaining to the trust responsibility by making clear, in CERCLA, that neither Indian tribes nor Alaska Native Villages would have to pay remedial costs and assure the availability of a site for disposal of remediated waste.123 Since permanent relocation is viewed as a function of a remedial cost, it is further clear that Congress did not intend for any Indian tribe or Alaska Native Village to pay for the costs of any permanent relocation concurred in by an Indian tribe or Alaskan Native Village.124 In addition, remediation of open dumps on Indian lands is a cost assumed by the federal government as trustee.

Particularly where the federal government has breached its own duty to adhere to its own environmental laws by contributing waste to an open dump, the trust responsibility of the government is even more exacting. The Bureau of Indian Affairs is accountable as trustee to the Village of Kivalina for the consequences, at a minimum, of forcibly establishing the community in the first place. The Bureau is accountable as well for the existence of the open dump near Kivalina and for any waste it contributed. The Bureau of Indian Affairs is principal trustee of the federal government to the Village

120 Blue Legs, 867 F.2d. at 1101.
124 Id.
of Kivalina; therefore, is likely the chief responsible party for any remediation and any permanent relocation.

IV. Conclusion

The Village of Kivalina shares a crisis as well as an opportunity with the President of the United States. The crisis has been well documented. Kivalina faces such erosion of its permafrost land base and protective sea ice from the effects of regional climate change that it does not have long until the entire community slips into the Chuckchi Sea. Compounding the situation is the existence of an open dump nearby which has been confirmed to have had special, municipal and hazardous wastes placed within its open, unlined and geologically unstable 6.2 acres.

The synergy and cumulative impacts to Kivalina of the exposure to both climate and contamination threats have been and continue to be dire for the community. The President has various authorities under CERCLA to address hazardous waste sites in threatening proximity to communities including the authority to pay the "costs of permanent relocation away from hazardous waste sites."125 The President has such authority "alone or in combination with other measures" and when it is "cost-effective and environmentally preferable[,] . . . or may otherwise be necessary to protect public health."126 More specifically, the National Contingency Plan provides that residents may be permanently relocated when "it is determined necessary to protect human health and the environment."127 In the case of Indian tribes and Alaska Native Villages, the President has the broad authority to determine that the proper remedial action is to move the Indian tribe or Alaska Native Village "away from a contaminated site because it is cost effective and necessary to protect their health and welfare."128

125 OSWER, supra note 93.
126 Id.
128 42 U.S.C. § 9626(b).
In addition, the President has the flexibility to address the dire situation the Village of Kivalina finds itself in through permanent relocation authorized by CERCLA and is required to consult with the Village in cases of hazardous substance releases as required by the statute and through the long standing federal policy of meaningful government-to-government consultation with tribes and villages. In addition, the EPA has concurred in the "relative severity" of the "high health hazard" confronting Kivalina as determined by the Indian Health Service in its Tribal Open Dumps Report of 2011.\textsuperscript{129} Moreover, the Tribal Open Dumps Act confirms through findings that "many" open dumps on reservations and nearby Villages have been established by and contributed to from the Bureau of Indian Affairs and the Indian Health Service.\textsuperscript{130}

In the matter of the Village of Kivalina, the Bureau of Indian Affairs established by duress the existing community site by compelling attendance at the school it established nearly a century ago. Whether through establishment, contribution or insufficient oversight of the open dump near the Village, the community would not be threatened as it is but for its forcible relocation to the site in the first place. In its role as a fiduciary, any of the Bureau’s actions with respect to the open dump site near the Village must be consistent with its trust responsibility to the Village of Kivalina. The existence of the open dump itself and its contamination threats to the nearby Village are the responsibility of the federal government as trustee.

The President has the authority, flexibility and responsibility to exercise authorities under CERCLA section 9626(b) to move the Village of Kivalina away from the "contaminated site" which was deemed a "high health hazard." Action must be taken to relocate Kivalina before the illegal and unsafe dump is washed away by the next storm or becomes totally compromised through continued erosion to the point of releasing more contamination into the Village.\textsuperscript{131} Permanently and

\textsuperscript{129} OPEN DUMP, supra note 40.

\textsuperscript{130} Id.

\textsuperscript{131} Id.
immediately moving the Village away from the contaminated site is consistent with the federal government's recommendation. By using CERCLA section 9626(b), authorities would comport with the law, the National Contingency Plan and the trust responsibility of the United States towards the Village of Kivalina. It would comply with "the most exacting fiduciary standards" which are "tied rationally to the fulfillment of Congress' unique obligations towards the Indians."\textsuperscript{132}

It matters not that the threat of increased contamination is attributable to the effects of climate change or that the Village has litigation pending to seek recovery for damages to otherwise pay for its necessary and permanent relocation. An Indian tribe may seek common law remedies notwithstanding pending EPA investigations or action.\textsuperscript{133} The Agency has been clear that permanent relocation may proceed, whether by EPA order or by agreement of a responsible party, so long as relocation does not "interfere with EPA's actions at a site," if any, besides the permanent relocation.\textsuperscript{134} What matters most is that the President act decisively to permanently move the Village of Kivalina away from the contaminated open dump and the fast eroding site that the federal government forced its ancestors to move to a century ago. Otherwise, the fate of Kivalina, like many tribal communities in the United States, will be part of the sad legacy of broken promises that has characterized relations with Indian tribes. As Justice Black noted regarding such tragedies, "[g]reat Nations, like great

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\textsuperscript{132} Seminole Nation, 316 U.S. at 297; Mancari, 417 U.S. at 555. \\
\textsuperscript{133} Am. Elec. Power Co., Inc. v. Connecticut, 131 S. Ct. 2527 (2011) (holding that whether a Legislative displacement of federal common law exists depends on whether the statute speaks directly to the question at issue.) (Kivalina's lawsuit seeking a remedy based on nuisance claims does not interfere with the EPA's authority to permanently relocate the village under CERCLA. Congress delegated to the President the option of permanent relocation for Indian tribes whose health and welfare are threatened. Such delegation does not operate to bar any private common law claims brought forth by the Village of Kivalina.) \\
\textsuperscript{134} OSWER, supra note 93.
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Men, should keep their word." The national honor and the integrity of the federal government are at stake as the Village of Kivalina awaits help from its trustee. Justice may be served by moving the community away from a perilous situation by using the authority Congress bestowed for this very purpose in CERCLA section 9626(b). The President should consult with the Village of Kivalina regarding permanent relocation immediately and exercise his authority as trustee to move them from harm’s way as soon as possible.

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