BURYING WEAPONS UNDER THE WHITE PINE TREE: REDUCING NUCLEAR WEAPONS AND USING THE MONETARY SAVINGS TO COMPENSATE NATIVE PEOPLES INJURED BY THE U.S. NUCLEAR WEAPONS COMPLEX

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INTRODUCTION

Nuclear extinction is a continuing threat[1] that has existed since the United States used atomic bombs against Japanese civilians in 1945 during the closing days of World War II.[2] Existential threat calls for nations to reduce their nuclear arsenals and bury their weapons of war under the white pine tree, the Tree of Peace, according to the Onondaga.[3] Nations must transform their swords into plowshares.[4] The United States can do its part by reducing its nuclear swords, redirecting the resulting monetary savings to Native peoples harmed by decades of nuclear weapons production and testing on their land.

In 1950, during the Korean War, General Douglas MacArthur sought approval to use atomic bombs against North Korean and Chinese forces, a proposal supported by General Curtis LeMay, then head of U.S. Strategic Air Command.[5] During the 1962 Cuban Missile Crisis, U.S. and Soviet forces came to the brink of nuclear war as the U.S. Navy imposed a blockade to prevent Soviet ships from delivering nuclear warheads to Cuba.[6] During that time period, the U.S. military advocated striking Cuba militarily, and a Soviet submarine commander seriously considered launching a nuclear torpedo at an American destroyer attempting to force the submarine to surface.[7] In 1969, during the Vietnam War, National Security Advisor Henry Kissinger and his staff developed proposals to diminish North Vietnam's war-making capacity, including a "[c]lean nuclear interdiction" of three passes between North Vietnam and Laos and a "[n]uclear interdiction" of two railroads between North Vietnam and China.[8] Amid the 1973 Yom Kippur War, the United States raised the alert status of Strategic Air Command and its nuclear-armed bombers to deter Soviet Union intervention.[9] In 1979, a warning computer at the North American Aerospace Defense Command ("NORAD") showed 200 Soviet intercontinental ballistic missiles

[1] ANKIT PANDA, THE NEW NUCLEAR AGE: AT THE PRECIPICE OF ARMAGEDDON (2025).

[2] WILLIAM J. PERRY, MY JOURNEY AT THE NUCLEAR BRINK (2015).

[3] *Hiawatha Belt*, ONONDAGA NATION, https://www.onondaganation.org/culture/wampum/hiawatha-belt [https://perma.cc/8ELC-4J3B].

[4] *Isaiah* 2:4 (New Int'l Version).

[5] Myles Burke, *As Darkness Fell, Blazing Hangars Lit Up the Sky: How the Fall of Pyongyang Brought the World to the Brink of Crisis*, BBC (Dec. 2, 2024), https://www.bbc.com/culture/article/20241128-how-the-fall-of-pyongyang-brought-the-world-to-the-brink-of-crisis [https://perma.cc/G3S3-YPL3].

[6] PERRY, *supra* note 2, at 2-4.

[7] *Id.* at 3-4.

[8] *Vietnam Contingency Planning: Concept of Operations*, NAT'L SEC. ARCHIVE (Sep. 13, 1969), https://nsarchive.gwu.edu/document/16206-11a-report-vietnam-contingency-planning-concept [https://perma.cc/A8VS-UYWH].

[9] FRED KAPLAN, THE BOMB: PRESIDENTS, GENERALS, AND THE SECRET HISTORY OF NUCLEAR WAR (2020).

approaching the United States in what turned out to be a false alarm caused by a training tape mistakenly installed in the computer.[10] During that false alarm, William Perry, an undersecretary of defense, believed it was the "end of civilization."[11] In 1983, Soviet early-warning radars falsely signaled what appeared to be an attack by American intercontinental ballistic missiles.[12] Nuclear annihilation was averted only because the Soviet chief air-defense officer on duty believed the Soviet radars were mistaken and chose not to send an emergency alert to the higher level.[13] About four decades later, against the backdrop of the Ukraine-Russian War, Russia announced a military exercise near Ukraine to test the readiness of Russia's tactical nuclear forces to dissuade the United States and its allies from continuing to support Ukraine.[14]

The nuclear threat continues today.[15] The Ukraine-Russia war remains ongoing, and other nuclear flashpoints include the China-Taiwan tensions, the North Korea-South Korea standoff, and India-Pakistan hostilities.[16]

The nuclear threat can be lessened through reducing nuclear weapons, a step that can also generate a *nuclear dividend* by freeing resources for domestic needs.[17] The nuclear dividend should be directed to those harmed by the nuclear armaments industry, including Native peoples whose land and communities have been contaminated by decades of nuclear weapons production and testing. The Indigenous Environmental Network, a coalition of 200 Indigenous communities across North America, exhorts the federal government to clean up nuclear contamination on Indigenous lands, compensate those harmed, and invest in economic development and education for the Indigenous nations.[18] The savings from reducing nuclear weapons would help defray the massive costs of cleaning up contaminated soil and water caused by the nuclear weapons complex—costs estimated in

[10] PERRY, *supra* note 2, at 52.

[11] William J. Perry, *Why It's Safe to Scrap America's ICBMs*, N.Y. TIMES (Sep. 30, 2016), https://www.nytimes.com/2016/09/30/opinion/why-its-safe-to-scrap-americas-icbms.html [https://perma.cc/UW4F-8Y52].

[12] KAPLAN, *supra* note 9, at 156-57.

[13] *Id.* at 157.

[14] Steven Pifer, *Holding One's Nerve in the Face of Russian Nuclear Threats*, BROOKINGS (May 8, 2024), https://www.brookings.edu/articles/holding-ones-nerve-in-the-face-of-russian-nuclear-threats [https://perma.cc/3QZS-SUPJ].

[15] *See* Panda, *supra* note 1, at 186-87.

[16] *Id.* at 26-29.

[17] *Id.*; *see* Gordon Adams & Paul Taibl, *Technology for "Safer" Weapons*, 48 BULL. ATOMIC SCIENTISTS 38, 39 (May 1992).

[18] *Indigenous Anti-Nuclear Statement: Yucca Mountain and Private Fuel Storage at Skull Valley*, INDIGENOUS ENV'T NETWORK (Apr. 12-14, 2002), https://www.ienearth.org/indigenous-anti-nuclear-statement-yucca- mountain-and-private-fuel-storage-at-skull-valley [https://perma.cc/W29H-JSVB].

the billions.[19] The money poured into enlarging the U.S. nuclear arsenal should instead be spent on "housing, education, and economic opportunity," declares Ella Weber, a member of the Mandan, Hidatsa, and Arikara Nation.[20]

This Introduction has explained the need to reduce nuclear weapons and proposes using the savings to compensate Native peoples for the harm to them and their land. Part II recounts how, during the early years of the nuclear age, President Eisenhower warned Americans of the military-industrial complex and how unfettered weapons production diverted funds from domestic needs. Part III describes how fears of the military-industrial complex were borne out through U.S. nuclear weapons production and testing that contaminated Native peoples and their land during the Cold War, and continues to do so in the post-Cold War period. Part IV explains how past efforts to compensate Native peoples have been insufficient. Part V discusses the cost of effectively compensating Native peoples for their injuries. Part VI provides two options—canceling the land-based missiles leg of the nuclear triad or the Sentinel nuclear weapons program—for reducing nuclear weapons and generating monetary savings that could be reallocated to Native communities. Lastly, Part VII proposes using self-governance compacts to allow Native communities to decide how best to use the reallocated savings to support their own people harmed by the U.S. nuclear weapons complex.

I. CALLS TO REALLOCATE RESOURCES TO PEOPLE, NOT WEAPONS PROGRAMS

The unchecked costs of U.S. nuclear weapons siphon resources from pressing human needs.[21] As President Eisenhower warned, this problem persists today and has prompted continuing efforts, reflected in the bills discussed below, to control excessive nuclear weapons production.[22]

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[19] MAX S. POWER, AMERICA'S NUCLEAR WASTELAND: POLITICS, ACCOUNTABILITY AND CLEANUP xiii (2008).

[20] Ella Weber, *Nuclear Weapons Are Stored on Native Reservations in an Example of Nuclear Colonialism*, TEEN VOGUE (Nov. 27, 2024), https://www.teenvogue.com/story/nuclear-weapons-stored-on-native-reservations [https://perma.cc/RJ8W-46VP].

[21] Daryl G. Kimball, *Curb the Skyrocketing Cost of U.S. Nuclear Modernization*, ARMS CONTROL ASS'N (May 2025), https://www.armscontrol.org/act/2025-05/focus/curb-skyrocketing-cost-us-nuclear-modernization [https://perma.cc/Q76B-EVRP].

[22] *See President Dwight D. Eisenhower's Farewell Address* (1961), NAT'L ARCHIVES (Jan. 17, 1961), https://www.archives.gov/milestone-documents/president-dwight-d-eisenhowers-farewell-address [https://perma.cc/R9MQ-9ZKL].

A. President Eisenhower's Warning of the Military-Industrial Complex and Call to Reallocate Resources

President Eisenhower understood that merging a massive military establishment with a vast arms industry created a military-industrial complex with "grave implications" for the "toil, resources and livelihood" of Americans.[23] He also criticized the military's profligacy in pushing to build numerous new weapons systems heedless of need or cost.[24] To President Eisenhower, there was "seemingly no end" to the military's ever-increasing budget requests to purchase weapons of war.[25] He opposed proposals to build a nuclear-powered airplane, fund a new high-altitude bomber (the B-70), and expand the intercontinental ballistic missiles.[26] As he fended off queries about a purported missile gap between America (with fewer missiles) and Russia (with more missiles), Eisenhower repeatedly asked, "how many times do we have to destroy Russia?"[27] In his view, modern weapons were "damn costly" and no panacea for national security deficiencies.[28] "Every gun that is made, every warship launched, every rocket fired signifies, in the final sense, a theft from those who hunger and are not fed, those who are cold and are not clothed," he counseled.[29]

Those managing America's nuclear weapons strive to avoid public limelight.[30] This obfuscation makes it easier for savings generated by nuclear weapons reduction to be shifted to producing other weapons rather than to promoting communities.[31] Eisenhower's spotlight on the military-industrial complex therefore remains a salient reminder to spend on people, not weapons.[32] As he cautioned, funds devoted to weapons are funds not spent on schools, homes, and hospitals.[33] Reducing nuclear weapons can yield a dividend for domestic priorities, particularly for Native communities injured by the nuclear weapons complex.[34] Yet the nuclear weapons lobby remains among the most powerful forces within the military-industrial complex,

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[23] *Id.*

[24] EVAN THOMAS, IKE'S BLUFF: PRESIDENT EISENHOWER'S SECRET BATTLE TO SAVE THE WORLD 959-60 (2012).

[25] *Id.* at 281.

[26] *Id.* at 282.

[27] *Id.* at 283.

[28] *Id.* at 282.

[29] Dwight D. Eisenhower, "The Chance for Peace" Delivered Before the American Society of Newspaper Editors (April 16, 1953) (transcript available in the Eisenhower Presidential Library) [hereinafter The Chance for Peace].

[30] SARAH SCOLES, COUNTDOWN: THE BLINDING FUTURE OF NUCLEAR WEAPONS 216 (2024).

[31] *See Id.* at 216

[32] The Chance for Peace, *supra* note 29.

[33] *Id.*

[34] *See Id.*

underscoring the need for bills, such as those discussed below, to counter nuclear weapons spending that exceeds genuine national security needs.[35]

B. Legislative Calls to Manage the Nuclear Weapons Threat and Reallocate Resources

A 1994 bill called on the U.S. government to dismantle "all its nuclear weapons" and engage in good faith efforts to "eliminate war, armed conflict, and all military operations."[36] Therefore, the resources could be redirected to "human needs such as housing, health care, education, agriculture, and environmental restoration."[37] A 2023 bill took a narrower approach, proposing reductions in nuclear weapon systems, including a cap of 150 or fewer intercontinental ballistic missiles.[38] A 2025 bill proposed working with other nuclear countries to eliminate all nuclear weapons from all countries and transferring the funding for nuclear weapons to domestic needs such as "health care, housing, education, agriculture, and environmental restoration."[39] Although eliminating *all* nuclear weapons is a laudable long-term objective, near-term *reductions* are more achievable.[40] A reduction would still generate meaningful savings that could be reallocated to domestic needs, including helping Native peoples harmed by decades of nuclear weapons production and testing.[41]

II. THE NUCLEAR CONTAMINATION OF NATIVE PEOPLES AND THEIR LAND

President Eisenhower's fears of the military-industrial complex became manifest in the nuclear contamination of Native peoples and their land through the mining of uranium and nuclear weapons testing during the Cold War. Native peoples affected by the U.S. nuclear weapons complex include the Navajo Nation (Southwest), the Confederated Tribes of the Umatilla Indian Reservation (Oregon/Inland Northwest), New Mexico pueblos (Southwest), the Seneca Nation (New York), the Shoshone-Bannock Tribes (Idaho), the Western Shoshone Tribe (Nevada/Southwest), and the Yakama Nation (Washington/Inland Northwest).[42]

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[35] WILLIAM D. HARTUNG, INSIDE THE ICBM LOBBY: SPECIAL INTERESTS OR THE PUBLIC INTEREST?, QUINCY BRIEF NO. 63, 2 (Aug. 2024).

[36] H.R. 3750, 103d Cong. § 2(1) (1994).

[37] H.R. 3750.

[38] H.R. 3472, 118th Cong. § 3(b) (2023).

[39] H.R. 1888, 119th Cong. §§ 2(3), 3(2) (2025).

[40] MICHAEL E. O'HANLON, A SKEPTIC'S CASE FOR NUCLEAR DISARMAMENT 108, 110 (2010).

[41] *See* Nadine Padilla, *Abandoned Mines, Abandoned Treaties: The Federal Government's Failure to Remediate Abandoned Uranium Mines on the Navajo Nation*, 96 U. COLO. L. REV. 675, 708 (2025).

[42] POWER, *supra* note 19, at 85.

The United States has an obligation to remedy these harms because they were caused by decades of nuclear weapons activity, and because its role as trustee of Native lands reinforces that obligation.[43] The Cold War ended, but Native peoples remain, as do the injuries to their bodies and land caused by radiation. [44]

A. Contamination of Native Peoples

Those harmed by the U.S. nuclear weapons complex include various groups in proximity to nuclear weapons production and testing.[45] As former Representative Ben Ray Luján explained during a congressional hearing, "We have since learned that there are many more individuals who are sick, who are dying, because they worked in the uranium industry, lived near a mining operation, or lived downwind from a test site."[46]

The nuclear weapons complex also encompassed nuclear production sites that exposed surrounding communities to radiation releases.[47] At Hanford, a federal facility where uranium was processed to produce plutonium for nuclear weapons, both intentional and inadvertent releases occurred, with nearby residents ignorant of these occurrences.[48] For example, in 1949, Hanford intentionally released radiation when it conducted an experiment designed to estimate the amount of plutonium the Soviet Union was producing.[49] The experiment spewed radioactive iodine into the atmosphere that contaminated plants, livestock, and people in eastern Washington.[50]

Through the decades, the experiments at Hanford affected the health of those nearby.[51] According to Dr. Helen Caldicott, an anti-nuclear advocate, "Abnormally high incidence[s] of thyroid tumors and cancers have been observed in populations living downwind from Hanford."[52] Various contaminants were released into the air, including Strontium-90, Celsium-

[43] Padilla, *supra* note 41, at 708.

[44] Rebecca Tsosie, *Indigenous Peoples and the Ethics of Remediation: Redressing the Legacy of Radioactive Contamination for Native Peoples and Native Lands*, 13 SANTA CLARA J. INT'L L. 203, 267 (2015).

[45] *America's Nuclear Past: Examining the Effects of Radiation in Indian Country Field Hearing Before the S. Comm. on Indian Affs.*, 116th Cong. 4-5 (2019) (statement of Rep. Ben Ray Luján) [hereinafter America's Nuclear Past].

[46] *Id.*

[47] *See* STEVE OLSON, THE APOCALYPSE FACTORY: PLUTONIUM AND THE MAKING OF THE ATOMIC AGE 252 (2020).

[48] *Id.*

[49] *Id.*

[50] *Id.*

[51] JOSHUA FRANK, ATOMIC DAYS: THE UNTOLD STORY OF THE MOST TOXIC PLACE IN AMERICA 187 (2022).

[52] *Id.* at 186.

137, Plutonium-239, and Ruthenium-106.[53] The U.S. government did not inform nearby communities about the releases or the associated cancer risks.[54]

One community harmed by Hanford's radiation releases was the Yakama Nation. Russell Jim, a Yakama Nation member, recalled that "[w]ith the coming of the Manhattan Project, . . . everyone was moved out, including the Yakama Nation people."[55] He described "tremendous releases of radioisotopes to the environment, primarily iodine-131," and the "vast amount of cancers and related illnesses now in the Yakama people." [56]

Nuclear sites contaminate people through various means, including via fauna. As one Environmental Protection Agency ("EPA") worker stated, "animals can't read signs,"[57] referencing how wildlife does not heed the "no trespassing" notices of the contaminated areas.[58] In one incident, fruit flies spread contamination into a mobile officer trailer used as a lunchroom.[59] After workers detected unusual contamination patterns, they tested the trailer and found the light switch, knife, and cutting board to be radioactive.[60] The mystery was solved when a health physics technician saw a speck of contamination fly away, which turned out to be a fruit fly.[61]

Uranium mines also contaminated the people who worked and lived near the mining sites.[62] Native communities such as the Navajo Nation[63] have disproportionately suffered the health repercussions of uranium mining.[64] The Navajo Nation encompasses more than 250,000 people within approximately 27,000 square miles in parts of Utah, New Mexico, and Arizona.[65] New Mexico contains approximately half of the recoverable uranium in the United States, and approximately half of New Mexico's

[53] *Id.* at 187.

[54] *Id.*

[55] *Transcript of Russell Jim's Interview at Hanford, WA*, ATOMIC HERITAGE FOUND. (Sep. 1, 2003), https://ahf.nuclearmuseum.org/voices/oral-histories/russell-jims-interview [https://perma.cc/L2QB-VALC].

[56] *Id.*

[57] SHANNON CRAM, UNMAKING THE BOMB: ENVIRONMENTAL CLEANUP AND THE POLITICS OF IMPOSSIBILITY 115 (2023).

[58] *Id.* at 115.

[59] *Id.* at 116.

[60] *Id.* at 115.

[61] *Id.* at 117.

[62] Tsosie, *supra* note 44, at 213.

[63] Chanese A. Forté, *US Uranium Mining Legacy Still Harms the Navajo Nation*, UNION OF CONCERNED SCIENTISTS (May 6, 2025), https://blog.ucs.org/chanese-forte/us-uranium-mining-legacy-still-harms-the-navajo-nation [https://perma.cc/JJX5-XDPZ] (The Navajo people call themselves the Diné).

[64] *Id.*

[65] Laurel Morales, *For the Navajo Nation, Uranium Mining's Deadly Legacy Lingers*, NPR (Apr. 10, 2016), https://www.npr.org/sections/health-shots/2016/04/10/473547227/for-the-navajo-nation-uranium-minings-deadly-legacy-lingers [https://perma.cc/UUZ5-F74T].

uranium is beneath the Navajo Nation.[66] Mining companies began mining uranium on Navajo land starting in the late 1940s after[67] the U.S. government awarded mining contracts to them.[68]

The contracts were also forwarded to the Navajo Tribal Council for their ostensible "approval," with the agreements presented favorably as employment and economic development opportunities.[69] Many Navajos leaving military service after World War II returned home to become miners.[70] They headed into shallow tunnels minutes after blasting, inhaled the radioactive dust, loaded radioactive ore into wheelbarrows, and emerged spitting black mucus and coughing so hard they developed headaches.[71] The miners received between 100 to 1,000 times the level of radon gas considered safe.[72] The mining companies agreed to give the miners' names to the U.S. Public Health Service, and the Service agreed not to inform the miners of potential health hazards associated with mining uranium.[73]

Navajo workers helped mine approximately 30 million tons of uranium ore on Navajo Nation land over four decades.[74] The Navajo miners were sent into mines with poor ventilation and lax safety procedures, even though the U.S. government knew of the radiation risks.[75] When comparing Navajo uranium miners to Navajo men with no mining history, "those with a uranium mining history have 28.6 times more risk of new lung cancers between 1969 and 1993."[76] Additionally, the Navajo Nation Department of Health's own research "identified uranium mine workers who had elevated stomach, kidney, and biliary cancers, all of which are elevated in the Navajo Nation."[77]

The contamination extended beyond mine workers to their families and their community.[78] Maria Welch, a researcher and Navajo Nation member, shared how her parents grew up next to the uranium mines and swam in uranium-contaminated water, as did other Navajo Nation children.[79] Navajo

[66] BRUCE E. JOHANSEN, INDIGENOUS PEOPLES AND ENVIRONMENTAL ISSUES: AN ENCYCLOPEDIA 393 (2003).

[67] *Id.*

[68] Tsosie, *supra* note 44, at 213.

[69] *Id.*

[70] JOHANSEN, *supra* note 66, at 393.

[71] *Id.*

[72] *Id.*

[73] Tsosie, *supra* note 44, at 213.

[74] Forté, *supra* note 63.

[75] *Id.*

[76] *Id.*

[77] *Id.*

[78] Morales, *supra* note 65.

[79] *Id.*

Nation livestock drank the contaminated water.[80] The children played in mine debris piles.[81] Navajo Nation members built homes using material contaminated by uranium.[82]

Kathleen Tsosie, a member of the Navajo Nation, had a father who worked in the uranium mines and later died of lung cancer.[83] As a child, Tsosie helped her grandmother herd sheep in Arizona.[84] Her play activities included scrambling over the piles of discarded uranium ore with friends.[85] Her family drank water from underground sources contaminated by uranium mining.[86] She recalls trucks carrying uncovered uranium ore driving through her community.[87] Tsosie developed breast cancer.[88] Four of her five sisters and her mother also developed breast cancer.[89]

Lena Cason remembers her Navajo father working in uranium mines in the 1950s and 1960s and bringing home jugs of cold water collected from deep underground.[90] "The water was so cool in the mines, . . . [w]e thought it was delicious, but we were poisoning ourselves," she explained.[91] The water was also used for washing.[92] Cason helped her mother wash clothing with water that had a "sharp, metallic smell of uranium."[93] The mining companies "knew how dangerous it was, but they made no effort whatsoever to protect the people and the families."[94] Her father died of lung disease at age forty-three.[95] Cason developed stomach cancer and had to undergo surgery to remove a brain tumor.[96]

From the 1970s to the 1990s, cancer rates in the Navajo Nation doubled.[97] Studies of nuclear industry workers found a "significant increase

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[80] *Id.*

[81] *Id.*

[82] *Id.*

[83] Tracy Tullis, *'We Didn't Know we Were Poisoning Ourselves': The Deadly Legacy of the US Uranium Boom*, THE GUARDIAN (Nov. 20, 2023), https://www.theguardian.com/world/2023/nov/20/navajo-dine-uraminum-mining-poison [https://perma.cc/W96N-85NX].

[84] *Id.*

[85] *Id.*

[86] *Id.*

[87] *Id.*

[88] *Id.*

[89] *Id.*

[90] *Id.*

[91] *Id.*

[92] *Id.*

[93] *Id.*

[94] *Id.*

[95] *Id.*

[96] *Id.*

[97] Morales, *supra* note 65.

in cancer," especially "lymphatic and hematopoietic cancer deaths," "multiple myeloma deaths," and "leukemia deaths."[98] Also, research shows that "life expectancy on the Navajo Nation is 58.8 years for males and 71.8 years for females—both of which are much lower than the US average of 78.6 years."[99]

B. Contamination of Native Land

Some of the former nuclear-weapons facilities of the Department of Energy are in Idaho (Idaho National and Environmental Laboratory, or INEEL), South Carolina (Savannah River), Tennessee (Oak Ridge), and Washington (Hanford).[100] At Hanford alone, more than 1,500 sites released contaminants from 1945 to 1989, contaminating the soil and groundwater.[101] All of these areas are relatively poor, lack adequate basic services, such as potable water, and are subject to environmental contamination.[102] Compounding these problems is the stigma surrounding the pollution of the land by nuclear waste, which repels potential employers and undermines economic growth at these sites.[103]

Between 1944 and 1986, mining companies on Navajo land blasted out four million tons of uranium ore for purchase by the federal government to make nuclear weapons.[104] When the Cold War ended, the companies left behind numerous abandoned mines.[105] Today, over 10,000 abandoned uranium mine waste sites are scattered throughout the western United States.[106] Over 4,000 abandoned uranium mines negatively impact Native communities.[107] There are 523 abandoned uranium mines on the Navajo Nation still awaiting cleanup.[108]

The mines' radioactive waste contaminates Native peoples and their land.[109] For every four pounds of uranium extracted, mining operations

[98] Metoda Dodic-Fikfak, Richard Clapp & David Kriebel, *The Health Risks of Decommissioning Nuclear Facilities*, 9 NEW SOLS 153, 156 (1999).

[99] Forté, *supra* note 63.

[100] Michael Frisch, Laura Solitare, Michael Greenberg & Karen Lowrie, *Impact of Providing Off-Site Economic Development Funds to Dependent Regions Surrounding the U.S. DOE's Major Nuclear Weapons Sites*, 22 J. POL'Y MODELING 801, 802-03 (2001).

[101] POWER, *supra* note 19, at 41.

[102] Frisch, Solitare, Greenberg & Lowrie, *supra* note 100, at 804.

[103] *Id.* at 803.

[104] Morales, *supra* note 65.

[105] *Id.*

[106] Padilla, *supra* note 41, at 690.

[107] Rick Tallman, Richard Luarkie & Morgan D. Bazilian, *Nuclear Power is Tribal Power*, WILSON CTR. (Mar. 19, 2024), https://www.wilsoncenter.org/article/nuclear-power-tribal-power [https://perma.cc/H8GC-YG7U].

[108] Padilla, *supra* note 41, at 690.

[109] *Id.*

produce nearly a thousand pounds of radioactive waste.[110] The amount of waste rock generated by thousands of mines is estimated at three billion metric tons,[111] equivalent to approximately 508 Great Pyramids of Giza.[112] This waste rock was often piled up outside mine sites.[113] As it weathered, it contaminated groundwater and surface water and produced radioactive dust that settled on nearby populated areas.[114]

The U.S. nuclear weapons program has left a legacy of health disparities and environmental degradation, which have had disproportionate impacts on already marginalized Native communities.[115] For example, the U.S. government has not yet built a single radiation health or emergency center within or near the Navajo Nation.[116] The harm to the people and land continues for generations, even as funding remains scarce.[117] The Navajo Nation and other harmed Native communities need the nuclear dividend that would allow them to take action to succor their people and communities.[118]

III. INSUFFICIENT AID FROM PAST EFFORTS TO COMPENSATE NATIVE PEOPLES

Partial efforts to help Native peoples injured by the U.S. nuclear program include the use of the 1990 Radiation Exposure Compensation Act ("RECA")[119] and the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA").[120]

A. The 1990 Radiation Exposure Compensation Act (RECA) Provided Only Partial Compensation

RECA provided monetary compensation to individuals, including Native people, for harms caused by nuclear weapons production and testing.[121] Moreover, RECA compensated those who contracted certain types

[110] *Id.*

[111] *Id.*

[112] *See* David Cassel, *The Ultimate Logistics Problem: Building the Great Pyramid of Giza*, THE NEW STACK (Oct. 8, 2017), https://thenewstack.io/ultimate-logistics-problem-building-great-pyramid [https://perma.cc/NN36-Z349].

[113] *Radioactive Waste from Uranium Mining and Milling*, ENV'T PROT. AGENCY, https://www.epa.gov/radtown/radioactive-waste-uranium-mining-and-milling https://perma.cc/Z7PH-JQHY].

[114] *Id.*

[115] Forté, *supra* note 63.

[116] *Id.*

[117] Tallman, Luarkie & Bazilian, *supra* note 107.

[118] Forté, *supra* note 63.

[119] 42 U.S.C.A. § 2210 note (2000) (Radiation Exposure Compensation).

[120] The Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. §§ 9601-75 (2018).

[121] 42 U.S.C.A. § 2210 note.

of cancer or other specified diseases because of exposure to radiation, including uranium workers working in or around uranium mines and individuals who lived downwind of nuclear weapons test sites.[122]

In addition to the large number of Navajo miners,[123] other Native groups, such as the Laguna Pueblo, were also involved in uranium mining.[124] Further, Members of Native communities constitute approximately an eighth of all total downwinder claims.[125] Since becoming law in 1990, RECA has awarded over $2.6 billion in benefits to more than 41,000 claimants.[126] Of this total, RECA paid more than $370 million to Native people—approximately 13% of RECA's total payout as of 2024 when RECA expired.[127] Nonetheless, RECA provided only limited aid to Native individuals.

1. RECA Limited the Period of Coverage

RECA covered only the miners and other mine-related workers employed between 1942 and 1971.[128] But uranium mining on Navajo land began in 1918[129], and many miners worked beyond 1971.[130] Additionally, RECA compensation was available only to workers who were part of the federal uranium procurement program during this period.[131] The limited eligibility period was a central concern of the Navajo Nation.[132] The mines continued to harm Navajo people and their land long after they were closed and abandoned in 1971, as contamination continued to spread.[133]

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[122] Scott D. Szymendera, *The Radiation Exposure Compensation Act (RECA): Compensation Related to Exposure to Radiation from Atomic Weapons Testing and Uranium Mining*, CONG., https://www.congress.gov/crs-product/R43956 [https://perma.cc/LW3A-PZLJ].

[123] Tullis, *supra* note 83.

[124] SALEEM H. ALI, MINING, THE ENVIRONMENT, AND INDIGENOUS DEVELOPMENT CONFLICTS 80 (2003).

[125] Wudan Yan, *Fallout: First Cancer, Now Delayed Compensation for Indigenous Downwinder Communities*, HIGH COUNTRY NEWS (May 4, 2020), https://www.hcn.org/articles/south-public-health-fallout-first-cancer-now-delayed-compensation-for-indigenous-downwinder-communities [https://perma.cc/7ATC-65D6].

[126] Szymendera, *supra* note 122.

[127] Elyse Wild, *'The Money Won't Bring Anybody Back': Payments Will Increase for Radiation Victims, but Compensation Still Falls Short*, NATIVE NEWS ONLINE (July 7, 2025), https://nativenewsonline.net/health/the-money-won-t-bring-anybody-back-payments-will-increase-for-radiation-victims-but-compensation-still-falls-short [https://perma.cc/J27G-RFD9].

[128] Cody Phillips, *What's Mine Is Yours: An Analysis of the Federal Laws Used to Compensate the Navajo Nation and Remediate Abandoned Uranium Mines and Mills on the Reservation*, 32 COLO. NAT. RES., ENERGY & ENV'T L. REV. 75, 88 (2021).

[129] ALI, *supra* note 124, at 80.

[130] Phillips, *supra* note 128, at 88–89.

[131] *Id.*

[132] *Id.* at 89-90.

[133] *Id.* at 88-89.

2. RECA Covered Only Mine Workers with Lung Disease

RECA compensated only those mine workers who suffered from the specific lung illnesses addressed in the statute.[134] Coverage was limited to lung cancer or a "nonmalignant respiratory disease."[135] A *nonmalignant respiratory disease* was defined as fibrosis of the lung, pulmonary fibrosis, or pulmonale related to fibrosis of the lung, silicosis, and pneumoconiosis.[136] Although exposure to uranium can injure other parts of the body in addition to the lungs,[137] RECA covers only lung injuries.[138]

3. RECA Imposed Requirements that Clashed with Native Practices

RECA imposed requirements such as documentation that conflicted with Native cultural practices.[139] Claims lacking requisite documentation would be denied.[140] But Native cultures have oral traditions.[141] In Navajo culture, for example, what is spoken has historically carried more weight than what is written.[142] In one instance involving a deceased Navajo uranium mine worker, the widow's RECA claim was denied for lack of medical documentation proving that he died of lung cancer.[143] Even providing legal proof of marriage presents a problem in many Navajo communities because marriage licenses were not required by the Navajo government until 1940.[144] Before 1940, celebrating with friends and family was sufficient to formalize a Navajo marriage.[145] The Bureau of Indian Affairs, however, pressured the Navajo Tribal Council to enact a resolution requiring Navajo couples to obtain marriage licenses.[146] Even after 1940, though, Navajo marriage ceremonies often did not include official marriage licenses.[147] By 1944, the

134 *Id.* at 86-87.

135 42 U.S.C. § 2210 note (Sec. 3(c) Claims Relating to Uranium Mining).

136 *Id.*

137 Phillips, *supra* note 128, at 87.

138 *See Id.*

139 *Id.* at 88.

140 *Id.* at 86.

141 Stephen D. Osborne, *Protecting Tribal Stories: The Perils of Propertization*, 28 AM. INDIAN L. REV. 203 (2004).

142 Antoinette Sedillo Lopez, *Evolving Indigenous Law: Navajo Marriage-Cultural Traditions and Modern Challenges*, 17 ARIZ. J. INT'L & COMP. L. 283 (2000).

143 Phillips, *supra* note 128, at 88.

144 *Id.*

145 Sarah Primrose, *The Decline of Common Law Marriage & the Unrecognized Cultural Effect*, 34 WHITTIER L. REV. 187, 211–12 (2013).

146 Primrose, *supra* note 145 at 212.

147 Phillips, *supra* note 128, at 88.

Tribal Council reversed its position and returned to recognizing traditional Navajo marriages.[148]

4. RECA Covered Only a Limited Group of Downwinders

For "downwinders," RECA compensation was available only to those who lived in limited counties around the Nevada Test Site (located north of Las Vegas).[149] This recovery was limited to Nevada and did not extend to other affected regions, such as New Mexico.[150] Notably, New Mexico is ranked lowest in education among the states, but highest in nuclear weapons and radioactive waste.[151]

5. RECA Provided Compensation Only to Individuals, Not Tribes

RECA compensated only harmed *individuals*, not harmed *communities*; it did not compensate Tribes.[152] For example, it did not compensate the Navajo Nation for the contamination of its land and water by decades of uranium mining during the Cold War.[153] Although RECA may compensate an individual's physical harms, it does not compensate a Tribe's collective harm caused by nuclear contamination of its precious land and water.[154]

B. The Reauthorized 2025 RECA Provides Enhanced, but Still Limited, Compensation

Congress passed the One Big Beautiful Bill Act in July 2025, which, inter alia, enhanced aid to radiation victims and extended RECA through December 31, 2028.[155] One of the RECA enhancements is extending the period of employment coverage for uranium miners and other mine-related workers from 1971 to 1990.[156]

A second RECA enhancement extends coverage beyond lung diseases for mine workers, adding "renal cancer or any other chronic renal disease, including nephritis and kidney tubal tissue injury."[157]

A third RECA enhancement regards documentation for claimants in certain statutorily designated areas who were harmed by nuclear waste. Their physical presence in the area may be shown through written residential

148 Primrose, *supra* note 145, at 212.

149 SCOLES, *supra* note 30, at 118.

150 *Id.*

151 *Id.*

152 *See Id.* (emphasis added).

153 *Id.*

154 Phillips, *supra* note 128, at 89.

155 One Big Beautiful Bill Act, Pub. L. No. 119-21, § 100201, 139 Stat. 72 (2025).

156 *Id.* at § 100203(a).

157 *Id.* at § 100203(b).

documentation or "other documentation" showing the claimant was in the affected area.[158] For claimants with certain statutorily-designated diseases, they may provide written medical records or "other documentation" showing the claimant contracted the specified disease.[159]

A fourth enhancement is to expand the group of downwinders eligible to recover under RECA to include New Mexico, Utah, and Idaho.[160]

A fifth enhancement increases the amount of money to claimants, such as eligible downwinders, from $50,000 to $100,000.[161] Although this is an improvement for eligible claimants, the enhanced aid remains targeted at individuals rather than communities.[162]

Overall, the reauthorized 2025 RECA provides additional benefits with an estimated cost of $7.7 billion.[163] This cost can be offset by reducing the production of nuclear weapons.[164] For example, cancelling the over-budget Sentinel nuclear weapons program could save an estimated $141 billion, which is significantly more than enough to cover the $7.7 billion cost for reauthorizing RECA.[165]

C. CERCLA and Similar Laws Provide Only Partial Aid

Prior efforts to extract funds for contamination cleanup include the EPA and Navajo Nation using the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA")[166] to legally force responsible parties (e.g., various companies and the U.S. government) to pay for the cleanup of Navajo land.[167] But CERCLA, like RECA, does not provide a complete remedy for affected Native communities.[168] These agreements, reached in the mid- to late 2010s, covered the cost of cleaning up 236 abandoned mines on Navajo land; however, 287 mines remain abandoned with no designated source of funding for additional cleanup.[169] Accordingly,

158 *Id.* at § 100204.

159 *Id.*

160 *Id.* at § 100202.

161 *Id.*

162 *See Id.*

163 Daryl G. Kimball, *Republican Spending Bill Revives Program for Radiation Victims* (July/August 2025), https://www.armscontrol.org/act/2025-07/news/republican-spending-bill-revives-program-radiation-victims?utm_source=chatgpt.com [https://perma.cc/NL2F-S87Y].

164 *See* Tara Copp, *New Sentinel Nuclear Weapons Program is 81% Over Budget. But Pentagon Says it Must Go Forward*, ASSOCIATED PRESS (July 9, 2024), https://apnews.com/article/nuclear-sentinel-weapon-icbm-cost- 39c69242301b2a273111d161573f5c56 [https://perma.cc/AJE9-ZF97].

165 *Id.*; *see infra* Part VI.

166 42 U.S.C. §§ 9601-75.

167 Padilla, *supra* note 41, at 702.

168 *Id.* at 707.

169 *Id.* at 708.

more funding is needed, and this can be achieved by reducing nuclear weapons and reallocating those funds to affected Native peoples.[170]

Another prior cleanup effort included a lawsuit by the Western States Legal Foundation and other groups against the Department of Energy ("DOE") for failing to address problems created by decades of nuclear weapons research and production.[171] The 1998 settlement provided $6.25 million from the DOE to help local communities and tribes assess the ecological and health effects of DOE's nuclear weapons program.[172] This limited amount provided limited benefits.[173] For a time, it helped support Nuclear Watch New Mexico ("NukeWatch"), a watchdog organization that participated in the lawsuit.[174] Yet, as Jay Coghlan, head of NukeWatch, explained, "I draw blood, but I can't kill the beast."[175] What might help tame the "beast"—nuclear weapons programs and their resulting health harms—is "killing" unnecessary nuclear weapons programs and using the nuclear dividend to aid Native peoples injured by decades of nuclear weapons production and testing.[176]

Also, in any federal remediation effort involving the DOE or the Nuclear Regulatory Commission, these agencies may be constrained by their own interests in national security and energy development, which can diverge from the interests of the Tribe.[177] Further, any federal remediation effort involving the Bureau of Indian Affairs or the Indian Health Service would be severely limited, as these agencies are underfunded and lack the resources to fully compensate Tribes.[178]

Ultimately, these prior legislative efforts provide only partial aid because lawmakers who drafted statutes like CERCLA decades ago held simplistic views of cleanup—focusing on a single factor at a single site,[179] such as barrels leaking hazardous waste at an abandoned site.[180] The legislators did not envision elaborate facilities such as Hanford, "where a combination of old disposal sites leaking contaminants, complexes managing highly dangerous wastes, and currently active nuclear facilities were all intermingled."[181]

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170 *See* Copp, *supra* note 164.

171 SCOLES, *supra* note 30, at 192.

172 *Id.*

173 *Id.*

174 *Id.*

175 *Id.*

176 *See* Copp, *supra* note 164.

177 Tsosie, *supra* note 44, at 249.

178 *See* Tsosie, *supra* note 44, at 249.

179 POWER, *supra* note 19, at 40-41.

180 Carson Harbor Vill., Ltd. v. Unocal Corp., 270 F.3d 863, 886 (9th Cir. 2001).

181 POWER, *supra* note 19, at 40-41.

IV. THE COST OF COMPENSATING NATIVE PEOPLES

The estimated cost of additional government compensation for people affected by nuclear production and testing is in the billions of dollars.[182] RECA, enacted in 1990 and expired in 2024, provided the following amounts for eligible claimants: $100,000 for those working in uranium mines or mine-related work, $75,000 for those working onsite during atomic weapons tests, and $50,000 for downwinders living downwind of the Nevada Testing Site in Arizona, Nevada, and Utah.[183] But a claimant's medical costs can exceed these amounts.[184] For example, Kathleen Tsosie, a Navajo advocate for government compensation, shared that her treatment for two bouts of cancer, including chemotherapy, cost over $390,000.[185]

Just as the estimated cost for compensating Native peoples for their illnesses runs into the billions, the cost of cleaning up their contaminated land is also in the billions.[186] For the Navajo Nation alone, the cost of assessing and cleaning up a mere fraction of their hundreds of abandoned mines has reached nearly a billion dollars.[187] The total cost of remediating all abandoned uranium mines on Navajo land is immense.[188] The approximate cost of reclaiming Navajo Nation land contaminated by abandoned uranium mines is approximately $76,000 per mine,[189] but the cost can balloon to hundreds of millions of dollars.[190] Millions have already been spent.[191] Between 1997 and 2007, over $161 million was spent on cleanup activities on Navajo lands.[192] Between 2007 and 2012, the expenditure was approximately $110 million.[193]

In early 2025, the EPA announced a cleanup operation costing $183 million to remove more than one million cubic yards of radioactive waste from the Quivira Mines site on Navajo land in New Mexico.[194] Unlike prior

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182 Kadin Mills, *They Sacrificed Their Lives for U.S. Nuclear. Now They Want Justice*, INDIAN COUNTRY TODAY (Oct. 2, 2024), https://ictnews.org/news/they-sacrificed-their-lives-for-u-s-nuclear-now-they-want-justice [https://perma.cc/YSH9-A5SX].

183 *Id.*; Tullis, *supra* note 83.

184 Mills, *supra* note 182.

185 *Id.*

186 *See* Amber Reimondo, *The High Price of Uranium*, GRAND CANYON TRUST (Apr. 25, 2018), https://www.grandcanyontrust.org/blog/high-price-uranium [https://perma.cc/8CKR-32PN].

187 *Id.*

188 Padilla, *supra* note 41, at 699.

189 *Id.* at 698-99.

190 *Id.*

191 *Id.*

192 *Id.* at 699.

193 *Id.*

194 Austin Keating, *EPA Launches Historic $183M Uranium Cleanup of Navajo Nation*, REMEDIATION TECH. (Jan. 21, 2025), https://www.remediation-technology.com/articles/362-epa-launches-historic-183m-uranium-cleanup-of-navajo-nation [https://perma.cc/MEC3-CNAA].

"cap-in-place" operations that merely covered contaminated sites, the 2025 operation will excavate the waste rock and transport it to a specially designed hazardous-waste treatment facility elsewhere in New Mexico.[195]

As a child, Teracita Keyanna of the Navajo Nation herded sheep on her land that was contaminated with radioactive waste from abandoned uranium mines.[196] The contamination seeped into the soil and water for decades.[197] The EPA's 2025 cleanup operation will "help the community heal," said Keyanna, who spent years advocating for waste removal.[198] But this cleanup operation is merely a test case for further efforts that will potentially involve billions of dollars, as numerous abandoned uranium mines remain on Navajo Nation land to contaminate the people and their surroundings.[199]

V. FUNDING COMPENSATION TO NATIVE PEOPLES THROUGH SAVINGS IN NUCLEAR WEAPONS REDUCTION

Savings from the vast U.S. military budget can fund compensation for harmed Native communities.[200] The Congressional Budget Office ("CBO") estimates that operating, sustaining, and modernizing current nuclear forces, and purchasing new forces, would cost $946 billion over the nine-year period from 2025 to 2034, amounting to approximately $95 billion per year.[201] The nine-year amount includes $309 billion for modernizing strategic and tactical nuclear forces, according to the 2025 budget requests of the Department of Defense ("DoD")[202] and the Department of Energy ("DOE"), which divide government expenditures on nuclear weapons.[203]

According to former Secretary of Defense William Perry, the United States can reduce its nuclear weapons to save tens of billions of dollars while still maintaining a robust nuclear arsenal.[204] One option considered by the CBO is to reduce U.S. strategic nuclear forces to 10 SSBNs (i.e., submarine-launched ballistic missiles) and 300 ICBMs (i.e., land-based ballistic

195 *Id.*

196 *Id.*

197 *Id.*

198 *Id.*

199 *Id.*

200 *See* Perry, *supra* note 11.

201 CONG. BUDGET OFF., PROJECTED COSTS OF U.S. NUCLEAR FORCES, 2025 TO 2034 (2025), https://www.cbo.gov/system/files/2025-04/61224-NuclearForces.pdf [https://perma.cc/A2FY-HQMR].

202 *Id.*

203 Jonathan Landay, *US Nuclear Force Costs Projected to Soar to $946 Billion Through 2034, CBO Says*, REUTERS (Apr. 30, 2025), https://www.reuters.com/world/us/us-nuclear-force-costs-projected-soar-946-billion-through-2034-cbo-says-2025-04-24 [https://perma.cc/BG9L-G6AT].

204 Perry, *supra* note 11.

missiles).[205] This alone could save an estimated $12 billion.[206] A second option, with even deeper reductions, involves reducing forces to 8 SSBNs and 150 ICBMs.[207] This could save an estimated $17 billion.[208] A third option is eliminating the entire *land-based* leg of the U.S. nuclear triad—land-based missiles, submarine-based missiles, and bomber-based missiles—[209] saving over $100 billion.[210] A fourth option is eliminating the Sentinel nuclear weapons program,[211] which would also save over $100 billion.[212] This Article addresses only the third and fourth options.[213]

A. Cancel the Land-Based Missile Leg of the Nuclear Triad

As stated by Representative Adam Smith, former chair of the House Armed Services Committee, "The rationale for the triad I don't think exists anymore. The rationale for the number of nuclear weapons doesn't exist anymore."[214] Before former General Jim Mattis became Secretary of Defense, he considered whether it was time to remove U.S. land-based nuclear missiles.[215] Former Representative John Tierney criticized intercontinental ballistic missiles as redundant, prone to accidental use, unsafe, and benefiting only defense contractors.[216]

Former Secretary of Defense William Perry stated that the Air-Launched Cruise Missile ("ALCM") and B-2 programs, alone, provide the United States with an "unambiguously strong deterrent force."[217] "The United States does not need ICBMs and can safely phase out the existing missiles without replacing them," wrote former Defense Secretary Perry and

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[205] CONG. BUDGET OFF., OPTIONS FOR REDUCING THE DEFICIT: 2017 TO 2026 84 (Dec. 2016), https://www.cbo.gov/system/files/2018-09/52142-budgetoptions2.pdf [https://perma.cc/2L53-LBGN].

[206] *Id.*

[207] *Id.*

[208] *Id.*

[209] Matthew Johnson, *Sealing Pandora's Box: The Case for the United States' Observation of Key New Start Treaty Provisions Following Its 2026 Expiration*, 56 GEO. J. INT'L L. 499, 524 (2025).

[210] WILLIAM J. PERRY & TOM Z. COLLINA, THE BUTTON: THE NUCLEAR ARMS RACE AND PRESIDENTIAL POWER FROM TRUMAN TO TRUMP 110 (Stephanie Gorton, ed., BenBella 2020).

[211] *Life-Extending Minuteman III is a Feasible Alternative to Building a New ICBM*, FED'N OF AM. SCIENTISTS, https://uploads.fas.org/2021/02/GBSD-Fact-Sheet-Minuteman-Life-Extension.pdf [https://perma.cc/V4SP-GNRP].

[212] *Id.*

[213] *See* Perry, *supra* note 11.

[214] Bryan Bender, *Democrats Going Nuclear to Rein in Trump's Arms Buildup*, POLITICO (Nov. 24, 2018), https://www.politico.com/story/2018/11/24/the-democrats-nuclear-options-966502 [https://perma.cc/2ZL9-CBJW].

[215] *See* PERRY & COLLINA, *supra* note 210, at 109.

[216] HARTUNG, *supra* note 35, at 7.

[217] PERRY, *supra* note 2, at 48. The ALCM program involves B-52 bombers avoiding enemy surface-to-air missiles by launching nuclear cruise missiles hundreds of miles from the enemy target. *Id.* at 47.

national security expert Tom Collina in 2020.[218] According to Perry, the United States can phase out its ICBMs while still retaining a "robust" nuclear arsenal without degrading U.S. national security.[219]

During the Cold War, the United States relied on land-based ICBMs because they were more accurate than the submarine and bomber forces.[220] But the submarine and bomber forces are now highly accurate, thus negating the need for costly land-based ICBMs.[221]

Eliminating land-based ICBMs would generate ample savings to compensate Native peoples.[222] A 2025 CBO report states that "the amounts budgeted for ICBMs would total $140 billion over 10 years, CBO projects—$126 billion for DoD and $14 billion for DOE."[223] The projected $140 billion total is $22 billion more than the CBO's earlier 2023 estimate for the 2023-2032 period.[224] The $22 billion increase in a mere two years reveals the ever-increasing cost of nuclear weaponry, which includes operating, maintaining, and modernizing costs.[225] Moreover, total costs could be higher still because CBO's ICBMs estimate does not include the additional increase in costs for the Sentinel nuclear weapons program, a program discussed below.[226]

B. Cancel the Sentinel Program as an Alternative

Instead of eliminating an entire leg (land-based ICBMs) of the nuclear triad, another option is merely eliminating one weapons program within that land-based leg.[227] This approach has bipartisan support and is technologically achievable.[228] One such weapons program is the Sentinel program, a U.S. Air Force effort to modernize land-based ICBMs by replacing the current Minutemen III missiles.[229] The Minutemen III ICBMs were installed in the 1970s and are currently deployed in nuclear launch facilities in the United States. Sentinel would replace the aging Minutemen III

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218 PERRY & COLLINA, *supra* note 210, at 110.

219 Perry, *supra* note 11.

220 *Id.*

221 *Id.*

222 PERRY & COLLINA, *supra* note 210, at 110.

223 CONG. BUDGET OFF., *supra* note 201, at 12.

224 *Id.*

225 *Id.* at 6.

226 *Id.* at 3.

227 *See* Letter from Union of Concerned Scientists to President Biden & Congress, Scientists Call for Canceling New Land Based Nuclear Missiles (Nov. 15, 2024), https://ucs-documents.s3.us-east-1.amazonaws.com/global-security/Sentinel-Sign-on-Letter-2024.pdf (last updated Nov. 15, 2024) [https://perma.cc/ZD3T-6E25].

228 *See Life-Extending Minuteman III is a Feasible Alternative to Building a New ICBM*, *supra* note 211.

229 CONG. BUDGET OFF., *supra* note 201, at 3.

ICBMs with new missiles and warheads and would also upgrade launch-control facilities and command-and-control systems used to transmit and execute launch orders.[230] Cancelling the Sentinel program will not undermine national security because the current Minutemen III missiles can be updated at a significantly lower cost.[231] Further, the Union of Concerned Scientists supports the cancellation of the Sentinel because it is "expensive, dangerous, and unnecessary."[232]

The Sentinel program has also exceeded its 2024 budget, rising 37% to $131 billion for production costs alone.[233] This represented a "critical" breach[234] of the Nunn-McCurdy Act[235] requiring the Pentagon to reevaluate the program.[236] The Nunn-McCurdy Act[237] seeks to curb cost overruns by terminating weapons programs that experience a "critical" breach—generally involving a 25% or greater increase in total program acquisition unit cost (or 50% increase or greater increase relative to the original baseline estimate).[238] To continue the program, the Secretary of Defense must certify to Congress that the program is essential to national security, no feasible alternatives exist, new cost estimates are reasonable, the program has a higher priority than other programs, and the program's management structure is adequate to control costs.[239] In July 2024, then-Secretary of Defense Lloyd Austin continued the Sentinel program by certifying to Congress that the Sentinel program met the requirements.[240]

Nonetheless, there is precedent for cancelling major weapons programs after a Nunn-McCurdy breach.[241] In 2001, following a Nunn-McCurdy breach, the Navy Area Defense program was cancelled.[242] In 2008, the

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230 *Ripe for Rescission: A Cost-Benefit Analysis of U.S. ICBMs*, TAXPAYERS FOR COMMON SENSE (May 2024), https://www.taxpayer.net/wp-content/uploads/2024/05/5-30-24_Ripe-for-Rescission-A-Cost-Benefit-Analysis-of-U.S.-ICBMs.pdf [https://perma.cc/LMN7-R9FC].

231 *Life-Extending Minuteman III is a Feasible Alternative to Building a New ICBM*, *supra* note 211.

232 Letter from Union of Concerned Scientists, *supra* note 227.

233 *Id.*

234 The Nunn-McCurdy Act, 10 U.S.C. § 4371(a)(3).

235 *Id.* at §§ 4371-4377.

236 Letter from Union of Concerned Scientists, *supra* note 227.

237 10 U.S.C §§ 4371-77.

238 Thomas A. Gabriele, *Could the Weapon Systems Acquisition Reform Act of 2009 Have Fixed the Problems That Plagued the F-22 Acquisition Project Back in 1981?*, 40 PUB. CONT. L.J. 741, 753 (2011).

239 10 U.S.C. § 4376(b)(2)(A)-(E).

240 Brad Dress, *Defense Secretary Continues Sentinel Nuclear Missile Program Despite Soaring Costs*, THE HILL (July 8, 2024), https://thehill.com/policy/defense/4759957-sentinel-nuclear-missile-program-certified [https://perma.cc/FTE5-RSK6].

241 *See* CHARLES V. O'CONNOR & HEIDI M. PETERS, CONG. RSCH. SERV., R41293, THE NUNN-MCCURDY ACT: BACKGROUND, ANALYSIS, AND ISSUES FOR CONGRESS 17 (2016).

242 *Id.*

Armed Reconnaissance Helicopter program was cancelled after breach.[243] In 2009, both the VH-71 Presidential Helicopter program and Joint Tactical Radio System-Ground Mobile Radios program were terminated after Nunn-McCurdy breaches.[244] In 2011, the Joint Tactical Radio System-Ground Mobile Radios system suffered multiple breaches[245] and was cancelled.[246]

When viewed in its entirety, including development, procurement, operation, and sustainment through 2075, the projected cost of the Sentinel program rises to $315 billion.[247]

As with the land-based missile program, members of Congress have called for the examination of alternatives to the Sentinel program.[248] Senator Edward Markey, joined by other senators and representatives, wrote a letter to the Secretary of Defense urging an "honest evaluation of the necessity of proceeding with this program" given the continuous delays and billions in cost overrun.[249] The letter stated that the DoD did not have a blank check to continue "wasteful, unnecessary" weapons programs.[250] A nonpartisan group, Taxpayers for Common Sense, similarly recommends cancelling the Sentinel program because its asserted benefits do not justify its immense cost.[251]

Yet work on the Sentinel program continues.[252] Even as Sentinel program officials are required to restructure the program to control costs, they have proceeded with construction of major facilities, including a command center and a missile handling complex.[253] The Sentinel program's continuation indicates the continuing strength of the military-industrial complex.[254] But as President Eisenhower warned, Americans "must guard

[243] *Id.*

[244] *Id.* at 18.

[245] *Id.* at 18, 22.

[246] Barry Rosenberg, *From Radios to Waveforms: How JTRS is Remaking Itself as JTNC*, DEF. ONE (Sep. 6, 2012), https://www.defenseone.com/defense-systems/2012/09/from-radios-to-waveforms-how-jtrs-is-remaking- itself-as-jtnc/192011 [https://perma.cc/TV8N-LAGY].

[247] *Ripe for Rescission: A Cost-Benefit Analysis of U.S. ICBMs*, *supra* note 230.

[248] ANYA L. FINK, CONG. RSCH. SERV. IF11681, DEFENSE PRIMER: LGM-35A SENTINEL INTERCONTINENTAL BALLISTIC MISSILE (2025).

[249] Letter from Rep. John Garamendi et al. to Lloyd Austin, U.S. Sec'y of Def. 2-3 (June 24, 2024), https://garamendi.house.gov/sites/evo-subsites/garamendi.house.gov/files/evo-media-document/Letter%20to%20Secretary%20Austin%20on%20Sentinel%20Cost%20Overruns-06-24-2024.pdf [https://perma.cc/GB7T-557J].

[250] *Id.* at 3.

[251] *Ripe for Rescission: A Cost-Benefit Analysis of U.S. ICBMs*, *supra* note 230.

[252] Matt Korda & Mackenzie Knight-Boyle, *The Two-Hundred Billion Dollar Boondoggle*, FED'N OF AM. SCIENTISTS (June 24, 2025), https://fas.org/publication/the-two-hundred-billion-dollar-boondoggle [https://perma.cc/GKS7-LAYH].

[253] *Id.*

[254] WILLIAM D. HARTUNG & STEPHEN SEMLER, PROFITS OF WAR: TOP BENEFICIARIES OF PENTAGON SPENDING, 2020–2024, (2025), https://quincyinst.s3.amazonaws.com/wp-

against the acquisition of unwarranted influence" by the military-industrial complex.[255]

C. Retain U.S. Nuclear Missiles in Europe

Eliminating land-based nuclear missiles in the United States does not necessarily require eliminating U.S. land-based nuclear missiles in Europe.[256] Retaining missiles in Europe arguably helps prevent a nuclear arms race.[257] The current U.S. nuclear umbrella protecting Europe removes the need for non-nuclear European nations to manufacture their own nuclear weapons.[258] The U.S. nuclear umbrella incentivizes European leaders to allocate funds to domestic needs rather than to nuclear armaments.[259] But the removal of U.S. nuclear missiles ends U.S. nuclear protection for Europe.[260] This can lead to a nuclear arms race in Europe as non-nuclear European nations engage in self-help measures by creating their own nuclear forces to counter external threats.[261] Such dynamics risk producing a more dangerous world as nations increase rather than decrease nuclear weapons.[262]

In the United States, however, a meaningful reduction can be achieved by eliminating either the land-based leg of the nuclear triad or the Sentinel program, as discussed above. The resulting savings can be used to compensate Native peoples harmed for decades by the U.S. nuclear weapons program.[263]

VI. PROVIDING FUNDS TO NATIVE COMMUNITIES THROUGH SELF-GOVERNANCE COMPACTS

Using the savings from nuclear weapons reduction to compensate Native people could be achieved through *self-governance compacts* between

content/uploads/2025/07/08142811/Profits-of-War_Hartung-and-Semler_Costs-of-War_Quincy-FINAL-1.pdf [https://perma.cc/3QNE-UP7R] (A Joint Report of the Quincy Institute for Responsible Statecraft and Costs of War at Brown University's Watson School of International and Public Affairs).

255 *President Dwight D. Eisenhower, Farewell Address (1961), supra* note 22.

256 PETER ZEIHAN, DISUNITED NATIONS: THE SCRAMBLE FOR POWER IN AN UNGOVERNED WORLD 185 (2020).

257 *Id.*

258 *Id.*

259 *Id.*

260 *Id.*

261 *Id.*

262 Karl-Heinz Kamp, *WHAT IF THE USA CLOSES ITS NUCLEAR UMBRELLA OVER EUROPE?*, GERMAN COUNS. ON FOREIGN REL. (Mar. 17, 2025), https://dgap.org/en/research/publications/what-if-usa-closes-its-nuclear-umbrella-over-europe [https://perma.cc/S83W-UDP4].

263 *See* Forté, *supra* note 63.

a federal agency and a Tribe.[264] These compacts are advantageous because they empower Tribes to determine what is best for their people.[265] Under a self-governance compact, Tribes set priorities, design programs, and manage budgets.[266] Entering into a self-governance compact includes the three phases below.[267]

A. Request Phase

A Tribe must request participation in self-governance by informing the U.S. Department of the Interior.[268] They may do so through a Tribal resolution, a final official action by the Tribal governing body, or both.[269]

B. Planning Phase

A Tribe must successfully complete the planning phase.[270] This phase involves "legal and budgetary research" as well as "internal Tribal government planning, training, and organizational preparation."[271] The Lummi Nation's 1990 compact with the Department of the Interior offers a useful example. Its stated goals included administering programs and services designed by the Lummi Nation to address the needs of their people and according the Nation its rightful place in the "family of governments" within the U.S. polity.[272] To conduct the requisite *legal research*, the Lummi Nation: (1) retained the services of an attorney to provide legal advice; (2) conducted a review of the Lummi Constitution to consider the type of tribal government desired by the Lummi Nation; (3) planned to revise tribal codes, by-laws, and ordinances as needed to align with the expected revised Lummi Constitution; and (4) evaluated the Point Elliot Treaty of 1855 to determine

264 25 U.S.C. § 5362 (2020).

265 JOSEPH P. KALT, AMERICAN INDIAN SELF-DETERMINATION THROUGH SELF-GOVERNANCE: THE ONLY POLICY THAT HAS EVER WORKED 5 (2022), https://ash.harvard.edu/wp-content/uploads/2024/02/native_children_commission_hearing_12-15-22_kalt_statement_vfin2.pdf [https://perma.cc/32UB-GEWJ].

266 *Id.*

267 25 U.S.C.A. § 5362(d)(2)(A)-(B).

268 *Id.* at § 5362(c)(2).

269 25 C.F.R. § 1000.125 (2025). If the request is by a consortium of Tribes, each Tribe's governing body must authorize participation and specify the scope of the consortium's authority to act on behalf of the Tribe. *Id.*

270 25 U.S.C. § 5362(c)(1).

271 *Id.* at § 5362(d)(2)(B)(i)-(ii).

272 LUMMI INDIAN BUSINESS COUNCIL, COMPACT OF SELF-GOVERNANCE BETWEEN THE LUMMI INDIAN NATION AND THE UNITED STATES OF AMERICA (1990), https://cwis.org/wp-content/uploads/documents/premium/280DR00045.pdf [https://perma.cc/UG8N-5CUW].

what rights and authorities it provided to the Lummi Nation in connection with self-governance.[273]

For the *internal planning* component, the Lummi Nation planned to simplify its organizational structure to provide clear lines of responsibility; centralize policymaking to strengthen fiscal control over operations and programs; develop processes to manage conflict within and between tribal groups; establish evaluation criteria and performance measures for programs; and set priorities for the use of funds.[274]

The Tribe's internal findings are then memorialized in a planning report.[275] The report identifies the program the Tribe seeks to include in the compact; describes the planning activities undertaken for those programs; explains the major benefits derived from the planning activities; sets out processes for resolving complaints by individuals served by the program; describes the organizational planning completed; explains how the funding priorities will be set; and indicates whether the Tribe's organizational structure is prepared to assume self-governance.[276]

C. Demonstration of Financial Stability Phase

A Tribe must demonstrate, for the three years preceding its request for self-governance, financial stability and financial management capability to administer federal funds.[277] If the Tribe has not previously received federal funds, then there's no audit trail of misuse, and therefore no problem.[278] However, if the Tribe has received federal funds in the past and an audit reveals financial problems, then the Tribe must provide documentation showing the financial problems have been corrected.[279]

Once the threshold requirements are met, a self-governance compact can enable a Tribe to direct "nuclear dividend" funding toward community-defined needs.[280] The compact creates a government-to-government relationship whereby the Tribe sets its own priorities.[281] Based on those priorities, the Tribe develops programs, activities, and services for its

[273] LUMMI INDIAN NATION, TOWARD SELF-GOVERNANCE IN INDIAN COUNTRY: A REPORT TO THE UNITED STATES SENATE SELECT COMMITTEE ON INDIAN AFFAIRS, 3-4 (1989), https://www.tribalselfgov.org/wp-content/uploads/2021/06/Toward-Self-Governance-in-Indian-Country-Report-to-US-Senate-on-Progress-in-The-Self-Governance-Planning-Process.pdf [https://perma.cc/V5WB-BHHP].

[274] *Id.* at 5.

[275] *Id.*

[276] *Id.*

[277] 25 U.S.C. § 5362(c)(3).

[278] 25 C.F.R. § 1000.125(c) (2025).

[279] *Id.* at § 1000.125(c).

[280] LUMMI INDIAN BUSINESS COUNCIL, *supra* note 272, at 1.

[281] *Id.*

people.[282] For the Lummi Nation, the benefits of self-governance included major improvements in providing basic health services (including dental and vision care), the creation of a Tribal Veterans Office to assist the nearly 25% of its members who were veterans or dependents of veterans, increased participation in Tribal governance through increased electoral participation, and maximized accountability by ensuring Tribal members can participate in creating the Lummi Nation budget.[283] In this way, a self-governance compact provides funding accountability while also creating a government-to-government relationship that benefits the Tribe.[284]

CONCLUSION

"Disarmament . . . is a continuing imperative," President Eisenhower affirmed.[285] He witnessed the horrors of World War II and realized that a future war involving nuclear weapons "could utterly destroy this civilization."[286] But even absent a nuclear war, nuclear weapons have been harming people, especially Native people, for generations. Nuclear weapons production and testing have contaminated Native people and their land for decades. Accordingly, nuclear weapons reduction is needed not only to preserve humanity but also to remedy the harm to Native people caused by the U.S. nuclear weapons complex. Using the money saved through nuclear weapons reduction to remedy the harm to Native people and their land is thus both fitting and necessary. As Navajo Nation President Nygren declared, "Acknowledging the harm done means . . . compensat[ing] all those impacted by the harms of the nuclear age."[287]

[282] *Id.*

[283] *Id.*; *To Amend the Indian Self-Determination and Education Assistance Act to Provide for Further Self-Governance by Indian Tribes*, 106th Cong. 81-82 (1999) (prepared statement of Henry Cagey, Business Council member, Lummi Indian Nation), https://www.govinfo.gov/content/pkg/CHRG-106shrg58370/pdf/CHRG-106shrg58370.pdf [https://perma.cc/U8EK-H8TQ].

[284] LUMMI INDIAN BUSINESS COUNCIL, *supra* note 272, at 1.

[285] *President Dwight D. Eisenhower, Farewell Address (1961), supra* note 22.

[286] *Id.*

[287] Buu V. Nygren, *The Navajo Suffered From Nuclear Testing. Oppenheimer Doesn't Tell Our Story*, TIME (July 21, 2023), https://time.com/6296470/oppenheimer-navajo-uranium-mining-essay [https://perma.cc/7V53-LENS].