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Wind River Dumps: Trash to Treasure

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COMMENT

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*Elizabeth Stephani**

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I. INTRODUCTION

In 1870s Industrial America, streets were filled with debris, waterways were contaminated, and open fields became post-apocalyptic visions of burning garbage.¹ During this time, Native American tribes occupied much of the American West, including the Eastern Shoshone who occupied forty-four million acres straddling the continental divide.² In exchange for governmental services such as healthcare, education, and infrastructure development, however, the Eastern Shoshone agreed to give up the majority of their homeland.³ The Second Fort Bridger Treaty, signed by Eastern Shoshone tribal leaders and President Andrew Johnson, memorialized this agreement and created the Wind River Reservation as a “permanent home” for the tribe.⁴ A few years later, the federal government escorted the Northern Arapaho tribe, hailing from the headwaters of the Arkansas and Platte Rivers, to the Wind River Reservation as well, forcing these two sovereign nations to share the land equally.⁵

It has been one hundred and fifty years since the Eastern Shoshone agreed to truncate their land in exchange for federal government support, and yet, piles of burning trash currently prevail across the Wind River Reservation’s landscape.⁶ The few governmental services offered today are a far cry from what the federal government promised, and must be shared equally between the Eastern Shoshone and Northern Arapaho tribes.⁷ Even worse, the Eastern Shoshone and Northern

¹ Garrick E. Louis, *A Historical Context of Municipal Solid Waste Management in the United States*, 22 WASTE MGMT. & RSCH. 306, 308 (2004); David Moberg, *Garbage*, CHICAGO READER (Sept. 19, 1991), www.chicagoreader.com/chicago/garbage/Content?oid=878285 [<https://perma.cc/4JJR-PFAK>]; DADE W. MOELLER, ENVIRONMENTAL HEALTH 215 (3d. ed. 2005).

² Wyo. State Historical Society, *The Arapaho Arrive: Two Nations on One Reservation*, WYO-HISTORY.ORG (June 23, 2018), www.wyohistory.org/encyclopedia/arapaho-arrive-two-nations-one-reservation [<https://perma.cc/9QFV-8RQ8>].

³ Treaty with the Eastern Band Shoshoni and Bannock, Shoshoni-Bannock-U.S., art. X, July 3, 1868, 15 Stat. 673 (“ARTICLE X. The United States hereby agrees to furnish annually to the Indians the physician, teachers, carpenter, miller, engineer, farmer, and blacksmith, as herein contemplated, and that such appropriations shall be made from time to time, on the estimates of the Secretary of the Interior, as will be sufficient to employ such persons.”).

⁴ *Id.* at art. IV; Wyo. State Hist. Soc’y, *Coming to Wind River: The Eastern Shoshone Treaties of 1863 and 1868*, WYO-HISTORY.ORG (May 23, 2018), www.wyohistory.org/encyclopedia/coming-wind-river-eastern-shoshone-treaties-1863-and-1868#:~:text=The%20second%20treaty%2C%20signed%20in,of%20around%202.3%20million%20acres [<https://perma.cc/VX83-96JT>] (“Early in July 1863, the leaders of a variety of different Shoshone bands including Norkok, Bazil, Washakie and about 10 others, signed a treaty at Fort Bridger with representatives of the Indian Bureau.”).

⁵ *Location*, N. ARAPAHO TRIBE, northernarapaho.com/wp/location/ (last visited Sept. 16, 2020) [<https://perma.cc/8Q74-9VNA>]; see *infra* note 312–16 and accompanying text.

⁶ Wyo. Legislature, *Select Committee on Tribal Relations Meeting*, YOUTUBE (Sept. 15, 2020), www.youtube.com/watch?v=v5PAeCYdfnw&t=4303s.

⁷ *Id.*

Arapaho have been left to manage their waste on the reservation with weak infrastructure and limited funding.⁸ As a result, there are currently no landfills on the reservation, and unregulated open dumps pose an ongoing threat to both the Wind River environment and health of tribal members.⁹

Although open dumps persist on the reservation, and waste management infrastructure is only beginning to develop, tribal leaders have long articulated a markedly different set of environmental priorities.¹⁰ In a plea to the Environmental Protection Agency (EPA) for more regulatory independence in managing the Wind River environment, the leaders stated, “[t]he earth, water, and sky together sustain us as a people and . . . we are related to all the animals and other living things such as plants, trees, rocks, and soils. What affects all living things will also affect us.”¹¹ Tribal members echo this philosophy by calling for solutions to the open dumps.¹²

Unfortunately, solutions to open dumping on the Wind River Reservation are stifled by regulatory gaps and statutory ambiguity.¹³ Too often, tribal advocacy falls on the deaf ears of the federal government and the consequences are dire.¹⁴ Poorly managed waste facilities, open dumps, and informal waste management strategies produce toxic fumes, contaminate drinking water, or otherwise harm community members.¹⁵ Because the health and safety of a community’s membership is inherently tied to waste management, thoughtful waste management systems are both extremely necessary and in high demand on the Wind River Reservation.¹⁶

⁸ See SELECT COMM. ON TRIBAL REL., WYO. LEG., SUMMARY OF PROCEEDINGS: NOV. 13–14, 4 (2018); E-mail from James Trosper, Dir., High Plains Am. Indian Rsch. Inst., to author (June 11, 2020, 9:50 PM) (on file with author). See generally *NANRO Presentation to Select Committee on Tribal Relations*, WYOLEG.GOV, [wyoleg.gov/InterimCommittee/2018/STR-201811133-07NANROPresentationtoSelectCommitteeonTribalRelations.pdf](https://www.wyoleg.gov/InterimCommittee/2018/STR-201811133-07NANROPresentationtoSelectCommitteeonTribalRelations.pdf) (last visited Nov. 11, 2020) [<https://perma.cc/W3XH-HRHM>].

⁹ See SUMMARY OF PROCEEDINGS: NOV. 13–14, *supra* note 8, at 4; E-mail from James Trosper, *supra* note 8; *NANRO Presentation*, *supra* note 8.

¹⁰ Memorandum from Carl Daly, Dir., EPA Region 8 Air Program, and Alfreda Mitre, Dir., EPA Region 8 Tribal Assistance Program to Shaun L. McGrath, Reg’l Adm’r, EPA Region 8 (July 2, 2013), www.epa.gov/sites/production/files/2013-12/documents/attachment2capabilitystatement_0.pdf [<https://perma.cc/9WJA-YBXQ>].

¹¹ *Id.*

¹² See E-mail from James Trosper, *supra* note 8.

¹³ See *infra* Sections IV.B., V.A.2.

¹⁴ See SUMMARY OF PROCEEDINGS: NOV. 13–14, *supra* note 8, at 4; *NANRO Presentation*, *supra* note 8.

¹⁵ See ROMEELA MOHEE & MUHAMMAD ALI ZUMAR BUNDHOO, FUTURE DIRECTIONS OF MUNICIPAL SOLID WASTE MANAGEMENT IN AFRICA: A COMPARATIVE ANALYSIS OF SOLID WASTE MGMT. IN DEVELOPED AND DEVELOPING COUNTRIES 6, 7, 16 (Romeela Mohee and Thokozani Simelane eds., 2015).

¹⁶ *Id.*

While open dumping poses a grave threat to the livelihood of communities, waste can be a tool for revitalization.¹⁷ Because waste is a necessary corollary to production, waste management plays a critical role in the development of societies.¹⁸ Proper waste management contributes directly to economic growth by creating jobs to construct and operate landfills, or by producing energy through waste-to-energy technology.¹⁹ With astronomically high unemployment rates, the Northern Arapaho and Eastern Shoshone tribes are seeking to develop and grow their economies.²⁰ Building sustainable systems to manage waste offers an opportunity to transform open dumps into substantial and profitable enterprises.²¹ This eradication of open dumps on the Wind River Reservation, however, requires federal governmental initiative to boldly invest in long-term waste management strategies.²²

¹⁷ *Unemployment on Indian Reservations at 50 Percent: The Urgent Need to Create Jobs in Indian Country*, Hearing Before the S. Comm. On Indian Affairs, 107th Cong., S. Hrg. 111-580 (2010), www.govinfo.gov/content/pkg/CHRG-111shrg57830/html/CHRG-111shrg57830.htm [<https://perma.cc/54HQ-5QRN>].

¹⁸ Louis, *supra* note 1, at 307 (“Waste generation has long been a consequence of human activity. From food and agricultural refuse to discarded consumer products and their packaging, solid waste is material that is no longer desirable to the generator in its existing form. After some period of accumulation following its generation, waste management essentially consisted of material removal and treatment either for reuse, recovery or disposal.”); *see also* David Glanton, *Energy Gone to Waste: A Case for Promoting Waste-to-Energy Power Generation over Landfills*, 5 GEO. WASH. J. ENERGY & ENV’T. L. 85, 85–86 (2014).

Sweden, for example, has utilized waste as a source of income. Patrick J. Kiger, *Sweden is Great at Turning Trash to Energy*, HOWSTUFFWORKS (July 9, 2018), science.howstuffworks.com/environmental/green-tech/energy-production/sweden-is-great-at-turning-trash-to-energy.htm [<https://perma.cc/3DYY-4TKJ>]. The Swedish government operates 33 waste-to-energy plants and imports waste from the U.K. and Norway, sending just one percent of waste to landfills. *Id.*; *see e.g.*, *Sweden Imports British Waste to Heat Homes – but Where’s the Post-Brexit Solution?*, THE LOCAL (Nov. 12, 2018), www.thelocal.se/20181112/sweden-imports-british-waste-to-heat-homes-but-where-the-post-brexit-solution; Amy Yee, *In Sweden, Trash Heats Homes, Powers Buses and Fuels Taxi Fleets*, N.Y. TIMES (Sept. 21, 2018), www.nytimes.com/2018/09/21/climate/sweden-garbage-used-for-fuel.html; *see infra* notes 376–78 and accompanying text.

¹⁹ Kevin Gover & Jana L. Walker, *Escaping Environmental Paternalism: One Tribe’s Approach to Developing a Commercial Waste Disposal Project in Indian Country*, 63 U. COLO. L. REV. 933, 936 (1992); *see* MOHEE & BUNDHOO, *supra* note 15, at 18–20.

²⁰ *Unemployment on Indian Reservations*, *supra* note 17, at 58.

²¹ David Glanton, *supra* note 18, at 87.

Sweden provides a blueprint for how to transform trash into fuel for a growing economy by funding nationwide recycling initiatives. Chan Kin & Renee Mauborgne, *From Trash to Treasure: Sweden’s Recycling Revolution*, BLUE OCEAN, www.blueoceanstrategy.com/blog/trash-treasure-sweden-recycling-revolution/#:~:text=By%20turning%20trash%20into%20energy,the%20remaining%2047%25%20gets%20recycled (last visited Dec. 17, 2020) [<https://perma.cc/YUH6-JGZK>]. By implementing the blue ocean strategy, Sweden invested in education and infrastructure to create a multi-million-dollar recycling industry. *Id.*

²² *See* EJ 2020 ACTION AGENDA: THE EPA’S ENVIRONMENTAL JUSTICE STRATEGIC PLAN FOR 2016–2020 iii, iv (2016) (“Goal II: Work with partners to expand our positive impact within overburdened communities . . . work with tribal governments to build tribal capacity and promote tribal action on environmental justice . . .”).

This comment advocates for a collaborative investment by federal agencies, the state of Wyoming, and the Eastern Shoshone and Northern Arapaho tribes, to eradicate open dumps through a pilot waste-to-energy program on the Wind River Reservation.²³ Part II provides an overview of evolving waste management strategies in America.²⁴ Part III then discusses the regulation of waste in the state of Wyoming.²⁵ Part IV analyzes how the Environmental Protection Agency (EPA) and tribal governments interrelate by discussing tribal sovereignty in light of national environmental regulation.²⁶ Part V explores recent efforts to curtail open dumps on the Wind River Reservation and analyzes administrative, structural, and jurisdictional challenges involved in the regulation of solid waste.²⁷ Part VI offers innovative solutions for tribal leaders by reimagining waste management on the Wind River Reservation as an opportunity for the EPA to champion Indian self-determination.²⁸ Part VI proposes the Eastern Shoshone and Northern Arapaho tribes implement a waste-to-energy plant on the Wind River Reservation.²⁹

II. AN OVERVIEW OF MUNICIPAL SOLID WASTE MANAGEMENT IN AMERICA

Municipal solid waste refers to everyday garbage such as product packaging, food scraps, and newspapers.³⁰ The management of this waste, therefore, encompasses environmental regulation, governmental administration, the market, and technology.³¹ Waste, and its management, can only be understood within

²³ See *infra* Part VI.

²⁴ See *infra* Part II.

²⁵ See *infra* Part III.

²⁶ See *infra* Part IV.

²⁷ See *infra* Part V.

²⁸ See *infra* Part VI.

²⁹ See *infra* Part VI.

³⁰ *Municipal Solid Waste*, U.S. ENV'T PROT. AGENCY ARCHIVE, archive.epa.gov/epawaste/nonhaz/municipal/web/html/ [<https://perma.cc/NAG8-UM8D>].

³¹ Louis, *supra* note 1, at 306.

Waste management dovetails with environmental regulation because the improper disposal of municipal waste could harm the environment and therefore violate existing regulation. See *id.* In the 1800s, “recurrent epidemics forced efforts to improve public health and the environment.” *Id.*

Waste management involves governmental administration because local governments often either facilitate or directly provide residential waste services such as curbside pick-up. See *id.* In the 1880s, “George Waring of New York City organized solid waste management around engineering unit operations; including street sweeping, refuse collection, transportation, resource recovery and disposal.” *Id.*

Waste management may be influenced by market forces to encourage greater collection of recyclable materials and the regionalization of waste. See *id.* In the late 1980s and early 1990s, “private companies assumed an expanded role in [municipal solid waste management] through regional facilities that required the transportation of [municipal solid waste] across state lines.” *Id.*

Waste management may be improved through technological innovations. See *id.* Today, municipal solid waste management in America “consists of a mixture of landfill, incineration, recycling, and composting.” *Id.*

the larger political and economic landscape.³² As the EPA's waste regulations become stricter, technology more advanced, and the market globalized, the United States' approach to waste management must change accordingly.³³ Because many Wyoming municipalities still use landfills as a primary method for waste disposal, there are opportunities for bolder cooperation between federal agencies, the state of Wyoming, and sovereign tribes to pioneer waste-to-energy facilities in America.³⁴ An overview of the landmark environmental legislation, the Resource Conservation and Recovery Act (RCRA), provides a backdrop to better understand the current political landscape of waste in the United States.³⁵ Further, regionalization of waste in the United States lays the foundation for coalition building between the EPA and Wind River tribes to eradicate open dumps on the Wind River Reservation.³⁶

A. *Historical Background on Waste Management in the United States*

Before 1850, the United States lacked formal waste management systems.³⁷ As the United States' urban populations increased, waste accumulated in open dumps.³⁸ Cities would then set fire to those dumps to prevent rodents and insects from further contaminating the waste.³⁹ Between 1920 and 1962, sanitary landfills largely replaced open dumps, ushering the United States into a new era of regulated waste disposal.⁴⁰

³² *Id.*

³³ *Id.*

³⁴ See *Tool 12. How to Develop Regional Programs*, WYO. DEP'T OF ENV'T QUALITY 12-1, deq.wyoming.gov/media/attachments/Solid%20%26%20Hazardous%20Waste/Integrated%20Solid%20Waste/Guidance%20%26%20Forms/1996-0101_SHWD_Solid-Waste_Wyoming-ISWM-Management-Handbook-Chapter-12.pdf (last visited Dec. 17, 2020) [<https://perma.cc/TY5N-HG39>].

The regionalization of solid waste management is the consolidation of local landfills into regional waste districts. See *id.* at 12-5 to 12-8. In Wyoming, regional waste districts include the Fremont County Solid Waste Disposal District. *About Us*, FREMONT CNTY. SOLID WASTE DISPOSAL DIST., trashmatters.org/?page_id=45 (last visited Dec. 17, 2020) [<https://perma.cc/2M24-ZGHB>] (“The Fremont County Solid Waste Disposal District operates 18 permitted solid waste handling facilities, including four permitted landfills.”).

³⁵ See *infra* Section II.A.

³⁶ See *infra* Section II.B.

³⁷ See Louis, *supra* note 1, at 309.

For example, until 1833, the city of Chicago allowed its residents to dump dead animals into the Chicago River, even though this body of water served as the primary source of drinking water for the city at the time. See John H. Rauch, *Chicago-River Pollution*, 6 *Science* 27 (1885).

³⁸ MOELLER, *supra* note 1, at 215; Louis, *supra* note 1, at 316.

³⁹ MOELLER, *supra* note 1, at 215; Louis, *supra* note 1, at 316.

⁴⁰ MOELLER, *supra* note 1, at 215; Louis, *supra* note 1, at 316.

In 1976, Congress enacted RCRA; a landmark environmental bill that banned open dumps altogether.⁴¹ In creating RCRA, Congress delegated municipal solid waste management to the states, while providing states or regional authorities with financial and technical assistance to encourage responsible and environmentally conscious waste disposal methods.⁴² Under RCRA, “open dumps” are differentiated from sanitary landfills, a disposal method encouraged under RCRA, by the greater threat that open dumps pose to both human and environmental health.⁴³ Open dumps are essentially unregulated collections of waste upon the environment, whereas sanitary landfills seek to isolate waste from the environment.⁴⁴ As a result, open dumps contaminate drinking water and pollute the air and land.⁴⁵ To effectively ban open dumps, RCRA described alternative waste disposal methods and sets standards for disposal facilities to protect the environment.⁴⁶

As the United States transitioned to eliminate open dumping, the EPA emerged as a federal regulatory body to enforce these changes and protect natural resources.⁴⁷ To start, the EPA established the criteria for Municipal Solid Waste landfills under RCRA and the Clean Water Act.⁴⁸ To protect human health and the environment, the EPA restricted the locations where landfills could be built, outlined operating standards for landfill facilities, and mandated the monitoring

⁴¹ 42 U.S.C. § 6944(b) (“For purposes of complying with section 6943(2) each State plan shall prohibit the establishment of open dumps and contain a requirement that disposal of all solid waste within the State shall be in compliance with such section 6943(2).”). See generally Symposium, William L. Kovacs & Anthony A. Anderson, *States as Market Participants in Solid Waste Disposal Services – Fair Competition or the Destruction of the Private Sector?*, 18 ENV’T L. 779, 781 (1988).

⁴² 42 U.S.C. § 6941 (“[A]ssist in developing and encouraging methods for the disposal of solid waste which are environmentally sound and which maximize the utilization of valuable resources including energy and materials which are recoverable from solid waste and to encourage resource conservation. Such objectives are to be accomplished through Federal technical and financial assistance to States or regional authorities for comprehensive planning pursuant to Federal guidelines designed to foster cooperation among Federal, State, and local governments and private industry.”).

⁴³ See *id.*; *id.* § 6903(14).

⁴⁴ See *id.* § 6903; *Basic Information About Landfills*, U.S. ENV’T PROT. AGENCY, www.epa.gov/landfills/basic-information-about-landfills (last visited Dec. 17, 2020) [<https://perma.cc/5CZV-FZ98>].

⁴⁵ See 42 U.S.C. § 6941; *id.* § 6903(14).

⁴⁶ *Id.* § 6941; *id.* § 6903(14).

⁴⁷ James M. Grijalva, *The Origins of the EPA’s Indian Program*, 15 KAN. J.L. & PUB. POL’Y 191, 196 (2006); see William D. Ruckelshaus, *Looking Back; Looking Ahead*, 16 EPA J. 14, 16 (1990). See generally David Pomper, *Recycling Philadelphia v. New Jersey: The Dormant Commerce Clause, Postindustrial “Natural” Resources, and the Solid Waste Crisis*, 137 U. PA. L. REV. 1309, 1310 (1989).

⁴⁸ Criteria for Municipal Solid Waste Landfills, 40 C.F.R. § 258.1 (2020).

of groundwater.⁴⁹ The EPA also mandated that owners of waste management facilities take corrective action when groundwater is contaminated.⁵⁰

To achieve greater RCRA compliance, the EPA also prioritizes waste-minimization.⁵¹ Waste-minimization involves both reducing the amount of waste generated and prioritizing the recycling of materials whenever possible.⁵² There are two ways to analyze how waste is produced, handled, and disposed.⁵³ The first analysis focuses on manufacturers, who may reduce waste by modifying product design and package design, substituting materials, and utilizing the latest technology to streamline the production process.⁵⁴ If manufacturers' were to account for waste by incorporating the cost of waste into the cost of production, producers would naturally decrease or minimize their waste.⁵⁵

Once the waste has been produced, the second analysis focuses on the reduction of consumer waste.⁵⁶ Minimizing consumer waste can be achieved by encouraging consumers to buy products that are easily recyclable or to buy in bulk.⁵⁷ Consumer waste also involves the physical transferring of waste from consumers to waste transfer sites.⁵⁸ Educational programs can encourage consumers to separate waste or re-use products and thereby divert waste from open dumps and landfills.⁵⁹ Proper infrastructure to facilitate waste collection deters open dumping because citizens have real and tangible alternatives to dumping.⁶⁰ Moreover, waste minimization leads to safer disposal practices at landfills by reducing the

⁴⁹ *Id.* § 258.10–.39, .50–.59.

⁵⁰ *Id.* § 258.58. “Based on the schedule established under §258.57(d), for initiation and completion of remedial activities, the owner/operator must [] establish and implement a corrective action ground-water monitoring program,” taking into consideration factors such as (1) “meet[ing] the requirements of an assessment monitoring program under §258.55,” and (2) “indicat[ing] the effectiveness of the corrective action remedy,” among others. *Id.*

⁵¹ See EPA WASTE MINIMIZATION TASK GROUP, THE RCRA WASTE MINIMIZATION ACTION PLAN 1, 3–4 (1992).

⁵² Cynthia Folkerts & Elaine Eby, *A Federal Perspective on Waste Minimization*, 13 COLUM. J. ENV'TL L. 293, 293 (1988).

⁵³ MOHEE & BUNDHOO, *supra* note 52, at 7.

⁵⁴ *Id.* at 7–8.

⁵⁵ See Linda Guinn, *Pollution Prevention and Waste Minimization*, 9 NAT. RES. & ENV'T 10 (1994).

For example, Crown Fiberglass, a company in North Orville, Ohio adopted an on-site solvent recovery process, which reduced its waste volume by ninety percent. Folkerts & Eby, *supra* note 52, at 295.

⁵⁶ MOHEE & BUNDHOO, *supra* note 15, at 7.

⁵⁷ *Id.* at 8.

⁵⁸ *Id.* at 7.

⁵⁹ See *id.* at 7–8.

⁶⁰ *Id.* at 8, 16.

volume of waste and associated risks.⁶¹ The less waste processed at a landfill, the less waste leaks through the landfill liners and contaminates the surrounding water, land, and air.⁶² Therefore, to protect human health and the environment, the EPA encourages consumers and manufacturers to minimize waste.⁶³

B. The Regionalization of Waste Facilities in America

Following the implementation of RCRA regulations, waste management in America continued to evolve as local waste facilities consolidated into regional waste facilities.⁶⁴ During this time in the late 20th century, companies unveiled their latest product models in the growing American economy, consumerism increased, and waste proliferated.⁶⁵ The increase in waste caused a “not-in-my-backyard” or “NIMBY-ism” effect, which stigmatized landfills and encouraged their consolidation away from residential areas.⁶⁶ Simultaneously, federal government regulations under RCRA caused an increase in the cost to own and operate local disposal facilities.⁶⁷ Therefore, as local disposal of waste became politically unpopular, it also caused a strain on local government budgets.⁶⁸ All of these forces culminated in the regionalization of waste facilities in America by the late 1980’s.⁶⁹ Local landfills closed and began exporting waste to regional waste facilities, some privately owned, that could handle municipal solid waste from multiple localities.⁷⁰ These regional facilities could better comply with federal regulations and accommodate the effects of NIMBY-ism in local communities.⁷¹

⁶¹ MOELLER, *supra* note 1, at 226.

⁶² *Sustainable Materials Management: Non-Hazardous Materials and Waste Management Hierarchy*, U.S. ENV’T PROT. AGENCY, www.epa.gov/smm/sustainable-materials-management-non-hazardous-materials-and-waste-management-hierarchy#Source_Reduction (last visited Dec. 17, 2020) [<https://perma.cc/F72B-D9JF>]; SCOTT C. CHRISTENSON & ISABELLE M. COZZARELLI, U.S. GEOLOGICAL SURV., *THE NORMAN LANDFILL ENVIRONMENTAL RESEARCH SITE: WHAT HAPPENS TO THE WASTE IN LANDFILLS?* (Ctr. for Health, Env’t & Justice ed., 2016).

⁶³ See Guinn, *supra* note 55, at 10.

⁶⁴ See *infra* notes 67, 68 and accompanying text.

⁶⁵ Austin Thompson, *19th Century Consumerism: Timeline*, ARCGIS, www.arcgis.com/apps/Cascade/index.html?appid=65b706809a524f94bdf1bf15b4b4b0ce (last visited Dec. 17, 2020) [<https://perma.cc/9BJT-2D89>].

⁶⁶ Louis, *supra* note 1, at 316; Kovacs & Anderson, *supra* note 41, at 781; Karl L. Guntermann, *Sanitary Landfills, Stigma and Industrial Land Values*, 10 J. REAL ESTATE RSCH. 531, 532 (1995).

⁶⁷ Kovacs & Anderson, *supra* note 41, at 781.

⁶⁸ See MOELLER, *supra* note 1, at 216; Kovacs & Anderson, *supra* note 41, at 781; Louis, *supra* note 1, at 318.

⁶⁹ See MOELLER, *supra* note 1, at 216; Kovacs & Anderson, *supra* note 41, at 781; Louis, *supra* note 1, at 318.

⁷⁰ See MOELLER, *supra* note 1, at 216; Kovacs & Anderson, *supra* note 41, at 781; Louis, *supra* note 1, at 318.

⁷¹ See MOELLER, *supra* note 1, at 216; Kovacs & Anderson, *supra* note 41, at 781; Louis, *supra* note 1, at 318.

Within ten years, these regional waste management systems facilitated the interstate transportation of waste to even larger waste facilities.⁷²

While the interstate waste transportation solved for NIMBY-ism regionally, it soon gave way to an explosion of NIMBY-ism on a national scale.⁷³ States like Ohio and Tennessee began to ban or fine waste imports to prevent the establishment of a waste industry headquartered within their borders.⁷⁴ The United States Supreme Court's ruling in *City of Philadelphia v. New Jersey*, however, pushed back on these efforts to suppress the waste industry and protected the movement of waste under the Commerce Clause of the United States Constitution.⁷⁵ In that case, a New Jersey statute banned the importation of waste from outside the state's territorial limits.⁷⁶ Private landfills in New Jersey, along with several waste-exporting cities, brought a constitutional claim against the state of New Jersey and its Department of Environmental Protection.⁷⁷ These parties claimed that the ban on interstate commerce of waste should be deemed unconstitutional because it violated the Commerce Clause of the United States Constitution.⁷⁸ The Commerce Clause prevents states from engaging in protectionism by unfairly discriminating against out-of-state goods and services. Essentially, the Commerce Clause guarantees that all states enjoy equal commercial footing under a uniform set of regulations by ensuring that the federal government, not states, regulate interstate commerce.⁷⁹

While proponents of the New Jersey statute cited environmental and health concerns surrounding the import of waste, its critics argued that these arguments were shallow excuses to discriminate against out-of-state waste.⁸⁰ The parties opposed to the ban argued that the New Jersey statute would stifle the private waste industry while protecting New Jersey waste facilities from competition.⁸¹

⁷² See MOELLER, *supra* note 1, at 216; Kovacs & Anderson, *supra* note 41, at 781; Louis, *supra* note 1, at 318.

⁷³ See Kovacs & Anderson, *supra* note 41, at 783–86.

⁷⁴ *Id.* at 784.

⁷⁵ See *id.* at 788–91; Louis, *supra* note 1, at 319; *City of Phila. v. New Jersey*, 437 U.S. 617 (1978).

⁷⁶ N.J. STAT. ANN. §§ 13:1-9, 13:1-10 (repealed 1981); *City of Phila.*, 437 U.S. at 619.

⁷⁷ *City of Phila.*, 437 U.S. at 619.

⁷⁸ *Id.*

⁷⁹ *Veazie v. Moor*, 55 U.S. 568, 574 (1852) (“Th[e] design and object of that power, as evinced in the history of the Constitution, was to establish a perfect equality amongst the several States as to commercial rights, and to prevent unjust and invidious distinctions, which local jealousies or local and partial interests might be disposed to introduce and maintain. These were the views pressed upon the public attention by the advocates for the adoption of the Constitution.”).

⁸⁰ *City of Phila.*, 437 U.S. at 625–26 (“[W]hile outwardly cloaked in the ‘currently fashionable garb of environmental protection,’ . . . is actually no more than a legislative effort to suppress competition and stabilize the cost of solid waste disposal for New Jersey residents . . .”).

⁸¹ *Id.* at 626.

Without imports of waste from other states, the private waste industry would be less profitable and eventually be driven out of New Jersey.⁸² Meanwhile, local New Jersey waste facilities could utilize local landfills for a longer amount of time and avoid the expense of eventually shipping local waste to more distant disposal sites.⁸³ More immediately, states that relied on the New Jersey waste disposal industry such as New York would be forced to dispose of their waste elsewhere.⁸⁴ Therefore, the Court held that the New Jersey statute's ban on outside waste amounted to a discriminatory regulation against out-of-state waste, which is impermissible under the Commerce Clause of the Constitution.⁸⁵ In short, waste from New Jersey is no less harmful than waste from New York.⁸⁶ Therefore, waste disposal may enjoy the same Commerce Clause protections as any other good or service and be traded freely across state lines.⁸⁷

III. SOLID WASTE MANAGEMENT IN WYOMING

Nevertheless, the state of Wyoming may independently manage its waste by regulating waste disposal districts within the state.⁸⁸ Under RCRA, states are afforded sovereignty to implement statewide regulations for waste disposal.⁸⁹ The state regulations, however, must match or exceed federal standards.⁹⁰ Additionally, states must complete two phases of an authorization process to administer RCRA programing independently.⁹¹ As of 1995, the state of Wyoming became fully

⁸² *See id.*

⁸³ *Id.*

⁸⁴ *Id.* at 629.

⁸⁵ *Id.*

⁸⁶ *Id.*

⁸⁷ *See id.*; Kovacs & Anderson, *supra* note 41, at 785–87.

Even after the United States Supreme Court decided *City of Philadelphia*, some municipalities still practiced NIMBY-ism by shipping waste internationally to the Caribbean, Africa, and South America. Kovacs & Anderson, *supra* note 41, at 783. Similar to domestic waste controversies, the global waste trade is both criticized as “slow violence” inflicted on poor counties and praised as an economic stimulus offered to the developing world. ROB NIXON, *SLOW VIOLENCE AND THE ENVIRONMENTALISM OF THE POOR 2* (2011); *Global Trade Liberalization and the Developing Countries, II. The Benefits of Trade Liberalization*, INT’L MONETARY FUND (Nov. 2001), www.imf.org/external/np/exr/ib/2001/110801.htm#ii [<https://perma.cc/C94A-5W62>].

⁸⁸ WYO. STAT. ANN. § 35-11-508 (2020).

⁸⁹ 42 U.S.C. § 6929; John C. Chambers Jr. & Peter L. Gray, *EPA and State Roles in RCRA and CERCLA*, 4 NAT. RES. & ENV’T 7, 7 (1989).

For example, when the Army Corps of Engineers challenged Washington’s ability to permit landfills in wetland areas, the Ninth Circuit Court of Appeals held that authority for permitting landfills is delegated to the states. *See Res. Invs. v. U.S. Army Corps of Eng’rs*, 151 F.3d 1162, 1169 (9th Cir. 1998).

⁹⁰ 42 U.S.C. § 6929; Chambers Jr. & Gray, *supra* note 89, at 7.

⁹¹ *See* Chambers Jr. & Gray, *supra* note 89, at 7.

authorized to administer permits for municipal solid waste landfills in accordance with federal solid waste standards.⁹² Even before RCRA was enacted, however, Wyoming had its own body of solid waste laws.⁹³ Those laws covered a variety of topics such as prohibiting dumping on public lands and establishing zoning regulations and public health boards.⁹⁴

Wyoming Statute Section 35-11-503, passed in 2012, articulated the state's authority to promulgate rules and regulations for solid waste management across the state while clarifying Wyoming's waste disposal standards to satisfy RCRA.⁹⁵ For example, Wyoming Statute Section 35-11-508 outlines commercial waste disposal standards akin to federal environmental standards for waste disposal.⁹⁶ This statute requires solid waste to be processed using acceptable methods such as grinding, shredding, incineration, or composting.⁹⁷ Additionally the Solid Waste Program within the Wyoming Department of Environmental Quality oversees landfills and assists in their design, construction, and operation to meet federal standards under RCRA.⁹⁸ Within the larger statutory landscape of waste management standards for Wyoming, local ordinances also exist to protect the environment from open dumps.⁹⁹ Teton County's zero waste initiative provides a path to improve statewide recycling and waste minimization.¹⁰⁰ Already, waste facilities are consolidating in Wyoming to achieve more cost-effective compliance

⁹² Wyoming; Final Determination of Partial Program Adequacy of the State's Municipal Solid Waste Permit Program, 60 Fed. Reg. 19,251, 19,252 (Apr. 17, 1995).

⁹³ See U.S. ENV'T PROT. AGENCY, SOLID WASTE LAWS IN THE U.S. TERRITORIES AND STATES 401-06 (1972).

⁹⁴ See *id.*

⁹⁵ WYO. STAT. ANN. § 35-11-503 (2020) ("The director, upon recommendation from the administrator after consultation with the water advisory board, is authorized to recommend that the council promulgate rules, regulations, standards and permit systems for solid waste management facilities in order to protect human health and the environment. These rules, regulations, standards and permit systems shall govern the management of any waste, including liquid, solid, or semisolid waste, which is managed within the boundary of any solid waste management facility, and: (v) shall provide for consistency and equivalency with rules and regulations adopted by the United States environmental protection agency under authority of Subtitle C of the Resource Conservation and Recovery Act.").

⁹⁶ See *id.* § 35-11-508.

⁹⁷ *Id.*

⁹⁸ *Solid Waste*, WYO. DEP'T OF ENV'T QUALITY, deq.wyoming.gov/shwd/solid-waste/ (last visited Dec. 17, 2020) [<https://perma.cc/2KDL-RM26>].

⁹⁹ See generally WYO. ASS'N OF MUNS., MAYOR-COUNCIL HANDBOOK: 2018 EDITION at 1-2 (2018) ("Prior to 1972, municipal corporation had only those powers delegated to them. By constitutional amendment approved by the voters on November 7, 1972, and which became effective on December 12, 1972 local self-government authority, known as "home rule" was granted to Wyoming cities and towns."); see *infra* Section III.A.

¹⁰⁰ See *infra* Section III.A.; see LBA ASSOCS., WYOMING SOLID WASTE DIVERSION STUDY at ES-3 (2013).

with RCRA.¹⁰¹ The regionalization of waste therefore lays the foundation for greater cooperation between tribes and state authorities to eradicate open dumps on the Wind River Reservation.¹⁰²

A. *Local Approaches to Waste Management in Wyoming*

Today, the vast majority of Wyoming municipalities utilize landfills as a primary means of waste disposal.¹⁰³ A 2013 study commissioned by the Department of Environmental Quality found that 85% of the 1 million tons of solid waste managed in Wyoming ended up in landfills, with 7% recycled and 8% composted.¹⁰⁴ One notable exception to this trend is Teton County, which aims to eliminate waste altogether and eventually make landfills obsolete within the county.¹⁰⁵ In 2018, Teton County set the formidable goal to divert sixty percent of its waste from landfills by 2030; almost double its diversion rate in fiscal year 2015.¹⁰⁶ Waste diverted from landfills may be recycled, composted, reused, or reduced at the source.¹⁰⁷ To reach its goal, Teton County planned to implement residential multi-family “Pay As You Throw” programs, and a beverage-container recycling ordinance.¹⁰⁸ These recycling initiatives focused

¹⁰¹ See *infra* Section III.B.; *infra* notes 133, 136 and accompanying text.

¹⁰² See *infra* Section III.B.; Kevin Gover & James B. Cooney, *Cooperation Between Tribes and States in Protecting the Environment*, 10 NAT. RES. & ENV'T 35, 35 (1996).

The Western Governors' Association surveyed stakeholders on the benefits and barriers of cooperation between states and tribes to manage regional waste. W. Governors' Ass'n, *Cooperation on Solid Waste Management: Tribes & States*, in WASTE MANAGEMENT ISSUES ON NATIVE AMERICAN LANDS 1 (U.S. Env't Prot. Agency ed., 1991), nepis.epa.gov/Exe/ZyPDF.cgi/9101VBBX.PDF?Dockey=9101VBBX.PDF [https://perma.cc/WFQ8-2XP8]. Most tribes indicated that insufficient financial resources and staff largely prevented successful cooperation to dispose of waste. *Id.* at 6. Still, almost all thirty tribes from the survey agreed that cooperation would lead to better overall environmental protection. *Id.* Additionally, eighty percent of the tribes from the survey anticipated future cooperation between the state and tribal authority on solid waste management. *Id.* at 5. Tribes indicated that state assistance for planning, information sharing, recycling, and funding would be useful. *Id.*

¹⁰³ LBA ASSOCS., *supra* note 100, at ES-1.

¹⁰⁴ *Id.*

¹⁰⁵ TETON CNTY., WYO., STRATEGIES ON THE ROAD TO ZERO WASTE: TETON COUNTY INTEGRATED SOLID WASTE & RECYCLING 2, 3 (2018).

By contrast, the state of Wyoming's regional programs focus on landfills and not Zero Waste. DEP'T OF ENV'T QUALITY, REPORT TO THE JOINT MINERALS, BUSINESS, AND ECONOMIC DEVELOPMENT INTERIM COMMITTEE: MUNICIPAL SOLID WASTE LANDFILL CEASE AND TRANSFER PROGRAM LANDFILL PRIORITIZATION AND COST ESTIMATE 1 (2015) (“Integrated Solid Waste Planning completed in 2009 indicates that shared waste management strategies, especially shared landfills, can help control rising costs.”).

¹⁰⁶ TETON CNTY., *supra* note 105, at 2–3.

¹⁰⁷ *Waste Diversion at EPA*, U.S. ENV'T PROT. AGENCY, www.epa.gov/greeningepa/waste-diversion-epa (last visited Dec. 17, 2020) [https://perma.cc/75CG-JPF9].

¹⁰⁸ TETON CNTY., *supra* note 105, at 8.

on encouraging individuals to live waste-free.¹⁰⁹ Additionally, Teton County addressed commercial waste in its plan by requiring that construction and demolition material be diverted away from landfills, commercial yard waste be separated for composting, and commercial corrugated cardboard be separated for recycling.¹¹⁰ Essentially, this plan requires businesses and commercial facilities to integrate the disposal process into the planning and production of commercial goods to minimize overall waste.¹¹¹ All of these proactive strategies go above and beyond Teton County's already impressive existing waste management strategies such as widely available curbside recycling services.¹¹²

While waste management ordinances vary across municipalities in Wyoming, there are clear commonalities that conform to the larger state regulations.¹¹³ An analysis of nine Wyoming municipalities that govern waste management through local ordinances demonstrates these trends in local waste management strategies.¹¹⁴ All of the nine municipalities analyzed agree that dumping and improper waste disposal should be deterred and penalized.¹¹⁵ Still, the language and organization of their solid waste disposal ordinances indicates that these

¹⁰⁹ *Id.* at 2, 10; *Pay-As-You-Throw*, U.S. ENV'T PROT. AGENCY ARCHIVE (2016), archive.epa.gov/wastes/conserve/tools/payt/web/html/index.html [https://perma.cc/7N2D-74LY] (“In communities with pay-as-you-throw programs (also known as unit pricing or variable-rate pricing), residents are charged for the collection of municipal solid waste—ordinary household trash—based on the amount they throw away. This creates a direct economic incentive to recycle more and to generate less waste.”); *State Beverage Container Deposit Laws*, NAT'L CONF. OF STATE LEGISLATURE, www.ncsl.org/research/environment-and-natural-resources/state-beverage-container-laws.aspx (last visited Dec. 17, 2020) [https://perma.cc/3475-E8YE] (discussing how a beverage-container recycling ordinance could incorporate features of “Bottle Bills” which are laws that require “a deposit is paid to the distributor for each container purchased. The consumer pays the deposit to the retailer when buying the beverage, and receives a refund when the empty container is returned to a supermarket or other redemption center. The distributor then reimburses the retailer or redemption center the deposit amount for each container, plus an additional handling fee in most states. Unredeemed deposits are either returned to the state, retained by distributors, or used for program administration”).

¹¹⁰ TETON CNTY., *supra* note 105, at 8.

¹¹¹ *See id.* at 2, 10.

¹¹² *Collection and Hauling Services: Trash Collection and Hauling*, TETON CNTY., WYO., teton-countywy.gov/1482/Collection-and-Hauling-Services (last visited Dec. 17, 2020) [https://perma.cc/GT7J-B4DU].

¹¹³ WYO. STAT. ANN. § 35-11-508 (2020).

¹¹⁴ CASPER, WYO., MUN. CODE (2001); CHEYENNE, WYO., MUN. CODE (2011); DOUGLAS, WYO., MUN. CODE (2004); GREEN RIVER, WYO. CODE OF ORDINANCES (2008); GREYBULL, WYO., MUN. CODE (1989); LARAMIE, WYO., MUN. CODE (2011); LOVELL, WYO., CODE OF ORDINANCES (1947); NEWCASTLE, WYO., CODE (1999); TORRINGTON, WYO., MUN. CODE (1986).

¹¹⁵ *See* CASPER, WYO., MUN. CODE § 8.32.190 (2001); CHEYENNE, WYO., MUN. CODE § 8.44.080 (2011); DOUGLAS, WYO., MUN. CODE § 13.68.020 (2004); GREEN RIVER, WYO. CODE OF ORDINANCES § 14-15 (2008); GREYBULL, WYO., MUN. CODE § 8.12.100 (1989); LARAMIE, WYO., MUN. CODE § 8.16.070 (2011); LOVELL, WYO., CODE OF ORDINANCES § 11-01-290 (1947); NEWCASTLE, WYO., CODE § 13-3 (1999); TORRINGTON, WYO., MUN. CODE § 8.28.150 (1986).

municipalities hold differing perspectives on municipal solid waste.¹¹⁶ Of these nine municipalities, only five list solid waste collection and disposal under their Health and Safety ordinances.¹¹⁷ One municipality lists solid waste collection under their Public Services ordinances, and the other three municipalities list garbage and waste as an independent ordinance.¹¹⁸ Additionally, only Cheyenne, Lovell, Newcastle, and Torrington, strictly prohibit burning solid waste.¹¹⁹ Greybull and Casper, on the other hand, focus more on deterring litter.¹²⁰ Laramie, Newcastle, Greybull, and Douglas echo RCRA regulations and place more value on eradicating open dumps by prohibiting dumping outside of designated dumpsites.¹²¹ Within Wyoming, like many other states, three governing bodies agree to deter open dumping and uphold strict standards for safe waste disposal.¹²² In Indian Country, by contrast, the overlap of environmental governing authority allows for open dumping to continue on native land.¹²³

B. Waste Regionalization in Wyoming

Wyoming followed the national trend of consolidating waste disposal facilities by releasing an informational pamphlet entitled “*How to Develop*

¹¹⁶ See CHEYENNE, WYO., MUN. CODE § 8.44.010 (2001) (“The purpose of this chapter is to protect public health, safety, and welfare by regulating the accumulation, storage, transportation, and disposal of solid waste or refuse to prevent fire, health or safety hazards, to eliminate undesirable pests, and to promote the aesthetic appearance of the community.”); LARAMIE, WYO., MUN. CODE § 8.16.070 (2011) (“The chapter is declared to be strictly a sanitary measure for the promotion and protection of the public health and safety and to prevent fire hazards and nuisances.”); TORRINGTON, WYO., MUN. CODE § 8.28.040 (1986) (“All solid waste accumulated in the city shall be collected, conveyed and disposed of by the city under the supervision of the director of public works or his designated agent, officer, servant or employee. The director shall have the authority to make regulations concerning the days of collection, type and location of waste containers and such other matters pertaining to the collection, conveyance and disposal as he shall find necessary.”).

¹¹⁷ CASPER, WYO., MUN. CODE § 8.32 (2001); GREYBULL, WYO., MUN. CODE § 8.12 (1989); LARAMIE, WYO., MUN. CODE § 8.16 (2011); TORRINGTON, WYO., MUN. CODE § 8.28.010 (1986); CHEYENNE, WYO., MUN. CODE § 8.44.010 (2011).

¹¹⁸ DOUGLAS, WYO., MUN. CODE § 13.52.010 (2004) (listing “Sanitation Collection and Solid Waste Disposal Facility” under Title 13, Public Services); GREEN RIVER, WYO. CODE OF ORDINANCES § 14 (2008) (listing “Garbage and Refuse” as Chapter 14 of the Green River Code of Ordinances); LOVELL, WYO., CODE OF ORDINANCES § 11-01-020 (1947) (listing “Garbage, Refuse and Other Waste Material” as Chapter 11 of Lovell Code of Ordinances); NEWCASTLE, WYO., CODE § 13-2 (1999) (listing “Garbage, Rubbish and Trash” as Chapter 13 of Newcastle Code Ordinances).

¹¹⁹ See CHEYENNE, WYO., MUN. CODE § 8.44.060 (2011); LOVELL, WYO., CODE OF ORDINANCES § 11-03-010 (2000); NEWCASTLE, WYO., CODE § 13-16 (1999); TORRINGTON, WYO., MUN. CODE § 8.28.080 (1986).

¹²⁰ See GREYBULL, WYO., MUN. CODE § 8.12.100 (1988); CASPER, WYO., MUN. CODE § 8.40.070 (2001).

¹²¹ See LARAMIE, WYO., MUN. CODE § 13.60.040 (2011); NEWCASTLE, WYO., CODE § 13-3 (1999); GREYBULL, WYO., MUN. CODE § 8.12.030 (1989); DOUGLAS, WYO., MUN. CODE § 13.60.010 (2010).

¹²² See *supra* notes 92, 95, 115 and accompanying text.

¹²³ See *infra* Section IV.B.

Regional Programs,” in the 1990s.¹²⁴ This pamphlet provided guidelines focused on the cost-saving aspect of waste regionalization.¹²⁵ Specifically, the pamphlet looked to Wyoming towns like Sinclair and Dubois as key beneficiaries of waste regionalization.¹²⁶ The town of Sinclair, located in Carbon County, paid seventy-nine dollars per ton to operate its local landfill.¹²⁷ If the town closed the local landfill, however, and transported its waste to the nearby regional landfill located in Rawlins, the town’s costs would be reduced to fifty-three dollars per ton.¹²⁸ Similarly, in Dubois, the Fremont County government replaced two small landfills with transfer stations and reduced their operating costs by \$15,300 annually.¹²⁹ These transfer stations would facilitate the collection of local waste that could then be sent to a regional landfill.¹³⁰

The most common regional waste management system in Wyoming is waste disposal districts.¹³¹ These districts are governed by a solid waste disposal district board and created by each county’s governing body.¹³² In 2020, the state of Wyoming approved 5.6 million dollars in funding for solid waste disposal districts to implement “Solid Waste Cease and Transfer” programs and further encourage waste regionalization.¹³³ These programs aim to reduce, or cease, the disposal of waste at facilities that fail to comply with both industry and environmental standards.¹³⁴ Whatever waste is left over is then transferred to more cost-effective and environmentally friendly landfills.¹³⁵

In its 2006 and 2007 legislative sessions, the state of Wyoming also funded an Integrated Solid Waste Management (ISWM) plan.¹³⁶ In general, ISWM systems

¹²⁴ See *Tool 12: How to Develop Regional Programs*, *supra* note 34.

¹²⁵ See *id.* at 12-1, 12-2.

¹²⁶ *Id.* The reason why this pamphlet focused specifically on Sinclair and Dubois is unclear.

¹²⁷ *Id.*

¹²⁸ *Id.*

¹²⁹ See *id.*

¹³⁰ *Id.*

¹³¹ *Id.* at 12-9; see e.g., *Solid Waste Disposal District Eden Valley*, SWEETWATER CNTY., WYO., www.sweet.wy.us/boards/solid_waste_districts/solid_waste_disposal_district_eden_valley.php [<https://perma.cc/TH5P-8UT8>]; *About Us*, FREMONT CTY. SOLID WASTE DISPOSAL DIST., *supra* note 34.

¹³² *Tool 12: How to Develop Regional Programs*, *supra* note 34, at 12-9; WYO. STAT. ANN. § 18-11-102 (2020) (providing that in Wyoming, the governing body is the County Commissioners).

¹³³ S.F. 48, 65th Leg., Budg. Sess. (Wyo. 2020); Wyo. Dep’t of Env’t Quality, *Municipal Landfill Cease & Transfer*, deq.wyoming.gov/shwd/municipal-landfill-cease-and-transfer/ (last visited Dec. 17, 2020) [<https://perma.cc/WW6J-FCK8>].

¹³⁴ WYO. STAT. ANN. § 35-11-528; MUNICIPAL SOLID WASTE LANDFILL CEASE & TRANSFER PROGRAM, *supra* note 105, at 1.

¹³⁵ See WYO. STAT. ANN. § 35-11-528; MUNICIPAL SOLID WASTE LANDFILL CEASE & TRANSFER PROGRAM, *supra* note 105, at 1.

¹³⁶ WYO. DEP’T OF ENV’T QUALITY, REPORT TO THE JOINT MINERALS, BUSINESS, & ECONOMIC DEVELOPMENT INTERIM COMMITTEE: INTEGRATED SOLID WASTE MANAGEMENT PLANNING: OVERVIEW

create a macro-structure for waste management within a region, which involves the consolidation of waste management facilities.¹³⁷ Wyoming Statute Section 35-11-1904 sets the model for ISWM within Wyoming.¹³⁸ This statute requires an economic analysis of the proposed ISWM system, including the cost of alternative systems.¹³⁹ When an ISWM plan is implemented, it must be in effect at least twenty years and include a description of the planning area, evaluation of current and projected volumes of waste, and a discussion of how the plan shall be implemented.¹⁴⁰ ISWM plans bear a sharp contrast to RCRA's applications within Indian Country.¹⁴¹ Rather than facilitating the coordination of a waste management strategy between tribes and local authorities to ensure compliance, tribes are largely left to deal with solid waste independent from regional systems.¹⁴² As a result, open dumps persist within Indian Country.¹⁴³

IV. SOLID WASTE MANAGEMENT IN INDIAN COUNTRY¹⁴⁴

In recent history, the federal government has moved towards supporting Indian self-determination by recognizing Native American nations as sovereign.¹⁴⁵ Indian self-determination is rooted in the basic idea that tribal governments, rather than the federal government, should implement federal programs on tribal land.¹⁴⁶ Prior to the self-determination era, federal policies corralled Native American tribes into reservations and forced the assimilation of Native American children by sending them to white boarding schools.¹⁴⁷ Largely, federal tribal relations have been marked by a concerted effort to destroy Native American

OF WASTE MANAGEMENT PLANS SUBMITTED TO THE DEP'T OF ENV'T QUALITY 1 (2009) [hereinafter REPORT TO THE JOINT MINERALS].

¹³⁷ MOHEE & BUNDHOO, *supra* note 15, at 7.

There are six key functional elements of ISWM that provide a larger organization structure, or macro-structure, for municipalities to participate within: (1) Waste generation; (2) Waste handling, separation, storage and processing at source; (3) Waste collection; (4) Transfer and transport; (5) Waste separation, processing and transformation; and (6) Waste disposal. *See id.*

¹³⁸ WYO. STAT. ANN. § 35-11-1904.

¹³⁹ *See id.*

¹⁴⁰ *Id.*

¹⁴¹ *See infra* Section IV.B.1.

¹⁴² *See infra* Sections IV.C., V.B.

¹⁴³ *See infra* Section IV.B.2.

¹⁴⁴ The terms "Native American" and "Indian" will be used interchangeably throughout the rest of this article to refer to members of sovereign Native American nations. Indian Country refers generally to Native American land or tribal land.

¹⁴⁵ 1 CAROL GOLDBERG ET AL., COHEN'S HANDBOOK ON FEDERAL INDIAN LAW § 1.07 (Nell Jessup Newton ed., 2019).

¹⁴⁶ *Id.*

¹⁴⁷ *Id.* at § 1.03[6][a], § 1.04.

cultural traditions and assimilate tribal members into “civilization.”¹⁴⁸ The self-determination era, therefore, seeks to eliminate old paternalistic tendencies of the federal government and embrace a government-to-government partnership between tribal governments and the federal government.¹⁴⁹

The self-determination era affirms that there are three sovereigns within the United States: the federal government, state governments, and tribal governments.¹⁵⁰ The governance of water, air, and waste by these separate governmental bodies intersects most prominently within the bounds of Indian Country.¹⁵¹ Each sovereign has a vested interest, albeit to varying degrees, in ensuring the environmental prosperity of Native American lands.¹⁵² As custodians of tribal lands, the federal government has a duty to protect tribal land from environmental degradation.¹⁵³ States have an interest in preserving their own land, air, and water, which may be impacted by environmental degradation within bordering Indian Country.¹⁵⁴ Most prominently, tribal authorities have an interest in protecting the health of tribal members through safeguarding air quality, drinking water, and residential land.¹⁵⁵

The most prominent federal environmental legislation interfacing RCRA’s solid waste management standards includes the Clean Water Act and the Clean Air Act.¹⁵⁶ While the Clean Air Act has included provisions to embrace Indian self-determination by giving tribes “state-like status,” no such provision exists in RCRA.¹⁵⁷ The ambiguous status of tribal governments under RCRA leads to open dumping while demonstrating the need for coalition building between tribes and the EPA.¹⁵⁸ First, the development of the Clean Water and Air Acts, especially in clarifying how these law apply to Indian Country, provide background of the

¹⁴⁸ *Id.* at § 1.06.

¹⁴⁹ *Id.*

¹⁵⁰ See ARVO Q. MIKKANEN, U.S. ATTORNEY’S OFF., W. DIST. OKLA., INDIAN COUNTRY CRIMINAL JURISDICTION CHART 1–2 (2017); 1 GOLDBERG ET AL., *supra* note 145.

¹⁵¹ 1 GOLDBERG ET AL., *supra* note 145, at Ch. 5–6.

¹⁵² See John E. Thorson, *Reflections on Western General Stream Adjudications upon the Signing of Wyoming’s Big Horn River Adjudication Final Decree*, 15 WYO. L. REV. 383, 390 (2015); see *infra* notes 202, 203, 222 and accompanying text.

¹⁵³ 1 GOLDBERG ET AL., *supra* note 145, at § 5.02[1].

¹⁵⁴ See *Washington, Dep’t of Ecology v. U.S. Env’t Prot. Agency*, 752 F.2d 1465, 1466 (1985).

¹⁵⁵ See 1 GOLDBERG ET AL., *supra* note 145, at § 4.01.

¹⁵⁶ BOOZ-ALLEN & HAMILTON INC., U.S. ENV’T PROT. AGENCY, RCRA, SUPERFUND & EPCRA HOTLINE TRAINING MODULE: OTHER LAWS THAT INTERFACE WITH RCRA 6, 9 (1999).

¹⁵⁷ 42 U.S.C. § 7601(d) (“Subject to the provisions of paragraph, the Administrator is authorized to treat Indian tribes as States under this chapter.”); *id.* § 6941; *id.* § 6901.

¹⁵⁸ See Grijalva, *supra* note 47, at 198. The EPA has already laid the foundation for such a coalition by envisioning cooperative federalism between the states and federal government. *Id.*

larger political landscape of environmental regulation within Indian Country.¹⁵⁹ Next, RCRA's ambiguous regulation of Indian Country provides insight into the underlying causes of open dumps on tribal land.¹⁶⁰ Finally, a discussion of the landfill constructed on the Campo Band Reservation provides an example of Indian self-determination in the area of waste management.¹⁶¹

A. *The Development of Independent Environmental Regulation in Indian Country*

In the 1970s, America made great environmental strides in passing both the Clean Air and Clean Water Acts, but these laws ambiguously applied to Indian Country.¹⁶² While the regulatory scheme of the Clean Air Act eventually gave tribal governments "state-like" status, RCRA did not.¹⁶³ By 1980, the EPA more widely recognized tribal sovereignties as independent regulatory bodies by implementing the 1980 Indian Policy.¹⁶⁴ In doing so, the EPA became the first federal agency to officially embrace Indian self-determination, and thus recognize tribal autonomy.¹⁶⁵ This recognition was important because it established that tribal leaders ought to be involved in the creation and implementation of federal programs that affect both their members and their land.¹⁶⁶

With the passage of the Clean Water Act in 1972, the federal government outlawed discharging pollutants into waterways, but failed to mention how that law impacted Indian Country.¹⁶⁷ As the foremost federal environmental

¹⁵⁹ See *infra* Section IV.A.

¹⁶⁰ See *infra* Section IV.B.

¹⁶¹ See *infra* Section IV.C.

¹⁶² Grijalva, *supra* note 47, at 202–03; Environmental Protection Agency, 38 Fed. Reg. 13,528, 13,530 (May 22, 1973) (to be codified at 40 C.F.R. pt. 125); *Summary of the Clean Water Act*, U.S. ENV'T PROT. AGENCY, www.epa.gov/laws-regulations/summary-clean-water-act (last visited Dec. 17, 2020) [<https://perma.cc/7HQ2-8SP4>]; *Summary of the Clean Air Act*, U.S. ENV'T PROT. AGENCY, www.epa.gov/laws-regulations/summary-clean-air-act (last visited Dec. 17, 2020) [<https://perma.cc/A6TT-P6S2>].

¹⁶³ See Grijalva, *supra* note 47, at 210.

¹⁶⁴ *Id.* at 224.

¹⁶⁵ See *Washington, Dep't of Ecology v. U.S. Env't Prot. Agency*, 752 F.2d 1465, 1471 (9th Cir. 1985). Embracing the self-determination era, the EPA set out to "promote an enhanced role for tribal government in relevant decision making and implementation of Federal environmental programs on Indian reservations." *Id.* (internal quotation marks omitted) (quoting EPA Policy for Program Implementation on Indian Lands, December 19, 1980 at 5); Grijalva, *supra* note 47, at 225.

¹⁶⁶ *Self-Determination*, U.S. DEP'T OF THE INTERIOR, INDIAN AFFS., www.bia.gov/regional-offices/great-plains/self-determination (last visited Dec. 17, 2020) [<https://perma.cc/2ACZ-EDW4>]; Memorandum from George W. Bush, President of the U.S., to Heads of Exec. Dep'ts and Agencies (Sept. 23, 2004), www.doi.gov/pmb/cadr/programs/native/Government-to-Government-Relationship-with-Tribal-Governments [<https://perma.cc/5TMB-WYNW>].

¹⁶⁷ See *Summary of the Clean Water Act*, *supra* note 162.

regulatory body, the EPA delegated implementation of programs under the Clean Water Act to the states.¹⁶⁸ The EPA, however, did not take into account how tribal sovereigns operated within that regulatory scheme.¹⁶⁹ The Clean Water Act encouraged compliance with federal waterways regulation by requiring the dischargers of waste to obtain pollution permits.¹⁷⁰ Eventually, the Federal Water Pollution Control Act Rule in 1973 offered some clarity to tribal authorities.¹⁷¹ This rule expressly excluded Native American waste facilities from state regulation under the Clean Water Act, which allowed the EPA to retain federal authority over water pollution on Native American lands.¹⁷²

By 1974, the federal government further clarified the environmental regulation of tribal lands by assigning tribes state-like status under the Clean Air Act.¹⁷³ Just as states operate as independent governing bodies apart from the federal government, so too could tribes independently regulate Indian Country under the Clean Air Act.¹⁷⁴ This environmental law, enforced by the EPA, aimed to reduce the amount of environmental deterioration allowed in certain areas by designating three classes of pollution standards.¹⁷⁵ Class III imposed the least regulation on air quality and thus allowed for the most environmental deterioration whereas Class I imposed harsher restrictions and thus higher environmental standards.¹⁷⁶ For example, within a Class I area, even the slightest change in air quality would be prohibited.¹⁷⁷ In a Class II area, however, the deterioration of air quality would be allowed if accompanied by consistent and stable economic growth.¹⁷⁸ In a Class III area, even major deterioration would be considered insignificant and allowed.¹⁷⁹ Importantly, with state-like status, tribes can re-designate themselves from one Class area to another under the

¹⁶⁸ Grijalva, *supra* note 47, at 203 n.80 (citing State Program Elements Necessary for Participation in National Pollution Discharge Elimination System, 37 Fed. Reg. 28,389 (Dec. 22, 1972)).

¹⁶⁹ Grijalva, *supra* note 47, at 203.

¹⁷⁰ *Clean Water Act (CWA) Compliance Monitoring*, U.S. ENV'T PROT. AGENCY, www.epa.gov/compliance/clean-water-act-cwa-compliance-monitoring (last visited Sept. 16, 2020) [<https://perma.cc/V84W-F5J9>]; Ridgeway M. Hall, Jr., *The Clean Water Act of 1977*, 11 NAT. RES. L. 343, 344 (1978).

¹⁷¹ Grijalva, *supra* note 47, at 204; Environmental Protection Agency, 38 Fed. Reg. 13,528, 13,530 (May 22, 1973) (to be codified at 40 C.F.R. pt. 125).

¹⁷² Grijalva, *supra* note 47, at 203–04.

¹⁷³ *Id.* at 210.

¹⁷⁴ *Id.*

¹⁷⁵ *Id.*

¹⁷⁶ *See id.* at 206; Attachment to Memorandum from John Calcagni, Dir., Air Quality Mgmt. Div., to Thomas J. Maslany, Dir., Air Radiation & Toxics Div. (Sept. 10, 1991) (on file with author).

¹⁷⁷ *See* Grijalva, *supra* note 47, at 206.

¹⁷⁸ *Id.*

¹⁷⁹ *Id.*

Clean Air Act.¹⁸⁰ By re-designating tribal land, from a Class I area to a Class III area for example, tribal authorities can exercise some sovereignty in prioritizing development over the environment.¹⁸¹ Re-designation also requires approval from the EPA and the opportunity for comment by interested parties.¹⁸² Nevertheless, granting tribes state-like status under the Clean Air Act marked a significant point of progress for the federal recognition of tribal sovereignty.¹⁸³

In light of these environmental legislative developments, the EPA and tribes cooperatively regulate reservation land on a government-to-government basis.¹⁸⁴ By adopting the 1984 Indian Policy, the EPA solidified its commitment to pursuing Indian self-determination, however, tribal governments remain limited.¹⁸⁵ While the EPA formally recognized tribal governments as sovereign in the 1984 Indian Policy, environmental statutes and regulations nevertheless apply to reservation land.¹⁸⁶ Additionally, states can still seek to challenge tribal action in court.¹⁸⁷ As a result, the 1984 Indian Policy recognized tribal sovereignty only insofar as tribal action aligned with federal and state government interests.¹⁸⁸

B. RCRA Ambiguity Leads to Jurisdictional Confusion and Open Dumps on Reservations

While both the Clean Water Act and the Clean Air Act indirectly influence solid waste management by protecting water and air quality from the effects of open dumps, RCRA directly addresses solid waste management.¹⁸⁹ As previously discussed, the RCRA outlawed open dumping and required states to prioritize

¹⁸⁰ *Id.*

¹⁸¹ *Id.* at 211.

¹⁸² *Id.*

¹⁸³ *Id.* at 215.

¹⁸⁴ See *supra* notes 149, 153 and accompanying text.

¹⁸⁵ See Grijalva, *supra* note 47, at 268, 274.

Ironically, the EPA adopted the 1984 Indian Policy without receiving substantive input from the tribes. Grijalva, *supra* note 47, at 274. This highlights a larger issue in Indian self-determination and the qualified sovereignty articulated by Chief Justice Marshall in the Marshall Trilogy. 1 GOLDBERG ET AL., *supra* note 145, at § 1.00. These cases describe tribal sovereigns as “domestic, dependent nations.” *Id.*; see *Johnson v. M’Intosh*, 21 U.S. 543 (1823); *Cherokee Nation v. Georgia*, 30 U.S. 1 (1831); *Worcester v. Georgia*, 31 U.S. 515 (1832).

¹⁸⁶ See WILLIAM D. RUCKELSHAUS, EPA POLICY FOR THE ADMINISTRATION OF ENVIRONMENTAL PROGRAMS ON INDIAN RESERVATIONS 2–4 (1984); Grijalva, *supra* note 47, at 279, 287.

¹⁸⁷ See RUCKELSHAUS, *supra* note 186, at 2–4; Grijalva, *supra* note 47, at 279, 287; see *Cnty. of San Diego v. Babbit*, 847 F. Supp. 768, 771 (S.D. Cal. 1994).

¹⁸⁸ See Grijalva, *supra* note 47, at 292.

¹⁸⁹ See *supra* notes 41, 167, 175 and accompanying text.

responsible waste management.¹⁹⁰ Still, RCRA does not specifically outline the respective roles of tribes and the federal government in achieving tribal compliance with national waste management standards.¹⁹¹ Where states have attempted to impose solid waste management regulations on native land, both Indian self-determination and EPA jurisdictional authority have superseded state authority.¹⁹² Even though the EPA retains jurisdiction within Indian Country, the EPA has largely failed to assist tribes in managing waste and allowed open dumps to proliferate on reservations.¹⁹³

1. *Jurisdictional Confusion within Indian Country*

RCRA unfortunately left a lot to be desired for waste regulation within Indian Country.¹⁹⁴ While RCRA delegated solid waste regulatory authority to states, it designated Indian tribes as municipalities, calling into question whose regulatory authority controlled solid waste within Indian Country.¹⁹⁵ Additionally, because tribal authorities operate as sovereign governing bodies, jurisdictional issues have arisen in both the creation of waste disposal facilities and enforcement of local waste ordinances within Indian Country.¹⁹⁶ While all of the land in the United States is either publicly or privately owned, the vast majority of tribal land is held in trust by the United States.¹⁹⁷ Therefore, tribal independence is limited because the federal government must consent to any alienation, restriction, or encumbrance of Indian land.¹⁹⁸ Further, while Wyoming land outside of Indian Country is governed by locally promulgated municipal codes, federal regulation of waste on tribal land is hindered by ambiguous language in RCRA.¹⁹⁹ Local ordinances provide guidelines on how to dispose of waste on a community level, whereas RCRA articulates general environmental standards without clarifying how these standards would be met within Indian Country.²⁰⁰

To ensure that RCRA standards are met on land outside Indian Country, states must submit waste management plans to the EPA for approval before

¹⁹⁰ See *supra* notes 41, 42 and accompanying text.

¹⁹¹ See 42 U.S.C. § 6941; *id.* § 6901; see *Washington, Dep't of Ecology v. U.S. Env't Prot. Agency*, 752 F.2d 1465, 1469 (1985).

¹⁹² See *infra* notes 210–12 and accompanying text.

¹⁹³ See *infra* Section IV.B.2.

¹⁹⁴ See 42 U.S.C. § 6941; *id.* § 6901; see *Washington, Dep't of Ecology*, 752 F.2d at 1469.

¹⁹⁵ See 42 U.S.C. § 6941; *id.* § 6901.

¹⁹⁶ See *infra* Section V.A.2.; Gover & Cooney, *supra* note 102, at 35.

¹⁹⁷ Judith V. Royster, *Environmental Protection and Native American Rights: Controlling Land Use Through Environmental Regulation*, 1 KAN. J.L. & PUB. POL'Y 89, 90 (1991).

¹⁹⁸ *Id.*

¹⁹⁹ See 42 U.S.C. § 6941; *id.* § 6901; see *Washington, Dep't of Ecology*, 752 F.2d at 1469; see *supra* Section III.A.

²⁰⁰ See *supra* Section III.A.; see *supra* notes 41–46, 209 and accompanying text.

implementation.²⁰¹ In *Washington, Dep't of Ecology v. United States EPA*, however, the state of Washington attempted to extend their waste management plan to bordering Indian land.²⁰² In 1982, the state of Washington submitted a plan to regulate hazardous solid waste within the state, and on nearby tribal land.²⁰³ The EPA approved the state's application except as to tribal lands.²⁰⁴ The EPA expressly excluded tribal lands from the state's application because it argued the state had no legal authority to regulate within Indian Country.²⁰⁵ Specifically, the EPA believed that RCRA does not grant a state jurisdiction over tribal lands within its borders.²⁰⁶ Under RCRA, only the EPA may regulate hazardous waste activity on tribal land.²⁰⁷ Thereafter, the state of Washington challenged the EPA's decision in federal court, pointing to RCRA's delegation of regulatory power over waste management to the states.²⁰⁸

The Ninth Circuit reasoned that RCRA's statutory language remained silent as to whether or not a state's regulatory power extends to tribal lands.²⁰⁹ Even so, the Ninth Circuit found that tribal sovereignty remained intact as tribes can manage solid waste on reservations.²¹⁰ The court contended that the EPA could promote Indian self-determination by allowing tribes to participate in waste management on their land without delegating the EPA's full authority to the tribes.²¹¹ As a result, the court deferred to the EPA's administrative decision and concluded that the EPA retained jurisdictional authority over Indian Country.²¹²

Therefore, although the EPA had regulatory power within Indian Country, tribes still had authority to enforce regulations.²¹³ This decision excluded states from regulating waste within Indian Country, but offered little clarity in whether

²⁰¹ See *supra* notes 90–92 and accompanying text.

²⁰² *Washington, Dep't of Ecology*, 752 F.2d at 1466.

²⁰³ *Id.* at 1467; *Washington*; Phase I and Phase II, Components A and B, Interim Authorization of the State Hazardous Waste Management Program, 48 Fed. Reg. 34,954-02.

²⁰⁴ *Washington, Dep't of Ecology*, 752 F.2d at 1467.

²⁰⁵ *Id.*

²⁰⁶ *Id.*

²⁰⁷ See *id.* at 1472; Royster, *supra* note 197, at 94.

²⁰⁸ *Washington, Dep't of Ecology*, 752 F.2d at 1467.

²⁰⁹ *Id.* at 1469.

²¹⁰ *Id.* at 1471.

Native American tribes are considered inherently sovereign. 1 GOLDBERG ET AL., *supra* note 145, at § 4.01[1][a]. Historically, tribes entered into agreements with the United States government as independent nations. *Id.* Even though federal treaties and Congressional enactments may limit the power of tribal authorities, the self-governing status of tribes remains. *Id.*

²¹¹ *Washington, Dep't of Ecology*, 752 F.2d at 1470–72.

²¹² *Id.*

²¹³ See *id.*

the EPA or tribal authorities ultimately bear the responsibility to eradicate open dumps.²¹⁴ Even today, the EPA acknowledges that the federal government may directly administer RCRA programs, approve tribes to administer RCRA programs, or work cooperatively with tribes on a government-to-government basis to administer RCRA programs and assure compliance.²¹⁵

2. *Prolific Open Dumps in Indian Country*

Jurisdictional confusion within Indian Country culminated in a national outcry for better solutions to address illegal dumping on reservations.²¹⁶ While RCRA banned open dumps nationally, it did not address illegal dumping on Indian land.²¹⁷ The Federal landfill rules under RCRA, however, required Native American waste to be disposed of outside of reservations at federally approved disposal sites.²¹⁸ Unfortunately, this regulation actually exacerbated open dumping on tribal land because tribal leaders lacked the resources to comply with the RCRA disposal plan.²¹⁹ Tribal leaders lacked the resources to encourage responsible disposal of waste at transfer sites as well as the capacities to transport the waste from the reservation to the federally approved disposal sites.²²⁰ Additionally, RCRA disempowered Indian communities to properly manage waste on reservation lands because it did not expressly authorize the EPA to approve tribal waste management programs.²²¹ As a result, the health hazards associated with open dumps remained on reservations throughout the United States, which prompted a national outcry for federal action.²²²

Nearly a decade after the Ninth Circuit ruled on *State of Washington Department of Ecology v. EPA* in 1991, United States Senators, tribal leaders, and

²¹⁴ *See id.*

²¹⁵ U.S. ENV'T PROT. AGENCY, INDIAN ENVIRONMENTAL GENERAL ASSISTANCE PROGRAM: GUIDANCE ON THE AWARD & MANAGEMENT OF GENERAL ASSISTANCE AGREEMENTS FOR TRIBES AND INTERTRIBAL CONSORTIA 2 (2013) [hereinafter GENERAL ASSISTANCE PROGRAM].

²¹⁶ SELECT COMM. ON INDIAN AFFS., 102D. CONG., WORKSHOP ON SOLID WASTE DISPOSAL ON INDIAN LANDS 1 (Comm. Print. 102–72).

²¹⁷ *Id.* at 1, 6; While RCRA designated Indian reservations as municipalities, there were no sections that specified how open dumps would be identified and eradicated within Indian Country. 42 U.S.C. § 6941; *id.* § 6901. Jurisdictional confusion raised issues on how to enforce the EPA's ban of open dumps. *See infra* Section V.A.2. Further, RCRA does not outline how the EPA would work to enforce the ban on open dumps in Indian Country. *See* 42 U.S.C. § 6941; *id.* § 6901; *see infra* note 209 and accompanying text.

²¹⁸ SELECT COMM. ON INDIAN AFFS., *supra* note 216, at 1, 6.

²¹⁹ *See id.* at 1.

²²⁰ *Id.*

²²¹ *Id.* at 13.

²²² *See* Cassidy A. Sehgal, *Indian Tribal Sovereignty and Waste Disposal Regulation*, 5 FORDHAM ENVTL. L.J. 431, 432 (1994); Gover & Walker, *supra* note 19, at 935.

federal agency representatives met to discuss solid waste management on Indian land.²²³ These leaders confirmed that only two out of the 108 tribally owned landfills met the EPA requirements outlined in the RCRA and identified over 650 open dumps on Indian land.²²⁴ Lack of infrastructure to collect, transport, and transform waste continues to cause open dumping throughout Indian Country.²²⁵ Governments with less capital to invest in infrastructure tend to collect less waste from their residents because they lack the resources to provide waste collection services.²²⁶ Still, residents must dispose of their waste somewhere, which leads to the accumulation of waste in open dumps.²²⁷ For example, under-resourced communities often utilize outdated waste transportation vehicles because the cost to maintain waste transportation vehicles is expensive.²²⁸ These ineffective waste transportation vehicles lead to lower collection rates, higher rates of open dumping, and noxious emissions from residents burning trash.²²⁹

Successful waste recovery initiatives, on the other hand, must develop material recovery facilities where waste is separated, processed, and transformed.²³⁰ These facilities require considerable up-front capital.²³¹ First, the construction of buildings to house sorting operations is expensive.²³² Second, solid waste experts to manage the operation of such a facilities are expensive.²³³ Expertise in solid waste management practices becomes critical in the design and implementation of such facilities, which presents another barrier for developing countries to sustainably manage waste.²³⁴ Experts are in high demand, but are a limited commodity, thus driving up the cost of this resource.²³⁵ As costs increase, options for under-resourced areas become more limited and open dumps more prevalent.²³⁶

To take more immediate action against open dumping within Indian Country, Congress passed the Indian Lands Open Dump Cleanup Act of 1994.²³⁷ This

²²³ SELECT COMM. ON INDIAN AFFS., *supra* note 216, at 3, 7.

²²⁴ *Id.*

²²⁵ See MOHEE & BUNDHOO, *supra* note 15, at 16.

²²⁶ See *id.* at 8, 14.

²²⁷ See *id.*

²²⁸ *Id.* at 16, 17.

²²⁹ *Id.*

²³⁰ *Id.* at 17.

²³¹ See *id.*

²³² *Id.*

²³³ *Id.*

²³⁴ *Id.* at 17–18.

²³⁵ See JAMES D. MILLER, PRINCIPLES OF MICROECONOMICS 48 (2008). See generally MOHEE & BUNDHOO, *supra* note 15, at 17.

²³⁶ See MOHEE & BUNDHOO, *supra* note 15, at 16.

²³⁷ 25 U.S.C. §§ 3901–3908.

legislation confirmed the existence of at least 600 open dumps throughout Indian Country and committed the federal government to fund the eradication of these open dumps on tribal lands.²³⁸ The Act required the director of the Indian Health Service (IHS) to evaluate open dumps upon the request of tribal sovereigns.²³⁹ In doing so, the Act also required the director to work cooperatively with the EPA in determining the threat open dumps pose to public health on the reservation and estimating cleanup costs.²⁴⁰ Once this process is completed, the director may provide financial assistance on a site-specific basis.²⁴¹

Nearly twenty years after the Act passed, the IHS and EPA have still failed to fund the necessary capacity building to dispose of waste on reservations and eradicate open dumps.²⁴² While these agencies articulate a commitment to assisting tribes in developing waste management programs, they maintain budgetary discretion.²⁴³ Therefore, the IHS and EPA may forgo funding waste initiatives within Indian Country if their budgetary priorities lie elsewhere.²⁴⁴ Even though the danger of open dumping is obvious and recognized, the EPA has never made the eradication of dumps within Indian Country a top priority.²⁴⁵ Moreover, federal agencies have not provided adequate funding or technical assistance to tribal governments to develop environmentally sound methods of waste disposal.²⁴⁶ In fiscal year 2019, the EPA spent just \$217 million dollars, out of a nearly nine billion-dollar budget, to implement federal programs in Indian Country.²⁴⁷ Just forty-four million dollars of that allocation went to a General Assistance Program (GAP) with the goal of assisting tribal governments in building their capacity to address environmental issues on the reservation, such as open dumps.²⁴⁸

²³⁸ *Id.* at § 3901.

²³⁹ *Id.* at § 3904.

²⁴⁰ *Id.*

²⁴¹ *Id.*

²⁴² U.S. ENV'T PROT. AGENCY, FY 2019: EPA BUDGET IN BRIEF 30–31 (2019); *EPA's Budget and Spending*, U.S. ENV'T PROT. AGENCY, www.epa.gov/sites/production/files/2018-02/documents/fy-2019-epa-bib.pdf (last visited Dec. 17, 2020) [<https://perma.cc/DEL5-5W9M>]; *see infra* notes 325–26, 379 and accompanying text.

²⁴³ *See* U.S. ENV'T PROT. AGENCY, MEMORANDUM OF UNDERSTANDING BETWEEN THE U.S. ENV'T PROT. AGENCY & THE INDIAN HEALTH SERVICE TO IMPROVE OPEN DUMP DATA, SOLID WASTE PROJECTS AND PROGRAMS IN INDIAN COUNTRY (2019).

²⁴⁴ *Id.* at 2–3.

²⁴⁵ *See infra* notes 43–45, 247 and accompanying text. Congressional findings of the Indian Tribal Government Waste Management Act, which never passed, outlined the danger posed by open dumps within Indian Country and admitted that federal agencies had fallen short in providing remedial resources to tribal governments. Indian Tribal Government Waste Management Act of 1992, S. 1687, 102d Cong. (1992).

²⁴⁶ S. 1687.

²⁴⁷ FY 2019: EPA BUDGET, *supra* note 242, at 30–31; *EPA's Budget and Spending*, *supra* note 242.

²⁴⁸ FY 2019: EPA BUDGET, *supra* note 242, at 63.

The 1984 Indian Policy sets the standard for inter-sovereign relations between the EPA and Wind River tribes, and the federal government should be held to this standard.²⁴⁹ Federal agencies have both a duty and demonstrated capacity to assist in the elimination of open dumps on the Wind River Reservation.²⁵⁰ By banning open dumps altogether in 1976, Congress recognized the danger that open dumps posed to the environment and to the public health of surrounding communities.²⁵¹ Considering these congressional findings, it would be inconsistent with the spirit of the RCRA regulation to except reservations from its enforcement and thereby exclude Native Americans and Indian Country from its protections to deter open dumping.²⁵² Furthermore, the 1984 Indian Policy committed the EPA and other cooperating federal agencies to protecting tribal members and tribal land by carrying out environmental programs within Indian Country.²⁵³ For forty years, the EPA has not honored its commitment to assist tribes in achieving compliance with environmental regulations as open dumps have continued to degrade tribal land and the livelihood of tribal members.²⁵⁴ Today, the federal government has one more opportunity to deliver on its promises, and a duty to do so.²⁵⁵

C. *Self-Determined Indians on the Campo Band Reservation*

The Campo Band tribe, a Native American sovereign nation in Southern California, sought to implement a solid waste management program within its territory.²⁵⁶ This Campo Band project demonstrates a widely applicable model to combat illegal dumping and develop the economics within Indian Country.²⁵⁷ Additionally, the Campo Bando project drew out the stakeholders connected to the environmental prosperity of Indian Country, including bordering local

²⁴⁹ See Laurel Wamsley, *Supreme Court Rules that About Half of Oklahoma is Native American Land*, WYO. PUB. RADIO (July 9, 2020), www.npr.org/2020/07/09/889562040/supreme-court-rules-that-about-half-of-oklahoma-is-indian-land [https://perma.cc/HC3A-NRWX].

²⁵⁰ See Treaty with the Eastern Band Shoshoni and Bannock, Shoshoni-Bannock-U.S., art. X, July 3, 1868, 15 Stat. 673 (inferring that there is a federal duty to assist the tribes in development). In fiscal year 2019, the EPA allocated \$2.3 billion for State Revolving Funds while allocating just \$217 million to programs within Indian Country. FY 2019: EPA BUDGET, *supra* note 242, at 3, 31.

²⁵¹ See 42 U.S.C. § 6944; see also *supra* notes 43–46 and accompanying text.

²⁵² 42 U.S.C. § 6944.

²⁵³ RUCKELSHAUS, *supra* note 186, at 3.

²⁵⁴ See *supra* notes 9, 219–22 and accompanying text; see RUCKELSHAUS, *supra* note 186, at 4; Grijalva, *supra* note 47, at 287.

²⁵⁵ See *infra* Sections VI.A., VI.B.

²⁵⁶ *Campo Band of Kumeyaay Indians*, S. CAL. TRIBAL CHAIRMEN'S ASS'N, [web.archive.org/web/20170324085034/http://www.sctca.net/campo-band-kumeyaay-indians](http://www.sctca.net/campo-band-kumeyaay-indians) (last visited Dec. 17, 2020); Gover & Walker, *supra* note 19, at 940; Campo Landfill Project, Campo Band Indian Rsrv., 6 E.A.D. 505, 509 (EAB 1996).

²⁵⁷ See Gover & Walker, *supra* note 19, at 936–37.

governments and the EPA.²⁵⁸ The construction of the Campo Band waste facility therefore provides a clear picture of the how a waste facility would be regulated within Indian Country under RCRA.²⁵⁹

The Campo Indian Reservation encompasses over 14,000 acres of land nestled in the Laguna Mountains.²⁶⁰ This tribe, at least until the mid-1990s, experienced extremely high unemployment rates due to lack of job opportunities on the reservation.²⁶¹ This placed the average annual income of tribal members well below the poverty level.²⁶² To stimulate the Campo Band economy and create jobs on the reservation, the tribe created Mid-Hei.²⁶³ This economic development branch of the Campo Band tribe spearheaded a project to create a waste facility on the Campo Band Indian reservation.²⁶⁴ An analysis of this Indian-lead initiative to create a waste management facility on the Campo Band Indian reservation demonstrates the value of waste enterprises on tribal land.²⁶⁵ This case study provides insight into the environmental and economic calculus of the Camp Band tribe, giving rise to new understandings of regional waste management and use of tribal land.²⁶⁶

To create long-lasting jobs, Mid-Hei sought to develop four hundred acres of the Campo Band Reservation into a waste management facility.²⁶⁷ To balance the economic incentives and environmental impacts of developing a waste facility on the reservation, the Campo Band's General Council established the Campo Environmental Protection Agency (CEPA).²⁶⁸ This Indian-led environmental regulatory agency outlined a system for solid waste management on the reservation and banned open dumps.²⁶⁹ CEPA also enforced federal environmental laws on the Campo Band Reservation.²⁷⁰

²⁵⁸ See *infra* notes 275, 278, 295 and accompanying text.

²⁵⁹ See *Backcountry Against Dumps*, 100 F.3d at 152; Criteria for Municipal Solid Waste Landfills, 40 C.F.R. § 258.1 (2020).

²⁶⁰ *Campo Band of Kumeyaay Indians*, *supra* note 256.

²⁶¹ *Campo Landfill Project*, 6 E.A.D. at 508–09.

²⁶² *Id.* at 508. For 2020, the US national poverty level for a family of four is \$26,200 annual income. Off. of the Assistant Sec'y for Plan. and Evaluation, *Poverty Guidelines: 01/08/2020*, U.S. DEP'T OF HEALTH & HUMAN SERVS. (Jan. 8, 2020), aspe.hhs.gov/poverty-guidelines [<https://perma.cc/Y3YZ-MV8K>].

²⁶³ *Muht Hei, Inc.*, CAMPO KUMEYAAY NATION, www.campo-nsn.gov/muhthei.html (last visited Dec. 17, 2020) [<https://perma.cc/KSQ2-SM55>].

²⁶⁴ Gover & Walker, *supra* note 19, at 940; *Campo Landfill Project*, 6 E.A.D. at 509.

²⁶⁵ See *infra* notes 285–87 and accompanying text.

²⁶⁶ See *infra* note 288 and accompanying text.

²⁶⁷ Gover & Walker, *supra* note 19, at 940; *Campo Landfill Project*, 6 E.A.D. at 509.

²⁶⁸ *Backcountry Against Dumps v. Env't Prot. Agency*, 100 F.3d 147, 149 (1996); *Campo Landfill Project*, 6 E.A.D. at 509.

²⁶⁹ *Backcountry Against Dumps*, 100 F.3d at 149.

²⁷⁰ *Id.*

The National Environmental Policy Act (NEPA) requires federal agencies to consider the environmental effects of proposed actions.²⁷¹ Specifically, agencies are required to prepare lengthy statements referred to as Environmental Impact Statements (EIS), which describe the environmental effects of a proposed action and detail alternatives.²⁷² These statements essentially balance the economic benefits of an action against the negative environmental impacts.²⁷³ For the Campo Band Project, pursuant to NEPA, the United States Department of the Interior and Bureau of Indian Affairs (BIA) prepared an EIS prior to approving the Campo Band waste facility.²⁷⁴ As the custodian of all tribal land held in trust, including the Campo Band Reservation, the Secretary of the United States Department of Interior approved the plan to develop a waste management facility.²⁷⁵ With the federal government's approval, Mid-Hei entered into a sublease agreement with Mid-American Waste Systems to construct and operate a solid waste landfill on the Campo Band Reservation.²⁷⁶

1. County of San Diego v. Babbit

As the construction of the new Campo Band waste management facility began, the County of San Diego raised various environmental concerns.²⁷⁷ In *County of San Diego v. Babbit*, the County of San Diego claimed that the Campo solid waste facility and EIS failed to satisfy several NEPA requirements.²⁷⁸ The County argued that the BIA did not evaluate reasonable alternatives, disclose foreseeable environmental impacts of the facility, or use proper methods to conclude that the facility could be adequately monitored.²⁷⁹ The County of San Diego sought declaratory and injunctive relief to halt the development of the

²⁷¹ *What is the National Environmental Policy Act?*, U.S. ENV'T PROT. AGENCY, www.epa.gov/nepa/what-national-environmental-policy-act (last visited Dec. 17, 2020) [<https://perma.cc/4THJ-FDEB>].

²⁷² *Id.*

²⁷³ See *National Environmental Policy Act*, U.S. ENV'T PROT. AGENCY, www.epa.gov/nepa (last visited Dec. 17, 2020) [<https://perma.cc/4ECD-JMRF>]; Update to the Regulations Implementing the Procedural Provisions of the National Environmental Policy Act, 85 Fed. Reg. 43,304, 43,306 (2020).

²⁷⁴ Campo Landfill Project, Campo Band Indian Rsrv., 6 E.A.D. 505, 509 (EAB 1996); *Backcountry Against Dumps*, 100 F.3d at 149–50.

²⁷⁵ *Campo Landfill Project*, 6 E.A.D. at 509; Dan McGovern, *The Battle Over the Environmental Impact Statement in the Campo Indian Landfill War*, 3 HASTINGS W.-N.W. J. ENVTL. L. & POL'Y 145, 148 (1995).

²⁷⁶ *Campo Landfill Project*, 6 E.A.D. at 509.

²⁷⁷ *Cnty. of San Diego v. Babbit*, 847 F. Supp. 768, 771 (S.D. Cal. 1994).

²⁷⁸ *Id.*

²⁷⁹ *Id.*

waste facility.²⁸⁰ The Secretary of the Interior responded by filing a motion for summary judgment, which the district court granted.²⁸¹

In reviewing the County's claims, the district court analyzed how the BIA's EIS balanced the environmental impacts and economic incentives of the Campo Band project.²⁸² First, the court recognized that the BIA considered the projects' impact on groundwater because the EIS mentioned that the Campo Band Reservation encompasses the primary source of water for the region.²⁸³ Second, the BIA considered at least six remediation measures in the event that the waste facilities' impacted groundwater.²⁸⁴ Along with analyzing the environmental impact of the Campo Band waste facility on groundwater, the BIA also considered the vast economic opportunity that the project offered for Campo Band tribal members.²⁸⁵ The BIA estimated that the Campo Band tribe would gain \$1.6 million in revenue every year from the waste disposal facility itself.²⁸⁶ The EIS identified the depressed economic circumstances of the Campo Band Reservation, and the waste development facility as a stimulus.²⁸⁷ Lease revenues, tipping-fees, and re-sales into the recycling market could provide funding for education, housing, and medical care for all tribal members.²⁸⁸ The facility would also create job opportunities for the seventy-nine percent of Campo Band tribal members who lacked employment.²⁸⁹ Moreover, the BIA concluded that the economic development potential for the tribe far outweighed any minimal detriment to their land.²⁹⁰

²⁸⁰ *Id.*

²⁸¹ *Id.* at 777.

²⁸² *See id.* at 776.

²⁸³ *See id.* at 774.

²⁸⁴ *Id.*

²⁸⁵ *Id.* at 775–76.

²⁸⁶ *Backcountry Against Dumps v. Env't Prot. Agency*, 100 F.3d 147, 149 (1996).

²⁸⁷ *Campo Landfill Project, Campo Band Indian Reservation*, 6 E.A.D. 505, 508–09 (EAB 1996).

²⁸⁸ *See id.*; 1 GOLDBERG ET AL., *supra* note 145, at § 4.01[1][a].

Lease revenues gained though the Campo Band Project would be income from leasing tribal land to Mid-American Waste System to operate the waste management facility. *Definition of Lease Revenues*, LAW INSIDER, www.lawinsider.com/dictionary/lease-revenues#:~:text=Lease%20Revenues%20means%20the%20Basic,thereof%20in%20any%20fund%20or (last visited Dec. 17, 2020) [<https://perma.cc/7FMS-GL8X>]. Tipping fees gained through the Campo Band Project would be income from charging residents a fee for waste disposal. *Glossary, WASTE MANAGEMENT*, www.wm.com/glossary.jsp?b=R&e=U#:~:text=Tipping%20fee,of%20waste%20at%20a%20landfill.%20 (last visited Dec. 17, 2020) [<https://perma.cc/RL4A-EUK8>]. Re-sales into the recycling market would be income from selling recycle material to recycling companies. Heather P. Behnke et al., *Recycling: Anything but Garbage*, 5 BUFF. ENV'T L.J. 101, 166 (1997) (“When residents recycle, their recyclables are picked up by haulers, who in turn sell the recyclables to brokers, who then sell to companies that use the material in manufacturing processes.”).

²⁸⁹ *See* McGovern, *supra* note 275, at 145.

²⁹⁰ *See Campo Landfill Project*, 6 E.A.D. at 508–09.

The district court ultimately affirmed the BIA's approval of the Campo Band waste facility.²⁹¹ The court concluded that even though economic incentives outweighed the environmental impacts, the BIA still considered the environmental consequences of the Campo Band waste facility in the EIS.²⁹² Moreover, because the Campo Band tribe's plan to develop a waste management facility involved clear economic goals, the BIA concluded that it did not need to consider all possible alternatives.²⁹³ Affirming the Campo Band tribe's sovereign authority to set its own environmental and economic priorities, the district court concluded that the BIA properly prepared an EIS under NEPA.²⁹⁴

2. Backcountry Against Dumps v. E.P.A.

Challengers to the Campo Band project persisted, though, claiming that the EPA lacked authority to approve the Campo Band waste facility under RCRA in *Backcountry Against Dumps v. E.P.A.*²⁹⁵ The petitioners argued that the EPA had no authority to hold the Campo Band tribe to the same regulatory standard as states under RCRA because RCRA listed tribes as municipalities and not states.²⁹⁶ The petitioners asserted that municipalities, distinct from states, should be strictly held to RCRA's regulations on landfill construction and not allowed to develop independent solid waste regulations.²⁹⁷ Conversely, the EPA argued that in the case of ambiguity, the court should defer to the EPA's interpretation of the RCRA.²⁹⁸ If the EPA interprets that RCRA gives tribe's state-like status, it has the authority to delegate solid waste management permitting and landfill planning to the tribes.²⁹⁹ Therefore, CEPA could set the environmental regulations for the Campo Band waste facility.³⁰⁰ The D.C. Court of Appeals reasoned that RCRA distinguishes tribes and states, and, therefore, RCRA regulations of landfills

²⁹¹ Cnty. of San Diego v. Babbitt, 847 F. Supp. 768, 777 (1994).

²⁹² *See id.*

²⁹³ *Id.* at 776.

²⁹⁴ *Id.* at 777.

²⁹⁵ *Backcountry Against Dumps v. Env't Prot. Agency*, 100 F.3d 147, 149–50 (1996).

²⁹⁶ *Id.* at 150.

²⁹⁷ *Id.* RCRA delegated permitting authority to states by allowing states to submit solid waste permitting plans to the EPA for approval. 42 U.S.C. § 6929; Chambers Jr. & Gray, *supra* note 89, at 7.

²⁹⁸ *See Backcountry Against Dumps*, 100 F.3d at 150–51.

²⁹⁹ *See id.*; *see supra* notes 90, 91 and accompanying text. *See generally supra* note 48 and accompanying text.

³⁰⁰ *See Backcountry Against Dumps*, 100 F.3d at 150–51. CEPA's role is akin to the Department of Environmental Quality (DEQ). *See Solid Waste, supra* note 98. Just as CEPA sets the environmental standards for waste facilities on the Campo Band reservation, DEQ sets the environmental standards for waste facilities within Wyoming. *Id.*

apply directly to Indian Country.³⁰¹ The D.C. Court of Appeals vacated the EPA's Notice of Final Determination to approve the Campo Band solid waste permitting process.³⁰²

Simultaneously, the D.C. Court of Appeals claimed to affirm the sovereignty of the Campo Band tribe and tribal regulatory authority over waste management processes.³⁰³ The court contended its decision would only cost the tribe the chance to take advantage of a regulatory gap and achieve state-like status without statutory standing.³⁰⁴ The court asserted that, the EPA could not insert its own interpretations of regulations when the law remained silent on the issue.³⁰⁵ Moreover, the court reasoned that Congress, not the courts, should remedy the ambiguity of RCRA and nevertheless, the Campo Band tribe could seek site-specific regulation to satisfy RCRA.³⁰⁶ Instead of setting its own environmental standards through CEPA, the Campo Band tribe could gain approval for their plan by adhering to the specific RCRA regulations of landfills.³⁰⁷

In supporting the development of the Campo Band waste facility, the EPA demonstrated a commitment to Indian self-determination.³⁰⁸ The EPA's interpretation of RCRA, however, could change in tandem with presidential administrations and allow tribal waste independence to oscillate every four years.³⁰⁹ To be sure, the problem of illegal dumping poses a significant and ongoing threat to the health and safety of tribal members and the preservation of tribal lands.³¹⁰ Indian self-determination principles and supportive governmental structures must be enshrined in law to ensure that tribal authorities, like

³⁰¹ *Backcountry Against Dumps*, 100 F.3d at 149–50.

³⁰² *Id.* at 152.

³⁰³ *See id.* at 151.

³⁰⁴ *Id.* at 151–52.

³⁰⁵ *See id.* at 150.

³⁰⁶ *Id.* at 152.

³⁰⁷ *See id.* at 152.

³⁰⁸ *See supra* notes 274, 275 and accompanying text. *See generally supra* note 165 and accompanying text.

³⁰⁹ *See Backcountry Against Dumps*, 100 F.3d at 152 (“Although treating tribes differently from states may be unfair as a policy matter and may be the result of congressional inadvertence, the remedy lies with Congress, not with the EPA or the courts.”).

Because Indian Reservations are still referred to as municipalities under the RCRA, the status of tribal sovereigns under the RCRA remains ambiguous. *See* 42 U.S.C. §§ 6903(13), (31); *see supra* notes 209, 296 and accompanying text. Today, the EPA articulates a commitment to cooperative federalism, but this emphasis is subject to the discretion of EPA Administrators who serve at the pleasure of the President. *EPA's Administrator: Andrew Wheeler*, U.S. ENV'T PROT. AGENCY (July 22, 2019), www.epa.gov/aboutepa/epas-administrator [https://perma.cc/8QBZ-V4CF]; *see infra* notes 400, 401 and accompanying text.

³¹⁰ *See* Gover & Walker, *supra* note 19, at 934.

the Wind River tribes, can implement independent waste disposal facilities to sustainably combat open dumps.³¹¹

V. SOLID WASTE MANAGEMENT ON THE WIND RIVER RESERVATION

The Wind River Reservation, located in Fremont County, is home to both the Eastern Shoshone and Northern Arapahoe tribes.³¹² After ceding a large part of their land in the 1868 Second Fort Bridger Treaty, the Eastern Shoshone occupied the Wind River Reservation with the expectation that the United States government would follow through on their promise to provide basic health, education, and infrastructure support services on the reservation.³¹³ Not only did the United States government fail to uphold their end of the bargain, they took even more Eastern Shoshone land by moving the Northern Arapaho into the Wind River Reservation in 1878.³¹⁴ This grouping has caused historic conflicts between the two tribes as the Northern Arapaho and Eastern Shoshone continually vie for federal funding and services.³¹⁵ Even though the Northern Arapaho population is twice that of the Eastern Shoshone, the two governments share federal resources awarded to the Wind River Reservation equally.³¹⁶

³¹¹ See *id.* at 934–36. Amendments in the Clean Water Act and Clean Air Act allow for tribes to have state-like status. No such amendment exists for RCRA.

³¹² *Welcome to Fort Washakie*, FORT WASHAKIE SCHOOL, www.fortwashakieschool.com/District/838-Welcome.html (last visited Dec. 17, 2020) [<https://perma.cc/CF9V-PLS8>]; Gregory Nickerson, *Managing Game on the Wind River Reservation*, WYOHISTORY.ORG (Jan. 22, 2019), www.wyohistory.org/encyclopedia/managing-game-wind-river-reservation [<https://perma.cc/HP95-TLEQ>].

³¹³ See *United States v. Shoshone Tribe of Indians of Wind River Rsrv. in Wyo.*, 304 U.S. 111, 113–14 (1938); Treaty, *supra* note 3, at art. X.

³¹⁴ See *Shoshone Tribe*, 304 U.S. at 114; *The Arapaho Arrive*, *supra* note 2; *E. Shoshone Tribe v. N. Arapaho Tribe*, 926 F. Supp. 1024, 1027 (D. Wyo. 1996). See generally Lesley Wischmann, *Separate Lands for Separate Tribes: The Horse Creek Treaty of 1851*, WYOHISTORY (Nov. 8, 2014), www.wyohistory.org/encyclopedia/horse-creek-treaty [<https://perma.cc/9GYT-A3X5>].

Since 1938, the Eastern Shoshone and Northern Arapaho tribes have jointly occupied the Wind River Reservation, each holding undivided interests in the land. *Shoshone Tribe*, 304 U.S. at 114. The two tribes also share any income derived from the land pursuant to a federal statute. See *Shoshone Tribe*, 304 U.S. at 114–15; 25 U.S.C. § 611. The amount of land owned by the Eastern Shoshone did not technically change. *The Arapaho Arrive*, *supra* note 2. In this case, however, a new nation now acquired the right to occupy and profit from Eastern Shoshone land permanently. *Shoshone Tribe*, 304 U.S. at 114–15.

³¹⁵ See *E. Shoshone Tribe*, 926 F. Supp. at 1026–28; Press Release, Northern Arapaho Tribe, Northern Arapaho Files Suit to Protect Sovereignty (Feb. 22, 2016), www.indianz.com/News/2016/02/24/northernarapaho022316.pdf [<https://perma.cc/ETR7-AJZ5>].

³¹⁶ *Wind River Agency*, U.S. DEP'T OF THE INTERIOR, www.bia.gov/regional-offices/rocky-mountain/wind-river-agency (last visited Dec. 17, 2020) [<https://perma.cc/HB67-YGTN>]; see *Welcome to Fort Washakie*, *supra* note 312; *Location*, *supra* note 5. The 2011 population of the Wind River Reservation included around 4,200 Eastern Shoshone members and around 9,800 Northern Arapaho members. *Id.*

Still, the two Wind River tribes share a commitment to environmental stewardship of their land.³¹⁷ In the 1930s, the Northern Arapaho and Eastern Shoshone established 180,000 acres of wilderness area called the Wind River Roadless Area.³¹⁸ This wilderness area remains protected today and is utilized for fish and game.³¹⁹ Moreover, both tribes agree that open dumps on the Wind River Reservation must be eradicated.³²⁰

Today, there are four waste transfer stations within the 2.2 million acres encompassing the Wind River Reservation and four Fremont County landfills located just outside the reservation's borders.³²¹ For the convenience of tribal members, transfer stations accept waste twenty-four hours a day, seven days a week and charge no tipping fees.³²² These Wind River Reservation transfer stations act as collection sites but do not actually dispose of the waste.³²³ Instead, waste is gathered, transported, and disposed at landfills outside of the reservation.³²⁴ Over the last few years, tribal authorities have identified at least seventy-five open dumps on the Wind River Reservation, with particular concern for the waste dumped near transfer stations.³²⁵ It's estimated that 4,750 cubic yards of waste should be removed to protect the health and safety of tribal members.³²⁶

First, an overview of the political landscape surrounding waste on the Wind River Reservation provides a context to understand the challenges of solid waste management on the Wind River Reservation.³²⁷ Next, two key barriers exist to

³¹⁷ See Nickerson, *supra* note 312.

³¹⁸ *Id.*

³¹⁹ *Id.* See generally *supra* notes 10, 11 and accompanying text.

³²⁰ See E. Shoshone Tribe, *Eastern Shoshone Tribe of the Wind River Reservation Wind River Debris Removal Wind River Reservation, WY*, TUMBLR (Aug. 23, 2017), easternshoshonetribe.tumblr.com/post/164526492923/message-from-the-sbcthe-eastern-shoshone [https://perma.cc/9UEZ-GXRD]; SUMMARY OF PROCEEDINGS: NOV. 13–14, *supra* note 8, at 4; *NANRO Presentation, supra* note 8.

³²¹ See E-mail from Andrew Frey, Superintendent, Fremont Cnty. Solid Waste, to author (Aug. 3, 2020, 2:33 PM) (on file with author); E. Shoshone Tribe, *supra* note 320; *Home*, FREMONT CNTY. SOLID WASTE DISPOSAL DIST., trashmatters.org (last visited Dec. 17, 2020) [https://perma.cc/2ATA-69CK].

³²² E-mail from Andrew Frey, Aug. 3, *supra* note 321; Wyo. News Exchange, *Experts: Fixing Illegal Trash Problem on Reservation a High-Dollar Task*, GILLETTE NEWS REC. (Sept. 20, 2019), www.gillettenewsrecord.com/news/wyoming/article_f1e3a079-6c63-5901-97fa-2f2fea41429d.html [https://perma.cc/E93T-UGF2].

³²³ SUMMARY OF PROCEEDINGS: NOV. 13–14, *supra* note 8, at 3.

³²⁴ *Id.*

³²⁵ See E. Shoshone Tribe, *supra* note 320; SELECT COMM. ON TRIBAL REL., WYO. LEG., SUMMARY OF PROCEEDINGS: AUG. 19–20, 5 (2019).

³²⁶ See E. Shoshone Tribe, *supra* note 320.

³²⁷ See *infra* Section V.A.

achieve a successful waste management program on the Wind River Reservation.³²⁸ These barriers provide a backdrop to contrast waste-to-energy as a viable and innovative solution to open dumping.³²⁹ Finally, the emerging curbside pick-up service offered through Northern Arapaho Solid Waste demonstrates a willingness for the Wind River tribes to adopt independent and sustainable solutions to open dumps on the Wind River Reservation.³³⁰

A. *Political Landscape of Waste on the Wind River Reservation*

For some time, the Wind River Environmental Quality Commission (WREQC) jointly managed the environmental and public health issues on the reservation.³³¹ When the Northern Arapaho and Eastern Shoshone halted most of their cooperative efforts in 2015, however, WREQC dissolved.³³² To manage solid waste on the reservation, Northern Arapaho Solid Waste formed to work in partnership with the Northern Arapaho Natural Resource Office and the Northern Arapaho Environmental Office.³³³ By 2018, the Wind River Intertribal Commission emerged as a tool for the federal government to more easily fund activities on the Wind River Reservation.³³⁴ This organization set out to oversee the tribes' shared programs, such as its waste management agreements, but Northern Arapaho Solid Waste still operates independently to provide curbside pick-up services and handle the disposal of collected waste.³³⁵

³²⁸ *Id.*

³²⁹ *Id.*

³³⁰ See *infra* Section V.B.

³³¹ See Memorandum from Carl Daly, *supra* note 10, at 3, 4, 6. At one point, the WREQC operated on an annual budget of \$1.5 million dollars to administer environmental initiatives including solid waste programs. Gregory Nickerson, *Northern Arapaho Dissolve Joint Council in Bid for Sovereignty*, WYOFILE (Sept. 10, 2014), www.wyofile.com/northern-arapaho-dissolve-joint-business-council-in-bid-for-sovereignty/ [<https://perma.cc/D6VD-Z7TK>].

³³² SUMMARY OF PROCEEDINGS: NOV. 13–14, *supra* note 8, at 4.

³³³ *Id.*

³³⁴ See Nickerson, *supra* note 331; *Press Release*, *supra* note 315.

The United States Department of Interior, for example, divides Indian Country into regions, and further groups these regions into reservations. *Wind River Agency*, *supra* note 316. Within the Rocky Mountain Region, services for the Eastern Shoshone and Northern Arapaho are provided through the Wind River Agency. *Id.* Disputes naturally arise from this problematic grouping of sovereign nations as the Northern Arapaho and Eastern Shoshone vie for federal funding. See *E. Shoshone Tribe v. N. Arapaho Tribe*, 926 F. Supp. 1024 (D. Wyo. 1996).

³³⁵ Melodie Edwards, *Tribes Sign Agreement to Launch Intertribal Council*, WYO. PUB. MEDIA (July 25, 2017), www.wyomingpublicmedia.org/post/tribes-sign-agreement-launch-new-intertribal-council#stream/0 [<https://perma.cc/GPB8-4GJ5>]; County 10, *Northern Arapaho Tribe Begins Trash Pickup Program at Ethete, Arapahoe*, ARCHIVE (Sept. 20, 2017), archive.county10.com/northern-arapaho-tribe-begins-trash-pickup-program-at-ethete-arapahoe/ [<https://perma.cc/U9FG-6VUH>].

1. *Failed Regionalization of Waste on the Wind River Reservation*

In 1995, to consolidate landfills and save on waste disposal costs, the Northern Arapaho and Eastern Shoshone tribes agreed to close all the landfills on the Wind River Reservation.³³⁶ In place of the landfills, the tribes constructed transfer stations to be operated by the Fremont County Waste Disposal District (District).³³⁷ As part of this 1996 Agreement, Fremont County agreed to provide waste disposal services to the tribes in exchange for two trucks, two trailers, and fifteen waste containers.³³⁸ For some time, the Fremont County Waste District received funding from a 3-mill levy taxes and did not charge disposal fees for waste disposed of at District facilities.³³⁹ In 2009, however, the District implemented mandatory disposal fees to cover increased operational costs and comply with new EPA regulations.³⁴⁰ By 2012, the District determined that absorbing the disposal cost of Wind River waste unfairly favored Wind River residents and terminated the 1996 Agreement.³⁴¹ As the Wind River tribes and Fremont County re-negotiated, a 2012 bridge contract extended waste disposal services for the Wind River Reservation until the parties reached a new agreement.³⁴²

After four years of re-negotiating the disposal of Wind River waste, the Eastern Shoshone tribe entered into a 2016 Agreement with the Fremont County Solid Waste Board.³⁴³ The Eastern Shoshone would operate a minimum of three transfer sites on the reservation and receive \$250,000 per year from the District.³⁴⁴ Additionally, the Eastern Shoshone agreed to haul trash from the reservation's transfer stations to the Lander Landfill.³⁴⁵ The Northern Arapaho tribe, however, declined to join the 2016 Agreement due to environmental

³³⁶ *Tool 12: How to Develop Regional Programs*, *supra* note 34, at 12-1; FREMONT CNTY. SOLID WASTE DISPOSAL DIST. & WIND RIVER INTER-TRIBAL COUNCIL, TRANSFER STATION OPERATING AGREEMENT 1 (2018); SUMMARY OF PROCEEDINGS: NOV. 13-14, *supra* note 8, at 3.

³³⁷ SUMMARY OF PROCEEDINGS: NOV. 13-14, *supra* note 8, at 3.

³³⁸ FREMONT CNTY. SOLID WASTE DISPOSAL DIST., FCSWDD & WRIR HISTORIC SOLID WASTE MGMT. SUMMARY 2 (2020), trashmatters.org/wp-content/uploads/2020/04/FCSWDD-WRIR-Historic-Summary-Report-2.pdf [<https://perma.cc/VC7D-YDXY>].

³³⁹ *Id.*

³⁴⁰ SELECT COMM. ON TRIBAL REL., WYO. LEG., SUMMARY OF PROCEEDINGS: DEC. 6-7 at 5 (2012).

³⁴¹ See FCSWDD & WRIR, *supra* note 338, at 2; SUMMARY OF PROCEEDINGS: NOV. 13-14, *supra* note 8, at 4; E. Shoshone Tribe, *supra* note 320.

³⁴² FCSWDD & WRIR, *supra* note 338, at 2; see also TRANSFER STATION OPERATING AGREEMENT, *supra* note 336.

³⁴³ FCSWDD & WRIR, *supra* note 338, at 3; see also TRANSFER STATION OPERATING AGREEMENT, *supra* note 336.

³⁴⁴ FCSWDD & WRIR, *supra* note 338, at 2.

³⁴⁵ *Id.* at 3.

concerns.³⁴⁶ Eventually, the Wind River Inter-Tribal Council reached a five-year agreement with the Fremont County Waste District to take over management of the transfer sites on the Wind River Reservation.³⁴⁷ In effect, however, this agreement resembles the historical conflict between the Eastern Shoshone and Northern Arapaho.³⁴⁸ The Inter-Tribal Council agreed to manage and operate at least two of the four transfer sites, which included the delivery of all waste to the Lander Landfill.³⁴⁹ In turn, the District agreed to partially fund the Inter-Tribal Councils' operation of the at least two transfer stations.³⁵⁰

Ryan Ortiz, the current Chief Financial Officer of the Northern Arapaho tribe and architect of Northern Arapaho Solid Waste publicly criticized the Inter-Tribal Councils' 5-year agreement with Fremont County as a "terrible contract" that forced the already underfunded Inter-Tribal Council to dispose of waste in more expensive local landfills in Fremont County.³⁵¹ The current 2018 agreement only provides a total of 1.325 million dollars in funding over five years to the tribes from Fremont County, and any tipping fees charged by the Lander Landfill offsets this amount.³⁵² While it is possible that this funding could employ a handful of people at each transfer station, it is unclear whether this operating budget covers the cost of waste collection trucks, standardized waste bins, and community programming to encourage sorting.³⁵³ Therefore, the Inter-Tribal Council is forced to manage Wind River waste without adequate funding to encourage waste minimization and establish long-term solutions to open dumping.³⁵⁴

Challenges in operating the Wind River transfer stations persisted in light of a Fremont County Waste District policy, which closed collection sites within twenty miles of any major transfer site or landfill.³⁵⁵ This policy sought

³⁴⁶ N. Arapaho Tribe, *Message to Tribal Members*, FACEBOOK (July 20, 2016), www.facebook.com/NorthernArapahoTribe/posts/message-to-tribal-members-the-arapaho-business-council-continues-to-field-questi/510798065787930/. The Arapaho Business Council expressed that it hoped to eventually work with the surrounding local governments to bolster waste management services for both Northern Arapahoe and Eastern Shoshone tribal members. *Id.*

³⁴⁷ See TRANSFER STATION OPERATING AGREEMENT, *supra* note 336.

³⁴⁸ *Select Committee on Tribal Relations Meeting*, *supra* note 6.

³⁴⁹ TRANSFER STATION OPERATING AGREEMENT, *supra* note 336, at 1–2.

³⁵⁰ *Id.* at 2.

³⁵¹ *Select Committee on Tribal Relations Meeting*, *supra* note 6.

³⁵² See TRANSFER STATION OPERATING AGREEMENT, *supra* note 336, at 3.

³⁵³ E-mail from Andrew Frey, Superintendent of Operation for Fremont Cnty. Solid Waste Disposal Dist., Re: Waste Management Law Review Comment, to author (Sept. 1, 2020, 4:47 PM) (on file with author).

³⁵⁴ *Select Committee on Tribal Relations Meeting*, *supra* note 6.

³⁵⁵ FCSWDD & WRIR, *supra* note 338, at 3; SUMMARY OF PROCEEDINGS: AUG. 19–20, *supra* note 325, at 5.

to encourage the consolidation of waste into landfills. Instead, it likely caused illegal dumping on the Wind River Reservation to increase.³⁵⁶ This policy caused the 17-mile transfer station to close and limited waste disposal options for the largest concentration of residents on the reservation, leading to even more illegal dumping on the Wind River Reservation.³⁵⁷

2. *Transfer Stations on the Wind River Reservation Lack Oversight*

Open dumps proliferate when individual behavior is unguided by enforceable regulation.³⁵⁸ An individual who makes the choice to litter may not feel the full consequences of his action without enforceable regulations in place.³⁵⁹ Even worse, an individual tends to litter when he or she perceives that others are littering.³⁶⁰ Therefore, if an individual observes that litter has already accumulated in an open space, he or she may be even less deterred from contributing to the waste accumulation.³⁶¹ In this instance, he perceives virtually no consequences for his behavior and the tragedy of the commons ensues.³⁶²

On the Wind River Reservation, the lack of local waste regulations for the few remaining transfer stations allows for individuals to dump their waste without consequence.³⁶³ Because residents are not charged tipping fees, there is no incentive to minimize waste and no consequence to excessive consumption and dumping.³⁶⁴ While WREQC attempted to impose stricter solid waste management codes and regulations for the reservation, its demise echoes the familiar story of federal action sowing discord for Native Americans.³⁶⁵ Further, even though the EPA is tasked with enforcing environmental laws throughout Indian Country,

³⁵⁶ SUMMARY OF PROCEEDINGS: AUG. 19–20, *supra* note 325, at 5.

³⁵⁷ *See id.*

³⁵⁸ *See* Kin & Mauborgne, *supra* note 21.

³⁵⁹ *See* Ruggero Rangoni & Wander Jager, *Social Dynamics of Littering and Adaptive Cleaning Strategies Explored Using Agent-Based Modeling*, 20 J. ARTIFICIAL SOC'YS AND SOC. SIMULATION 1, 7–8 (2017), jasss.soc.surrey.ac.uk/20/2/1.html [<http://dx.doi.org/10.18564/jasss.3269>].

³⁶⁰ *See id.*

³⁶¹ *See id.*

³⁶² Garrett Hardin, *The Tragedy of the Commons*, 162 SCIENCE 1243 (1968). This landmark essay explains the inevitable degradation of common resources, like the environment, by each individual's motivation to act in their own self-interest. *See id.*

³⁶³ *See* Wyo. News Exchange, *supra* note 322; SUMMARY OF PROCEEDINGS: NOV. 13–14, *supra* note 8, at 3.

³⁶⁴ *Id.*

³⁶⁵ *See* Memorandum from Carl Daly, *supra* note 10, at 4; Melodie Edwards, *Northern Arapaho's Council Resignation Part of History of Conflict with Eastern Shoshone*, WYO. PUB. MEDIA (Oct. 31, 2014), www.wyomingpublicmedia.org/post/northern-arapahos-council-resignation-part-history-conflict-eastern-shoshone#stream/0 [<https://perma.cc/FMH6-EYLY>]; *United States v. Shoshone Tribe of Indians of Wind River Rsrv.*, 304 U.S. 111 (1938).

it has failed to curtail open dumping on the Wind River Reservation.³⁶⁶ In fact, tribal leaders have consistently complained that EPA representatives do not visit the Wind River Reservation enough.³⁶⁷ Because the EPA is physically distant from the Wind River Reservation, it is unable to provide effective oversight of the transfer stations.³⁶⁸

Even more, tribal members cannot rely on tribal courts to deter illegal dumping on the Wind River Reservation.³⁶⁹ Tribal courts can exercise jurisdiction over the Wind River Reservation, but they do so to a limited degree due to federal intervention.³⁷⁰ For example, crimes against a person's property, which include illegal dumping, are generally limited to a one-year sentence and a \$5,000 fine.³⁷¹ While tribes may approve and impose an increased sentence and fine under the Tribal Law & Order Act, they often times lack the resources to catch and prosecute those who contribute to open dumps.³⁷² Moreover, without institutional oversight of tribal land, individuals will continue to dump waste on tribal land without consequence.³⁷³

Conversely, areas that have effectively deterred illegal dumping enforce environmental regulations consistently and heavily, which promotes waste minimization within communities.³⁷⁴ For example, in the town of Örebro, Sweden, citizens recycling habits are strictly monitored.³⁷⁵ If a person throws away waste in the wrong bin, he will be issued a warning letter and a fifteen-dollar fine.³⁷⁶ If a person commits a third offense of waste mismanagement, he will face

³⁶⁶ See *supra* notes 47, 325–26 and accompanying text.

³⁶⁷ See *Select Committee on Tribal Relations Meeting*, *supra* note 6; SUMMARY OF PROCEEDINGS: NOV. 13–14, *supra* note 8, at 4; *NANRO Presentation*, *supra* note 8.

³⁶⁸ See SUMMARY OF PROCEEDINGS: AUG. 19–20, *supra* note 325, at 3, 6 (“Co-chairwoman Ellis explained the difficult jurisdictional issues when involving state and federal law enforcement and investigators and concluded the best way to make justice successful is to make it local.”); see also SUMMARY OF PROCEEDINGS: NOV. 13–14, *supra* note 8, at 3.

³⁶⁹ Memorandum from Carl Daly, *supra* note 10, at 5; MIKKANEN, *supra* note 150; see 18 U.S.C. § 1153.

³⁷⁰ See MIKKANEN, *supra* note 150; 18 U.S.C. § 1153.

³⁷¹ See MIKKANEN, *supra* note 150, at 1.

³⁷² *Tribal Law and Order Act*, U.S. DEP’T OF JUSTICE (Jan. 2, 2020), www.justice.gov/tribal/tribal-law-and-order-act [<https://perma.cc/LT49-R46Z>]; MIKKANEN, *supra* note 150, at 1. The Tribal Law & Order Act seems to strengthen local law enforcement capacities within Indian Country and expand the tribes’ authority to prosecute criminals. See *Tribal Law and Order Act*, *supra* note 372.

³⁷³ See *Wyo. News Exchange*, *supra* note 322; SUMMARY OF PROCEEDINGS: AUG. 19–20, *supra* note 325, at 3, 6; SUMMARY OF PROCEEDINGS: NOV. 13–14, *supra* note 8, at 3.

³⁷⁴ See *Fines for Garbage in the Compost*, SVERIGES RADIO (Mar. 26, 2011), sverigesradio.se/sida/artikel.aspx?programid=2054&artikel=4422676 [<https://perma.cc/44B9-DT4N>].

³⁷⁵ *Id.*

³⁷⁶ *Id.*

“other” unspecified consequences.³⁷⁷ These strict consequences allow for Sweden to minimize waste effectively.³⁷⁸

B. Emerging Independent Solid Waste Management on the Wind River Reservation

Despite a lack of support from both the EPA and the state of Wyoming, tribal authorities have made significant strides in waste collection.³⁷⁹ After the WREQC dissolved, Northern Arapaho Solid Waste created a self-sustaining curbside pick-up service.³⁸⁰ This model has allowed Northern Arapaho Solid Waste to employ seven people and provide curbside pick-up services to tribal members to compensate for the 17-mile transfer station closing.³⁸¹ Northern Arapaho Solid Waste invested 1.7 million dollars in grant funding from the United States Department of Agriculture and private investors into its waste infrastructure.³⁸² These grants helped purchase standardized waste bins for residents and businesses, specialized waste transportation containers, and vehicles for waste transportation.³⁸³

Northern Arapaho Solid Waste provides affordable curbside waste services to the Wind River Reservation.³⁸⁴ For only thirty-five dollars a month, Northern Arapaho Solid Waste will arrange the pick-up of two 196-gallon carts of waste.³⁸⁵ By comparison, the City of Riverton charges residents \$31.48 a month to pick up just one 90-gallon garbage container.³⁸⁶ This means that Wind River residents can dispose of twice as much trash as Riverton residents for almost the same cost.³⁸⁷ Northern Arapaho Solid Waste is able to keep their tipping fees low because they have regionalized their approach to solid waste disposal.³⁸⁸ By sending their waste

³⁷⁷ *Id.*

³⁷⁸ *See id.*; Chris Plante, *Here's How Less Than One Percent of Sweden's Waste Ends Up in Landfills*, THE VERGE (May 6, 2015, 2:32 PM), www.theverge.com/2015/5/6/8560971/sweden-waste-to-energy-wte-recycling [<https://perma.cc/P5LF-AG36>] (Sweden sends just 1% of its waste to landfills).

³⁷⁹ *Select Committee on Tribal Relations Meeting*, *supra* note 6.

³⁸⁰ SUMMARY OF PROCEEDINGS: NOV. 13–14, *supra* note 8, at 4.

³⁸¹ SUMMARY OF PROCEEDINGS: AUG. 19–20, *supra* note 325, at 5.

³⁸² *Select Committee on Tribal Relations Meeting*, *supra* note 6.

³⁸³ *See id.*

³⁸⁴ County 10, *supra* note 335.

³⁸⁵ *Id.*

³⁸⁶ *Sanitation Rates*, RIVERTON, WYO. (adopted Feb. 4, 2020), www.rivertonwy.gov/departments/administrative_services/utility_billing/sanitation_rates.php [<https://perma.cc/EBW9-J7F7>].

³⁸⁷ *See id.*; County 10, *supra* note 335.

³⁸⁸ *See Lander Landfill & Bale Station*, FREMONT CNTY. SOLID WASTE DISPOSAL DIST., trashmatters.org/?page_id=74 (last visited Dec. 17, 2020) [<https://perma.cc/UY69-LYVY>]; *Landfill Rates*, CITY OF CASPER, WYO., www.casperwy.gov/cms/One.aspx?portalId=63067&pageId=81123 (last visited Dec. 17, 2020) [<https://perma.cc/WS5G-8YSS>]; REPORT TO THE JOINT MINERALS, *supra* note 136, at 6.

to the Casper Landfill as opposed to the local Lander landfill, Northern Arapaho Solid Waste saves thirty-two dollars per ton of waste.³⁸⁹

VI. REIMAGINING WASTE MANAGEMENT ON THE WIND RIVER RESERVATION

In the era of Indian self-determination, the federal government has articulated a commitment to cooperative federalism and working with tribes on a government-to-government basis.³⁹⁰ First, to ensure cooperative RCRA compliance on the Wind River Reservation, communication between the Wind River tribes and EPA must improve.³⁹¹ Second, to ensure that tribally lead environmental offices have operating budgets, federal funds should be earmarked for waste management within Indian Country.³⁹² In general, the federal government has shifted from their more hands-on approach to tribal funding towards providing earmarked funds for tribal programs.³⁹³ The EPA should expand the GAP grant program to build the Wind River tribes capacity to handle solid waste.³⁹⁴ Third, after building out the Wind River's waste capacity, the tribes could look to the private sector to implement waste-to-energy technology.³⁹⁵ A waste-to-energy plant would create jobs for tribal members and transform open dumps into a profitable enterprise.³⁹⁶

A. *Building a Coalition Between Tribal Sovereigns and the EPA*

Over the past few years, Wind River tribal leaders have complained that the EPA and IHS do not visit the reservation enough to survey the open dumps and support the tribes' independent waste management strategies.³⁹⁷ The Wyoming

³⁸⁹ See REPORT TO THE JOINT MINERALS, *supra* note 136, at 5, 6 (Lander charges \$75 per ton whereas Casper charges \$43 per ton).

³⁹⁰ 1 GOLDBERG ET AL., *supra* note 145, at § 1.07.

³⁹¹ See *infra* Section VI.A.

³⁹² See *infra* Section VI.B.

³⁹³ See 1 GOLDBERG ET AL., *supra* note 145, at § 1.07.

For example, tribes are now able to exercise control over federal funds for education. *Id.* In 1972, the Indian Education Act passed and allowed tribal sovereigns to design federally funded educational programs for tribal members. *History of Indian Education*, U.S. DEP'T OF EDUC., www2.ed.gov/about/offices/list/oese/oie/history.html (last visited Dec. 17, 2020) [<https://perma.cc/6RUB-BCCH>]. Several amendments followed the 1972 Act, which expanded educational autonomy for tribes. *Id.* Eventually, the Tribally Controlled Schools Act of 1988 allowed for earmarked funds to be given to tribal sovereigns, creating a sustainable and tribally designed educational program. See 25 U.S.C. §§ 2501–2511.

³⁹⁴ See U.S. ENV'T PROT. AGENCY, FY 2018–2022: WORKING TOGETHER, U.S. EPA STRATEGIC PLAN 25 (2018). See generally FY 2019: EPA BUDGET, *supra* note, at 63.

³⁹⁵ See *infra* Section VI.C.

³⁹⁶ *Id.*

³⁹⁷ See *Select Committee on Tribal Relations Meeting*, *supra* note 6; SUMMARY OF PROCEEDINGS: NOV. 13–14, *supra* note 8, at 4; *NANRO Presentation*, *supra* note 8.

Select Committee on Tribal Relations often facilitates meetings between the EPA and the Wind River tribes, but no formal coalitions between these two groups have formed.³⁹⁸ Instead, the EPA should be proactive in visiting the tribes to achieve better cooperative management of waste.³⁹⁹

The EPA has already articulated a commitment to cooperative federalism, which would apply to federal-tribal relations.⁴⁰⁰ Cooperative federalism seeks to allow for transparent and proactive collaborations between the federal government, the states, and tribal sovereigns.⁴⁰¹ As discussed earlier, the EPA and tribal sovereigns are responsible for protecting tribal land on the Wind River Reservation by properly managing solid waste.⁴⁰² Therefore, to achieve greater cooperative federalism in the area of waste management on the Wind River Reservation, the EPA must reimagine shared governance with the Wind River tribes.⁴⁰³ The EPA's most recent strategic plan outlined the possibility to implement technology that would allow for better communication with tribal sovereigns.⁴⁰⁴ As an added periphery benefit, this technology would also develop environmental monitoring of tribal land and federal oversight of transfer stations to deter open dumps.⁴⁰⁵

B. Building Tribal Capacities to Manage Waste

As part of the EPA's new focus on environmental justice, the EPA has addressed the lack of capacity on tribal lands to comply with environmental regulations like RCRA.⁴⁰⁶ The EPA defines environmental justice as “the fair treatment and meaningful involvement of all people regardless of race, color, national origin or income with respect to the development, implementation, and enforcement of environmental laws, regulations and policies.”⁴⁰⁷ To achieve environmental justice, the EPA has articulated a commitment to reevaluate and seek to change their current practices in rulemaking, permitting, compliance and enforcement, and science.⁴⁰⁸ The EPA will also explore several strategies to protect the environment

³⁹⁸ See generally *Select Committee on Tribal Relations Meeting*, *supra* note 6.

³⁹⁹ See Jason A. Robison, *Indigenizing Grand Canyon*, UTAH. L. REV. (forthcoming 2020) (on file with author).

⁴⁰⁰ FY 2018–2022: WORKING TOGETHER, *supra* note 394, at 25.

⁴⁰¹ *Id.*

⁴⁰² See *supra* notes 47, 153, 155 and accompanying text.

⁴⁰³ See FY 2018–2022: WORKING TOGETHER, *supra* note 394, at 26.

⁴⁰⁴ See *id.* at 33.

⁴⁰⁵ See *id.*

⁴⁰⁶ See EJ 2020 ACTION AGENDA, *supra* note 22, at iv, 53.

⁴⁰⁷ *Id.* at 1.

⁴⁰⁸ See *id.* at 1–2.

and health of under-resourced communities.⁴⁰⁹ These strategies involve federal cooperation with local communities and the revitalization of those economies.⁴¹⁰ Moreover, the EPA recognizes that compliance with environmental regulations requires capacity building and investment in infrastructure.⁴¹¹ In fiscal year 2017, however, the EPA allocated only \$24,444.80 to Financial Assistance Grants out of their \$473,096.70 budget for EPA Operations and Administration.⁴¹² To be sure, the problem of illegal dumping poses a significant threat to the preservation of tribal lands and warrants bold funding.⁴¹³

The federal government could play a key role in helping the Eastern Shoshone and Northern Arapaho build their capacity to eradicate open dumps.⁴¹⁴ To start, federal grant funding from the EPA would help the Wind River tribes overcome financial barriers to build infrastructure and develop a small-scale waste-to-energy plant.⁴¹⁵ The path for more focused funding by the EPA in the area of open dumps on reservation lands has already been paved.⁴¹⁶ In 2017, the EPA and the Indian Health Service collectively decided to focus efforts on gathering data related to open dumps and waste management systems on tribal land.⁴¹⁷ Specifically, the EPA is pushing for the implementation of ISWM plans in Indian Country and outlines ten steps for tribes to follow.⁴¹⁸

⁴⁰⁹ *Id.* at 33–35.

⁴¹⁰ *Id.*

⁴¹¹ *Id.*

⁴¹² U.S. ENV'T PROT. AGENCY, FISCAL YEAR 2019: JUSTIFICATION OF APPROPRIATION ESTIMATES FOR THE COMMITTEE ON APPROPRIATIONS 146 (2018).

⁴¹³ See Gover & Walker, *supra* note 19, at 934.

⁴¹⁴ See FY 2019: EPA BUDGET, *supra* note 242, at 30–31; *EPA's Budget and Spending*, *supra* note 242.

⁴¹⁵ For example, in Spokane Washington, the County of Spokane invested 110 million in a Waste to Energy Facility. See Glanton, *supra* note 18, at 91; *Waste to Energy Facility*, SPOKANE CITY, spokanewastetoenergy.com/WastetoEnergy.htm (last visited Dec. 17, 2020) [https://perma.cc/X6ZU-XFVX].

⁴¹⁶ See MEMORANDUM OF UNDERSTANDING, *supra* note 243.

⁴¹⁷ See *id.*

⁴¹⁸ *Developing Tribal Integrated Waste Management Plans*, U.S. ENV'T PROT. AGENCY, www.epa.gov/tribal-lands/developing-tribal-integrated-waste-management-plans (last visited Dec. 17, 2020) [https://perma.cc/5TLZ-XSKH] (listing the steps to create an Integrated Waste Management Plan as (1) Develop a profile of the planning area; (2) Define the waste generators within the planning area; (3) Identify existing waste management practice within the planning area; (4) Conduct a waste assessment/waste audit; (5) Estimate future waste generation quantities; (6) Develop waste handling options; (7) Identify existing regional programs or infrastructures that the planning area might use; (8) Develop costs for waste handling options; (9) Compare options based on criteria defined by the tribe; and (10) Obtain approval from your tribal council or other appropriate governing body. *Id.*

To move toward greater Indian self-determination, the EPA should expand General Assistance Program (GAP) and fund waste management capacities on tribal lands.⁴¹⁹ In most cases, the EPA provides funding to tribes through one-time grants.⁴²⁰ This disbursement method often leaves tribes in a constant state of uncertainty and keeps tribes dependent on the discretion of federal agencies to maintain delivery of waste services to tribal members.⁴²¹ The GAP grant, by comparison, allows for funding over the course of several years.⁴²² This type of funding has been successful in deterring open dumps on tribal lands, and it should be expanded to the Wind River Reservation.⁴²³ In New Mexico and Minnesota, tribes received technical assistance and funding from federal agencies to clean up open dumps and set in place long-term programming to deter future illegal dumping.⁴²⁴ Looking forward, investing in a waste-to-energy plant would provide a sustainable source of income and promote Indian self-determination.⁴²⁵

C. Partnering with the Private Sector to Implement Waste-to-Energy Technology

To promote economic development and protect tribal lands, waste-to-energy technology is worthy of the tribes' consideration as a solution to open dumps.⁴²⁶ The Wind River Reservation provides a collaborative space for the federal government, state of Wyoming, and tribal authorities to develop the next evolution of waste management: waste-to-energy technology.⁴²⁷ Therefore, there are several potential funding sources on the federal and state levels for waste-to-energy on the Wind River Reservation.⁴²⁸ A multi-phased plan to implement a waste-to-energy system on the Wind River Reservation would ensure the transformation of open dumps into economic stimulus for the Eastern Shoshone and Northern Arapaho tribes.⁴²⁹

⁴¹⁹ See OFFICE OF INTERNATIONAL AND TRIBAL AFFAIRS, DRAFT NATIONAL PROGRAM GUIDANCE FY 2020–2021 (2019).

⁴²⁰ See U.S. ENV'T PROT. AGENCY, GRANT GUIDANCE FOR MULTIPURPOSE GRANTS TO TRIBES (2020). See generally FY 2019: EPA BUDGET, *supra* note 242, at 63.

⁴²¹ See Benedict Clements et al., *Foreign Aid: Grants versus Loans*, 41 FIN. & DEV. 46, 47 (2004).

⁴²² See EPA'S INDIAN ENVIRONMENTAL GENERAL ASSISTANCE PROGRAM (GAP) FREQUENTLY ASKED QUESTIONS (FAQS) 8 (2016).

⁴²³ See U.S. ENV'T PROT. AGENCY, OPEN DUMP CLEANUP PROJECT HELPS TRIBES FIGHT WASTE (2003).

⁴²⁴ See *id.*

⁴²⁵ See Gover & Walker, *supra* note 19, at 941.

⁴²⁶ See *infra* notes 440, 445 and accompanying text; see *supra* notes 17–20 and accompanying text.

⁴²⁷ See *supra* notes 150–55 and accompanying text.

⁴²⁸ See *supra* Section IV.B.2.

⁴²⁹ See *supra* Sections IV.C.

Over fifty percent of municipal solid waste in America ends up in landfills.⁴³⁰ To promote more sustainable waste management throughout the country, the United States Department of Energy (DOE) aims to develop waste-to-energy technology.⁴³¹ The DOE is currently investing in research to implement new municipal solid waste facilities, which use anaerobic digestion and incineration.⁴³² Anaerobic digestion breaks down organic waste to produce a biogas, which can be converted into energy.⁴³³ Incineration converts any combustible municipal solid waste into energy, while simultaneously reducing waste volume.⁴³⁴ Both strategies can produce electricity and heat and both require the waste to be sorted to capture the maximum amount of energy.⁴³⁵ Additionally, these waste-to-energy systems may be tailored to the specific needs of smaller communities like the Wind River Reservation.⁴³⁶ Waste-to-energy can produce energy proportional to the amount of waste produced by the community.⁴³⁷ A waste-to-energy facility may, for example, require a minimum of fifty acres of land to generate fifty megawatts of electricity daily.⁴³⁸ Moreover, the profits gained from this energy production may

⁴³⁰ *Biomass Explained, Waste-to-energy (Municipal Solid Waste)*, U.S. ENERGY INFO. ADMIN. (Dec. 4, 2019), www.eia.gov/energyexplained/biomass/waste-to-energy.php [<https://perma.cc/WRS9-MHZS>]. In 2017, municipalities converted only 12.7% of this waste to energy. *Id.*

⁴³¹ U.S. DEP'T ENERGY, WASTE-TO-ENERGY FROM MUNICIPAL SOLID WASTES iv, 4 (2019).

⁴³² *Id.*

Historically, waste-to-energy facilities have been criticized for releasing cancerous dioxins. Glanton, *supra* note 18, at 87. Within the last twenty years though, the EPA required facilities to conform to the Maximum Achievable Control Technology (MACT) standards pursuant to the Clean Air Act. 42 U.S.C. § 7429(a)(2). The MACT standards for each industry look to emissions released by the best-controlled processes and set the MACT floor accordingly. *Maximum Achievable Control Technology (MACT) Standards*, OHIO ENV'T PROT. AGENCY, www.epa.ohio.gov/dapcl/mact/mactmain#164229496-what-is-a-mact-standard (last visited Dec. 17, 2020) [<https://perma.cc/5J92-M38D>]. For waste-to-energy, the MACT standards reduced dioxin emissions by ninety-nine percent from 1990 to 2005. See U.S. ENV'T. PROT. AGENCY, MEMORANDUM: EMISSIONS FROM LARGE AND SMALL MWC UNITES AS MACT COMPLIANCE 1 (2007).

⁴³³ See WASTE-TO-ENERGY, *supra* note 431, at iv, 4; MOHEE & BUNDHOO, *supra* note 15, at 18; *Project Location*, WASATCH RES. RECOVERY, wasatchresourcerecovery.com/project-site/ (last visited Dec. 17, 2020) [<https://perma.cc/2B6K-NFNX>].

In Utah, food waste is converted into energy through anaerobic waste-to-energy technology. Lauren Bennett, *New Utah Facility Will Turn Food into Energy*, DESERET NEWS (Feb. 7, 2019), www.deseret.com/2019/2/7/20665331 [<https://perma.cc/8RJS-YCAS>]. Food waste is grinded up, taken to a heated digester, and broken down by microorganisms. *Id.* During this process, methane gas is emitted and then captured by the facility to be sold. *Id.* Utah's plant has the capacity to produce enough energy to sustain a town of 40,000 people. *Id.* Additionally, this anaerobic digestion process produces a nutrient-rich fertilizer by-product. *Id.*

⁴³⁴ See WASTE-TO-ENERGY, *supra* note 431, at iv, 4; MOHEE & BUNDHOO, *supra* note 15, at 19–20.

⁴³⁵ See *Biomass Explained*, *supra* note 430.

⁴³⁶ See Glanton, *supra* note 18, at 91.

⁴³⁷ *Id.*

⁴³⁸ *Id.*

fund recycling programs that lead to better sorting, and better environmental outcomes for the Wind River Reservation.⁴³⁹

If the EPA championed Indian self-determination in RCRA compliance, the private sector may also be inclined to invest in a waste-to-energy plant on the Wind River Reservation.⁴⁴⁰ A waste-to-energy facility that is both publicly owned and privately operated has proven to be successful.⁴⁴¹ The Campo Band Reservation partnered with private industry to construct a landfill and the City of Salt Lake partnered with private industry to construct an anaerobic digestion plant.⁴⁴² Instead of paying the Casper Landfill for disposal services, Northern Arapaho Solid Waste could import waste from Riverton and Lander and profit from charging tipping fees, selling the energy produced, and selling recovered metals and compost.⁴⁴³ This new income could be reinvested at the discretion of tribal authorities into housing development, job creation, and family services.⁴⁴⁴

A waste-to-energy facility could also employ tribal members to alleviate poverty on the Wind River Reservation.⁴⁴⁵ In 2005, the unemployment rate among the Northern Arapaho and Eastern Shoshone tribes hovered around seventy-three percent and eighty-four percent, respectively.⁴⁴⁶ Currently, the vast majority of employment opportunities on the Wind River Reservation are in just two sectors: tribal governance and the casino industry.⁴⁴⁷ A lack of access to private capital also contributes to the high unemployment rates on the Wind River Reservation.⁴⁴⁸ Just as the Campo Band project incorporated Indian preference in employment and training, Wind River tribal authorities could negotiate the terms of a development contract to ensure that its tribal members receive priority for

⁴³⁹ *See id.*

For example, in Spokane Washington, where a small-scale waste-to-energy facility was developed, the recycling rate increased to 50 percent. SHANNON CRAWFORD, SOLID WASTE ASS'N OF NORTH AM. (SWANA), WASTE-TO-ENERGY FACILITIES PROVIDE SIGNIFICANT ECONOMIC BENEFITS (2012).

⁴⁴⁰ *See* Symposium, Ann Gelpert & Erik F. Gerding, *Private and Public Ordering in Safe Asset Markets*, 10 BROOK. J. CORP. FIN. & COM. L. 97, 99 (2015).

If the Wind River tribes were given earmarked federal funds for waste management, they would be a more secure investment to the private sector. *Id.* *See generally supra* notes 146–49 and accompanying text; *see also* Bennett, *supra* note 433.

⁴⁴¹ *See* Bennett, *supra* note 433.

⁴⁴² *See* Bennett, *supra* note 433; Campo Landfill Project, Campo Band Indian Rsrv., 6 E.A.D. 505, 509 (EAB 1996).

⁴⁴³ *See supra* notes 18, 19, 286–88 and accompanying text.

⁴⁴⁴ *See* 1 GOLDBERG ET AL., *supra* note 145, at § 4.01[1][a]; Glanton, *supra* note 18, at 91.

⁴⁴⁵ *Unemployment on Indian Reservations*, *supra* note 17, at 58.

⁴⁴⁶ *Id.*

⁴⁴⁷ *Id.* at 59–60.

⁴⁴⁸ *Id.* at 59.

jobs in the construction and operation of the waste-to-energy plant.⁴⁴⁹ Therefore, the construction of a waste-to-energy plant provides an opportunity to develop a new energy industry that could decrease unemployment rates on the Wind River Reservation.⁴⁵⁰ Moreover, the Wind River tribes could utilize federal expertise in waste-to-energy to train tribal members for future waste facility management roles.⁴⁵¹

The inclusion of Wind River tribal members in developing a waste-to-energy facility would be mutually beneficial to the tribes and federal government.⁴⁵² For the Wind River tribes, the development of a waste-to-energy facility can convert already dumped waste into energy and deter future dumping by supporting a sustainable waste management system on the Wind River Reservation.⁴⁵³ For the federal government, the Northern Arapaho and Eastern Shoshone tribes would be able to better comply with RCRA, the Clean Air Act, and the Clean Water Act.⁴⁵⁴ The Wind River Reservation provides a unique intersectional space to recruit federal experts and address illegal dumping by developing a relatively small-scale pilot waste-to-energy program.⁴⁵⁵ Moreover, a waste-to-energy plant would promote cooperative federalism and Indian self-determination by using waste to stimulate the Wind River economy.⁴⁵⁶

VII. CONCLUSION

The era of Indian self-determination affirms the federal government's duty to assist tribes in complying with EPA regulations by building tribal capacity.⁴⁵⁷ Open dumps on the Wind River Reservation serve as a continual reminder of the federal government's empty promises and shallow commitments to tribal sovereigns.⁴⁵⁸ For too long, jurisdictional ambiguity in Indian Country has led to a lack of oversight for tribal lands and a breakdown in communication between tribal sovereigns and the federal government.⁴⁵⁹ Therefore, to ensure that RCRA's

⁴⁴⁹ See Gover & Walker, *supra* note 19, at 940.

⁴⁵⁰ See *id.*

⁴⁵¹ See WASTE-TO-ENERGY, *supra* note 431, at iv–v.

⁴⁵² See *id.*

⁴⁵³ See *id.* at 5–14.

⁴⁵⁴ See *supra* notes 41, 167, 175 and accompanying text. See generally *supra* notes 325, 326, 379–383 and accompanying text.

⁴⁵⁵ See *supra* notes 151–55, 436–38 and accompanying text. See generally *supra* notes 235, 431 and accompanying text.

⁴⁵⁶ See *supra* notes 444, 445 and accompanying text. See generally *supra* notes 165, 401 and accompanying text.

⁴⁵⁷ See *supra* Part IV.

⁴⁵⁸ See *supra* Part IV.

⁴⁵⁹ See *supra* Section IV.B.

environmental protections extend to tribal lands, the federal-tribal relations must be reimagined.⁴⁶⁰ To start, a coalition between the Wind River tribes and the EPA should be created to eradicate open dumps on tribal lands.⁴⁶¹ Once investments are made to build tribal waste capacities, Indian self-determination can be achieved by implementing waste-to-energy technology on the Wind River Reservation.⁴⁶² A waste-to-energy plant provides a profound opportunity to develop the Wind River economy, attract private investment, and eradicate open dumps altogether.⁴⁶³ The very dumps that pervade the Wind River landscape right now could fuel a diverse and self-sustaining Wind River economy in the future.⁴⁶⁴

⁴⁶⁰ *See supra* Part VI.

⁴⁶¹ *See supra* Section VI.A.

⁴⁶² *See supra* Section VI.B.

⁴⁶³ *See supra* Section VI.B.

⁴⁶⁴ *See supra* Section VI.B.