

**From Eugene to Seattle:
Analyzing the Prosecution of Environmental
Crimes Within EPA Region 10**

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ABSTRACT

Criminal provisions in federal environmental law in the United States are reserved for the worst violations involving significant harm or culpable conduct, but we know little about how these crimes have been prosecuted within EPA Region 10, which includes the states of Alaska, Idaho, Oregon, and Washington. We use content analysis of 2,807 environmental crime prosecutions stemming from EPA criminal investigations, 1983–2022, and explore all 284 prosecutions occurring within Region 10 since 1983. We find defendants were cumulatively assessed over \$196 million in monetary penalties, 947 years of probation, and 156 years of incarceration at sentencing. Forty-two percent of prosecutions focused on air pollution crimes, 19 percent hazardous substances, 13 percent water pollution, and 26 percent state-level crimes. We conclude by offering prescriptions for enhancing the criminal enforcement of the environment through structural budgetary investments, increased state-federal cooperation, and strengthening of criminal enforcement associations.

INTRODUCTION

Aubrey Lewis Ritz owned the Star Dust Hotel in Idaho Falls, Idaho.¹ Ritz failed to investigate for asbestos and failed to notify the U.S. Environmental Protection Agency (EPA) of the removal, and the asbestos was disposed of as general construction debris.² Ritz was charged with violations of the U.S. Clean Air Act (CAA)³ and was sentenced to sixty months of probation and ordered to pay a \$100,000 federal fine.⁴

When transgressions of law involve significant harm or culpable conduct, such as those committed by Aubrey Lewis Ritz, the EPA may initiate a criminal investigation, and with the help of prosecutors within

¹ Aubrey Lewis Ritz (D. Idaho CR03-0160-E-BLW, 2004); *see generally infra* note 115 (providing directions on accessing EPA prosecutions).

² John Millett, *Idaho Motel Owner Charged with Asbestos Violations*, U.S. EPA (July 30, 2003), https://www.epa.gov/archive/epapages/newsroom_archive/newsreleases/0561cd521c90b4cf852570cb0075e266.html [<https://perma.cc/U82H-8ZWU>].

³ U.S. Clean Air Act (CAA), 42 U.S.C. § 7401 et seq. (1970).

⁴ Christopher Lagan, *California Real Estate Developer Sentenced for Illegal Asbestos Removal in Idaho*, U.S. EPA (Aug. 18, 2004), https://www.epa.gov/archive/epapages/newsroom_archive/newsreleases/ad829942d07b190a85257036004a4db5.html [<https://perma.cc/T6S9-JB9R>].

the Department of Justice (DOJ), may seek criminal prosecution.⁵ Nineteen eighty was a watershed year for developing criminal enforcement tools for the environment: (1) Congress upgraded felony penalties in many federal environmental statutes, (2) EPA institutionalized resources for policing environmental crimes, and (3) DOJ institutionalized processes and staff to prosecute criminal violations of law.⁶ While criminal enforcement is important for ensuring compliance by deterring violations and punishing those who transgress the law, we still know very little about the prosecution of environmental crimes within EPA Region 10, which includes Alaska, Idaho, Oregon, and Washington.⁷

Through content analysis of 2,807 criminal prosecutions stemming from EPA criminal investigations from 1983–2022, we address this gap in the literature by selecting all 284 prosecutions adjudicated during this time within Region 10. We approach the analysis in the Article in three Sections: (1) in Section IV.A we describe patterns in

⁵ Memorandum from Earl E. Devaney, Dir., Off. of Crim. Enf't, to all EPA employees working in or in support of the Crim. Enf't Program 3–4 (Jan. 12, 1994), <https://www.epa.gov/sites/production/files/documents/exercise.pdf> [https://perma.cc/G9NB-WUWC]; *Criminal Enforcement Overview*, U.S. EPA, <https://www.epa.gov/enforcement/criminal-enforcement-overview> [https://perma.cc/2HFV-YCCH] (July 28, 2023); see generally David M. Uhlmann, *Prosecutorial Discretion and Environmental Crime*, 38 HARV. ENV'T L. REV. 159 (2014) (suggesting that “prosecutors should reserve criminal enforcement for violations that involve one or more of the following aggravating factors: (1) significant environmental harm or public health effects; (2) deceptive or misleading conduct; (3) operating outside the regulatory system; or (4) repetitive violations.”).

⁶ For instance, Congress has failed to upgrade felony provisions in the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and pesticide crimes may lack deterrent value as a consequence. See Michael J. McClary & Jessica B. Goldstein, *FIFRA at 40: The Need for Felonies for Pesticide Crimes*, 47 ENV'T L. REP. 10767 (2017); *Criminal Provisions of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)*, U.S. EPA, <https://www.epa.gov/enforcement/criminal-provisions-federal-insecticide-fungicide-and-rodenticide-act-fifra#one> [https://perma.cc/G6Y9-6ALZ] (last updated Mar. 27, 2023).

For an overview of “knowing endangerment” provisions in federal environmental law, which provide particularly punitive mechanism to deter the most egregious environmental crimes, see Robert G. Schwartz, Jr., *Criminalizing Occupational Safety Violations: The Use of “Knowing Endangerment” Statutes to Punish Employers for Maintaining Toxic Working Conditions*, 14 HARV. ENV'T. L. REV. 487 (1990).

Corporate officers may be found liable for environmental crimes, even if they did not personally commit such violations, see Rita Cain, *Shareholder Liability Under Superfund: Corporate Veil or Vale of Tears?*, 17 J. LEGIS. 1 (1990); Barbara DiTata, *Proof of Knowledge Under RCRA and Use of the Responsible Corporate Officer Doctrine*, 7 FORDHAM ENV'T. L.J. 795 (1996).

⁷ *EPA Region 10 (Pacific Northwest)*, U.S. EPA, <https://www.epa.gov/aboutepa/epa-region-10-pacific-northwest> [https://perma.cc/XKF3-4K7A] (last updated Feb 24. 2023).

prosecutions and sentencing over time, (2) in Section IV.B we discuss significant prosecutions that influence overall trends, and (3) in Section IV.C we provide a thematic analysis to develop a typology of environmental crimes occurring within the region.

We begin the Article with a discussion in Part I of EPA's founding and Region 10's place within the agency's organizational structure. We follow with a discussion in Part II of the evolution of criminal enforcement tools for environmental protection, as well as administrative and civil remedies for noncompliance. In Part III we provide an overview of our data and analytical method; in Part IV we show our results, with a discussion in Part V; and we conclude in Part VI with recommendations that focus on structural investments in funding, better state-federal collaboration, and support for criminal enforcement associations.

I

EPA'S ORGANIZATION AND REGION 10

In the 1970s, Congress acted to pass wide-ranging laws that empowered the federal government to take the lead in managing numerous environmental issues. Congress passed the National Environmental Policy Act (NEPA),⁸ Clean Air Act (CAA),⁹ U.S. Clean Water Act (CWA),¹⁰ U.S. Resource Conservation and Recovery

⁸ National Environmental Policy Act (NEPA), 42 U.S.C. § 4321 et seq. (1970) (requires federal agencies to examine the impact of their major decisions on the environment. NEPA thus created a national-level framework for protecting the environment); *see also* *What Is the National Environmental Policy Act?*, U.S. EPA, <https://www.epa.gov/nepa/what-national-environmental-policy-act> [<https://perma.cc/XMP4-TG8Y>] (last updated Oct. 5, 2023).

⁹ U.S. Clean Air Act (CAA), 42 U.S.C §§ 7407–7414 (1970); The CAA Extension of 1970 (P.L. 91-604) (authorizing EPA to regulate emissions from mobile and point-source emissions); *see also* *Overview of the Clean Air Act and Air Pollution*, U.S. EPA, <https://www.epa.gov/clean-air-act-overview> [<https://perma.cc/4RBG-D2RU>] (last updated Dec. 19, 2023).

¹⁰ U.S. Clean Water Act (CWA), 33 U.S.C. § 1251 et seq. (1972); The Federal Water Pollution Control Act Amendments of 1972, Pub. L. No. 92-500, 86 Stat. 816 (providing EPA authority to create a system of managing discharges from the navigable waters of the United States); *see also* *Summary of the Clean Water Act*, U.S. EPA, <https://www.epa.gov/laws-regulations/summary-clean-water-act> [<https://perma.cc/GC79-DVAK>] (last updated June 22, 2023).

Act (RCRA),¹¹ Toxic Substances Control Act (TSCA),¹² and Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).¹³ National focusing events, including the Los Angeles smog, Santa Barbara oil spill, and the Cuyahoga River fire, along with organized pressure and the failure of the states to manage growing problems, prompted Congress to act.¹⁴ When the Nixon administration created the President’s Advisory Council on Executive Organization at this time, it issued its report, known as the Ash Council Memo, supporting the creation of a single agency to lead the charge to begin addressing these environmental issues.¹⁵

While President Nixon preferred a weaker, decentralized solution, he relented and sent plans to Congress calling for an executive reorganization that would create the EPA to manage air, water,

¹¹ U.S. Resource Conservation and Recovery Act (RCRA), 42 U.S.C. § 6901 et seq. (1976) (authorizing EPA to regulate solid waste and develop a permitting system to regulate hazardous waste from cradle to grave); *see also Resource Conservation and Recovery Act (RCRA) Overview*, U.S. EPA, https://19january2017snapshot.epa.gov/rcra/resource-conservation-and-recovery-act-rcra-overview_.html [<https://perma.cc/XSH4-8RG6>] (last updated Jan. 19, 2017).

¹² Toxic Substances Control Act, 15 U.S.C. §§ 2601–2692 (1976) (authorizing EPA to regulate chemical substances, from manufacturing, use in commerce, and importation); *see also Learn About the Toxic Substances Control Act*, U.S. EPA, <https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/learn-about-toxic-substances-control-act-tsca> [<https://perma.cc/ZB9K-W6UC>] (last updated June 14, 2023).

¹³ Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), 7 U.S.C. § 136 (1972) (authorizing EPA to manage health risks from pesticides and to regulate commercial applicators, importation of pesticides and other issues related to pesticides); *see also Summary of the Federal Insecticide, Fungicide, and Rodenticide Act*, U.S. EPA, <https://www.epa.gov/laws-regulations/summary-federal-insecticide-fungicide-and-rodenticide-act> [<https://perma.cc/6NLA-7D69>] (last updated Sept. 6, 2023).

¹⁴ Richard Nixon, *Special Message from the President to the Congress About Reorganization Plans to Establish the Environmental Protection Agency and the National Oceanic and Atmospheric Administration*, U.S. EPA (July 9, 1970), <https://www.epa.gov/archive/epa/aboutepa/reorganization-plan-no-3-1970.html> [<https://perma.cc/U76G-8RXX>]; *The 1969 Cuyahoga River Fire*, NAT’L PARK SERV., <https://www.nps.gov/articles/story-of-the-fire.htm> [<https://perma.cc/9Y8K-SX6R>] (last updated May 3, 2022); Kat Eschner, *This 1943 “Hellish Cloud” Was the Most Vivid Warning of LA’s Smog Problems to Come*, SMITHSONIAN MAG. (July 26, 2017), <https://www.smithsonianmag.com/smart-news/1943-hellish-cloud-was-most-vivid-warning-las-smog-problems-come-180964119/> [<https://perma.cc/5RXF-D3YQ>]; *45 Years After the Santa Barbara Oil Spill, Looking at a Historic Disaster Through Technology*, NOAA OFF. OF RESPONSE & RESTORATION (Jan. 28, 2014), <https://response.restoration.noaa.gov/about/media/45-years-after-santa-barbara-oil-spill-looking-historic-disaster-through-technology.html> [<https://perma.cc/2RWX-E4VK>].

¹⁵ Memorandum from President’s Advisory Council on Exec. Org. to the President (Apr. 29, 1970), <https://www.epa.gov/archive/epa/aboutepa/ash-council-memo.html> [<https://perma.cc/3QHQ-VGPL>].

hazardous waste, chemical substances, pesticides and fungicides, and other environmental issues.¹⁶ The reorganization called for resources to move from a variety of existing agencies, including the Council on Environmental Quality, Federal Radiation Council, and Atomic Energy Commission.¹⁷ Unlike previous efforts where responsibilities fell to agencies that held multiple mandates and missions, the EPA would have a central mandate of managing environmental threats in an increasingly industrialized society and take on a leadership role for the environment while cooperating with the states to implement environmental rules, create regulations, and enforce the law.¹⁸

While the EPA enjoyed public support, it enjoyed no honeymoon phase in its existence. EPA was beset by several problems at its outset, including (1) tight deadlines for a variety of tasks imposed by Congress, (2) a lack of congressional direction for meeting its mandates, (3) the scale of the current policy problems it faced, and (4) a lack of tested pollution control technologies that could easily be scaled up across industries.¹⁹ EPA's first administrator, William Ruckelshaus, worked diligently to develop a strong and internalized enforcement culture within the agency and the regulated community. Ruckelshaus acted quickly to ban DDT and create the infrastructure for publicly owned water treatment works under the CWA.²⁰ Ruckelshaus's intent to enforce the law was very public and evident. Ruckelshaus demonstrated this when EPA moved to file lawsuits against the cities

¹⁶ *The Guardian: Origins of the EPA*, U.S. EPA (1992), <https://www.epa.gov/archive/epa/aboutepa/guardian-origins-epa.html> [<https://perma.cc/X7GU-Q64R>] (the Council presented a number of options, but found the value in creating a singular agency for the task); *see also* Memorandum from President's Advisory Council on Exec. Org. to the President (Apr. 29, 1970), <https://www.epa.gov/archive/epa/aboutepa/ash-council-memo.html> [<https://perma.cc/7QVK-8SDN>].

¹⁷ *EPA's Origins: Duties Transferred to EPA from Other Federal Agencies*, U.S. EPA, <https://www.epa.gov/archive/epa/aboutepa/epas-origins-duties-transferred-epa-other-federal-agencies.html> [<https://perma.cc/XPA8-D4QY>] (last updated Sept. 6, 2016).

¹⁸ William D. Ruckelshaus, *EPA's First Administrator on the Establishment of EPA*, U.S. EPA (Dec. 16, 1970), <https://www.epa.gov/archive/epa/aboutepa/epas-first-administrator-establishment-epa.html> [<https://perma.cc/G7MP-YTWR>].

¹⁹ Political pressure moved reorganization forward, despite a lukewarm reception from the Nixon White House. *See* Jack Lewis, *The Birth of EPA*, U.S. EPA (Nov. 1985), <https://www.epa.gov/archive/epa/aboutepa/birth-epa.html> [<https://perma.cc/H5PY-4UP5>].

²⁰ Phil Wisman, *EPA History (1970-1985)*, U.S. EPA (Nov. 1985), <https://www.epa.gov/archive/epa/aboutepa/epa-history-1970-1985.html#ruckelshaus> [<https://perma.cc/3A24-XJW6>]; *DDT Ban Takes Effect*, U.S. EPA (Dec. 31, 1972), <https://www.epa.gov/archive/epa/aboutepa/ddt-ban-takes-effect.html> [<https://perma.cc/KC97-H568>]; *see generally Overview of POTWs and Discharges to Them*, N.J. DEP'T OF ENV'T PROT. (June 29, 2023), <https://www.nj.gov/dep/dwq/sius.htm> [<https://perma.cc/P7VK-A6DF>] (New Jersey's POTW program was established as a result of Ruckelshaus's directive).

of Atlanta, Cleveland, and Detroit for discharging excessive pollution into rivers and waterways; the EPA also either closed approximately 5,000 open dumps or converted the open dumps to sanitary landfills in what the agency termed Operation 5000.²¹

At the time, EPA Order 1110.2, signed by William Ruckelshaus in 1970, set the basic framework for EPA's internal organization.²² The Order set up the following structure for the agency: the Office of the Administrator, Deputy Administrator, Administrator, Air Pollution Control Office, Water Quality Office, Solid Waste Office, Pesticides Office, Assistant Administrator for Research and Monitoring, Assistant Manager for Standards and Enforcement and the General Counsel, Assistant Administrator for Planning and Management, and the organization's regional offices.²³ The regional offices would handle several organizational issues including compliance, enforcement, and collaboration with state and local agencies.²⁴ EPA Region 10 was organized to manage the agency's affairs in the Pacific Northwest and includes Alaska, Idaho, Oregon, and Washington.²⁵ Region 10 is headquartered in Seattle.²⁶

II

ENFORCEMENT AND NONCOMPLIANCE

A. Types of Enforcement

Environmental law violations are typically remedied by EPA with an overall goal of returning the transgressor to compliance with the

²¹ William D. Ruckelshaus, *Environmental Regulation: The Early Days at EPA*, U.S. EPA (Mar. 1988), <https://www.epa.gov/archive/epa/aboutepa/environmental-regulation-early-days-epa.html> [https://perma.cc/8VAN-JFL6].

²² *EPA Order 1110.2 – Initial Organization of the EPA*, U.S. EPA (Dec. 4, 1970), <https://www.epa.gov/archive/epa/aboutepa/epa-order-11102-initial-organization-epa.html> [https://perma.cc/6EVV-EGBS].

²³ Dennis C. Williams, *Why Are Our Regional Offices and Labs Located Where They Are? A Historical Perspective on Siting*, U.S. EPA (Mar. 1993), <https://www.epa.gov/history/why-are-our-regional-offices-and-labs-located-where-they-are-historical-perspective-siting> [https://perma.cc/TS79-STAR].

²⁴ *Regional and Geographic Offices*, U.S. EPA, <https://www.epa.gov/aboutepa/regional-and-geographic-offices> [https://perma.cc/M7UQ-23XY] (last updated Jan. 17, 2023).

²⁵ *EPA Region 10 (Pacific Northwest)*, U.S. EPA, <https://www.epa.gov/aboutepa/epa-region-10-pacific-northwest> [https://perma.cc/UE6K-2B4P] (last updated Feb. 24, 2023).

²⁶ For an overview of the Region 10's organization, see *Organization of EPA's Region 10 Office in Seattle*, U.S. EPA, <https://www.epa.gov/aboutepa/organization-epas-region-10-office-seattle> [https://perma.cc/MCJ4-HHPW] (last updated Sept. 13, 2023).

law through administrative or civil remedies.²⁷ Using administrative tools for compliance is EPA's first line of defense. These tools can include issuing violation notices, orders of corrections, or fines.²⁸ Civil remedies may follow if administrative solutions fail to induce compliance. Civil remedies include the imposition of an environmental monitoring plan; creation and negotiation of a supplemental environmental project, environmental mitigation plan, or administrative order on agreement or consent; and court issuance of a temporary or permanent injunction to halt polluting activities.²⁹ EPA can also pursue a civil lawsuit. A court may find a responsible party guilty, and subject to liability, for the damages their polluting activities caused. The defendant may also negotiate a consent decree to return to compliance and avoid admitting guilt.³⁰ Civil remedies may contain a restorative justice component, as government officials seek to create conditions that attempt to return a community to a prior state before pollution caused harm.³¹

EPA may choose to apply administrative and civil remedies for noncompliance exclusively or in tandem with state agencies.³² When companies or individuals violate the law in a manner that creates significant harm, or involves culpable conduct, EPA may choose to

²⁷ *Basic Information on Enforcement*, U.S. EPA, <https://www.epa.gov/enforcement/basic-information-enforcement> [<https://perma.cc/5LXX-H9V7>] (last updated Oct. 18, 2023).

²⁸ See U.S. EPA, USING ALL APPROPRIATE INJUNCTIVE RELIEF TOOLS IN CIVIL ENFORCEMENT SETTLEMENTS (2021), <https://www.epa.gov/sites/default/files/2021-04/documents/usingallappropriateinjunctiverelieftoolsincivilenforcementsettlement0426.pdf> [<https://perma.cc/AW8V-LLUL>].

²⁹ See U.S. EPA, GUIDANCE ON USE OF PENALTY POLICIES IN ADMINISTRATIVE LITIGATION (1995), <https://www.epa.gov/sites/default/files/documents/gpoladminlitig-mem.pdf> [<https://perma.cc/VBW9-7EGG>]; U.S. EPA, SECURING MITIGATION AS INJUNCTIVE RELIEF IN CERTAIN CIVIL ENFORCEMENT SETTLEMENTS (2d ed. 2012), <https://www.epa.gov/sites/default/files/2016-08/documents/2ndeditionsecuringmitigationemo.pdf> [<https://perma.cc/H5U5-DXFC>]; see generally *Supplemental Environmental Projects (SEPs)*, U.S. EPA, <https://www.epa.gov/enforcement/supplemental-environmental-projects-seps> [<https://perma.cc/3544-4DHL>] (last updated Dec. 7, 2023).

One can find EPA civil enforcement actions by searching the Enforcement and Compliance History Online (ECHO) database. See *Enforcement and Compliance History Online*, U.S. EPA (2023), <https://echo.epa.gov/> [<https://perma.cc/WTH9-5G53>].

³⁰ U.S. EPA, SECURING MITIGATION AS INJUNCTIVE RELIEF IN CERTAIN CIVIL ENFORCEMENT SETTLEMENTS (2d ed. 2012), <https://www.epa.gov/sites/default/files/2016-08/documents/2ndeditionsecuringmitigationemo.pdf> [<https://perma.cc/DST8-LKP5>].

³¹ See Michael L. Rustad et al., *Restorative Justice to Supplement Deterrence-Based Punishment: An Empirical Study and Theoretical Reconceptualization of the EPA's Power Plant Enforcement Initiative, 2000-2011*, 65 OKLA. L. REV. 427 (2013).

³² Lucia Ann Silecchia, *Ounces of Prevention and Pounds of Cure: Developing Sound Policies for Environmental Compliance Programs*, 7 FORDHAM ENV'T L. REV. 583 (2011).

initiate a criminal investigation.³³ EPA pursues such investigations for “knowing or negligent violation of an environmental law.”³⁴ EPA criminal investigators may work with state or other federal law enforcement agencies to police environmental crimes, but ultimately work with DOJ prosecutors to pursue criminal prosecution when companies or individuals violate federal environmental laws.³⁵

B. Developing Criminal Enforcement Tools

Congress initially created misdemeanor penalties for environmental law violations with the passage of the Rivers and Harbors Act and Lacey Act at the turn of the twentieth century.³⁶ As Congress passed several new environmental laws in the 1970s and the Nixon Administration organized EPA to enforce them, the agency encountered difficulties with compliance within the regulated community. This prompted a perceived need to develop stronger penalties for serious violations of law, which was also the case in a handful of other countries during the same period.³⁷ Previously, the federal government’s approach to remedying violations of law was to seek injunctive relief or other civil remedies.³⁸ By the 1980s, Congress moved to enhance penalties for serious federal environmental law violations.³⁹ Congress worked first to enhance penalties for hazardous waste crimes under RCRA in 1984, then upgraded penalties for water pollution crimes under the CWA in 1987, air pollution crimes under the CAA, and other statutes.⁴⁰

³³ Michael J. Lynch, *The Sentencing/Punishment of Federal Environmental/Green Offenders, 2000–2013*, 38 *DEVIANT BEHAV.* 991, 995 (2017).

³⁴ U.S. EPA, *OCEFT AT A GLANCE* (2017), <https://www.epa.gov/sites/default/files/2019-05/documents/oceft-at-a-glance-aug2017.pdf> [<https://perma.cc/5UPP-7387>].

³⁵ Devaney, *supra* note 5, at 3–4.

³⁶ *Historical Development of Environmental Criminal Law*, U.S. DEPT. OF JUST. ENV’T CRIMES SECTION, <https://www.justice.gov/enrd/about-division/historical-development-environmental-criminal-law> [<https://perma.cc/D9NB-JY5U>] (last updated Sept. 12, 2023).

³⁷ Michael R. Pendleton, *Beyond the Threshold: The Criminalization of Logging*, 10 *SOC’Y & NAT. RES.* 181, 191–92 (1997).

³⁸ Robert I. McMurry & Stephen D. Ramsey, *Environmental Crime: The Use of Criminal Sanctions in Enforcing Environmental Laws*, 19 *LOY. L.A. L. REV.* 1133, 1136–41 (1986).

³⁹ There were limited examples of DOJ prosecuting crimes involving pollution through the 1970s, but the process was not extensive, nor institutionalized. See Richard J. Lazarus, *Assimilating Environmental Protection into Legal Rules and the Problem with Environmental Crime*, 27 *LOY. L.A. L. REV.* 867, 867–70 (1994).

⁴⁰ The Refuse Act of 1899, 33 U.S.C. § 403 was the first federal law to criminalize environmental violations. The Act made illegal the alteration, obstruction, or making unpermitted changes to the navigable waterways of the United States; see also The Lacey

C. Institutionalizing Policing Resources for EPA

EPA encountered significant noncompliance in the initial years after the agency's organization, particularly when it implemented its Major Source Enforcement Efforts (MSEE) to address noncompliance with the CAA and CWA.⁴¹ By 1981, the Office of Enforcement was organized, and criminal investigators were hired the following year, with DOJ attorney Peter Beeson being tapped to run the Office.⁴² EPA criminal investigators were given full law enforcement authority in 1988 after Congress passed the Medical Waste Tracking Act,⁴³ and in 1989, the U.S. Attorney General approved them to carry firearms while on duty.⁴⁴ EPA's criminal investigation resources were further enhanced the following year when Congress passed the Pollution Prosecution Act⁴⁵ that authorized the hiring of 200 criminal investigators housed within EPA's Criminal Investigation Division (EPA-CID).⁴⁶

Act, 16 U.S.C. §§ 3371–3378 (1900) (making illegal the unpermitted interstate wildlife trade).

⁴¹ Congress exerted pressure on EPA to provide a quick turnaround on enforcement and regulatory outcomes. See McMurry & Ramsey, *supra* note 38, at 1134–42; Larry D. Wynne, *A Case for Criminal Enforcement of Federal Environmental Laws*, 38 NAVAL L. REV. 105 (1989).

⁴² McMurry & Ramsey, *supra* note 38, at 1134; Devaney, *supra* note 5, at 3–4; see also Lazarus, *supra* note 39, at 870–71 (EPA employed 23 criminal investigators by 1983 and by 1990, the criminal enforcement program employed 110 people, including 47 investigators (also known as Special Agents)); see generally *About the Office of Enforcement and Compliance Assurance (OECA)*, U.S. EPA, <https://www.epa.gov/aboutepa/about-office-enforcement-and-compliance-assurance-oeca> [<https://perma.cc/L3P2-3FNA>] (last updated Dec. 29, 2023) (providing up-to-date information on EPA's Office of Enforcement).

⁴³ Medical Waste Tracking Act of 1988, Pub. L. No. 100-582, 102 Stat. 2950.

⁴⁴ Raymond W. Mushal, *Up from the Sewers: A Perspective on the Evolution of the Federal Environmental Crimes Program*, 4 UTAH L. REV. 1103, 1107 (2009); JOHN PETER SUAREZ, U.S. EPA, MANAGEMENT REVIEW OF THE OFFICE OF CRIMINAL ENFORCEMENT, FORENSICS AND TRAINING (2003), <https://www.epa.gov/sites/production/files/documents/oceft-review03.pdf> [<https://perma.cc/UX9R-METQ>].

⁴⁵ Pollution Prosecution Act of 1990, 42 U.S.C. § 13101 et seq. (1990).

⁴⁶ The number of criminal investigators varies by source, with estimates ranging from 145 to around 200, depending on whether one includes support staff. See U.S. EPA, U.S. ENVIRONMENTAL PROTECTION AGENCY CRIMINAL ENFORCEMENT PROGRAM: AMERICA'S ENVIRONMENTAL CRIME FIGHTERS, <https://www.epa.gov/sites/production/files/documents/oceftbrochure.pdf> [<https://perma.cc/6EFQ-DMEG>] (last visited Dec. 30, 2023); *EPA CID Agent Count*, PUB. EMPS. FOR ENV'T RESP. (Nov. 21, 2019), https://www.peer.org/wp-content/uploads/2019/11/11_21_19-Federal_Pollution_EPA_CID_Agent_Count.pdf [<https://perma.cc/V8TZ-U87D>].

D. Organizing Resources for Prosecution Within DOJ

DOJ formalized agency resources for criminal prosecution in the 1970s when it organized the Environmental Crimes Unit.⁴⁷ Its long history of overseeing natural resources law began with the founding of the Public Lands Division in 1909.⁴⁸ In 1982, DOJ created the Environmental Crimes Section (DOJ-ECS) to centralize resources for the criminal prosecution of environmental crimes. DOJ-ECS became its own unit within the Environment and Natural Resources Division (ENRD) in 1987.⁴⁹ Forty-three attorneys and a dozen support staff are currently employed within the unit.⁵⁰

Collaboration is key for prosecuting environmental crimes where EPA monitors and polices crimes—often with the help of state and local agencies and DOJ prosecutors—while working with EPA-CID to pursue criminal prosecution.⁵¹ The nexus between EPA and DOJ may be traced to the mid-1970s.⁵² Prosecutors and other state and local agencies may also work to help criminal investigators build cases.⁵³ The basis for environmental crime investigations may typically come from state investigations, whistleblowers, civil inspectors, or other regulatory documents.⁵⁴ EPA investigators look for multiple signs of an environmental crime, including the following:

⁴⁷ Lazarus, *supra* note 39, at 868–70.

⁴⁸ *History*, U.S. DEP'T OF JUST. ENV'T & NAT. RES. DIV., <https://www.justice.gov/enrd/history> [<https://perma.cc/6DLP-XMT6>] (last updated Sept. 14, 2023).

⁴⁹ *Historical Development of Environmental Criminal Law*, U.S. DEP'T OF JUST. ENV'T & NAT. RES. DIV., <https://www.justice.gov/enrd/about-division/historical-development-environmental-criminal-law> [<https://perma.cc/PF7X-XUML>] (last updated Sept. 12, 2023); see Joseph G. Block, *Environmental Criminal Enforcement in the 1990's*, 3 VILL. ENV'T L.J. 33 (1992).

⁵⁰ *Environmental Enforcement Section*, U.S. DEP'T OF JUST. ENV'T & NAT. RES. DIV., <https://www.justice.gov/enrd/environmental-enforcement-section> [<https://perma.cc/3XJG-GCV2>] (last visited Dec. 30, 2023); *Environmental Crimes Section*, U.S. DEP'T OF JUST. ENV'T & NAT. RES. DIV., <https://www.justice.gov/enrd/environmental-crimes-section> [<https://perma.cc/84BK-LFFC>] (last visited Dec. 30, 2023).

⁵¹ McMurry & Ramsey, *supra* note 38, at 1161; see Uhlmann, *supra* note 5, at 159–60 (Congress was not strict in deciding which environmental violations result in civil, administrative, or criminal enforcement, opening up prosecutorial discretion on how to proceed in particular cases).

⁵² Mushal, *supra* note 44, at 1103–07.

⁵³ See Joel A. Mintz, *Treading Water: A Preliminary Assessment of EPA Enforcement During the Bush II Administration*, 34 ENV'T L. REP. 10912 (2004).

⁵⁴ See Joel A. Mintz, *Some Thoughts on the Interdisciplinary Aspects of Environmental Enforcement*, 36 ENV'T L. REP. 10495 (2006); see U.S. EPA, *supra* note 34. (According to the EPA: “federal law enforcement agents - with full Federal authority to conduct

Strong, offensive, or unusual chemical odors; Large numbers of dead birds, fish or other animals; Pipes or valves that bypass waste treatment systems; Tank trucks discharging into drains, manholes or surface waters; Oily slicks on bodies of water; Corroded, leaking waste containers; and Drums or containers dumped at odd hours in out-of-the-way places.⁵⁵

The process of investigating and prosecuting environmental crimes was always intended to be a focused effort that occurred under resource constraints.⁵⁶ Yet two factors provide some enhanced deterrent value, even if prosecution may not be common. The first factor is Congress enhanced penalties for criminal violations of environmental law that can include stiff fines and the possibility of incarceration.⁵⁷ At the extreme end of the punishment spectrum, the most significant crime is arguably the crime of knowing endangerment where one places another individual in imminent danger of death or serious bodily injury. This crime has attached fines of up to \$250,000 per offense and fifteen years of incarceration for individual offenders and fines up to \$1 million per offense for companies.⁵⁸ Unlike civil enforcement remedies that focus on organizations, prosecutors can seek criminal prosecution for corporate officers.⁵⁹ Congress upgraded penalties and provided for punishments to show the regulated community, as well as federal law

investigations, carry firearms, make arrests, and execute search and arrest warrants, investigate environmental crimes,” as do “specially trained investigators, chemists, engineers, technicians. . . . [and] attorneys with environmental crimes expertise . . . EPA special agents talk and listen to suspects and witnesses, conduct surveillance, seize and analyze records, find people and information, work with forensics experts, prosecutors and other police involved, analyze evidence and data and testify in court.”); see Michael Herz, *Structures of Environmental Criminal Enforcement*, 7 *FORDHAM ENV'T L.J.* 679 (1996).

⁵⁵ U.S. EPA, *supra* note 34.

⁵⁶ Devaney, *supra* note 5, at 3–4.

⁵⁷ Mushal, *supra* note 44, at 1111–12.

⁵⁸ *Criminal Provisions of Water Pollution*, U.S. EPA, <https://www.epa.gov/enforcement/criminal-provisions-water-pollution> [<https://perma.cc/868K-ELPB>] (last updated Nov. 1, 2022); see also *Criminal Provisions*, U.S. EPA, <https://www.epa.gov/enforcement/criminal-provisions> [<https://perma.cc/SHK2-RBAJ>] (last updated June 16, 2023) (reviewing of criminal provisions in federal environmental statutes).

⁵⁹ McMurry & Ramsey, *supra* note 38, at 1157–60; see Robert T. McGovern, *United States v. Johnson & Towers, Inc.: Corporate Employee Criminal Liability under RCRA*, 2 *PACE ENV'T L. REV.* 316 (1985); see Ronald M. Broudy, *RCRA and the Responsible Corporate Officer Doctrine: Getting Tough on Corporate Offenders by Sidestepping the Mens Rea Requirements*, 80 *KY. L.J.* 1055 (1992); Sidney M. Wolf, *Finding an Environmental Felon Under the Corporate Veil: The Responsible Corporate Officer Doctrine and RCRA*, 9 *J. LAND USE & ENV'T L.* 1, 1 (1993); see also McMurry & Ramsey, *supra* note 38, at 1163–64 (EPA and DOJ may pursue both civil and criminal measures and they often apply criminal tools for particularly egregious offenses on top of pursuing civil damages).

enforcement agencies, that environmental crimes would be taken seriously.⁶⁰

A limited number of studies exist on environmental crime prosecutions, but studies show federal prosecutors have pursued complex cases over time in the United States.⁶¹ Prosecutors have been shown to be motivated to pursue significant penalties at sentencing.⁶² Emerging research has also begun to explore state and local prosecutions.⁶³ Yet we have few empirical studies of criminal prosecution that have taken place over time within EPA Region 10.⁶⁴

⁶⁰ Lazarus, *supra* note 39, at 868–71.

⁶¹ See Joshua Ozymy et al., *Persistence or Partisanship: Exploring the Relationship Between Presidential Administrations and Criminal Enforcement by the U.S. Environmental Protection Agency, 1983-2019*, 81 PUB. ADMIN. REV. 49 (2021); Joshua Ozymy & Melissa L. Jarrell, *Predicting the U.S. Environmental Protection Agency's Criminal Enforcement Outcomes, 1983-2019*, 30 ENV'T POL. 1237 (2021).

⁶² Uhlmann, *supra* note 5, at 159–60; David M. Uhlmann, *Prosecutorial Discretion and Environmental Crime Redux: Charging Trends, Aggravating Factors, and Individual Outcome Data For 2005-2014*, 8 MICH. J. ENV'T & ADMIN. L. 297, 312 (2019).

⁶³ See Matthew S. Crow et al., *Camouflage-Collar Crime: An Examination of Wildlife Crime and Characteristics in Florida*, 34 DEVIANT BEHAV. 635 (2013) (detailing empirical studies on state and local environmental crime enforcement); see Joshua C. Cochran et al., *Court Sentencing Patterns for Environmental Crimes: Is There a "Green" Gap in Punishment?* 34 J. QUANTITATIVE CRIMINOLOGY 37 (2018); Michael J. Lynch, *County-Level Environmental Crime Enforcement: A Case Study of Environmental/Green Crimes in Fulton County, Georgia, 1998-2014*, 40 DEVIANT BEHAV. 1090 (2019).

⁶⁴ For a discussions of deterrence theory generally, see Gary S. Becker, *Crime and Punishment: An Economic Approach*, 76 J. POL. ECON. 169, 183 (1968); Richard A. Posner, *An Economic Theory of the Criminal Law*, 85 COLUM. L. REV. 1193, 1193–200 (1985); Carole M. Billiet & Sandra Rousseau, *How Real Is the Threat of Imprisonment for Environmental Crime?*, 37 EUROPEAN J.L. & ECON. 183, 183–88 (2014); Raymond Paternoster, *How Much Do We Really Know about Criminal Deterrence?*, 100 J. CRIM. L. & CRIMINOLOGY 765, 765–68 (2010); Michael J. Lynch et al., *The Weak Probability of Punishment for Environmental Offenses and Deterrence of Environmental Offenders: A Discussion Based on USEPA Criminal Cases, 1983-2013*, 37 DEVIANT BEHAV. 1095, 1096–99 (2016); see also Daniel P. Fernandez et al., *Monetary Consequences of Environmental Regulations: Cost of Doing Business or Non-Deductible Penalties or Fines?*, 9 AM U. BUS. L. REV. 123 (2019) (opining that companies may see compliance as the cost of doing business if penalties are weak and prosecutions infrequent).

For examples of recent empirical work on criminal enforcement, see Joshua Ozymy & Melissa Jarrell Ozymy, *Green Crimes in the Empire State: Analyzing the Criminal Enforcement of Environmental Law in New York*, 39 PACE ENV'T L. REV. 257 (2022); Joshua Ozymy & Melissa Jarrell Ozymy, *All Dried up: The Prosecution of Water Pollution Crimes During the Trump Administration*, 35 TUL. ENV'T L. REV. 69 (2022); Joshua Ozymy & Melissa Jarrell Ozymy, *The Green Police in the Golden State: An Analysis of the Criminal Enforcement of Environmental Law in the State of California*, 28 HASTINGS ENV'T L.J. 3 (2022).

In this study, we address this gap in the literature. We use content analysis of EPA-CID criminal investigations that lead to prosecution within Region 10. We analyzed 284 prosecutions within Alaska, Idaho, Oregon, and Washington from 1983–2022. Our approach allows for the analysis of patterns in prosecutions and sentencing, exploration of significant prosecutions, and development of a typology of prosecutions to show general themes in prosecutions that have taken place over time in the region.

III DATA AND METHOD

We used EPA's Summary of Criminal Prosecutions Database as our primary data source for the study.⁶⁵ We collected data on EPA-CID criminal investigations that led to criminal prosecution from 1983–2022 using the database. We collected data on 2,807 criminal prosecutions, beginning with the initial case in the dataset until data collection ended on November 20, 2022. We then selected all cases occurring within Region 10, including all cases occurring within Alaska, Idaho, Oregon, and Washington, which totaled 284 prosecutions.⁶⁶ We captured the following data from each EPA case summary: short, narrative description of the case; name of the primary defendant in the case; state identifier; fiscal year identifier; docket number; number of named defendants; environmental laws violated; other criminal offenses and Title 18 violations including false statements, obstruction, conspiracy, fraud, and other such offenses; whether a corporation was a named defendant in the case; and all sentencing data aggregated across all individual and company defendants in the case including total months of probation, total months of incarceration, total hours of community service, and all monetary penalties such as fines, fees, assessments, restitution, and any and all monetary penalties assessed at sentencing in each case.⁶⁷

⁶⁵ *Summary of Criminal Prosecutions Database*, U.S. EPA, <https://www.epa.gov/enforcement/summary-criminal-prosecutions> [<https://perma.cc/9J5W-JTM5>] (last updated June 16, 2023).

⁶⁶ *EPA Region 10 (Pacific Northwest)*, U.S. EPA, <https://www.epa.gov/aboutepa/epa-region-10-pacific-northwest> [<https://perma.cc/4BA6-2KCE>] (last updated Feb. 24, 2023).

⁶⁷ See 18 U.S.C. (2022), <https://uscode.house.gov/view.xhtml?path=/prelim@title18&edition=prelim> [<https://perma.cc/9G6X-AWDE>] (Title 18 is the main criminal code of the United States).

We used content analysis to extract this data from the case summaries.⁶⁸ Two coders worked independently and in parallel to collect and interpret the data. A pilot phase commenced for four weeks, in which we worked to understand the data better and find problems, and then coding for the full data set commenced. We met to find consensus on differing values, with one of the authors reviewing data for discrepancies, and these typically came from complex or ambiguous sentencing data. Intercoder reliability for the dataset was roughly 95% overall.⁶⁹

IV RESULTS

The analysis is organized into three Sections. In Section A, we outline broader patterns in prosecutions and sentencing in environmental crime prosecutions within Region 10.⁷⁰ In Section B, we explore large penalty cases that may affect the broader trends outlined in the Section A.⁷¹ In Section C, we organized prosecutions around the central crime in the case to show general themes that have occurred over time in prosecutions within Region 10.⁷²

A. Patterns in Prosecutions

Figure 1 shows total environmental crime prosecutions adjudicated within Region 10 by EPA fiscal year from 1983–2022. No prosecutions were adjudicated in 1983 or 1984 in our data, with the first prosecution adjudicated in 1985.⁷³ A total of 19 prosecutions were adjudicated during the 1980s.⁷⁴ During the 1990s, total prosecutions rose to 57 over

⁶⁸ Colum. Mailman Sch. of Pub. Health, *Content Analysis*, COL. UNIV. IRVING MED. CTR., <https://www.publichealth.columbia.edu/research/population-health-methods/content-analysis> [<https://perma.cc/YX8K-LLPL>] (last visited Dec. 30, 2023).

⁶⁹ We define intercoder reliability as the percentage of agreed upon items divided by nonagreed items. See Clíodhna O'Connor & Helene Joffe, *Intercoder Reliability in Qualitative Research: Debates and Practical Guidelines*, 19 INT'L J. QUALITATIVE METHODS 1 (2020).

⁷⁰ See *infra* Section IV.A.

⁷¹ See *infra* Section IV.B.

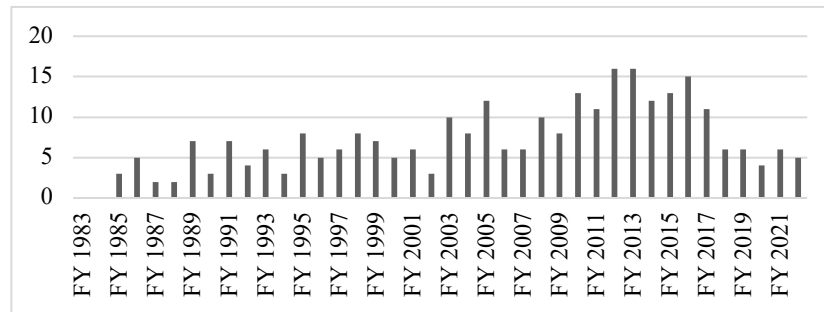
⁷² See *infra* Section IV.C.

⁷³ See *infra* Figure 1, sourcing data from *Summary of Criminal Prosecutions*, U.S. EPA, http://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm? [<https://perma.cc/WW7V-9CCL>] (last visited Oct. 25, 2023) [hereinafter *EPA Summary of Criminal Prosecutions Search Tool*].

⁷⁴ *Id.*

the decade.⁷⁵ From 2000–09, prosecutions rose again to 74, and then from 2010–22, prosecutions continued to increase to 134.⁷⁶ Annual prosecutions peak in 2012 and 2013, with 16 adjudicated each year and begin to taper off, declining to 5 in 2022.⁷⁷ A grand total of 284 prosecutions were adjudicated within Region 10, with an annual average of 7.1 per fiscal year.⁷⁸

Figure 1. *Annual Environmental Crime Prosecutions Adjudicated in Region 10 by EPA Fiscal Year, 1983–2022*



Source: EPA Summary of Criminal Prosecutions Database

Figure 2 describes total environmental crime prosecutions occurring within Region 10 by U.S. state from 1983–2022.⁷⁹ Washington dominates prosecutions across the region, with 112 adjudicated within the state since 1983. Eighty-seven prosecutions were adjudicated within Oregon in our analysis, ranking it second among states in Region 10. A total of forty-one prosecutions were adjudicated in Idaho in our analysis and forty-four within Alaska. In our analysis an average of seventy-one prosecutions were prosecuted across each state during this period.

⁷⁵ *Id.*

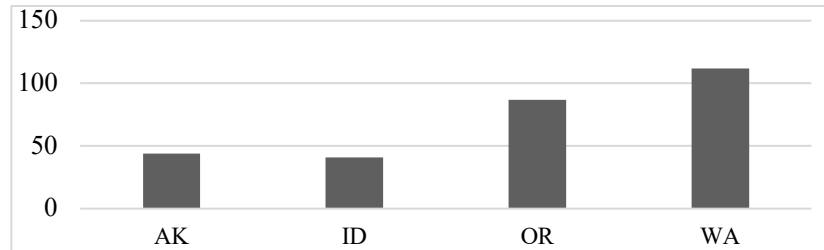
⁷⁶ *Id.*

⁷⁷ *Id.*

⁷⁸ *Id.*

⁷⁹ See *infra* Figure 2, sourcing data from *EPA Summary of Criminal Prosecutions Search Tool*.

Figure 2. *Total Environmental Crime Prosecutions in EPA Region 10 by U.S. State, 1983–2022*



Source: EPA Summary of Criminal Prosecutions Database

Figure 3 illustrates patterns in environmental crime prosecutions that were adjudicated within Region 10 from 1983–2022, with an analysis of total violations across major environmental statutes.⁸⁰ The most common offenses were water pollution crimes that violated the CWA, where in ninety-three prosecutions, at least one defendant was charged with a CWA crime.⁸¹ In forty-one prosecutions, at least one defendant was charged with a hazardous waste crime in violation of RCRA.⁸² In twenty-four prosecutions, at least one defendant was charged with an air pollution crime in violation of the CAA.⁸³ In five prosecutions, at least one defendant was charged with a pesticide crime under TSCA, in seven prosecutions at least one defendant was charged under TSCA, and in seven prosecutions, at least one defendant was charged under CERCLA.⁸⁴ In seventy-six prosecutions, at least one defendant was charged with violation of state-level environmental laws.

⁸⁰ See *infra* Figure 3, sourcing data from *EPA Summary of Criminal Prosecutions Search Tool*.

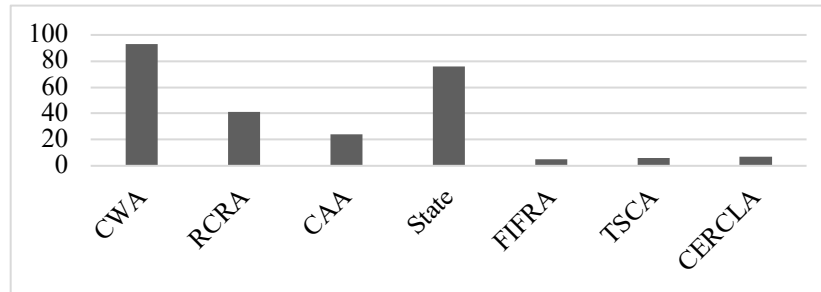
⁸¹ *Id.*

⁸² *Id.*

⁸³ See *infra* Table 3.

⁸⁴ See Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. § 9601 (1980).

Figure 3. *Patterns in Environmental Crime Prosecutions in EPA Region 10, 1983–2022*



Source: EPA Summary of Criminal Prosecutions Database

In Figure 4, we continue to explore patterns in criminal charges in environmental crime prosecutions within Region 10 by illustrating Title 18 and other related criminal violations.⁸⁵ The most common violation in this category was the crime of false statements.⁸⁶ In forty-five prosecutions or about 16% of cases in our data, prosecutors charged at least one with making false statements on official documents or giving false statements to government officials.⁸⁷ In twenty-seven prosecutions or about 10% of cases, defendants were prosecuted for conspiracy.⁸⁸ In twelve prosecutions or about 4% of cases, at least one defendant was prosecuted for fraud.⁸⁹ In three prosecutions, at least one defendant was charged with obstruction.⁹⁰ Overall, in eighty-five cases or 30% of prosecutions in our data, defendants were charged with one or more of these offenses, suggesting a high level of criminal conduct, which comports with similar findings in the literature.

⁸⁵ See *infra* Figure 4, sourcing data from *EPA Summary of Criminal Prosecutions Search Tool*; see generally 18 U.S.C. §§ 1–6005 (Title 18 is the main criminal code of the United States).

⁸⁶ See *infra* Table 4.

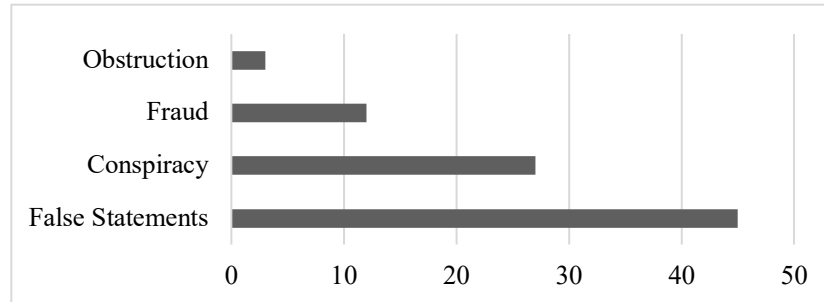
⁸⁷ *Id.*

⁸⁸ *Id.*

⁸⁹ *Id.*

⁹⁰ *Id.*

Figure 4. *Patterns in Criminal Charges in Environmental Crime Prosecutions in EPA Region 10, 1983–2022*



Source: EPA Summary of Criminal Prosecutions Database

Table 1 describes total penalties assessed to all individuals and companies that were defendants in environmental crime prosecutions within EPA Region 10 from 1983–2022.⁹¹ We find that over \$54 million in monetary penalties were cumulatively assessed to all individual defendants at sentencing in our analysis.⁹² Companies were assessed over \$142 million at sentencing.⁹³ Individuals were cumulatively assessed 7,672 months of probation at sentencing and companies were assessed 3,687 months of probation. The courts assessed defendants 1,866 months of incarceration at sentencing and 11,714 months of community service in our data.⁹⁴ These figures show defendants were cumulatively assessed over \$196 million in monetary penalties, 947 years of probation, and 156 years of incarceration at sentencing, representing significant penalties and comporting with previous research.⁹⁵

⁹¹ See *infra* Table 1, sourcing data from *EPA Summary of Criminal Prosecutions Search Tool*.

⁹² *Id.*

⁹³ *Id.*

⁹⁴ *Id.*

⁹⁵ See Joshua Ozmy et al., *Persistence or Partisanship: Exploring the Relationship Between Presidential Administrations and Criminal Enforcement by the U.S. Environmental Protection Agency, 1983-2019*, 81 PUB. ADMIN. REV. 49 (2021).

Table 1. *Total Penalties Assessed in Environmental Crime Prosecutions in EPA Region 10, 1983–2022*

Type of Penalty	Assessment
Monetary (US \$)	
Individuals	\$54,227,131
Companies	\$142,276,945
Probation (Months)	
Individuals	7,672
Companies	3,687
Incarceration (Months)	1,866
Community Service (Hours)	11,714

Source: EPA Summary of Criminal Prosecutions Database

B. Significant Prosecutions

We begin the second Section of our analysis by exploring of prosecutions resulting in large amounts of probation assessed at sentencing. As an overall pattern, probation was evenly distributed across the data, with no major outliers actively skewing the broader patterns we found in Table 1. We report the largest examples in Table 2,⁹⁶ with the prosecution of Betty Rose White, Gregory Kjos, and Boyang, Ltd.⁹⁷

First, prosecutors charged Betty Rose White and five codefendants in Oregon for illegally burying electrical capacitors containing PCBs.⁹⁸ Second, government officials indicted Gregory Kjos and four codefendants for burning wire stolen from government facilities near the city of Silverton, Oregon.⁹⁹ Third, prosecutors charged Boyang, Ltd for bypassing their oil water separator.¹⁰⁰

⁹⁶ See *infra* Table 2, sourcing data from *EPA Summary of Criminal Prosecutions Search Tool*.

⁹⁷ See *EPA Summary of Criminal Prosecutions Search Tool* (Search for names, Betty Rose White, Gregory A. Kjos, and Boyang, Ltd., respectively); U.S. EPA, SUMMARY OF CRIMINAL PROSECUTIONS RESULTING FROM ENVIRONMENTAL INVESTIGATIONS FISCAL YEARS 1983 THROUGH 1992, at 180 (1992), <https://nepis.epa.gov/Exec/ZyPDF.cgi/9101N6FX.PDF?Dockey=9101N6FX.PDF> [<https://perma.cc/ZAH6-558E>].

⁹⁸ The United States charged the defendants with a series of state level violations and collectively sentenced them to serve 228 months of probation. See *id.*

⁹⁹ *EPA Summary of Criminal Prosecutions Search Tool* (Search for name: Gregory A. Kjos).

¹⁰⁰ *Id.* (Search for name: Boyang, Ltd.). The defendants were charged with making false statements and were cumulatively sentenced to serve 240 months of probation.

Table 2. *Large Probation Sentences Assessed in Environmental Crime Prosecutions Within EPA Region 10*

Defendant	Fiscal Year	Crime	Total Probation (Months)
Betty Rose White	1992	State-Level Crime	228
Gregory Kjos	2009	Hazardous Substances	181
Boyang, Ltd.	2003	Water Pollution	240

Source: EPA Summary of Criminal Prosecutions Database

In Table 3, we describe large incarceration sentences assessed in environmental crime prosecutions within EPA Region 10.¹⁰¹ Three prosecutions in the table cumulatively make up 406 months of incarceration or about 22% of total incarceration in our data.¹⁰² This finding demonstrates that, unlike probation, incarceration totals are affected by a few large penalty outliers.¹⁰³

We discuss the three largest incarceration cases with the prosecution of Alan Elias, Richard Estes, and Scott Johnson.¹⁰⁴ First, prosecutors indicted Alan Elias for directing employees to enter a tank holding sludge that contained cyanide and then instructing them to bury about 8,000 gallons of sludge.¹⁰⁵ Second, officials charged Richard Estes for “defraud[ing] biofuel diesel buyers and U.S. taxpayers by fraudulently selling biodiesel credits and claiming alternative fuel tax credits.”¹⁰⁶ Third, prosecutors charged Scott Johnson for defrauding the United States government and wire fraud in conjunction with the same biofuel

¹⁰¹ See *infra* Table 3, sourcing data from *EPA Summary of Criminal Prosecutions Search Tool*.

¹⁰² *Id.*

¹⁰³ *Id.*

¹⁰⁴ *United States v. Elias*, Cr. No. 98-0070-E-BLW, 2000 U.S. Dist. LEXIS 4469 (D. Idaho Mar. 16, 2000); *United States v. Richard Estes* (E.D. Wash. 2017) (4:15-CR-6048-SMJ-1); *United States v. Scott Johnson* (E.D. Wash. 2017) (4:15-CR-6042-SMJ).

¹⁰⁵ *United States v. Elias*, Cr. No. 98-0070-E-BLW, 2000 U.S. Dist. LEXIS 4469 (D. Idaho Mar. 16, 2000). One worker suffered irreversible brain damage from their injuries in the case and the defendant was charged with illegal disposal under RCRA, making false statements, and knowing endangerment. Elias was sentenced to serve 204 months in prison.

¹⁰⁶ *United States v. Richard Estes* (E.D. Wash. 2017) (4:15-CR-6048-SMJ-1). Estes pleaded guilty to money laundering and conspiracy and was sentenced to serve 105 months of incarceration.

production and tax credit scheme related to the aforementioned prosecution of Richard Estes.¹⁰⁷

Table 3. *Large Incarceration Sentences Assessed in Environmental Crime Prosecutions Within EPA Region 10*

Defendant	Fiscal Year	Crime	Total Incarceration (Months)
Alan Elias	2003	Hazardous Substances	204
Richard Estes	2017	Air Pollution	105
Scott Johnson	2017	Air Pollution	97

Source: EPA Summary of Criminal Prosecutions Database; Numbers are rounded.

In Table 4, we explore the largest monetary penalties assessed at sentencing in our analysis of environmental crime prosecutions occurring within EPA Region 10.¹⁰⁸ The three cases in Table 4 consist of over \$71 million in monetary penalties.¹⁰⁹ These cases are responsible for 36% of total monetary penalties in our analysis, showing that like incarceration, patterns in monetary penalties assessed at sentencing can be significantly affected by large penalty outliers in our data.¹¹⁰

We provide examples with the prosecution of Equilon Pipeline, Evergreen International SA, and BP Exploration Alaska.¹¹¹ First, government officials charged Equilon Pipeline for releasing 277,000 gallons of gasoline into a creek that ignited, resulting in the death of individuals.¹¹² Second, prosecutors indicted Evergreen International SA for negligently discharging oil into the Columbia River and making

¹⁰⁷ United States v. Scott Johnson (E.D. Wash. 2017) (4:15-CR-6042-SMJ).

¹⁰⁸ See *infra* Table 4, sourcing data from *EPA Summary of Criminal Prosecutions Search Tool*.

¹⁰⁹ *Id.*

¹¹⁰ *Id.*

¹¹¹ United States v. Equilon Pipeline Co., LLC, No. CR01-338 (W.D. Wash. 2002) (No. CR01-338); United States v. Evergreen Int'l SA (D. Or. 2005) (CR 05-238-TJH); United States v. BP Exploration (Alaska), Inc. (D. Alaska 2008) (3:07-CR-00125-TMB).

¹¹² United States v. Equilon Pipeline Co., LLC (W.D. Wash. 2002) (No. CR01-338). The company was charged with violations of the CWA and all defendants in the case were collectively sentenced to pay over \$21 million in monetary penalties. Two individuals were killed by the ignition, and one was overcome by the vapors.

false statements when employees falsified their Oil Record Book.¹¹³ Third, officials prosecuted BP Exploration Alaska after unrepaired pipeline corrosion caused a large leak of between 200,000 and 270,000 gallons of crude oil that discharged into a nearby tundra and lake.¹¹⁴

Table 4. *Examples of Large Monetary Penalties Assessed in Environmental Crime Prosecutions Within EPA Region 10*

Defendant	Fiscal Year	Crime	Total Monetary Penalties
Equilon Pipeline	2003	Water Pollution	\$21 Million
Evergreen International	2005	Water Pollution	\$30 Million
BP Exploration Alaska	2008	Water Pollution	\$20 Million

Source: EPA Summary of Criminal Prosecutions Database; numbers are rounded.

C. Themes in Prosecutions¹¹⁵

We now turn to the final Section of the analysis and explore broader themes in prosecutions occurring within Region 10. We organized each prosecution based on what, in our judgment, was the primary crime at the center of the case. When cases were categorized in this manner, we were able to organize them across central themes and provide some order to the universe of prosecutions within Region 10 that have been adjudicated since 1983.¹¹⁶ We organized themes around the categories

¹¹³ *United States v. Evergreen Int’l SA* (D. Or. 2005) (CR 05-238-TJH). The defendant pleaded guilty to making false statements, violations of the CWA, and violations of MARPOL. The company was ordered to pay \$30 million in criminal fines and community service payments.

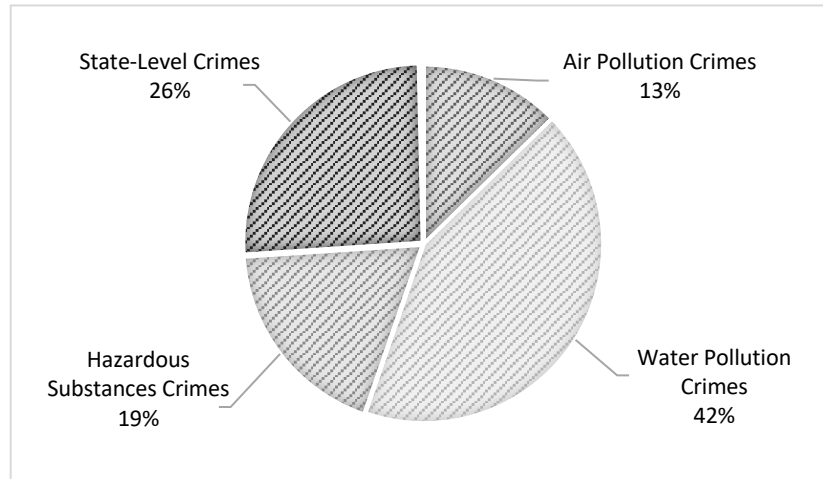
¹¹⁴ *United States v. BP Exploration (Alaska), Inc.* (D. Alaska 2008) (3:07-CR-00125-TMB). The United States charged BP with negligently violating the CWA and was ordered more than \$20 million in fines, fees, and restitution.

¹¹⁵ In Subsections 1–4, we will frequently cite to EPA criminal prosecutions. Information on these prosecutions can be found by entering the defendant’s name in full or part and filtering results based on the jurisdiction indicated in parenthesis. See *EPA Summary of Criminal Prosecutions Search Tool*, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm?bct=19&pt=1 [<https://perma.cc/MZB2-F2YH>].

¹¹⁶ See *infra* Figure 5, sourcing data from *EPA Summary of Criminal Prosecutions Search Tool*.

of air pollution crimes, hazardous substances crimes, water pollution crimes, and state-level crimes.¹¹⁷ We list these themes in Figure 5 and discuss case examples for context below.

Figure 5. *Themes in Environmental Crime Prosecutions Within EPA Region 10*



Source: EPA Summary of Criminal Prosecutions Database

1. *Water Pollution Crimes*

The most common offense we cataloged in our data of Region 10 prosecutions was water pollution crimes. These crimes consisted of 121 prosecutions, or 42% of the cases under analysis.¹¹⁸ Typically in violation of CWA, but also APPS,¹¹⁹ MARPOL,¹²⁰ Refuse Act,¹²¹ Safe Drinking Water Act (SDWA),¹²² and Ocean Dumping Act,¹²³

¹¹⁷ *Id.* In one prosecution we were unable to categorize the case within this typology based on the information in the case summary. See Loren Jacobson (D. Idaho 2022) (4:21-cr-00149) (the owner of a tank testing and repair company was prosecuted after an explosion severely injured an employee and Jacobson gave false statements. The criminal charges were likely brought under hazardous substance law); see generally *supra* note 115 (providing directions on accessing EPA prosecutions).

¹¹⁸ See *infra* Figure 5, sourcing data from *EPA Summary of Criminal Prosecutions Search Tool*.

¹¹⁹ Act to Prevent Pollution from Ships (APPS), 33 U.S.C. §§ 1905–1915 (1980).

¹²⁰ The International Convention for the Prevention of Pollution from Ships (MARPOL), Annex VI, *opened for signature* Feb. 17, 1973 (entered into force May 19, 2003).

¹²¹ Rivers and Harbors Appropriation Act, 33 U.S.C. § 407 (1899).

¹²² Safe Drinking Water Act, 42 U.S.C. § 300f (1974).

¹²³ Marine Protection, Research, and Sanctuaries Act (Ocean Dumping Act), 16 U.S.C. §§ 1401–1431 (1988).

defendants committed a number of crimes including ocean dumping, illegal discharges into the navigable waters of the United States, illegally filling in a wetland or altering waterways, tampering with a monitoring device, and other crimes.¹²⁴

We provide case examples with the prosecution of All Out Sewer and Drain Service, Victor Alan Buchanan, Stowe Construction, Robert Block, and Lonny Howard.¹²⁵ First, prosecutors charged All Out Sewer and Drain Service for violations of the CWA when the company engaged in a decade-long scheme to defraud the local and regional government by removing septic, grease trap, and industrial waste, and failing to properly treat it at an approved facility.¹²⁶ Second, officials prosecuted Victor Alan Buchanan when Coast Guard inspectors boarded his commercial fishing vessel and found it was illegally discharging oily waste and sewage.¹²⁷ Third, the government charged Stowe Construction and owner Bryan Stowe for stormwater violations related to a development project.¹²⁸ Fourth, prosecutors indicted Robert Block for using an excavator and wheel loader to illegally divert the flow of a stream without a permit, which subsequently killed endangered steelhead trout.¹²⁹ Last, officials charged Lonny Howard, a general manager at an oyster processing plant, for violations of the

¹²⁴ See *Criminal Provisions of Water Pollution*, U.S. EPA, <https://www.epa.gov/enforcement/criminal-provisions-water-pollution> [<https://perma.cc/E3GS-2993>] (last updated Nov. 1, 2023).

¹²⁵ All Out Sewer and Drain Service (W.D. Wash. CR 13-5308 BHS, 2014); Victor Alan Buchanan (D. Alaska 3:12-CR-00036-SLG-JDR, 2013); Stowe Construction (W.D. Wash. CR12 5121RBL, 2013); Robert H. Block, Jr. (D. Or. CR-11-164-BR, 2012); Lonny Howard (W.D. Wash. CR16-5373RBL, 2017); see generally *supra* note 115 (providing directions on accessing EPA prosecutions).

¹²⁶ See All Out Sewer and Drain Service (W.D. Wash. CR 13-5308 BHS, 2014) The company was sentenced to serve 36 months of probation and pay a \$250,000 fine. Ray Eugene Caldwell, Jr., the owner of the company, was sentenced to serve twenty-seven months of incarceration, three years of supervised release, and to pay a \$250,000 fine.

¹²⁷ See Victor Alan Buchanan (D. Alaska 3:12-CR-00036-SLG-JDR, 2013). The defendant was charged with violating the CWA and the Rivers and Harbors Appropriation Act and was sentenced to serve sixty months of probation and pay a \$50,000 fine.

¹²⁸ See Stowe Construction (W.D. Wash. CR12 5121RBL, 2013). The company and its owner were both charged with violations of the CWA. The company was ordered to pay a \$350,000. Bryan Stowe was ordered to pay a \$300,000 fine, serve six months of incarceration, and twelve months of supervised release.

¹²⁹ See Robert H. Block, Jr. (D. Or. CR-11-164-BR, 2012). Block was charged with violations of the CWA and the ESA, and was sentenced to serve 60 months of probation and to pay \$1,250 in fines.

CWA, including tampering with a monitoring device or method and falsifying discharge monitoring reports.¹³⁰

2. Hazardous Substances Crimes

In fifty-three prosecutions, or 19% of cases in our analysis, the prosecution centered on crimes involving hazardous substances.¹³¹ Crimes in this category varied significantly. The most common included RCRA violations, such as unpermitted storage, transport, and disposal of hazardous waste. Crimes also included violations of chemical substances laws under TSCA, pesticide crimes in violation of FIFRA, failure to notify officials of the release of a hazardous substance in violation of CERCLA, and violations of the Hazardous Materials Transportation Act.¹³²

We provide case examples with the prosecutions of Bruce Jackson, Martin L. Jamison, Krister Evertson, Gordon Laird, and Quin Million.¹³³ Prosecutors charged Bruce Jackson for illegally disposing of drums of an oily substance in the Chugach National Forest.¹³⁴ Second, officials indicted Martin L. Jamison for using carbofuran, in

¹³⁰ See Lonny Howard (W.D. Wash. CR16-5373RBL, 2017). The defendant was ordered to serve one year of probation.

¹³¹ See *supra* Figure 5.

¹³² See *supra* Figure 5; Hazardous Materials Transportation Act, 49 U.S.C. §§ 5101–5128 (1975) (regulating the transportation of hazardous materials in the United States).

For an overview of laws relevant to transportation of hazardous materials, see Criminal Provisions of the Resource Conservation and Recovery Act, U.S. EPA, <https://www.epa.gov/enforcement/criminal-provisions-resource-conservation-and-recovery-act-rcra> [<https://perma.cc/DUJ9-AHHP>] (last updated Mar. 27, 2023); Criminal Provisions of the Toxic Substances Control Act, U.S. EPA, <https://www.epa.gov/enforcement/criminal-provisions-toxic-substances-control-act-tsca> [<https://perma.cc/BAP3-8RJY>] (last updated June 16, 2023); Criminal Provisions of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), U.S. EPA, <https://www.epa.gov/enforcement/criminal-provisions-federal-insecticide-fungicide-and-rodenticide-act-fifra> [<https://perma.cc/SFN9-SX4D>] (last updated Mar. 27, 2023); Criminal Provisions of the Hazardous Materials Transportation Act (HMTA), U.S. EPA, <https://www.epa.gov/enforcement/criminal-provisions-hazardous-materials-transportation-act-hmta> [<https://perma.cc/3SR3-SVAT>] (last updated July 31, 2023); Criminal Provisions of the Comprehensive Environmental Response, Compensation – and Liability Act (CERCLA), U.S. EPA, <https://www.epa.gov/enforcement/criminal-provisions-comprehensive-environmental-response-compensation-and-liability-act> [<https://perma.cc/6N2M-AZU7>] (last updated Mar. 27, 2023).

¹³³ Bruce Jackson (D. Alaska 3:21-CR-00109, 2022); Martin L. Jamison (D. Idaho 11-CR-00173-EJL, 2011); Krister Evertson (D. Idaho CR06-0206EBLW, 2008); Gordon Laird (W.D. Wash. CR97 - 137S, 1998); Quin Million (E.D. Wash. CR96-066WFN, 1997); see *generally supra* note 113 (providing directions on accessing EPA prosecutions).

¹³⁴ See Bruce Jackson (D. Alaska 3:21-CR-00109, 2022). Jackson was ordered to serve forty-eight months of probation, perform 500 hours of community service, and pay \$88,000 in restitution to the U.S. Forest Service.

violation of FIFRA, to poison wildlife.¹³⁵ Third, the government charged Krister Evertson with illegal storage and transport of a hazardous substance for a scheme involving shipping sodium metal and illegally storing it at a Steel and Ranch supply facility, which required a Superfund cleanup.¹³⁶ Fourth, officials charged Gordon Laird with violations of TSCA for illegally disposing of electrical transformers containing PCBs.¹³⁷ Last, government prosecutors indicted Quin Million for failing to report a PCB spill in violation of CERCLA.¹³⁸

3. Air Pollution Crimes

In thirty-six prosecutions, or 13% of cases in our analysis, the primary crime in the prosecution centered on air pollution crimes. Air pollution crimes typically involved violations of the CAA, but defendants also violated CERCLA, TSCA, and other statutes.¹³⁹ Among other crimes, the defendants were convicted of the following offenses: (1) illegal demolition and removal of asbestos, (2) discharging pollutants into the ambient air, (3) tampering with emissions control devices, (4) defrauding the federal renewable fuel program, and (5) falsifying testing data.¹⁴⁰

We provide case examples with the prosecutions of William Nowack, Christopher Cox, Dyno Nobel, Scott Johnson, and Michael Hanzuk.¹⁴¹ First, prosecutors charged William Nowak for falsifying

¹³⁵ See Martin L. Jamison (D. Idaho 11-CR-00173-EJL, 2011). Jamison was ordered to serve three months of probation, to pay a \$1,500 fine, and \$700 in restitution to the owners of two dogs he poisoned.

¹³⁶ See Krister Evertson (D. Idaho CR06-0206EBLW, 2008). The defendant was “sentenced to serve [twenty-one] months of incarceration, [thirty-six] months of probation, ordered to pay a \$300 special assessment fee, and \$421,049 in restitution” to the EPA’s Emergency Response Unit.

¹³⁷ See Gordon Laird (W.D. Wash. CR97 - 137S, 1998). Laird was sentenced to serve six months of incarceration, 24 months of probation, and to pay a \$3,000 fine.

¹³⁸ See Quin Million (E.D. Wash. CR96-066WFN, 1997). Million was sentenced to serve twelve months of incarceration and twelve months of probation.

¹³⁹ See *supra* Figure 5.

¹⁴⁰ See *supra* Figure 5; see *Criminal Provisions of the Clean Air Act*, U.S. EPA, <https://www.epa.gov/enforcement/criminal-provisions-clean-air-act> [<https://perma.cc/5KDS-AE9P>] (last updated Jan. 20, 2023) (providing an overview of the criminal provisions of the CAA).

¹⁴¹ William Nowak (W.D. Wash. CR-96-218C, 1996); Christopher Cox (W.D. Wash. 3:21-CR-05221, 2022); Dyno Nobel, Inc. (D. Or. 3:18-CR-63-SI, 2018); Scott Johnson (E.D. Wash. 4:15-CR-6042-SMJ, 2017); Michael Hanzuk (D. Alaska 3:22-cr-00009, 2022); see *generally supra* note 113 (providing directions on accessing EPA prosecutions).

testing data related to wood-burning stoves in violation of the CAA.¹⁴² Second, officials indicted Christopher Cox for falsifying paperwork to import two dozen vehicles into the United States.¹⁴³ Third, DOJ prosecutors charged Dyno Nobel for illegally emitting anhydrous ammonia vapor into the ambient air and failing to properly report the emissions event, which occurred over three days, to government officials, as required by law.¹⁴⁴ Fourth, the government indicted Scott Johnson for defrauding the federal renewable fuels program.¹⁴⁵ Last, prosecutors indicted Michael Hanzuk for conspiring to circumvent emissions controls on thirty-seven diesel vehicles.¹⁴⁶

4. State-Level Crimes

In seventy-three prosecutions, or 26% of prosecutions in our analysis, the crime centered on violations of state-level environmental laws.¹⁴⁷ This broad category includes illegally transporting hazardous waste, illegally discharging hazardous materials, falsifying reports, dumping oil, altering waterways, falsifying lab reports, disabling emissions controls, and various asbestos crimes.¹⁴⁸

We provide case examples with the prosecutions of Nicholas Akerill, DMC Technologies, Daniel Murray, William Kenneth Cayo, Sr., and Brandon D. Traner.¹⁴⁹ First, prosecutors charged Nicholas Akerill with modifying emissions devices on diesel trucks.¹⁵⁰ Second,

¹⁴² See William Nowak (W.D. Wash. CR-96-218C, 1996). Nowak was sentenced to serve “36 months of probation and 240 hours of community service.”

¹⁴³ See Christopher Cox (W.D. Wash. 3:21-CR-05221, 2022). Cox pleaded guilty to “smuggling, making false statements . . . and possess[ion] of child pornography” and was sentenced to serve “30 days of incarceration, ordered to pay a \$1,000 fine, and to pay \$22,100 in restitution.”

¹⁴⁴ See Dyno Nobel, Inc. (D. Or. 3:18-CR-63-SI, 2018). The defendant was sentenced to pay a \$250,000 fine and serve two years of probation for violating CERCLA.

¹⁴⁵ See Scott Johnson (E.D. Wash. 4:15-CR-6042-SMJ, 2017). Johnson was sentenced to serve [ninety-seven] months of incarceration, three years of supervised release, and to pay over \$15 million in restitution.

¹⁴⁶ See Michael Hanzuk (D. Alaska 3:22-cr-00009, 2022). Hanzuk was ordered to pay a “\$66,000 fine, serve [6] months of home detention, perform 180 hours of community service, and serve 60 months of probation.”

¹⁴⁷ See *supra* Figure 5.

¹⁴⁸ See *supra* Figure 5.

¹⁴⁹ Nicholas Akerill (Wash. 222261P, 2022); DMC Technologies (Alaska 3AN-13-13616, 2021); Daniel Murray (Wash. 17-1-02991-9 SEA, 2018); William Kenneth Cayo, Sr. (Wash. State Court – PA14066, 2015); Brandon D. Traner (Wash. State Court – J14Y-6069, 2014); see *generally supra* note 113 (providing directions on accessing EPA prosecutions).

¹⁵⁰ See Nicholas Akerill (Wash. 222261P, 2022). The defendant was “ordered to pay a \$10,000 fine and perform 240 hours of community service.”

government officials indicted DMC Technologies and the company's owner, Daniel McNair, for falsifying laboratory data supplied to the State of Alaska.¹⁵¹ Third, prosecutors indicted Daniel Murray for leaving asbestos debris at a construction site.¹⁵² Fourth, the government charged William Kenneth Cayo Sr. for illegally filling and altering the course of the Tahuya River.¹⁵³ Last, prosecutors charged Brandon D. Traner for abandoning a fishing trawler that leaked fuel and oil into the Columbia River.¹⁵⁴

V DISCUSSION

We now draw attention to three critical implications that flow from our analysis that speak to the broader literature on environmental criminal enforcement in the United States. Our first finding relates to the nature of prosecutions and environmental crimes and whether they involve significant harm or culpable behavior. It can be difficult to identify cases that address these topics from prosecution summaries alone. We speak to the possible number of crimes involving significant harm and culpable conduct indirectly by exploring the number of cases involving Title 18 violations and other similar crimes.¹⁵⁵ We found that 30% of cases involved one or more criminal charges, particularly false statements (16% of prosecutions), conspiracy (10% of prosecutions), and fraud (4% of prosecutions).¹⁵⁶ These numbers comport with past research showing the link between criminal behaviors, criminal intent, and the decision to prosecute violations of law.¹⁵⁷

A second important finding from our work focuses on penalties imposed at sentencing. Studies have shown prosecutors can obtain significant penalties at sentencing in environmental crime cases, and our findings are consistent with those studies.¹⁵⁸ Since 1983, we have

¹⁵¹ See DMC Technologies (Alaska 3AN-13-13616, 2021). The company was ordered to pay a \$10,000 fine and Daniel McNair was ordered to serve 12 months of incarceration.

¹⁵² See Daniel Murray (Wash. 17-1-02991-9 SEA, 2018). The defendant was ordered to pay \$3,779 in restitution.

¹⁵³ See William Kenneth Cayo, Sr. (Wash. State Court-PA14066, 2015). The defendant was sentenced to serve "30 days of incarceration and ordered to pay \$7,500 in fines."

¹⁵⁴ See Brandon D. Traner (Wash. State Court-J14Y-6069, 2014). Traner was sentenced to serve 20 days of incarceration and to pay \$144,000 in restitution.

¹⁵⁵ See *supra* Figure 4; Devaney, *supra* note 5, at 3–4.

¹⁵⁶ See *supra* Figure 4.

¹⁵⁷ Uhlmann, *supra* note 5, at 167–71.

¹⁵⁸ See *supra* Table 1; Uhlmann, *supra* note 5, at 179–80.

found that over \$196 million in monetary penalties, 11,359 months of probation, 1,866 months of incarceration, and 11,714 hours of community service have been imposed at sentencing in environmental crime prosecutions occurring within Region 10.¹⁵⁹ A few significant prosecutions skew incarceration and monetary penalty totals, but it is crucial that prosecutors pursued those cases and obtained hefty penalties as a result.¹⁶⁰

A third implication centers on the broader patterns that emerged over time in the quantity of prosecutions within Region 10. In this region, only 284 prosecutions occurred over almost four decades. These prosecutions are heavily skewed toward Washington (39% of prosecutions) and Oregon (31% of prosecutions).¹⁶¹ Moreover, 26% of prosecutions focused on state-level offenses.¹⁶² The overall deterrent value of these prosecutions may weak, given the limited number that occurred and the concentration of those cases within only a few states.¹⁶³ Civil enforcement and state enforcement efforts play a role in fomenting overall deterrence for environmental crimes.¹⁶⁴ We address potential causes for these trends and discuss some policy solutions for enhancing criminal enforcement below.

VI

RECOMMENDATIONS AND CONCLUSIONS

A. Recommendations

The lack of significant funding, along with inconsistent political support from Congress and the White House, has undoubtedly influenced prosecution outcomes over time.¹⁶⁵ We have identified 284 prosecutions adjudicated within Region 10 since 1983. Prosecutions

¹⁵⁹ See *supra* Table 1.

¹⁶⁰ Lynch, *supra* note 33, at 997.

¹⁶¹ See *supra* Figure 2.

¹⁶² See *supra* Figure 6.

¹⁶³ McMurry and Ramsey, *supra* note 38, at 1163–64.

¹⁶⁴ See Nicholas S. Dufau, *Too Small to Fail: A New Perspective on Environmental Penalties for Small Businesses*, 81 U. CHI. L. REV. 1795 (2014) (The EPA can focus civil enforcement tools on a particular issue. For example, EPA's Power Plant Initiative combined resources with DOJ from 1999 to present and filed several civil lawsuits over time to change compliance behavior within the coal industry); Rustad et al., *supra* note 31, at 428–29; *Coal-Fired Power Plant Enforcement*, U.S. EPA, <https://www.epa.gov/enforcement/coal-fired-power-plant-enforcement> [<https://perma.cc/4EMH-WUWQ>] (last updated Apr. 5, 2023).

¹⁶⁵ Joel A. Mintz, *Running on Fumes: The Development of New EPA Regulations in an Era of Scarcity*, 46 ENV'T L. REP. 10510, 10510–19 (2016).

rose over time but began declining in 2016. Yet criminal enforcement has always been strategic, targeted, and forced to operate with limited resources, so these numbers are unsurprising.¹⁶⁶

A review of EPA and ENRD's budgetary situation demonstrates that limited and declining resources have been a long-standing problem. EPA's funding and staffing peaked in 1980 and 1999, respectively, and have shown little sign of recovery.¹⁶⁷ Similarly, ENRD's budgetary support has declined over the past decade.¹⁶⁸ Fortunately, the Biden Administration has increased the funding of EPA and DOJ in an effort to prioritize environmental justice in its enforcement decisions.¹⁶⁹ Without added funding for core functions to offset decades of significant underinvestment, adding new responsibilities without addressing this more basic issue will leave criminal enforcement increasingly stretched to accomplish EPA and DOJ goals.¹⁷⁰

¹⁶⁶ See *supra* Figure 5.

¹⁶⁷ *EPA's Budget and Spending*, U.S. EPA, <https://www.epa.gov/planandbudget/budget> [<https://perma.cc/3DBL-4NRJ>] (last updated July 26, 2023).

¹⁶⁸ See *Budget and Performance*, U.S. DEP'T OF JUSTICE, <https://www.justice.gov/doj/budget-and-performance> [<https://perma.cc/6RW4-ZBDN>] (Nov. 15, 2023); U.S. DEP'T OF JUSTICE, ENV'T & NAT. RES. DIV., FY 2023 PERFORMANCE BUDGET, at 15, <https://www.justice.gov/jmd/page/file/1491706/download> [<https://perma.cc/3R4V-7ZS4>].

¹⁶⁹ Enforcement efforts can center on certain sectors of the economy. The EPA's Power Plant Initiative increased enforcement efforts on a particular sector and the same could be applied similarly to environmental justice. A logical place to start may be using civil and criminal enforcement measures targeted at chemical plants and other sources of air pollution. See *Power Plants and Neighboring Communities*, U.S. EPA, <https://www.epa.gov/airmarkets/power-plants-and-neighboring-communities> [<https://perma.cc/HVB2-VY8Q>] (last updated May 11, 2023); Jean Chemnick, *EPA Power Plant Rules Could Be Part of a Bigger Initiative*, E&E NEWS BY POLITICO (Oct. 7, 2021, 6:59 AM), <https://www.eenews.net/articles/epa-power-plant-rules-could-be-part-of-bigger-initiative/> [<https://perma.cc/KTV3-8783>]; *Statement by Administrator Regan on the President's FY 2022 Budget*, U.S. EPA (June 2, 2021), <https://www.epa.gov/newsreleases/statement-administrator-regan-presidents-fy-2022-budget> [<https://perma.cc/S8Y4-FCCG>]. See David A. Dana & Deborah Tuerkheimer, *After Flint: Environmental Justice as Equal Protection*, 111 NW. U. L. REV. 879 (2017), for an example how the Flint Water Crisis was a public example of how enforcement in marginalized communities has been systematically lacking over time.

¹⁷⁰ See *Summary of Executive Order 12898 – Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, U.S. EPA, <https://www.epa.gov/laws-regulations/summary-executive-order-12898-federal-actions-address-environmental-justice> [<https://perma.cc/X9FG-J2GE>] (last updated July 3, 2023), for an example summarizing Clinton's executive order that mandates federal agencies to study the environment and health effects of their actions on certain marginalized communities, and Biden's executive orders that build on these efforts; see also *Environmental Justice in Enforcement and Compliance Assurance*, U.S. EPA, <https://www.epa.gov/enforcement/environmental-justice-enforcement-and-compliance-assurance> [<https://perma.cc/YZ9S-3RBU>] (last updated Aug. 28, 2023); *New Enforcement Strategy Advances President*

Since the Reagan Administration, Republicans have mostly proved either openly hostile to strong enforcement or, if not openly hostile, less than supportive.¹⁷¹ Former President Trump arguably pushed this trend much further and faster than any president since Reagan—prosecutions for environmental crimes declined, funding was significantly reduced, and about 700 EPA staff quit or retired from the agency and were not replaced, further draining staff morale and stretching resources even thinner.¹⁷² While Clinton and Obama may have been supporters of stronger enforcement, they arguably failed to prioritize it in a manner that offset longer-term underinvestment.¹⁷³ The problem is made worse by Congress's inability to revise and update important environmental

Biden's Environmental Justice Agenda, U.S. EPA (May 5, 2022), <https://www.epa.gov/newsreleases/new-enforcement-strategy-advances-president-bidens-environmental-justice-agenda> [<https://perma.cc/QN4Z-WGY4>]; *Environment and Natural Resources Division Distributes Memorandum Summarizing Enforcement Policies and Priorities*, U.S. DEP'T OF JUSTICE (Jan. 19, 2021), <https://www.justice.gov/opa/pr/environment-and-natural-resources-division-distributes-memorandum-summarizing-enforcement> [<https://perma.cc/WP67-FQM5>].

¹⁷¹ When asked by President Reagan's staff, his first EPA administrator, Anne Gorsuch Burford, was purportedly queried if she would be able and willing to "bring EPA to its knees" and did not object to the proposition. See Lia Cattaneo, *Wrinkling Citizen Suits: California V. EPA (9th Cir. 2020) and Clean Air Act Underenforcement*, 45 HARV. ENV'T L. REV. 503 (2021); *Trump's War on the Environment*, ENV'T INTEGRITY PROJECT, <https://environmentalintegrity.org/trump-watch-epa/> [<https://perma.cc/3FU6-ZNNN>] (last visited Nov. 14, 2023); Mushal, *supra* note 44, at 1107–08.

¹⁷² Cally Carswell, *How Reagan's EPA Chief Paved the Way for Trump's Assault on the Agency*, THE NEW REPUBLIC (Mar. 21, 2017), <https://newrepublic.com/article/141471/reagans-epa-chief-paved-way-trumps-assault-agency> [<https://perma.cc/GW4D-EQTK>]; see 700+ Employees Have Left the EPA Under Trump: Loss of Scientists, Staffers Undermines Agency's Purpose, ECOWATCH (Dec. 22, 2017, 1:52 AM), <https://www.ecowatch.com/epa-employees-leaving-2519323571.html> [<https://perma.cc/VA86-BPY4>] (seven hundred employees exited the EPA under Trump, dropping the number of staff to 14,172); Elgie Holstein, *The Severe, Real-World Casualties of Trump's EPA Budget Cuts*, ENV'T DEF. FUND (Mar. 3, 2017), <https://www.edf.org/blog/2017/03/03/severe-real-world-casualties-trumps-epa-budget-cuts> [<https://perma.cc/FHU6-W5ES>]; see also Jay Michaelson, *The Ten Worst Things Scott Pruitt's EPA Has Already Done*, THE DAILY BEAST (Dec. 29, 2017, 10:26 AM), <https://www.thedailybeast.com/the-ten-worst-things-scott-pruitts-epa-has-already-done> [<https://perma.cc/2L38-TAV6>] (describing the firing of employees as one of several actions weakening the EPA); Valerie Volcovici, *U.S. EPA Employees Protest Trump's Pick to Run Agency*, REUTERS (Feb. 6, 2017, 3:12 PM), <https://www.reuters.com/article/usa-epa-pruitt-idUSL1N1FR1NZ> [<https://perma.cc/AFK2-U5F5>].

¹⁷³ Political controversy erupted in Congress at this time related to the handling of a few high-profile criminal prosecutions. Lazarus, *supra* note 39, at 874.

A politically, organizationally, or budgetarily constrained EPA may choose to not enforce the law temporarily or even fail to act in some circumstances. See Cattaneo, *supra* note 171, at 505–06.

laws, leaving numerous problems in current statutes that are in serious need of revisions that are decades in the making.¹⁷⁴

Given these current and historical challenges to the federal criminal enforcement apparatus, we offer a few policy remedies to strengthen enforcement moving forward. The first suggestion is for Congress to prioritize funding environmental criminal enforcement. Support has waned since the 1990s, and overall staffing and the number of EPA-CID criminal investigators has stagnated or declined. DOJ-ECS supports forty-three attorneys. Funding to bring EPA staffing back to previous levels of the 1990s and to expand enforcement staff, as well as DOJ prosecutors, is warranted.¹⁷⁵

In addition, the relationship between the states and federal agencies also needs attention. Increased federal funding to the states for monitoring and policing crimes would free up federal criminal enforcement agents and prosecutors to pursue more difficult and complex prosecutions. Grant funding to state agencies for enforcement efforts could support this evolution.¹⁷⁶ A final remedy we might suggest is to create additional support for criminal enforcement associations that can train investigators at the state and local level and help to ferment better collaborations.¹⁷⁷ State environment agencies are often underfunded. Providing additional support to train them and to create collaborations with enhanced professionalism and organizational connections is so critical to developing and maintaining a sound enforcement apparatus.¹⁷⁸

B. Conclusions

As politicians work to transition toward an economy that relies less on fossil fuels, they will likely turn to EPA to manage carbon

¹⁷⁴ The CAA needs updating to give EPA clear authority to regulate carbon emissions. As such, the following issues need to be addressed: better defining the extent of the navigable waters of the United States under the CWA; updating mandates to enforce FIFRA; studying the effects of dangerous chemicals; and providing felony punishments under the statute. HLS News Staff, *Richard Lazarus: Environmental Law Has Fallen 'In Arrears,'* HARV. L. TODAY (May 3, 2013), <https://hls.harvard.edu/today/richard-lazarus-environmental-law-has-fallen-in-arrears-video/> [https://perma.cc/36HR-X87D].

¹⁷⁵ See ECOWATCH, *supra* note 172.

¹⁷⁶ See Stephen M. Johnson, *Sue and Settle: Demonizing the Environmental Citizen Suit*, 37 SEATTLE U. L. REV. 891 (2014).

¹⁷⁷ Mushal, *supra* note 44, at 1125–26.

¹⁷⁸ See Henry N. Butler & Nathaniel J. Harris, *Sue, Settle, and Shut Out the States: Destroying the Environmental Benefits of Cooperative Federalism*, 37 HARV. J.L. & PUB. POL'Y 579 (2013).

emissions. It seems unlikely, however, that Congress—given its track record—will prioritize funding and political support for the agency and its enforcement apparatus in the process. This will further strain agency resources. In addition, this will risk the possibility of overlooking current shortcomings that will persist through a long-term energy transition, such as thousands of legacy pollution sites, a severely underfunded Superfund program, poorly regulated pesticides, and chemical pollution in the air and water that have yet to be sufficiently addressed. Enforcement provides substance to the law, and without taking time to reflect and prioritize it, Congress and the White House will stretch a thin agency even further, likely with impoverished outcomes for the environment and human and animal health. Working to enhance structural budgetary support for criminal enforcement, facilitating better collaboration and support for state enforcement efforts, and further developing criminal enforcement associations would take these political principals along the appropriate path.