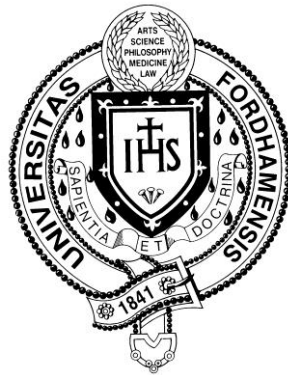


FORDHAM ENVIRONMENTAL LAW REVIEW



ILLEGAL DISCHARGE: EXPLORING THE HISTORY
OF THE CRIMINAL ENFORCEMENT
OF THE U.S. CLEAN WATER ACT

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ABSTRACT

The criminal prosecution of defendants that violate federal clean water laws has been ongoing for roughly four decades. Yet, we continue to have a poor understanding of how federal prosecutors use the U.S. Clean Water Act (“CWA”) to charge and prosecute criminals and the outcomes of those prosecutions. We use content analysis to analyze 2,588 federal criminal prosecution case summaries, 1983-2019, to gain a better historical understanding of how the CWA has been used as a prosecutorial tool, to bring out the major themes in the prosecutions, and quantify sentencing outcomes. Findings from the 828 CWA prosecutions undertaken during this time period suggest that charging patterns center on four themes, which fall in line with the EPA’s compliance monitoring strategy for the CWA: illegal discharge, illegal dredging and filling, false reporting, and tampering with a monitoring device. Total punishments include over \$1.2 billion in monetary penalties, 34,600 months probation, and 5,269 months incarceration.

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INTRODUCTION

The year 2020 represents the 50th anniversary of both the founding of the U.S. Environmental Protection Agency (“EPA”) and the nation’s first Earth Day. The creation of that agency and the years that followed represent the most substantive legislative commitment the U.S. Congress has made in its institutional history towards empowering a federal regulatory agency to protect human and animal health and the natural environment. Significant legislative achievements followed that include: The National Environmental Policy Act (“NEPA”), the Clean Air Act (“CAA”), the Clean Water Act (“CWA”), the Federal Insecticide, Fungicide, and Rodenticide Act (“FIFRA”), the Endangered Species Act (“ESA”), the Safe Drinking Water Act (“SDWA”), the Resource Conservation and Recovery Act (“RCRA”), and the Toxic Substance Control Act (“TSCA”).³

³ See generally, 42 U.S.C. § 4321 (2012); see also 42 U.S.C. § 4371 (NEPA requires all federal agencies to consider the impact on the environment on all major federal decisions. It established a national-level framework for protecting the environment. The Environmental Quality Improvement Act of 1970 was passed as a companion piece to NEPA that established the President’s Council on Environmental Quality (“CEQ”) providing an institutional connection to the Executive Office of the President to environmental matters and disagreements over EIS, given almost all activities of the federal government affect the environment in some manner.).

See generally, 42 U.S.C. § 85; Pub. L. No. 84-159, 69 Stat. 322 (The Air Pollution Control Act of 1955 was the first major effort to identify and control air pollution.); Pub. L. No. 88-206, 77 Stat. 392 (Congress deferred to the states for enforcement leaving the federal government, specifically the U.S. Surgeon General to provide technical guidance. The importance of the act was that it acknowledged air pollution as a national-level environmental problem. The Clean Air Act of 1963 authorized the U.S. Public Health Service to begin researching methods to monitor and control air pollution.); Pub. L. No. 89-272, 79 Stat. 922 (The National Emissions Standards Act of 1965 amended the CAA to set the first vehicle emissions standards.); Pub. L. No. 91-604, 84 Stat. 1676 (The CAA Extension of 1970 represents a significant movement forward towards empowering the federal government to take the lead regulating emissions from stationary and mobile sources and gave the EPA authority in this realm.).

See generally, 33 U.S.C. § 1251 (2018); *see also* Pub. L. No. 92-500, 86 Stat. 816 (The statutory name is the Federal Water Pollution Control Act Amendments of 1972, which formed the basis for the modern CWA.); *Criminal Provisions of the Clean Water Act*, U.S. ENVTL. PROTECTION AGENCY [EPA] (Aug. 21, 2020), <https://www.epa.gov/enforcement/criminal-provisions-clean-water-act> (This Act received major revisions in 1977 and then 1987 with the passage of the Water Quality Act, which gave the EPA authority to develop a regulatory framework for the discharge of pollutants into the waters in the United States. The Act contains six titles. Title I sets goals and policies and establishes grant and pollution control programs; Title II establishes the basis for grants to subsidize the construction of municipal wastewater treatment plants; Title III manages standards and enforcement and establishes the need for discharge permits and technology-based standards for treatment plans, such as effluent standards and New Source Performance Standards (“NSPS”), the national water quality inventory, water quality standards program, and the Non-Point Source Management Program, as well as enforcement provisions for civil and criminal penalties; Title IV establishes permit and licensure requirements and state certification; Title V contains the citizen suit provisions and whistleblower protections; Title VI establishes the Clean Water Act State Revolving Funds (“CWSRF”) program that replaced the original construction grants program for municipal wastewater facilities. Criminal provisions of the CWA focus on illegal discharges into the waters of the United States, discharges of oil or other hazardous substances, failure to report, discharge to a publicly owned treatment works (“POTW”) violating pre-treatment standards, discharge to a POTW in violation of local pre-treatment standards, discharge to a POTW causing harm to the system, discharge to a POTW causing the plant to violate its own permit, knowing endangerment, false statements, tampering with a monitoring device or method, illegally dredging or altering waterways under the Rivers and Harbors Act, illegal dumping in the ocean in violation of the Marine Protection, Research, and Sanctuaries Act (“MPRSA”), and illegal discharges in violation of the Act to Prevent Pollution from Ships.).

See generally, 7 U.S.C. § 136 (2018); *see* Pub. L. No. 104-170, 110 Stat. 1489 (FIFRA began as the Federal Insecticide Act of 1910, which began to establish regulations to ensure truth in labeling for pesticides. The chemical revolution occurring after World War II prompted FIFRA to be signed into federal law in 1947. The U.S. Department of Agriculture was assigned responsibility for the expanding mandate to create basic labeling provisions. The growing understanding that pesticides were posing a significant threat to the environment shifted responsibility to the EPA, when amendments were passed in 1972 establishing the Federal Environmental Pesticide Control Act (“FEPCA”). The Act changed the mandate from truth in labeling to managing the health risks of pesticides and balancing them with their economic benefits. The Food Quality Protection Act (“FQPA”) was passed into law in 1996 to empower the EPA to set pesticide tolerances.); Pub. L. No. 110-94, 121 Stat. 1000 (The new standard was a “reasonable certainty of no harm.” FIFRA was further amended by the Pesticide Registration Improvement Act, which among other issues allowed the EPA to set fees for registration and remedies for delayed administration action.); *see also* 21 U.S.C. § 301 (The Federal Food, Drug, and Cosmetic Act of 2002 authorizes the

The Federal Water Pollution Control Act was amended in 1972 to become what we now know as the CWA. This Act, subsequently

EPA to set maximum residue limits for pesticides in food.) (In practice, the EPA is authorized to regulate risks in the broader environment and for dietary risks.)

See generally, 16 U.S.C. § 1531 (The ESA developed a framework for conserving threatened plants, animals, and their related habitats. The Act requires federal agencies to consider the impacts of their actions on any listed endangered species to not negatively impact their continued existence or critical habitat in which they exist. The Act regulates the importation, export, and commerce related to endangered species and prohibits most of these, as well as illegal taking.)

See generally, 42 U.S.C. § 300f; *see* EPA Office of Water, *Understanding the Safe Water Drinking Act*, 816-F-04-030 EPA 1, 4 (Jun. 2004),

<https://www.epa.gov/sites/production/files/2015-04/documents/epa816f04030.pdf> (SDWA gives the EPA authority to set drinking water quality standards for public water systems in the United States. The Act does not authorize the EPA to regulate bottled water or private wells serving under 25 people, but it does give the agency authority to regulate injection wells. Maximum Containment Levels (“MCLs”) is the primary mechanism used by the EPA to determine the legal threshold for a substance allowed in public water systems. These standards regulate the following categories of substances: microorganisms, disinfectants, disinfection byproducts, inorganic chemicals, organic chemicals, and radionuclides. The Act’s reach is extensive, giving EPA authority to set quality standards for over 170,000 public waters systems in the United States.)

See generally, 42 U.S.C. § 82 (RCRA gives the EPA authority over hazardous waste from cradle to grave. The agency is provided authority over the generation, storage, transportation, treatment, and disposal of hazardous waste. RCRA is the basis for establishing a national framework of solid and hazardous waste control. RCRA empowers the EPA to develop treatment standards for waste before it enters landfills and requires facilities that manage waste to clean up or remediate contaminated soil, groundwater, or surface water. States issue permits to facilities based on EPA guidelines that establish minimum technical standards for the design and operation of disposal facilities. Facilities managing solid and hazardous waste are responsible for preventing future environmental problems caused by waste and to take corrective action to clean up environmental problems caused by the mismanagement of waste.)

See generally, 15 U.S.C. § 1261; *see How TSCA defines “chemical substance,”* EPA (Sept. 24, 2019), <https://www.epa.gov/tsca-inventory/about-tsca-chemical-substance-inventory#chemicalsubstancedefined> (The TSCA empowers the EPA to regulate chemical substances. The Office of Pollution Prevention and Toxics (“OPPT”) oversees programs related to the TSCA. The EPA regulates many key aspects of the manufacturing, use, and importation of chemical substances. The Act defines “chemical substance” as, “organic or inorganic substance of a particular molecular identity, including any combination of these substances occurring in whole or in part as a result of a chemical reaction or occurring in nature, and any element or uncombined radical.” These include organics, inorganics, polymers, and chemical substances of unknown or variable composition, complex reaction products, and biological materials (“UVCBs”). Pesticides, food additives, drugs, cosmetics, tobacco and tobacco products, nuclear materials, and munitions are not covered by the Act.)

received major revisions in 1977 and then again in 1987 with the passage of the Water Quality Act, which gave the EPA significant authority to develop a regulatory framework for discharges of pollutants into the waters in the United States. The CWA empowered the agency to regulate point source pollution from stationary sources such as powerplants, concentrated animal feeding operations (“CAFOs”), factories, and both municipal separate storm sewer systems and treatment plants and industrial stormwater systems, including discharges from construction sites among others. Point source means “any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged.” This term does not include agricultural storm water discharges and return flows from irrigated agriculture.⁴

Nonpoint source pollution (“NPS”) is any source of water pollution that does not meet this legal definition of point source pollution. NPS is generated from diffuse sources ranging from rainfall to snowmelt, land runoff, drainage, or seepage and the agency has less authority to regulate these kinds of pollution, although the agency still monitors and collects data through programs such as the National Nonpoint Source Monitoring Program. Related programs, such as the 319 Nonpoint Management Program provides grants to states, territories, and tribes related to assessing the success of nonpoint implementation projects. Funding for Fiscal year 2019 totaled \$165.4 million.⁵

Regulatory authority over point source pollution allowed the EPA to implement signature pollution control programs, such as requiring point source polluters to have a permit through the National Pollutant Discharge Elimination System (“NPDES”). The NPDES sets limits on what can be discharged from the point source, how much, as

⁴ *Basic Information about Nonpoint Source (NPS) Pollution*, EPA (Oct. 7, 2020), <https://www.epa.gov/nps/basic-information-about-nonpoint-source-nps-pollution> (Non-point source or mobile sources of pollution remains one of the most vexing regulatory dilemmas for the EPA and state agencies to manage as these sources are diffuse and numerous.).

⁵ *319 Grant Program for States and Territories*, EPA (Oct. 9, 2020), <https://www.epa.gov/nps/319-grant-program-states-and-territories>.

well as establishing monitoring and reporting requirements.⁶ Today no point source may discharge pollutants into surface water without a NPDES permit.

Another key development that stemmed from the CWA was the agency's ability to develop wastewater quality standards for industry and municipalities and to provide programs to municipalities to help fund the construction of municipal water treatment plants or other water quality infrastructure projects, such as the Clean Water State Revolving Fund ("CWSRF"), which provides low-cost financing to municipalities.⁷ Title II of the CWA initially provided grant funding to states under an allocation formula, who would then distribute the funds to municipalities to create or upgrade wastewater treatment plants. The federal government paid 75% of the cost of this program, which was reduced to 55% in 1981. Through U.S. Government Fiscal Year 1984, Congress had appropriated about \$41 billion under this program making it the largest nonmilitary public works program since the development of the Interstate Highway System.⁸

I. CRIMINAL ENFORCEMENT

Regulated entities do not always obey EPA rules and regulations. Given the costs of regulation and the agency's mandate to

⁶ See *History of the Clean Water Act*, EPA (June 15, 2020), <https://www.epa.gov/laws-regulations/history-clean-water-act>; Pub. L. 92-500, 86 Stat. 816 (What we colloquially refer to as the CWA is by statute the Federal Water Pollution Control Act Amendments of 1972.); see also CRAIG COLLINS, *TOXIC LOOPHOLES, FAILURE AND FUTURE PROSPECTS FOR ENVIRONMENTAL LAW*, 54 (Cambridge Univ. Press 2010) (The quantum leap that occurred in regulatory law with these amendments included giving the EPA full authority to set standards, taking the lead in regulatory matters, and shifting responsibility for leadership in this area to the EPA and away from the states. For permitting, monitoring, and enforcement of the CWA, the practical reality is that most of this burden falls to state environmental agencies that are often criticized in many states for their lack of resources, oversight, and numerous regulatory loopholes.).

⁷ *Clean Water State Revolving Fund [CWSRF]*, EPA (Dec. 14, 2020), <https://www.epa.gov/cwsrf>.

⁸ U.S. CONG. RESEARCH SERV., *WATER INFRASTRUCTURE FINANCING: HISTORY OF EPA APPROPRIATIONS 1* (2019), <https://fas.org/sgp/crs/misc/96-647.pdf> (Municipalities were often in great need of wastewater treatment plants but lacked the funds and expertise to construct and operate them in the 1970s. The grant funding for these plants was once one of the most significant federal infrastructure projects in U.S. history that often went unrecorded. Grants were replaced with loans in the 1980s when it had been determined such a need no longer existed.).

balance economic development with environmental protection, most of its rulings result in regulatory negation through the rulemaking process and/or litigation. There are often strong financial incentives for individuals and companies to pollute. The EPA must engage in a complex system of compliance monitoring with the help of state environmental agencies to ensure regulated entities have proper permits, follow rules and regulations, and obey the law. A good example is that the NPDES permitting program is a cooperative effort between local, state, and federal agencies to delegate permitting, monitoring, and enforcement tasks to sub-national governments. Currently, the EPA allows state environmental agencies to issue NPDES permits directly in all states except Idaho, Massachusetts, New Hampshire, and New Mexico.⁹

Through the 1970s the EPA was faced with the difficult task of developing rules and regulations to meet their mandates under multiple acts of Congress. This included complex tasks, such as developing the National Ambient Air Quality Standards (“NAAQS”) for six criteria pollutants under the CAA including sulfur oxides (SO_x), atmospheric particulate matter (PM₁₀ and PM_{2.5}), carbon monoxide (CO), ozone (O₃), nitrogen oxides (NO_x), and lead (Pb), as well as other standards for hazardous substances under the CWA, TSCA, FIFRA, RCRA, and many federal laws. The agency was faced with the reality that some individuals and companies would not only violate their regulations, but do so in serious, chronic, and willful ways. The EPA realized it would need enhanced enforcement tools for serious crimes, as well as a better institutionalization of an enforcement process.

The Office of Environmental Enforcement, which has subsequently been renamed the Office of Enforcement and Compliance Assurance (“OECA”), was founded in 1981 to help

⁹ See *National Pretreatment Program*, EPA (Sep. 10, 2020), <https://www.epa.gov/npdes/national-pretreatment-program> (Pre-treatment violations tend to include illegal discharge, which occurs when waste or hazardous materials are not properly treated before they are discharged as per DPDES permit guidelines or, if the defendant in question had no valid permit.); see also *National Pollutant Discharge Elimination System State Program Information*, EPA (Aug. 31, 2020), <https://www.epa.gov/npdes/npdes-state-program-information> (Any facility that discharges directly into the waters of the United States requires a NPDES permit. Discharges include municipal wastewater overflows and stormwater, pretreatment, biosolids, and discharges from CAFOs.).

accomplish these enforcement goals.¹⁰ The EPA can investigate cases, but not prosecute cases and must rely on either the U.S. Attorneys or the Department of Justice (“DOJ”) to charge and prosecute offenders. The founding of the DOJ’s Environmental Crimes Section (“ECS”) in 1982 helped with this process.¹¹ These offices institutionalized a process for dedicating staff and budgetary resources to investigating and enforcing federal environmental regulations through a criminal process.¹² The EPA was granted full law enforcement power by Congress in 1988 and some 150 criminal investigators are stationed throughout the country to investigate environmental crimes. OECA emphasizes deterrence and punishment outcomes in its public statements, typical of prosecutors and other federal law enforcement

¹⁰ *About the Office of Enforcement and Compliance Assurance [OECA]*, EPA (Dec. 27, 2020), https://19january2017snapshot.epa.gov/aboutepa/about-office-enforcement-and-compliance-assurance-oeca_.html (The OECA includes the Office of Administration and Policy (“OAP”), which provides policy recommendations on compliance and enforcement and other administrative functions; Office of Civil Enforcement (“OCE”) that sets priorities for enforcement and assists EPA regional offices with civil and judicial cases; Office of Criminal Enforcement, Forensics and Training, which includes the Criminal Investigation Division (“CID”); Office of Compliance (“OC”) that establishes enforcement initiatives; Office of Environmental Justice that addresses unequal environmental protection in low-income and communities of color by developing partnerships, strategic planning, and grant programs; Office of Federal Activities (“OFA”) that reviews environmental impact statements provided by other federal agencies and the EPA’s compliance with NEPA; Federal Facilities Enforcement Office (“FFEO”) charged with ensuring federal facilities are in compliance with federal environmental statutes; and the Office of Site Remediation Enforcement (“OSRE”) charged with hazardous waste cleanup oversight at the EPA for Superfund, RCRA, the Oil Pollution Act (“OPA”), and underground storage tanks.).

¹¹ See John F. Cooney, *Multi-jurisdictional and Successive Prosecution of Environmental Crimes: The Case for a Consistent Approach*, 96 J. CRIM. L. & CRIMINOLOGY 435, 437–438 (2006) (The article provides a quality overview of the process for prosecuting federal environmental crimes in the United States.); see also Earl E. Devaney, *The Evolution of Environmental Crimes Enforcement at the United States Environmental Protection Agency*, THIRD INTERNATIONAL CONFERENCE ON ENVTL. ENFORCEMENT 457, 458 (1994) (Devaney was Inspector General for the U.S. Department of Interior and came to be appointed Director of the EPA’s Criminal Enforcement Division.).

¹² See Kathleen F. Brickey, *Environmental Crime at the Crossroads: The Intersection of Environmental and Criminal Law Theory*, 487 TUL. L. REV. 494–95 (1996) (Brickey’s work represented some of the earlier foundational studies to examine the criminal enforcement of various federal environmental statutes.); see also Michael O’Hear, *Sentencing the Green-Collar Offender: Punishment, Culpability, and Environmental Crime*, 95 J. CRIM. L. & CRIMINOLOGY 133, 142–143 (2004) (The author explores the criminal enforcement process for environmental crimes and the nature of that enforcement apparatus.).

agencies, and sees itself as “America’s Environmental Crime Fighters” focusing on cases of significant harm.¹³

When individuals or companies break the law or fail to follow EPA regulations, the EPA must engage in investigations of said infractions and undertake possible enforcement actions. The most common kind of enforcement action involves an array of civil options. These civil remedies include a variety of administrative actions or civil judicial actions, such as monetary penalties, injunctive relief settlements, or Administrative Orders of Consent (“AOCs”), mandated mitigation plans, or Supplemental Environmental Projects (“SEPs”) that require the violator to perform some agreed upon action.¹⁴ Enforcement typically begins at the state level, with state environmental agencies engaged in the issuing of permits, compliance monitoring, investigation, and enforcement actions. EPA involvement in the investigative process often follows state actions, rather than prompting them. When the EPA does undertake investigations, they typically involve cooperation and significant collaboration with state and local agencies, law enforcement, prosecutors, laboratories, and even elected officials.¹⁵ The CWA, like many federal environmental statutes, is heavily state-centered for permitting and enforcement issues. When EPA criminal investigators do get involved in a case, typical sources that bring environmental crimes to their attention include self-reported documents and reports, civil inspectors from other governmental agencies, and former employees of a company. When criminal investigators feel they have sufficient evidence they approach federal prosecutors, who may seek an indictment from a grand jury or file a criminal case in the appropriate U.S. District Court.¹⁶

¹³ See *U.S. Environmental Protection Agency Criminal Enforcement Program*, EPA, <https://www.epa.gov/sites/production/files/documents/oceftbrochure.pdf>; see also Michael R. Fisher, *Disarm the EPA?*, BLOOMBERG BNA DAILY ENV’T REP., (June 19, 2015), <https://www.epa.gov/sites/production/files/2015-06/documents/disarm-epa-fisher.pdf>.

¹⁴ *Basic Information on Enforcement*, EPA (July 1, 2020), <https://www.epa.gov/enforcement/basic-information-enforcement>.

¹⁵ See THEODORE M. HAMMETT & JOEL EPSTEIN, LOCAL PROSECUTION OF ENVIRONMENTAL CRIME, *The Nat’l Institute of Justice* (1993) (A good earlier book that provides case studies and practical examples for prosecuting environmental crimes at the local level.).

¹⁶ Joel A. Mintz, *Some Thoughts on the Interdisciplinary Aspects of Environmental Enforcement*, 36 ENVTL. L. REP. 10495, 10497 (2006).

The nature of most crimes and cost of prosecution results in the vast majority of violations of federal environmental regulations being handled through civil remedies.¹⁷ Considerations of civil and criminal liability also drive the criminal enforcement process. Civil liability rests on a preponderance of the evidence standard where it must be proven that the alleged act is more likely than not to have occurred as presented, whereas criminal guilt rests on a higher, beyond a reasonable doubt standard where the defendant committed the crime for which they are charged. EPA criminal investigators focus their efforts on knowing violations of the law that appear willful and demonstrate intent, as well as negligent violations. As the EPA notes, the choice to pursue criminal investigation rests on whether investigators feel the case involves “significant environmental harm and culpable conduct.”¹⁸

The EPA maintains a compliance monitoring strategy that focuses on three key areas of the CWA. The first area is wastewater management that covers NPDES permits and related issues, such as monitoring for valid permits, unlawful or unpermitted discharges, and accurate reporting through discharge monitoring reports (“DMRs”) and other related permitting, records, and reporting requirements, as

¹⁷ See David M. Uhlmann, *Environmental Crime Comes of Age: The Evolution of Criminal Enforcement in the Environmental Regulatory Scheme*, 4 UTAH L. REV. 1233, 1244–45 (2009) (Uhlmann provides a classic account of how the criminal enforcement apparatus operates and has evolved over time in the broader context of the goals of environmental regulation and enforcement); see also Kathleen F. Brickey, *Charging Practices in Hazardous Waste Crime Prosecutions*, 62 OHIO STATE L. J. 1077 (2001) (Brickey’s article is an early and classic treatment of quantifying the ways prosecutors use RCRA and the outcomes.).

¹⁸ See Memorandum from Earl E. Devaney to All EPA Employees Working in or in Support of the Criminal Enforcement Program 3 (Jan. 12, 1994), <https://www.epa.gov/sites/production/files/documents/exercise.pdf> (Civil liability comes with the simple violation of the law; criminal liability considers intent in the violation. The EPA tends to investigate and pursue prosecution for “knowing violations” or willful violations of the law. Civil liability responds on a preponderance of the evidence standard that the evidence presented of a crime is more likely to be true than not. A defendant may be found liable in a civil trial under this standard or agree to a settlement with the government prior to or during trial. Criminal guilt is decided beyond a reasonable doubt the defendant committed the crime with which they are charged. If found guilty under a civil standard a defendant may face a monetary penalty or injunctive relief to fix the problem or take additional steps to remedy the problem. If convicted of a criminal violation a defendant can face a monetary penalty, restitution, or incarceration.); see also *Basic Information on Enforcement*, *supra* note 16.

well as inspections of Publicly Owned Treatment Works (“POTWs”), CAFOs, and other industrial facilities that store, transport, and/or dispose of biosolids.¹⁹ Municipal wastewater overflows are also covered, as well as ensuring industrial and commercial facilities properly follow pretreatment standards and do not discharge pollutants into POTWs untreated or interfere with the pretreatment process.

The second area is Section 404 of the CWA. This section regulates the dredging or filling of waterways, such as lakes, streams, rivers, estuaries, and wetlands. The U.S. Army Corps of Engineers issues Section 404 permits with the goal of preventing losses to wetlands and finding alternatives to wetland loss, as well as ensuring illegal dredging and filling of waterways do not occur without a permit.²⁰ The third area is the prevention of oil spills and spill prevention, as the CWA prohibits the discharge of oil in U.S. waters or their adjoining that may damage the environment or human health.²¹

Criminal provisions of the CWA focus on a series of knowing and negligent violations. These include the following: discharging a

¹⁹ See generally, JOHN STAUBER & SHELDON RAMPTON, *TOXIC SLUDGE IS GOOD FOR YOU: LIES, DAMN LIES AND THE PUBLIC RELATIONS INDUSTRY* (Common Courage Press, 2002) (Biosolids are generated when sewage sludge from treatment plants is properly treated and processed. Companies sell biosolids as fertilizer to enhance farm soil, but this process is often controversial as biosolids may contain numerous chemicals and other toxic compounds.).

²⁰ See *RIBITS*, U.S. Army Corp of Engineers, <https://ribits.ops.usace.army.mil/ords/f?p=107:2> (Obtaining a Section 404 permit typically requires the applicant to demonstrate filling in wetlands is a last resort for development. Applicants are required to off-set the impacts that development or other activities would pose to wetlands by restoring another habitat. The EPA helps create a market for these activities through mitigation banking, in-lieu fee mitigation, and permittee-responsible mitigation. The former is a means to offload risk to a third party (i.e. a bank) the risk associated with the ecological costs with the development. Banks can buy or generate credits for the restoration, creation, enhancement, or preservation of aquatic resources. Those credits have value to developers that do not wish to perform and absorb the costs of mitigation themselves and the credits can be purchased in advance of development to compensate for the unavoidable loss of aquatic habitat or resources. The Army Corp maintains a database the Regulatory In-Lieu Fee & Bank Tracking System (“RIBITS”) that tracks banks engaged in this marketplace.).

²¹ See *Clean Water Act (CWA) Compliance Monitoring*, EPA (Dec. 23, 2020), <https://www.epa.gov/compliance/clean-water-act-cwa-compliance-monitoring> (The EPA engages in monitoring and enforcement of other areas, but chooses crimes related to wastewater management, illegal dredging and filling and altering of waterways, and oil spills and preventions as they encapsulate much of the regulatory universe for which they are responsible under the CWA.).

pollutant from a point source to the waters of the United States without a NPDES or 404 permit or in violation of a permit; discharge of oil or hazardous substances; failure to report discharges of oil and hazardous substances; discharge to a POTW in violation of federal or local pretreatment standards; discharge to a POTW causing harm to the system or causing the POTW to violate its permit; knowing endangerment; false statements; tampering with a monitoring equipment or method; obstructing, building, excavating, filling, altering the course, condition, or capacity of a navigable water without a permit; transporting material for the purpose of dumping it into ocean waters without a permit or in violation of a permit; violations of MARPOL, including the dumping of garbage, oil, or hazardous substances.²²

These criminal provisions focus on elements in the CWA's compliance monitoring strategy. Crimes related to permitting, monitoring devices and equipment, and discharges from POTWs and other point sources are a central element. The other element is altering waterways without a permit or in violation of a 404 permit, such as illegal filling in wetlands. The third element is dumping oil or other hazardous substances into the waterways of the United States, including the ocean. The final element revolves around CWA's false statements provisions that prohibit making false statements, representations, or certifications in a material document or to investigators and knowing endangerment or when a party commits an act that puts another person in imminent danger of death or causes serious bodily injury.²³

A significant number of studies have examined how the EPA uses its civil enforcement tools and the punishments it has meted out to get individuals and companies to comply with its regulations. Academic and legal scholars still have a relatively poor understanding of how the agency uses its criminal enforcement tools.²⁴ Moreover,

²² See generally, *Criminal Provisions of Water Pollution*, EPA (Aug. 21, 2020), <https://www.epa.gov/enforcement/criminal-provisions-clean-water-act> (collecting relevant charging statutes and penalties per violation).

²³ See Rivers and Harbors Act, 33 U.S.C. § 403 (Illegal discharge and point-source based criminal provisions derives from the CWA.) (Provisions against illegal alteration of waterways, dredging, or filling in wetlands.); see also Marine Protection, Research, and Sanctuaries Act [MPRSA] 16 U.S.C § 1431 (also known as Illegal dumping from the Ocean Dumping Act); The Act to Prevent Pollution from Ships, 33 U.S.C §§ 1901-1915.

²⁴ See Michael J. Lynch, *The Sentencing/Punishment of Federal Environmental/Green Criminal Offenders, 2000-2013*, 38 *DEVIANT BEHAV.* 991-

how the CWA has been interpreted and utilized by federal prosecutors as a criminal enforcement tool and the outcomes of those prosecutions is mostly unknown. Our goal in this article is to fill this gap through an exploration of the charging and sentencing patterns in CWA prosecutions, 1983-2019. Through the analysis of 828 federal prosecutions, we are able to study how prosecutors used the CWA in various criminal enforcement situations both exclusively and in conjunction with other federal statutes and the punishments meted out to offenders. This analysis will help scholars better understand how these criminal enforcement tools are used and help explore the universe of CWA prosecutions since the institutionalization of the modern criminal enforcement process.

II. DATA

The data collected is from the EPA *Summary of Criminal Prosecutions* database.²⁵ The database catalogs all federal and state prosecutions resulting from EPA criminal investigations. We searched the database by fiscal year beginning with the first case in the dataset in 1983 through the last case as of January 1, 2020. We coded the following categories using content analysis of these prosecution case summaries: summary data on the crime, year, docket number, state, major environmental and non-environmental charging statutes used, number of defendants in the case, whether the defendants were companies or individuals, cumulative penalties assessed to all

995 (2016) (Lynch examines the criminal prosecution of environmental offenders using the EPA Database for certain federal statutes and questions the deterrent value of the criminal enforcement apparatus, given the small number of cases prosecuted over time); *see also* Joshua Ozymy & Melissa L. Jarrell, *Why do Regulatory Agencies Punish? The Impact of Political Principals, Agency Culture, and Transaction Costs in Predicting Environmental Criminal Prosecution Outcomes in the United States*, 33 REV. POL'Y RES., 71, 72 (2016) (The article uses the EPA Database for years 2001-11 and provides multi-variate models to help explain punishment outcomes during this time period.); Wayne B. Gray & Jay P. Shimshack, *The Effectiveness of Environmental Monitoring and Enforcement: A Review of the Empirical Evidence*, 5 REV. ENVTL. ECON. & POL'Y. 1, 3 (2011) (The authors examine studies of civil environmental enforcement and explores themes in the scholarly research regarding the effectiveness of different monitoring and civil enforcement strategies.).

²⁵ *Summary of Criminal Prosecutions Database*, EPA (Jan. 12, 2021), https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm (cataloging cases investigated by the EPA and the results of the prosecutions in which in some cases defendants are charged and prosecuted at the state-level.).

individual and company defendants, and whether each case involved a death or injury to humans that was clearly discussed in the summary. If the case was prosecuted under the CWA, we selected it for the analysis. We analyzed 2,588 total cases, which yielded 828 CWA prosecutions. Given that OECA and ECS were founded in 1981 and 1982 respectively this dataset represents a strong account of the history of how federal prosecutors have used the CWA as a criminal enforcement tool, as well as the outcomes of those prosecutions.

The primary limitation with the data and analysis is that we are only able to analyze cases the EPA entered into the database. If they failed to include a case in the database, then those prosecutions cannot be included in the analysis that follows. Other agencies may also pursue criminal prosecution of environmental crimes, but these are not a part of the analysis if they were not included in the database. The role of investigators, prosecutors, other agencies, defendants, or judges in the cases is unknown in the summaries. The U.S. Government's fiscal year runs from October-September, so we do not have all the data for Fiscal Year 2019 because we concluded the analysis on January 1, 2020. Researchers can use various search criteria to explore the database, including state, statute, year, etc. We found that searching by fiscal year going case by case was the most methodical and accurate method to catalog all of the CWA cases. For example, a search of the database using the statute ("CWA") at the time of writing revealed 817 cases through 2019. When the database was analyzed using our method, going case by case, we found an additional 11 prosecutions.

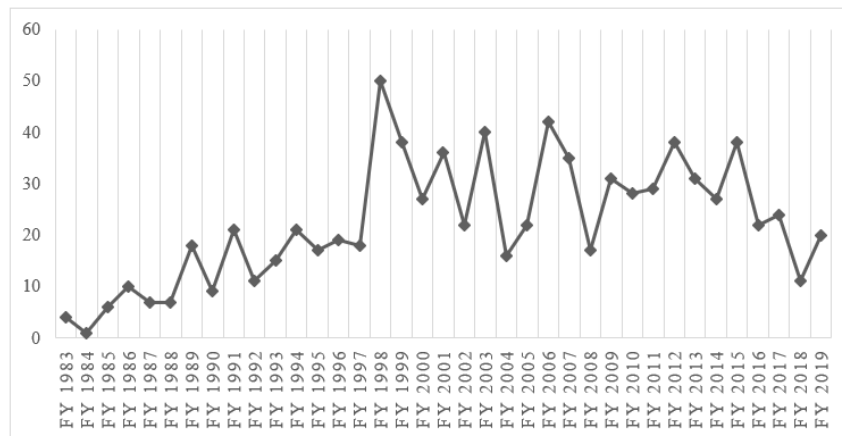
Our coding protocols were developed by examining criminal prosecutions through fiscal year 2005. We piloted protocols with two coders for a total of four weeks until inter-coder reliability reached above 90%. Two individuals coded cases with one of the authors reviewing for discrepancies. These were then discussed among the group to find consensus. The most common disagreements came with complex sentences. The level of agreement for the full analysis was approximately 95% by dividing the agreed upon items by total items coded in the dataset.²⁶

²⁶ See OLE R. HOLSTI, *CONTENT ANALYSIS FOR THE SOCIAL SCIENCES AND HUMANITIES*, 140 (Addison-Wesley Publ'g Co., 1969); EARL R. BABBIE, *THE PRACTICE OF SOCIAL RESEARCH* (Wadsworth Pub., 13th ed. 2012).

III. RESULTS

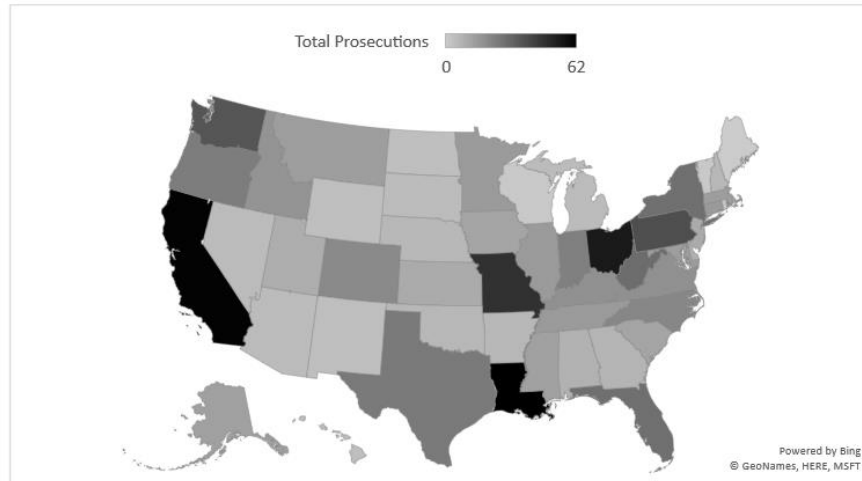
Figure 1 demonstrates historical trends in CWA prosecutions by fiscal year, 1983-2019. It is important to note that many prosecutions span multiple years, so the year settled is not necessarily reflected in when the agency initially investigated the crime or when defendants were charged. It is typically reflected in the year they were sentenced or immediately thereafter. Annual prosecutions adjudicated peaked during the Clinton Administration at 50 in 1998 and maintained a pattern up or down within a range that started to decline after 2015. A total of 53 prosecutions were adjudicated in the 1980s, and 219 in the 1990s, 288 from 2000-09, and 268 from 2010-19. We coded a grand total of 828 prosecutions over these 37 years.

Figure 1. Total U.S. Clean Water Act Criminal Prosecutions by Fiscal Year, 1983-2019.



Source: EPA Summary of Criminal Prosecutions Database

Figure 2 provides a graphical representation of the total CWA prosecutions per U.S. state, 1983-2019. Darker areas represent more total prosecutions relative to other states. Louisiana, California, and Ohio have the largest number of total prosecutions at 62, 61, and 54 respectively. Maine has no prosecutions and Vermont and Wisconsin have one prosecution. The average number of prosecutions across the states over time is 16.34.

Figure 2. Total U.S. Clean Water Act Criminal Prosecutions by U.S. State, 1983-2019.

Source: EPA Summary of Criminal Prosecutions Database

Table 1 shows the total number of CWA prosecutions adjudicated per U.S. state and territory, as well as total scenarios per state where prosecutions used the CWA plus another major environment statute to charge defendants. We catalogued these as CWA plus CAA, RCRA, TSCA, CERCLA, FIFRA, and the Act to Prevent Pollution from Ships (“APPS”).²⁷ In addition to the states, we found that four prosecutions were settled in Washington D.C., five cases in Puerto Rico, and one in the U.S. Virgin Islands.²⁸

We demonstrate nine cases where prosecutors used the CAA in conjunction with the CWA to prosecute defendants. A case example is Kenneth Morrison, who was sentenced in Indiana in 1995. The defendant discharged approximately 1,000 gallons of oil into the Schuylkill River during a tank salvaging operation in June 1993. Morrison attempted to build a sand berm to contain the oil rather than

²⁷ See 33 U.S.C. §§ 1901-1915. The APPS implements provisions of the International Convention for the Prevention of Pollution from Ships (“MARPOL”) in the United States. APPS can be used to enforce illegal discharge provisions of the CWA with foreign-flagged ships operating in the navigable waters of the United States.

²⁸ In one case against principal defendant Ahmed Hajabre, it is not possible to determine the state or territory of the prosecution. Citation is given as 311.574

notifying authorities. He was charged for failing to notify and dismantling the tanks releasing tar and oil.²⁹

In 57 cases, prosecutors used the RCRA to prosecute defendants along with the CWA. A case example is Gabriel Lefave, who was arrested while he was dumping wastes in the East Mojave National Preserve in California. He along with two other co-defendants and his company Fluid Polymer were indicted for dumping industrial waste in four different locations in the area. The defendants were charged under the RCRA for the illegal transport and disposal without a manifest, conspiracy, and under the CWA for the illegal discharge.³⁰

In 13 cases, prosecutors used CERCLA to prosecute defendants in conjunction with the CWA. A case example is HCI Chemtech and three co-defendants that failed to properly contain a spill of 20,000 gallons of Sodium Hydroxide from the company's Kansas City plant in September 1995. Thirteen thousand pounds leaked directly into the Missouri River. The defendants did not attempt to contain the spill, did not report it in a timely manner, and falsely reported the magnitude of the spill. The defendants were charged with conspiracy, false statements, illegal discharge under the CWA, and failure to notify officials of the release of a hazardous substance under CERCLA.³¹

In two cases, prosecutors used the TSCA in conjunction with the CWA to prosecute defendants. For example, Thompson Center Arms and three co-defendants were prosecuted in 1985 for illegal disposing of hazardous waste in the Cocheco River in New Hampshire.

²⁹ *U.S. v. Morrison*, 2:17-CR-00130 (N.D. Ind. 2019) (The defendant pled guilty to two-counts and was sentenced to 12 months and a day incarceration on each count, to run concurrently and was ordered to pay \$50,000 in restitution and a \$100 special assessment fee.).

³⁰ C.D. California CR-95-8 (Gabriel Lefave was sentenced to 60 months probation and ordered to pay a \$3,750 fine. Fluid Polymers was sentenced to pay a \$49,898 fine. Co-defendant Gene Lefave was sentenced to 46 months incarceration, 12 months probation and fined \$39,898.).

³¹ W.D. Missouri 4:76 CR00156-001 (HCI was sentenced to 36 months probation, \$21,200 in restitution, and fined \$175,000. Andre Rober was sentenced to 24 months probation, a \$25 special assessment fee, and a \$1,000 fine. Marc Peterson was sentenced to 36 months probation and fined \$1,000. Fred Garner was sentenced to four months incarceration, a \$100 special assessment fee, and fined \$100.).

Thompson was in the business of manufacturing firearms and metal casting. Casting wax containing Polychlorinated Biphenyl (“PCBs”) was also improperly stored. The defendants were charged under the CWA for the illegal discharge, the TSCA for the illegal storage of PCBs, as well as CERCLA for failure to notify of the hazardous release, false statements, and conspiracy in the original 50-count indictment.³²

In another case involving the illegal disposal of PCBs regulated under the TSCA, Robert Derektor and his company Derektor, Inc. operated a shipyard building and repair business in Middleton, Rhode Island. Co-defendant Post Road Corporation owned farmland in Portsmouth that was occupied by Derektor, where investigators found transformers leaking PCBs illegally buried on the property. The defendants were charged under the TSCA for the illegal disposal of PCBs, the RCRA for the storage and disposal of hazardous wastes without a permit, CERCLA for failure to report the release of a hazardous substance, the CWA for illegal discharge of pollutants from a drydock, and conspiracy among others in the original 46-count indictment.³³

In three cases prosecutors used FIFRA in conjunction with the CWA to prosecute defendants. A case example is Charles Lewis Thomas III and Pied Piper Pest Control, Inc. who were charged, and Cypermethrin, an insecticide in Rock Creek Park. For the illegal discharge they were charged under the CWA and FIFRA for the

³² See *Thompson v. Turn Key Health Clinics LLC et al*, No. 5:18-CV-05092 – Doc. 54 (W.D. Ark. 2019) (Charges against the three co-defendants were dismissed. Thompson was sentenced to pay a \$75,000 fine.); see also *EPA Bans PCB Manufacture; Phase Out Uses*, EPA (Apr. 19, 1979), <https://archive.epa.gov/epa/aboutepa/epa-bans-pcb-manufacture-phases-out-uses.html> (The EPA issued a ban and phaseout on PCBs in 1979. They were used as a coolant and were ubiquitous in many sectors of American commerce. The EPA allowed them to be used in “enclosed electrical equipment”, which included electrical transformers. The size and cost of properly disposing of these transformers created significant incentives for companies to bury or dispose of them and pocket the profit that would have been lost with proper disposal.).

³³ See Matthew L. Wald, Record Fine, \$1,025,000, Levied Against Polluter in Massachusetts, *THE NEW YORK TIMES* (Dec. 31, 1986), <https://www.nytimes.com/1986/12/31/us/record-fine-1025000-levied-against-polluter-in-massachusetts.html> (Derektor, Inc. was sentenced to a \$600,000 fine. Robert Derektor was sentenced to a \$75,000 fine and 60 months probation.); see also D. Rhode Island 86-022.

misuse of a registered pesticide.³⁴ In five cases prosecutors used APPS in conjunction with the CWA to prosecute defendants. A case example is Odysea Carriers where it was prosecuted for engine room crew members of the ocean-going bulk carrier Polyneos because it used a hose to pump the contents of the ship's bilge tank, bilge oil tank and sludge tank directly overboard. Pedro Guerrero, chief engineer of the ship, covered up the illegal discharges by falsifying the vessel's oil record book. The company and Guerrero were charged with falsifying the oil book records under the APPS and a knowing violation of the CWA.³⁵

³⁴ D. Maryland DKC-01-0563 (Thomas was sentenced to 24 months' probation and was ordered to pay a \$25 special assessment fee. The company was sentenced to 24 months probation, a \$525 special assessment fee, \$10,000 in restitution to Montgomery County and \$15,000 in fines.).

³⁵ *E.D. Louisiana 12-105 SECT K MAG 3 - Summary of Criminal Prosecutions*, EPA (2012), https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm?action=3&prosecution_summary_id=2321&searchParams=M5%2C%3A%20FX%20T%20A%5CCY%40%3B%20W_%20AYN5%5E%3EK99%2A%29W%3CU%3FV%23DH%5BZ8%257TRPH%3BJQH%229%3FD%3C%26Z%40CY%26%0AM7EFH%21%25%21%3A%23%3DV%40%3A%2A_%3AB8%2A%5DR%3BB%25%5E9%5B2D%22I2JU65NEY7M%21-U%40%2B8%22J%29Y%23%24LNJ%40DX%24%0A%2F5YJ%3EP%27O_K04_G%5C%3E%290M8%2F%0A (Odysea was sentenced to 36 months probation and ordered to pay \$1.2M in fines. Guerrero was sentenced to 36 months probation and ordered to pay a \$2,000 fine.).

Table 1. Total U.S. Clean Water Act Criminal Prosecutions by U.S. State and Territory Plus Additional Charging Statutes, 1983-2019.

<u>State</u>	<u>TOTAL CWA</u>	<u>CAA</u>	<u>RCRA</u>	<u>TSCA</u>	<u>CERCLA</u>	<u>FIFRA</u>	<u>APPS</u>
AK	13	0	1	0	0	0	0
AL	8	1	1	0	1	0	0
AR	6	0	3	1	2	0	0
AZ	5	0	0	0	0	0	0
CA	61	0	6	0	2	0	0
CO	20	0	4	0	0	0	0
CT	15	0	2	0	0	0	0
DE	8	1	3	0	0	0	0
FL	28	0	0	0	0	0	3
GA	7	0	1	0	1	0	0
HI	4	0	0	0	0	0	0
IA	12	0	1	0	0	0	0
ID	17	0	0	0	0	0	0
IL	15	0	1	0	0	0	0
IN	23	0	1	0	1	0	0
KS	10	0	0	0	0	0	0
KY	18	0	1	0	0	0	0
LA	62	0	1	0	0	0	1
MA	14	0	1	0	0	0	0
MD	14	1	1	0	0	1	0
ME	0	0	1	0	0	0	0
MI	5	0	1	0	0	0	0
MN	15	0	0	0	0	0	0
MO	47	0	3	0	2	1	0
MS	13	0	1	0	0	0	0
MT	14	0	1	0	0	0	0
NC	21	0	0	0	0	0	0
ND	4	0	0	0	0	0	0
NE	6	0	0	0	0	0	0
NH	6	0	0	0	0	0	0
NJ	10	1	1	0	0	0	1
NM	4	0	1	0	0	0	0
NV	5	0	0	0	0	0	0
NY	28	1	4	0	1	0	0

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Table 1. Continued

<u>State</u>	<u>TOTAL CWA</u>	<u>CAA</u>	<u>RCRA</u>	<u>TSCA</u>	<u>CERCLA</u>	<u>FIFRA</u>	<u>APPS</u>
OH	54	0	1	0	0	0	0
OK	6	0	2	0	0	0	0
OR	24	0	2	0	0	0	0
PA	38	1	3	0	0	0	0
RI	2	1	1	1	1	0	0
SC	12	0	0	0	0	0	0
SD	5	0	0	0	0	0	0
TN	15	0	0	0	0	0	0
TX	25	0	3	0	1	0	0
UT	9	0	1	0	0	0	0
VA	18	0	0	0	0	0	0
VT	1	0	0	0	0	0	0
WA	36	1	2	0	1	0	0
WI	1	0	0	0	0	0	0
WV	29	1	1	0	0	0	0
WY	4	0	0	0	0	1	0
DC	4	0	0	0	0	0	0
PR	5	0	0	0	0	0	0
VI	1	0	0	0	0	0	0
Unknown	<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total	828	9	57	2	13	3	5

Table 2 displays common criminal charges in CWA criminal prosecutions, 1983-2019. The most prevalent of these charges were defendants giving false statements to investigators or falsifying records to obscure their crimes. In 135 cases or 16% of the data, at least one defendant was charged with false statements. In 10% of cases, defendants conspired to conceal their crimes. We found in three percent of cases defendants were charged with fraud including, mail, wire, tax, visa, and bank fraud while also committing an environmental crime. In 12 cases, defendants were charged with obstruction, often in conjunction with false statements or false reporting that hindered or obstructed the investigation.

A false statements prosecution in conjunction with the CWA is the case against Mari Leigh Childs. The defendant, a certified Wastewater Operator, created and submitted at least eight quarters of falsified laboratory analytical data and at least three falsified Discharge Monitoring Reports (“DMR”) for both the Rising Sun and Chapman Subdivision wastewater treatment plants to the Mississippi Department of Environmental Quality (“MDEQ”). She was charged

with false statements for the falsified reports, as well as a knowing violation of the CWA.³⁶

John and Cody Tuma were charged for discharging untreated wastewater directly into the Red River without a permit, discharging untreated wastewater into the city of Shreveport sewer system in violation of its permit, and obstructing an EPA inspection. They were also charged with conspiracy, obstruction, and violating the CWA for the illegal discharge.³⁷ Ray Caldwell and his company All Out Sewer and Drain Service, Inc., for approximately ten years routinely dumped industrial, septic, and grease trap waste into the Longview, Washington sewer system. When investigated they falsified reports to minimize the scale of the illegal discharges. The defendants were charged under the CWA for the illegal discharges, false statements for the false reporting, and mail fraud.³⁸

Table 2. Common Criminal Charges in U.S. Clean Water Act Criminal Prosecutions, 1983-2019.

<u>Statute</u>	<u>Number of Cases</u>	<u>Percentage of Total</u>
False Statements*	135	16%
Conspiracy	86	10%
Fraud**	22	3%
Obstruction	12	1%

*Source: EPA Summary of Criminal Prosecutions Database. Note: Percentages are rounded. Defendants in a case may be charged with multiple violations. *Include false statements and falsification of records **Includes mail, wire, tax, visa, and bank fraud.*

³⁶ *N.D. Mississippi 3:11-CR-00135-WAP-SAA - Summary of Criminal Prosecutions*, EPA (2012), https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm?action=3&prosecution_summary_id=2344 (The defendant Mari Leigh Childs was sentenced in 2012 to 6 months home confinement, 60 months probation, and was ordered to pay a \$200 special assessment and \$34,900 in restitution.).

³⁷ *U.S. v. Tuma*, No. 5:11-CR-00031 (W.D. La. 2011) (They were sentenced in Louisiana in 2012 to 60 months probation (Cody Tuma) and 60 months incarceration, 36 months probation, and a \$100,000 fine (John Tuma).).

³⁸ *W.D. Washington CR 13-5308 BHS - Summary of Criminal Prosecutions*, EPA (2014) (The company was sentenced to 36 months of probation and ordered to pay a fine of \$250,000. Ray Eugene Caldwell was sentenced to 27 months of incarceration and ordered to pay a fine of \$250,000.).

Table 3 provides supplemental data on CWA criminal prosecutions, from 1983-2019. We found a total of 14 cases where individuals were killed or injured in the commission of an environmental crime. Total defendants prosecuted equals 1,495 or 1.8 defendants per case on average. In 58% of cases, companies are listed as the principal defendant with 42% of cases listing individuals as the principal defendant. We also found that one in four cases contains a non-environmental criminal charge.

An example of a case involving injuries was CH20, Inc. CH20, located near Olympia, Washington, produced boiler treatment chemicals and installed a line near their warehouse where they washed drums containing chemical residues which had been returned by their customers. From June 1992 through August 1995, the defendants illegally discharged the chemical wastes into the municipal sewer. In February 1995, a worker at the wastewater treatment plant was overcome with chemical fumes that were traced back to the inflow of contaminated water from the company's facility. The company and four co-defendants were charged with conspiracy and for violating the CWA.³⁹ A case involving deaths stemming from an environmental crime is the salient prosecution of Transocean for its role in the Deepwater Horizon disaster.⁴⁰

Table 3. Supplementary Data in U.S. Clean Water Act Criminal Prosecutions, 1983-2019.

<u>Case Description</u>	<u>Total</u>	<u>Percentage of Total</u>
Cases with Individuals Killed or Injured	14	2%
Defendants Prosecuted	1,495	-
Cases with Companies as Primary Defendant	484	58%
Cases with Non-Environmental Criminal Charges	210	25%

Source: EPA Summary of Criminal Prosecutions Database Note: Percentages are rounded.

³⁹ W.D. Washington CR-97 (CH20 was sentenced to 36 months probation and a \$150,000 fine. James Bucco was sentenced to 24 months probation and a \$2,000 fine. Jeff Wilsie was sentenced to four months probation and a \$1,000 fine. Ron Mickelson was sentenced to 24 months probation and a \$2,000 fine. Tom Iverson was sentenced to 12 months incarceration, 36 months probation and fined \$75,000.).

⁴⁰ *U.S. v. Transocean Deepwater Inc.*, No. 2:13-CR-00001-JTM-SS (E.D. La.) (The company pled guilty in Louisiana in 2013 to five years probation and to pay a \$400 million fine for violating the CWA. The company admitted in court its employees failed to properly investigate and secure the Macondo Well and rig, which the company owned.).

Table 4 displays total penalties assessed to individual and company defendants in CWA criminal prosecutions, from 1983-2019. In 517 cases or 62% of the data, individuals were assessed a total of \$31.6 million dollars in fines and other financial penalties. In 536 cases or about 65% of total prosecutions, individuals were assessed a cumulative total of 21,963 months of probation. In 250 cases, individuals were sentenced to prison in the data. The total amount of incarceration in months assessed to defendants was 5,269.

In 461 cases or 56% of prosecutions, companies were assessed a total of \$1.2 billion in fines and other financial penalties in the data. In 301 cases, companies were assessed a grand total of 12,637 months probation. In 88 cases, individual defendants were assessed 641 months of home confinement, 454 months of home corrections, and in 129 cases, individuals were sentenced to a grand total of 37,776 hours of community service.

Table 4. Total Penalties Assessed in U.S. Clean Water Act Criminal Prosecutions, 1983-2019.

<u>Penalty</u>	<u>Number of Cases</u>	<u>Total (\$)</u>
Individual Fines (\$)	517	31,684,265
Individual Probation (Months)	536	21,963
Incarceration (Months)	250	5,269
Company Fines (\$)	461	1,235,178,351
Company Probation (Months)	301	12,637
Home Confinement (Months)	88	641
Community Corrections (Months)	20	454
Community Service (Hours)	129	37,776

Source: EPA Summary of Criminal Prosecutions Database.

Note: Total fines does not include the \$4 billion criminal judgement against BP for its role in the Deepwater Horizon disaster.⁴¹

⁴¹ *In re Oil Spill by Oil Rig Deepwater Horizon*, 910 F. Supp. 2d 891 (E.D. La. 2012) (The CWA prosecution of BP for its role in the Deepwater Horizon disaster was the largest criminal penalty ever assessed against a defendant for a federal environmental crime. While they were also charged with manslaughter, obstruction, and charges under the MBTA, the \$4 billion penalty is not included in the totals, because the case could not be found when searching the database. The only way to receive the case summary was via web search. Since this case falls outside of the parameters for coding the other cases it cannot be included in the analysis.).

A large fine case for both individuals and company defendants was the prosecution of West Indies Transport, West Indies Equipment, and Warren James Oelsner sentenced in 1996 in the U.S. Virgin Islands. The defendants illegally imported Filipino laborers to perform drydock work and other shore-based operations. The workers lived in shipping containers and worked 56-hour weeks at below minimum-wage. Among the many charges were visa fraud, unlawful discharge of a pollutant (“CW”), obstruction of navigable waters (Rivers and Harbors Act), and conspiracy to make false statements.⁴²

A large probation case example was against primary defendant Glenn Cooper and co-defendants Darrin Melerine, Dominic Bruno, Gregory Plaia, Richard Coffey, and Vincent Tamor. Cooper was the plant manager of the St. Bernard Parish public wastewater treatment facility in Louisiana. He instructed his employees, the co-defendants in the case, to submit fraudulent water quality samples to comply with the CWA permit rules. The defendants were charged with a negligent violation of the CWA for submitting the falsified reports.⁴³

In *Figure 3* we develop a typology of CWA criminal cases to categorize all 828 prosecutions into appropriate categories. We organized cases based on the thrust of the primary violation and the way prosecutors used the CWA to charge defendants. While there was overlap in various cases across categories, we attempted to organize this diverse universe of crimes as best we could by focusing in on the primary theme of the crime and prosecution.

⁴² D. Virgin Islands CR-93-195 (West Indies Transport was fined \$3,520,000, West Indies Equipment was fined \$1,520,500, and Warren Oelsner was sentenced to 37 months incarceration, a fine of \$559,500, and restitution in the amount of \$1,440,450).

⁴³ E.D. Louisiana 99-419 (Cooper was sentenced in 2000 to 60 months probation and ordered to pay a fine of \$10,000. Tamor, Bruno, Plaia, Melerine were sentenced to 36 months probation and ordered to perform 50 hours of community service each, and Coffey was sentenced to 36 months probation and ordered to perform 150 hours of community service.).

Figure 3. Typology of U.S. Clean Water Act Criminal Prosecutions, 1983-2019.

<p>I</p> <p>Illegal Discharge</p> <p><u>680 Prosecutions</u></p> <p>-Individual actions related to the illegal discharge of pollutants (342)</p> <p>-Company actions related to the illegal discharge of pollutants (338)</p>	<p>II</p> <p>Illegal Dredging and Filling</p> <p><u>39 Prosecutions</u></p> <p>-Individual actions related to illegal dredging and filling operations (30)</p> <p>-Company actions related to illegal dredging and filling operations (9)</p>
<p>III</p> <p>False Reporting</p> <p><u>99 Prosecutions</u></p> <p>-Individual actions related to falsifying reports, testing, and false statements (70)</p> <p>-Company actions related to falsifying reports, testing, and false statements (29)</p>	<p>IV</p> <p>Tampering with a Monitoring Device</p> <p><u>8 Prosecutions</u></p> <p>Individual actions related to tampering with a monitoring device (4)</p> <p>-Company actions related to tampering with a monitoring device (4)</p>

Source: EPA Summary of Criminal Prosecutions Database.

Note: In two cases the primary nature of the CAA violation cannot be determined. These are a 1991 case against Paul Tudor Jones II and a 1992 case against Dexter Corporations.⁴⁴

Figure 3 develops a typology of CWA cases based on the principal defendants in the case and the central theme in the prosecution. We develop this four-part categorization to bring order to the 828 prosecutions over the past 37 years. Our analysis of the cases

⁴⁴ D. Maryland S-90-0216 (Defendant Jones was prosecuted under a series of sections in the CWA, but the case summary is not clear regarding the primary nature of the crime. The Defendant owned Tudor Investment Corporation, which purchased over 3,200 in Dorchester County, Maryland to develop a private hunting ground. Given the sentence included restoration of 2,500 acres it likely falls in Quadrant II but is left out of the analysis because that cannot be verified with the data available in the case summary (D. Maryland S-90-0216). Dexter Corporation's Windsor Locks facility manufactures specialty paper products. The summary claims they were charged with eight felony counts under the CWA and RCRA but does not specify those counts or the sections in the statutes to decide for which quadrant the place could fit in *Figure 3* (D. Connecticut).).

helps us to place all of the cases into four quadrants centered on the primary theme in the individual cases and how those themes develop a broader commonality across cases. These four themes include: illegal discharge, illegal dredging and filling, false reporting, and tampering with a monitoring device. In all but two cases where it was not possible to discern the central theme or crime in the case based on limited prosecution summary data, we fill all cases that were prosecuted from 1983-2019 that can be placed within one of these quadrants.

The EPA's compliance monitoring strategy for CWA cases should and does link to these four themes in great part. That strategy focuses on wastewater management, oil spills and spill prevention, and Section 404 issues. We find that crimes in Quadrant I related to illegal discharges primarily fall within wastewater management, including illegal stormwater discharges and unpermitted municipal wastewater overflows. Quadrants III and IV principally deal with issues of false reporting, statements, lying or falsifying DMRs, or those crimes plus physical tampering with a monitoring device. In all of these cases they would fall within general enforcement priorities found under wastewater management, where the EPA seeks to permit discharges and both individuals and companies engage in illegal discharges from POTWs, construction and industrial sites, or CAFOs in violation of their NPDES permits or because they lack a proper permit for the discharges. We find cases of ocean-going vessels and oil drilling platforms prosecuted for illegal discharge as well in Quadrant I. Quadrant II contains Section 404 crimes, such as illegally dredging, filling, or obstruction waterways.

In Quadrant I we categorize the vast majority of cases (82% of total prosecutions) as centering on crimes related to illegal discharge. This includes a total of 680 of which 342 or about 50% stem from individual actions related to the illegal discharge of pollutants. In these cases, the principal defendant was an individual and not a company in the case. In 338 cases, prosecutions hinged on company actions related to the illegal discharge of pollutants.

Case examples illustrate the range of illegal discharge prosecutions. Many involve employees of water treatment plants, such as Lawrence Ostler the superintendent of the Olympus Terrace Sewage Treatment Plant and Assistant District Manager of the Olympus Terrace Sewer District. Ostler was responsible for plant operations for the facility located in Mukilteo, Washington. The defendant was

charged under the CWA and sentenced in 1989 for willfully discharging pollutants from a point source into Puget Sound without an NPEDS permit.⁴⁵ Another example in this vein was the prosecution of John Auten who was prosecuted under the CWA for the illegal discharge from a point source and sentenced in Florida in 1990 for dumping approximately 20,000 tires into canals near West Palm Beach, Florida.⁴⁶ Steve Avery was prosecuted along with three other co-defendants in Virginia for an illegal discharge under the CWA. Avery and his company Sea Solutions, Inc. purchased the M/V Snow Bird vessel for the purposes of scrapping, knowing there were waste products onboard. While in the process of scrapping the ship, oil, oily water, and other substances were released illegally into the Elizabeth River.⁴⁷ Victor Alan Buchanan was prosecuted in Alaska and

⁴⁵ W.D. Washington CR89-107W (Ostler was sentenced to 36 months probation, 250 hours of community service, and a \$5,000 fine. While not having a permit was a major issue in the case, the illegal discharge was the central crime and focus of the prosecution with the permit related to that crime.)

⁴⁶ S.D. Florida 90-8032 (Auten disposed of the tires from 1981-1987. The defendant sentenced to 36 months probation, to make full restitution in the sum of \$16,829.88 to Southern Florida Water Management, to perform 100 hours of community service for each year of probation and pay a special assessment of \$50.); M.D. Florida 3:05-CR-00159-TJC-MMH (One of the more interesting applications of the CWA to an illegal discharge without a permit case is the prosecution of David Eugene Turner and seven co-defendants. Turner operated two seasonal labor camps for migrant workers. He and his co-defendants would recruit homeless men from shelters and on the street to work in the camp. They were often paid in crack cocaine and untaxed beer and cigarettes. The CWA charge stemmed from the camp piping raw sewage into the St. Johns River via a tributary (Cow Creek) without a permit, in addition to false statements, conspiracy to distribute cocaine, illegal transportation of farm laborers and other charges. In one of the severest sentences in the dataset, the defendants were collectively sentenced to 626 months incarceration, 324 months probation, and monetary penalties exceeding \$2.2 million.); D. Idaho 1:17-CR-189-BLW (Another unique case in this vein was the prosecution of James Findlay. The defendant was prosecuted under the CWA for extracting depleted uranium in his apartment in Boise, Idaho and discharging the waste into the public sewage system. The case was investigated by the EPA, U.S. Department of Transportation, the Nuclear Regulatory Commission, the United States Postal Inspection Service, and the Federal Bureau of Investigation. The defendant was sentenced to one-year probation).

⁴⁷ See E.D. Virginia 2:11CR 190 (Steve Avery was sentenced to 12 months incarceration, 12 months probation, and a \$25,000 fine. Co-defendant William Avery was sentenced to 60 months probation and a \$25,000 fine. SEA Solutions was sentenced to 12 months probation. The three defendants were collectively ordered to pay \$66,402.41 in restitution. Co-defendant Jason Podd was sentenced to 30 days home confinement and a \$2,500 fine.)

sentenced in 2013 under the CWA for discharging oily bilge water into the St. Paul Harbor.⁴⁸

MWC Oil Company was charged in Kentucky in 1995 with operating injection wells without a permit under the SDWA. They were also charged for illegal discharge under the CWA. Charges against the company were dismissed, but co-defendant Maurice Cobb was sentenced to 37 months incarceration, 60 months probation, and a \$7,500 fine. Co-defendant John Sterge was sentenced to 37 months incarceration, 60 months probation, and a \$7,500 fine.⁴⁹ Titan Industries was prosecuted in Indiana for violating pretreatment standards, by disposing of hazardous waste generated in the metal finishing process into the sanitary sewer system without a permit.⁵⁰

⁴⁸ *U.S. v. Buchanan*, No. 3:12-CR-00036-SLG-JDR (D. Alaska Mar. 22, 2012) (The defendant owned the commercial fishing vessel Chisik Island. The U.S. Coast Guard performed an inspection of the boat in Kodiak harbor. The inspection revealed the vessel was discharging oily bilge water and its Marine Sanitation Device (“MSD”) was not secure, resulting in an illegal sewage discharge. Buchanan was charged under the CWA and the Refuse Act (33 U.S.C. § 407), which prohibits the depositing of refuse in the navigable waters of the United States without a permit). This prosecutorial strategy was common when ships engaged in the unpermitted discharge of pollutants, as well as human waste. Buchanan was sentenced to 60 months probation and a \$50,000 fine.); *see also U.S. v. Bowers*, No. 3:17-CR-00056 (D. Or. Feb. 14, 2017) (Where defendant Mark Bowers was prosecuted and sentenced in Oregon to 36 months’ probation for spilling 150 gallons of diesel fuel into the Columbia River. He did not report the spill until confronted by U.S. Coast Guard inspectors approximately three hours after his boat, the *Emerald Sea*, left the dock.).

⁴⁹ W.D. Kentucky 4:95CR-5-C (MWC and another co-defendant Devon Oil were estimated to have illegally constructed 25-30 wells. This is an example of using the SDWA to prosecute for the illegal well and the CWA for the illegal discharge.).

⁵⁰ S.D. Indiana CR-H/F (The company also dumped hazardous waste on the ground and into non-hazardous waste dumpsters. The defendant was sentenced to 36 months probation, a \$600 special assessment fee, and a \$150,000 fine. Co-defendant John Lytle was sentenced to 36 months probation and a \$25 special assessment fee. The Titan case was a common example of companies violating pretreatment standards by disposing of hazardous waste without a proper permit or in excess of that permit. Another case example was Valentec International Corporation sentenced in Missouri in 1996 for illegally disposing of zinc in excess of its permit allowance. The company was sentenced to pay a \$35,000 fine (E.D. Missouri). Another example is Fluid Packaging sentenced to pay a \$518,802 fine in New Jersey in 1997 for discharging production wastes into the Metedeconk River (D. New Jersey).).

A high-profile illegal discharge case involved Duke Energy Progress, Inc., whose coal ash impoundment breached and created one of the largest coal ash spills and environmental disasters in modern U.S. history. The spill polluted the Dan River and related ecosystem outside of Elon, North Carolina.⁵¹ Another high-profile case in this category was the prosecution of Transocean for its role in the Deepwater Horizon disaster.⁵²

In the dataset we had a dozen cases of government entities prosecuted for illegal discharge including POTWs, sanitation districts, county, city, and national governments. We included them in the company category for parsimony and because they represent organizations, not individuals being charged as the principal defendant in the case. Many cases involve individuals working for governmental organizations in charge of wastewater processing and treatment as the principal defendants that were prosecuted for illegal discharge. We included them in the individual category in Quadrant I. The City of Elkins, West Virginia was charged with an illegal discharge under the CWA because city workers pumped leachate from the Elkins/Randolph County landfill into a nearby stream instead of transporting it to the sewage treatment plant; workers altered the logs to cover up the crime. The city was fined \$5,000.⁵³

⁵¹ See *U.S. v. Duke Energy Bus. Services LLC*, No. 5:15-CR-00062-H, (E.D. N.C. Feb. 20, 2015) (Duke Energy Business Services LLC, Duke Energy Carolinas LLC and Duke Energy Progress Inc. were sentenced to pay a \$68 million criminal fine and a total \$24 million community service payment to the National Fish and Wildlife Foundation. The companies had to certify they possessed sufficient reserves (approximately \$3.4 billion) to manage any other legal obligations from their coal ash impoundments in North Carolina.).

⁵² See *In re Oil Spill by Oil Rig Deepwater Horizon*, 21 F. Supp. 3d 657 (E.D. La. 2014) (Transocean, LTD paid \$400 million in criminal fines and penalties. The company was found negligent when its employees failed to investigate the Macondo well that exploded. Transocean was also sentenced to five years' probation and settled a \$1 billion civil consent decree to resolve the federal governments claims under the CWA.).

⁵³ See, e.g., *U.S. v. City of Elkins*, No. 2:96-CR-0009 (Aug. 7, 1996); *U.S. v. Wheat Ridge Sanitation District*, No. 1:93-CR-00154 (D. Colo. Apr. 30, 1993) (defendant was sentenced to pay a \$35,000 fine); *U.S. v. Post Falls, City of Idaho*, No. 3:96-CR-00092 (D. Idaho, Sept. 27 1996) (\$30,000 fine was ordered); *U.S. v. City of Lake Ozark*, No. 2:08-CR-04036 (D. Mo. Aug. 25, 2008) (City of Lake Ozark was sentenced to 60 months' probation and ordered to pay a \$50,000 fine); *U.S. v. Washington Metropolitan Area Transit Authority [MTA]*, No. 8:09-CR-00557 (D. Md. Oct. 28, 2009) (defendant was sentenced to 18 months' probation and ordered to pay \$200,000 in fines and a \$125 special assessment); *U.S. v. Pineville*, No. 1:11-CR-00265 (W.D. La. Oct. 13, 2011) (sentence was a 12 months' probation

In Quadrant II we categorize 39 prosecutions as related to illegal dredging and filling with the intent to alter waterways or fill in wetlands. In 30 of these cases we find the principal defendants are individuals engaged in illegal dredging and filling operations. In nine cases, companies are the principal defendants. These cases related to the EPA's compliance monitoring strategy for the CWA, and the failure of the defendants to obtain and/or properly utilize 404 permits to alter any wetland or waterway in the United States obstruction of navigable waters.

Case examples include Thomas Warren Resch and Dwayne Bruce Smith, who were officers in a homeowner's association and a local improvement district in California. The defendants applied for a permit from the Army Corps of Engineers to breach a sandbar and drain lagoons in order to free up land that was undeveloped real estate. Their permit was denied, but they hired a contractor to breach the sandbar.⁵⁴ Robert Richardson illegally filled in a wetland working for

and a fine of \$15,000); *United States v. Waldport*, No. 6:98-CR-60084 (D. Or. May 29, 1998) (defendant was ordered to pay \$50,000 to improve the infiltration and inflow at the WWTP); *U.S. v. City of Venice*, No. 8:05-CR-00190 (M.D. Fla. May 10, 2005) (city was ordered to pay a \$1,200 special assessment and a \$110,000 federal fine); *U.S. v. Wayne County Airport Authority*, No. 2:06-CR-20300 (E.D. Mich. June 6, 2006) (defendants sentenced to 48 months' probation, a fine of \$75,000 and a \$25,000 community service payment was ordered, and a special assessment fee of \$125.); *U.S. v. Puerto Rico Aqueduct and Sewer Authority*, No. 3:06-CR-00202 (D. P.R. June 22, 2006) (Sentenced to 60 months probation, a \$6,000 special assessment fee, a criminal fine of \$9 million, complete capital improvements to nine wastewater treatment systems for nearly \$109 million, \$10 million to correct the discharges was imposed as the largest criminal penalty assessed to a public utility at the time under the CWA.); *see also* Jake Varn, *Puerto Rico and the Complicated Path to Disaster Recovery*, BIPARTISAN POL'Y CENTER (Sept. 29, 2017), <https://bipartisanpolicy.org/blog/puerto-rico-and-the-complicated-path-to-disaster-recovery> (This was a joint criminal/civil case stemming from 2003. This was the largest criminal penalty assessed to a public utility at the time under the CWA. The country's electrical utility had struggled for years and agreed to pay \$119 in capital improvements.); E.D. Missouri USA09701548 (St. Charles County, Missouri sentenced to \$200,000 in federal fines and a \$800 special assessment fee.); Robert Scott Cork was sentenced to serve 60 hours of community service and 54 months probation; S.D. Indiana 4:09-CR-0024DFH-MGN (City of Madison, Indiana sentenced to 60 months probation and was ordered to pay a \$15,000 fine; David Hawkins was sentenced to 36 months probation and to pay a \$7,500 federal fine..

⁵⁴ N.D. California C 95-209 MAG (In this case they sought a Section 10 permit granted under the Rivers and Harbors Act from Corp of Engineers, which was denied. Each defendant was sentenced to 18 months probation and a \$5,000

Crossings Development in South Carolina. He did so without a permit and was subsequently charged under the CWA.⁵⁵ John Hubenka was prosecuted in Wyoming for altering the course of the Wind River near his property in Riverton, Wyoming. Hubenka constructed three earthen dykes along the river altering its flow, resulting in a deeper flow into the Wind River Indian Reservation that carved out an area exceeding 300 acres.⁵⁶ Robert Lucas, Jr. and four co-defendants filled in hundreds of acres of wetland in order to develop Bill Hill Acres, a 2,600 acre residential subdivision in Mississippi.⁵⁷ Hancock County Land, LLC was also prosecuted in Mississippi for illegally filling in protected wetland without a permit from the Army Corps.⁵⁸

In Quadrant III we categorize 99 prosecutions stemming from false reporting. These include 70 prosecutions of individuals as the principal defendants that engaged in illegal actions related to falsifying reports, testing, or giving false statements. In 29 cases companies were the principal defendants that engaged in actions related to the

fine.); S.D. Florida 14-20883-CR-MARTINEZ/GOO (This case example from Florida focused on Jose Calvo, who erected docks and piers in the navigable waters of the United States without a Section 10 permit in violation of the Rivers and Harbors Act. Calvo was sentenced in 2005 to 12 months of probation and ordered to pay a \$20,000 fine.).

⁵⁵ See *U.S. v. Richardson*, No. 3:06-CR-00202 (D.S.C. Feb. 27, 2006) (defendant was sentenced to 12 months probation and ordered to pay a \$25 special assessment fee, \$60,000 in fines and restitution of \$60,000. Richardson filled in approximately 44 acres of land).

⁵⁶ D. Wyoming 04CR0004-1B (Hubenka was sentenced to serve 12 months probation in 2004 for the CWA violations.).

⁵⁷ *U.S. v. Lucas*, 516 F.3d 316 (5th Cir. 2008) (Over 600 families purchased property in the development. Because it was built on wetland the high-water table resulted in failed septic systems, backflow, and raw sewage in the streets. The defendants were charged for illegally filling in wetlands under the CWA, as well as mail fraud, conspiracy, and other charges. In 2005 Robert Lucas was sentenced to 108 months incarceration, 36 months supervised release, a \$15,000 fine, and \$4,100 in special assessments. Robbie Wrigley and M. E. Thompson were each sentenced to 87 months incarceration, 36 months supervised release, a \$15,000 fine and \$3,300 and \$2,500 in special assessment fees. Big Hill Acres was sentenced to a \$4.8 million fine, 60 months probation, and a \$7,600 special assessment. Consolidated Investments, Inc. was sentenced to 60 months probation, \$500,000 in fines, and a \$400 special assessment. The defendants were all sentenced to pay 1,407,400 in restitution, which is for 454 mitigation credits from the Old Fort Bayou Mitigation Bank located in Jackson, MS or any other appropriate mitigation bank near Jackson County, MS.).

⁵⁸ See *Gulf Restoration Network v. Hancock County Dev., LLC*, 772 F. Supp. 2d 761, 763 (S.D. Miss. 2011) (HCL was sentenced to 24 months probation and ordered to pay a \$1,000,000 fine.).

falsifying of reports, testing, or giving false statements. Eric Donald Roth Sr. owned a laboratory in Festus, Missouri (Analyst Consulting Laboratories, Inc.), which provided testing for municipalities to help them comply with their CWA permits. Roth submitted false DMRs for five cities to the EPA and was prosecuted for false statements for the fraudulent reports and mail fraud.⁵⁹

In three cases, municipalities were prosecuted for false reporting. The Municipality of Pen Hill, Pennsylvania was the principal defendant in a case of submitting false DMRs, along with co-defendants Matthew Girdick and Walter Baker (both Assistant Directors). The defendants were charged under the CWA for the false reporting in 1992, along with a later charge in 1994 of illegal discharge of sewage sludge from the treatment plant in violation of the CWA.⁶⁰ The Central Valley Water Reclamation Facility Board in Salt Lake City, Utah was prosecuted for submitting false DMRs and it did not certify on a DMR the presence at one of its facilities of an unauthorized wastewater bypass.⁶¹ The City of Bethlehem, Pennsylvania was prosecuted for falsifying DMRs. John Lawrence the wastewater treatment plant's chief chemist lied on reports that testing was being performed daily and samples were held longer than allowed by their permit. William Grim was the plant's superintendent.⁶²

⁵⁹ E.D. Missouri 85-00119 (Roth was sentenced to four months incarceration on two CWA counts to run consecutively and a suspended sentence on a felony Title 18 false statements violation if he completed five years probation and 200 hours community service.); N.D. Illinois CR-87-656 (This case involves the prosecution of Samar Chatterjee for similar testing fraud. The defendant submitted false testing data for sanitary sewer connections, flow gauging, manhole inspections, and sewer survey reports to the EPA for the Metropolitan Sanitary Sewer District of Greater Chicago. He was prosecuted for one-count of conspiracy under the CWA, 11-counts false statements and 20-counts mail fraud for generating and mailing the fraudulent documents. Chatterjee was sentenced in 1989 to 48 months incarceration, 60 months probation, and \$220,000 in restitution.).

⁶⁰ W.D. Pennsylvania CR-94-172 (The municipality was sentenced to 60 months probation and fined \$150,000. Girdick was sentenced to five years probation, 4,480 hours community service, and a fine of \$5,000. Baker was sentenced to 12 months incarceration, 12 months supervised release and fined \$5,000.) (The case summary lists the defendant as Girdick, but later uses Girdich when discussing sentencing.).

⁶¹ D. Utah 88-CR-085W (The defendant pled guilty in 1988 and was sentenced to pay a \$1,000 fine and a \$100 assessment to the Crime Victim's Fund.).

⁶² E.D. Pennsylvania CR-97-102 (The City was sentenced to 36 months probation, fined \$250,000, and ordered to install a new \$250,000 sewer line. During the probation period the city was must perform an environmental audit of its sewage treatment plan. John Lawrence was sentenced to 36 months probation,

In Quadrant IV we catalog eight cases as stemming from illegal tampering with a monitoring device. In four prosecutions individuals were the principal defendants charged with illegal tampering and in four prosecutions companies were the principal defendants. The Ore-Ida Food, Inc. operated a wastewater treatment plant in Ontario, Oregon. Frank Jordan was employed as the environmental controls' supervisor. Jordan was charged with tampering with a monitoring device, as well as falsifying reports.⁶³ Ketchikan Pulp Company was prosecuted in Alaska for tampering with a monitoring device and sampling methods in violation of their NPDES permit, as well as illegally discharging untreated waste into Ward Cove near Ketchikan Alaska bypassing its water treatment plant.⁶⁴ Sea Watch International was prosecuted for tampering with a monitoring device during a county inspection of the facility.⁶⁵

CONCLUSION

The analysis of 828 CWA prosecutions over the past 37 years has yielded clear themes regarding how it is used as a prosecutorial tool and the outcomes of those prosecutions. The first trend is the criminal prosecution of environmental offenders under the CWA is relatively infrequent. On average across the United States, since 1983 we see about 22 prosecutions completed each fiscal year. In some U.S.

120 hours of community service, and fined \$2,000. William Grim was sentenced to 12 months probation, 20 hours of community service, and fined \$5,000.).

⁶³ D. Oregon CR-91-414 (Jordan was sentenced to 60 days of house arrest, 60 months probation, 100 hours of community service, and a \$5,000 fine.); D. Oregon CR-94-0010 (Ore-Ida Foods was sentenced in another case related to Jordan to 36 months probation and a \$1,000,000 fine. Three-quarters of a million dollars of the fine was suspended and reduced \$1 for every \$1 expended to comprehensively rebuild the treatment plant.) (Michael Zeigler was sentenced to 24 months probation and fined \$1,500.).

⁶⁴ D. Alaska A95-025CR (The defendant was sentenced to 60 months probation and a fine of \$1,250,000. The company was allowed to defer \$1,750,000 in fines which could be offset during the term of the probation period by improvements to the company's wastewater treatment system).

⁶⁵ D. Delaware CR:02-124 (Sea Watch was sentenced to 60 months probation, a \$400 special assessment, and \$25,000 to the Delaware Nature Society as community service. In many of these cases tampering with a monitoring device and false statements often go hand in hand, as the defendants falsifying their DMRs. It is difficult to tell in many cases which is considered the central crime in the prosecution as they are so closely related. We tried to be as stringent as possible, which is why only eight cases fall into this category.).

states, such as Vermont and Wisconsin, we only find one CWA prosecution since Ronald Reagan was in office; in Maine we find none.

The second theme we uncovered is that a large majority of cases, about 82%, focus on illegal discharge. Split about half between companies and individuals as the principal defendants in these cases, illegal actions related to the discharge of pollutants is the primary mechanism prosecutors have used historically to charge and prosecute defendants for criminal violations of the CWA. We see this with municipalities and companies that violate their NPDES permits, illegal disposal of wastewater and other hazardous waste without a permit, both in municipal sewers, stormwater, and in wetlands, waterways, and other areas strewn across the United States.

The third theme that emerges in the data is that individuals and companies were willing to go to various lengths to cover up their crimes and demonstrate criminal intent. In 13% of cases individuals and companies were prosecuted for misrepresenting the facts of their environmental crimes or tampering with pollution monitoring devices in order to conceal their crimes. While the vast majority of cases focused on illegal discharge, approximately 25% of cases involve related criminal charges, such as false statements, conspiracy, fraud, and obstruction. Whether it was an inspector working on behalf of a company or municipality that submitted falsified DMRs, or an employee of a company or wastewater treatment facility doing the same, these were often done in conjunction with an illegal discharge as an effort to conceal the crime. We found cases of individuals and companies engaging in false statements to investigators, false reporting on official reports, falsified testing to conceal environmental crimes, and engaging in conspiracies to cover up crimes or defraud the government or other private entities. Summarily, crimes related to illegal discharge and efforts to cover up those crimes make up much of the universe of historical CWA prosecutions.

The final theme we uncovered is that the history of federal CWA prosecutions greatly mirrors the EPA's compliance monitoring strategy for the CWA. Crimes related to wastewater management predominate in the illegal discharge, false reporting, and tampering with a monitoring device category. All fall under that general banner. Managing illegal discharges of oil from ships and oil platforms is also in this category. In about five percent of cases defendants were primarily engaged in efforts to illegally dredge and fill-in wetlands or

obstruct waterways without a permit. Whether this was failure to obtain a Section 10 or 404 permit from the Army Corps of Engineers or not properly following the guidelines of the permit, federal prosecutors, these cases fall within EPA's final area of compliance monitoring.

