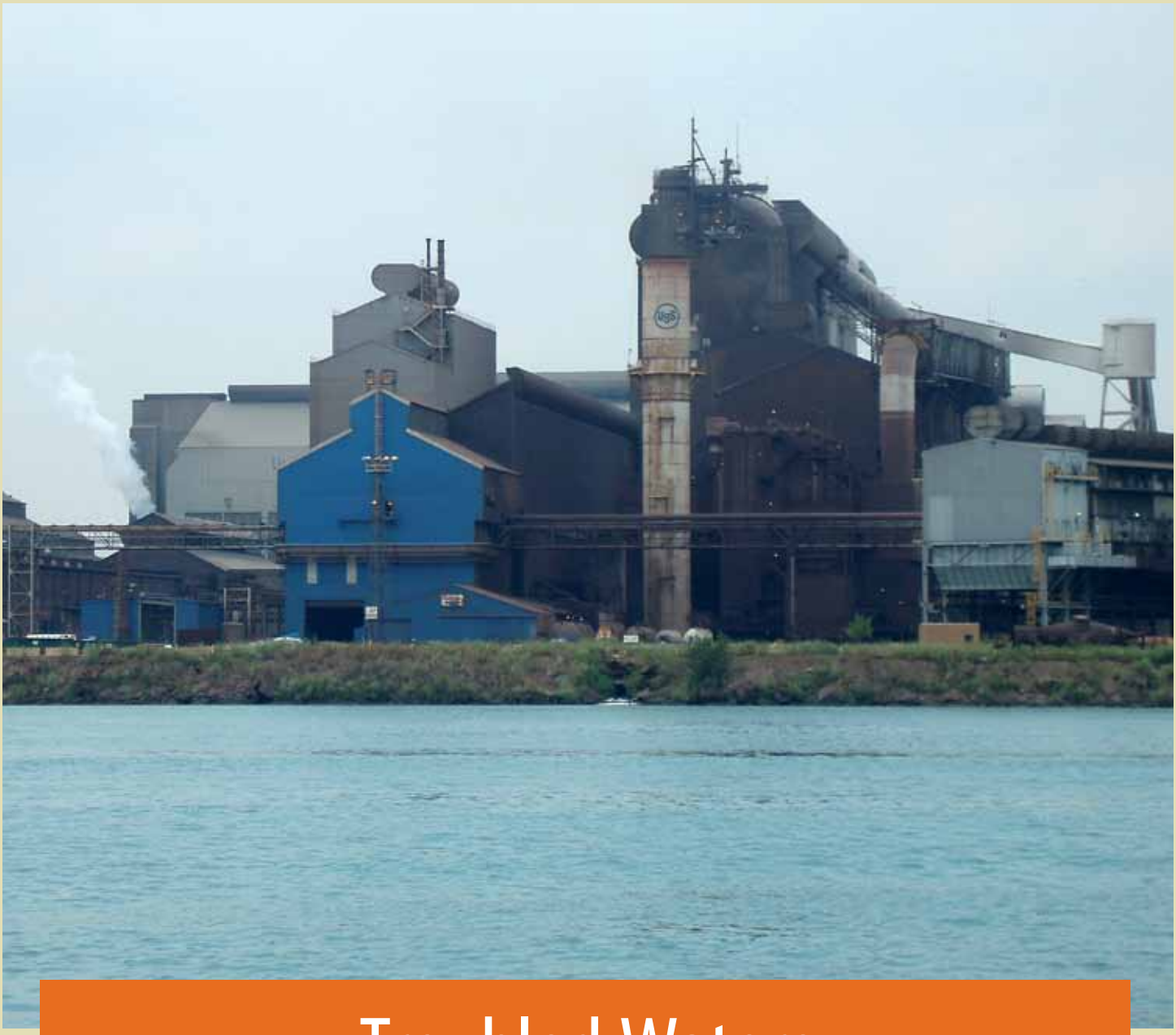

Troubled Waters

Industrial Pollution Still Threatens American Waterways

ENVIRONMENT AMERICA
RESEARCH & POLICY CENTER

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Executive Summary

America's waterways provide us with drinking water, places to fish and swim, and critical habitat for wildlife – when they are clean and protected.

The passage of the Clean Water Act in 1972 was a turning point in America's efforts to protect and restore its rivers, lakes and coastal waters. Though the Clean Water Act has made some progress bringing our waters back to health, a closer look at compliance with and enforcement of the law reveals an overly lenient system that too often allows pollution without accountability.

Table ES-1. The 10 States with the Most Exceedances Reported by Major Industrial Facilities

Rank	State	Total Exceedances
1	Texas	938
2	Pennsylvania	633
3	Arkansas	567
4	Louisiana	535
5	Ohio	491
6	New York	473
7	West Virginia	407
8	California	360
9	Missouri	348
10	Florida	270

Over a 21-month period from January 2016 to September 2017, major industrial facilities released pollution that exceeded the levels allowed under their Clean Water Act permits more than 8,100 times. Often, these polluters faced no fines or penalties.

To protect and restore our waters, state and federal officials must tighten enforcement of the Clean Water Act.

National data on Clean Water Act compliance shows that during the 21-month span from January 2016 through September 2017:[1]

- The nation's major industrial facilities discharged pollution in excess of their permits at least 8,148 times.
- During roughly one-third of exceedances – more than 2,600 times in total – pollutants were being added to waters that were already too polluted for uses such as recreation, fishing or drinking water, hindering efforts to restore them.
- Approximately 40 percent of all major industrial facilities – more than 1,100 in total – reported exceeding their pollution limits at least once.
- Three-quarters of facilities that exceeded their discharge permit limits did so more than once.

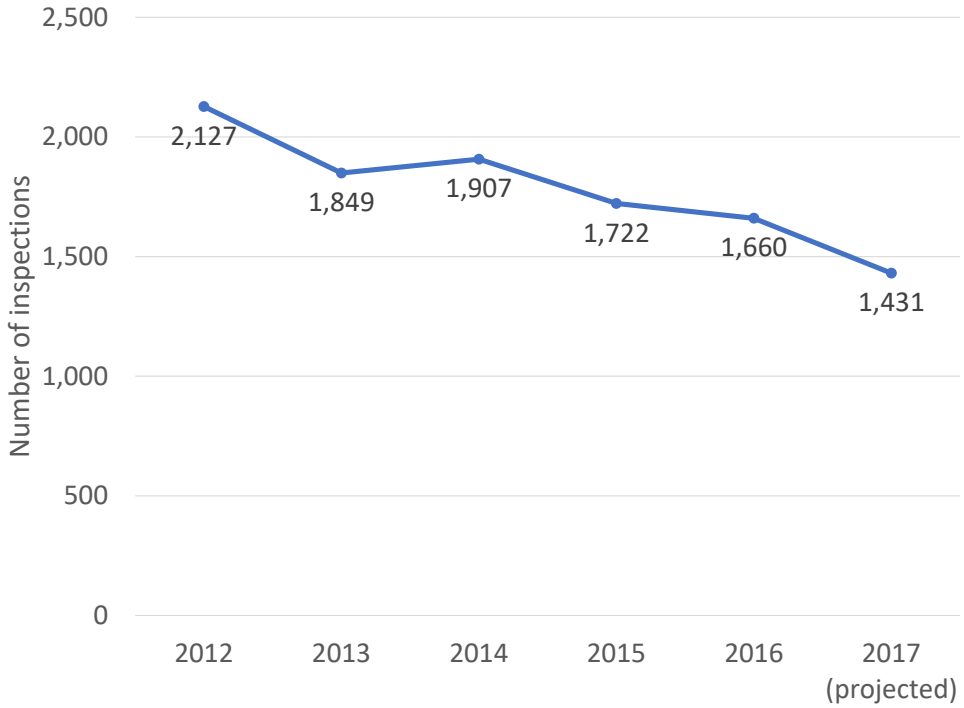
Not only did many major industrial facilities exceed their permit limits – sometimes frequently – but some of those **exceedances were particularly severe, with facilities releasing multiple times the amount of pollution permitted** under their Clean Water Act permits.

State and federal agencies are failing to take strong enforcement action to stop these rampant excess discharges of pollution into America's waters.

- Numerous studies by the EPA Inspector General and others highlight a history of lackluster enforcement of the Clean Water Act by state environmental agencies.
- The number of inspections of major industrial facilities was on pace to be lower in 2017 than in any of the previous five years, according to Integrated Compliance Information System (ICIS) records (Figure ES-1).
- Many violations go unpunished. Each year from 2011 to 2017, an average of 27,849 facilities were non-compliant across the U.S., while an average of 13,076 – less than half – faced any EPA or state enforcement action.[2]
- Even when fines are issued, they are often too low to deter polluters. In 2017, the median fine issued by the EPA was lower than it had been in any year since 2011.[3]

The Trump administration's proposed cuts to the Environmental Protection Agency's budget and reduced emphasis on enforcement threaten to open the door for more illegal pollution of our waterways. For fiscal year 2019, the current administration plans to cut the EPA's budget for civil enforcement of environmental protection programs, including the Clean Water Act, by $30.4 million.[4] Funding for state grants to improve the permitting process and enforcement of the Clean Water Act is slated for

Figure ES-1. Federal and State Inspections of Industrial Facilities by Year



cuts as well; this program's proposed budget is lower than the amount allotted in total grants for at least the previous seven years.[5]

To protect the rivers, streams and lakes that are critical for the health of our wildlife and our communities, **states and the federal government need to take strong action to enforce our core environmental laws**. To strengthen compliance with clean water regulations, policymakers should:

- Ensure that the Clean Water Act applies to all our waterways, so that there is nowhere polluters can dump with impunity.
- Strengthen permits with enforceable, numeric limits on pollution that are ratcheted down over time as technology allows or water quality demands.
- Restore – and increase – funding for state and federal enforcement, such as water pollution control grants, so that states have the resources to improve the efficacy of their clean water programs.
- Issue timely penalties that are sufficiently high to deter companies from polluting our waters.
- Boost compliance and enforcement by increasing the number of on-site inspections at major facilities.
- Guard against any weakening of citizens' ability to enforce pollution limits in court when state and federal authorities fail to halt illegal dumping.

In addition:

- States that repeatedly fail to enforce the Clean Water Act should face consequences for their inaction – including loss of federal funding and/or primary enforcement authority.
- Companies should reduce their use of toxic chemicals and adopt other innovations to minimize the generation of pollution in the first place.

Introduction

> **"Unfortunately, our affluent society has also been an effluent society."**
>
> – Hubert H. Humphrey (Vice President to Lyndon B. Johnson, 1965-1969 and U.S. Senator from Minnesota for 22 years), in a speech on October 11, 1966, at Gannon College[6]

In 1969, Cleveland's Cuyahoga River caught fire – an event that helped catalyze the passage of the Clean Water Act three years later.

But it wasn't the first time the Cuyahoga had burned. The 1969 incident – one that charred two bridges and left $340,000 in damages – barely made the local papers.[7] The local fire chief described it as a "run of the mill fire," under control within 30 minutes.[8] No known photos of those flames exist.[9]

But when *Time* magazine covered the 1969 incident, it accompanied the story with a photo of a much bigger fire on the Cuyahoga from 1952.[10] This image of a fire-fighting tugboat engulfed in billowing smoke while hoses onshore sprayed the burning slick branded America's consciousness.

What changed between 1952 and 1969? Among other things, the American people had awakened to the problems of water pollution, and decided that they would no longer accept flaming rivers, sewage-choked streams and dead lakes as the price of unfettered industrial production. America's frustration with the abuse of their waterways had bubbled over. On October 17, 1972, Congress passed the Clean Water Act into law.[11]

Photo: U.S. EPA via Creative Commons

Fires on Cleveland's Cuyahoga River in 1952 (depicted here) and 1969 spread awareness about pollution in American waterways.

The Clean Water Act brought about progress in restoring and protecting America's waterways. By 2001, more than 60 percent of lakes and 55 percent of rivers assessed met water quality standards under the Clean Water Act – not nearly the level of progress envisioned in 1972, but still a great improvement.[12] There is much work left to do: the nation has yet to meet the Clean Water Act's original goal of *eliminating* discharges to waterways, which the program aimed to achieve by 1985.[13] Furthermore, some types of pollution, like runoff from paved roads and agricultural fields, don't require a Clean Water Act permit at all.[14] Even among regulated facilities, polluters too often ignore the terms of their discharge permits by releasing levels of pollution that can put our waterways and our health at risk.

Currently, several Trump administration policies threaten to worsen these water pollution problems. Massive proposed EPA budget cuts, coupled with a hands-off approach to environmental enforcement and the proposed repeal of the 2015 Clean Water Rule, threaten to jeopardize the future of American waters.[15] Reduced funding and attention to enforcement at the federal level also puts more of the burden on states, which often have primary responsibility for making sure that polluters adhere to environmental laws. Unfortunately, many state governments either lack the resources or the political will to crack down on polluters.

In this report, we find both compliance with and enforcement of the Clean Water Act to be lackluster. Industrial facilities around the country are releasing excessive amounts of pollution into our waterways with little legal consequence. Without a strong Clean Water Act, we face the risk of returning to the "bad old days" of flaming rivers and unchecked pollution in our waterways. To protect and restore our waterways, states and the federal government must prioritize the enforcement of our bedrock clean water protections.

The Clean Water Act Limits Pollution of Our Waterways

Among other things, the 1972 Clean Water Act set up a national framework for enforceable limits on "point source" pollution – that is, pollutants discharged from such sources as factories, sewer systems and animal feedlots. While limiting such pollution had previously been primarily a state responsibility, the Clean Water Act recognized that the effects of water pollution often transcend state borders and that a strong federal role would be crucial to ensuring clean water for all Americans. By requiring facilities to publicly apply for permission to dump pollution into waterways and establishing systems for monitoring discharges and enforcing the law, the Clean Water Act created a framework that enabled a dramatic reduction of industrial pollution to the nation's waterways.

Direct Pollution of Waterways Is Illegal Without a Permit

The National Pollutant Discharge Elimination System (NPDES) permit program, authorized by the Clean Water Act, regulates "point sources" – specific locations like discharge pipes, as opposed to "non-point sources" like runoff that occur over a broad area – that release pollutants into waters of the United States.[16] The Clean Water Act prohibits any facility from discharging pollutants from a point source into a waterway unless it has a NPDES permit.[17] If granted, a permit contains limits on what the facility can discharge, as well as requirements for how the facility must monitor and report its releases.[18]

The NPDES permitting program is mainly geared toward the regulation of "direct" dischargers. Direct sources discharge wastewater directly into waterways, whereas indirect sources send wastewater to a sewage treatment plant, which then discharges into a waterway. NPDES permits are issued only to direct point source dischargers and must be renewed every five years.[19]

Many direct dischargers are industrial and commercial facilities, such as factories, oil refineries and large-scale animal farms.[20] The other main group of direct dischargers is water treatment plants. These public sources receive primarily domestic sewage from residential and commercial customers. Larger sewage treatment plants may also treat wastewater from industrial facilities connected to the sewage system. According to the U.S. EPA *NPDES Permit Writers' Manual*, "the types of raw materials, production processes, treatment technologies used and pollutants discharged at industrial facilities vary widely" depending on the facility and its industry sector.[21]

Both State and Federal Authorities Must Enforce the Clean Water Act

Under the Clean Water Act, the EPA is authorized to implement and enforce the NPDES program.[22] However, states can be authorized to implement all or part of the NPDES program by establishing the legal framework and necessary institutions to do so.[23]

A state's authorization to enforce the Clean Water Act is conditional and can be revoked by the EPA. Furthermore, if the state cannot address a violation of the law in "a timely and appropriate" manner or if it is a major event of national concern, the EPA can pursue these pollution cases in a process called overfiling.[25]

The public may also petition to withdraw the state's enforcement authority if its program fails to meet the requirements of the Clean Water Act.[26] The first withdrawal petition was filed against Kansas in 1989 and 48 others have been filed since, though none have succeeded in revoking state authority.[27]

Federal vs. State Roles in NPDES Permit Process[24]

IN NON-AUTHORIZED STATES:

- EPA issues permits
- EPA conducts compliance monitoring
- EPA enforces permits
- State reviews permits

IN AUTHORIZED STATES:

- EPA ensures state program meets federal requirements
- EPA offers NPDES program training
- State issues permits
- State conducts compliance monitoring
- State enforces permits
- EPA oversees and, if necessary, assumes permit enforcement if state fails to act

Today, 46 states and the U.S. Virgin Islands are authorized to run their NPDES programs.[28] In states without an authorized NPDES program, the EPA administers the NPDES program through EPA regional offices, with help from the respective state environmental agencies. Currently, there are four states that don't oversee any part of the NPDES program: Idaho, Massachusetts, New Hampshire and New Mexico, as well as the jurisdiction of Washington, D.C.[29]

Clean Water Permits Are Intended to Restore Waterways to Health

The Clean Water Act envisioned that water pollution permits would be part of an overarching strategy for protecting and restoring American waterways. Water pollution permits are supposed to ensure that waterways become and stay clean enough to support their designated use – whether as a source of drinking water or as a setting for swimming and fishing – and that polluters are using the best technology to reduce their environmental impact. Minimally, facilities that discharge into waterways are required to meet technology-based effluent limitations, which require a minimum level of treatment based on available treatment technologies.[30] For industrial facilities, technology-based effluent limits are set by EPA guidelines and standards.[31] As national standards for some pollutants have not yet been established, these discharge limits are set on a case-by-case basis or under the permitting agency's "best professional judgment."[32]

All pollution limits should be driven by the need to protect water quality. Every state is required by the Clean Water Act to maintain a list of "impaired waters" – waterways that fail to meet water quality standards, even after point sources install pollution control technology.[33] The law requires that the authority running the program prioritize these waterways and develop a "pollution diet" to bring impaired waters back to the point where they can support their "designated uses" (e.g., drinking water, wildlife, recreation).[34] To develop the constraints of the "pollution diet," regulators calculate a maximum daily amount for each pollutant to protect the waterway – this is called the total maximum daily load (TMDL).[35] Once the TMDL is calculated, pollution reductions are allocated among various sources to get the pollution levels down below that level. This will often require reducing enforceable discharge limits in NPDES permits for point sources and halting the issuance of any new NPDES permits that would allow any additional discharge of the pollutants causing the impairment of these waters.

In many cases, states and the EPA set pollution levels for both polluters and waterways that are too lax and do not meet the Clean Water Act's requirements for protecting and restoring waterways. Many polluted waterways do not yet have a TMDL to drive pollution reductions in NPDES permits. Moreover, existing TMDLs are often weak. According to a 2013 survey of 25 TMDLs by the Government Accountability Office, most did not contain "all features key to attaining water quality standards."[36] Nearly half lacked a basic outline to solve water quality woes, such as naming actions and assigning necessary actions. Fifteen of these 25 TMDLs also did not require future revisions of pollutant limits.[37] Given that some NPDES permits are calculated from TMDLs, the insufficiency of TMDLs suggests that discharge permits under the Clean Water Act are too lax to protect the health of our waterways to begin with, even before noncompliance is factored in.

In short, weak permitting allows many polluters to release unhealthy levels of pollution into waterways, while remaining in technical compliance with the law. For all polluters, complying with the NPDES program – reporting discharges to waterways in an accurate and timely way and limiting discharges to only those levels included in their permits – is the bare minimum expected. Despite these lax requirements, many facilities are noncompliant.

Compliance with the Clean Water Act Is Reported in Publicly Available Databases

States and the EPA use a variety of methods – from automated reporting to in-person inspections – to enforce Clean Water Act requirements and report the results of these efforts to the public. However, the requirements for reporting differ by the size of the facility and type of violation.

States and EPA regions are required to report violations by "major" dischargers, such as those that are permitted to release more than a million gallons per day, to the EPA.[38] In 2015, the EPA adopted a new reporting rule that requires all states to electronically file discharge monitoring reports (DMRs) – the reports of discharge levels submitted by regulated polluters – and report enforcement actions to the EPA's Enforcement and Compliance History Online (ECHO) database.[39] These facilities and the environmental agencies in their states were required to have started submitting DMRs online, along with data on inspections and enforcement actions for major facilities, by December 2016.[40] All NPDES reports, not just DMRs, are scheduled to be filed electronically by 2020.[41]

Once filed with the EPA, discharge monitoring reports are compared with permit conditions, generating automated reports of violations that are stored in the EPA's Integrated Compliance Information System (ICIS) database. There are three types of NPDES violations automatically generated in the ICIS database:

- **DMR non-receipt** violations are generated when facilities have missing, late or incomplete DMRs.[42]
- **Compliance schedule** violations are generated when facilities fail to achieve or report actions that are required in their NPDES permits.[43]
- **Effluent violations** are generated when releases reported in DMRs are greater than the permit's limit.[44] The exceedance percentages are automatically calculated via ICIS where possible.[45]

In addition to violations that are reported through the automated system, ICIS also includes many **single event violations**, which are entered into the system manually. These include violations discovered during on-site inspections or those that arise from citizen complaints.[46] States are required to enter single event violations by major facilities into national databases, but an EPA review of state reporting found inconsistent compliance by state.[47] As a result, single event violations are not included in our report, which only looks at effluent violations.

When polluters violate their permits, they may face enforcement from the EPA or authorized state agencies. Federal and state response typically begins

with informal actions, escalating when polluters don't respond to initial warnings.[48] While informal actions under the Clean Water Act are not explicitly defined, they are administrative in nature and include inspections, warning letters and notices of violation that give facilities an opportunity to correct a problem before stronger enforcement action takes place. If facilities continue to violate their permits, the EPA or the authorized state agency has the option to take more serious enforcement action, including issuing administrative compliance orders – requirements for facilities to correct their violations, upgrade infrastructure, and sometimes pay an agency-assessed fine – and filing formal lawsuits seeking corrective actions and court-assessed civil or criminal penalties.[49]

Publicly Accessible Reporting Is an Essential Tool for Enforcement

Publicly accessible reporting of Clean Water Act violations is essential both for preserving the public's right to know about environmental conditions in their communities and as a tool for citizen enforcement of the law when state or federal officials fail to act. According to the EPA website, "if any member of the general public finds that a facility is violating its NPDES permit, that member can independently start a legal action," as long as a previous enforcement action hasn't addressed the problem.[50]

The Clean Water Act's citizen suit provision has been used many times to enforce the law. As a recent example, in November 2017, the nonprofit advocacy groups Environment Florida and Sierra Club, represented by the nonprofit National Environmental Law Center, settled a $1.4 million suit against chicken producer Pilgrim's Pride for dumping pollutants in excess of its permit limits into Florida's Suwannee River.[51] In Indiana, Surfrider Foundation, an environmental watchdog group, recently filed a case against U.S. Steel for repeated dumping of toxic chromium into Lake Michigan.[52] For the Clean Water Act's citizen suit provision to remain effective, as with these recent examples, the public needs easy access to accurate information about pollution and enforcement.

Not All States Fully or Accurately Report Enforcement Data to the EPA

Clean Water Act enforcement depends on full participation and accurate reporting by the states. However, several of the 46 authorized states lag in reporting full and accurate data to the EPA.

New Jersey, for example, has failed to report data to the online ICIS database since 2012 and is currently working with the EPA to upload missing records by early 2018.[53] According to the EPA website, Arizona, Kansas, Missouri, New Jersey, North Carolina, Vermont, Virginia, Washington and Wyoming have known data reporting issues regarding their NPDES programs as well.[54] For some NPDES programs, facilities themselves are responsible for reporting their DMRs directly to the EPA – with little state oversight in catching and correcting mistakes or omissions.[55]

The analysis in this report further shows how frequently the records in the ICIS database are incomplete. New Jersey was entirely excluded from this report because their records from our monitoring periods of interest were still missing from the EPA's database at the time of this analysis. For the other 49 states, researchers contacted state environmental agencies to verify the records pulled from the ICIS database related to effluent violations, identifying a number of discrepancies between the federal and state records. Overall, representatives from 42 states replied to this request: seven declined to review the ICIS records, eight initially agreed to review the ICIS records but never replied with complete results, and 27 either reviewed their state's ICIS records themselves or provided their own data to compare with ICIS records. In more than half of these 27 cases (15 total), the state review identified records that were either inaccurately labeled in ICIS, or exceedances that were missing from the federal database entirely.

The Clean Water Act established a system to restore and maintain healthy waterways by requiring specific limits on the amount of pollution that can be released into our rivers, streams and lakes. The EPA and the states are responsible for enforcing those limits and providing information to the public related to compliance with the law.

Historically, however, many polluters have committed repeated, egregious violations of these pollution limits, sometimes with no penalty for years after the illegal discharge. A review of the EPA's Clean Water Act enforcement data shows that many polluters continue to regularly violate the terms of their permits, to the detriment of our waterways and our health.

"Violation" vs. "Exceedance": What's the Difference?

For some NPDES permits, limits are set based on weekly, monthly or even annual pollutant discharges. However, when a facility files a discharge monitoring report (DMR), it might list a point-in-time measurement of pollutants in that sample, rather than a running average within the permit's time frame. After DMRs are submitted, the ICIS system automatically compares reported releases to the facility's permit limits, and flags any discharge in excess of a permit limit as a violation, without accounting for the permit's time frame restrictions. As a result, DMRs may sometimes register as permit violations even when they were simply a temporary exceedance of permit levels, because the facility's releases were not high enough throughout the entire monitoring period to violate its permit.[56]

To acknowledge this scenario and avoid mislabeling any records as violations, instances reported as effluent violations in the EPA database are described in this report as "exceedances." In any event, discharges that severely or repeatedly exceed permit limits threaten both our waterways and the integrity of Clean Water Act enforcement.

Industrial Facilities Exceeded Pollution Limits 8,100 Times from January 2016 through September 2017

According to EPA compliance data, roughly 40 percent of the nation's 2,772 major industrial facilities with Clean Water Act discharge permits released pollution in excess of their NPDES permits from January 1, 2016 to September 30, 2017 – committing more than 8,100 exceedances in total. About one in three of these exceedances polluted waterways that were already designated by state agencies as "impaired" for uses such as wildlife protection, recreation or drinking water.[57]

Discharge Exceedances by State

Texas' industrial facilities ranked first for total number of permit exceedances (938) for the monitoring periods between January 2016 and September 2017. Pennsylvania, with 633 exceedances, had the second-most. (See Table 1.) Unsurprisingly, states with fewer industrial facilities also had fewer permit exceedances; South Dakota, with six major industrial facilities, and Vermont, with two, each had just two exceedances during the study period.

Exceedances per Major Industrial Facility

Nationally, the average major facility committed just under three exceedances of its clean water permit during this 21-month period. This varied widely facility to facility and state to state. The five worst facilities each had more than 100 exceedances over less than two years. In the five states with the fewest exceedances per facility – South Dakota, Vermont, Wisconsin, Florida and Kansas – there was an average of 0.7 exceedances per facility, while in the five worst states – West Virginia, Iowa, Missouri, Colorado and Ohio – the typical facility had more than 6.5 exceedances over the study period.[62]

Table 1. The 10 States with the Most Exceedances Reported by Major Industrial Facilities

Rank	State	Total Exceedances
1	Texas	938
2	Pennsylvania	633
3	Arkansas	567
4	Louisiana	535
5	Ohio	491
6	New York	473
7	West Virginia	407
8	California	360
9	Missouri	348
10	Florida	270

Six states rank among the 10 worst for both total exceedances and exceedances per facility: West Virginia, Missouri, Ohio, Arkansas and Pennsylvania. (See Table 2.)

Table 2. The 10 States with the Most Permit Exceedances per Major Industrial Facility

Rank	State	Average Exceedances per Major Facility
1	West Virginia	8.48
2	Iowa	7.30
3	Missouri	6.21
4	Colorado	5.49
5	Ohio	5.28
6	Nebraska	5.26
7	Arkansas	5.25
8	Nevada	4.89
9	Pennsylvania	4.83
10	Wyoming	4.00

The Number of "Exceedances" in This Report Is Dramatically Less than the Number of Daily Violations of Pollution Limits

When Congress passed the original Clean Water Act in 1972, it clearly understood that every additional day of excess pollution can matter greatly to our rivers, lakes, and streams. That is why the EPA's Clean Water Act Settlement Penalty Policy specifically designates maximum penalties *per day*, per violation.[58]

Reporting that industrial facilities recorded 8,100 permit exceedances from January 1, 2016 to September 30, 2017 dramatically under-represents the amount of *time* these facilities spent in violation of the Clean Water Act. There are two reasons for this undercounting.

First, this report counted every exceedance as a single event, regardless of its duration. In reality, the difference between the number of times a facility exceeds its permit and the number of days of violation that result can be dramatic. For example, Reserve Environmental Services in Ashtabula County, Ohio, a fracking wastewater treatment plant that reported more exceedances than any other facility in this study, had 157 NPDES permit exceedances from January 1, 2016 to September 30, 2017 – but totaling the duration periods of each of these exceedances amounts to 3,283 days of violation during this timeframe.[59] The discrepancy between these two numbers results from the fact that a single violation of a weekly permit limit, for example, represents seven days in violation, and a single violation of a monthly permit can represent up to 31 days in violation.[60]

Second, the ICIS database only reports each facility's highest exceedance of a given pollutant per reporting period. This means that if a facility exceeded its NPDES permit for *e. coli*, for example, three times in the same month, the ICIS database will only report a single exceedance, rather than the three days of violations.[61]

Exceedances in Impaired Waters

Of the 8,148 exceedances reported by major industrial facilities, 2,663 represented excessive discharges into waterways that have already been designated "impaired" by states or the EPA. (See Table 3.) This designation indicates that a body of water is too polluted to support its state-designated usage, which could include providing drinking water, serving as a wildlife habitat, or being used for activities like fishing and swimming.[63]

Table 3. The 10 States with the Most Exceedances into Impaired Waters

Rank	State	Total Exceedances in Impaired Waters
1	Arkansas	423
2	West Virginia	348
3	Texas	304
4	California	301
5	Pennsylvania	182
6	Florida	103
7	Alabama	100
8	Louisiana	92
9	Connecticut	84
10	Massachusetts	69

Percentage of Major Industrial Facilities with Exceedances

Roughly 40 percent of all major industrial facilities in the U.S. (again excluding New Jersey) recorded one or more exceedances of effluent discharge limits during 2016 and the first three quarters of 2017. In 11 states, more than half of all major facilities exceeded permit limits during this timeframe. (See Table 4.)

Table 4. The 10 States with the Worst Facility Exceedance Rates

Rank	State	Percent of Facilities with Exceedances	Number of Major Industrial Facilities
1	Iowa	77.8%	27
2	North Dakota	75.0%	8
3	West Virginia	70.8%	48
4	Pennsylvania	59.5%	131
5	Oklahoma	59.5%	37
6	Washington	56.3%	32
7	Delaware	54.5%	11
8	Massachusetts	53.5%	43
9	New York	52.9%	119
10	Illinois	52.3%	65

Major Industrial Facilities with Repeated Exceedances

Three-quarters of major industrial facilities that exceeded their discharge permit limits from January 2016 through September 2017 did so more than once. In North Dakota and West Virginia, nearly two-thirds of all major facilities in the state reported more than one effluent exceedance during this 21-month span. (See Table 5.)

Table 5. The 10 States with the Most Facilities with Multiple Exceedances

Rank	State	Facilities with Multiple Exceedances	Percent of Major Facilities with Multiple Exceedances
1	Texas	96	35.7%
2	Louisiana	63	25.7%
3	Pennsylvania	58	44.3%
4	New York	48	40.3%
5	Ohio	36	38.7%
6	Florida	35	10.8%
7	West Virginia	30	62.5%
8	Indiana	29	43.9%
9	Alabama	26	37.7%
10	Illinois	26	40.0%

Of these facilities that reported multiple exceedances, some surpassed their permit limits an average of at least once per quarter during the 21-month period. This was most common in West Virginia, where almost one-third of the state's 48 major industrial facilities recorded at least seven exceedances during the study period. (See Table 6.)

Table 6. States with the Most Facilities Averaging At Least One Exceedance per Quarter

Rank	State	Facilities with at Least Seven Exceedances	Percent of Major Facilities with at Least Seven Exceedances
1	Texas	39	14.5%
2	Pennsylvania	27	20.6%
3	Louisiana	23	9.4%
4	New York	19	16.0%
5	West Virginia	15	31.3%
6	Missouri	15	26.8%
7	Ohio	15	16.1%
8	California	14	14.4%
9	Indiana	12	18.2%
10	Florida	11	3.4%

Severity of Exceedances

Not only do many major industrial facilities exceed their permit limits – sometimes frequently – but some of those exceedances are also particularly severe, with facilities releasing many times the amount of pollution permitted under the Clean Water Act. Overall, about one in five major industrial facilities exceeded their permit limit by more than 100 percent at least once during the study period. (See Table 7.)

Table 7. States with the Highest Percentage of Facilities Exceeding 100 Percent of Their Permit Limit

Rank	State	Percent of Facilities with Exceedances Greater than 100% of Permit Limit	Number of Facilities with Exceedances Greater than 100% of Permit Limit
1	West Virginia	54.2%	26
2	Hawaii	38.9%	7
3	Iowa	37.0%	10
4	Missouri	35.7%	20
5	New Mexico	35.7%	5
6	Indiana	31.8%	21
7	New York	31.1%	37
8	California	29.9%	29
9	Oklahoma	29.7%	11
10	Illinois	29.2%	19

These severe exceedances are particularly concerning when they happen repeatedly, in impaired waters, or at extreme levels. Roughly one-third of all facilities with severe, repeated exceedances of their clean water permit limits discharged into impaired waters. Additionally, 249 facilities around the country released pollutants at levels five times greater than their permit allowed at least once during the study period. (See Table 8.)

Table 8. States with the Highest Percentage of Facilities Exceeding 500 Percent of Their Permit Limit

Rank	State	Percent of Facilities with Exceedances Greater than 500% of Permit Limit	Number of Facilities with Exceedances Greater than 500% of Permit Limit
1	West Virginia	31.3%	15
2	Wyoming	28.6%	2
3	Iowa	22.2%	6
4	Missouri	17.9%	10
5	Nebraska	17.4%	2
6	Rhode Island	16.7%	9
7	Oklahoma	16.2%	16
8	California	15.5%	15
9	Texas	14.9%	6
10	New Mexico	14.3%	6

Clean Water Act Enforcement Is Often Weak

In order to ensure that polluters comply with the discharge limits of their Clean Water Act permits, penalties must be swift, certain and severe enough that it does not pay to pollute.

Photo: Matt Reed via Flickr, CC BY-NC-ND 2.0

Despite high levels of nitrate pollution in the Des Moines River, Iowa's governor opposed federal inspections of nearby polluting facilities in 2013.

Unfortunately, weak and delayed enforcement of the Clean Water Act is common across the country, as documented both in the EPA's enforcement data and in multiple studies over the course of recent decades.

According to EPA records, the majority of violators go unpunished. Each year from 2011 to 2017, an average of 27,849 facilities were non-compliant across the U.S., while an average of 13,076 – less than half – faced any EPA or state enforcement action.[64] Of those that did face enforcement, roughly one-quarter were issued informal EPA actions. Informal actions are administrative in nature and include inspections, warning letters and notices of violation that give facilities an opportunity to correct the problem before stronger enforcement action takes place. Formal enforcement actions include administrative compliance orders that require facilities to correct their violations, pay for infrastructure upgrades, and pay additional fines levied by the agency or imposed by the courts.

Many facilities' records are never reviewed to even identify violations in the first place, further contributing to the inconsistent enforcement of the Clean Water Act. An EPA study of permit non-compliance among non-major facilities found that less than 15

percent of states reviewed all their non-major facilities in 2015.[65] Two states – Louisiana and Tennessee – reviewed records from less than half of their non-major facilities.[66]

America's Poor Track Record of Clean Water Compliance and Enforcement

America's track record of enforcing clean water laws falls short of what is needed to protect and enhance the quality of our waters. In 2007, the EPA Inspector General published a report on the state of Clean Water Act enforcement.[67] In reviewing 56 major facilities that were in long-term and significant noncompliance with their permits between July 2002 and June 2005, the report found that the EPA and states had failed to take suitable enforcement actions at 21 of these facilities, including eight that faced no enforcement whatsoever.[68] In a review of the remaining 35 facilities, none of the enforcement actions that the Inspector General's office assessed had been taken in a timely manner, allowing facilities to continue violating their permits for extended periods of time.[69]

A 2012 EPA investigation in Iowa found the state's environmental agency failed to issue discharge permits to some Iowa factory farms that were required to have one under the Clean Water Act.

And despite record nitrate levels in the Des Moines River, Iowa's governor signed a letter in 2013 urging the EPA to back off its oversight, opposing any further EPA inspection of its thousands of factory farms or federal involvement in fixing the state's clean water program.[71]

Similar stories can be found across the country. For example:

- **Washington:** In 2012, *Oregon Public Broadcasting* highlighted a Seattle-area metal plant that had violated its pollution limits multiple times over the previous four years. Despite the numerous violations, this facility, the Seattle Iron and Metals Corp., never faced any enforcement actions. Instead, Washington's statewide environmental protection agency tried to encourage Clean Water Act compliance by increasing the facility's pollution limits, rather than working with them to better protect water quality.[72]

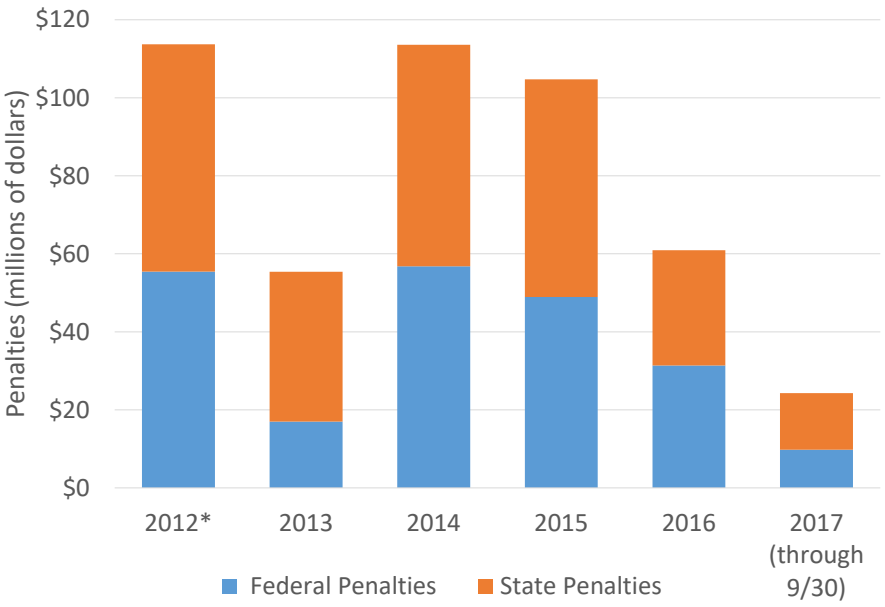
- **Kentucky:** In Kentucky, a coal mine that had been violating its permit did eventually face a fine – but not until five years after a nearby resident first flagged the issue to the state's Department of Environmental Protection.[73]

- **Tennessee:** An EPA audit of the Tennessee Department of Environment and Conservation in 2016 found that statewide water pollution enforcement plummeted dramatically with the appointment of a new department Commissioner in 2011. While the state had been taking an average of 183 enforcement actions per year prior to 2011, only 19 enforcement orders were issued in 2015. This lack of action included one facility that had received five warnings over a seven-month period without ever facing a formal penalty.[74]

Clean Water Enforcement Is Declining under the Trump Administration

America's already poor track record of clean water enforcement appears to have further declined under the Trump administration. Through the first three quarters of the year, 2017 was on track to be the weakest year for formal enforcement for all major facilities (both industrial and public water treatment plants) since at least 2012. From January 1 through September 30, penalties assessed for all

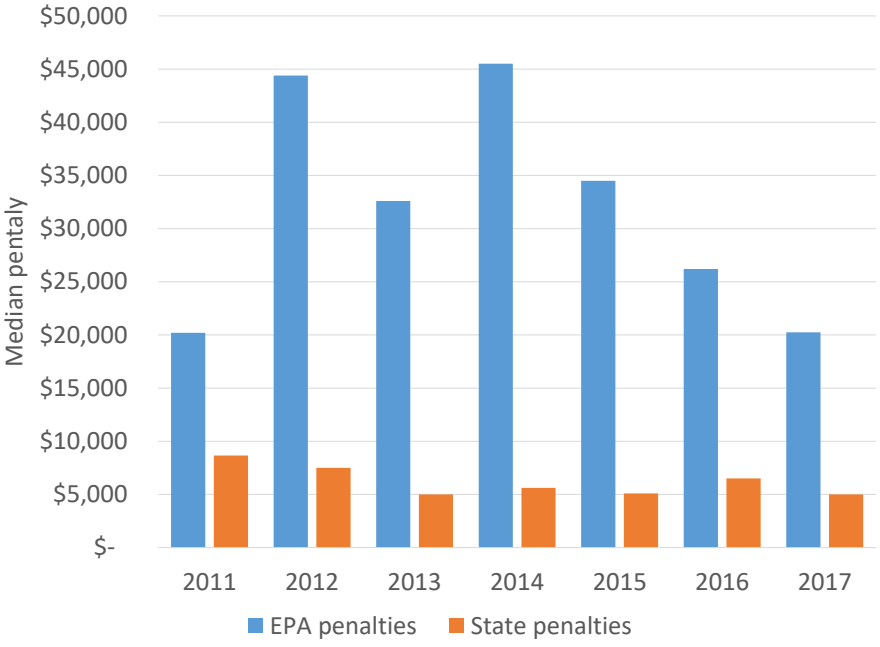
Figure 1. Total Penalties Assessed for All Clean Water Act Violations[75]



** A $3.3 billion federal settlement in 2012 against British Petroleum (BP) for the 2010 Deepwater Horizon spill was excluded as an outlier case.*

violations in current or previous years totaled just $24 million. (See Figure 1.) If that trend continued for the remainder of 2017, it would represent the lowest total amount of penalties assessed and the lowest average penalty amount in at least the past five years.

Figure 2. Median Penalty Assessed for All Clean Water Violations[77]



In addition to the decline in total fines collected, the median penalties assessed by the EPA in 2017 were lower than they had been any year since 2011. As of December 2017, the median EPA-issued penalty for the first year of the Trump administration was $20,250. In comparison, the median penalty in 2014 was $45,500.[76]

Challenges to enforcement can also be seen in the EPA's recent track record of civil enforcement against polluters. According to a recent analysis by the Environmental Integrity Project, the Trump administration has filed fewer cases for environmental violations (including, but not limited to, Clean Water Act violations) than have previous administrations.[78] In addition, the Trump administration's EPA collected 60 percent less in total civil penalties compared to previous administrations within their first six months.[79]

The *New York Times* recently found that within the first 266 days, the Trump administration, with Scott Pruitt as head of the EPA, lodged a thousand fewer environmental cases and obtained just over one-eighth the amount in repairs and penalties as the Obama administration had over the same period of time.[80]

Table 9. Environmental Cases Lodged by Administration (in first 266 days)[81]

Administration	Number of Cases[82]	Total Size of Cases
Bush	2,600	$2.6 billion
Obama	2,900	$10.1 billion
Trump	1,900	$1.3 billion

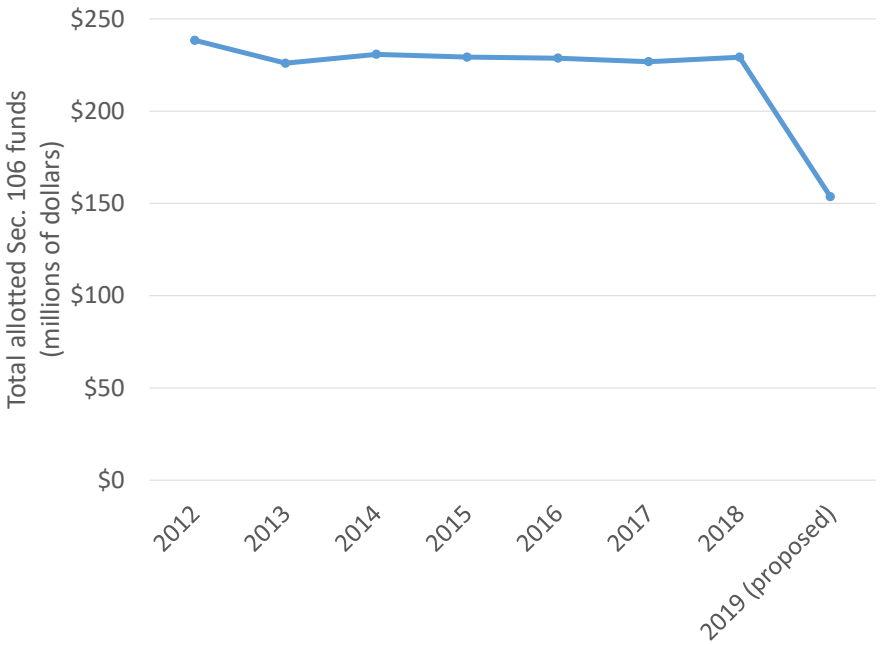
The Trump Administration Is Proposing to Further Erode Clean Water Protections

The poor track record of clean water enforcement by state and federal agencies suggests that America should be investing more resources in enforcing and tightening standards for polluting facilities. The Trump administration, however, threatens to move in the opposite direction – slashing resources for environmental enforcement and leaving the states, many of which have already underfunded or neglected their enforcement activities, to fend for themselves. Without adequate funding for enforcement at both the state and federal level, it will be harder for regulators to pursue strong cases against polluters that result in effective enforcement action.

The current administration plans to cut the EPA's budget for civil enforcement of environmental protection programs, including the Clean Water Act, by $30.4 million.[83] Additionally, funding for Section 106 grants, the program that allows the EPA to assist states in preventing and controlling water pollution, is slated to be cut by more than $75 million, a decrease of almost 33 percent.[84] Over the past five years, these grants have provided more than $1 billion in funding to authorized states to improve their NPDES permitting process, develop better water quality standards, monitor and assess water quality, check facilities for violations, and enforce the law against violators.[85] The Section 106 grant program's 2019 budget is slated to be lower than it has been for at least the previous seven years (Figure 3).[86]

These cuts would also occur against a backdrop of declining inspections by federal and state officials

Figure 3. Funding for State Water Pollution Grants in 2012-2018 and Trump Administration Proposal for 2019[87]



(Figure 4). Even though facilities conduct their own monitoring, inspections help regulatory agencies verify that facilities are following proper protocol and taking accurate samples.[88] From January through September 2017, there were 1,073 inspections of major facilities (other than public wastewater treatment plants), according to ICIS records.[89] Assuming this rate of inspections continued through the last quarter of 2017, the EPA and state agencies will have conducted the smallest number of inspections of industrial facilities since at least 2012. Proposed cuts to the EPA budget would limit other federal grants available to state water agencies, making it even more difficult to carry out necessary inspections and properly enforce clean water laws in the years to come.

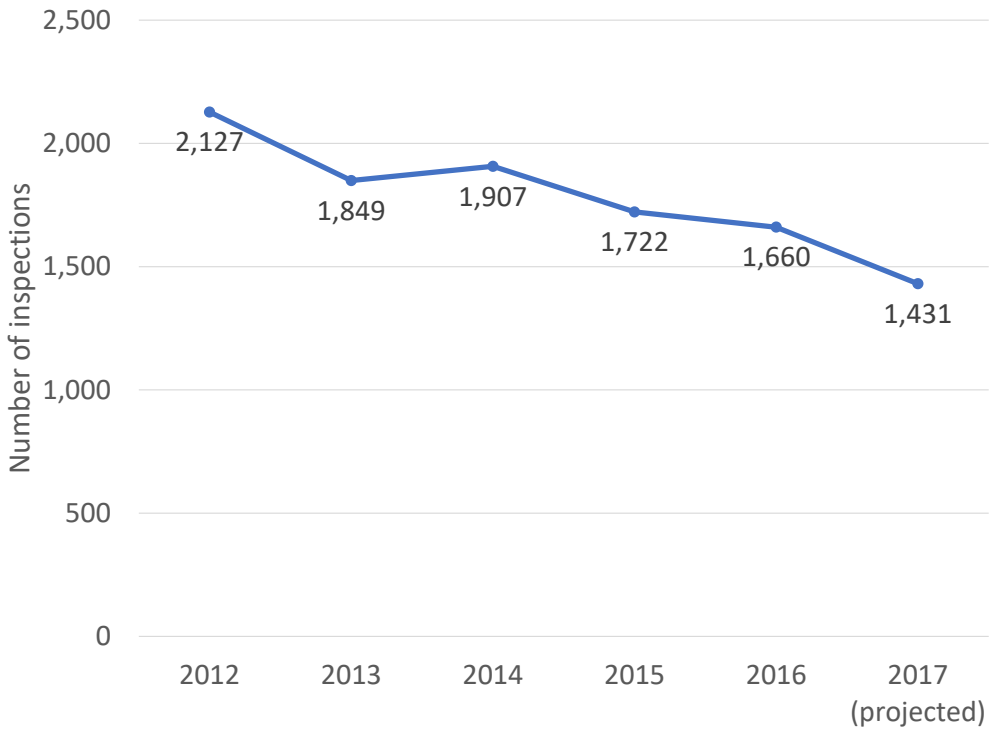
Trump Administration Undermines the Clean Water Act Itself

In addition to cutting environmental protection budgets and conducting fewer inspections, the current administration plans to roll back protections for wetlands and streams and loosen regulations on pollution from coal-fired power plants, which represent "the largest industrial source of toxics water pollution" according to the Environmental Integrity Project.[91] By increasing the amount of toxic pollutants that can legally be discharged from industrial facilities, the burden of cleaning up polluted waters will likely fall on public and private treatment plants downstream. These proposed actions by the current EPA force taxpayers to pay for polluters' misconduct, according to Betsy Southerland, former Director of the Office of Science and Technology in the EPA Office of Water. (See text box.)

Specifically, the EPA under Trump administrator Scott Pruitt has rolled back key rules that protect our waters, including the Clean Water Rule and the nation's first comprehensive federal discharge limit for steam electric power plants, the Steam Electric Effluent Limitation Guidelines (ELG).[93]

The Clean Water Rule, issued jointly by the EPA and the Army Corps of Engineers in 2015, restored Clean Water Act protections to some of the nation's vulnerable marshes and streams, including to streams that provide drinking water for one in three Americans.[94]

Figure 4. Federal and State Inspections of Industrial Facilities by Year[90]



> **"Now the public, not the polluter, will have to pay to clean the water. And it is much cheaper to prevent pollution than to clean it up after the fact."** [92]
>
> – Betsy Southerland, former Director of the Office of Science and Technology in the EPA Office of Water

This rule was supported by more than 1,200 scientific studies and wide public support, including more than 800,000 comments from local officials, health experts, business owners, watershed experts, and other Americans concerned with clean water.[95]

Since taking office, the Trump administration has been working to repeal the Clean Water Rule.[96] Within a month of taking office, President Trump ordered the EPA to replace the rule with much more permissive regulations.[97] As of February 28, 2018, Scott Pruitt's EPA has delayed the effective date of the Clean Water Rule for two years, while it writes a newer, weaker rule to replace it.[98]

The ELG rule, also issued in 2015, intended to further limit the amount of water pollution from steam electric power plants.[99] These power plants discharge several toxic pollutants into our rivers and lakes, including arsenic, mercury, selenium and lead, and overall, they are responsible for approximately 30 percent of all toxic releases into surface waters from industries regulated under the Clean Water Act.[100] The ELG rule would have reduced this pollution by 1.4 billion pounds each year.[101] The ELG rule initially stated that power plants needed to achieve compliance "as soon as possible beginning November 1, 2018," but in September 2017, Pruitt issued a ruling that postponed the earliest compliance date to November 2020.[102]

Policy Recommendations

Ideally, operators of industrial facilities would all voluntarily reduce – and ultimately eliminate – their pollutant discharges so that our rivers, lakes and streams would all be clean and healthy. But, because history has shown otherwise, the very premise underlying the Clean Water Act is that stringent science-based permits, coupled with tough enforcement, are indispensable to securing clean water for America.

Unfortunately, thousands of industrial facilities still violate the pollution limits in their permits. From January 2016 through the third quarter of 2017, we found industrial facilities reported exceeding their clean water permits 8,148 times, threatening the safety of our waterways for public use and wildlife.

All too often, the enforcement response has been weak to non-existent. Making matters worse, the Trump administration is moving to slash the already inadequate resources for enforcement and to undermine key aspects of the Clean Water Act that are essential to reducing pollution.

To discourage more industrial pollution, we must reverse this trend. State and federal elected officials should:

- Ensure that the Clean Water Act applies to all our waterways, as laid out in the Clean Water Rule, so that there is nowhere that polluters can dump with impunity.
- Strengthen permits with enforceable, numeric limits on pollution that are ratcheted down over time as technology allows or water quality demands – moving the nation closer to achieving the Clean Water Act's original "zero discharge" goal.
- Restore – and increase – funding for state and federal enforcement, such as water pollution control grants, so that states have the resources to improve the efficacy of their clean water programs.
- Issue timely penalties that are sufficiently high to deter companies from polluting our waters.
- Boost compliance and enforcement by increasing the number of on-site inspections at major facilities.
- Guard against any weakening of citizens' ability to enforce pollution limits in court when state and federal authorities fail to halt illegal dumping.

In addition:

- States that repeatedly fail to enforce the Clean Water Act should face consequences for their inaction – including loss of federal funding and/or primary enforcement authority.
- Companies should reduce their use of toxic chemicals and use other innovations to minimize the generation of pollution to be discharged in the first place.

Methodology

This report evaluates data from monitoring periods from January 1, 2016, through September 30, 2017. The bulk of the data for this analysis comes from the EPA's Integrated Compliance Information System (ICIS), downloaded on October 25, 2017, and cross-checked with state agency records when possible.

Compliance Analysis

The ICIS dataset identifies instances in which facilities released more pollution than their NPDES permit limits (effluent violations). Effluent violations are identified through an automated comparison of releases reported via discharge monitoring reports (DMRs) submitted by facilities with permit limits stored in the EPA's records (coded as E90 under VIOLATION_CODES field). Each record of a facility releasing more pollution than its permit allows was recorded as a single exceedance, regardless of the number of days of violation.

The exceedance percentage for E90 violations is recorded under the EXCEEDENCE_PCT field. Any EXCEEDENCE_PCT that is listed as 99999, 2147483650 or 214748350 was interpreted as "exceedance percentage unknown." These records were counted as exceedances but excluded from the counts of facilities with exceedances greater than 100 percent or 500 percent of their permit limits. The corrected data provided by the Iowa state officials included the reported discharge and permit limit, but not the percent exceedance. Instead, the percent exceedance was calculated by subtracting the reported permit limit from the reported discharge and dividing by the reported permit limit.

The ICIS dataset is available by region and as a national aggregate and periodically updated at the end of each monitoring period on a monthly basis. We downloaded each ICIS file by state and filtered each file to remove all records other than those that were inside the monitoring periods of interest (January 1, 2016 – September 30, 2017), coded as effluent (E90) violations, from major facilities, and not from publicly owned treatment works (POTWs). The EPA's online DMR loading tool describes all non-POTW facilities as "industrial point sources." We categorized the facilities in this report in the same way.

For the exceedance tables, the denominator in percentage calculations was the total number of non-POTW major facilities in the state. This number was calculated from ICIS-NPDES data on major discharge permits and confirmed with state agencies, when possible.

The EPA's ECHO/ICIS website reports that New Jersey data is "frozen" and missing effluent records from our monitoring periods of interest. Missouri, North Carolina and Washington state are also listed as working with the EPA to complete their data reporting. In Ohio, permit limits may be set to an annual average

rather than a monthly or daily exceedance. Because effluent violations are automatically generated based on submitted DMRs and some discharges are sampled daily, some facilities may be flagged by ICIS for single violations on their DMRs even if they meet their permit limit's annual or monthly average.

We contacted each state agency – except in jurisdictions where the EPA administers the NPDES program – and offered them an opportunity to review their violations data for accuracy. The following states did not review any of the water quality data, failing to respond to repeated requests: Alaska, Arkansas, Delaware, Maryland, Michigan, Mississippi, New York, Oregon and Utah.

Missouri, Pennsylvania and Nebraska referred to their own e-reporting website as a more accurate source of violation records than federal records. The rest of the states either informed us that the EPA numbers were accurate, sent notes on which specific records to correct, or sent an entirely new file to use instead.

Enforcement and Inspection Analysis

For the enforcement actions analysis, we relied on both the ICIS-NPDES record of formal enforcement actions filtered by settlement date for each calendar year, and enforcement actions matched to just the 2016 effluent violations derived as described above for all U.S. states and territories. We omitted violations from 2017 in this part of the analysis based on a reasonable lag in the settlement of enforcement actions. We also acknowledge that some states might not be fully compliant with 40 CFR 127, an e-reporting rule that requires states to file enforcement actions with the EPA on an ongoing basis.

For the inspection analysis, we analyzed the ICIS_NPDES file of inspections, filtered to reflect the last monitoring period of interest in this report (30 September 2017), that were filed on or after January 1, 2012. Data from 49 states (all but New Jersey) and D.C. were used in this part of the analysis.

Appendix

Table A-1. Major Industrial Facilities by State and Exceedance Characteristics

State	Major industrial facilities	Facilities with exceedances	Facilities with exceedances in impaired waters	Facilities with multiple exceedances	Facilities with multiple exceedances in impaired waters	Facilities with >6 exceedances	Facilities with exceedances >100% permit limit	Facilities with exceedances >500% permit limit
Alabama	69	26	12	26	12	10	13	4
Alaska	54	11	0	11	0	2	5	1
Arizona	28	7	1	4	1	2	4	2
Arkansas	108	25	8	18	6	10	14	7
California	97	36	23	25	15	14	29	15
Colorado	39	17	6	11	3	7	10	5
Connecticut	35	13	9	12	8	5	6	2
Delaware	11	6	2	4	2	2	3	1
District of Columbia	2	2	2	2	2	1	2	2
Florida	325	49	18	35	11	11	18	9
Georgia	40	16	1	13	1	5	11	3
Hawaii	18	8	0	7	0	4	7	2
Idaho	28	6	1	3	1	1	1	0
Illinois	65	34	2	26	2	7	19	6
Indiana	66	33	5	29	5	12	21	9
Iowa	27	21	0	15	0	8	10	6
Kansas	16	6	0	5	0	0	4	1
Kentucky	49	18	12	11	6	3	8	5
Louisiana	245	90	16	63	11	23	46	14
Maine	13	6	0	4	0	1	2	0
Maryland	40	15	10	8	4	4	9	4
Massachusetts	43	23	18	18	13	5	6	1
Michigan	77	32	0	20	0	9	12	4
Minnesota	28	13	2	10	1	0	7	2
Mississippi	29	13	2	6	1	1	2	1

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State	Major industrial facilities	Facilities with exceedances	Facilities with exceedances in impaired waters	Facilities with multiple exceedances	Facilities with multiple exceedances in impaired waters	Facilities with >6 exceedances	Facilities with exceedances >100% permit limit	Facilities with exceedances >500% permit limit
Missouri	56	27	1	24	1	15	20	10
Montana	16	4	3	3	2	1	2	2
Nebraska	23	10	0	9	0	4	6	4
Nevada	9	1	0	1	0	1	1	0
New Hampshire	18	7	2	4	1	3	3	1
New Mexico	14	5	3	4	2	2	5	2
New York	119	63	13	48	8	19	37	16
North Carolina	71	20	6	16	5	3	13	7
North Dakota	8	6	3	5	3	1	2	1
Ohio	93	46	10	36	6	15	26	8
Oklahoma	37	22	8	15	7	8	11	6
Oregon	20	7	0	3	0	2	2	0
Pennsylvania	131	78	24	58	19	27	36	12
Rhode Island	6	1	1	1	1	1	1	1
South Carolina	67	31	2	21	1	3	11	2
South Dakota	6	1	0	1	0	0	0	0
Tennessee	46	16	8	11	6	4	6	3
Texas	269	132	45	96	39	39	72	40
Utah	15	6	2	5	2	1	3	2
Vermont	5	1	0	1	0	0	0	0
Virginia	61	25	0	22	0	2	8	3
Washington	32	18	1	14	0	3	8	3
West Virginia	48	34	32	30	28	15	26	15
Wisconsin	43	15	8	7	2	0	5	3
Wyoming	7	3	1	3	1	2	2	2

Table A-2. Exceedances by State and Exceedance Characteristics

State	Total exceedances	Exceedances in impaired waters	Exceedances >100% of permit limit	Exceedances >500% of permit limit
Alabama	242	100	62	8
Alaska	76	0	32	4
Arizona	42	23	22	6
Arkansas	567	423	275	75
California	360	301	181	57
Colorado	214	38	117	75
Connecticut	108	84	35	14
Delaware	34	11	15	4
District of Columbia	22	22	12	7
Florida	270	103	69	16
Georgia	85	6	32	6
Hawaii	49	0	16	4
Idaho	33	24	6	0
Illinois	149	8	38	12
Indiana	211	30	54	17
Iowa	197	0	52	27
Kansas	18	0	8	2
Kentucky	91	27	43	19
Louisiana	535	92	122	26
Maine	22	0	2	0
Maryland	60	36	28	11
Massachusetts	124	69	18	1
Michigan	196	0	70	19
Minnesota	35	5	10	2
Mississippi	47	28	11	1
Missouri	348	24	126	41
Montana	62	6	40	24
Nebraska	121	0	61	32
Nevada	44	0	1	0
New Hampshire	44	20	8	1
New Mexico	48	34	17	4
New York	473	62	167	51
North Carolina	90	28	28	10
North Dakota	23	10	7	3
Ohio	491	51	177	51
Oklahoma	134	68	33	7

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State	Total exceedances	Exceedances in impaired waters	Exceedances >100% of permit limit	Exceedances >500% of permit limit
Oregon	23	0	4	0
Pennsylvania	633	182	203	32
Rhode Island	12	12	5	1
South Carolina	113	3	19	3
South Dakota	2	0	0	0
Tennessee	118	50	34	7
Texas	938	304	303	108
Utah	44	7	9	5
Vermont	2	0	0	0
Virginia	75	0	15	4
Washington	59	1	13	4
West Virginia	407	348	202	59
Wisconsin	29	11	8	6
Wyoming	28	12	16	9

Table A-3. The 10 Facilities with the Most Total Exceedances, by State[103]

		EXCEEDANCES					
Facility ID	**Facility name, county**	**Total**	**>100% permit limit**	**>500% permit limit**	**Types of exceedances**	**Receiving Waterbody**	**Receiving Water Impaired?**
ALABAMA							
AL0000973	Hunt - Tuscaloosa Refinery, Tuscaloosa	52	18	0	Ammonia nitrogen; Kjeldahl nitrogen; Carbonaceous biochemical oxygen demand (5-day, 20 deg. C); Dissolved oxygen; Tetrachloroethylene	Black Warrior River	No
AL0026832	Golden Rod Broilers, Cullman	28	6	0	Fecal coliform; Oil & grease; Total suspended solids; Chronic toxicity (C. dubia); Nitrogen; Ammonia nitrogen; Biochemical oxygen demand (5-day, 20 deg. C)	Eightmile Creek	Yes
AL0003697	Enterprise Processing Plant, Coffee	24	4	0	Oil & grease; Total suspended solids; Biochemical oxygen demand (5-day, 20 deg. C)	Whisky Branch	No
AL0002666	Molecular Sieve Plt, Mobile	18	0	0	Total suspended solids; Chronic toxicity (C. dubia)	Chickasaw Creek	Yes
AL0001449	Blountsville Processing, Blount	12	0	0	Biochemical oxygen demand (5-day, 20 deg. C); Ammonia nitrogen; Kjeldahl nitrogen	Cotaco Creek	No
AL0003417	Abc Coke, Jefferson	10	4	2	Iron; Chronic toxicity (P. promelas); Chronic toxicity (C. dubia); Benzo[a] pyrene	Upper Fivemile Creek	No
AL0003646	Fairfield Works, Jefferson	10	2	0	Di[2-ethylhexyl] phthalate (DEHP); Zinc; Oil & Grease	Opossum Creek	Yes
AL0003930	Ngc Industries Inc, Calhoun	10	2	0	Oil & Grease; Biochemical oxygen demand (5-day, 20 deg. C)	Choccolocco Creek	No
AL0062863	Redstone Arsenal Central WWTP, Madison	10	4	0	E. coli	Huntsville Spring Branch	No
AL0003026	Polymer Plant, Mobile	8	8	2	Enterococci	Mobile River	Yes
ALASKA							
AK0037303	Trident Seafoods Corporation - Akutan Plant, Aleutians East Borough	26	12	4	Chlorine; Total suspended solids; Fecal coliform	Akutan Harbor	No
AK0053341	Sumitomo Metal Mining Pogo LLC - Pogo Mine, Southeast Fairbanks Census Area	16	10	0	Turbidity; Cyanide; Iron; Copper; Cadmium	Goodpaster River	No
AK0000841	Tesoro Alaska Petroleum Company LLC - Kenai (Nikiski) Refinery, Kenai Peninsula Borough	6	4	0	Biochemical oxygen demand (5-day, 20 deg. C)	Cook Inlet	No
AK0023248	Alyeska Pipeline Service Company - Ballast Water Treatment Facility, Valdez-Cordova Census Area	4	0	0	Total suspended solids	Port Valdez	No

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Continued from page 34

		EXCEEDANCES					
Facility ID	**Facility name, county**	**Total**	**>100% permit limit**	**>500% permit limit**	**Types of exceedances**	**Receiving Waterbody**	**Receiving Water Impaired?**
AK0038661	Endicott Waterflood Operations, North Slope Borough	4	0	0	Biochemical oxygen demand (5-day, % removal); Fecal coliform	Beaufort Sea; Stefansson Sound	No
AK0040649	Teck Alaska Inc - Red Dog Port Site, Northwest Arctic Borough	4	2	0	Zinc; Fecal coliform	Chukchi Sea	No
AK0050571	Kensington Gold Mine-Coeur Alaska Inc, Juneau City and Borough	4	0	0	Sulfate, total [as SO4]; Sulfate	Sherman And Camp Creeks; Lynn Canal	No
AK0053643	Fort Knox Mine-Fairbanks Gold Mining Inc, Fairbanks North Star Borough	4	4	0	Cyanide	Old Fish Creek Channel	No
AKG315002	Hilcorp Alaska, Inc. - Trading Bay Treatment Facility, Kenai Peninsula Borough	4	0	0	Copper; pH	Cook Inlet	No
AK0043206	Hecla Greens Creek Mining Company, Juneau City and Borough	2	0	0	pH	Greens Creek	No
AKG528493	Ocean Beauty Seafoods LLC, Kodiak Island Borough	2	0	0	pH	St Paul Harbor	No
ARIZONA							
AZ0000035	Asarco Ray Mine Operations, Pinal	23	15	5	Copper; Selenium	Mineral Creek	Yes
AZ0025607	Nogales International Wastewater Treatment Plant, Santa Cruz	8	3	0	Chronic toxicity (7-day C. dubia); Chronic toxicity (4-day R. subcapitata); Nickel	Badger Creek	No
AZ0025071	Palo Verde Utilities Co - WRF, Pinal	6	2	0	E. coli; Cyanide	Rincon Basin-Little Colorado River Subwatershed	No
AZ0026107	Agua Nueva WRF, Pima	2	2	1	Chlorine	Salt River - Tempe Town Lake Subwatershed	No
AZ0023558	SRP - Santan Generating Station, Maricopa	1	0	0	Total suspended solids	Town of Hilltop Subwatershed	No
AZ0026077	City of Bisbee - San Jose WWTP, Cochise	1	0	0	E. coli	Middle Tanque Verde Creek Subwatershed	No
AZ0110221	USAF - Luke AFB - Litchfield Park WWTP, Maricopa	1	0	0	pH	Yuma Valley Subwatershed	No

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		EXCEEDANCES					
Facility ID	**Facility name, county**	**Total**	**>100% permit limit**	**>500% permit limit**	**Types of exceedances**	**Receiving Waterbody**	**Receiving Water Impaired?**
ARKANSAS							
AR0000752	El Dorado Chemical Co., Inc., Union	129	67	8	Zinc; Total dissolved solids; Lead; Total suspended solids; Fecal coliform; Carbonaceous biochemical oxygen demand (5-day, 20 deg. C)	Haynes Creek Subwatershed	Yes
AR0049794	Magcobar Mine Site, Hot Spring	115	90	53	Total dissolved solids; Total sulfate; Chloride	Chamberlain Creek; Cove Creek; Ouachita River	Yes
AR0001163	Remington Arms Company, LLC, Lonoke	110	59	4	Lead; Fecal coliform; Copper; Total suspended solids; Whole effluent toxicity; Zinc; pH; Antimony; Biochemical oxygen demand (5-day, 20 deg. C)	Bayou Meto; Arkansas River	Yes
AR0001171	Great Lakes Chemical Corporation-Central Plant, Union	70	13	2	pH; Chloride; Total dissolved solids; Carbonaceous biochemical oxygen demand (5-day, 20 deg. C); Ammonia nitrogen	Bayou De Loutre; Little Cornie Bayou; Ouachita River	No
AR0000591	Martin Operating Partnership, L.P., Union	33	7	0	Carbonaceous biochemical oxygen demand (5-day, 20 deg. C); Ammonia nitrogen; Oil & Grease	Smackover Creek; Ouachita River	Yes
AR0000647	Lion Oil Co-El Dorado Refinery, Union	26	17	5	pH; Lead; Zinc; Total suspended solids; Ammonia nitrogen; Carbonaceous biochemical oxygen demand (5-day, 20 deg. C)	Loutre Creek; Ouachita River	No
AR0045977	Nucor Steel - Arkansas, Division of Nucor Corporation Hickman Mill, Mississippi	24	9	0	Nickel	Crooked Lake Bayou; Pemiscot Bayou	Yes
AR0049255	AECC-Harry L. Oswald Generating Station, Pulaski	14	5	1	Total suspended solids; Oil & Grease; Zinc; pH	Arkansas River	No
AR0037770	BASF Corporation, Crittenden	10	2	0	pH; Biochemical oxygen demand (5-day, 20 deg. C); Fecal coliform; Acrylonitrile; Toluene	Mississippi River	Yes
AR0000523	Evraz Stratcor, Inc., Garland	8	1	0	Whole effluent toxicity; Copper	Oachita River	No
CALIFORNIA							
CA0030210	Lehigh Permanente Plant, Santa Clara	85	46	15	Selenium; Nickel; Hexavalent chromium; Total dissolved solids; pH; Mercury; Settleable solids; Total suspended solids	Permanente Creek	Yes
CA0059188	William E. Warne Power Plant, Los Angeles	44	14	5	Chloride; Zinc; Copper; Dibromochloromethane; pH; Dissolved oxygen; Turbidity; Chronic toxicity (7-day C. dubia); Biochemical oxygen demand (5-day, 20 deg. C); Lead; Dichlorobromomethane	Pyramid Lake	Yes

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		EXCEEDANCES					
Facility ID	**Facility name, county**	**Total**	**>100% permit limit**	**>500% permit limit**	**Types of exceedances**	**Receiving Waterbody**	**Receiving Water Impaired?**
CA0064157	New Dock Street Pump Station, Los Angeles	33	16	4	Lead; Hydrocarbons, petroleum; Enterococci; Copper; Fecal coliform; Zinc; General coliform	Cerritos Channel	Yes
CA0055824	Castaic Power Plant, Los Angeles	32	8	0	Turbidity; Chloride; Copper; Biochemical oxygen demand (5-day, 20 deg. C); Total suspended solids; Di[2-ethylhexyl] phthalate (DEHP); Total nitrite + nitrate	Elderberry Forebay	Yes
CA0001139	Alamitos Generating Station, Los Angeles	23	13	5	Enterococci; Settleable solids; Total suspended solids; Chronic toxicity (7-day Atherinops affinis); Temp.; Copper; pH	San Gabriel River Estuary, Los Cerritos Channel	Yes
CA0003352	Six Flags Magic Mountain, Los Angeles	17	13	5	Copper; Fecal coliform; E. coli; Chlorine; pH; Chloride	Santa Clara River	Yes
CA0109282	San Onofre Nuclear Generating Station, Orange	16	14	1	Mercury; Temp.; Copper	Pacific Ocean	No
CA0001309	Boeing Santa Susana Field Laboratory, Los Angeles	11	1	1	TCDD equivalents; Lead; pH	Bell Creek, Arroyo Simi	Yes
CA0005789	Shell Martinez Refinery, Contra Costa	11	3	1	pH; Total suspended solids; Mercury; Selenium	Carquinez Strait; Peyton Slough; Peyton Creek	Yes
CA0005550	Valero Benicia Refinery, Solano	10	4	2	Oil & grease; Selenium; Chromium; Mercury; pH; Total suspended solids	Suisun Bay; Carquinez Strait; Sulphur Springs Creek	Yes
COLORADO							
CO0041351	Fort Morgan Facility, Morgan	91	70	65	Biochemical oxygen demand (5-day, 20 deg. C); Fecal coliform; pH; Chronic toxicity (7-day C. dubia); Flow; Ammonia nitrogen; Sulfide-hydrogen sulfide (undissociated); Chronic toxicity (7-day P. promelas)	South Platte River	No
CO0038334	London Water Tunnel, Park	45	32	6	Zinc; Cadmium; Oil & grease	South Mosquito Creek	No
CO0048445	Erie North Water Reclamation Facility, Weld	29	3	0	Ammonia nitrogen; Copper; Flow	Boulder Creek	Yes
CO0027707	Swift Beef - Lone Tree, Weld	9	2	1	Chronic toxicity (7-day C. dubia); Fecal coliform; Total suspended solids; pH	Lone Tree Creek	No
CO0000591	Black Cloud Mine, Lake	7	3	1	Zinc; Flow; Lead; Sulfide-hydrogen sulfide (undissociated); Cadmium	Arkansas River	No
CO0001163	Millercoors Golden Facility, Jefferson	7	1	0	Biochemical oxygen demand (5-day, 20 deg. C); pH; Total suspended solids; Fluoride; E. coli (thermotol, MF, MTEC)	Clear Creek; Croke Canal	No

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		EXCEEDANCES					
Facility ID	**Facility name, county**	**Total**	**>100% permit limit**	**>500% permit limit**	**Types of exceedances**	**Receiving Waterbody**	**Receiving Water Impaired?**
CO0042064	Treatment, Storage & Disposal WWTF, Adams	7	2	0	Benzoic acids; Cyanide; Iron; Ammonia nitrogen; Aniline; Biochemical oxygen demand (5-day, 20 deg. C)	Beaver Creek	No
CO0020974	USAF Academy, El Paso	4	2	2	Inorganic nitrogen; Carbonaceous biochemical oxygen demand (% removal); Solids, suspended percent removal	Monument Creek	Yes
COG500082	Pueblo East Pit, Pueblo	4	0	0	Total suspended solids	Arkansas River	No
CO0048275	Sage Creek Mine Complex, Routt	3	0	0	Iron; Total suspended solids	Grassy Creek	No
CONNECTICUT							
CT0025305	Unimetal Surface Finishing LLC, Litchfield	41	8	0	Acute toxicity (48-Hr D. pulex %surv); Acute toxicity (48-Hr P. promelas NOAEL); Nitrogen; Zinc; Acute toxicity (48-Hr D. pulex NOAEL); Cyanide; Acute toxicity (48-Hr P. promelas %surv); Copper; Fluoride; Biochemical oxygen demand (5-day, 20 deg. C)	Naugatuck River	Yes
CT0026808	Seidel Inc, New Haven	14	10	6	Total suspended solids; Phosphorus; Acute toxicity (48-Hr P. promelas); Acute toxicity (48-Hr C. dubia)	Naugatuck River	No
CT0030180	Bridgeport Energy LLC, Fairfield	12	0	0	pH; Temp.; Temp. diff. between intake and discharge	Bridgeport Harbor	Yes
CT0003115	NRG Montville Operations Inc, New London	9	8	8	Flow rate; Temp.	Thames River	Yes
CT0003921	Naval Sub Base New London, New London	9	4	0	Oil & Grease; Flow; pH; Flow (max in 24 hr period); Acute toxicity (96-Hr menidia); Acute toxicity (48-Hr M. bahia)	Thames River	Yes
CT0000086	Allnex USA Incorporated, New Haven	4	3	0	Ammonia nitrogen; Chronic toxicity (7-day C. dubia NOEC sub-lethal); Total suspended solids	Quinnipiac River	Yes
CT0001180	Summit Corporation of America, Litchfield	4	0	0	Silver; Acute toxicity (48-Hr D. pulex noael); Acute toxicity (48-Hr D. pulex)	Naugatuck River	No
CT0002968	Ansonia Copper & Brass Inc., New Haven	4	2	0	Copper; Zinc; Acute toxicity (48-Hr D. Pulex)	Naugatuck River	Yes
CT0003212	Kimberly-Clark Corporation, Litchfield	4	0	0	Acute toxicity (48-Hr D. pulex NOAEL); pH; Phosphorus	Housatonic River	No
CT0000434	Ahlstrom Nonwovens LLC, Hartford	2	0	0	Acute toxicity (48-Hr Pimephales); Acute toxicity (48-Hr D. Pulex)	Connecticut River	No
CT0002127	Dunn Paper - East Hartford, LLC, Hartford	2	0	0	pH; Acute toxicity (48-Hr D. Pulex)	Hockanum River	Yes
CT0003824	Electric Boat Corporation, New London	2	0	0	Flow (max in 24 hr period); pH	Thames River	Yes

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		EXCEEDANCES					
Facility ID	**Facility name, county**	**Total**	**>100% permit limit**	**>500% permit limit**	**Types of exceedances**	**Receiving Waterbody**	**Receiving Water Impaired?**
DELAWARE							
DE0000299	Allen Harim Foods LLC, Sussex	19	12	4	Total suspended solids; Ammonia nitrogen; Phosphorus; Enterococci (group D, MF trans, M-E, EIA)	Beaverdam Creek	No
DE0000051	Chemours Edge Moor Plant, New Castle	9	1	0	pH; pH (monthly accum)	Shellpot Creek	Yes
DE0000035	Invista S.A.R.L., Sussex	2	2	0	Biochemical oxygen demand (5-day, 20 deg. C)	Nanticoke River	No
DE0000558	Calpine Mid-Atlantic, New Castle	2	0	0	Temp.; Total suspended solids	Shellpot Creek	Yes
DE0000469	Perdue Foods, LLC., Sussex	1	0	0	Total suspended solids	Savannah Ditch	No
DE0000612	Formosa Plastics Corporation, New Castle	1	0	0	Chloroform	Red Lion Creek - Delaware River Subwatershed	No
DISTRICT OF COLUMBIA							
DC0000094	Pepco - Benning, District of Columbia	20	11	6	Iron; Total suspended solids; Zinc; Copper	Anacostia River	Yes
DC0000019	Washington Aqueduct, District of Columbia	2	1	1	Chlorine	Potomac River	Yes
FLORIDA							
FL0001465	Pilgrim's Pride Processing Plant, Suwannee	28	8	0	Nitrogen; Specific conductance; Carbonaceous biochemical oxygen demand (5-day, 20 deg. C); Dissolved oxygen; Oil & Grease; Chronic toxicity (7-day C. dubia)	Suwannee River	Yes
FL0025755	Siesta Key Utilities Authority, Sarasota	27	11	1	Phosphorus; Carbonaceous biochemical oxygen demand (5-day, 20 deg. C); Nitrogen; Chronic toxicity (7-day M. bahia); Total suspended solids; Fecal coliform	Grand Canal on Siesta Key	No
FL0000809	H L Culbreath Bayside Power Plant, Hillsborough	24	12	0	Flow; Iron	Hillsborough Bay	Yes
FL0000477	Coca Cola North America, Pinellas	19	6	0	Phosphorus; Copper; Total suspended solids; Carbonaceous biochemical oxygen demand (5-day, 20 deg. C); Nitrogen	Clearwater Harbor	No
FL0000051	The Chemours Company Tt LLC - Florida Mine - Trail Ridge, Bradford	15	0	0	Chronic toxicity (7-day C. dubia); Flow; Zinc; Iron; Acute toxicity (96-hour C. dubia); Acute toxicity (96-hr cyprinella leedsi)	Alligator Creek; Blue Pond	Yes
FL0002763	Georgia-Pacific Consumer Operations LLC, Putnam	15	6	2	Fecal coliform; Color [PT-CO units]; Total suspended solids; pH; Chronic toxicity (7-day C. dubia); Turbidity	Lower St Johns River	No

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		EXCEEDANCES					
Facility ID	**Facility name, county**	**Total**	**>100% permit limit**	**>500% permit limit**	**Types of exceedances**	**Receiving Waterbody**	**Receiving Water Impaired?**
FL0000922	US Naval Station Mayport, Duval	12	2	1	Peracetic Acid; Fecal coliform; Nickel; Oil & Grease; Chronic toxicity (7-day M. bahia); Enterococci (group D, MF trans, M-E, EIA); Copper	St Johns River	No
FL0036498	Seminoles Units 1 & 2, Putnam	9	9	7	Total suspended solids; Fecal coliform	St Johns River	No
FL0132381	Cytec Industries, Inc - Brewster Plant, Polk	9	0	0	Alpha, gross particle activity; pH; Chronic toxicity (7-day P. promelas)	South Prong Alafia River	No
FL0000761	Mosaic Fertilizer LLC - Riverview Facility, Hillsborough	8	3	1	Chronic toxicity (7-day M. bahia); Copper; Nickel; Iron; Zinc; Ammonia nitrogen	Alafia River	Yes
FL0043869	Tampa Electric Company - Polk Power Plant, Polk	8	0	0	pH; Chronic toxicity (7-day C. dubia); Iron	Little Payne Creek	No
GEORGIA							
GA0003280	King America Finishing, Inc., Screven	24	10	1	Acute toxicity (96-Hr C. dubia); Fecal coliform; Formaldehyde; Total suspended solids	Jackson Branch	No
GA0003590	Interstate Paper, LLC, Liberty	10	2	0	Biochemical oxygen demand (5-day, 20 deg. C)	North Newport River	No
GA0000281	Chemical Products Corporation, Bartow	8	2	0	Sulfide; Acute toxicity (96-Hr C. dubia); Total suspended solids; Acute toxicity (96-Hr pimephales)	Etowah River	No
GA0002852	USAF Robins AFB, Houston	8	3	0	Biochemical oxygen demand (5-day, 20 deg. C); Total suspended solids; Copper; Chem. Oxygen Demand	Horse Creek Tributary; Ocmulgee River	No
GA0001201	Georgia Pacific Cedar Springs LLC, Early	7	6	4	Fecal coliform; Total suspended solids	Chattahoochee River	No
GA0003735	Pinova, Inc., Glynn	6	2	1	Enterococci; Dissolved oxygen; pH; Toxaphene; Copper	Dupree Creek	Yes
GA0002071	Pcs Nitrogen Fertilizer, L.P. (Augusta), Richmond	5	3	0	Nitrate; Nitrogen; Ammonia nitrogen; Organic nitrogen	Savannah River	No
GA0001708	Geo Specialty Chemicals, Polk	3	0	0	Biochemical oxygen demand (5-day, 20 deg. C); Ultimate oxygen demand	Dry Creek Subwatershed	No
GA0002160	DSM Chemicals Augusta, Inc., Richmond	3	1	0	pH; Phenol	Savannah River	No
GA0001449	Georgia Power Plant Bowen, Bartow	2	0	0	pH	Etowah River	No
GA0002798	International Paper - Port Wentworth, Chatham	2	1	0	Biochemical oxygen demand (5-day, 20 deg. C)	Savannah River; Front River	No
GA0027588	US Army Hunter Army Airfield, Chatham	2	1	0	Biochemical oxygen demand (5-day, 20 deg. C)	Pipemaker Canal Subwatershed	No
GA0032620	Westrock Southeast, LLC, Laurens	2	1	0	Total suspended solids; Biochemical oxygen demand (5-day, 20 deg. C)	Oconee River; Shaddock Creek	No

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		EXCEEDANCES					
Facility ID	**Facility name, county**	**Total**	**>100% permit limit**	**>500% permit limit**	**Types of exceedances**	**Receiving Waterbody**	**Receiving Water Impaired?**
HAWAII							
HI0000094	Kahului Generating Station, Maui	12	1	0	Total nitrite + nitrate; Nickel	Pacific Ocean	No
HI0000353	Port Allen Generating Station, Kauai	10	6	0	Temp.; Copper; Ammonia nitrogen	Hanapepe Bay	No
HI0000329	IES Downstream, LLC Hawaii Refinery, Honolulu	7	2	0	Phosphorus; pH	Pacific Ocean	No
HI0000604	Heco Waiau Generating Station, Honolulu	7	3	2	Copper; Ammonia nitrogen; pH	Pearl Harbor - East Loch	No
HI0020303	East Honolulu Wastewater Treatment Plant, Honolulu	5	1	0	Cyanide; Total suspended solids; Solids, suspended percent removal	Pacific Ocean	No
HI0000019	Kahe Generating Station (1), Honolulu	4	2	2	pH; Copper	Pacific Ocean	No
HI0110086	Navfac Hawaii Wastewater Treatment Plant, Honolulu	3	1	0	Cadmium; Oil & grease	Pacific Ocean	No
HI0021296	C&Ch Kailua Regional WWTP, Honolulu	1	0	0	Ammonia nitrogen	Pacific Ocean	No
IDAHO							
ID0000027	U.S. Silver Corporation - Idaho Inc (Coeur And Galena Mines), Shoshone	24	6	0	Lead; Total suspended solids; pH; Cadmium	Lake Creek	Yes
ID0000663	Burley, City Of - Burley-Heyburn Industrial Park, Cassia	3	0	0	Total suspended solids; Phosphorus	Snake River	No
ID0001163	Clearwater Paper Corporation, Nez Perce	3	0	0	Chloroform	Snake River	No
ID0025402	Thompson Creek Mining Company - Thompson Creek Mine, Custer	1	0	0	Selenium	Thompson Creek; Squaw Creek; Salmon River	No
IDG130004	Hagerman National Fish Hatchery, Gooding	1	0	0	Total suspended solids	Riley Creek, Snake River	No
IDG130020	White Springs Trout Farm, Gooding	1	0	0	Phosphorus	Snake River	No
IL0004421	Honeywell International Inc - Metropolis Works Facility, Massac	15	7	5	Fecal coliform; Total suspended solids; E. coli; E. coli (% samples exceeding limit)	Ohio River	No
IL0000205	Wood River Refinery, Madison	14	2	0	Mercury; Coliform, fecal - % samples exceeding limit; Fecal coliform; pH	Mississippi River	No
IL0000108	Coffeen Power Station, Montgomery	13	3	0	Total suspended solids; Temp.	Coffeen Lake	No
IL0024074	Baxter Healthcare Corporation, Lake	12	0	0	Biochemical oxygen demand (5-day, 20 deg. C); Total suspended solids	Unnamed Ditch Tributary to Squaw Creek	No

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		EXCEEDANCES					
Facility ID	**Facility name, county**	**Total**	**>100% permit limit**	**>500% permit limit**	**Types of exceedances**	**Receiving Waterbody**	**Receiving Water Impaired?**
IL0001392	Emerald Polymer Additives LLC, Marshall	9	2	2	Fecal coliform; Total suspended solids; Biochemical oxygen demand (5-day, 20 deg. C)	Illinois River	No
IL0004120	Amerenenergy Medina Cogen LLC, Crawford	8	3	0	Total suspended solids	Wabash River	No
IL0026859	Scott Air Force Base, St. Clair	7	3	0	Carbonaceous biochemical oxygen demand (5-day, 20 deg. C); Total suspended solids; Biochemical oxygen demand (5-day, 20 deg. C)	Unnamed Tributary to Silver Creek	No
IL0000612	Alton Steel Inc, Madison	6	0	0	Total suspended solids; Iron	Mississippi River	No
IL0002861	Exxonmobil Oil Corporation, Will	6	1	1	Total dissolved solids; Oil & grease; Benzene	Des Plaines River	Yes
IL0024767	Springfield CWLP, Sangamon	6	0	0	pH; Boron; Total suspended solids	Lake Springfield	No
INDIANA							
IN0003573	General Motors LLC - Cet Bedford, Lawrence	18	6	0	Biochemical oxygen demand (5-day, 20 deg. C); Ammonia nitrogen; Polychlorinated biphenyls (PCBs)	Salt Creek Via Pleasant Run Creek	No
IN0001601	Taghleef Industries, Vigo	17	1	0	Acute toxicity (48-Hr D. magna); Acute toxicity (96-Hr P. promelas); Acute toxicity (96-Hr C. dubia); Acute toxicity (96-Hr Pimephales); Chlorine; Acute toxicity (48-Hr C. dubia); Acute toxicity (48-Hr static D. magna)	Wabash River Via Spring Creek	No
IN0000175	Arcelormittal Burns Harbor LLC, Porter	16	0	0	Ammonia nitrogen; Chronic toxicity (7-day C. dubia); Chronic toxicity (C. dubia); Temp.; Phenolics	Little Calumet River and Burns Harbor	No
IN0053201	Nipsco - R M Schahfer Gen Station, Jasper	16	1	1	Total suspended solids; pH; E. coli; Carbonaceous biochemical oxygen demand (5-day, 20 deg. C)	Kankakee River & Stauhlbaum Ditch	No
IN0000337	Us Steel Corp, Midwest Plant, Porter	11	4	3	Hexavalent dissolved chromium; Temp.; Chromium	Burns Ditch to Lake Michigan	Yes
IN0002887	Ipalco - Petersburg Gen Station, Pike	10	8	4	Selenium; Boron; Total suspended solids; Iron; Copper	West Fork White River & Lick Creek	No
IN0030651	South Haven Sewer Works Inc WWTP, Porter	9	2	0	Ammonia nitrogen; Mercury; E. coli	Lt Calumet River Via Salt Creek	No
IN0050296	Hoosier Energy - Merom Generating Station, Sullivan	9	1	0	pH; Temp.; Iron	Wabash River Via Turtle Creek Reservoir	No
IN0000205	Arcelormittal Indiana Harbor LLC - Indiana Harbor West, Lake	8	0	0	Mercury; Oil & grease; Zinc; Ammonia nitrogen	Indiana Harbor Canal	No

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		EXCEEDANCES					
Facility ID	**Facility name, county**	**Total**	**>100% permit limit**	**>500% permit limit**	**Types of exceedances**	**Receiving Waterbody**	**Receiving Water Impaired?**
IN0043273	Carriage Estates WWTP, Tippecanoe	8	3	2	Chlorine; pH	Indian Creek	No
IN0052191	Vectren Corp - Sigeco A. B. Brown Gen. Station, Posey	8	3	2	Total suspended solids; Biochemical oxygen demand (5-day, 20 deg. C); pH; Total residual oxidants	Ohio River	Yes
IOWA							
IA0003620	Archer Daniels Midland Corn Processing, Clinton	51	15	15	pH; Temp.; Toxicity (C. dubia); Toxicity (P. promelas)	Beaver Slough	No
IA0052166	Iowa Fertilizer Company, Lee	43	18	3	Iron; Sulfate; Biochemical oxygen demand (5-day); Ammonia nitrogen; TRC	Spillman Creek - Mississippi River Subwatershed	No
IA0003441	Grain Processing Corporation, Muscatine	23	3	2	pH; Temp.; Biochemical oxygen demand (5-day)	Mississippi River	No
IA0063762	Cargill, Inc., Mahaska	15	0	0	Flow	Bluff Creek, Brown Creek-Des Moines River	No
IA0002089	Tyson Fresh Meats, Inc. - Perry, Dallas	10	3	0	Ammonia nitrogen; TRC; Colif	North Raccoon River	No
IA0003727	Nextera Energy Duane Arnold, LLC, Linn	10	1	0	Oil & grease; Total suspended solids; TRC	Nelson Creek - Cedar River Subwatershed	No
IA0060569	JBS Pork, Wapello	10	6	4	E. coli; Total suspended solids; Biochemical oxygen demand (5-day); Ammonia nitrogen	Des Moines River	No
IA0003361	Tyson Fresh Meats, Inc. - Columbus Junction, Louisa	7	3	2	Total suspended solids; TRC; Ammonia nitrogen	Cedar River	No
IA0000205	Monsanto Company, Muscatine	5	1	0	Biochemical oxygen demand (5-day); Total suspended solids; Alachlo	Mississippi River	No
IA0000191	Equistar Chemicals, Lp, Clinton	4	0	0	Biochemical oxygen demand (5-day); Acphen	Mississippi River	No
IA0004413	Gelita USA, Inc., Woodbury	4	0	0	Ammonia nitrogen; Biochemical oxygen demand (5-day)	Missouri River	No
KANSAS							
KS0003204	Futamura USA, Inc. Melissa Weide, Shawnee	6	3	0	Biochemical oxygen demand (5-day, 20 deg. C); Total suspended solids	Kansas River	No
KS0042722	Topeka Oakland Wastewater Plant Sylvan Coles, Shawnee	4	3	2	E. coli; pH	Kansas River	No
KS0000248	Coffeyville Resources Refining Environmental Manager, Montgomery	3	0	0	Total suspended solids	Verdigris River	No

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		EXCEEDANCES					
Facility ID	**Facility name, county**	**Total**	**>100% permit limit**	**>500% permit limit**	**Types of exceedances**	**Receiving Waterbody**	**Receiving Water Impaired?**
KS0094561	Augusta Wastewater Plant Environmental Manager, Butler	2	1	0	Total suspended solids	Walnut River	No
KS0100269	MGP Ingredients, Inc. Phil Rindom, Atchison	2	1	0	Biochemical oxygen demand (5-day, 20 deg. C)	Missouri River Via White Clay Creek	No
KS0095681	Wichita #3 Wastewater Plant Jamie G. Belden, Sedgwick	1	0	0	Ammonia nitrogen	Cowskin Creek	No
KENTUCKY							
KY0001431	PMC Organometallix Inc, Carroll	40	29	14	Biochemical oxygen demand (5-day, 20 deg. C); Chem. oxygen demand; Total suspended solids; Toxicity; Oil & grease	Ohio River	No
KY0003701	ISP Chemicals Inc, Marshall	10	1	0	Total suspended solids; Temp.; Biochemical oxygen demand (5-day, 20 deg. C); Toxicity	Tennessee River	No
KY0000329	Huntington Alloys Corp, Boyd	7	3	1	Nickel; Total suspended solids; Copper	Big Sandy River	Yes
KY0004278	Century Aluminum of Kentucky LLC - Sebree, Henderson	5	0	0	Total suspended solids; Iron; Oil & grease	Green River	No
KY0000388	Catlettsburg Refining LLC, Boyd	4	1	0	Total suspended solids; Chloride	Big Sandy River	Yes
KY0002666	Aleris Rolled Products Inc, Hancock	4	1	0	Chlorine; Aluminum; Total suspended solids	Thrasher Creek	No
KY0004049	Fluor Federal Services Inc - Paducah Gaseous Diffusion Plant, McCracken	4	3	2	Toxicity	Big & Little Bayou Creeks	Yes
KY0095192	Kimberly-Clark Corp, Daviess	4	4	1	Total suspended solids; E. coli	Ohio River; Green River	No
KY0072630	Logan Aluminum Inc, Logan	2	0	0	Toxicity; E. coli	Austin Creek	Yes
KY0092118	Precoat Metals, Hancock	2	0	0	Toxicity	Ohio River	Yes
KY0102083	Fluor Federal Services Inc - Paducah Gaseous Diffusion Plant, Ballard	2	1	1	Toxicity; Carbonaceous biochemical oxygen demand (5-day, 20 deg. C)	Big & Little Bayou Creeks	Yes
LOUISIANA							
LA0007684	Westrock Cp, LLC - Hodge Louisiana Mill, Jackson Parish	64	2	0	Whole effluent toxicity (C. dubia); Whole effluent toxicity (P. promelas)	Little Dugdemona River	No
LA0000418	CF Industries Nitrogen. LLC - Donaldsonville Nitrogen Complex, Ascension Parish	26	0	0	Organic nitrogen; pH	Mississippi River	No

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		EXCEEDANCES					
Facility ID	**Facility name, county**	**Total**	**>100% permit limit**	**>500% permit limit**	**Types of exceedances**	**Receiving Waterbody**	**Receiving Water Impaired?**
LA0032417	Calumet Shreveport Lubricants and Waxes, LLC-Shreveport Refinery, Caddo Parish	25	4	0	Total suspended solids; Ammonia nitrogen; Whole effluent toxicity (P. promelas); pH (monthly accum); Oil & grease; pH, > 60 minutes	Brush Bayou	No
LA0054178	Pilgrim's Pride Corporation-Natchitoches Processing Plant, Natchitoches Parish	24	15	3	Total suspended solids; Ammonia and unionized ammonia; Biochemical oxygen demand (5-day, 20 deg. C); Whole effluent toxicity (C. dubia)	Old River	No
LA0002844	House of Raeford Farms of LA., Bienville Parish	23	9	3	Whole effluent toxicity; Total dissolved solids; Whole effluent toxicity (C. dubia); Fecal coliform; Ammonia nitrogen; Whole effluent toxicity (P. promelas)	Red River	No
LA0068730	H2O Systems, Inc.-Greenleaves Treatment Facility, St. Tammany Parish	20	5	2	Copper; Cyanide; Chlorine; Fecal coliform; Dissolved oxygen; Ammonia nitrogen; Mercury; Zinc; Total suspended solids	Bayou Chinchuba	No
LA0005606	Almatis Burnside LLC, Ascension Parish	19	3	0	pH (monthly accum); pH, > 60 minutes; Whole effluent toxicity (C. dubia); Whole effluent toxicity	Mississippi River	No
LA0007501	Arclin U.S.A., LLC.- Dodson Facility, Winn Parish	18	2	0	Whole effluent toxicity	Port De Luce Creek; Brushy Creek	No
LA0003026	Phillips 66 Company - Lake Charles Refinery, Calcasieu Parish	16	6	1	Total suspended solids; pH; Sulfide	Calcasieu River & Bayou Verdine	Yes
LA0069612	Williams Olefins, LLC, Ascension Parish	16	2	0	Biochemical oxygen demand (5-day, 20 deg. C); Total suspended solids; Oil & grease; pH	Mississippi River; Bayou Manchac	No
MAINE							
ME0002160	Bucksport Mill LLC, Hancock	10	1	0	pH; Total suspended solids; Zinc	Penobscot River	No
ME0002321	S D Warren Company - Westbrook, Cumberland	5	0	0	Thermal Discharge; Total suspended solids	Presumpscot River	No
ME0002054	Catalyst Paper Operations Inc, Oxford	3	0	0	Biochemical oxygen demand (5-day, 20 deg. C); pH	Androscoggin River	No
ME0001872	Woodland Pulp LLC, Washington	2	1	0	Zinc; Copper	St Croix River	No
ME0000167	GNP-West, Inc, Penobscot	1	0	0	pH	Millinocket Stream	No
ME0002020	MFGR LLC, Penobscot	1	0	0	Biochemical oxygen demand (5-day, 20 deg. C)	Penobscot River	No

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		EXCEEDANCES					
Facility ID	**Facility name, county**	**Total**	**>100% permit limit**	**>500% permit limit**	**Types of exceedances**	**Receiving Waterbody**	**Receiving Water Impaired?**
MARYLAND							
MD0070629	Casselman Mine, Garrett	14	9	0	Flow	Casselman River	Yes
MD0000345	Eastman Specialties Corporation, Kent	11	3	0	Biochemical oxygen demand (5-day, 20 deg. C)	Morgan Creek	No
MD0000060	Perdue Farms, Inc., Wicomico	9	6	5	Total dissolved solids; Fecal coliform	Peggy Branch	Yes
MD0021229	Aberdeen Proving Ground Edgewood Area, Edgewood, Harford	8	0	0	Biochemical oxygen demand (5-day, 20 deg. C)	Bush River	No
MD0023957	Maryland Correctional Institution, Washington	4	4	4	Chlorine	Upper Potomac River	Yes
MD0002640	Genon - Dickerson Generating, Montgomery	3	1	0	pH; Nitrogen	Potomac River	Yes
MD0001775	Erachem Comilog, Inc, Baltimore city	2	2	0	Manganese	Patapsco River	No
MD0020877	Fort Detrick WWTP, Frederick	2	1	0	Kjeldahl nitrogen	Upper Monocacy River	No
MD0002399	Calvert Cliffs Nuclear Power Plant, LLC, Calvert	1	0	0	Biochemical oxygen demand (5-day, 20 deg. C)	West Chesapeake Bay	Yes
MD0002658	NRG Chalk Point Generating Station, Prince George's	1	1	1	Nitrogen	Patuxent River	Yes
MD0002674	Genon- Mid-Atlantic LLC (Morgantown Station), Charles	1	0	0	Nitrogen	Potomac River	No
MD0003158	Naval Support Facility, Indian Head, Charles	1	0	0	pH	Potomac River; Mattawoman Creek	Yes
MD0020885	Naval Support Facility, Charles	1	0	0	E. coli	Lower Potomac River	Yes
MD0021237	Aberdeen Proving Ground, Aberdeen Area WWTP, Harford	1	0	0	Ammonia nitrogen	Spesutie Narrows	Yes
MD0021687	Upper Potomac River Comm STP, Allegany	1	1	1	Nitrogen	North Branch Potomac River	Yes
MASSACHUSETTS							
MA0101567	Warren W W T F, Worcester	27	5	0	pH; Copper	Quaboag River	No
MA0001791	Texas Instruments, Inc., Bristol	13	7	1	Trichloroethene; Trichloroethylene; pH	Coopers Pond	Yes
MA0004341	Wyman-Gordon Company, Worcester	13	0	0	pH	Quinsigamond and Flint Pond	No
MA0002241	Taunton Municipal Lighting, Bristol	11	0	0	pH; Temp.; Flow	Taunton River	Yes

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		EXCEEDANCES					
Facility ID	**Facility name, county**	**Total**	**>100% permit limit**	**>500% permit limit**	**Types of exceedances**	**Receiving Waterbody**	**Receiving Water Impaired?**
MA0030244	Emerald Square Mall, Bristol	7	1	0	Oil & Grease; pH; Zinc	Wetland to Seven Mile River	No
MA0004006	Sunoco Logistics East Boston Terminal, Suffolk	6	0	0	pH	Chelsea River	Yes
MA0004936	Patriot Beverages LLC, Middlesex	5	1	0	Biochemical oxygen demand (5-day, 20 deg. C); Total suspended solids	Reedy Meadow Brook	Yes
MA0101192	Boston Water and Sewer Comm, CSO, Suffolk	5	0	0	pH	Boston Harbor	Yes
MA0000671	Crane & Co Inc WWTP, Berkshire	4	0	0	Total suspended solids; Aluminum; Biochemical oxygen demand (5-day, 20 deg. C)	Housatonic River, East Branch	Yes
MA0004561	Hollingsworth & Vose, Middlesex	4	3	0	Zinc; pH	Squannacook River	Yes
MA0004928	NRG Canal, LLC, Barnstable	4	0	0	Temp.	Cape Cod Canal	No
MA0005011	Southworth Co. Turners Fall, Franklin	4	1	0	Biochemical oxygen demand (5-day, 20 deg. C)	Connecticut River	Yes
MA0031551	Clean Harbors of Braintree Inc, Norfolk	4	0	0	Total suspended solids; pH; Lead	Weymouth Fore River	No
MICHIGAN							
MI0044491	Great Lakes Aggregate-Sylvania, Monroe	52	39	15	Hydrogen peroxide; Hydrogen sulfide; pH	Huron River & Laudenschlager Drain	No
MI0003166	Up Paper LLC, Schoolcraft	23	8	2	Biochemical oxygen demand (5-day, 20 deg. C); Total suspended solids; Chlorine	Manistique River	No
MI0001953	Deco-Sibley Quarry, Wayne	17	8	1	Hydrogen sulfide	Huntington Creek - Frontal Lake Erie Subwatershed	No
MI0000728	Grand Haven Bl&P-J B Sims, Ottawa	13	1	0	Oil & Grease; Mercury; Total suspended solids	Grand River	No
MI0004821	Stoneco Inc-Maybee, Monroe	10	0	0	Strontium	Ross Drain	No
MI0001091	Mich Sugar Co-Bay City, Bay	9	0	0	Phosphorus; Fecal coliform; pH; Temp.	Saginaw River	No
MI0002542	Mich Sugar Co-Croswell, Sanilac	9	2	0	Chronic toxicity (48-Hr P. promelas); Acute toxicity (C. dubia); Toxicity, choice of species; Phosphorus	Black River	No
MI0004464	Lansing BWL-Eckert Station, Ingham	8	0	0	Oil & Grease; Total suspended solids	Grand River	No
MI0026786	Us Steel-Gl-Zug Island, Wayne	8	2	0	Ammonia nitrogen; Phenols; Zinc; Total residual oxidants	Detroit River	No

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		EXCEEDANCES					
Facility ID	**Facility name, county**	**Total**	**>100% permit limit**	**>500% permit limit**	**Types of exceedances**	**Receiving Waterbody**	**Receiving Water Impaired?**
MI0001988	Lafarge-Alpena, Alpena	5	0	0	Mercury	Grass Creek - Frontal Lake Huron Subwatershed	No
MI0003093	French Paper Co, Berrien	5	0	0	Copper	Saint Joseph River	No
MI0037451	Hillshire Brands-Zeeland, Ottawa	5	4	1	Fecal coliform; Total suspended solids	Headwaters Pigeon River Subwatershed	No
MINNESOTA							
MN0002208	Minnesota Power - Taconite Harbor Energy Center, Cook	6	2	0	Total suspended solids	Lake Superior	No
MN0001643	Boise White Paper LLC - Intl Falls, Koochiching	5	2	0	pH; Biochemical oxygen demand (5-day, 20 deg. C)	Rainy River	No
MN0001945	American Crystal Sugar - Moorhead, Clay	4	0	0	Biochemical oxygen demand (5-day, 20 deg. C); Total suspended solids	Red River of the North	Yes
MN0000256	Saint Paul Park Refining Co LLC, Washington	3	1	0	Mercury; Total suspended solids	Mississippi River	No
MN0040665	Southern Minnesota Beet Sugar Coop, Renville	3	0	0	Total suspended solids; Temp.	West Fork Beaver Creek	No
MN0055301	Northshore Mining - Silver Bay, Lake	3	0	0	Amphibole asbestos	Beaver River	No
MN0000990	Minnesota Power - Laskin Energy Center, St. Louis	2	1	0	Mercury	Colby Lake and Partridge River	No
MN0001449	3M - Cottage Grove, Washington	2	2	1	Mercury; Chlorine	Mississippi River	No
MN0001929	American Crystal Sugar - Crookston, Polk	2	1	1	Total suspended solids; Coliform (fecal MPN + membrane ftl 44.5 C)	Red Lake River	No
MN0046981	Northshore Mining Co - Babbitt, St. Louis	2	0	0	Chlorine	Partridge River	No
MISSISSIPPI							
MS0003115	Mississippi Phosphates Corporation, Jackson	27	10	0	Phosphorus; pH; pH (monthly accum); Total suspended solids	Bayou Casotte	Yes
MS0001261	Entergy Miss. Inc, Gerald Andrus Plant, Washington	3	0	0	Total suspended solids	Mississippi River	No
MS0002941	Georgia Pacific Monticello LLC, Lawrence	3	0	0	Fecal coliform	Pearl River	No
MS0002950	Omega Protein, Inc, Jackson	3	0	0	pH	Escatawpa River	No
MS0002925	Mississippi Power Co, Plant Jack Watson, Harrison	2	0	0	Total suspended solids; pH	Big Lake & Fritz Creek	No
MS0059838	MSARNG, Camp Shelby Joint Forces Training Center, Forrest	2	0	0	Flow	Leaf River	No

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		EXCEEDANCES					
Facility ID	**Facility name, county**	**Total**	**>100% permit limit**	**>500% permit limit**	**Types of exceedances**	**Receiving Waterbody**	**Receiving Water Impaired?**
MS0000574	CF Industries Nitrogen LLC, Yazoo	1	1	1	Fecal coliform	Yazoo River	No
MS0000833	Baxter Healthcare Corporation, Bolivar	1	0	0	Copper	Unnamed Tributary to Lead Bayou	No
MS0000931	Gerdau Macsteel Inc, Union	1	0	0	Dissolved oxygen	Jasper Creek	Yes
MS0001481	Chevron Products Company, Jackson	1	0	0	Total suspended solids	Mississippi Sound	No
MS0021521	Escatawpa WWTP, Jackson	1	0	0	Ammonia nitrogen	Escatawpa River	No
MS0036412	International Paper, Columbus Mill, Lowndes	1	0	0	Total suspended solids	Tennessee-Tombigbee Waterway	No
MS0061271	Johnson Creek WWTF, DeSoto	1	0	0	Flow	Johnson Creek	No
MISSOURI							
MO0036773	Simmons Foods, Inc., McDonald	43	1	0	Carbonaceous biochemical oxygen demand (5-day, ammonia nitrogen); Ammonia + unionized ammonia	Cave Springs Branch	No
MO0100218	Doe Run Co, West Fork, Reynolds	42	22	4	Copper; Zinc; Lead; Cadmium; Chronic toxicity (C. dubia); Total suspended solids	West Fork Black River	No
MO0000086	Doe Run/Viburnum Operations, Crawford	39	17	5	Lead; Cadmium; Zinc; Copper; Total suspended solids; pH; Chronic toxicity (C. dubia)	Indian Creek	No
MO0098752	Anschutz - Madison Mine, Madison	39	27	13	Nickel; Acute toxicity (48-Hr C. dubia); Copper; Cobalt	Saline Cr.	No
MO0000337	Buick Resource Recycling Facility, Dent	26	11	10	Lead; Cadmium; Total suspended solids; Acute toxicity (48-Hr P. promelas); pH; Acute toxicity (48-Hr C. dubia); Copper; Arsenic; Ammonia nitrogen; Zinc; Antimony	Crooked Creek	No
MO0001856	Doe Run, Fletcher Mine/Mill, Reynolds	24	8	1	Lead; Zinc; Copper; Cadmium	Bee Fork	Yes
MO0001881	Doe Run Co. Sweetwater, Reynolds	21	8	2	Lead; Chronic toxicity (C. dubia); Cadmium; Total suspended solids; Zinc	Adair Creek	No
MO0100226	Doe Run, Viburnum Mine #35 Casteel, Iron	21	7	1	Cadmium; Lead; Zinc; Total suspended solids; Chronic toxicity (C. dubia)	Crooked Creek	No
MO0001180	SRG Global Inc. - Portageville, New Madrid	12	2	0	Total suspended solids; Cadmium; Chemical oxygen demand; pH	Portage Open Bay	No
MO0001121	Doe Run, Glover Facility, Iron	11	3	0	Thallium; E. coli; Cadmium; pH; Zinc	Big Creek	No
MO0002348	Eagle-Picher Technologies, LLC, Jasper	11	3	0	Cadmium; Zinc; Copper	Turkey Creek	No

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		EXCEEDANCES					
Facility ID	**Facility name, county**	**Total**	**>100% permit limit**	**>500% permit limit**	**Types of exceedances**	**Receiving Waterbody**	**Receiving Water Impaired?**
MONTANA							
MT0000281	Western Sugar Cooperative, Yellowstone	56	37	21	Biochemical oxygen demand (5-day, 20 deg. C); Specific conductance; Ammonia nitrogen; E. coli (MTEC-MF); Fecal coliform	Yellowstone River	No
MT0023965	Western Energy Co - Rosebud Mine, Rosebud	3	3	3	Iron; Settleable solids	Several Streams and Creeks	Yes
MT0000477	Exxonmobil Refining & Supply, Yellowstone	2	0	0	Biochemical oxygen demand (5-day, 20 deg. C); Sulfide	Yellowstone River	Yes
MT0000302	MDU - Lewis & Clark Plant, Richland	1	0	0	pH	Yellowstone River	Yes
NEBRASKA							
NE0111686	Western Sugar Cooperative, Scotts Bluff	67	49	25	Biochemical oxygen demand (5-day, 20 deg. C); Fecal coliform; Total suspended solids; Temp.; pH	North Platte River	No
NE0000795	Cargill Meats Solutions Corp., Colfax	19	0	0	Acute toxicity (C. dubia); Chloride; Nitrogen; Ammonia nitrogen	Shonka Ditch	No
NE0032191	Farmland Foods Inc, Saline	8	3	0	Acute toxicity (C. dubia); pH; Ammonia nitrogen; Chlorine; Biochemical oxygen demand (5-day, 20 deg. C); Total suspended solids	Big Blue River	No
NE0001392	Tyson Fresh Meats, Inc, Dakota	7	3	2	Fecal coliform; Chlorine; Ammonia nitrogen	Missouri River	No
NE0000647	Behlen Manufacturing Company, Platte	5	4	4	Copper; Zinc	Headwaters Lost Creek Subwatershed	No
NE0111287	Nucor Steel - Norfolk, Madison	4	0	0	Zinc	Spring Creek	No
NE0123501	Tyson Fresh Meats - Lexington, Dawson	4	1	0	Chloride; Fecal coliform	Platte River	No
NE0130141	Archer Daniels Midland Corn Division, Platte	4	0	0	Acute toxicity (C. dubia); Temp.	Loup River	No
NE0000060	Koch Fertilizer Beatrice, LLC, Gage	2	0	0	pH	Big Blue River	No
NE0000116	Nestle Purina Petcare Company, Saline	1	1	1	E. coli (MTEC-MF)	Big Blue River	No
NEVADA							
NV0000060	Titanium Metals Corporation, Clark	44	1	0	pH; Ammonia nitrogen; Copper; Phosphorus	City of Henderson - Las Vegas Wash Subwatershed	No

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		EXCEEDANCES					
Facility ID	**Facility name, county**	**Total**	**>100% permit limit**	**>500% permit limit**	**Types of exceedances**	**Receiving Waterbody**	**Receiving Water Impaired?**
NEW HAMPSHIRE							
NH0090000	Pease Wastewater Treatment Facility, Rockingham	19	3	1	pH; Surfactants (MBAS); Fecal coliform; Chlorine; Total suspended solids; Biochemical oxygen demand (5-day, 20 deg. C)	Great Bay	Yes
NH0100013	Berlin Pollution Control Facility, Coos	11	4	0	E. coli (thermotol, MF, MTEC); pH; Biochemical oxygen demand (5-day, % removal)	Androscoggin River	No
NH0022055	Envirosystems Incorporated, Rockingham	8	1	0	pH; Total suspended solids; Flow	Taylor River	No
NH0023361	Newington Power Facility, Rockingham	3	0	0	Total suspended solids; Priority pollutants	Piscataqua River	No
NH0000230	Monadnock Paper Mills, Inc., Hillsborough	1	0	0	pH	Contoocook River	Yes
NH0001023	PCC Structurals Inc, Merrimack	1	0	0	Temp.	Winnipesaukee River	No
NH0020338	Nextera Energy Seabrook LLC, Rockingham	1	0	0	Total residual oxidants	Atlantic Ocean & Browns River	No
NEW MEXICO							
NM0020168	Aztec, City of - WWTP, San Juan	30	10	1	Phosphorus; Nitrogen; Total suspended solids; Solids, suspended percent removal	Animas River	Yes
NM0020672	Gallup, City of, McKinley	12	3	3	Chlorine; E. coli; Whole effluent toxicity; Copper	Puerco River	No
NM0028355	University of California, Los Alamos	3	2	0	Polychlorinated biphenyls (PCBs); pH	Sandia Canyon, Rio Grande Basin	Yes
NM0022306	Chevron Mining Inc., Taos	2	1	0	Total suspended solids	Red River; Rio Grande Basin	No
NM0020141	Los Alamos Pud-Bayo WWTP, Los Alamos	1	1	0	Chlorine	Los Alamos Canyon Subwatershed	Yes
NEW YORK							
NY0005037	Lafarge Ravena Plant, Albany	136	75	25	Settleable solids; Aluminum; Total suspended solids; pH; Temp. diff. between up/down stream deg. F; Chlorine; Dissolved oxygen	Coeyman's Creek	No
NY0003042	Apc Paper of NY, St. Lawrence	53	18	1	Chronic toxicity (C. dubia); Biochemical oxygen demand (5-day, 20 deg. C); Oil & Grease; Chronic toxicity (P. promelas); Settleable solids	Raquette River	No

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		EXCEEDANCES					
Facility ID	**Facility name, county**	**Total**	**>100% permit limit**	**>500% permit limit**	**Types of exceedances**	**Receiving Waterbody**	**Receiving Water Impaired?**
NY0000957	Knowlton Technologies, LLC, Jefferson	15	2	0	pH; Total suspended solids; Biochemical oxygen demand (5-day, 20 deg. C)	Black River	Yes
NY0006912	Mohawk Fine Papers, Inc, Saratoga	12	1	0	Biochemical oxygen demand (5-day, 20 deg. C); Total suspended solids; pH	Mohawk River	No
NY0008231	Roseton Generating Station, Orange	12	1	0	Vanadium; Temp.; Oil & grease; Iron; Temp. diff. between samp. & upstrm deg. F; Waste heat rejection rate; pH	Hudson River	No
NY0200867	Fresh Kills Landfill LTP, Richmond	12	3	0	Total suspended solids; pH; Zinc; Oil & grease; Sulfide	Arthur Kill	Yes
NY0000400	Life Technologies Corp, Erie	11	2	0	Carbonaceous biochemical oxygen demand (5-day, 20 deg. C); Surfactants (MBAS); Copper; Sulfite; Di[2-ethylhexyl] phthalate (DEHP)	Unnamed Tributary to Big Six Mile Creek	Yes
NY0001201	Islechem Business Center, Erie	11	4	1	Biochemical oxygen demand (5-day, 20 deg. C); Total suspended solids; Fecal coliform	Niagara River East Branch	No
NY0001643	Red-Rochester LLC @ Eastman Business Park, Monroe	11	7	6	Settleable solids; Octachlorodibenzo-p-dioxin; Lead	Genesee River	No
NY0001732	Massena Operations, St. Lawrence	11	0	0	Chloroform; Settleable solids; Benzo[a]pyrene; PCB-1242; Fluoride; Aluminum; Fecal coliform	Grasse River	No
NORTH CAROLINA							
NC0004961	Riverbend Steam Station, Gaston	18	2	0	Hardness; Arsenic	Catawba River	No
NC0001881	Phillips Plating Company, Craven	9	3	0	Nickel; Chromium	Mills Branch	Yes
NC0003816	Cherry Point WWTP, Craven	8	3	1	Biochemical oxygen demand (5-day, 20 deg. C); Enterococci; Ammonia nitrogen; Chlorine; Total suspended solids	Mill Creek	No
NC0000272	Canton Mill, Haywood	6	3	1	Fecal coliform; Total suspended solids; Biochemical oxygen demand (5-day, 20 deg. C)	Pigeon River; Bowen Branch	Yes
NC0007064	Brunswick Steam Electric Plant, Brunswick	6	0	0	Flow	Frying Pan Shoals - Cape Fear River Subwatershed	No
NC0078344	Tarheel Plant, Bladen	6	1	1	Dissolved oxygen; Biochemical oxygen demand (5-day, 20 deg. C)	Lake Wheeler - Swift Creek Subwatershed	No
NC0003468	Dan River Combined Cycle, Rockingham	5	4	2	Iron; Fecal coliform	Dan River	Yes
NC0004812	Pharr Yarns Industrial WWTP, Gaston	5	1	0	pH; Biochemical oxygen demand (5-day, 20 deg. C); Fecal coliform	South Fork Catawba River	Yes

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		EXCEEDANCES					
Facility ID	**Facility name, county**	**Total**	**>100% permit limit**	**>500% permit limit**	**Types of exceedances**	**Receiving Waterbody**	**Receiving Water Impaired?**
NC0006564	Baxter Healthcare Corporation, McDowell	5	4	3	Biochemical oxygen demand (5-day, 20 deg. C); Chem. Oxygen Demand; Fecal coliform	North Fork Catawba River	No
NC0001422	Sutton Steam Electric Plant, New Hanover	3	1	1	Oil & grease; Flow	Indian Creek - Cape Fear River Watershed	No
NC0003191	New Bern Cellulose Fibers, Craven	3	0	0	Dissolved oxygen	Neuse River	No
NC0003719	Cedar Creek Site, Cumberland	3	2	0	Total suspended solids; Biochemical oxygen demand (5-day, 20 deg. C)	Cape Fear River	No
NC0043320	Richmond Plant, Richmond	3	2	0	pH; Fecal coliform; Dissolved oxygen	Hitchcock Creek	No
NORTH DAKOTA							
ND0000248	Andeavor Refining Mandan, Morton	9	3	0	Total suspended solids; Biochemical oxygen demand (5-day, 20 deg. C); Sulfide; pH; Phenolic compounds, unchlorinated	Painted Woods-Square Butte	No
ND0000094	American Crystal Sugar Drayton, Pembina	5	4	3	Fecal coliform; Total suspended solids	Middle Red River	Yes
ND0024279	American Crystal Sugar Hillsboro, Traill	3	0	0	Total suspended solids	Goose	No
ND0024368	Minn Dak Farmers Cooperative, Richland	3	0	0	Chronic toxicity (7-day C. dubia); Chronic toxicity (7-day static renewal P. promelas)	Bois De Sioux	Yes
ND0026000	Cargill Corn Milling (Progold), Richland	2	0	0	Biochemical oxygen demand (5-day, 20 deg. C)	Upper Red	Yes
ND0000370	Minnkota Power Cooperative, Oliver	1	0	0	Total suspended solids	Square Butte Creek	No
OHIO							
OH0098540	Reserve Environmental Services, Ashtabula	157	68	23	Fecal coliform; Zinc; Total suspended solids; Nickel; Tot filterable residue (dried at 105 C); Mercury; Tin; Ammonia nitrogen; Cobalt; Barium; Carbonaceous biochemical oxygen demand (5-day, 20 deg. C); Vanadium; Chronic toxicity (C. dubia); pH	Lake Erie	No
OH0001562	Republic Steel - Lorain Plant, Lorain	38	25	14	Chlorine; Mercury; Oil & grease; pH; Thermal discharge	Black River	No
OH0003298	Campbell Soup Supply Co LLC, Henry	31	8	3	Ammonia nitrogen; Carbonaceous biochemical oxygen demand (5-day, 20 deg. C); Phosphorus; E. coli (MTEC-MF); Total suspended solids; pH; Dissolved oxygen	Maumee River	No

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		EXCEEDANCES					
Facility ID	**Facility name, county**	**Total**	**>100% permit limit**	**>500% permit limit**	**Types of exceedances**	**Receiving Waterbody**	**Receiving Water Impaired?**
OH0004316	Dayton Power & Light Co JM Stuart Station, Brown	26	10	2	Chlorine; Mercury; Total residual oxidants; Total suspended solids; Ammonia nitrogen; pH; Zinc	Little Threemile Creek	No
OH0029149	Gabriel Performance Products LLC, Ashtabula	23	10	2	Biochemical oxygen demand (5-day, 20 deg. C); Total suspended solids; Carbon tetrachloride; pH; Zinc; Mercury; Fecal coliform	Fields Brook	No
OH0006092	Fluor - B&W Portsmouth LLC, Pike	19	4	0	Temp.; pH; E. coli (MTEC-MF); Mercury; Chlorine; Copper; Carbonaceous biochemical oxygen demand (5-day, 20 deg. C)	Little Beaver Creek and Scioto River	No
OH0122271	Worthington Steel Co, Fulton	18	3	0	Acute toxicity (C. dubia); Dissolved oxygen; Chlorine; Copper; Acute toxicity (P. promelas)	Maumee River	No
OH0005487	Case Farms of Ohio - Winesburg Rendering Plant, Holmes	17	2	0	Chlorine; E. coli (MTEC-MF); Total suspended solids; Ammonia nitrogen; pH; Fecal coliform	Indian Trail Creek	No
OH0007391	Altivia Petrochemicals LLC, Scioto	16	5	4	Copper; Oil & grease; E. coli (MTEC-MF); Phenol; Biochemical oxygen demand (5-day, 20 deg. C)	Ohio River	Yes
OH0011550	Hannibal Development Partners, Monroe	16	4	0	Cyanide (free-water plus wastewaters); Total suspended solids; pH; Copper; Fecal coliform	Ohio River	Yes
OKLAHOMA							
OK0035149	Grand River Dam Auth-Chouteau, Mayes	18	2	0	Iron; Total suspended solids; pH; Total residual oxidants	Neosho River	Yes
OK0040827	Kimberly-Clark Corp-Jenks Fac, Tulsa	16	4	0	Total suspended solids; Whole effluent toxicity; pH	Posey Creek	Yes
OK0000809	Tinker AFB, Oklahoma	14	6	2	Cadmium; Copper; Zinc; pH; Total suspended solids; Chlorine; Chem. oxygen demand	Soldier Creek	Yes
OK0000825	Wynnewood Refining Company, Garvin	13	6	1	Biochemical oxygen demand (5-day, 20 deg. C); Lead; Chem. oxygen demand	Washita River	No
OK0000876	Hollyfrontier Tulsa Refining LLC (West), Tulsa	13	0	0	pH; Whole effluent toxicity	Arkansas River	Yes
OK0038849	Heavener UA-Industrial WTP, Le Flore	11	0	0	Oil & grease; Ammonia nitrogen; Carbonaceous biochemical oxygen demand (5-day, 20 deg. C); Total suspended solids	Morris Creek	No
OK0044504	CP Kelco US, Inc.-Okmulgee, Okmulgee	8	3	1	Flow; Carbonaceous biochemical oxygen demand (5-day, 20 deg. C); Whole effluent toxicity	Deep Fork of Canadian River	No
OK0000744	International Paper Co. - Valliant, McCurtain	7	5	0	E. coli	Clear Creek	No
OK0000442	Okla Gas & Elec -Horseshoe Lk, Oklahoma	6	0	0	Copper; Total suspended solids	North Canadian River & Horseshoe Lake	No

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		EXCEEDANCES					
Facility ID	**Facility name, county**	**Total**	**>100% permit limit**	**>500% permit limit**	**Types of exceedances**	**Receiving Waterbody**	**Receiving Water Impaired?**
OK0000256	Phillips 66 Company-Ponca City Refinery, Kay	5	1	1	Oil & grease; pH	Arkansas River	No
OK0001295	Valero Ardmore Refinery, Carter	5	2	1	Biochemical oxygen demand (5-day, 20 deg. C); Total suspended solids	Sand Creek	No
OK0036161	Terra International (Oklahoma) Inc-Woodward, Woodward	5	2	0	Carbonaceous biochemical oxygen demand (5-day, 20 deg. C); Dissolved oxygen	North Canadian River	No
OREGON							
OR0000141	Tillamook Creamery, Tillamook	9	3	0	Total suspended solids; Biochemical oxygen demand (5-day, 20 deg. C); E. coli	Wilson River	No
OR0000787	West Linn Paper Company, Clackamas	8	0	0	Turbidity; pH; pH	Willamette River	No
OR0001635	Dyno Nobel Inc., Columbia	2	0	0	Temp.	Columbia River	No
OR0000795	Georgia -Pacific - Wauna Mill, Clatsop	1	0	0	pH	Columbia River	No
OR0001708	The Dalles Cast, Wasco	1	0	0	Aluminum	Columbia River	No
OR0002402	Kraft Heinz Foods Company, Malheur	1	0	0	pH	Snake River	No
OR0020834	St. Helens STP/Boise Cascade, Columbia	1	1	0	E. coli	Columbia River	No
PENNSYLVANIA							
PA0054186	Sci Graterford STP, Montgomery	80	45	7	Ammonia nitrogen; Iron; Total suspended solids; Fecal coliform	Unnamed Tributary to Perkiomen Creek	No
PA0000507	Eastman Chemical Resins Inc, Allegheny	72	36	10	Zinc; Aluminum; Total nitrite + nitrate; Styrene; Xylene (mix of m+o+p)	Monongahela River	No
PA0002674	Amer Ref Group Bradford, McKean	36	16	0	Benzo[a]anthracene; pH; Biochemical oxygen demand (5-day, 20 deg. C); Oil & grease; Benzo[a] pyrene; Total suspended solids; Sulfide; Benzo[k]fluoranthene; Dibenz[a,h]anthracene; Fecal coliform	Tunungwant Creek	Yes
PA0012637	Trainer Refinery, Delaware	34	5	0	Carbonaceous biochemical oxygen demand (20-day, % removal); Total suspended solids; Phenolics; Temp.; Total dissolved solids; Biochemical oxygen demand (5-day, 20 deg. C); pH; Carbonaceous biochemical oxygen demand (20-day, 20 deg C); Organic carbon	Stoney Creek	No

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		EXCEEDANCES					
Facility ID	**Facility name, county**	**Total**	**>100% permit limit**	**>500% permit limit**	**Types of exceedances**	**Receiving Waterbody**	**Receiving Water Impaired?**
PA0027715	Max Env Tech Inc Yukon Fac, Westmoreland	23	1	0	Phenolics; Total suspended solids; Ammonia nitrogen; Carbonaceous biochemical oxygen demand (5-day, 20 deg. C)	Sewickley Creek	No
PA0002941	Hatfields Ferry Power Sta, Fayette	21	8	2	Total dissolved solids; Cadmium; Manganese	Monongahela River	No
PA0000566	Leetsdale Plt, Allegheny	20	8	0	pH; Copper	Big Sewickley Creek	No
PA0008869	P H Glatfelter, York	20	8	0	Temp. diff. between samp. & upstrm deg. F; Temp.; Biochemical oxygen demand (5-day, 20 deg. C); 2,3,7,8-Tetrachlorodibenzo-p-dioxin	Codorus Creek	Yes
PA0013463	US Steel Fairless Hills Facility, Bucks	20	5	1	Biochemical oxygen demand (5-day, % removal); Biochemical oxygen demand (5-day, 20 deg. C); Carbonaceous biochemical oxygen demand (20-day, 20 deg C); pH	Delaware River	Yes
PA0044326	Max Env Tech Inc, Washington	17	6	0	Aluminum; Oil & grease; Nickel; Total suspended solids	Racoon Creek, Little Racoon Run	Yes
RHODE ISLAND							
RI0000191	Kenyon Industries, Inc, Washington	12	5	1	Chromium; Aluminum; Phenols; pH	Pawcatuck River	Yes
SOUTH CAROLINA							
SC0003441	Sun Chemical Corp/Bushy Park, Berkeley	22	3	0	Total suspended solids; Ultimate oxygen demand; Biochemical oxygen demand (5-day, 20 deg. C); Dissolved oxygen	Cooper River	No
SC0003042	Sonoco Products/Hartsville, Darlington	16	0	0	Biochemical oxygen demand (5-day, 20 deg. C); Total suspended solids; Temp.	Black Creek	No
SC0001180	Si Group Inc/Orangeburg, Orangeburg	9	3	0	Biochemical oxygen demand (5-day, 20 deg. C); Fecal coliform	Edisto River	No
SC0000353	Sage Auto Interiors/ Abbeville, Abbeville	5	1	0	Chronic toxicity (7-day C. dubia); Copper	Blue Hill Creek	No
SC0000795	Pilgrims Pride Corp/Sumter Sc Proc Plt, Sumter	5	1	0	Chronic toxicity (7-day C. dubia); Total suspended solids; Fecal coliform	Pocotaligo River	No
SC0048950	Dupont/Cooper River Plant, Berkeley	5	1	0	Acute toxicity (48-Hr C. dubia); Biochemical oxygen demand (5-day, 20 deg. C); Total suspended solids	Cooper River	No
SC0000477	Milliken/Pendleton Plant, Anderson	4	0	0	Biochemical oxygen demand (5-day, 20 deg. C)	Eighteen Mile Creek; Lake Hartwell	No

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		EXCEEDANCES					
Facility ID	**Facility name, county**	**Total**	**>100% permit limit**	**>500% permit limit**	**Types of exceedances**	**Receiving Waterbody**	**Receiving Water Impaired?**
SC0028584	BP Amoco Chemicals Cooper Rive, Berkeley	4	0	0	Ultimate oxygen demand; Biochemical oxygen demand (5-day, 20 deg. C)	Cooper River	No
SC0038229	Celanese Ltd/Enoree Plant, Spartanburg	4	4	0	Biochemical oxygen demand (5-day, 20 deg. C)	Enoree River	No
SC0000868	International Paper/ Georgetown, Georgetown	3	0	0	Duration of discharge; Time	Sampit River to Winyah Bay	No
SC0001759	Kapstone Charleston Kraft LLC, Charleston	3	0	0	Ultimate oxygen demand	Cooper River	No
SC0003191	Milliken/Enterprise Plant, Greenville	3	0	0	E. coli	South Saluda River	No
SC0003883	Scgenco/A M Williams Station, Berkeley	3	0	0	Total suspended solids; pH	Cooper River	No
SC0036111	3V Inc, Georgetown	3	0	0	Total suspended solids; Biochemical oxygen demand (5-day, 20 deg. C)	Sampit River	No
SOUTH DAKOTA							
SD0000281	USAF - Ellsworth AFB, Meade	2	0	0	Floating solids, waste or visible foam-visual	Box Elder Creek; Elk Creek	No
TENNESSEE							
TN0068187	Lowland Industrial Complex, Inc. & Waste Industries of Morristown, Hamblen	38	18	4	Ammonia nitrogen; Chloroform; Phenol	Nolicyhucky River	No
TN0003671	Bae Systems Ordnance Systems Inc. Holston Army Ammunition Plant, Sullivan	27	5	1	Biochemical oxygen demand (5-day, 20 deg. C); RDX, total; Total suspended solids; Ammonia nitrogen	Holston River	Yes
TN0004227	Nyrstar Tennessee Mines - Gordonsville, LLC (Elmwood Mine), Smith	20	5	0	Total suspended solids; Zinc	Caney Fork	No
TN0002941	USDOE-ORNL, Roane	10	3	0	Carbonaceous biochemical oxygen demand (5-day, 20 deg. C); E. coli (MTEC-MF); Ammonia nitrogen	Tributary to Melton Branch	Yes
TN0067415	Cytec Industries Inc, Maury	4	1	0	Phosphorus	Big Bigby Creek	Yes
TN0002844	Kordsa Inc., Hamilton	3	0	0	Ammonia nitrogen; Total suspended solids	Tennessee River	Yes
TN0061468	Nyrstar Tennessee Mines- Strawberry Plains, Jefferson	3	0	0	Chronic toxicity (7-day C. dubia)	Hodges Lake	No
TN0001465	The Chemours Company Fc LLC - Johnsonville Plant / Occidental Chemical Corp., Humphreys	2	0	0	pH	Kentucky Lake	No

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		EXCEEDANCES					
Facility ID	**Facility name, county**	**Total**	**>100% permit limit**	**>500% permit limit**	**Types of exceedances**	**Receiving Waterbody**	**Receiving Water Impaired?**
TN0001732	Coy Mine, Jefferson	2	0	0	Total suspended solids	Mossy Creek	Yes
TN0002968	USDOE-Oak Ridge Y12 Plt, Anderson	2	2	2	Chlorine	Oxier Creek	Yes
TN0003751	Arnold Engineering Development Complex, Coffee	2	0	0	pH; Dissolved oxygen	Crumpton Creek Subwatershed	No
TEXAS							
TX0134694	Buckeye Texas Processing LLC, Nueces	66	42	5	Flow; Total suspended solids; pH; Biochemical oxygen demand (5-day, 20 deg. C); Oil & grease; Organic Carbon	Corpus Christi Inner Harbor	No
TX0005070	Huntsman Petrochemical LLC, Huntsman International Fuels LLC, Huntsman Propylene, Jefferson	57	16	2	Dissolved oxygen; pH; Carbonaceous biochemical oxygen demand (5-day, 20 deg. C); Ammonia nitrogen; Zinc; Total suspended solids; Copper; Organic carbon; Flow	Via Plant Conduits and Drainage Ditch	No
TX0132802	Donna, City of, Hidalgo	57	8	2	Carbonaceous biochemical oxygen demand (5-day, 20 deg. C); E. coli; Flow; Chlorine; Dissolved oxygen; Ammonia nitrogen	Llano Grande Lake - Arroyo Colorado Subwatershed	No
TX0119792	Equistar Chemicals, LP And Lyondellbasell Acetyls, LLC, Harris	41	7	0	Biochemical oxygen demand (5-day, 20 deg. C); Total suspended solids; E. coli; Ammonia nitrogen; Copper; Oil & grease; Aluminum; Chlorine; Flow	Unnamed Ditch, San Jacinto Bay	Yes
TX0102326	Enterprise Products Operating, Chambers	40	12	6	Total suspended solids; Organic carbon; pH, > 60 minutes; pH (monthly accum); Oil & grease; Flow; pH; Copper; Aluminum; Zinc; Chloroform	Unnamed Tributary of Cedar Bayou	No
TX0003891	Westrock Texas, LP, Jasper	32	28	22	E. coli; Total suspended solids; Enterococci; Flow	Neches River	No
TX0105481	Markwest Javelina Company LLC, Nueces	29	4	0	Copper; Zinc; Total suspended solids; Sulfide	Unnamed Drainage Ditch	No
TX0004669	Lucite International, Inc., Jefferson	27	8	1	Copper; Chem. oxygen demand; Zinc; Total suspended solids; pH; Biochemical oxygen demand (5-day, 20 deg. C); E. coli	Neches River Basin	No
TX0007421	Total Petrochemicals & Refining USA Inc, Harris	26	2	1	Flow; Enterococci; Total suspended solids; Biochemical oxygen demand (5-day, 20 deg. C); Temp.	Tucker Bayou	Yes
TX0004863	Shell Oil Company, Harris	24	4	1	Biochemical oxygen demand (5-day, 20 deg. C); Enterococci; Nickel; Oil & grease; Calcium	Patrick Bayou	Yes

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		EXCEEDANCES					
Facility ID	**Facility name, county**	**Total**	**>100% permit limit**	**>500% permit limit**	**Types of exceedances**	**Receiving Waterbody**	**Receiving Water Impaired?**
UTAH							
UT0020222	Moroni Feed, Sanpete	30	5	2	Ammonia nitrogen; Acute toxicity (48-Hr C. dubia); Biochemical oxygen demand (5-day, 20 deg. C); Acute toxicity (96-Hr P. promelas); Dissolved oxygen	San Pitch River and Rock Dam Irrigation Canal	No
UT0000175	Chevron USA, Inc., Salt Lake	5	1	0	Biochemical oxygen demand (5-day, 20 deg. C); Chem. oxygen demand	Oil Drain Canal to The Great Salt Lake	Yes
UT0000051	Kennecott Utah Copper, LLC, Salt Lake	3	3	3	Flow	Butterfield Creek	No
UT0000281	Swift Beef Company, Cache	3	0	0	Total dissolved solids; Fecal coliform; Total suspended solids	Hyrum Slough	No
UT0000361	Anderson Geneva Development, Utah	2	0	0	Total dissolved solids	Utah Lake	Yes
UT0023540	Canyon Fuel Co., LLC - Skyline, Carbon	1	0	0	Total suspended solids	Eccles Creek to Price River	No
VERMONT							
VT0000469	Rock-Tenn, Franklin	2	0	0	Turbidity	Missisquoi River	No
VIRGINIA							
VA0003077	Dupont Teijin Films, Chesterfield	10	2	1	Total suspended solids; Biochemical oxygen demand (5-day, 20 deg. C); Carbonaceous biochemical oxygen demand (5-day, 20 deg. C)	James River; Turkey Island Creek; Fourmile Creek	No
VA0000248	US Army - Radford Army Ammunition Plant, Montgomery	9	0	0	Total suspended solids; pH; Biochemical oxygen demand (5-day, 20 deg. C)	Stroubles Creek	No
VA0001589	Res Dba Steel Dynamics Roanoke Bar Division, Roanoke	5	2	0	Total suspended solids; Length of longest pH excursion	Roanoke River; Mason Creek	No
VA0003433	Solenis LLC, Southampton	4	1	0	Temp.; Biochemical oxygen demand (5-day, 20 deg. C); Toxicity	Lower Nottoway River; Mill Creek	No
VA0004804	Huntington Ingalls Incorporated - NN Shipbldg Div, Newport News	4	0	0	pH; Total suspended solids; Temp.; Chlorine	James River; Pagan River; Warwick River; Chuckatuck Creek	No
VA0005291	Advansix Resins & Chemicals LLC, Chesterfield	4	0	0	pH; Organic carbon	James River; Powell Creek; West Run; Bailey Creek	No

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		EXCEEDANCES					
Facility ID	**Facility name, county**	**Total**	**>100% permit limit**	**>500% permit limit**	**Types of exceedances**	**Receiving Waterbody**	**Receiving Water Impaired?**
VA0081264	HRSD - Chesapeake-Elizabeth Sewage Treatment Plant, Virginia Beach	4	0	0	Biochemical oxygen demand (5-day, 20 deg. C); Total suspended solids	Chesapeake Bay; Back River; Poquoson River	No
VA0001015	American Electric Power - Clinch River Plant, Russell	3	0	0	Copper; Iron; Chloride	Clinch River; Little Stony Creek	No
VA0005312	Advansix Resins and Chemicals LLC - Chesterfield, Chesterfield	3	3	1	Organic carbon	James River; Turkey Island Creek; Fourmile Creek	No
VA0000299	Celanese Acetate LLC, Giles	2	0	0	pH	New River; East River	No
VA0002160	Invista - Waynesboro, Waynesboro	2	2	2	Oil & grease	Lower South River	No
VA0003026	Gp Big Island LLC, Bedford	2	0	0	pH	James River; Reed Creek	No
VA0003646	Westrock Virginia Corporation - Covington, Alleghany	2	0	0	Chronic toxicity (7-day C. dubia); Biochemical oxygen demand (5-day, 20 deg. C)	Jackson River; Falling Spring Creek	No
VA0003808	Perdue Foods LLC - Accomack, Accomack	2	2	0	Fecal coliform	Metomkin Bay; Burtons Bay	No
VA0004090	Surry Power Station and Gravel Neck, Surry	2	2	0	Biochemical oxygen demand (5-day, 20 deg. C)	James River; Powhatan Creek; Grays Creek; College Run	No
VA0004669	E I Du Pont De Nemours And Company - Spruance Plt, Chesterfield	2	0	0	Carbonaceous biochemical oxygen demand (5-day, 20 deg. C)	James River; Falling Creek; Proctors Creek	No
VA0004677	Mohawk Industries Inc, Rockbridge	2	0	0	Total suspended solids; Sulfide	Lower Maury River; Poague Run	No
VA0006408	Greif Riverville LLC - Fibre Plant, Amherst	2	0	0	Biochemical oxygen demand (5-day, 20 deg. C)	James River; Beaver Creek; Back Creek	No
VA0024724	Virginia American Water Prince William - Section 1, Prince William	2	0	0	Phosphorus	Potomac River; Lower Occoquan River; Neabsco Creek	No
VA0083135	Farmville Advanced WWTP, Prince Edward	2	1	0	Total suspended solids	Upper Appomattox River	No
VA0090263	Town of Broadway Regional WWTF, Rockingham	2	0	0	Chronic toxicity (7-day C. dubia); Nitrogen	North Fork Shenandoah River; Holmans Creek	No

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		EXCEEDANCES					
Facility ID	**Facility name, county**	**Total**	**>100% permit limit**	**>500% permit limit**	**Types of exceedances**	**Receiving Waterbody**	**Receiving Water Impaired?**
VA0090905	Tenaska Virginia Generating Station, Albemarle	2	0	0	pH	Lower Rivanna River; Ballinger Creek	No
WASHINGTON							
WA0000809	Cosmo Specialty Fibers, Inc., Grays Harbor	8	1	0	Daily excursion time; Biochemical oxygen demand (5-day, 20 deg. C); Total suspended solids	Chehalis River	No
WA0002062	Us Navy - Puget Sound Naval Shipyard, Kitsap	8	4	0	Copper	Sinclair Inlet	No
WA0000124	Nippon Dynawave Packaging Company Longview, Cowlitz	7	1	0	Total suspended solids; Biochemical oxygen demand (5-day, 20 deg. C)	Columbia River	No
WA0021954	Joint Base Lewis-McChord - JBLM Solo Point WWTP, Pierce	6	1	1	Chlorine; Biochemical oxygen demand (5-day, % removal); pH	Puget Sound	No
WA0037338	Transalta Centralia Mining LLC, Lewis	5	0	0	Total suspended solids; Dissolved oxygen; pH; Temp.	Packwood Creek; Snyder Creek	No
WA0000825	Inland Empire Paper Co, Spokane	3	0	0	Biochemical oxygen demand (5-day, 20 deg. C)	Spokane River	No
WA0000922	Port Townsend Paper Corporation, Jefferson	3	0	0	Biochemical oxygen demand (5-day, 20 deg. C); Total suspended solids	Puget Sound Subwatershed	No
WA0002984	Phillips 66 Company Ferndale Refinery, Whatcom	3	0	0	Fecal coliform; Sulfide	Lummi Bay	No
WA0000078	Longview Fibre Paper & Packaging, Inc. (DBA Kapstone Kraft Paper), Cowlitz	2	0	0	Biochemical oxygen demand (5-day, 20 deg. C)	Columbia River	No
WA0000761	Tesoro Refining & Marketing Company LLC, Skagit	2	2	2	Fecal coliform	Fidalgo Island - Frontal Padilla Bay Subwatershed	No
WA0000884	Sonoco Products Company, Pierce	2	1	0	Total suspended solids; Ammonia nitrogen	White River	No
WA0002925	McKinley Paper Company, Clallam	2	2	1	Duration	Discovery Bay - Strait of Juan De Fuca Subwatershed	No
WA0002941	Shell Oil Products Us Puget Sound Refining Company, Skagit	2	1	0	Fecal coliform	Padilla Bay - Strait of Georgia Subwatershed	No
WA0040851	Steelscape Washington LLC, Cowlitz	2	0	0	Nickel	Columbia River	No

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		EXCEEDANCES					
Facility ID	**Facility name, county**	**Total**	**>100% permit limit**	**>500% permit limit**	**Types of exceedances**	**Receiving Waterbody**	**Receiving Water Impaired?**
WEST VIRGINIA							
WV0004707	Anmoore Facility, Harrison	56	24	2	Temp.; Iron; Chloride; Iron; Total suspended solids; Oil & grease; pH	Anmoore Run	No
WV0004511	Beech Bottom Plant, Brooke	52	28	9	Copper; Zinc; Phenolics; Chloride; Acute Toxicity (C. dubia); Iron; Lead; Aluminum; Manganese	Ohio River	Yes
WV0004359	Natrium Plant, Marshall	51	38	17	.alpha.-BHC; Mercury; Copper; .beta.-BHC; Chloroform; Iron; pH, > 60 minutes; Chloride	Ohio River	Yes
WV0000787	Cytec Industries, Inc., Pleasants	38	15	1	Chronic toxicity (P. promelas); Temp.; Aluminum; Toluene; Chronic toxicity (C. dubia); Color [PT-CO units]; Nitrite	Ohio River	Yes
WV0023230	Wheeling City Of, Ohio	27	6	0	Fecal coliform; Total suspended solids; Mercury; Copper; Chlorine; Solids, suspended percent removal, dry; Biochemical oxygen demand (5-day, 20 deg. C); Biochemical oxygen demand (5-day % removal, dry)	Ohio River	Yes
WV0005339	Harrison Power Station, Harrison	23	16	10	Zinc; Iron; Aluminum	West Fork River	Yes
WV0004499	Ak Steel Corp, Brooke	18	10	1	Selenium; Fecal coliform	Ohio River	Yes
WV0004740	Addivant USA LLC-North Plant Operations, Monongalia	16	7	2	1,2-Dichloroethane; pH; Iron; Biochemical oxygen demand (5-day, 20 deg. C); Aluminum; Total suspended solids	Monongahela River	Yes
WV0004502	Wheeling-Nisshin Inc, Brooke	14	7	4	Acute toxicity (C. dubia); Oil & grease; Lead; Total suspended solids; pH	Ohio River	Yes
WV0000086	Institute Plant, Kanawha	13	6	1	Zinc; pH (monthly accum); Methyl chloride; pH, > 60 minutes; Cadmium; Total suspended solids; Temp.	Kanawha River	Yes
WISCONSIN							
WI0037842	Neenah Paper Inc Neenah Mill, Winnebago	5	0	0	Copper	Fox River Via Neenah	No
WI0001040	Tyco Safety Products - Ansul, Marinette	4	1	0	Arsenic; pH; Total suspended solids	Menomonee River	No
WI0000531	St Paper LLC, Oconto	3	0	0	Total suspended solids; Biochemical oxygen demand (5-day, 20 deg. C)	Oconto River	No
WI0042765	WI Public Serv Corp Weston 3, Marathon	3	3	3	Chlorine (dsg. time); Chlorine	Wisconsin River	Yes
WI0000931	Wisconsin Electric Power Company Valley Power Plant, Milwaukee	2	2	2	Chlorine	Menomonee Canal	No

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		EXCEEDANCES					
Facility ID	**Facility name, county**	**Total**	**>100% permit limit**	**>500% permit limit**	**Types of exceedances**	**Receiving Waterbody**	**Receiving Water Impaired?**
WI0001848	Georgia-Pacific Consumer Products, Brown	2	0	0	Copper	Fox River	No
WI0037991	Newpage Corporation - Water Quality Center, Wood	2	1	0	Copper	Wisconsin River	Yes
WI0000957	Nextera Energy Point Beach LLC, Manitowoc	1	0	0	Total suspended solids	Lake Michigan	Yes
WI0000973	Green Bay Packaging Inc Mill D, Brown	1	0	0	Mercury	Fox River	No
WI0003026	Expera Specialty Solutions, LLC-Rhinelander, Oneida	1	0	0	pH, > 60 minutes	Wisconsin River	Yes
WI0003085	Calumet Superior LLC, Douglas	1	0	0	Mercury	Allouez Bay	Yes
WI0003239	Dairyland Power Cooperative Genoa, Vernon	1	1	1	Total suspended solids	Mississippi River	No
WI0003468	Verso Minnesota Wisconsin LLC - Water Renewal Center, Portage	1	0	0	pH	Wisconsin River	Yes
WI0003620	Domtar - Nekoosa, Wood	1	0	0	Temp.	Wisconsin River	Yes
WI0003671	Expera Specialty Solutions, LLC-Mosinee, Marathon	1	0	0	Temp.	Wisconsin River	Yes
WYOMING							
WY0000418	Lovell Plant, Big Horn	12	9	8	E. coli; Flow; Temp.; Biochemical oxygen demand (5-day, 20 deg. C)	Peterson Creek - Shoshone River Subwatershed	No
WY0000442	Frontier Oil Refinery, Laramie	12	7	1	Ammonia nitrogen; Aluminum; Iron; Lead; Sulfide; Selenium	Diamond Creek - Crow Creek Subwatershed	Yes
WY0003115	Dave Johnston Power Plant, Converse	4	0	0	Iron; Total suspended solids	North Platte River	No

Notes

1. This analysis excludes the state of New Jersey because its data are not in the federal Integrated Compliance Information System database.

2. The annual number of non-compliant facilities was found by adding non-compliant minor facilities and non-compliant major facilities for each year, then averaging the total, and the annual number of EPA and state enforcement actions was found by adding EPA formal actions, EPA informal actions, state formal actions and state informal actions for each year, then averaging the total. Data downloaded from the EPA ECHO *State Water Dashboard*, accessed 21 February 2018 at https://echo.epa.gov/trends/comparative-maps-dashboards/state-water-dashboard.

3. Data downloaded from the EPA ECHO *State Water Dashboard*, accessed 3 February 2018 at https://echo.epa.gov/trends/comparative-maps-dashboards/state-water-dashboard.

4. U.S. Environmental Protection Agency, *FY 2019 EPA Budget in Brief,* February 2018, available at https://www.epa.gov/sites/production/files/2017-05/documents/fy-2018-budget-in-brief.pdf, 83.

5. 2018 proposal: U.S. Environmental Protection Agency, *FY 2018 EPA Budget in Brief,* May 2017, available at https://www.epa.gov/sites/production/files/2017-05/documents/fy-2018-budget-in-brief.pdf, 69; allotment in prior years: downloaded from U.S. Environmental Protection Agency, *Water Pollution Control (Section 106) Grants Funding History*, accessed 3 February 2018 at https://www.epa.gov/water-pollution-control-section-106-grants/water-pollution-control-section-106-grants-funding.

6. Zygmunt J.B. Plater et al., *Environmental Law and Policy: Nature, Law and Society* (5th edition), (New York, NY: Wolters Kluwer, 2006).

7. Damages estimate: Jonathan H. Adler, Case Western Reserve University School of Law, *Fables of the Cuyahoga: Reconstructing a History of Environmental Protection,* 2002; Dollars inflation adjustment: Saving.org, *Value of $1 in 1969,* accessed 28 February 2018, archived at http://web.archive.org/web/20180301035250/https://www.saving.org/inflation/inflation.php?amount=1&year=1969; Local papers: Jennifer Latson, "The Burning River That Sparked a Revolution," *Time Magazine,* 22 June 2015.

8. Fire chief quote: Tony Long, "June 22, 1969: Umm, The Cuyahoga River's on Fire… Again," *Wired Magazine,* 22 June 2011; Under control within 30 minutes: "Oil Slick Fire Damages 2 Rivers Spans," *Cleveland Plain Dealer,* 23 June 1969, archived at http://web.archive.org/web/20180301035414/http://blog.cleveland.com/pdextra/2009/01/oil_slick_fire_damages_2_river.html.

9. Jonathan H. Adler, "The Fable of the Burning River, 45 Years Later," *The Washington Post,* 22 June 2014.

10. "America's Sewage System and the Price of Optimism," *Time Magazine,* 1 August 1969, archived at http://web.archive.org/web/20180301035527/https://content.time.com/time/subscriber/article/0,33009,901182-1,00.html.

11. GovTrack, *To Override the Presidential Veto of S. 2770 Proposed Federal Water Pollution Control Act Amendments of 1972,* accessed 15 February 2018, archived at http://web.archive.org/web/20180215163136/https://www.govtrack.us/congress/votes/92-1972/s955.

12. 111th U.S. Congress, *Report 111-361: Clean Water Restoration Act,* 10 December 2010, archived at http://web.archive.org/web/20180301035710/https://www.congress.gov/111/crpt/srpt361/CRPT-111srpt361.pdf.

13. *Federal Water Pollution Control Act [as Amended through P.L. 107-303],* 33 U.S.C. 1251, 27 November 2002, archived at http://web.archive.org/web/20180301035744/https://www.epa.gov/sites/production/files/2017-08/documents/federal-water-pollution-control-act-508full.pdf.

14. U.S. Environmental Protection Agency, *Clean Water Act Section 404 and Agriculture,* 20 November 2017, archived at http://web.archive.org/web/20180221175356/https://www.epa.gov/cwa-404/clean-water-act-section-404-and-agriculture.

15. Scott Pruitt: Alex Guillen and Emily Holden, "What EPA Chief Scott Pruitt Promised – and What He's Done", *Politico,* 19 November 2017, archived at http://web.archive.org/web/20180301035950/https://www.politico.com/interactives/2017/scott-pruitt-promises/; EPA budget cuts: U.S. Environmental Protection Agency, *FY 2018 EPA Budget in Brief,* May 2017, available at https://www.epa.gov/sites/production/files/2017-05/documents/fy-2018-budget-in-brief.pdf; Ongoing repeal of 2015 Clean Water Rule: Ariel Wittenberg, "Worried about High Court, Trump Admin Wants to Delay WOTUS," *E&E Newswire,* 6 November 2017, archived at http://web.archive.org/web/20180301040200/https://www.eenews.net/stories/1060065765/.

16. U.S. Environmental Protection Agency, *NPDES Permit Basics,* accessed 2 December 2017, archived at https://web.archive.org/web/20171113113100/https://www.epa.gov/npdes/npdes-permit-basics.

17. Ibid.

18. Ibid.

19. Ibid.

20. U.S. Environmental Protection Agency, *Clean Water Act (CWA) Compliance Monitoring,* accessed on 2 December 2017, archived at https://web.archive.org/web/20171201163857/https://www.epa.gov/compliance/clean-water-act-cwa-compliance-monitoring.

21. U.S. Environmental Protection Agency, *NPDES Permit Writers' Manual,* September 2010, archived at http://web.archive.org/web/20180301040554/https://www.epa.gov/sites/production/files/2015-09/documents/pwm_2010.pdf.

22. Ibid.

23. U.S. Environmental Protection Agency website, *NPDES State Program Information,* accessed 2 December 2017, archived at https://web.archive.org/web/20171119174753/https://www.epa.gov/npdes/npdes-state-program-information.

24. Ibid.

25. Robert Esworthy, Congressional Research Service, *Federal Pollution Control Laws: How Are They Enforced?* 7 October 2014, archived at http://web.archive.org/web/20180301040406/https://fas.org/sgp/crs/misc/RL34384.pdf.

26. See note 23.

27. Ibid.

28. Ibid.

29. Ibid.

30. U.S. Environmental Protection Agency, *NPDES Permit Limits,* accessed 2 December 2017, archived at https://web.archive.org/web/20171018045737/https://www.epa.gov/npdes/npdes-permit-limits.

31. Ibid.

32. Ibid.

33. See note 21.

34. Ibid.

35. Ibid.

36. U.S. Government Accountability Office, *Clean Water Act: Changes Needed if Key EPA Program Is to Help Fulfill the Nation's Water Quality Goals,* 5 December 2013, archived at https://web.archive.org/web/20171013120048/https://www.gao.gov/products/GAO-14-80.

37. Ibid.

38. U.S. Environmental Protection Agency, *ICIS-NPDES Download Summary and Data Element Dictionary,* accessed 2 December 2017, archived at https://web.archive.org/web/20170514072343/https://echo.epa.gov/tools/data-downloads/icis-npdes-download-summary.

39. U.S. Environmental Protection Agency, *CWA-NPDES Electronic Reporting,* accessed 2 December 2017, archived at https://web.archive.org/web/20171201184729/https://www.epa.gov/compliance/npdes-ereporting.

40. Ibid.

41. Ibid.

42. See note 38.

43. Ibid.

44. Ibid.

45. Christy Leavitt, U.S. PIRG Education Fund, *Troubled Waters: An Analysis of 2005 Clean Water Act Compliance,* October 2007.

46. U.S. Environmental Protection Agency, *Single Event Violation Data Entry Guide for ICIS-NPDES,* 15 October 2008, available at https://www.epa.gov/sites/production/files/2013-11/documents/npdes-sevguidance.pdf.

47. U.S. Environmental Protection Agency, Environmental Compliance and History Online database (ECHO), *State Review Framework Tracker Recommendations Results,* accessed 6 December 2017, archived at https://web.archive.org/web/20170514152235/https://echo.epa.gov/oversight/state-review-framework/tracker-recommendations/results.

48. See note 21, 11-25.

49. Ibid.

50. See note 16.

51. Jamie Wachter, "Pilgrim's Pride Settles Water Pollution Lawsuit," *Suwannee Democrat,* 16 November 2017.

52. Michael Hawthorne, "U.S. Steel Dumps More Toxic Chromium Near Lake Michigan, Faces Lawsuit," *The Chicago Tribune,* 15 November 2017.

53. U.S. Environmental Protection Agency, *PCS-ICIS Search User Guide,* 7 March 2017, archived at http://web.archive.org/web/20180204023012/https://www.epa.gov/enviro/pcs-icis-search-user-guide.

54. U.S. Environmental Protection Agency, *Known Data Problems: Clean Water Act (CWA) Primary Data Alerts,* 1 August 20117, archived at https://web.archive.org/web/20170804043837/https://echo.epa.gov/resources/echo-data/known-data-problems.

55. Tim Davis, Administrator of Water Quality Division, Montana Department of Environmental Quality, personal communication, 21 November 2017.

56. Erich Brandstetter and Aron Borok, Oregon Department of Environmental Quality, *NPDES Waste Discharge Permit Evaluation Report,* accessed 3 February 2018, archived at http://web.archive.org/web/20180204022830/http://www.deq.state.or.us/wq/stormwater/docs/1200aAnalysis.pdf, 28.

57. This analysis excludes New Jersey, which has not uploaded NPDES discharge reports to the ICIS online database since 2012. Definition of "impaired": U.S. Environmental Protection Agency, *Impaired Waters and TMDLs: Statute and Regulations*, 3 January 2018, archived at http://web.archive.org/web/20180202224017/https://www.epa.gov/tmdl/impaired-waters-and-tmdls-statute-and-regulations.

58. U.S. Environmental Protection Agency, *Interim Clean Water Act Settlement Penalty Policy,* 1 March 1995, archived at http://web.archive.org/web/20180217000336/

https://www.epa.gov/sites/production/files/documents/cwapol.pdf, 4.

59. Type of facility: RES Water, *About Us: Water Storage and Treatment Facilities Custom Made for Your Business Needs,* accessed 16 February 2018, archived at http://web.archive.org/web/20180216234534/http://reswater.com/about/; Exceedances and days in exceedance: numbers taken from Reserve Environmental Services' ECHO *Effluent Limit Exceedances Report,* with the report date range set from January 2016 to September 2017. Data accessed 16 February 2018 at https://echo.epa.gov/trends/loading-tool/reports/effluent-exceedances/?permit_id=OH0098540.

60. U.S. Environmental Protection Agency, Enforcement and Compliance History Online, *Effluent Limit Exceedances Report Help*, 28 December 2017, archived at http://web.archive.org/web/20180216231311/https://echo.epa.gov/help/loading-tool/reports/effluent-exceedance-report-help.

61. Ibid.

62. Washington, D.C., actually had the highest number of exceedances per facility (11). However, because D.C. is not a state and because it has only two major facilities, it was not included in any of the tables or state-specific rankings in this report. Information about D.C.'s industrial facilities and exceedances is included in all national totals and the report appendix.

63. U.S. Environmental Protection Agency, *Impaired Waters and TMDLs: Statute and Regulations*, 3 January 2018, archived at http://web.archive.org/web/20180202224017/https://www.epa.gov/tmdl/impaired-waters-and-tmdls-statute-and-regulations.

64. See note 2.

65. U.S. Environmental Protection Agency, Office of Enforcement and Compliance Assurance, *U.S. Environmental Protection Agency Annual Noncompliance Report (ANCR)*: Calendar Year 2015, August 2016, 8.

66. Ibid., 9.

67. George Golliday et al., Environmental Protection Agency, *Better Enforcement Oversight Needed for Major Facilities with Water Discharge Permits in Long-Term Significant Noncompliance*, 14 May 2007, archived at http://web.archive.org/web/20180202234314/https://www.epa.gov/sites/production/files/2015-11/documents/20070514-2007-p-00023.pdf.

68. Wade T. Najjum, U.S. Environmental Protection Agency, *The Clean Water Act after 37 Years: Recommitting to the Protection of the Nation's Waters*, 15 October 2009, archived at http://web.archive.org/web/20180301042402/https://www.epa.gov/sites/production/files/2015-07/documents/finalstatementofwadenajjum-epaoig.pdf.

69. Ibid.

70. Environmental Integrity Project, *EPA FOIA Documents Reveal Branstad Interference Is Undermining Prospects for Badly Needed Clean Water Act Reforms*, 16 July 2013, archived at https://web.archive.org/web/20170412082712/http://www.environmentalintegrity.org/news/epa-foia-documents-reveal-branstad-interference-is-undermining-prospects-for-badly-needed-clean-water-act-reforms/.

71. Ibid.

72. Bonnie Stewart, Ashley Ahearn and Jason Alcorn, "Clean Water Act's Anti-Pollution Goals Prove Elusive," *Oregon Public Broadcasting*, 17 July 2012, archived at http://web.archive.org/web/20180204012510/https://www.opb.org/news/article/anti-pollution-goals-elude-clean-water-act-enforce/.

73. Erica Peterson, "With Enforcement Lax, Kentucky Waterways Appear More Polluted," WFPL, 10 November 2015, archived at http://web.archive.org/web/20180204013143/http://wfpl.org/enforcement-lax-kentucky-waterways-polluted/.

74. Mike Reicher, "EPA Faults Tennessee for Lax Water Quality Enforcement," *Tennessean*, 24 October 2016, available at https://www.tennessean.com/story/news/environment/2016/10/24/epa-faults-tennessee-lax-water-quality-enforcement/92680732/.

75. While the rest of this reports focuses on violations by major industrial facilities, this chart includes penalties assessed for all CWA violations.

76. See note 3.

77. Ibid.

78. Eric Schaeffer and Keene Kelderman, Environmental Integrity Project, *Environmental Enforcement Under Trump,* 10 August 2017.

79. Ibid.

80. Eric Lipton and Danielle Ivory, "Under Trump, E.P.A. has Slowed Actions Against Polluters, and Put Limits on Enforcement Officers," *The New York Times,* 10 December 2017.

81. Ibid.

82. This analysis was limited to civil cases, but excluded civil cases related to Superfund sites.

83. See note 4.

84. Ibid., 85.

85. U.S. Environmental Protection Agency, *Learn About the Water Pollution Control (Section 106) Grant Program,* accessed on 6 December 2017, archived at http://web.archive.org/web/20180301043112/https://www.epa.gov/water-pollution-control-section-106-grants/learn-about-water-pollution-control-section-106-grant.

86. 2018 budget and 2019 proposal: U.S. Environmental Protection Agency, *FY 2019 EPA Budget in Brief,* February 2018, available at https://www.epa.gov/sites/production/files/2017-05/documents/fy-2018-budget-in-brief.pdf, 85; allotment in prior years: downloaded from U.S. Environmental Protection Agency, *Water Pollution Control (Section 106) Grants Funding History*, accessed 3 February 2018 at https://www.epa.gov/water-pollution-control-section-106-grants/water-pollution-control-section-106-grants-funding.

87. The 2012-2017 totals represent the total funding allotted for Section 106 grants in those years. The 2018 total represents the amount budgeted for Section 106 grants, since grant allotments will not be finalized until the end of the year. The 2019 total comes from the proposed FY 2019 EPA budget. Data sources: See note 86.

88. U.S. Environmental Protection Agency, Office of Enforcement and Compliance Assurance, *NPDES Compliance Inspection Manual*, July 2004, archived at https://www.epa.gov/sites/production/files/2013-09/documents/npdesinspect_0.pdf, 1-1.

89. Calculated from *NPDES_INSPECTIONS.csv,* downloaded from U.S. Environmental Protection Agency, *National Enforcement and Compliance History Online Data Downloads,* available at https://echo.epa.gov/tools/data-downloads#downloads.

90. Ibid.

91. Environmental Integrity Project, "EPA Decides to Roll Back Limits on the Largest Industrial Source of Toxic Water Pollution in the U.S.," 15 August 2017, archived at https://web.archive.org/web/20171203001511/http://www.environmentalintegrity.org/news/epa-to-roll-back-elg-rule/.

92. Ibid.

93. Clean Water Rule: Environmental Integrity Project, "EPA Decides to Roll Back Limits on the Largest Industrial Source of Toxic Water Pollution in the U.S.," 15 August 2017, archived at https://web.archive.org/web/20171203001511/http://www.environmentalintegrity.org/news/epa-to-roll-back-elg-rule/; ELG: U.S. Environmental Protection Agency, *EPA Finalizes Rule to Postpone Steam Electric Power Plant Effluent Guidelines Rule* (press release), 13 September 2017, archived at http://web.archive.org/web/20180215230859/https://www.epa.gov/newsreleases/epa-finalizes-rule-postpone-steam-electric-power-plant-effluent-guidelines-rule.

94. Issuing timeline: Amanda Reilly and Ariel Wittenberg, "Clean Water Rule: Supreme Court Ruling Complicates Next Steps on WOTUS," *E&E News,* 22 January 2018, archived at http://web.archive.org/web/20180206221202/https://www.eenews.net/stories/1060071583; Drinking water for one in three Americans: U.S. Environmental Protection Agency, *Geographic Information Systems Analysis of the Surface Drinking Water Provided by Intermittent, Ephemeral and Headwater Streams in the U.S.: Performed by U.S. EPA July, 2009,* accessed 6 February 2018, archived at http://web.archive.org/web/20180206221628/https://19january2017snapshot.epa.gov/sites/production/files/2015-04/documents/2009_12_28_wetlands_science_surface_drinking_water_surface_drinking_water_study_summary.pdf.

95. 1,200 studies: U.S. Environmental Protection Agency, *What the Clean Water Rule Does*, 10 April 2017, archived at http://web.archive.org/web/20180228170253/https://archive.epa.gov/epa/cleanwaterrule/what-clean-water-rule-does.html; 800,000 comments: John Rumpler, Environment America, *Attack on Clean Water Rule* (press release), 28 February 2017, archived at http://web.archive.org/web/20180228170451/https://environmentamerica.org/news/ame/attack-clean-water-rule.

96. Timothy Cama, "EPA Moves to Repeal Obama Rule," *The Hill*, 27 June 2017, archived at http://web.archive.org/web/20180206222439/http://thehill.com/policy/energy-environment/339691-epa-seeks-to-repeal-obama-water-rule.

97. Ibid.

98. Coral Davenport, "E.P.A. Blocks Obama-Era Clean Water Rule," *New York Times,* 31 January 2018, archived at http://web.archive.org/web/20180206225138/https://www.nytimes.com/2018/01/31/climate/trump-water-wotus.html.

99. U.S. Environmental Protection Agency, *Benefit and Cost Analysis for the Effluent Limitation Guidelines and Standards for the Steam Electric Power Generating Point Source Category,* September 2015, available at https://www.epa.gov/sites/production/files/2015-10/documents/steam-electric_benefit-cost-analysis_09-29-2015.pdf.

100. U.S. Environmental Protection Agency, *Final Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Industry* (factsheet), September 2015, archived at http://web.archive.org/web/20180228173427/https://www.epa.gov/sites/production/files/2015-10/documents/steam-electric-final-rule-factsheet_10-01-2015.pdf.

101. Ibid.

102. U.S. Environmental Protection Agency, *Postponement of Certain Compliance Dates for the Effluent Limitations Guidelines and Standards for the Steam Electric Generating Point Source Category*, 18 September 2017, archived at http://web.archive.org/web/20180228174522/https://www.federalregister.gov/documents/2017/09/18/2017-19821/postponement-of-certain-compliance-dates-for-the-effluent-limitations-guidelines-and-standards-for.

103. When multiple facilities in a state tied for tenth place, all were included in the chart.