

# 2021 ANNUAL REPORT

August 2021



# 2021 EDGI ANNUAL REPORT

## **Contributors:**

Marcy Beck  
Steven Braun  
Kelsey Breseman  
Gretchen Gehrke  
Muhi Khwaja  
Stephanie Knutson  
Eric Nost  
Emily Pawley  
Chris Sellers  
Shannan Lenke Stoll  
Aparna Sundar  
Jessica Varner  
Lourdes Vera  
Sara Wylie  
EDGI

## **Cover design:**

Paul Gordon

August 2021

The [Environmental Data & Governance Initiative](https://envirodatagov.org/) (EDGI) is a North American network with members from numerous academic institutions and nonprofit or grassroots organizations, as well as caring and committed volunteers and employees who come from a broad spectrum of work and life backgrounds. EDGI promotes open and accessible government data and information along with evidence-based policymaking.

# TABLE OF CONTENTS

<b>LETTER FROM OUR COORDINATING COMMITTEE</b>	<b>3</b>
<b>EXECUTIVE SUMMARY</b>	<b>4</b>
<b>INTRODUCTION</b>	<b>6</b>
<b>MAINTAINING VIGILANCE &amp; FOSTERING LEGIBILITY</b>	<b>8</b>
Policy Monitoring and Interviewing	8
The Environmental History Action Collaborative (EHAC)	10
Website Monitoring	11
<b>VISIONING &amp; BUILDING ALTERNATIVES FOR SOCIALLY JUST ENVIRONMENTAL GOVERNANCE</b>	<b>13</b>
Environmental Data Justice	13
Environmental Enforcement Watch	14
Data Together	16
<b>PROTOTYPING AN ALTERNATIVE ORGANIZATIONAL STRUCTURE</b>	<b>18</b>
Alternative Organization	18
<b>COMMUNICATING &amp; ENGAGING IN VARIOUS SPHERES OF INFLUENCE</b>	<b>20</b>
Communications	21
Publications	23
Major Reports	23
Analysis, Public Comments, White Papers, and Annotations	24
EDGI Member Op-Eds in Local and National Media	27
Peer-Reviewed Articles	28
Impact of Our Publications	29
<b>FINANCIAL OVERVIEW</b>	<b>31</b>
<b>CONTRIBUTE TO EDGI</b>	<b>31</b>
Web Monitoring	31
EDGI Teaching	31
EDGI Dev Team	32

# LETTER FROM OUR COORDINATING COMMITTEE



Figure 1. EDGI's post-2020-election reunion and workshop via Zoom.

In the Environmental Data & Governance Initiative (EDGI)'s first four years, we tracked harms to federal environmental governance in the United States made by the Trump administration. Our vision was always to do more than document harm; we seek accountability and restoration. We dream of an active justice, an environmental governance system that centers the voices of those most marginalized by industry and government alike.

Since EDGI formed in the wake of Trump's election, one might expect Biden's victory to alter EDGI's work massively. However, our day-to-day activities remain much the same: monitoring for changes to government websites concerning environmental information, seeking accountability for environmental harm, making transparent environmental data for all communities, and envisioning better ways of relating agencies and governance to people and lands. The main difference is that now we have more hope of reconciling our vision with the reality we see playing out. There is much work to do. We are positioned not only to illustrate the harms

we've witnessed but also to push further toward a more just and participatory model of environmental governance than ever before.

Conversations starting in early 2018 helped us realize that EDGI's mission and vision are more enduring than watchdogging a single presidential administration. We've undertaken the work of bolstering our internal structure to better advocate for community participation, document ongoing changes, and support scientific backing for environmental governance for years to come—including an exciting transition this spring from our original fiscal sponsor Public Lab to the professional fiscal sponsor Multiplier, which also provides incubator services for our growth and has helped us transition our paid contractors into employees. The new sponsor gives us stability, supports our value of justice and equity in labor, and ensures that our volunteers can do the work they came to EDGI to do.

In this transformational moment, we will continue to develop EDGI as an agent for collaborative environmental care and conscientious co-creation of just and sustainable futures. Thank you for your interest in our work.

## EXECUTIVE SUMMARY

EDGI has been a trusted source for reporting on accountability in US environmental governance since 2016. Growing from its roots in guerilla data archiving, the organization now consistently monitors changes to environmental protection laws while also defining a vision for more just approaches to the gathering, communication, and oversight of the data behind such laws. From data and technology to policy analysis, community work, and historical perspectives, EDGI has influenced the national conversation by drawing upon our uniquely interdisciplinary and academically rooted expertise.

Between May 2020 and June 2021, EDGI:

- Had our work featured in 63 publications across 52 news outlets, including Reuters, The Washington Post, The New York Times, and The Guardian.
- Released a new environmental data justice project, [Environmental Enforcement Watch](#) (EEW), which works with communities to answer questions using data on compliance with and enforcement of environmental protection laws like the Clean Water Act (CWA).
- Documented a 98% median increase in violations of the CWA during the Trump administration and a 60% reduction in EPA penalties.

- Created "[A People's EPA](#)" (APE), a public history website of the agency and home for the over 150 original interviews from EPA employees.
- Published two influential web monitoring projects: the "[Access Denied](#)" report and the "[Federal Environmental Web Tracker](#)" database of changes.
- Transitioned to a new fiscal sponsor, Multiplier, and brought in our first-ever development director to help maintain our financial sustainability.

Our work has been sustained by funding from the David and Lucile Packard Foundation and the Doris Duke Charitable Foundation, as well as from a small but loyal group of individual donors. We also received a Virtual Conference Grant from Code for Science & Society, made possible by a grant from the Gordon and Betty Moore Foundation, and a grant from Earth Science Information Partners (ESIP) Lab to support the Environmental Enforcement Watch (EEW) project. Importantly, EDGI continues to be a volunteer organization, and the commitment of the many volunteer technologists, professionals, community members, students, and academics is what makes EDGI work every day.

This annual report is a place to learn about our work and celebrate where we've come from, what we've accomplished, and what we hope to become.

			
<p><b>Promoting Data Resilience</b></p>	<p><b>Monitoring Federal Websites</b></p>	<p><b>Interviewing Federal Experts</b></p>	<p><b>Cultivating Environmental Data Justice</b></p>
<p>We examine models for distributed stewardship of data by working with community members and partner organizations.</p>	<p>We monitor changes to tens of thousands of federal environmental and climate change web pages to trace how data, information, and their presentation change.</p>	<p>We interview federal employees to provide a human, qualitative perspective on how the current administration is affecting environmental health agencies.</p>	<p>We connect research and advocacy on Environmental and Data Justice to theorize, imagine and enact more just human-environmental relationships.</p>

Figure 2. Description of EDGI working groups taken from our website homepage.

# INTRODUCTION

EDGI operates in four synergistic areas to further our mission:

1. Monitoring and analyzing changes to federal data and regulations on environmental protection and governance.
2. Documenting and effectively communicating those changes to the public.
3. Envisioning and prototyping more just forms of environmental regulation, research, and enforcement.
4. Prototyping new organizational forms for rapid, rigorous public-interest research.



Figure 3. EDGI's spheres of work interconnect to enact our missions of creating accountability and building more just environmental governance.

EDGI formed in the wake of the 2016 presidential election in anticipation of efforts to dismantle federal environmental health protections and sciences. The Trump administration divorced regulatory agency decisions from scientific evidence

through measures such as the “Strengthening Transparency in Regulatory Science” rule, which would have significantly constrained what kind of data could inform environmental health policy, and through breaches of scientific integrity policies. The administration devastated agency resources and censored their websites, including consistently stripping informational resources from websites before the public comment periods. Overrunning the government with former industry lobbyists, it tried to permanently undermine community voices in environmental decision-making by gutting the National Environmental Policy Act. As that assault unfolded, EDGI crucially documented and analyzed the damage, drawing public attention to its most significant impacts—particularly at the EPA.

During those years, a key lesson emerged. The Trump administration’s norm-shattering depended on existing gaps in policies. With a receptive administration in the White House and Democratic control of Congress, EDGI can address these gaps. We will sharpen our analyses, provide actionable recommendations and prototypes for improvements, communicate those recommendations to agency and legislative leaders, and continue to hold the administration accountable to promises of better environmental governance.

The following three goals for better environmental governance represent a cycle: from government agencies to the public and back, to build a participatory, responsive, and learning civic system. To promote and facilitate just and effective environmental governance, EDGI’s work over the next year and beyond will develop this feedback cycle, understanding that each area is inextricably connected with the others.

Most of our programmatic work will continue to center on maintaining vigilance, fostering legibility, and visioning and building alternatives for more just environmental governance. We will balance vigilant monitoring, critical contextualization, and actionable analyses and recommendations. The Biden-Harris administration has indicated its interest in promoting more racially equitable and just environmental policies. We plan to envision and prototype justice-based environmental governance tactics, shoring up those recommendations with evidence-based analyses and ongoing evaluation of the administration’s progress, or lack thereof, toward more just and effective environmental governance. As described below, we also will target different audiences to most effectively communicate and engage in influential spheres. As we focus on these core areas, we will continue to refine how we as EDGI do that work, examining our processes honestly and with continual striving to be more human-centered and just. As we

prototype alternative organizational structures internally, we will demonstrate to agencies and other organizations ways to work more democratically, share information more transparently and improve accessibility, and work more closely with the communities they serve.

## **MAINTAINING VIGILANCE & FOSTERING LEGIBILITY**

EDGI monitors and analyzes changes to federal data and regulations pertinent to environmental protection through the work of three of its working groups: Policy Monitoring and Interviewing, which interviews those creating and affected by environmental policy, seeks government documents through the Freedom of Information Act (FOIA) and comments on policy changes; the Environmental History Action Collaborative, which sets current events into their historical contexts; and Website Monitoring, which identifies, characterizes, and analyzes changes to thousands of government webpages.

### **Policy Monitoring and Interviewing**

Our policy monitoring work, long driven by timely insights and leaks provided to our interviewing team by EPA staff (now totaling 150+ interviews), entered a new phase in 2020. We created a new website, "[A People's EPA](#)" (APE), to house searchable oral histories from our staff interviewing project, curated agency history, and analyses of proposals for agency restoration. The site provides a public account of this vital agency's past and current trajectories.

Along with providing EDGI-written timelines, visuals, and thematic history and analysis, the website also opens lines of collaboration with other groups by highlighting reports and recommendations by the Union of Concerned Scientists (UCS), the Environmental Protection Network (EPN), and Public Employees for Environmental Responsibility (PEER).



Figure 4. A page from the “A People’s EPA” website contains EDGI’s interviews with EPA officials.

This year we began to increase public access by creating a searchable FOIA repository. EDGI continued collaboration with Columbia University’s Toxic Docs and the legal teams at the Sierra Club and Wilderness Society to compile an accessible FOIA archive alongside a keyword-searchable collection of these documents on the A People’s EPA website. As part of the same collaboration, we began recommending improvements to federal government processes for releasing FOIA’d records. See our joint letter to Congress [here](#).

This year, we communicated our findings and recommendations broadly through academic papers, mass media opinion pieces, conversations with journalists, and the launch of A People’s EPA. In addition, we published peer-reviewed articles from our EPA interviews, including ["The Problem of Accountability: Environmental Justice and the Trump Administration."](#) We also hosted a webinar with UCS, PEER, and WE ACT: ["From Besieged to Bolstered? The Biden Environmental Transition."](#)

We continue to focus on environmental equity in our children’s health project. We presented at the American Public Health Association meeting on “Children’s Environmental Health at EPA under the Trump administration.” Also, we submitted an EPA FOIA request on children’s health issues and wrote an appeal to the Office of the Inspector General critiquing EPA’s slow response and the many irrelevant documents provided. We have several articles and an op-ed in submission, including to the American Journal of Public Health. And EDGI member Marianne Sullivan worked with the Children’s Environmental Health Network to publish an

op-ed, [“Children are the key to addressing climate change and improving environmental health.”](#)

## **The Environmental History Action Collaborative (EHAC)**

The Environmental Historians Action Collaborative is the newest EDGI Working Group. The group was sparked by a conversation at the 2019 American Society for Environmental History (ASEH) annual meeting in Columbus, OH. A group of historians had put together an amicus brief for the Supreme Court case *Juliana v. U.S.*, arguing that there was precedent for a constitutional right to a stable climate. ASEH was asked to affirm the brief, but the executive declined to do so. In response, there was a surprisingly large and active unofficial meeting. Many historians expressed interest in engaging with the environmental crisis together in a way that ASEH could not. An email listserv and series of meetings culminated in the formation of an EDGI working group.

Over the last two years, EHAC has developed different kinds of engagement to express timely, historical critiques of emerging policies. Our first project [annotated President Trump’s major environmental speech](#) to serve as a guide to his rhetoric and major policy claims heading into the 2020 election. We subsequently [annotated the Trump administration’s proposed guidelines for NEPA](#), which supplied the material for [EHAC’s public comment on the rule changes](#). As part of our pivot away from Trump, EHAC also [annotated Biden’s Clean Energy Plan speech of July 14th, 2020](#) and uses these annotations to track the transition.

Before the 2020 presidential election, EHAC members launched an op-ed writing project with the American Forum, a project for linking progressive voices with news outlets both nationally and in politically contested “swing states.” Our op-eds appeared in USA Today and the Jewish Journal and local newspapers in Pennsylvania, Florida, Georgia, Texas, and other states. EHAC op-eds highlighted declining environmental enforcement (drawing on other EDGI working groups’ efforts), environmental jurisprudence, COVID threats to worker health, and other issues of environmental regulation. EHAC is developing work on climate change and environmental history pedagogy at the college and secondary levels and collaborating with other EDGI projects such as A People’s EPA.

## Website Monitoring

EDGI has an established reputation as the leading authority on changes to federal websites—the primary means by which federal agencies communicate with the public. Our Web Monitoring working group continues to document, analyze, and press for improvements in federal web governance.

In 2020, we published a [cumulative report](#) synthesizing findings of information mismanagement related to environmental regulations under Trump, as well as a peer-reviewed [data science paper](#) on our methods and the patterns of climate censorship. Alongside these, we launched the [Federal Environmental Web Tracker](#), making our dataset of website changes publicly available for additional analysis.

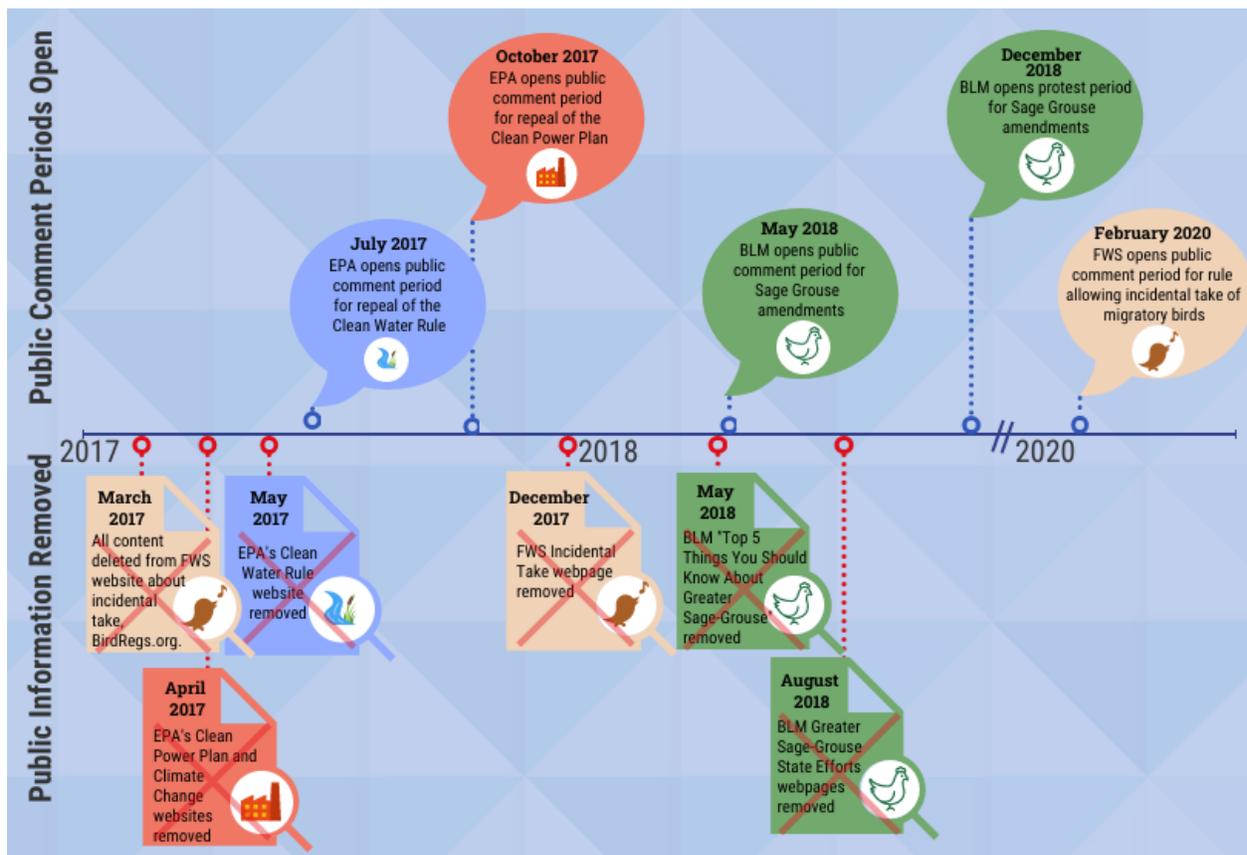


Figure 5. From the report, "Access Denied: Federal Web Governance Under the Trump Administration." This timeline shows the removal of public web resources in advance of public comment periods.

Some of our most notable findings over the last year are that:

- Information related to climate change was suppressed (see Figure 6), particularly on websites of Cabinet-level agencies, like the EPA and DOI.
- Information related to regulatory matters, such as descriptive information about regulations or environmental subject matter pertinent to proposed rules, was frequently suppressed—50% of the notable changes we observed related to regulations were removals of information.
- The majority of these removals occurred during active regulatory proceedings, frequently in advance of public comment periods (see Figure 5).

Such patterns of information censorship could impact the extent and effectiveness of public participation in federal environmental decision-making.

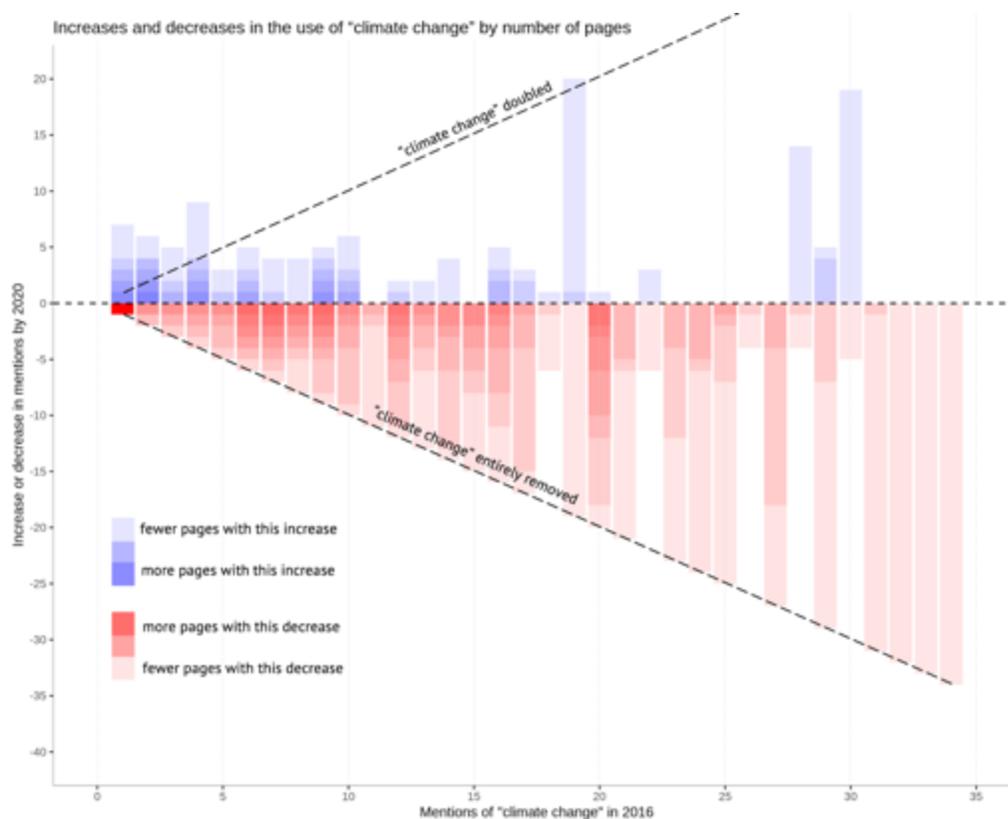


Figure 6. From the peer-reviewed paper, “Visualizing changes to US federal environmental agency website, 2016–2020.” Increases and decreases in the use of “climate change” across 2,085 federal agency webpages.

Based on our findings, we developed recommendations to improve and formalize federal website governance, detailed in our report [“Access Denied: Federal website governance under the Trump administration.”](#) These include:

- Developing policies to preserve access to web-based resources, including creating linked and searchable comprehensive federal web archives;
- Ensuring web resources are available, discoverable, and navigable from a variety of entry points;
- Improving federal websites to foster civic and scientific literacy, including providing ladders of information to help people expand their knowledge on critical subjects.

We also launched a blog series, "[Highlights from the Change Log](#)," to call attention to website changes on various topics. Each detailed a noteworthy change at the time of posting, such as when the [BLM removed the Obama-era phrase "All of the Above Energy Approach,"](#) favoring "Sustainable Development" and emphasizing renewable energy sources.

Under the Biden administration, we continue to meticulously monitor informational resources through our public tracker of federal environmental agency website changes, highlighting notable changes in our blog series and assessing the quality of federal web resources, including the extent to which they support public understanding of and participation in environmental issues and decisions. We will further elucidate the critical intersection between environmental policy and information policy, ensuring the protection and use of public data and information.

## **VISIONING & BUILDING ALTERNATIVES FOR SOCIALLY JUST ENVIRONMENTAL GOVERNANCE**

We envision more just and equitable forms of environmental data and governance by continuing to conceptualize environmental data justice (EDJ) at the intersection of environmental justice and data justice and turning EDJ principles into action with our Environmental Enforcement Watch (EEW) project.

### **Environmental Data Justice**

EDJ is a novel area of research and advocacy that EDGI has collaboratively developed through workshops, webinars, and a [public syllabus](#). Recognition of this field is growing, as indicated by an [article in \*The Lancet Planetary Health\*](#) on EDGI's work around EDJ. Our paper in *Science for the People* called "[A Green New Deal for Environmental Data](#)" pushes for transparency and inclusivity in tracking

environmental enforcement and guiding regulations. Currently, we are responding to the proposed Environmental Justice Mapping and Data Collection Act to revise the EPA's [Environmental Justice Screening Tool](#) to be more community-centered and engage systemic drivers of inequity.

How effectively can  
we govern facilities  
using data they  
primarily  
self-report?

Figure 7. A slide from “Environmental Enforcement Watch: Environmental Data Justice through Participatory Data Science” talk by EDGI’s Kelsey Breseman at the CSV Conference on May 6, 2021.

## **Environmental Enforcement Watch**

EDGI began an EDJ-informed project called Environmental Enforcement Watch (EEW) in early 2020. EEW prototypes digital tools and models event structures for public participation in environmental data analysis and pursuance of government accountability. We draw data from EPA’s Enforcement and Compliance History Online (ECHO) database to analyze enforcement by states, zip codes, congressional districts, and watersheds in open-source Jupyter Notebooks.

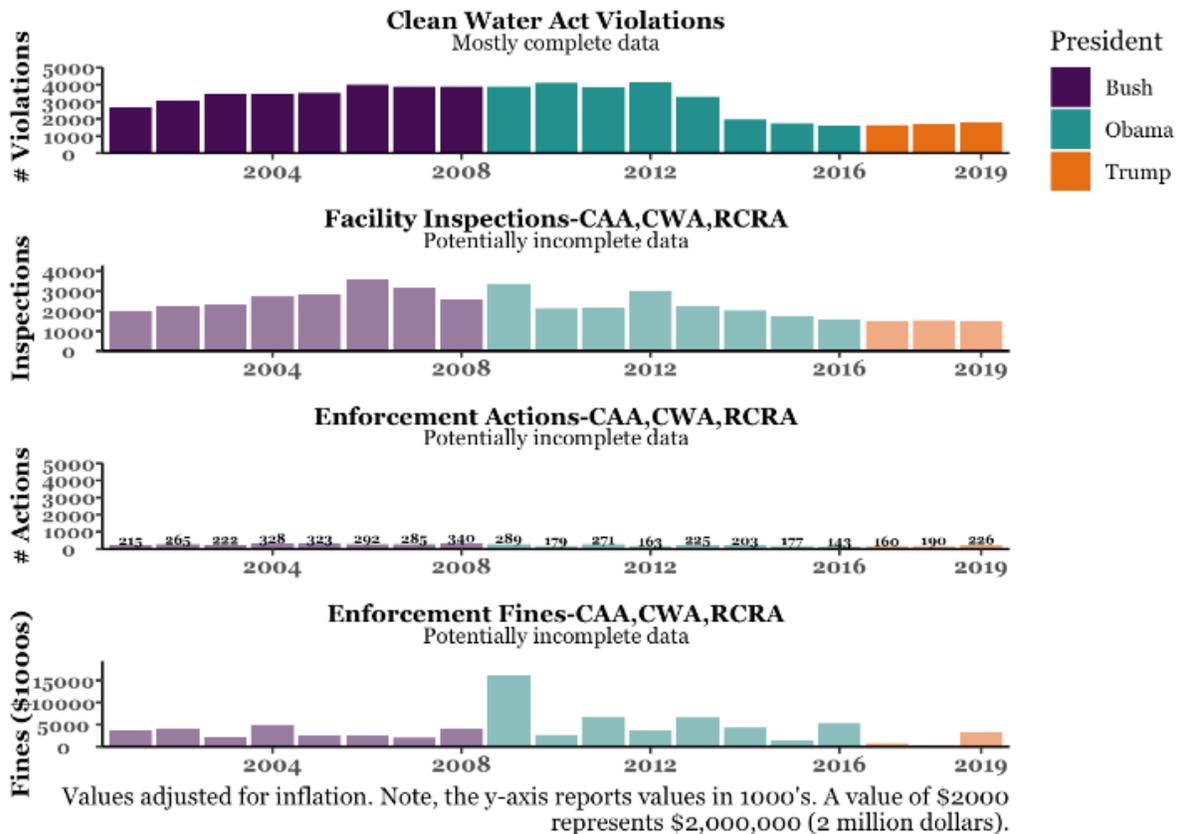


Figure 8. Screenshot of an EEW Congressional report card displaying measures of environmental enforcement and compliance levels in Massachusetts.

EEW's outputs include policy reports and public comments. Our [COVID report](#) on EPA's limited enforcement of environmental protection during the beginning of the COVID-19 pandemic was picked up by outlets including Grist and the Associated Press. EEW developed [Congressional Report Cards](#) examining EPA enforcement records for select states and congressional districts, informing the report, ["Democratizing Data,"](#) which was shared in a public webinar before the 2020 election. These report cards were [translated into Spanish](#) and released during an event on environmental data accessibility for Spanish-speaking communities. EEW also coordinated a [Twitter campaign](#) that brought attention to the 25th anniversary of the Bhopal disaster.

## Justicia ambiental: Acceso al lenguaje de datos de la EPA en comunidades Latinxs

Únase a nosotros el jueves 13 de mayo, de 6:00-7:30 PM ET en una conversación pública sobre cómo aumentar la accesibilidad de los datos de la EPA para las comunidades de habla hispana afectadas por la injusticia ambiental.



Figure 9. Flyer for EEW's Spanish report card release event & panel.

EEW collaborated with Northeastern University capstone students and GreenRoots in Chelsea, MA, to write and submit two [public comments](#) on the EPA's renewal of permits for oil storage facilities along Chelsea Creek. Additional collaborations include online events with the Union of Concerned Scientists, Sunrise Movement, Senator Ed Markey's (D-MA) staff, several environmental justice groups, and the Institute for Journalism and Natural Resources. In addition to the report release events, EEW has hosted open hours to showcase the Jupyter Notebooks, further develop the report cards, and discuss "[challenges with environmental data](#)" with environmental advocates and journalists from across North America.

Moving forward, EEW has been awarded a grant from Earth Science Information Partners (ESIP) to transform [our website](#) into a public portal for easier access to EEW's tools. EEW is also working with local groups to analyze ECHO data by watershed.

## Data Together

Data Together is an ongoing, inclusive conversation that EDGI facilitates around how to steward data ethically and effectively—through examination of power, ethics, and decentralization technologies.

In 2020, we drew texts from philosophers, economists, radicals and activists, technologists, and caretakers of practices both ancient and novel to ask:

- Can we build technologies that are more just than the societies they emerge from?
- How does the constant and individualized curation of content change the lenses through which we perceive the world?
- What is the meaning of consent in the context of monopolistic power?
- Can we map digital theories of “trust” to absolute human trust?
- Can true privacy exist alongside lives lived online and powerful machine learning?
- How do we see ourselves—how are we most meaningfully connected?

The group’s conversations were captured and condensed into blog form, readable on the [Data Together website](#).

Data Together’s recorded conversations and direct consultation with EDGI members were among the sources drawn upon by the Internet Archive team that released the new “[DWeb Principles](#)” for building the next generation of the Internet.



Figure 10. The Internet Archive’s new Dweb Principles draw in part on EDGI-facilitated Data Together conversations.

Since June of 2020, EDGI members have presented widely distributed data at Distributed Camp, [CascadiaJS](#), JupyterCon, PyCon Australia, CSV Conf, the Earth Science Information Partners Stewardship Cluster, Filecoin's community meeting, and more.

## PROTOTYPING AN ALTERNATIVE ORGANIZATIONAL STRUCTURE

EDGI works internally to prototype new organizational forms for rapid, rigorous public-interest research. To this end, EDGI operates through a Strategic Coordinating Committee, which makes significant decisions through consensus and uses the [advice process](#) for more quotidian choices to allow for individual initiative. The Alternative Organization working group supports continuous experimentation with organizational function and structure towards a healthy, effective, and joyful workplace.



Figure 11. EDGI members in a meeting.

### Alternative Organization

Our goal is a human-centered organizational structure. Our primarily volunteer members and paid coordinating staff come from multiple disciplines and professions and utilize a consensus-based non-hierarchical structure that supports

distributed and collective work. Each sphere of work operates with substantial autonomy, while EDGI’s Strategic Coordinating Committee ensures that our teams are cohesive, guided by our mission, and adherent to our organizational values.

An essential aspect of our culture is to make visible largely invisible labor, explicitly respect perspectives and contributions from all members, and build an organizational culture of anti-racism. In summer 2020, around a dozen EDGI members participated in the Adaway Group’s 4-part “Whiteness at Work” antiracism training and met separately to discuss applying the lessons to EDGI. One outcome was the ongoing inclusion of an antiracism exercise in monthly Open Coordinating Committee meetings, including roleplays of impact-based apologies and discussion of various types of intersectional privilege.

As part of our funding from the EEW project Code for Science & Society Virtual Events grant, EDGI collaboratively rewrote its [Code of Conduct](#), including new reporting severity scales, example scenarios, transparency reporting, and a restorative justice-based conflict resolution toolkit. Funding from the same grant also supported creating an internal toolkit for ensuring virtual event accessibility across technical, language, cognitive, and physical backgrounds.

*Severity:*

When reporting a Code of Conduct violation/reaching out for help, please use the below chart in order to help the EDGI member you are reaching out to understand your level of concern.

<b>Severity</b>	<b>Description</b>
1	Something egregiously bad happened and I am seeking immediate restitution
2	Someone was harmed and we need to address it but it’s not immediate
3	The CoC was violated, I’m not sure if anyone was harmed, but we should do something to make sure it doesn’t happen again
4	I’m not sure if this is a CoC violation per se but I’d like to talk this through with someone and see if we should do more

Figure 12. The severity section of EDGI’s revamped Code of Conduct.

Over the fall, EDGI undertook a 9-week pathfinding process toward greater sustainability. With the help of a consultant, a pathfinding committee guided EDGI through the decision to hire its first Development Director and seek fiscal sponsorship with a professional fiscal sponsor. As a result, EDGI was accepted into

Multiplier's fiscal sponsor/accelerator program in early 2021, which allowed EDGI to support employed staff with partial benefits for the first time, in closer alignment with our value of labor justice.

EDGI is actively engaging with the translation of values and vision into programmatic strategy and sustainable financing models. Over the following months, EDGI will work with Multiplier staff and two external consultants hired through a Packard Organizational Effectiveness grant to build out our Theory of Change and partnership and financial strategy in a series of multiyear plans.

## SOCIAL HOUR (EEW)

Reflection, Conclusion, and  
Next Steps

12/1/20

Happy hours and social hours are not that much fun on Zoom! We saved this idea at the very end by playing a really fun game of Fishbowl online. We should keep experimenting with spaces to play & relax together remotely.

Structured activities help, even if they're really simple.

Figure 13. A page from the Lab Notebook, where experimental improvements to EDGI's work and culture are outlined and trialed.

## COMMUNICATING & ENGAGING IN SPHERES OF INFLUENCE

In a year of rapidly shifting social and political conditions, the reach and impact of EDGI's work have depended on coordinated and responsive communication within and outside of EDGI. This has been the focus of the communications team, which has worked to communicate the ongoing urgency of EDGI's work while developing new and consistent messaging about ways this work has shifted, all while building capacity by streamlining communications processes.

## Communications

Over the last year, as our communications team has helped us share the findings of our investigations and reports with key stakeholders and the public, our reputation and influence within various spheres continue to grow—from journalism to science and environmental advocacy groups to the halls of Congress. Our investigations and reports continue to spark stories and coverage in prominent media outlets, including Reuters, The Washington Post, The New York Times, and The Guardian. Over 300 national and international articles now reference our work.

EDGI's work continues to matter more than ever amidst the past year's rapidly changing political and social contexts. For instance, EDGI's work was cited by [fact-checkers](#) when then-candidate Kamala Harris called out the deletion of climate change from federal websites in the October 2020 vice-presidential debate.

One strategy that kept us nimble and impactful this past year was our push to publish EDGI member op-eds more widely, partly through strategic partnerships. This included co-authoring an [op-ed for The Hill](#) with the Children's Environmental Health Network and writing a [timely guest blog](#) for the UCS Science Network. In total, we placed eleven op-eds in national and local outlets, allowing our members to contribute to conversations around everything from the nomination of [Justice Amy Coney Barrett](#) and [rebuilding the EPA](#) to regional [water quality](#) issues.

We worked responsively to communicate the ongoing urgency of EDGI's work to stakeholders and partners throughout the year. Internally, we identified the ways EDGI's work would evolve and developed [new, consistent messaging](#) around these changes. Externally, we communicated our ongoing impact through timely statements posted on [EDGI's blog](#) and social media (such as in the tweet at right, published after the announcement of Joe Biden's election to the presidency). Connecting directly with the public and our partners regularly on



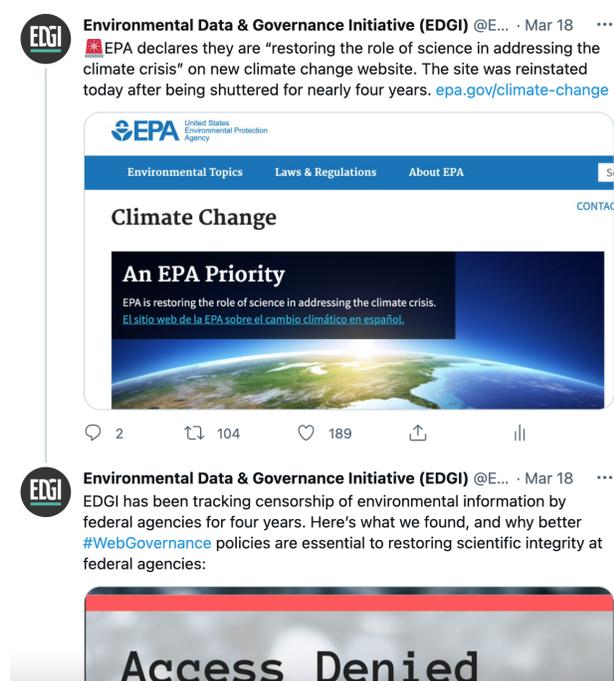
these platforms allows us to share our work with a growing audience and regularly collaborate with like-minded organizations and allies.

We took strides in our efforts to increase the reach and impact of our work through social media. Our Twitter audience remains our largest across social media platforms. We have over **6,800 followers**, receive **92,300 monthly impressions**, and have a **1.4% engagement rate** (based on six-month averages from December 2020 to May 2021). Year over year, the monthly averages of several vital metrics increased substantially:

Table 1. Monthly averages of Twitter metrics in June 2019 - May 2020 compared to June 2020 - May 2021

	Monthly Average, June 2019 - May 2020	Monthly Average, June 2020 - May 2021	Percentage Increase
<b>Profile Visits</b>	864	4278	<b>395</b>
<b>Engagement Rate</b>	0.9%	1.4%	<b>48</b>
<b>Likes</b>	195	240	<b>23</b>
<b>Tweet Impressions (K)</b>	58.7	69.8	<b>19</b>
<b>Mentions</b>	25	28	<b>13</b>
<b>Replies</b>	19	21	<b>10</b>

In particular, we saw significant increases in monthly profile visits and engagement rates, while monthly likes and impressions also increased substantially.



The reach of EDGI's Twitter content in March 2021 was especially notable as the account set a new high water mark for impressions and likes. This coincided with [three major, culminating releases by the Website Monitoring Team](#) in February 2021, followed by a spate of media attention from outlets like [Reuters](#), [Grist](#), and [The Washington Post](#), especially after the Biden EPA reinstated the agency's climate change website in mid-March. EDGI's Twitter announcement about the reinstatement of the EPA climate page, shown left, was [shared widely](#). Coverage in March also

included a [narrative feature in The Verge](#) detailing the story of EDGI's Website Monitoring Team.

Our strategy to leverage our work for the most significant impact under current and future political contexts will be further developed over the next months with the support of a Packard Organizational Effectiveness grant. With a more receptive administration in office, the time is ripe to strategically, collectively approach decision-makers.

## Publications

EDGI continues to prioritize timely, public-oriented writing while also publishing in academic venues. This past year, we published **two** major reports, **five** original analyses; **two** public comments; **two** white papers; and **one** annotation of a public speech. EDGI members also co-authored **four** peer-reviewed academic articles and **11** op-eds in local and national media.

Because accessibility is important to us, the vast majority of EDGI's outputs remain open and available to the public—from the computer code we produce to our writing outputs, including our white papers, guides, toolkits, website monitoring reports, and blog posts.

## Major Reports



Figure 14. EDGI report covers.

## [Access Denied: Federal Web Governance Under the Trump Administration](#)

February 25, 2021

“Access Denied” examines the Trump administration’s management of federal websites related to environmental regulation and provides recommendations for the Biden administration. The report uncovers a pattern of information being deleted or made less accessible just before or during a regulatory process. It also recommends that agencies be required to provide vital contextual information for regulatory decisions as well as build publicly accessible historical records and archives of web pages as they are updated, with a notification process of when content will be removed from websites.

## [Democratizing Data: Environmental Enforcement Watch’s Report Cards for Congressional Oversight of the EPA](#)

October 22, 2020

EEW’s first report, “Democratizing Data,” provides a first-of-its-kind analysis of EPA data on compliance with, and enforcement of, environmental laws in select congressional districts and states. It focuses on three of the most important environmental laws in the United States: the Clean Air Act, Clean Water Act, and Resource Conservation and Recovery Act. The release summarizes EEW’s report cards of 76 congresspeople who at the time served on the two key congressional committees that oversee the EPA.

## **Analysis, Public Comments, White Papers, and Annotations**

### [EPA Administrator Pick Michael Regan’s Enforcement Track Record is Promising](#) (analysis)

February 2, 2021

EDGI researchers used data from the EPA’s ECHO data portal to compare North Carolina Department of Environmental Quality (NCDEQ) enforcement actions, monetary penalties, and facility inspections under the Clean Water Act and Clean Air Act during EPA Administrator (then-nominee) Michael Regan’s tenure as the Secretary of NCDEQ.

## [Biden’s Pick for the Office of Public Engagement, Cedric Richmond, Profits While Polluting Industries in His District Avoid Culpability](#) (analysis)

December 11, 2020

EEW project researchers found the then-incoming Biden administration’s pick for director of the White House Office of Public Engagement, Cedric Richmond, regularly accepted donations from the top violators of environmental laws when he served as Representative for Louisiana’s Second Congressional District.

## [Bio-Lab’s Toxic Record Presages Chlorine-Fueled Fire Following Hurricane Laura](#) (analysis)

September 16, 2020

This analysis by EDGI researchers shows that the blaze at Bio-Lab following Hurricane Laura was not the first release of toxic chlorine from the facility.

## [More Permission to Pollute: The Decline of EPA Enforcement and Industry Compliance during COVID](#) (analysis)

August 13, 2020

EEW researchers conducted original [data science research](#) using EPA’s [ECHO database](#) to investigate the effects of March 26, 2020, EPA [policy](#) suspending pollution monitoring requirements for industries that claim to have been impacted by COVID-19.

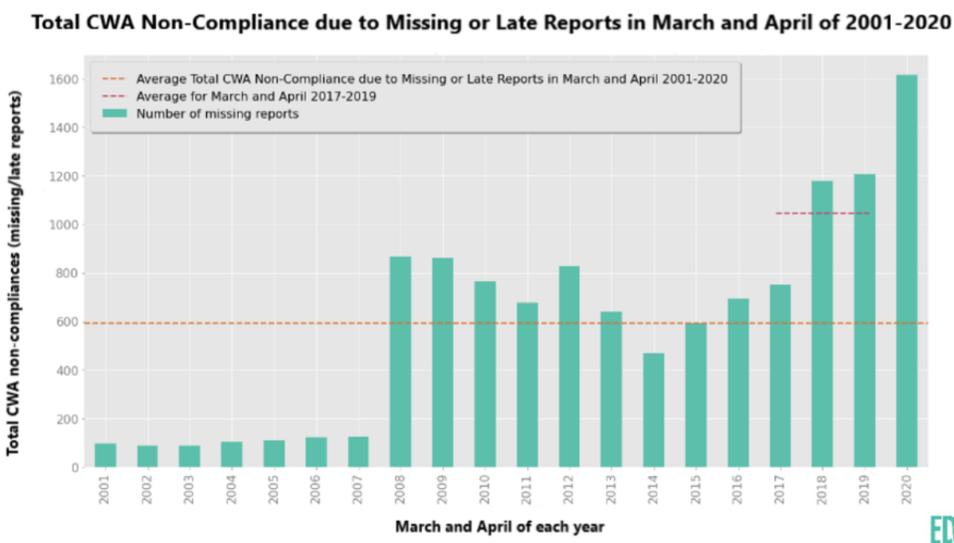


Figure 15. From “More Permission to Pollute.” This graph shows total non-compliance with the Clean Water Act due to facilities failing to submit information to the EPA.

**[Public Comment on the NCA5 Draft Prospectus: Build on the strong foundation of NCA4 and increase information utility in the NCA5](#)**

(public comment)

August 11, 2020

This public comment suggests ways the fifth National Climate Assessment (NCA5) could be made more accessible and valuable to multiple audiences. Overall, EDGI offers recommendations to strengthen the reception and utilization of the information provided by this assessment.

**[Joe Biden’s Clean Energy Plan Speech — Annotated](#)** (annotation)

July 29, 2020

In this annotation, EDGI’s EHAC working group furnishes context and fact-checking to allow for a more critical assessment of then-presidential nominee Joe Biden’s July 14, 2020, speech on his plans for addressing environmental justice, economic growth, and climate change.

**[Evolution of the Department of the Interior’s Tagline, Mission, and Priorities](#)**

(white paper)

June 1, 2020

EDGI’s web monitoring working group reviews the Department of the Interior’s (DOI) change of its tagline from “Protecting America’s Great Outdoors and Powering Our Future” to “Stewarding Conservation and Powering Our Future.”

**[EDGI Urges EPA to Withdraw its Ill-Conceived “Strengthening Transparency in Regulatory Science” Proposed Rule](#)** (public comment)

May 13, 2020

EDGI submitted this [public comment](#) on the EPA’s Supplemental Notice of Proposed Rulemaking regarding its proposed Strengthening Transparency in Regulatory Science rule (STRS), Docket number EPA-HQ-OA-2019-0259-9322.

**[An Embattled Landscape Series, Part 2b: The Declining Capacity of Federal Environmental Science](#)** (analysis)

May 4, 2020

This is the third in a series of reports on how the Trump administration undermined the integrity of federal environmental science. EDGI researchers analyzed publicly available reports to Congress from various environmental agencies. They also analyzed impacts to EPA, supplementing public data with information received from FOIA requests and interviews with staff.

**[DOI Adds “Recreation” Priority and Web Resources](#)** (white paper)

May 4, 2020

This paper reviews the DOI’s addition of “Recreation” to its dropdown list of “Priorities” on its web page in March 2019.

**EDGI Member Op-Eds in Local and National Media**

**[Censorship of Federal Environmental Agency Websites Under Trump: What We Learned and How to Protect Public Information Moving Forward](#)**

By Gretchen Gehrke, Marcy Beck, Eric Nost, and Shannan Lenke Stoll

Published in UCS’s [The Equation](#) on March 18, 2021.

**[Children Are the Key to Addressing Climate Change and Improving Environmental Health](#)**

By Marianne Sullivan (EDGI member); Nsedu Obot Witherspoon, Kristie Trousdale (Children’s Environmental Health Network)

Published in [The Hill](#) on December 23, 2020.

**[10 Ways Biden Should Fix the EPA](#)**

By Marianne Sullivan and Christopher Sellers

Published in [Vox](#) on December 18, 2020.

**[Pennsylvania Water Is Not What It Used to Be](#)**

By Emily Pawley

Published in [Penn Live Patriot-News](#) on October 23, 2020.

## **[The Supreme Court's Environmental Legacy Was Tarnished Even Before Barrett](#)**

By Keith Pluymers, Sarah Lamdan, and Christopher Sellers

Syndicated by [Augusta Free Press](#), [Canton Daily Ledger](#), [Southeast Texas Record](#), [Jewish Journal](#), [Orlando Weekly](#), and [The East County Californian](#) between October 21, 2020, and November 6, 2020.

## **[For Labor Day, Honor Workers by Keeping Them Alive](#)**

By Josiah Rector and Christopher Sellers

Published in [USA Today](#) on September 7, 2020.

## **Peer-Reviewed Articles**

### **[The Problem of Accountability: Environmental Justice and the Trump Administration](#)**

Ellen Kohl, Marianne Sullivan, Mark Milton Chambers, Chris Sellers, Alissa Cordner, Leif Fredrickson, Jennifer Liss Ohayon, and Jessica Varner, "The Problem of Accountability: Environmental Justice and the Trump Administration," Environmental Justice (May 5, 2021 [online]).

EDGI members drew on >100 interviews by >75 former and current EPA employees to examine how EPA employees relied on middle-out systems of accountability to maintain EPA's environmental justice (EJ) work in an administration seen as hostile to it. They examined how the Trump administration tried to exploit the lack of top-down systems of accountability to dismantle EPA's EJ program. Yet, pressure from within the EPA and external to the agency countered the lack of top-down approaches. They recommend the development of formalized top-down systems of accountability to protect and develop EPA's EJ activities.

### **[Visualizing changes to US federal environmental agency websites, 2016–2020](#)**

Nost E, Gehrke G, Poudrier G, Lemelin A, Beck M, Wylie S, et al. (2021) Visualizing changes to US federal environmental agency websites, 2016–2020. PLoS ONE 16(2): e0246450. <https://doi.org/10.1371/journal.pone.0246450>

EDGI members examined websites of US federal environmental agencies and showed that between 2016 and 2020: 1) The use of the term "climate change" decreased by an estimated 38%; 2) access to as much as 20% of the Environmental Protection Agency's website was removed; and 3) changes were made more to Cabinet agencies' websites and to highly visible pages. This study lays the

groundwork for systematically tracking changes and holding officials more accountable for their web practices. In addition, the techniques described enable researchers and watchdog groups to operate at the scale necessary to understand the impact an administration can have on the online face of government.

### [Re-Envisioning EPA and Its Work in the Post-Trump Era: Perspectives from EPA Employees](#)

Sullivan, Marianne, Chris Sellers, Leif Fredrickson, Alissa Cordner, Ellen Kohl, and Jennifer Liss Ohayon, "Re-Envisioning EPA and Its Work in the Post-Trump Era: Perspectives from EPA Employees," *Journal of Public Health Policy* (February 10, 2021). doi:10.1057/s41271-021-00276-z.

EDGI members present perspectives of EPA employees and retirees on reconfiguring and strengthening the EPA to address current and future environmental health problems. Interviews revealed several internal and external issues, including a hyper-partisan context in which the agency operates, lack of public understanding of the extent of domestic and global environmental problems, budget shortfalls, staffing and leadership challenges, reduced scientific capacity, and use of science in decision-making, insufficient attention to environmental justice, and lagging technology. Researchers show reforms cannot only be expert-driven but must also incorporate community-driven solutions.

### [A Green New Deal for Environmental Data](#)

Nost, E., S. Wylie, K. Breseman, G. Gehrke, C. Sellers, L. Vera, L. Richter, B. Mansfield, and Environmental Data & Governance Initiative (EDGI). A Green New Deal for Environmental Data. *Science for the People*. 23(2): 72-75.

EDGI's contribution to the "A People's Green New Deal" issue of *Science for the People*. At the time of writing this paper, there was little public discussion about how transparency and inclusivity would be ensured throughout goal-setting and implementation processes for the Green New Deal. Therefore, EDGI proposed policies to support these aims through better data practice: a Green New Deal for environmental data.

## **Impact of Our Publications**

From May 2020 through June 2021, **52 news articles** have described, commented on, and cited our publications. A full listing is available [here](#). These articles and the **11 op-eds** written by EDGI members during this time were viewed by an estimated

1.72 million readers and shared an estimated 79,500 times on social media. As of the date of this annual report, EDGI's **13 peer-reviewed articles**, listed in full [here](#), have received 163 academic citations.

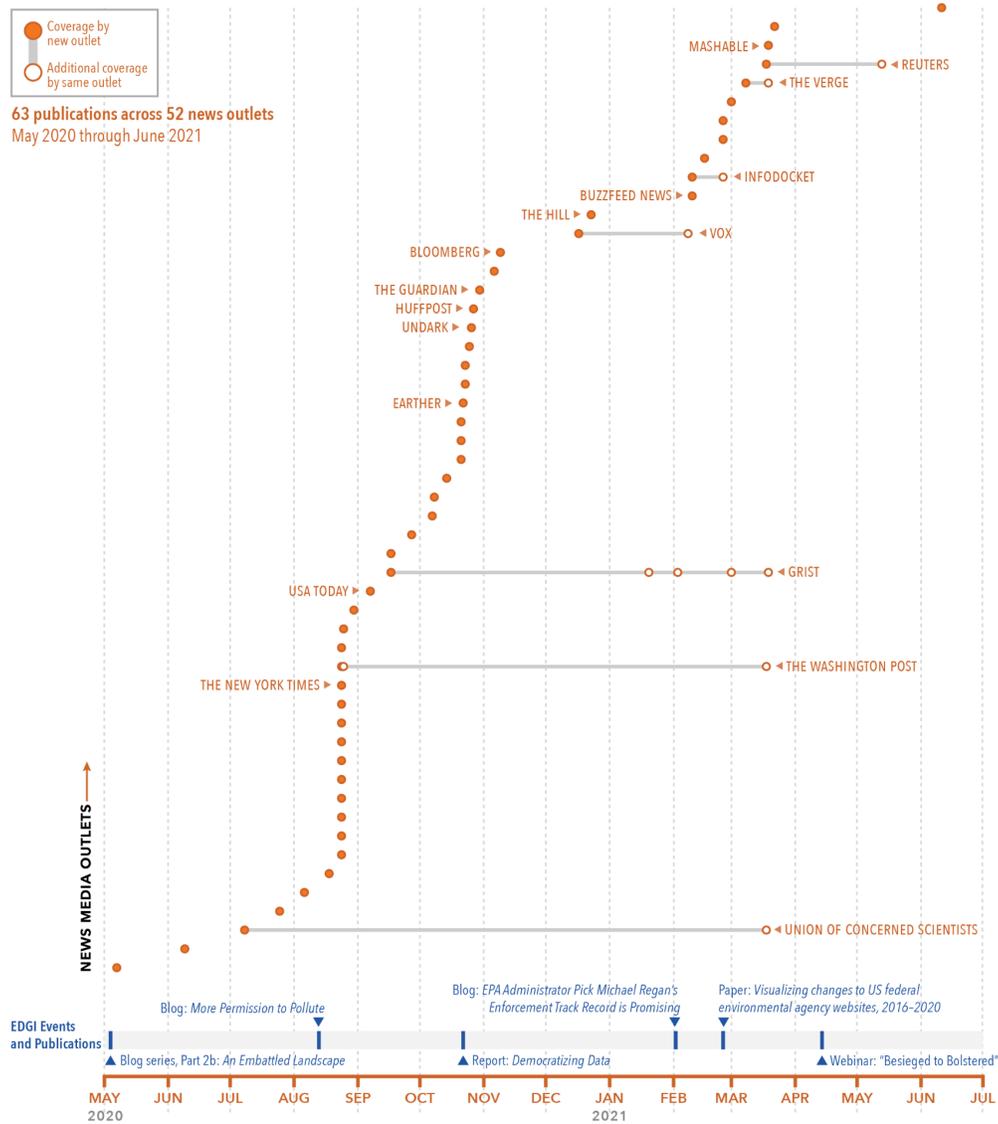


Figure 16. Data visualization of our press coverage from May 2020 through June 2021 by Steven Braun. The chart includes both news articles about EDGI (52) and op-eds by EDGI members (11).

## **FINANCIAL OVERVIEW**

Over this past year, we've continued work on our existing grants from the David and Lucile Packard Foundation and the Doris Duke Charitable Foundation. We're excited to announce that we received a new grant from the Packard Foundation as well, which will provide us with sustaining funding through May 2023 and will help support all of our core programs.

Donations to EDGI from members of the public are a much smaller percentage of our revenue than they were in our first year, but we are still incredibly grateful to those who donate. Donated funds allow us the flexibility of use wherever they're most needed.

Many thanks to our donors, the David and Lucile Packard Foundation and the Doris Duke Charitable Foundation, Code for Science and Society and the Gordon and Betty Moore Foundation, Earth Science Information Partners, and our fiscal sponsor Multiplier, for their support of all we do. It is people like you who help us keep our government accountable.

## **CONTRIBUTE TO EDGI**

EDGI's work is also made possible through tax-deductible donations from the public and the generous efforts of volunteers. We'd love to have your support.

### **Web Monitoring**

EDGI welcomes volunteers to assist with our web monitoring work. Please email us at [enviroDGI@gmail.com](mailto:enviroDGI@gmail.com) to volunteer.

### **EDGI Teaching**

We would love to support the development of further EDGI courses. Interested in hosting an EDGI web monitoring course? Please email us at [enviroDGI@gmail.com](mailto:enviroDGI@gmail.com) to inquire about hosting.

## EDGI Dev Team

EDGI also seeks interested coders and web developers to help with our open-source software projects, including web scraping and diffing software, data science tools in Python and R, and website building from Wordpress to React. Please check out our GitHub, <https://github.com/edgi-govdata-archiving>, and email us at [enviroDGI@gmail.com](mailto:enviroDGI@gmail.com) to get involved in the dev team.

**Your support  
makes this work possible**

**DONATE NOW**