The last half century has witnessed sweeping changes in the public perception of government and its role in advancing the public interest and improving public welfare. Surveys show public trust in government is in sharp decline and criticism of government has become a bipartisan social norm. To many, “government regulation” connotes undue interference with markets, competition, and the economy, yet, at the same time, surveys show overwhelming bipartisan support for the protection of air, water, public lands, endangered species, and natural resources—an essential function of government.

To explain these contradictory outlooks, this is the first of four policy papers produced by FLOW that trace the history of environmental regulation, illustrating how it protects individuals, families, and communities while fostering innovation and economic gains. FLOW advocates for greater application of the Public Trust Doctrine, a model for stewarding public resources, addressing the growing challenges of maintaining water quality and confronting the climate crisis, and at the same time, restoring public trust in government’s critical oversight role.

FLOW (For Love of Water) is working to build deeper awareness among all stakeholders—including groups, governments, and citizens—regarding the public trust framework that protects the Great Lakes.
Environmental regulations are often assailed as unduly interfering with free markets, undermining competitiveness, and adding unnecessary costs to the production of goods and services. At the same time, public surveys and polling show strong and consistent support for efforts to protect natural resources and the environment.

While the public at large displays a strong consensus for measures that protect our air and water, the public has less appreciation for the full array of benefits government regulations provide and lacks confidence in the effectiveness and competency of government to afford such protections.

The benefits of government regulation are measurable and are overwhelmingly favorable in the realm of environmental protection, where the quantifiable benefits of regulations greatly exceed the costs imposed on business and the economy.

The discontinuity between the need for regulatory interventions to protect human health and the environment and the distrust of government’s regulatory mandate is attributable, at least in part, to a strong line of critical commentary from conservative “think tanks” and right-of-center media animating suspicion and distrust in government’s effort to advance the public interest.

Environmental protections afforded by federal law are under siege as the Trump administration aggressively pursues efforts to broadly roll back environmental regulations and expedite fossil fuel development, while expressing open contempt for climate concerns. Meanwhile, former Governor Rick Snyder in late 2018 signed into law a bill that limits new regulations in Michigan to the weakened regulatory standards defined by federal law.

The field of government regulatory activities is vast. This paper provides a historical perspective on environmental regulations, illustrating the many ways government regulatory systems provide cost-effective interventions that protect human health and the environment. The effect of regulations can and should be measured and monetized as a means of ensuring sound government policies that minimize harm to the public and avoid imprudent and costly impacts.

Environmental regulations are intended to protect every citizen’s common interest in this wondrous natural resource heritage and to prevent further harm so that future generations can continue to enjoy and derive the same benefits we have today. We have charged government with this awesome responsibility and the corresponding “duty to protect” and safeguard our common natural resources is deeply embedded in Michigan’s jurisprudence.

The Public Trust Doctrine is the legal framework to protect shared natural resources also referred to as “the commons.” The Doctrine holds that the Great Lakes and their tributary waters, and by extension, all water-dependent natural resources, are held in trust for the benefit of the people. Government, according to the Michigan Supreme Court, has a “high, solemn and perpetual” fiduciary responsibility as trustee, under the doctrine, to protect and preserve the trust for future generations. In so doing, public trust in government can be enhanced as well.

Michigan lies at the heart of the Great Lakes — the most magnificent freshwater system on the planet. The good news is that there exists a broad public consensus to protect this extraordinary natural resource endowment, as well as the availability of a long-standing set of legal principles that, if better appreciated and activated, can empower our citizens and leaders to hold government accountable for protecting our commonly held natural resource heritage.

The paper offers the long-recognized Public Trust Doctrine as a legal framework to address the challenges of protecting and enhancing our natural resources and combating climate change while rebuilding public confidence in the role of government.
A concerted effort has flourished over the last several decades to curb government protections. That effort uses a rhetoric that equates regulations to protect health and safety with lowering competitiveness, undermining free markets and the economy, and levying a “hidden tax” that harms consumers. The notion that laws and regulations interfere with a well-functioning, market-based economy has become accepted as an article of economic orthodoxy. Faith in this belief is espoused, without challenge or criticism, in the public rhetoric used by conservative-leaning media, groups and institutions, as well as by many in the political center and left.

The assault on regulations is particularly acute when it comes to environmental protection, where both the Trump Administration, and, in Michigan, the recently departed Snyder Administration have rolled back regulations and limited the authority of government to protect air, water, and other public resources.

Public health and safety have been compromised and the social costs of deregulation, many of which can be measured and quantified in dollars, will increase and transfer directly to the public. Deregulatory efforts are often presented to the general public without justification or analyses based in sound science or economics, but rather, founded on an ideology that promotes reduced regulatory oversight as a public good. Free-market, deregulatory rhetoric is often a disguised attempt to increase private gain at the cost of public health and the public good.

Absent from the public dialogue are informed discussions of the purpose and value of regulations, the protections afforded and the public harms avoided, and the wide array of benefits that regulatory structures provide to the public.

Although cost-benefit analysis is regarded by most experts as a necessary and appropriate means of measuring and ascertaining the economic impact of regulatory initiatives, cost-benefit analysis has been subverted under the Trump administration, producing an imbalanced accounting of costs over benefits.

Also absent from public discussion are the economic and social costs and consequences when regulations aimed at protecting human health or the environment are voided or withdrawn. The array of costs of environmental pollution and the well-documented health and economic impacts of inadequate regulations and weakened oversight of industry is largely unaccounted for and do not appear on a public ledger. “Deregulation” is a meme that resonates to many as a desirable goal and a public good and is rarely contextualized as undoing necessary, appropriate, and successful government interventions.
PROTECTING THE WATER COMMONS:
The Clean Water Act

The 40 million residents of the Great Lakes Region are the beneficiaries of decisive government interventions beginning in the early 1970s that dramatically improved, indeed rescued, the Great Lakes and certain tributary rivers and streams from what was thought by many as a state of irreversible decline and ecosystem collapse. A half century ago, rivers and streams were the repositories of untreated industrial effluent, chemicals, oils, solvents, and human waste. Toxic effluent flowed into our waters, recreational opportunities were lost, fish became inedible or nonexistent, and Lake Erie was declared dead.

Enactment of the federal Clean Water Act (CWA) in 1972 and its accompanying regulatory framework brought dramatic improvement to water resources of the Great Lakes. The Act regulated discharges to the waters of the United States, making it unlawful to discharge any pollutant from a “point source” pipeline or sewer outfall unless a permit was obtained. The CWA authorized the Environmental Protection Agency to develop water quality criteria, implement pollution control programs, and set wastewater standards for industry.

Michigan, whose economy has always depended on water-related job creation, enjoys an economic impact of water-based economic activity of nearly one million jobs and $60 billion annually. Clean, healthful water is essential to

THE CLEAN WATER ACT OF 1972

The objective of this chapter is to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters. In order to achieve this objective it is hereby declared that, consistent with the provisions of this chapter—

(1) it is the national goal that the discharge of pollutants into the navigable waters be eliminated by 1985;

(2) it is the national goal that wherever attainable, an interim goal of water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water be achieved by July 1, 1983;

(3) it is the national policy that the discharge of toxic pollutants in toxic amounts be prohibited;

(4) it is the national policy that Federal financial assistance be provided to construct publicly owned waste treatment works;

(5) it is the national policy that areawide waste treatment management planning processes be developed and implemented to assure adequate control of sources of pollutants in each State;

(6) it is the national policy that a major research and demonstration effort be made to develop technology necessary to eliminate the discharge of pollutants into the navigable waters, waters of the contiguous zone, and the oceans; and

(7) it is the national policy that programs for the control of nonpoint sources of pollution be developed and implemented in an expeditious manner so as to enable the goals of this chapter to be met through the control of both point and nonpoint sources of pollution.
these benefits. An estimated one in five Michigan jobs (not including outdoor recreation and tourism) are closely linked to water. In 2012 water-dependent employment in Michigan grew eight percent, close to four times the national average, while the state’s overall employment rate remained stagnant.

Estimates of local economic benefits of clean water are also numerous. Clean lakes in Van Buren and Berrien Counties are estimated to have an annual value of $9.1 million. A 2009 study found that five primary recreational activities dependent on Oakland County’s water resources generate an estimated $200 million in annual recreational benefits to county residents and $806 million in annual ecosystem services. Without clean water protections, many of these benefits would be lost.

A 2010 study found that the financial benefits of clean-air reforms outweighed their costs by a margin of up to 40 to 1, and that 1.3 million jobs were created in pollution-control industries between 1977 and 1991 as a direct result of Clean Air Act rules. Between passage of the Act in 1970 and 2011, air pollution dropped 68% while Gross Domestic Product (GDP) increased 212%.

Net employment gain from environmental spending added 5 million direct and indirect jobs in 2003 Air pollution control equipment alone generated revenues of more than $18 billion in 2007. EPA estimates that the value of health benefits accruing to Americans under the Clean Air Act will approach nearly $2 trillion.

The Rouge River

The Rouge River is emblematic of the stunning transformational effect of the CWA. According to the Environmental Protection Agency (EPA), the 467-square-mile Rouge watershed was “the oldest and most heavily populated and industrialized area in southeast Michigan.” Henry Ford developed the Rouge Plant on 1,000 acres bordering the river in 1917, globally the largest integrated industrial complex of its time. Industrial waste, oils and debris clogged the river, delivering a toxic brew of chemicals and septage waste into Lake Erie.

The enactment of the CWA and its regulation of discharges to the river provided an array of new tools and safeguards that slowly but surely improved water quality. With the new regulatory protections in place, and with the assistance of dedicated grassroots organizations and committed local leaders, the Rouge today is becoming once again a thriving riverine ecosystem.
Lake Erie – Resurrection

Prior to the passage of the CWA, the Lake Erie ecosystem was already in decline. In the 1950s and 1960s, excessive nutrient loadings from septage waste, runoff from farmland, but especially phosphates from laundry detergents delivered via municipal sewer outfalls, overloaded and imbalanced the Lake Erie biome. As chronicled by David Dempsey in his history of Michigan’s conservation efforts, Ruin and Recovery, “slimy and repulsive mats of algae covered much of Lake Erie’s surface in the summertime” with Time Magazine warning that lake Erie was so polluted it was “in danger of dying from suffocation.”

The International Joint Commission called for banning the use of phosphates in laundry detergent. Michigan Governor William Milliken used his administrative powers to promulgate rules limiting the use of phosphates in laundry detergent. Amway Corporation, which manufactured phosphates for detergents as well as other manufacturers, vigorously contested the regulation of phosphates. Ultimately, the Michigan Supreme Court upheld the rules in a case that one state official labelled “ring around the collar versus the Great Lakes.”

The rules took effect in 1977. By 1979, phosphorus entering 14 major municipal sewer systems declined by 30 percent and by 40 percent at the Detroit sewage plant, the largest contributor of phosphorus loads to Lake Erie.

Ohio counties dependent on tourism have benefited from the resurrection of Lake Erie. For eight Ohio counties - Lucas, Ottawa, Sandusky, Erie, Lorain, Cuyahoga, Lake, and Ashtabula Lake Erie provides $15.1 billion in tourism related economic benefits as well as 128,000 jobs and an estimated $1.9 billion in tax revenue.

“You have such a special natural resource and asset for the great state of Ohio in Lake Erie and I can’t think of a better way to be able to showcase how wonderful Lake Erie is,” said the state’s (Republican) Lieutenant Governor Mary Taylor at the annual Governor’s Fish Ohio Day in August 2018.

HOW WE GOT HERE:
The Rise of Modern Environmental Regulation

On June 22, 1969, industrial waste covering the surface of the Cuyahoga River in Cleveland, Ohio, burst into flames. The fire was so intense it badly damaged two railway bridges crossing the river. It was not the first time the Cuyahoga had caught fire. Described by Time magazine as a river that “oozed rather than flowed,” the Cuyahoga had erupted in flames many times over decades, with the largest fire dating back to 1952. Yet it was the 1969 fire that ignited public concern and helped galvanize political action, culminating in the passage of the Clean Water Act in 1972.

The Cuyahoga emptied its industrial wastes into Lake Erie as did the Detroit, Sandusky, Raisin, and Maumee Rivers. Many other rivers delivered nutrient loadings of nitrogen and phosphorus from agricultural watersheds and municipal sewer systems. Untreated wastes and nutrients took their toll, and Lake Erie, an integral part of the largest freshwater system in the world, was declared dead.

The foundational laws and regulations in the modern era aimed at protecting public health and the environment were born in crises.


A key aspect of many of the landmark federal environmental laws was “cooperative federalism”—the delegation of
federal oversight and enforcement authority to individual states, provided the states enacted laws that were “at least as stringent as” federal laws. This federal/state partnership was designed to allow for state administration and control over core environmental laws and programs while relieving the federal government of the responsibility of building a detailed management, administrative, and enforcement presence for each state. Today, almost all states administer air, water, and waste programs under state laws that are certified by state attorneys general as being “at least as stringent as” federal law.

Under the delegation of federal oversight and enforcement authority to states, the federal government, through the EPA and the U.S. Justice Department (DOJ), retained oversight and enforcement authority to ensure that states maintained effective programs. As a consequence, businesses and industries were and are subject to both federal and state environmental laws and regulations. Moreover, under this shared system, states are free to enact and administer environmental laws and regulations that are more stringent than federal law.

Not unexpectedly, business and industry met these new comprehensive environmental laws and regulations with concern and alarm.

Backlash: A Short History of Opposition to Environmental Laws and Regulations

The rapid growth of environmental laws and regulations 50 years ago represented a seismic political and cultural shift propelled by concern over increasingly visible and systemic environmental degradation. The new, seminal environmental laws, broad in scope and impact, were a product of bipartisan consensus and overwhelmingly supported by the American public. In 1970, far-reaching amendments to the Clean Air Act passed unanimously in the Senate and were approved by a 374-1 vote in the House. The nation’s first Earth Day that same year brought over 20 million people out into the streets, parks, and public spaces. College and university students and faculty helped propel the environmental movement, catalyzing the emergence of influential new environmental organizations like the Environmental Defense Fund (1967), Friends of the Earth (1969), the National Resources Defense Council (1970), and Greenpeace USA (1975). Pervasive media coverage elevated public interest and discourse over what was regarded as widespread threats to our air, land, water, lakes, rivers, and oceans.

Business and industry perceived the new government mandates as both unnecessary and costly, and believed the imposition of these new regulatory schemes would make the U.S. less competitive and further damage an economy already ravaged by “stagflation” — the high inflation and unemployment with stunted economic growth that characterized the economy of the 1970s.

The creation of the Environmental Protection Agency (EPA) and its expansive new powers and authority further perplexed and alarmed many in the business community. Adding to the concern was the appointment by President Richard Nixon of Republican William D. Ruckelshaus as the EPA’s first administrator. Ruckelshaus, who had served in the Indiana Attorney General’s Office, was known as an early, aggressive enforcer of environmental laws. Confirming the worst fears of business and industry, the EPA referred 152 pollution cases to the Department of Justice for prosecution in its first year of operation.

In Michigan, automobile manufacturers felt they were
targets of laws and regulations that were uninformed by an understanding of business operational costs and manufacturing processes. In response to new requirements for smog-reducing catalytic converters, Henry Ford II threatened to shut down Ford Motor Company. “Many of the temporary standards are unreasonable, arbitrary, and technically infeasible. … [If] we can’t meet them when they are published we’ll have to close down.”

Business leaders perceived no less than an assault on free market principles. Political scientist David Vogel wrote: “(F)rom 1969 to 1972, virtually the entire American business community experienced a series of political setbacks without parallel in the postwar period.” Seemingly overnight, critics charged government with meddling in industrial processes, materials handling, and the disposition of wastes, which they claimed was undermining the economics of producing the goods and services on which the nation depended.

A Call to Arms: The Lewis Powell Memorandum

The threat posed by the new environmentalism and the accompanying growth of government laws and regulations was regarded as existential and called for a commensurate response.

Lewis Powell, a Harvard-trained lawyer, who represented the tobacco industry before being appointed to the U.S. Supreme Court by Richard Nixon in 1972, is credited with catalyzing the anti-regulatory movement. Months before his appointment to the Court, Powell penned a 6,000 word confidential memorandum sent to the chair of the U.S. Chamber of Commerce elaborating a multifaceted, strategic plan based upon a perceived, grave threat.

“The ultimate issue,” Powell wrote, “is the survival … of the free enterprise system” (Powell’s emphasis).

“No thoughtful person can question that the American economic system is under attack,” begins the memorandum. Powell warned that the threat was systemic, emanating from “the campus, the pulpit, the media, the intellectual and literary journals, the arts and sciences, and from politicians.”

Powell wrote that the remedy “lies in organization, in careful long-range planning and implementation, in consistency of action over an indefinite period of years, in the scale of financing available only through joint effort, and the political power available only through united action and national organizations.” Powell called for business and industry to focus on academia and the media and to finance a new Staff of Scholars, Staff of Speakers, a Speaker’s Bureau, and

Current examples of the impotency of business, and of the near contempt with which businessmen’s views are held, are the stampede by politicians to support almost any legislation related to ‘consumerism’ or to the ‘environment.
calls for new textbooks “to restore the balance essential to genuine academic freedom.”

The effect of the then-secret Powell memorandum cannot be overstated. Historians largely agree that Powell is responsible for the advent and proliferation of the conservative “think tank.” Bill Moyers summarized the growth of business organization power and influence catalyzed by Powell’s call to arms. In 1972, three business organizations merged, forming the Business Roundtable. By 1977, 113 of the top Fortune 200 companies, which accounted for nearly half of the economy, were participating in the organization.

Moyer wrote, “the organizational counterattack of business in the 1970s was swift and sweeping — a domestic version of Shock and Awe. The number of corporations with public affairs offices in Washington grew from 100 in 1968 to over 500 in 1978. In 1971, only 175 firms had registered lobbyists in Washington, but by 1982, nearly 2,500 did. The number of corporate PACs increased from under 300 in 1976 to over 1,200 by the middle of 1980.” On every dimension of corporate political activity, the numbers reveal a dramatic, rapid mobilization of business resources in the mid-1970s.

Anti-regulatory rhetoric became institutionalized in conservative circles and legitimized by conservative think tanks. The mobilization of business and industry to counter the perceived cultural and governmental insurrection gained purchase and resonated with large segments of the public. The drumbeat of anti-regulatory rhetoric helped transform public opinion on the core question of the efficacy of government. Ronald Reagan actively placed government in the crosshairs of public resentment, relentlessly delivering the message “government is not the solution to our problem; government is the problem.”

Government bashing became and remains a bipartisan trope, with both Democratic and Republican members of Congress and state legislators finding effortless political gain in criticizing government, government employees, and their supposed interference with personal freedoms and property rights.

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**POWELL’S PROGENY**

- The Bradley Foundation
- Smith Richardson Foundation
- Scaife Family (Four Foundations)
- Earhart Foundation
- John M. Olin Foundation
- Koch Family (Three Foundations)
- Castle Rock (Coors) Foundation
- JM Foundation
- Philip M. McKenna Foundation
- The Heritage Foundation
- Accuracy in the Media
- The American Enterprise Institute
- Center for the Study of Popular Culture
- Leadership Institute
- Capital Research Center
- The Philanthropy Roundtable
- Richard Mellon Scaife Foundation
- Federalist Society
- The Cato Institute
- The Pacific Legal Foundation
- Olin Center for Individual Rights
- Thomas Jefferson Institute for Public Policy

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A consequence of the persistent anti-government messaging penetrating our culture is the remarkable falloff in public trust in government. The Pew Research Center has been tracking public trust in government since 1958. Throughout the Eisenhower and Kennedy administrations, more than three quarters of the public expressed trust in government. By 2018, only 18% of Americans indicated that they can trust the government in Washington to do what is right “just about always” (3%) or “most of the time” (15%).

Ironically, public trust in government was far higher under earlier administrations that invested in large-scale infrastructure and social welfare programs. President Eisenhower, though self-identifying as a conservative, created the Department of Health, Education, and Welfare, expanded Social Security, and increased the minimum wage. He also launched the largest infrastructure project in the world — the national interstate highway system — and, in collaboration with Canada, built the St. Lawrence Seaway.

President Kennedy sought dramatic expansions of public

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“The nine most terrifying words in the English language: ‘I’m from the government and I’m here to help.’”

–Ronald Reagan
programs to serve vulnerable populations. Kennedy sought to eradicate poverty through new housing and transportation policies. Food stamp and school lunch programs were expanded, and other anti-poverty initiatives were passed with bipartisan support. New agricultural support mechanisms were implemented to aid impoverished farmers and rural communities, including expansion of rural electrification. Kennedy, through his Justice Department, fought for civil rights, voting rights, and anti-discriminatory practices in employment. He founded the Peace Corps and initiated what came to be Volunteers in Service to America (VISTA).

Many of these social programs and initiatives were anathema to segments of the population. Conservatives were then, and are now, contemptuous of programs like the Great Society and the War on Poverty, viewing these visionary initiatives as failed attempts at liberal social engineering. As Joshua Green, an editor of The Atlantic observed:

“For decades, conservatives have inveighed against what they consider to be the hubris of liberals — the belief that regulations, laws and bureaucrats can contend with deep cultural forces. Daniel Patrick Moynihan, the New York senator and a chastened veteran of the Great Society, liked to warn about government overreach by citing Rossi’s Law, so named for the sociologist Peter Rossi, who had declared that “the expected value for any measured effect of a social program is zero.”

Eroding public trust in government programs, government workers and government regulations is now endemic in our political culture. According to recent research by the Rand Corporation, the most damaging effects of loss in public trust in government and government institutions are “the erosion of civil discourse, political paralysis, alienation and disengagement of individuals from political and civic institutions.”

Decades of anti-government crusading have taken their toll. By 2012, 76 percent of Republicans and 41 percent of Democrats agreed with the proposition “that government regulation of business does more harm than good.”

“The achievements of the modern regulatory state in advancing human welfare are profound. Thanks to administrative regulation, Americans breathe cleaner air, drink cleaner water, eat healthier food, drive safer cars, work in safer environments, and have fairer and more secure access to education, housing, employment, telecommunications, and the ballot box.”

~Peter M. Shane, Jacob E. Davis II chair in law at the Ohio State University’s Moritz College of Law
Regulatory Theory: Why All These Rules?

The Clean Water Act, the Clean Air Act, and the other environmental laws referenced in this paper are far-reaching and complex, yet the statutes provide only the overall framework of the system of environmental protection Congress intended. It is left to the EPA or other federal agencies having jurisdiction to develop rules to fill in the interstitial spaces that statutory laws contemplate. The rules promulgated by the agency provide the guidance as to whom the statute will affect, what exactly it will do, when and where it will apply, and how the federal statute operates. As a result, the regulations promulgated pursuant to an environmental statute like the Clean Water Act will necessarily be much more detailed and lengthier than the provisions of the statute.

MODERN PRINCIPLES OF REGULATION: A Changed Landscape

In recent times, the process of promulgating federal administrative rules has been governed by Executive Orders that articulate the principles that must be followed in rulemaking. Issued by President Barack Obama, Executive Order 13563 of 2011, entitled Improving Regulation and Regulatory Review, sets forth the overall philosophy of regulatory intent:24

“Our regulatory system must protect public health, welfare, safety, and our environment while promoting economic growth, innovation, competitiveness, and job creation. It must be based on the best available science. It must allow for public participation and an open exchange of ideas. It must promote predictability and reduce uncertainty. It must identify and use the best, most innovative, and least burdensome tools for achieving regulatory ends. It must take into account benefits and costs, both quantitative and qualitative. It must ensure that regulations are accessible, consistent, written in plain language, and easy to understand. It must measure, and seek to improve, the actual results of regulatory requirements.”

This executive order specifically incorporates the terms of Executive Order 12866 of 1993, issued by President Clinton, which sets forth 12 Principles of Regulation that must be followed by federal agencies when promulgating rules. 25 The Principles limit rulemaking to areas that “are required by law, are necessary to interpret the law, or are made necessary by compelling public need.” Rules must be subject to cost-benefit analysis and the benefits of a regulation must justify its costs. Agencies must assess alternatives to regulation and must tailor regulations to impose the least burden on society, individuals, business, and communities. In addition, each federal agency must prepare a “Regulatory Plan” that identifies the agency’s regulatory objectives and priorities, summarizes each significant regulatory action, the anticipated costs and benefits of the regulation, and the regulation’s basis in law.
Regulatory Reversal: Trump Administration Hits a Wall

Executive Order 13771 of 2017, *Reducing Regulation and Controlling Regulatory Costs*, issued by the Trump administration, is short and to the point. The Executive Order mandates that whenever an executive department of an agency publicly proposes to promulgate a new regulation, it must identify at least two existing regulations to be repealed. In addition, the Director of the Office of Management and Budget is responsible for ensuring that each federal agency has a “regulatory cost allowance” for FY 2018. Finally, the “total incremental cost of all new regulations, including repealed regulations, to be finalized “shall be no greater than zero.”

The Trump administration’s aggressive effort to deregulate through the “two-for-one” repeal requirement mandated by Executive Order 13771 has not fared well in the courts. Environmental and public interest groups have challenged the administration’s regulatory rollbacks and have found great success. According to the Brookings Institution, the Trump administration has prevailed in only 1 of 19 court challenges, a success rate of about 5 percent. This compares to an average “win rate” of 69 percent by the government in previous administrations.

The Importance—and Limitations—of Cost-Benefit Analysis

Since the presidency of Ronald Reagan, all administrations have emphasized the importance of applying cost-benefit analysis (CBA) in rulemaking. Both liberal and conservative economists generally agree that CBA is a necessary and appropriate analytical tool, and although there may be some debate regarding the methodology for both determining what costs and benefits are appropriately included in the analysis, and how costs and benefits are to be quantified, CBA is viewed as a politically neutral exercise intended to yield data that support good public policy.

When properly designed and applied, CBA provides a means of ascertaining and maximizing public benefits by determining the greatest overall net value from alternative policies addressing a public need. Critical to the integrity of CBA is a full accounting of all relevant costs and benefits.

In evaluating environmental rules, CBA is intended to quantify and measure economic impacts based upon factors like changes in mortality and morbidity and ecological decline or loss, but also weighs the effect of government subsidies, opportunity costs, and negative externalities (impacts to third parties).

For example, the Harvard Center for Health and the Global Environment led a collaboration of academic and public health institutions in an effort to assess the negative externalities associated with the extraction, processing, transportation, and combustion of coal. The analysis, *Full Cost Accounting for the Life Cycle of Coal*, found that if all of the economic, health, and environmental impacts from the use of coal were measured, fully monetized, and added to the cost of electricity, the per kilowatt hour increase would range from $0.09 to $0.27 (2011 dollars).

Depending on the regional electricity market, the added cost of coal would double to quadruple the cost of electricity. Total aggregate estimate for the externalities related to coal expressed as an annual economic impact was $345.3 billion (range: $175.2 billion to $523.3 billion).
Non-Use Values

Excluded from CBA are categories of costs and benefits that are more difficult to quantify and monetize. "Non-use" or "existence" values reflect the importance of preserving natural resources even when they are unused or inaccessible. How does one value an old growth forest or the ecological productivity of a Great Lakes coastal wetland? What is the worth of a pristine wilderness?

Social welfare values like preserving biological diversity and ecological resiliency are important but difficult to quantify, yet the failure to meaningfully assess such values can result in an absence of needed regulation, with the indirect consequence of driving ecosystem decline.

For example, limnology teaches that shorelines are rich and vibrant ecological niches that are vital to preserving the health of freshwater bodies. Yet efforts to regulate shoreline revetments or “beach grooming” face strong opposition. The introduction of invasive species like zebra and quagga mussels has irreversibly transformed Great Lakes ecosystems and caused billions of dollars in damages. Yet efforts to regulate ballast water in freighters that traverse the Great Lakes were met with resistance. In these examples, opposition to regulation resulted in the imposition of high economic costs and significant harmful impacts to the environment.

Although CBA provides an analytical method to make rational, economic-based regulatory decisions, it is undervalued and underutilized. CBA should be a tool that is continually improved and refined to weigh and assess all relevant values. Government rulemaking should rest on a firm base of carefully weighed information that takes into account the widest universe of relevant inputs, including non-use and social welfare values. Promoting the merit and utility of CBA methodology and ensuring its integrity in application should be among the highest priorities in administering government programs and informing public policy.

RECOGNIZING NON-USE VALUES

Many cultural, place-based values cannot be readily monetized. American Indians and First Nations in the Great Lakes Region have unique cultural and historical attachments to the Great Lakes that are impaired by the presence of mercury and other pollutants that limit fishing on the lakes. The special relationships include cultural values and traditions, language, spirituality, and tribal identity, commitment to intergenerational equality by preserving water resources, and intimate knowledge and connection to the waters of the Great Lakes.
The Trump Administration’s Attack on Cost-Benefit Analysis

The Trump administration has moved to modify CBA in evaluating environmental rules by limiting the accounting of benefits that regulations provide while fully accounting all costs. In June 2018, EPA Administrator Scott Pruitt announced an Advance Notice of Proposed Rulemaking (ANPRM) to change the methodology for CBA, stating that, “Many have complained that the previous administration inflated the benefits and underestimated the costs of its regulations through questionable cost-benefit analysis.”

At issue are “co-benefits” that are additional positive, quantifiable benefits that accrue to the public indirectly from the application of a new regulation. The ANPRM suggested that only benefits directly attributable from the reduction of the targeted pollution should be counted.

A case from Michigan happens to be an early vehicle for the Trump administration’s regulatory attack. The case involves rulemaking by the EPA that would limit mercury emissions from coal-fired power plants. The United States Supreme Court’s 2015 landmark decision in Michigan v. EPA found that the EPA could not entirely ignore costs in initially determining whether regulating mercury, a hazardous air pollutant and potent neurotoxin, was “appropriate and necessary” under the Clean Air Act. EPA conducted the required analysis but found the benefits of the Mercury and Air Toxic Standards (MATS) rule still outweighed the costs.

But in December 2018, the EPA reversed its prior position on the MATS rule, finding that limiting mercury from coal plants was not “appropriate and necessary.” The EPA decided that it would ignore any category of benefits that was indirect, no matter how valuable. In controlling mercury emissions, pollution from acid gases and particulates would also be reduced, yielding positive health impacts valued at $80 billion. But under EPA’s proposed rule, these “co-benefits” could not be counted; only health benefits directly attributable to the reduction of mercury would be relevant.

Under the new calculus, the costs of regulating mercury under MATS exceeded its benefits.

EPA’s new method of conducting CBA violates established tenets of economics, while undermining EPA’s mission to protect human health and the environment. More importantly, it provides a vehicle for attacking all other environmental regulations that protect human health, air quality, and water resources. If the Trump administration continues to subvert CBA, future regulatory actions needed to address climate change or to protect fragile and complex ecological systems may be foreclosed.

ECONOMIC BENEFITS OF ENVIRONMENTAL REGULATION

Undermining the integrity of CBA to limit regulations in order to achieve political ends will likely do great harm and bring about the exact results the Trump administration seeks to avoid — namely, negatively impacting the U.S. and global economy.

CBA has demonstrated that environmental regulations provide significant benefits to the public, with benefits greatly exceeding costs. The Office of Management and Budget (OMB), under President Trump, has found that the benefits of major regulations have exceeded costs by hundreds of billions of dollars. The findings of OMB’s Draft Report to Congress on the Benefits and Costs of Federal Regulations and Agency Compliance with the Unfunded Mandates Reform Act demonstrate the overwhelming economic benefits that result from regulation:

“The estimated annual benefits of major Federal regulations reviewed by OMB from October 1, 2006, to September 30, 2016, for which agencies estimated and monetized both benefits and costs, are in the aggregate between $219 billion and $695 billion, while the estimated annual...
costs are in the aggregate between $59 billion and $88 billion, reported in 2001 dollars. In 2015 dollars, aggregate annual benefits are estimated to be between $287 and $911 billion and costs between $78 and $115 billion. These ranges reflect uncertainty in the benefits and costs of each rule at the time that it was evaluated.”

In particular, the report indicates that environmental regulations administered by the EPA provide significantly more economic benefits than costs and to a far greater extent than regulations promulgated and administered by other federal agencies. The benefits provided by EPA regulations are the most efficient in terms of providing the most benefits at the least cost, accounting for 80 percent of the overall benefits achieved by rules administered by all the surveyed federal agencies.

OMB’s quantification efforts likely underestimated the benefits of regulation. The Grantham Research Institute’s recent report, *The Impacts of Environmental Regulations on Competitiveness*, finds, though environmental regulations may have small effects on productivity and competitiveness, these impacts are overwhelmingly offset by the benefits of regulation:32

“The costs of environmental regulations need to be weighed up against the benefits they provide and which justify those regulations in the first place. The benefits are often important and severely underestimated. For example, the estimated health benefits from the Clean Air Act in the United States are two orders of magnitude greater than the employment costs of the policy.”

Moreover, excluded from CBA are the non-use values and social welfare gains and improvements that are not monetized or accounted for, further increasing the potential for “severely underestimating” the benefits of regulation.

### The Trump Administration’s Assault on Regulations

Undermining CBA to weigh costs over benefits is a key strategy in curbing the introduction of new regulations by subverting the methodology for initially determining the cost effectiveness of administrative rules. But it is only part of the administration’s plan to weaken environmental protections.

The Trump administration has moved aggressively to repeal, replace, or modify environmental regulations, targeting in particular Obama-era regulations across the board. On the cutting floor are regulations designed to protect air quality and water resources, accelerate the transition to clean energy, and protect public lands.

The scope of the Trump Administration’s effort to dismantle environmental regulations is staggering. Regulations aimed at improving air quality are being slashed. Rules affecting the oil and gas industry that prevent the venting and flaring of methane and reduce pollution from refineries are being repealed or weakened. Corporate Average Fuel Economy (CAFE) standards set by the Obama administration are being abandoned because they are “too high,” and regulations that limit hydrofluorocarbons in refrigeration units (a contributor to stratospheric ozone depletion) would no longer be enforced.33

Fine particle air pollution of 2.5 micrometers or less, known as particulate matter 2.5 (PM2.5) is the largest...
environmental risk factor worldwide, yet the Trump administration disbanded the 20 member Particulate Matter Review Panel and impaneled a new advisory committee that has sharply attacked PM 2.5 scientific studies.

Regulations aimed at climate change are prime targets. Aside from announcing the intention to distinguish the United States as the only country to withdraw from the Paris Climate Accord and terminating the national Clean Power Plan, the Trump administration is seeking to weaken regulations for mercury, carbon dioxide, and particulate emissions from power plants. Beyond slashing regulations, the president has scrapped the committees of scientific experts that recommend regulatory standards.

Tipping the scale in favor of fossil fuels, the Trump administration has repealed rules governing royalty payments for oil and gas extraction on federal lands, as well as the oversight, disclosure, and operating regulations for fracking operations. Regulations aimed at protecting water supplies on federal and tribal lands were rescinded because they impose “administrative burdens and compliance costs that are not justified.”

The administration has moved to open the Arctic National Wildlife Refuge and Atlantic and Pacific coastal waters for oil and gas development, while proposing to weaken oil well control and blowout protections imposed after the 2010 Deepwater Horizon catastrophe. Fortunately, the extent to which the federal regulatory system is being uprooted is being documented. The Brookings Institution maintains a frequently updated Interactive Tracker that lists all significant regulatory rollbacks, and The New York Times has tracked the Trump administration’s efforts to eliminate federal regulations. As of the close of 2018, The New York Times has identified 78 environmental rules that have been eliminated or are in the process of elimination.

“Fine particle air pollution is the largest environmental risk factor worldwide, responsible for a substantially larger number of attributable deaths than other more well-known behavioral risk factors such as alcohol use, physical inactivity, or high sodium intake.”

~Health Effects Institute
A Word on Regulatory Capture

The administration of federal agencies is unprecedented in terms of pervasiveness and scale. Industry representatives and lobbyists are being appointed to federal agency executive leadership positions with the explicit mission to repeal, revise, or disregard important environmental regulations and to replace the regulations with policies and practices that advance the private interests from which they came.

“Regulatory capture” occurs when an agency of government administers programs and policies to advance the interests of a particular industry or commercial or financial enterprise to the detriment of the public interest and public mission of the agency. While regulatory capture has occurred in past administrations, particularly in the area of banking and finance, the nature and extent of regulatory capture that is occurring in the Trump administration has no precedent.

The aggregate effect of the anti-regulatory activities under the Trump administration will work to further undermine trust in government. In supplanting the public interest missions of DOI and EPA with policy and program priorities that ignore science and advance private interests over public interest objectives, government fails, and the public interest is subverted. Radical changes in agency goals and objectives, workforce reductions, and the asymmetry between professional responsibility and redirected agency priorities to accommodate special interests can only erode agency performance and competencies. Tasking agency staff with activities antithetical to agency mission and professional goals diminishes production, proficiency and talent and destroys morale. Diminished confidence and trust in government can only be expected.

Weakening Environmental Protection in Michigan

With the Trump administration actively seeking to dismantle environmental protections for public resources by lowering or eliminating a host of environmental standards, political leaders in Michigan have compounded the harm of this federal regulatory assault by incorporating the federal regulatory rollbacks into Michigan law.

In the December 2018 “lame duck” legislative session, Michigan lawmakers, without public notice or public hearings, amended the Michigan Administrative Procedures Act in a manner that severely weakens Michigan’s environmental protections. The new law, 2018 Public Act (PA) 602, prohibits state
agencies from promulgating any administrative rule that is “more stringent than” an applicable federal standard, unless a law specifically authorizes a stricter regulation or the agency director makes a specific determination based on “clear and convincing need” to exceed the federal standard.

The new law is a product of the conservative American Legislative Exchange Council (ALEC), which has been instrumental in broadly advancing “model” legislation in all states.53 The rise of ALEC has also been attributed to the Powell memorandum, and ALEC’s continuing financial support comes from many of the same conservative foundations that owe their provenance to the same source.54

The intent of 2018 PA 602 is to set the substantive federal rollbacks in environmental standards as Michigan’s regulatory ceiling, constricting Michigan’s efforts to safeguard not only our globally unique Great Lakes fresh water system, but also limiting all regulatory efforts to protect the environment.

With the Trump administration actively uprooting efforts to protect land and water resources and boasting of its eagerness to eviscerate existing environmental rules, 2018 PA 602 operates to implement the new federal regulatory limitations in Michigan law. Defaulting to reduced federal protections creates new regulatory barriers to protecting the environment, impedes the transition to clean energy, and undermines efforts to address climate change. Under this law, Michigan is effectively prohibited from affording future regulations that may be needed to safeguard the Great Lakes – the most valuable and extraordinary freshwater system in the world.

FIGHTING BACK:
Reaffirming Constitutional and Common Law Principles

The preamble to the U.S. Constitution states:

“We the people of the United States, in order to form a more perfect Union, establish Justice, insure domestic Tranquility, provide for the common defense, promote the general Welfare, and secure the Blessings of Liberty to ourselves and our Posterity, do ordain…”

The preamble declares the fundamental purpose of government is to “perfect the union,” “establish justice,” and promote the “general welfare.” The declaration to promote the general welfare is again elaborated in Article I, Section 8, with more specificity, underscoring the framers’ concern with promoting the public good. While the “general welfare” provision has been construed as limited to the taxing and spending power of Congress, it is clear that Congress’s spending authority is grounded in the advancement of the public interest and, therefore, the protection of shared public resources.

The Michigan Constitution is more explicit with respect to the connection between protection of Michigan’s natural resources, the promotion of the general welfare, and legislative duty. Article 4, Section 52 states:

“The conservation and development of the natural resources of the state are hereby declared to be of paramount public concern in the interest of the health, safety and general welfare of the people. The legislature shall provide for the protection of the air, water and other natural resources of the state from pollution, impairment and destruction.”

The enactment of 2018 PA 602 limiting state regulations to federal standards and, in effect, incorporating the Trump administration’s across-the-board weakening of regulations aimed at protecting air quality, water resources, and public lands, is clearly and distinctly contrary to the constitutional command that the legislature shall provide protections to or air, water, and other natural resources of the state.
Application of the Public Trust Doctrine

Complementing the constitutional mandate of Article 4, Section 52, is the Public Trust Doctrine—a set of legal principles establishing public rights in natural resources. The Public Trust Doctrine is rooted in an extraordinary historical provenance—a jurisprudence that dates back 1500 years to the age of Justinian, was embedded in the Magna Carta, then conveyed and incorporated into federal common law, and found its way into Michigan constitutional and common law.

The doctrine creates a fiduciary responsibility of stewardship on the part of government for the preservation of natural resources for the benefit of the public. The Michigan Supreme Court has found that the doctrine establishes a legal duty of proactive environmental stewardship on the part of government for the benefit of the public. The Public Trust Doctrine establishes three inviolable principles of public ownership and government responsibility:

1. The Great Lakes and navigable tributary waters are owned by the people;
2. The people’s ownership interest is held in a legal trust for the benefit of future generations; and
3. Government has a “high, solemn and perpetual” fiduciary responsibility as trustee to protect and preserve the trust for future generations.

Our nation’s highest court has long embraced the Public Trust Doctrine as an overarching legal framework. In a landmark 1892 case involving Lake Michigan, the United States Supreme Court spoke unequivocally to government’s fundamental duty to protect public trust resources:

“The State can no more abdicate its trust over property in which the whole people are interested like navigable waters and the soils beneath them…then it can abdicate its police powers in the administration of justice and the preservation of peace.”

The Public Trust Doctrine establishes government’s responsibility to protect public health and public rights in shared natural resources upon which the public depends. It provides a means of ensuring government accountability by requiring affirmative action to protect the public interest in the commons.

Beyond that, the Public Trust Doctrine requires the application of the latest science to inform environmental policy and government oversight. The continually evolving scientific knowledge concerning the complexity and interconnectedness of ecological systems requires a legal framework that is simple in concept, effective in protecting common resources, and nimble enough to accommodate advances in science.

In carrying out its affirmative public trust duties, government must ensure that the use of common natural resources by the public, business, and industry will not substantially impair the public interest in these resources. In imposing a duty upon government to act affirmatively to protect common resources, the Public Trust Doctrine safeguards the public interest through the application of legal principles and science-based regulatory interventions.

The broad scope and utility of the doctrine led the International Joint Commission, whose mission is to protect the transboundary waters between Canada and United States, to support the Public Trust Doctrine as a legal framework for the management of the Great Lakes water resources.

Beyond that, the Public Trust Doctrine has the potential to apply as a compelling legal framework to protect the public interest in all commonly held natural resources—our air, our non-navigable waters, wetlands, forests, and public lands. Joseph Sax, the preeminent University of Michigan environmental law professor who authored the Michigan Environmental Protection Act and is credited for reestablishing the Public Trust Doctrine as a powerful legal tool in protecting common natural resources, summarized the efficacy of the doctrine for these times:

“Of all the concepts known to American law, only the public trust doctrine seems to have the breadth and substantive content which might make it useful as a tool of general application for citizens seeking to develop a comprehensive legal approach to resource management problems.”

Now more than ever, the Public Trust Doctrine is needed to address endemic problems like ecosystem decline, plastics pollution, and the existential threat of climate change.

Public trust principles can, and should, inform government’s responsibility to regulate activities that affect common resources. And because the Public Trust Doctrine is grounded in the protection of commonly shared resources, it provides an opportunity to build public consensus and restore confidence in government.
Restoring Public Confidence in Government

For a half century, the competence of government has been increasingly under scrutiny. Broad social license has been given to those who question the effectiveness of government and government’s role in the service of the public interest. Political and social condemnation of perceived government interference in the marketplace and with personal freedom and private property rights has become commonplace. The volume of criticism has escalated, encouraging and empowering criticism that is sometimes deliberately malevolent, often ill-informed, and conveyed with an intent to precipitate political discord and disagreement.

This is not to say that scrutiny and criticism of government is not necessary; continual examination, evaluation, and measurement of policy, operations, processes, and performance are essential functions for any organization.

Fostering suspicion and directing animus toward government, however, undermines hope for consensus building and the common good. The chasms separating conservatives and liberals over budgets, spending priorities, immigration, and many other social and political issues appear to be irreconcilable. At the core of the discord are fundamental disagreements regarding what governmental actions and priorities advance the public welfare and the public interest.

What if, at a time of marked division, we instead focused on shared values — core values that are widely shared and readily embraced? What if we worked on identifying principles upon which we all agreed and applied them to address problems proactively?

Support for protecting water resources has been strong and consistent across diverse constituencies and bridges the partisan divide between Democrats and Republicans. Polling and focus group work show that support for policies protecting water resources, water quality, and water quantity are very strong among self-identifying conservatives. A recent survey by the International Joint Commission found that 88 percent of respondents believe that Great Lakes need to be protected, with only five percent believing there are too many regulations in place to protect the Great Lakes. Recent public opinion data also show overwhelming public support for new infrastructure to protect water, even prioritizing investment in water protection infrastructure over investment in transportation infrastructure.

Such an abiding consensus and display of shared values and priorities implies support for government policies and regulations that protect water and water-dependent natural resources.

The survey results unveil a common bond between otherwise diverse stakeholders and a willingness to advance shared interests and values without regard to political partisanship. Beyond that lies an opportunity to leverage support for government’s essential role in setting goals and implementing regulations that protect a broader set of common resources.

FLOW is committed to building a new consensus that prioritizes environmental protection and supports government’s essential role in safeguarding public trust resources.
Endnotes


11 Heidelberg University, Lake Erie Algae, lakeeriealgae.com.


20 ibid.


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Cover photo: 1952 Fire on the Cuyahoga River (Cleveland Public Library)
FLOW (For Love of Water) is working to build deeper awareness among all stakeholders—including groups, governments, and citizens—regarding the public trust framework that protects the Great Lakes.

ABOUT THIS REPORT

The last half century has witnessed sweeping changes in the public perception of government and its role in advancing the public interest and improving public welfare. Surveys show public trust in government is in sharp decline and criticism of government has become a bipartisan social norm. To many, “government regulation” connotes undue interference with markets, competition, and the economy, yet, at the same time, surveys show overwhelming bipartisan support for the protection of air, water, public lands, endangered species, and natural resources—an essential function of government.

To explain these contradictory outlooks, this is the first of four policy papers produced by FLOW that trace the history of environmental regulation, illustrating how it protects individuals, families, and communities while fostering innovation and economic gains. FLOW advocates for greater application of the Public Trust Doctrine, a model for stewarding public resources, addressing the growing challenges of maintaining water quality and confronting the climate crisis, and at the same time, restoring public trust in government’s critical oversight role.

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