

UC Berkeley

UC Berkeley Previously Published Works

Title

The Permit Power Revisited: The Theory and Practice of Regulatory Permits in the Administrative State

Permalink

<https://escholarship.org/uc/item/3948r1f0>

Author

Biber, Eric

Publication Date

2014

THE PERMIT POWER REVISITED: THE THEORY AND PRACTICE OF REGULATORY PERMITS IN THE ADMINISTRATIVE STATE

ERIC BIBER[†] & J.B. RUHL^{††}

ABSTRACT

Two decades ago, Professor Richard Epstein fired a shot at the administrative state that has gone largely unanswered in legal scholarship. His target was the “permit power,” under which legislatures prohibit a specified activity by statute and delegate to administrative agencies the discretionary power to authorize the activity under terms the agency mandates in a regulatory permit. Accurately describing the permit power as an “enormous power in the state,” Epstein bemoaned that it had “received scant attention in the academic literature.” He sought to fill that gap. Centered on the premise that the permit power represents “a complete inversion of the proper distribution of power within a legal system,” Epstein launched a scathing critique of regulatory permitting in operation, condemning it as a “racket” for administrative abuses and excesses.

Copyright © 2014 Eric Biber and J.B. Ruhl.

[†] Professor of Law, University of California, Berkeley.

^{††} David Daniels Allen Distinguished Chair of Law, Vanderbilt University Law School. We are thankful for comments on early versions of this Article from Stavros Gadinis, Amnon Lehavi, David Markell, Anne Joseph O’Connell, Justin Pidot, Kevin Stack, Jim Rossi, Peter Schuck, and Mike Vandenbergh, and from participants in workshops at the Berkeley, Denver, and Vanderbilt law schools and the Environmental Law Institute. Waylon Bryson, Kyle Robisch, Alex Hardee, Liz Long, Cody McBride, Melissa Meghan See, Joshua Dimon, and Avery Masters provided invaluable research assistance, and our respective institutions provided the resources to support our research. Please direct any comments or questions to ebiber@law.berkeley.edu and jb.ruhl@vanderbilt.edu.

Epstein's assessment of the permit power was and remains accurate in three respects: it is vast in scope, it is ripe for administrative abuse, and it has been largely ignored in legal scholarship. The problem is that, beyond what he got right about the permit power, most of Epstein's critique was based on an incomplete caricature of permitting in theory and practice.

This Article is the first to return comprehensively to the permit power since Epstein's critique, offering a deep account of the theory and practice of regulatory permits in the administrative state. This Article opens by defining the various types of regulatory permits and describing the scope of permitting in the regulatory state. From there it compares different permit design approaches and explores the advantages of general permits, including their ability to mitigate many of the concerns Epstein advanced. This Article then applies a theoretical model to environmental degradation problems and concludes that if certain conditions are met, general permits can effectively respond to many of the complex policy problems of the future. Finally, this Article adds to the scholarship initiated by Epstein by proposing a set of default rules and exceptions for permit design and suggesting how they apply to complex policy problems.

TABLE OF CONTENTS

Introduction	135
I. The Practical Dimensions of Regulatory Permits.....	143
A. What Are Permits?	143
B. The Ubiquity of Permits in Modern Society (and Their Absence in Legal Scholarship)	149
C. Types of Permits—From General to Specific	155
D. Design Options	164
1. <i>Permitting Systems</i>	165
2. <i>Permit Administration</i>	169
3. <i>Transitions</i>	172
E. Hybrids and Other Variations	173
F. Rulemaking and Adjudication.....	176
II. Permit-Design Tradeoffs: General Versus Specific	178
A. Permits as Barriers to Entry.....	178
B. Permits as a Tool for Revealing or Developing Information	186
C. Permits as Tools to Tailor Regulation to Specific Circumstances.....	190
D. Permits as Political Tools	197

E. Permits as Enforcement Tools.....	204
F. Permits as Constraints on Administrative Discretion.....	206
G. Permits as Easing Administrative Burdens for Agencies and Regulated Parties.....	210
H. Permits as Lessons for the Adjudication Versus Rulemaking Debate	211
III. Permitting the Future—The Case for General Permits	212
A. Managing Cumulative Impacts of Small Harms.....	214
B. Managing Transitions to New Regulation	219
C. Managing Social Norms.....	223
Conclusion.....	228

This is a racket (no lesser word will do)¹

– Richard A. Epstein, *The Permit Power Meets the Constitution*

INTRODUCTION

Every law student eventually encounters the classic statutory interpretation puzzle: “No vehicles allowed in the park.”² The exercise is designed to lead to questions such as whether the legislature really meant no vehicles, of any kind, ever. If so, could the legislature have been more emphatic and said something like “absolutely no vehicles of any kind ever allowed in the park under any circumstances”? Recognizing that it would be nonsensical not to allow, say, a fire truck into the park to stop the merry-go-round from burning down, would it help for the legislature to add something like “except fire trucks, ambulances, and law enforcement vehicles”?³ Although statutory language making a prohibition unequivocal or listing exemptions might clarify legislative intent, the puzzle reveals that administration of the statute must of necessity rely on iterations

1. Richard A. Epstein, *The Permit Power Meets the Constitution*, 81 IOWA L. REV. 407, 416 (1995).

2. The American Bar Association describes the “no vehicles in the park” hypothetical as “a classic of law-related education” and suggests judges use it to educate people about what is involved in judicial interpretation of statutes. Am. Bar Ass’n, *No Vehicles in the Park*, http://www.americanbar.org/groups/public_education/initiatives_awards/constitution_day/lessons/lessons_1/no_vehicles.html (last visited Oct. 6, 2014).

3. For discussion of the inevitability of exemptions to rules that prohibit or regulate activity, see generally Alfred C. Aman, Jr., *Administrative Equity: An Analysis of Exceptions to Administrative Rules*, 1982 DUKE L.J. 277 (1982); Peter H. Schuck, *When the Exception Becomes the Rule: Regulatory Equity and the Formulation of Energy Policy Through an Exceptions Process*, 1984 DUKE L.J. 163 (1984).

of judicial interpretation and legislative revision. A court might hold, for example, that a child's electric tricycle is not a vehicle, and if the legislature disagrees it must amend the statute.

An alternative approach, common in the modern administrative state,⁴ is for the legislature to enlist an administrative agency and specify something like "no vehicles in the park, except as allowed in a permit issued by the park agency pursuant to park agency rules." Although such legislation does not avoid questions of statutory interpretation—we still need to know whether a child's electric tricycle is a vehicle—the provision for a park agency permit opens the door to the innumerable theoretical and practical dimensions of administrative law.

For example, administrative law scholars would eagerly engage theoretical questions about the power of the agency to define the term "vehicle" in rules, the agency's policy for how to define them, whether courts should defer to the agency's definition, how judicial review ossifies the park agency, and whether certain vehicle industry or park advocacy interests have captured the agency.⁵ Furthermore, practitioners representing various interest groups would likely engage in drafting comments on park agency rules regarding vehicle permits, challenge park agency permit rules and other actions in court, and represent parties in park agency enforcement proceedings.

Ironically, however, one of the most under-theorized questions in administrative law is the lynchpin of these theoretical problems and of utmost practical importance to administrative law practitioners:

4. The term "administrative state" is traced to political scientist Dwight Waldo's epic book published in 1948. *See* DWIGHT WALDO, *THE ADMINISTRATIVE STATE: A STUDY OF THE POLITICAL THEORY OF AMERICAN PUBLIC ADMINISTRATION* (1948). Although there is no universally recognized definition, for our purposes the administrative state's most important attribute is reliance on administrative agencies for law making and decisionmaking—that is, a system of governance relying on legislative delegation of discretionary authority to administrative agencies led by unelected officials appointed by the elected executive and exercising that authority through rules, adjudications, permits, and other mechanisms. Agencies fitting this description have existed in our federal system since it was founded. *See generally* JERRY MASHAW, *CREATING THE ADMINISTRATIVE CONSTITUTION: THE LOST ONE HUNDRED YEARS OF AMERICAN ADMINISTRATIVE LAW* (2012). We refer to the *modern* administrative state to reflect the proliferation of this model of governance throughout federal, state, and local governments in the twentieth century with increasing involvement by the courts in policing agency action through judicial review. *See id.* at 1–27.

5. *See* JACK M. BEERMAN, *INSIDE ADMINISTRATIVE LAW: WHAT MATTERS AND WHY* 1–2 (2011) (describing what administrative law encompasses and its focus on "sources of agency power, the constitutional limits on that power, the procedural requirements for the exercise of agency power, and the availability and scope of judicial review of agency action").

continuing with the park scenario, how should the legislature and the park agency design the agency's permits? Administrative permits are ubiquitous in modern society. Thousands of local, state, and federal agencies have a hand in administering a vast system of permits ranging from mundane building permits to permits covering the operation of sprawling industrial facilities.⁶ Plans for everything from a backyard deck to an interstate highway are swept up in this permitting system, and there is no hope of moving forward on them without having the necessary agency permits in hand. The vast breadth and depth of permitting in modern American society has even captured the Supreme Court's attention on several occasions.⁷ Yet, as Professor Richard Epstein pointed out in the mid-1990s, despite being the "focal point of enormous public discontent," the permitting system "has received scant attention in the academic literature."⁸ His observation is no less true today.⁹

Epstein expressed deep concerns with what he called the "permit power," the root attribute of which is its reversal of "the classical American view . . . that all that is not prohibited is permitted, which sets the initial presumption in favor of liberty—not in favor of government action."¹⁰ Although he did not advocate a "permit-free society,"¹¹ Epstein dwelled at length on the sharp contrast between the tort system and its injunction remedy, which requires the party claiming injury to prove its case before a court will prohibit continued harm,¹² and the permit system, under which "the individual citizen becomes a supplicant before the government in all cases, whether or not any real threat of harm exists."¹³ When legislatures change the default rule from "permitted-until-judicially-prohibited" to "legislatively-prohibited-until-administratively-permitted," they create an "enormous power in the state"¹⁴ that in Epstein's view,

6. For some dazzling statistics on the variety and number of regulatory permits by which America is inundated, see *infra* Part I.B.

7. See, e.g., *Util. Air Reg. Grp. v. EPA*, 134 S. Ct. 2427, 2439–49 (2014) (discussing the attributes of air pollution permitting); *Rapanos v. United States*, 547 U.S. 715, 721 (2007) (discussing the attributes of water pollution permitting).

8. Epstein, *supra* note 1, at 407.

9. For a survey of the minimal coverage the permit power has received in legal scholarship, see *infra* Part I.B.

10. Epstein, *supra* note 1, at 407.

11. *Id.*

12. *Id.* at 409–12.

13. *Id.* at 412.

14. *Id.* at 413.

“results in a complete inversion of the proper distribution of power within a legal system.”¹⁵ The shift in the locus of power from courts to agencies, Epstein warned, turns the fate of much of the public and private affairs of the nation over to “specialized bodies which often have a strong ideological position on the issues that come before them time after time.”¹⁶

Epstein described the potential for agency abuse of the permit power in ominous terms. Given what he claimed to be the “utter lack of substantive standards by which permits can be denied,” he portrayed the permit power as “a stranglehold on individual behavior” repugnant to basic principles of due process of law.¹⁷ He warned that agencies, whose “ostensible expertise . . . is little more than a pretext for a strong one-sided commitment,”¹⁸ would inevitably entrench and abuse the permit power by promulgating elaborate sets of administrative procedures, imposing onerous conditions for the granting of a permit, manufacturing excuses for delay, retaining the power to revise or terminate permits virtually at will, adopting amorphous substantive standards that justify any outcome the agency prefers, and piling up the need to obtain multiple permits for the most mundane of activities.¹⁹ His bottom line: “[t]his is a racket (no lesser word will do).”²⁰

Really? Is the permit power that bad? To be sure, the permit power is at its core about legislatures demanding that public and private actors seek permission from administrative agencies before they engage in proscribed activities. If that is enough for one to condemn the permit power, there is nothing more to say—Epstein wins the day. But Epstein based the weight of his critique on how agencies will actually exercise the permit power, not merely its existence, and thus must ground his argument in the reality of permit power practice. For this purpose, however, he employed a caricature of permitting that bears little resemblance to permitting in action today. This is not to say that the parade of horrors Epstein postulated cannot happen—like any government power, the permit power must be closely monitored—but the reality is that the permitting system

15. *Id.*

16. *Id.*

17. *Id.* at 416–17.

18. *Id.* at 413.

19. *See id.* at 415–17.

20. *Id.* at 416.

has evolved into a far more flexible, nuanced, and innovative institution in the modern administrative state than Epstein's dismal vision would suggest is possible.²¹

No doubt agencies abuse the permit power in specific cases and there is room for improvement in the permitting system as a whole, but the actual experience of permitting as practiced by agencies is rich with evidence that the problems motivating Epstein's pessimistic assessment are neither inevitable nor insurmountable. The question Epstein's critique raises, therefore, is not as much whether to employ the permit power as an instrument of public policy, but how to design permits so as to avoid falling into the traps he identified as reason to pull back from the permit power in general. As Epstein articulated: "we cannot (and should not) strive for a permit-free society."²² But his concession inevitably leads one to ponder what the numerical limit of permits should be and what form these permits should take.

On this query, Epstein offered few clues, and administrative law scholars in general have failed to engage these questions. Epstein proposed a "modest reformation of the law of permits"²³ that would limit the universe of government permits to those contexts in which "some permissible justification exists that would allow the government entity to obtain injunctive relief, subject to the same limitations that are routinely applied to private plaintiffs."²⁴ Under his scheme, in other words, the scope of the permit power would be defined by the scope of private injunction law. This seems a modest proposal only in that it takes few words to describe the simple rule for a complex world.²⁵ Epstein predicted this approach would "isolate thousands of . . . instances of the permit power that should be consigned to relative oblivion."²⁶ Still, there would be *some* permits. And more realistically, it is probably safe to assume that Epstein's proposal, which has gained no traction since he launched it, likely

21. For this account, see *infra* Part I.

22. Epstein, *supra* note 1, at 407.

23. *Id.* at 422.

24. *Id.* at 421–22.

25. Our language is a reference to Richard Epstein's book. See RICHARD EPSTEIN, SIMPLE RULES FOR A COMPLEX WORLD (1997).

26. Epstein, *supra* note 1, at 422. It is beyond the scope of this Article to evaluate Epstein's prediction that his harm-based rule would largely eviscerate the scope of permitting in modern society. We point out, however, that many permitting regimes, such as those authorizing water and air pollution and waste disposal, regulate types of harms that could fall well within judicial injunction powers, and these permitting regimes thus would remain on the books under Epstein's rule.

never will come to be. So there will continue to be *lots* of permits. What should they look like?

This Article is the first to develop a comprehensive theory of regulatory permit design. Some permitting programs are designed around the agency engaging in extensive fact gathering and deliberation particular to the individual circumstances of an applicant's proposed action, after which the agency issues a detailed permit tailored just to that applicant's situation. These are referred to herein as "specific permits."²⁷ Other programs have the agency issue a permit on its own initiative, with no particular applicant before it, that defines a broad category of activity and allows the entities engaging in that activity to take advantage of the permit with little or no effort on their part, and limited agency review of specific facts in any particular case unless the agency finds good cause to condition or withdraw the general approval. These are referred to herein as "general permits."²⁸ Across the hundreds of permitting programs in federal, state, and local regulatory authorities, we would expect to find a spectrum of approaches from extreme specific permit design to extreme general permit design. Our question of interest is where on this spectrum a particular permitting program should fall given its policy goals, practical implementation context, and background concerns with the permit power.

Indeed, a gaping omission from Professor Epstein's critique of the permit power is the idea that there is a spectrum across which permits can be so flexibly designed. In particular, general permits have become the dominant permit model in many fields of regulation.²⁹ Their core feature—the agency's issuance of a permit in advance to authorize an activity generally, while retaining the power to withdraw the general approval in specific cases—responds to Epstein's central complaint that the permit power flips the proper order of governance on its head. True enough, specific permits follow the "legislatively-prohibited-until-administratively-permitted" model Epstein finds so unappealing. But general permits follow a model Epstein did not include in his critique—the "administratively-approved-unless-administratively-prohibited" model. Although not

27. For the details of specific permitting, see *infra* Part I.C. This kind of permit is also referred to as an "individual permit." *Id.*

28. For the details of general permitting, see *infra* Part I.C. The term "general permit" is widely used to describe this kind of permit. *Id.*

29. See *infra* Part II.C–D.

fully restoring matters to his ideal model of “permitted-until-judicially-prohibited,” general permits offer the permitting power an option Epstein did not consider and that we believe can respond to many of his concerns.

By no means, however, are we suggesting that concerns about the permit power are trivial or that general permits obviate them entirely. Permitting unquestionably is an enormous enterprise of the administrative state. Hundreds of statutes spanning a wide range of different regulatory fields authorize federal, state, and local administrative agencies to establish and operate permitting programs taking up vast time and financial resources of agencies, regulated entities, and other interests.³⁰ Permit design choices thus are vitally important to effective, efficient, and equitable administration of agency authorities.³¹ No doubt the permit power can be arbitrarily administered and abused, but even a responsibly administered permit program can impose substantial costs on public and private actors.³² And even if a permit program can be delivered with low costs, a poorly designed program, regardless of whether it employs specific or general permits, can thwart public policy goals and unnecessarily impede private enterprise.³³

There are also good reasons to believe permit design will be of increasing importance as new kinds of regulatory programs are quickly emerging around looming problems such as climate change, biodiversity loss, and globalized trade, and these problems’ broad and diverse sets of environmental, economic, and social harms.³⁴ A coherent theory of regulatory permit design thus is not only long overdue, but urgently needed.

To build such a theoretical foundation for regulatory permit design, we start in Part I by positioning regulatory permits within the

30. For examples, see *infra* Part I.B.

31. For an examination of permit design options and their consequences, see *infra* Part II.

32. For example, the costs of obtaining and complying with the federal Clean Water Act’s permitting program, which regulates placement of fill material in navigable waters and wetlands, have been estimated to exceed \$1 billion annually. See *Rapanos v. United States*, 547 U.S. 715, 721 (2007) (discussing attributes of the permitting program).

33. Residential-solar-power-panel installers, for example, point to complex state and local permitting requirements as adding unnecessary expense and posing significant obstacles to widespread adoption of residential solar power. See *More Than a Third of U.S. Solar Installers Say Permit Requirements Limit Growth*, CLEAN POWER FINANCE, <http://www.cleanpowerfinance.com/about-us/media-center/press-release/more-than-a-third-of-u-s-solar-installers-say-permitting-requirements-limit-growth> (last visited Sept. 23, 2014).

34. See *infra* Part III.

administrative state. We define what a regulatory permit is, outline the scope and scale of permitting in the regulatory state, and explain the different types and characteristics of permits. Part II compares the pros and cons of the specific permit and general permit approaches, and models the conditions under which general permitting is most likely to offer significant advantages over specific permitting, including mitigating many of Epstein's concerns. Using examples from a variety of contexts, Part III applies the theoretical model built in Parts I and II in concrete policy settings, concluding that general permits, if carefully designed and administered, could be deployed and used to effectively respond to many of the complex policy problems looming in the future. We close by proposing a set of default rules and exceptions for permit design and suggesting how they apply to such problems.

Before we move on, however, it is important for us to emphasize the scope and limitations of this Article's project. First, it is not our goal to respond point-by-point to Professor Epstein's critique of the permit power. Rather, our premise is that a reasoned debate about the permit power requires a robust account of its central medium for exercising the power—permits. Our primary objective, therefore, is to provide that account. Second, we acknowledge that the permit power is but one of many powers available to the administrative state, including taxes, penalties, regulatory standards, exemptions, incentives, and monitoring. A comprehensive assessment of how the permit power compares to these other powers and how the mechanisms behind issuing permits compare to those of other powers is beyond the scope of this work. Rather, given how little attention legal scholars have paid to the permit power, our main objective is to articulate the theory and practice of permitting so that such comparisons can begin to be made on deeper levels than they have been. Finally, given how expansive the permit power has become, and how much variety there is in permitting designs, we cannot cover the entire landscape of permitting. Topics such as enforcement, public participation, permit terms, amendment and revocation procedures, inspections and monitoring, and judicial review deserve more attention than we can give here. Hence, we focus on what we believe is the most important feature of permitting design—choosing where to land on the spectrum between general and specific permits. This choice drives most of the remaining decisions that matter in permitting.

I. THE PRACTICAL DIMENSIONS OF REGULATORY PERMITS

To reach an informed assessment of the nature, scope, and impact of the permit power, one should have a robust account of what distinguishes it from other government regulatory instruments, such as fines, inspections, and taxes. It thus strikes us as useful to start by unpacking the features of the permit power's distinct delivery mode—permits. It is, after all, the *permit* power.

Yet for all his worrying about the permit *power*, Epstein had little to say about *permits*. His postulated world of permit power abuses included only fleeting references to the permits involved. His permit examples—drawn mostly from zoning, building codes, and environmental regulations³⁵—served merely as the medium for his critique of the permit power. We learn almost nothing about the permits themselves, except that they were the channels for abuse of power. What forms did they take? What were their terms? What were their procedures and conditions? From Epstein's examples, we get very few of these details; instead, we get horror stories, such as a fire department's conditions for school doors leading to disrupted classrooms,³⁶ and tales of a local planning commission's excessive land use exactions.³⁷ To be sure, the permit power can be carried too far in some cases, leading to abusive agency practices, but by cherry-picking from the annals of permitting-gone-bad, Epstein set up a straw man, a caricature designed to make the permit power look more ominous in theory than it must necessarily be and more abused in practice than it is in fact. Hence, in revisiting the permit power, we start at the beginning.

A. What Are Permits?

Exactly what constitutes a regulatory permit in the administrative state is not self-evident. For example, the Administrative Procedure Act (APA)³⁸ refers to permits only once—including the term “permit” in the definition of a “license.”³⁹ A license is one form of “agency action,” which includes “the whole or a part of any agency rule, order, license, sanction, [or] relief.”⁴⁰ One

35. See generally Epstein, *supra* note 1.

36. See *id.* at 416.

37. See *id.* at 419–21.

38. Administrative Procedure Act, 5 U.S.C. §§ 551–559 (2012).

39. 5 U.S.C. § 551(8).

40. *Id.* § 551(13).

might reasonably conclude that because permits are included only under the definition of licenses, they are thus neither a part of nor the result of a rule, order, sanction, or relief. But this conclusion turns out not to be accurate, as the term “order” is defined in the APA to include the act of licensing;⁴¹ the term “sanction” includes the “requirement, revocation, or suspension of a license;”⁴² the term “relief” includes the “grant of . . . [a] license[;]”⁴³ and the term “rule” includes certain kinds of “approval.”⁴⁴ Agencies issue orders through “adjudication”⁴⁵ and issue rules through “rule making.”⁴⁶ Hence, given that permits are one form of licenses, in theory an agency could engage in adjudication to issue an order to grant a permit, issue a sanction to revoke or suspend a permit, or grant relief to issue a permit; or an agency could engage in a rule making to issue a rule establishing an approval of a permit. All of these actions could be described as acts of permitting. But what is a *permit*? All that can be extracted from the APA on that score is from the definition of license, which, in addition to agency permits, includes “the whole or part of an agency . . . certificate, approval, registration, charter, membership, statutory exemption or other form of permission.”⁴⁷

The APA’s structure of agency actions, although convoluted, thus provides several core concepts for further articulation of regulatory permits consistent with this catch-all “form-of-permission” concept. First, permits are a type of statutorily authorized discretionary agency action. Which type of agency action they are is not entirely clear from the APA—it seems that permits can take several forms.⁴⁸ But there is no room for doubt that, however issued, permits are administrative actions rather than actions of legislatures or courts, and that there is some degree of discretion involved in how the agency acts. Second, permits are a “form of permission.”⁴⁹ The APA does not specify how permits differ from the other forms of permission included in the definition of license. It is clear, however, that a permit must involve some process and standards for an agency

41. *Id.* § 551(6).

42. *Id.* § 551(10)(F).

43. *Id.* § 551(11)(A).

44. *Id.* § 551(4).

45. *Id.* § 551(7).

46. *Id.* § 551(5).

47. *Id.* § 551(8) (emphasis added).

48. *See infra* Part I.C.

49. 5 U.S.C. § 551(8).

to grant (or deny) permission to a regulated entity to engage in what would otherwise be a statutorily restricted activity. Third, permits must fit into a broader range of agency and legislative regulatory measures spanning from unconditional exemption from regulation, in which case no permission is needed, to unconditional prohibition of approval, in which case no permission can be obtained. Finally, permits, as a form of administrative rulemaking or adjudication under the APA, are subject to the APA's rules of judicial review.⁵⁰

These four features allow us to situate permits in a broader spectrum of forms-of-permission models represented in the following table comparing five combinations of the baseline rules regarding whether permission is needed and available, the institutional modes for implementing the baseline rules, the forms the permission (or nonpermission) can take, and the availability of APA judicial review (or a state equivalent).

Table 1. Permits as a Form of Permission

Rule	No Permission Needed		Permission Required	No Permission Allowed	
Mode	Legislative	Administrative			Legislative
Form	Statutory Exemption	Regulatory Exemption	PERMITS	Regulatory Prohibition	Statutory Prohibition
Review	Non-APA	APA	APA	APA	Non-APA

We defer for later the question of why a legislature or agency would opt for one or another of these permission models. For now we are only sorting out their differences for a better understanding of what lies within the “permits box.” We also recognize that the entire category of forms-of-permission regulatory instruments fits within a larger universe of regulatory delivery options including fines, taxes, standards, subsidies, inspections, monitoring, reporting, and a host of others. Many times a combination of instruments, including or not including one of the forms of permission, is deployed. Hence there is something to be learned about permits by comparing them to, say, taxes. But we believe the appropriate starting point for learning about permits comes from first comparing them to their closest cousins,

50. *Id.* §§ 701–706.

exemptions and prohibitions, and then comparing the variations that fit within the permit box itself.

Taking the forms-of-permissions comparison first, at one end of the forms-of-permission spectrum shown in Table 1 is the statutory exemption: a legislatively specified activity that is excluded from the need to obtain permission from the agency under the statutory regime. A statutory exemption could be explicit or implied, and its scope could be subject to agency and judicial interpretation. Once defined, a statutory exemption serves as the form of permission and thus removes the specified activity from the need to take any additional steps to establish compliance with the law. A regulatory exemption accomplishes the same outcome, but it is specified by the agency pursuant to a legislative delegation of authority. At the other end of the spectrum lie prohibitions: the statutory prohibition is a legislatively specified activity not eligible for permission, and a regulatory prohibition is an activity the agency has, pursuant to legislatively delegated authority, excluded from eligibility for permission. This leaves permits occupying the middle ground, where a statute authorizes an agency to grant permission to a proposed activity—an activity that would otherwise be prohibited—and some degree of discretion over the process and standards used to grant that form of permission.

Distilled to its essence, therefore, a permit can be defined as: an administrative agency's statutorily authorized, discretionary, judicially reviewable granting of permission to do that which would otherwise be statutorily prohibited. We intend this definition to be both formal and functional. The definition demands that the act of permitting (1) be explicitly delegated or implied by statute, (2) administrative, (3) discretionary, and (4) judicially reviewable, and that (5) it provide an affirmative grant of permission (6) allowing an act that would be otherwise statutorily prohibited. Regardless of what a form of permission is called—permit, license, certificate, exemption, or something similar—all six elements must be satisfied for it to be a permit, and if all six elements are satisfied, it is a permit.

Consider the role of discretion. If a statute specifies all the qualifications (such as age or residency) that are needed for permission to perform an act (such as hunting or driving), leaving it solely to the agency to “check off the boxes” for an applicant to receive permission to perform the act, there is no permit because the

agency has no discretion to exercise regarding its issuance.⁵¹ If, however, the statute leaves some judgment to the agency as to whether a qualification is met (for example, whether the applicant is of good character), the element of discretion is satisfied and the form of permission is a permit.

Similarly, the exercise of prosecutorial discretion not to enforce a statutory prohibition against an actor is administrative and discretionary, and functionally allows what is otherwise prohibited by statute. Nevertheless, prosecutorial discretion does not usually take the form of an affirmatively issued grant of permission—it is an internal agency decision not to act—and it is not usually subject to judicial review,⁵² so it is not a permit.⁵³ If, however, the agency promulgates a formal policy announcing the general conditions under which it will not enforce a statutory prohibition, and if doing so subjects the agency to judicial review,⁵⁴ under our definition, that would be a permit.

51. Forms of permission of this variety are vast in number. For example, Michigan and Texas each individually issued over one million hunting permits in 1994 alone; the 1994 total across all states was over fifteen million. See AM. FIREARMS, *Hunting License Holders, Sales, Revenues*, <http://www.amfire.com/statistic.asp> (last visited Oct. 6, 2014) (listing firearm statistics in all fifty states for 1994, the last year for which comprehensive statistics are available). Of course this aggregate number only captures a small number of state firearm-related permits, given that it only tallies hunting licenses and does not account for gun licenses, background checks, and conceal-carry permits, some of which may involve exercise of discretion.

It is possible that even for generally ministerial licensing decisions like driver's and hunting licenses, there can be discretion on the margins. For instance, the DMV employee who determines whether a teenager has passed the driving test has to make some judgment about whether the relevant standards have been met. Generally, however, the ministerial nature of licensing decisionmaking will dominate—undermining the possible identification of the resulting decisions as permits.

52. See *Heckler v. Chaney*, 470 U.S. 821, 831 (1985) (“This Court has recognized on several occasions over many years that an agency’s decision not to prosecute or enforce, whether through civil or criminal process, is a decision generally committed to an agency’s absolute discretion.”).

53. For discussions of nonenforcement as an important agency policymaking instrument, see Eric Biber, *The Importance of Resource Allocation in Administrative Law*, 60 ADMIN. L. REV. 1, 16–19 (2008); Lisa Schultz Bressman, *Judicial Review of Agency Inaction: An Arbitrariness Approach*, 79 N.Y.U. L. REV. 1657, 1644–65 (2004). See also David M. Uhlmann, *Prosecutorial Discretion and Environmental Crime*, 38 HARV. ENVTL. L. REV. 159, 168 (2014) (discussing the prosecution of permit violations).

54. See *Heckler*, 470 U.S. at 833 n.4 (reserving the question whether express nonenforcement policies are reviewable); *Crowley Caribbean Transp., Inc. v. Peña*, 37 F.3d 671, 676 (D.C. Cir. 1994) (general nonenforcement policy expressed through a full rulemaking or universal policy statement may be reviewable).

As with prosecutorial discretion, rising attention has been given to the proliferation of waiver provisions in regulatory statutes.⁵⁵ Broadly speaking, waivers are “statutory grants of the power to waive statutory requirements.”⁵⁶ Although this definition appears to have some overlap with the definition of permits, not all waivers will also be permits. For example, if the waived statutory requirement is an affirmative duty to act (for example, to pay a tax), the waiver is not of an act otherwise *prohibited* by statute and thus is not a permit. By contrast, waivers from zoning and building code restrictions—known as special exceptions and variances—relieve the applicant of having to follow prohibitions, and thus are permits.⁵⁷

One final example drives the point home: patents. A patent gives the inventor a form of permission not previously enjoyed—the right to enforce the patent—and thus the patent process looks something like the permit process. In addition, a patent fits most of the elements of a permit as a statutorily authorized, administrative, discretionary, and affirmative grant of permission (to enforce the patent) that is subject to judicial review. A patent does not, however, allow an act that is otherwise prohibited by statute—an inventor is free to market the invention without having patented it. A patent, therefore, is not a permit.

These are not merely nice distinctions. Legislatures, courts, agencies, and interest groups pay close attention to the language and structure of statutes to discern precisely what forms of permission or other regulatory instruments an agency may use. For example, the U.S. Environmental Protection Agency (EPA) has, on several occasions, gotten into hot water with courts for exempting specified activities from Clean Water Act (CWA) statutory prohibitions when the courts have found that the statute authorizes only permits as the form of permission, even when the difference between the permits and statutory exemptions seems nuanced.⁵⁸ Most recently, for example, a court rejected the EPA’s administrative exemption of “discharges of a water transfer” from CWA pollution discharge

55. See generally David J. Barron & Todd D. Rakoff, *In Defense of Big Waiver*, 113 COLUM. L. REV. 265 (2013) (discussing the proliferation of “big waiver” theory).

56. *Id.* at 276.

57. See JULIAN CONRAD JUERGENSMEYER & THOMAS E. ROBERTS, *LAND USE PLANNING AND DEVELOPMENT REGULATION LAW* 157–75 (2d. ed. 2007).

58. See, e.g., *Natural Res. Def. Council, Inc. v. Costle*, 568 F.2d 1369, 1377–80 (D.C. Cir. 1977) (rejecting the EPA’s exemption of agricultural discharges but suggesting the statute authorizes general permits).

prohibitions, which would have relieved those discharges of the need to obtain National Pollutant Discharge Elimination System (NPDES) permits—and thus exempted *millions* of water transfers from regulation—on the ground that “courts have consistently held that the EPA does not have statutory authority to create NPDES [permit] exclusions.”⁵⁹ Hence, both form and function matter when it comes to defining when an administrative act is or is not permitting, and to evaluating the consequences thereof.⁶⁰

Although his description of what constitutes a permit was not as developed as ours, we suspect Epstein would agree with what we have outlined above as the definition of a regulatory permit. As the next Section shows, we also agree with him that permits are ubiquitous in American society, touching everything “from a dog house in the back yard to a nuclear power plant,”⁶¹ and yet, permits are largely absent from academic teaching and scholarship.

B. *The Ubiquity of Permits in Modern Society (and Their Absence in Legal Scholarship)*

Permitting is one of the workhorses of the administrative state from top to bottom, and for centuries it has reached into every corner of life in America.⁶² For example, since its enactment the CWA has

59. *Catskill Mountains Chapter of Trout Unlimited, Inc. v. EPA*, Nos. 08-cv-5606, 08-cv-8430, 2014 WL 1284544, at *14 (S.D.N.Y. Mar. 28, 2014).

60. As decisions like these reveal, the form of permission an agency may use and how it designs that form of permission—whether as a general permit or as a specific permit—implicates doctrines of judicial review of agency statutory and regulatory interpretation that lie outside the scope of this Article. *See generally* Kevin Stack, *Interpreting Regulations*, 111 MICH. L. REV. 355 (2012) (discussing regulatory interpretation and judicial review).

61. *See* Epstein, *supra* note 1, at 407.

62. For example, § 13 of the Rivers and Harbors Act of 1899, also known as the Refuse Act, has since 1899 outlawed the discharge of “any refuse matter of any kind or description whatever other than that flowing from streets and sewers and passing therefrom in a liquid state, into any navigable water of the United States, or into any tributary of any navigable water.” 33 U.S.C. § 407 (2012). Having thus provided a broad general prohibition, the statute authorizes the Army Corp of Engineers to issue permits for such discharges. The specific language reads:

[T]he Secretary of the Army, whenever in the judgment of the Chief of Engineers anchorage and navigation will not be injured thereby, *may permit the deposit* of any material above mentioned in navigable waters, within limits to be defined and under conditions to be prescribed by him, provided application is made to him prior to depositing such material; and *whenever any permit is so granted* the conditions thereof shall be strictly complied with, and any violation thereof shall be unlawful.

Id. (emphasis added). For a thorough history of this and other water pollution regulations, including accounts of state permit programs dating back to the early 1900s, see generally William L. Andreen, *The Evolution of Water Pollution Control in the United States—State, Local, and Federal Efforts, 1789-1972: Part I*, 22 STAN. ENVTL. L.J. 145 (2003); William L.

been a veritable engine of permitting across the nation.⁶³ The CWA's NPDES permit program,⁶⁴ under which the EPA and delegated states regulate discrete sources of water pollution, is an illustrative example of the vast scope of the modern administrative permitting scheme. As of October 2013, the EPA's online database listed over 750 active general NPDES permits covering both huge *classes* of industries (mining facilities, concentrated animal feeding operations, and seafood processors just to name a few) and huge *numbers* of facilities (each individual general permit can itself cover over 30,000 discrete facilities).⁶⁵ Nationally, roughly 6800 major pollution sources and 44,000 nonmajor sources are required to hold a specific NPDES permit, and over 133,000 nonmajor sources are authorized by a general NPDES permit.⁶⁶ In addition, the EPA estimates that there are over half a million sources of stormwater discharge pollution authorized under CWA general permits at any given time.⁶⁷ The U.S. Army Corps of Engineers (the Corps), discussed in detail below, also has a hand in CWA permitting, with approximately 74,000 discrete activities per year receiving authorization through general permits the Corps administers under section 404 of the CWA for placing fill in navigable waters and wetlands, plus thousands of specific permits for more significant fill activities.⁶⁸ All told, in any given year roughly 750,000 sources of water pollution in the United States are required to obtain or maintain permit authorization under these various CWA regulatory programs. And that is just from one federal statute.

State permitting schemes can be just as, if not more, robust and wide-reaching as their federal counterparts. For example, states exercise vast permitting powers through occupational licensing

Andreen, *The Evolution of Water Pollution Control in the United States—State, Local, and Federal Efforts, 1789-1972: Part II*, 22 STAN. ENVTL. L.J. 215 (2003).

63. We do not in this Section explain the details of the regulatory programs mentioned. For an overview of the CWA, see THE CLEAN WATER ACT HANDBOOK (Mark A. Ryan ed., 3d ed. 2011).

64. See *NPDES Home*, ENVTL. PROT. AGENCY, <http://water.epa.gov/polwaste/npdes> (last visited Oct. 6, 2014).

65. *NPDES General Permit Inventory*, ENVTL. PROT. AGENCY, <http://cfpub.epa.gov/npdes/permitissuance/genpermits.cfm> (last visited Oct. 6, 2014).

66. *Analyze Trends: State Water Dashboard*, ENVTL. PROT. AGENCY, <http://echo.epa.gov/node/19> (last visited Oct. 6, 2014).

67. See CLAUDIA COPELAND, CONG. RESEARCH SERV., RL97290, STORMWATER PERMITS: STATUS OF EPA'S REGULATORY PROGRAM 1-3 (2012).

68. See CLAUDIA COPELAND, CONG. RESEARCH SERV., RL97223, THE ARMY CORPS OF ENGINEERS' NATIONWIDE PERMITS PROGRAM: ISSUES AND REGULATORY DEVELOPMENTS 2 (2012).

programs. Today, nearly a third of American workers must obtain a state occupational license to perform their jobs legally.⁶⁹ States, large and small, have occupational licensing requirements for dozens of professions including locksmiths, beekeepers, auctioneers, interior designers, fortune tellers, tour guides, and shampooers.⁷⁰

Permitting schemes permeate local governmental regulatory programs as well. For example, food trucks operating in Washington, D.C., are subject to the permitting authority of three discrete D.C. governmental agencies. The result is that a single truck can be required to maintain as many as seven permits.⁷¹ Sometimes local permitting schemes can even outstrip the scope of their state or federal counterparts. For example, the New York City Department of Health and Mental Hygiene's (DOH's) permitting scheme covers a vast swath of activities. Although the agency is just one of dozens in New York City with permitting authority, the DOH's scheme requires permits for, among other things, manufacturing frozen desserts (different permits are required for wholesale and retail frozen-dessert manufacturing), operating bathing establishments (different permits are required for those with and without pools) and petting zoos, and exhibiting exotic animals.⁷²

The variety of activities for which the DOH requires a permit is staggering, but its scope is dwarfed by that of the building permits issued by local governments. Before the recession of 2008, local governments nationwide regularly issued a total of over one million building permits per year, and even in the years following the 2008 recession, they issued well over five hundred thousand per year.⁷³

We could continue to dazzle with statistics like these for pages. To drive the point home, consider that the EPA estimated that, were it immediately to apply the strict letter of the Clean Air Act to the regulation of carbon dioxide emissions, over *six million* discrete

69. See Aaron Edlin & Rebecca Haw, *Cartels By Another Name: Should Occupations Face Antitrust Scrutiny?*, 163 U. PA. L. REV. 1093, 1096 (2014).

70. See *id.* at 1104–10 (detailing the professions subject to licensing in Florida and Tennessee).

71. See D.C. FOOD TRUCK ASS'N, FREQUENTLY ASKED QUESTIONS, <http://dcfoodtrucks.org/myths.html> (last visited July 13, 2013) (discussing common myths associated with food trucks).

72. See *License, Permit, and Course Information*, N.Y.C. DEP'T OF HEALTH & MENTAL HYGIENE, <http://www.nyc.gov/html/doh/html/licenses/permit.shtml> (last visited Oct. 6, 2014) (listing the types of licenses and permits under the New York Health Code).

73. *New Privately Owned Housing Units Authorized*, U.S. CENSUS BUREAU (June 2014), <http://www.census.gov/construction/bps/pdf/table1a.pdf>.

emission sources spread throughout the nation would need to obtain air pollution permits.⁷⁴ The EPA attempted to avoid the strict interpretation of the statute, which the agency argued would lead to absurd results, by regulating only the very large sources first and postponing action on smaller sources while it devised a regulatory strategy for them.⁷⁵ In effect, this so-called “tailoring rule” approach gave small emission sources a temporary regulatory exemption. The Supreme Court, however, found the very possibility that six million carbon dioxide sources might eventually require Clean Air Act permits a “patently unreasonable” interpretation of the statute, and thus found that the EPA could not regulate them at all unless a source were subject to permitting requirements for other pollutants.⁷⁶ The EPA’s failed attempt to ease its way into a massive permitting program thus illustrates the potential scope of the permit power.

Suffice it to say that permits seem firmly entrenched as a central way the administrative state does business and there is little prospect of them going away any time soon. Hence it is a bit of a puzzle—at least it is to us (and Professor Epstein)—that permitting is scarcely mentioned in administrative law teaching and scholarship materials. Although it is true that a law student might read cases that involve a permit, the law school curriculum is virtually devoid of *permitting* as a topic of study. Amid dozens of courses on litigation and transactions in virtually every law school’s offerings, one would strain to find courses approaching anything like “Permitting in the Administrative State” or “Securing and Challenging Permits.”⁷⁷ Even courses that are about the administrative state leave permitting as a focused topic of study out in the cold.⁷⁸ In short, even a law student who focuses his or

74. *Operating Permits Burden Reductions*, ENVTL. PROT. AGENCY, <http://www.epa.gov/nsr/documents/20100413piecharts.pdf> (last visited Oct. 6, 2014). For the EPA’s explanation of why it chose not to immediately regulate these sources, see *Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule*, 75 Fed. Reg. 31,514, 31,516–18 (June 3, 2010). Consistent with the theme of this Article, the EPA examined how to use “permit streamlining” tools such as general permits to ease the regulatory impact of subjecting these sources to Clean Air Act permitting. See CLEAN AIR ACT ADVISORY COMM., REPORT TO EPA ON AIR PERMITTING STREAMLINING TECHNIQUES AND APPROACHES FOR GREENHOUSE GASES (Sept. 14, 2012), available at <http://www.epa.gov/air/caaac/pdfs/ghg-permit-streamlining-final-report.pdf>.

75. See 75 Fed. Reg. at 31,516–18.

76. *Util. Air Reg. Grp. v. EPA*, 134 S. Ct. 2427, 2444 (2014).

77. We reviewed the course offerings of ours and several dozen other law schools and could find no such course.

78. For example, although one leading administrative law textbook includes a chapter on agency licensing cast broadly, such as federal broadcast station licensing and state occupational

her curriculum choices on administrative law and a regulated field such as environmental law could easily graduate with very little exposure to regulatory permitting systems and the design of permits.

Although permits receive more attention in legal scholarship, the focus of most work is on particular permitting programs, most prominently environmental regulatory program permitting,⁷⁹ but also

licensing, the main thrust of the chapter is to cover formal adjudication, which represents a small portion of the world of permits. RONALD A. CASS, COLIN S. DIVER, JACK M. BEERMANN & JODY FREEMAN, *ADMINISTRATIVE LAW* ch. VII (6th ed. 2011). There is no attention given even in that text to the design of permits. Other administrative law texts have no coherent unit on licensing at all, much less on permit design. *See, e.g.*, PETER L. STRAUSS, TODD RAKOFF, CYNTHIA FARINA & GILLIAN METZGER, *GELLHORN AND BYSE'S ADMINISTRATIVE LAW, CASES AND COMMENTS* (11th ed. 2011). Similarly, neither of the two leading texts used in first-year "regulatory state" classes now popular in law schools devotes any attention to agency permitting. *See* LISA SCHULTZ BRESSMAN & EDWARD L. RUBIN, *THE REGULATORY STATE* (2010); JOHN F. MANNING & MATTHEW C. STEPHENSON, *LEGISLATION AND REGULATION* (2010). The same story is largely true outside of administrative law course materials. For example, of the dozen or so textbooks on environmental law and natural resources law—two fields knee-deep in permitting regimes—a few texts devote some pages to particular permitting programs. *See, e.g.*, ROBIN KUNDIS CRAIG, *ENVIRONMENTAL LAW IN CONTEXT* 806–909 (3d ed. 2012) (CWA permits); ZYGMUNT J.B. PLATER, *ENVIRONMENTAL LAW AND POLICY: NATURE, LAW, & SOCIETY* 539–68 (4th ed. 2010) (CWA permits). Only one such text includes any substantial discussion of permitting in general as its own theme. *See* J.B. RUHL, JOHN NAGLE, JAMES SALZMAN & ALEXANDRA KLASS, *THE PRACTICE AND POLICY OF ENVIRONMENTAL LAW* 710–39 (3d ed. 2014) (discussing coverage of permitting proceedings, specific permits, and general permits).

79. Permitting under the CWA receives considerable coverage in legal scholarship. *See, e.g.*, Thomas Addison & Timothy Burns, *The Army Corps of Engineers and Nationwide Permit 26: Wetlands Protection or Swamp Reclamation?*, 18 *ECOLOGY L.Q.* 619 (1991); Terence J. Centner, *Challenging NPDES Permits Granted Without Public Participation*, 38 *B.C. ENVTL. AFF. L. REV.* 1, 1 (2011); Steven G. Davison, *General Permits Under Section 404 of The Clean Water Act*, 26 *PACE ENVTL. L. REV.* 35, 35 (2009); Jeffrey M. Gaba, *Generally Illegal: NPDES General Permits Under the Clean Water Act*, 31 *HARV. ENVTL. L. REV.* 409, 410 (2007); Andrew King, *Leading the EPA to Stormwater: The Long Road to Construction Stormwater Regulation and the Role of Numeric Effluent Limitations*, 24 *TUL. ENVTL. L.J.* 335, 335 (2011); Chris Reagen, *The Water Transfers Rule: How an EPA Rule Threatens to Undermine The Clean Water Act*, 83 *U. COLO. L. REV.* 307, 307 (2011). The Endangered Species Act's permitting program is also a focal point. *See, e.g.*, Alejandro E. Camacho, *Can Regulation Evolve? Lessons from a Study in Maladaptive Management*, 55 *UCLA L. REV.* 293, 293 (2007); Patrick Duggan, *Incidental Extinction: How the Endangered Species Act's Incidental Take Permits Fail to Account for Population Loss*, 41 *ENVTL. L. REP.* 10,628, 10,628 (2011); J.B. Ruhl, *How to Kill Endangered Species, Legally: The Nuts and Bolts of Endangered Species Act "HCP" Permits for Real Estate Development*, 5 *ENVTL. LAW.* 345, 345 (1999); Karin P. Sheldon, *Habitat Conservation Planning: Addressing the Achilles Heel of the Endangered Species Act*, 6 *N.Y.U. ENVTL. L.J.* 279, 279 (1998). One insightful article that digs into the anatomy of permitting in general more than most involved a comparative study of the environmental permitting of two similar BMW production plants, one in Germany and the other in the United States. *See* Molly Elizabeth Hall, *Pollution Havens? A Look at Environmental Permitting in the United States and Germany*, 7 *WIS. ENVTL. L.J.* 1, 2 (2000).

covering a broad diversity of fields including land use permitting,⁸⁰ speech permitting,⁸¹ and cancer drug production permitting.⁸² Although this kind of work surely contributes to better understandings of how different permitting programs operate and perform in different contexts, it is not directed at developing a theory of permitting and permit design.

A broader take on permitting is found in the emerging body of scholarship focused on how permits fit into the increasing “privatization” of the administrative state through the introduction of market-based instruments, private organization standard setting, and similar mechanisms.⁸³ Permitting design could both affect and be affected by this privatization trend, but the scholarship on the topic does not examine permitting design in any broader sense and is more concerned with theories of privatization than with theories of permitting systems.

There is also a body of scholarship examining the prevalence of statutory and regulatory exemptions and waivers in some regulatory fields.⁸⁴ As close cousins to permits, knowing more about the design and impact of exemptions and waivers can help inform the theory and

80. See generally, e.g., Peter A. Buchsbaum, *Federal Regulation of Land Use: Uncle Sam the Permit Man*, 25 URB. LAW. 589 (1993).

81. See generally, e.g., Nathan W. Kellum, *Permit Schemes: Under Current Jurisprudence, What Permits are Permitted?*, 56 DRAKE L. REV. 381 (2008).

82. See generally, e.g., Richard Epstein, *Against Permittitis: Why Voluntary Organizations Should Regulate the Use of Cancer Drugs*, 94 MINN. L. REV. 1 (2009).

83. See generally Jody Freeman, *Private Parties, Public Functions and the New Administrative State*, 52 ADMIN. L. REV. 813 (2000) (examining programs under which public functions, such as standard setting, are delegated to private organizations); Jessica Owley, *The Increasing Privatization of Environmental Permitting*, 46 AKRON L. REV. 1091 (2013) (examining environmental-permitting programs that rely on private markets to manage environmental harm mitigation).

84. See Barron & Rakoff, *supra* note 55 (examining the widespread use of waivers); Kara Cook, *The Middle Ground of Pesticide Regulation: Why EPA Should Use a Watershed-Based Permitting Scheme in Its New Aquatic Pesticides Rule*, 37 ECOLOGY L.Q. 451, 451 (2010) (examining the EPA’s failed attempt to exempt pesticide applications from CWA permitting); Paul Kampmeier, *Enough is Enough! Stormwater Discharged from Man-Made Pipes, Ditches, and Channels Along Logging Roads Is Not Nonpoint Source “Natural Runoff”*, 43 ENVTL. L. 757, 757–61 (2013) (examining an EPA exemption from CWA permitting for runoff from logging operations); J.B. Ruhl, *Farms, Their Environmental Harms, and Environmental Law*, 27 ECOLOGY L.Q. 264, 331–33 (2000) (examining a variety of exemptions enjoyed by the agricultural production industry); Michael Vandenberg & Kevin Stack, *The One Percent Problem*, 111 COLUM. L. REV. 1385, 1387, 1394–96 (2011) (examining a variety of exemptions premised on the lack of significant harm). Some of that discussion has been general, but it has also focused on why we would have exemptions and on the distinctions between adjudication versus rulemaking. See generally, e.g., Aman, *supra* note 3; Schuck, *supra* note 3.

design of permits. Nevertheless, exemptions and waivers are not permits, so there is a limit to how much assistance this type of scholarship can offer. Overall, therefore, it is no exaggeration to say that Professor Epstein's observation two decades ago, that the permit power had "received scant attention in the academic literature,"⁸⁵ remains true to this day.

C. *Types of Permits—From General to Specific*

Permits are everywhere and seem to take on many sizes and shapes. To be sure, all permits have certain characteristics: among other things, they apply to specified regulated actions and actors, have a specified duration, and impose enforceable conditions on the regulated entity. But the range of possible permit designs seems boundless, producing permits for everything from backyard decks to food trucks to vast industrial complexes. How does one make sense of a world in which permits cover so much of American society? Indeed, that world turns out to be quite complex.

In our typology of forms of permission, permits are situated between regulatory exemptions and regulatory prohibitions. As such, the universe of possible configurations of permits defines a continuum that stretches between those two opposing models. At the extreme boundaries of permitting, permits do not look much different from either exemptions on one end or prohibitions on the other. The permit power's differences from exemptions and prohibitions at its edges, however, are significant nonetheless.

For example, imagine that a statute authorizes an agency to implement regulatory exemptions, permits, and regulatory prohibitions with respect to a particular category of activities, such as water pollution. The statute instructs the agency to decide which permission form to use for different types of water pollution sources based on the cumulative harm to environmental resources a type of source, if not regulated, is expected to produce when all such sources are taken into account.⁸⁶ Based on this standard, the agency could

85. Epstein, *supra* note 1, at 407.

86. This is one of the standards used in many statutes authorizing general permits. Although a harm continuum like the one in our hypothetical statute can provide one rationale for moving across the forms-of-permission spectrum from exemptions (targeted at the lowest harms) to general permits to specific permits to prohibitions (targeted at the highest harms), it is not the only possible policy rationale and is often ignored in practice. For example, agricultural pollution is a leading cause of water resources degradation but is exempt in many of its forms, largely for political reasons, from permitting under the CWA and other environmental laws. *See*

array its regulatory instrument options based on a harm continuum with exemptions at one end for very low harm levels, prohibitions at the other end for very high harm levels, and permits for the intermediate harm levels. In such a system, permits thus must be able to handle everything from low to high levels of harm, suggesting that permitting must be a flexible regulatory instrument.

For example, say the agency expects Type *X* sources to produce extremely low levels of cumulative harm. For that situation the agency might simply declare that Type *X* sources are exempt from the need to obtain permission. Type *X* source harms could be more than trivial in some cases, however. In this case, the agency could, by its own initiative, issue a permit that any Type *X* source could take advantage of by simply filling out a one-time form with basic information such as just the name of the owner and the location of the source. Only if the agency determines, perhaps through an inspection or citizen complaint program, that a particular Type *X* source poses unusual risks would the agency require that source to undergo more extensive assessment. This approach is representative of the general permit, the example offered here being an extreme version in that all it requires for the action to qualify for the permit is a one-time filing of information anyone could easily find in a phone book.

On the face of things, it looks as if the only difference between an exemption and a general permit is the filing of the form in the latter. But there is more to it than that. Under the exemption approach, Type *X* sources simply do not register in the agency's regulatory program—the agency will not know, for instance, how many there are, where they are, or who owns them. Under the permit approach, the agency knows all this information and thus can use it for its regulatory purposes. The agency could, for example, develop and make public maps of Type *X* source locations or conduct periodic visits to Type *X* sources. Over time, moreover, the agency could add requirements to the form, such as reporting annual output, adding an annual fee, or requiring more frequent filings. In short, the requirement that one meet some condition or take some action, although minimally burdensome, could lead to a slippery slope of

Ruhl, *supra* note 84, at 293–316. For a discussion of the harm continuum and other rationales in more detail, *see infra* Parts II, III.

additional requirements ending in Professor Epstein's vision of administrative reigns of terror.⁸⁷

At the other end of the permit continuum—where that slippery slope leads—is the boundary between permits and prohibitions. Here the agency can make a similar choice for Type Y sources, which are expected to impose extensive cumulative harm if left unregulated, as it can at the other end of the continuum. One way to avoid Type Y harm would be to flatly prohibit Type Y sources. Problem solved. But if Type Y sources also produce significant economic or other benefits, a prohibition might not be the optimal approach when all costs and benefits are considered. Alternatively, therefore, the agency could provide that all Type Y sources are prohibited unless they obtain a permit from the agency. To obtain this kind of permit, however, a Type Y source must, among other things, prepare a comprehensive cost-benefit analysis weighing all possible environmental, economic, and social effects expected from its particular facility, employ expensive pollution control technology, mitigate all unavoidable harmful effects, submit to inspections, perpetually monitor impacts, and file monthly reports. This approach is representative of the specific permit, and this example shows how a specific permit imposes potentially extensive and expensive requirements.

As a practical matter, the conditions for obtaining and maintaining this kind of permit could become so extensive and expensive as to effectively prohibit Type Y sources, making the permitting regime look like a prohibition. For example, although it is possible in theory to obtain all the permits necessary to construct a new major gasoline refinery in the United States, it is a mind-boggling undertaking. The EPA once issued a 135 page “guidance” just to explain the inner workings of but one requirement for permitting a refinery under the Clean Air Act.⁸⁸ Although permitting complexities

87. As we discuss later in connection with our case study of permitting under the CWA, some general permits do not require even the filing of a simple form, making them look indistinguishable from exemptions except in terms of the orientation of the form of permission—that is, exempted activities are unregulated whereas activities authorized by general permit are regulated. Although the distinction may seem semantic when applied to this kind of general permit, we discuss in Parts II and III reasons why it makes a difference to agencies and regulated entities whether an activity falls on the exemption side or the permit side of the line. See *infra* Parts II, III.

88. See E. RESEARCH GRP., ENVTL. PROT. AGENCY, EPA/456-B-00-001, *Petroleum Refinery MACT Standard Guidance* (2000), available at <http://www.epa.gov/ttn/atw/petrefine/mactdoc1.pdf> (explaining the maximum-achievable-control-technology standards for petroleum refineries in the United States).

are not the sole factor, it should be no surprise that no major refinery has been constructed anywhere in the nation since 1977. This has not been because of excess refining capacity—the United States must import refined gasoline to meet demand.⁸⁹ A more current example comes from the controversial Keystone XL shale oil pipeline, proposed to run from Canada to the Gulf Coast refineries, which the U.S. State Department’s analysis concludes will require over ninety “major permits, licenses, approvals, authorizations, and consultation[s] by federal, state, and local agencies prior to implementation of the proposed Project.”⁹⁰

For Epstein, a legislative or administrative prohibition may be bad enough—it violates the permitted-until-judicially-enjoined principle. But the agglomeration of federal, state, and local agencies issuing the dozens of burdensome specific permits that would be needed for a major refinery or pipeline is Epstein’s nightmare, opening the door to all the administrative excesses and abuses he predicted. Of course, these are extreme examples. Plenty of work gets done in the nation notwithstanding the dark cloud of permitting that hangs overhead. Even so, relying on the specific permit model can impose nontrivial costs on social and economic actors, and the potential for agency abuse of power in the administration of the permitting program cannot be ruled out. Although a flat prohibition also imposes costs, the prohibition, once in effect, does not rely on continuing agency administration and thus the abuse of power concern is not present.

Hence the differences between exemptions and general permits at the one end of the permit spectrum, and between prohibitions and specific permits at the other end, are by no means inconsequential. Ironically, however, they are dwarfed by the differences between general permits and specific permits. General permits at the far end of the spectrum look like exemptions, and specific permits at the other end look like prohibitions. Thus, the distance between general permits and specific permits is almost the same as the distance

89. *When Was the Last Refinery Built in the United States?*, U.S. ENERGY INFO. ADMIN. (June 25, 2014), <http://www.eia.gov/tools/faqs/faq.cfm?id=29&t=6>. The United States regularly imports anywhere from several hundred thousand to more than a million gallons of gasoline *per day*. *Weekly U.S. Imports of Total Gasoline*, U.S. ENERGY INFO. ADMIN. (Aug. 27, 2014), <http://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=WGTIMUS2&f=W>.

90. U.S. DEP’T OF STATE, FINAL SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT—KEYSTONE XL PROJECT tbl.1.9-1 (2014), *available at* <http://keystonepipeline-xl.state.gov/documents/organization/221152.pdf>.

between exemptions and prohibitions. In other words, just as exemptions and prohibitions are diametric opposites, so too are general permits and specific permits. Yet both are permits that represent agency exercise of the permit power. To be sure, obtaining a specific permit, like the kind described above, sounds like an enormous and expensive hassle, whereas obtaining a general permit that asks for only a name and an address is a piece of cake. Yet even the simple general permit fits the criteria that Epstein and we agree are the defining traits of permits: discretionary, administrative granting of permission to do that which is otherwise prohibited by statute.

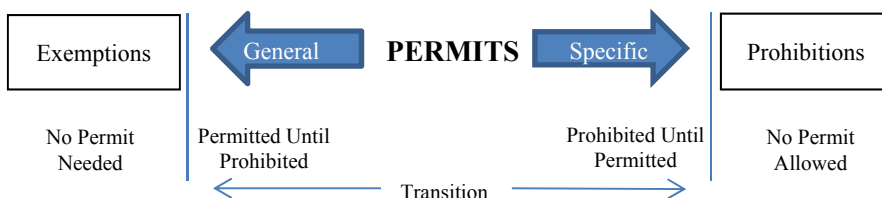
Epstein's critique of the permit power, however, failed to account for this broad a range of what fits inside the permits box in the forms-of-permission spectrum, and the space it thus allows for designing a permit to fit its regulatory context. Again, if one objects in principle to any instance in which discretionary administrative permission is required to do that which is otherwise prohibited by statute, the differences between general and specific permits do not matter—they are both part of “the racket.” But if one accepts that a permit-free society is impractical and thus is concerned with how the permit power is actually implemented, the differences between general and specific permits, and how agencies make use of them, may matter.

Indeed, given how close general permitting can come to an exemption, Epstein overstated the case by portraying all permitting as following the legislatively-prohibited-until-administratively-permitted model. He overlooked general permitting, which adds the third and potentially important administratively-permitted-until-administratively-prohibited model.⁹¹ Although this leaves the permitting and prohibiting functions in the hands of agencies rather than courts, general permits restore the default rule to a state of permission and require some action by the agency to shift to a prohibition in particular cases. As Figure 1 below suggests, this approach looks much closer to Epstein's ideal model of permitted-until-judicially-prohibited than it does to the legislatively-prohibited-until-administratively-permitted model he condemned. General permits thus call into question how deeply into the permit power

91. General permitting was well entrenched in various permit systems by the time Epstein offered his critique. See, e.g., Addison & Burns, *supra* note 79 (discussing the CWA section 404 general-permitting program, which was added as part of the 1977 amendments to the statute).

Epstein's critique penetrates. A more robust analysis of the breadth of permit design possibilities is needed to think more clearly about the permit power in application.

Figure 1. *The Spectrum of Permits*



To facilitate that study, we use examples taken from one of the more well-known permitting programs in environmental law—section 404 of the CWA.⁹² True to the permits model, section 301 of the CWA establishes a broad category of prohibited activity, declaring the “discharge of any pollutant by any person shall be unlawful.”⁹³ There are decades’ worth of judicial opinions and reams of agency rules and guidances expounding on the meaning of those ten words.⁹⁴ For purposes of understanding the structure of the section 404 permit program, however, it suffices to explain that the CWA defines “pollutant” to include a long list of items including everything from incinerator residue to sand,⁹⁵ and defines “discharge of any pollutant” to mean “any addition of any pollutant to navigable waters from a point source.”⁹⁶ Continuing down the definitional trail, the CWA defines “navigable waters” to mean “the waters of the United States”⁹⁷ and defines “point source” to mean “any discernible, confined and discrete conveyance . . . from which pollutants are or may be discharged.”⁹⁸ In lay terms, you cannot use pipes and ditches to dump pollution into lakes and rivers.

92. It is not necessary for our purposes to plumb the intricate details of the section 404 program; rather, we use it to flesh out the structural differences between specific and general permits. For thorough coverage of the section 404 program, see generally WETLANDS LAW AND POLICY: UNDERSTANDING SECTION 404 (Kim Diana Connolly et al. eds., 2005).

93. 33 U.S.C. § 1311(a) (2012).

94. See H. Michael Keller, *Regulated Activities*, in WETLANDS LAW AND POLICY, *supra* note 92, at 105–11 (discussing section 301 of the CWA).

95. 33 U.S.C. § 1362(6) (2012).

96. *Id.* § 1362(12).

97. *Id.* § 1362(7).

98. *Id.* § 1362(14).

But yes you can, if you get a CWA permit. The prohibition clause of section 301, recited above, appears after the proviso: “Except as in compliance with”⁹⁹ One of the several “in compliance with” opportunities section 301 specifies is found in section 404, which provides that the Secretary of the Army, acting through the chief of the Corps,¹⁰⁰ “may issue permits, after notice and opportunity for public hearings for the discharge of dredged or fill material into the navigable waters at specified disposal sites.”¹⁰¹ Section 404 thus completes the four ingredients necessary for exercising the permit power: the Corps, an administrative agency, may exercise its discretion under section 404 to grant permission to do that which is otherwise prohibited by section 301.

Section 404 articulates a few more features of this permit regime that are important for our purposes. First, another agency has its hand in the process. Section 404(b) provides that the Corps’ decisions about where to allow disposal sites must follow environmental and other guidelines established by the EPA.¹⁰² Second, true to the forms-of-permission spectrum, section 404(f) provides several statutory exemptions, called “non-prohibited discharges,” including such activities as “normal farming,” dam repairs, and construction of farm stock ponds.¹⁰³ Third, section 404(e) establishes a general permit option “for any category of activities involving discharges of dredged or fill material if the Secretary determines that the activities in such category are similar in nature, will cause only minimal adverse environmental effects when performed separately, and will have only minimal cumulative adverse effects on the environment.”¹⁰⁴

On its face the section 404 permit program might appear narrow and mundane—it seems to be concerned with dumping dredged soil and sand into lakes and rivers. But as with many permit programs, there is more there than meets the eye. Through a long and often

99. *Id.* § 1311(a).

100. *Id.* § 1344(d) (2012).

101. *Id.* § 1344(a). The other major CWA permitting program administered by the EPA is known as the NPDES program, covering discharges not covered by section 404. *See* 33 U.S.C. § 1342 (2012). The Supreme Court has drawn a sharp line between the two programs, such that a particular type of discharge falls into one program or the other, but not both. *See* *Coeur Alaska, Inc. v. Se. Alaska Conservation Council*, 557 U.S. 261 (2009). We discuss the NPDES program at various points *infra*.

102. 33 U.S.C. § 1344(b); *see* Mark T. Pipher, *The Section 404(b)(1) Guidelines and Practicable Alternatives Analysis*, in *WETLANDS LAW AND POLICY*, *supra* note 92, at 221–26.

103. 33 U.S.C. § 1344(f); *see* Keller, *supra* note 94, at 131–38.

104. 33 U.S.C. § 1344(e)(1)–(2).

tortuous history of judicial and administrative interpretations, the geographic reach of section 404 includes not just navigable waters, but also wetlands having a “significant nexus” to navigable waters.¹⁰⁵ Although it is not necessary for our purposes to plumb the depths of what “significant nexus” means in this context, it is important to note that the extension of section 404 jurisdiction to wetland areas that meet the “significant nexus” test transformed section 404 from a dredging and fill regulatory provision to one of the federal government’s major land use regulation programs.¹⁰⁶ It is not an exaggeration to observe that “no landowner or developer can proceed without awareness of wetlands protection law.”¹⁰⁷

Indeed, consistent with Epstein’s assessment of the permit power, the section 404 program has received scathing criticism for its extensive reach and impact on land development. Justice Scalia, for example, once claimed that “[t]he burden of federal regulation on those who would deposit fill material in locations denominated ‘waters of the United States’ is not trivial. In deciding whether to grant or deny a permit, the [Corps] exercises the discretion of an enlightened despot.”¹⁰⁸ The focus of most of this criticism, however, has been on the Corps’ work involving specific permits—what the agency refers to as an “individual permit.”¹⁰⁹ The vast majority of permitting under section 404, however, takes place through the Corps’ numerous general permits, which cover activities such as the

105. See *Rapanos v. United States*, 547 U.S. 715, 741–42 (2007) (establishing the “significant nexus” test). The details and implications of *Rapanos* are far too complex to cover here. For a series of articles explaining the significant nexus test and some of the confusion it has caused, see generally Symposium, *Rapanos v. United States*, 22 NAT. RESOURCES & ENV’T (2007). For the pre-*Rapanos* history of the administrative and judicial interpretations of the geographic scope of section 404 jurisdiction, which was itself complex, see Mark A. Chertok & Kate Sinding, *Federal Jurisdiction Over Wetlands: “Waters of the United States,”* in WETLANDS LAW AND POLICY, *supra* note 92, at 59–92.

106. Douglas R. Williams & Kim Diana Connolly, *Federal Wetlands Regulation: An Overview*, in WETLANDS LAW AND POLICY, *supra* note 92, at 1–17.

107. Margaret N. Strand & Lowell Rothschild, *Wetlands: Taming the Swamp Monster*, in ENVIRONMENTAL ASPECTS OF REAL ESTATE AND COMMERCIAL TRANSACTIONS: FROM BROWNFIELDS TO GREEN BUILDINGS 589 (James B. Witkin ed. 2011).

108. *Rapanos*, 547 U.S. at 721. For his bleak assessment of the Corps, Justice Scalia relied heavily on David Sunding & David Zilberman, *The Economics of Environmental Regulation by Licensing: An Assessment of Recent Changes to the Wetland Permitting Process*, 42 NAT. RES. J. 59 (2002). Some of the findings of the Sunding and Zilberman study, however, have been contested in other work studying the Corps’ performance. See generally Kim Diana Connolly, *Survey Says: Army Corps No Scalian Despot*, 37 ENVTL. L. REP. 10,317 (2007) (examining the Corps’ permitting program performance record).

109. See Connolly, *supra* note 108, at 10,317 n.4.

placement of navigation aids and erosion control structures, permits the Corps has actively been using since 1977.¹¹⁰ The use of general permits by the Corps is by design and meant to avoid the kind of problems Epstein associated with permit power abuse.¹¹¹ As one congressional study of section 404 permits concluded, general permits “are a key means by which the Corps seeks to minimize the burden and delay of its regulatory program: they authorize a landowner or developer to proceed with the covered activity without having to obtain an individual, site-specific permit in advance.”¹¹² Although more than half of its general permits require advance notification to the Corps for some or all covered activities, others require only after-the-fact notification. The result has been that the Corps handles the vast majority of its permitting through general permits¹¹³ and processes them far more efficiently and cost-effectively than is possible for specific permits.

Section 404 thus illustrates the flexibility inherent in the permit power once the full breadth of permit design options is taken into account. However, with over 90 percent of the demand on the section 404 permit program handled under general permits requiring a small amount of paperwork, or even none, and anywhere from zero to at most a few weeks’ time to work through the permitting system, does the Corps truly look like an “enlightened despot”?¹¹⁴ Does the section 404 general permit program smack of a “racket”? Why, if the Corps wished to abuse the permit power, would it funnel so much of the section 404 permit program through general permits?¹¹⁵ These are questions one would not think to ask without a firm grasp of the full dimensions and design options available under the permit power. So

110. The Corps’ general permit program began in 1977 with the agency’s promulgation of five general permits covering specified activities such as utility-line crossings and minor road crossings. *See* 42 Fed. Reg. 37,121, 37,146–47 (1977). Congress amended the CWA in 1977 after the Corps promulgated its first set of general permits, essentially codifying the approach the Corps took. *See* Palmer Hough & Morgan Robertson, *Mitigation Under Section 404 of the Clean Water Act: Where It Comes From, What It Means*, 17 WETLANDS ECOLOGY & MGMT. 15, 17 (2009).

111. *See supra* notes 10–20 and accompanying text.

112. COPELAND, *supra* note 68, at 2.

113. *Id.* at 2 (“Approximately 74,000 activities per year (representing 92 percent of the Corps’ regulatory workload) were authorized by nationwide and other general permits.”).

114. *Rapanos v. United States*, 547 U.S. 715, 721 (2007).

115. Indeed, surveys of applicants for the Corps’ section 404 permits generally reveal them to be happy customers. *See* Connolly, *supra* note 108, at 10,325–61 (compiling and assessing survey results).

that we may fully address them later, therefore, in the next Section we continue with section 404 as the case study for unpacking and comparing the characteristics of general and specific permits.

D. Design Options

There are three levels of analysis across which to compare general and specific permits as alternative design options. The first level focuses on the permitting *system*, which consists of the regulatory apparatus and process the agency constructs in order to issue the permit. The second level of analysis focuses on permit *administration*, which pertains to how a particular project, subject to the regulatory prohibition, avails itself of the permitting system to obtain permit approval. At a macro scale, from the agency's perspective the fundamental distinction between general permitting and specific permitting is that general permits are issued at the permitting-system stage, whereas specific permits are issued at the permit administration stage. That is, most of an agency's work in general permitting is in establishing the permitting system, whereas in specific permitting, most of the agency's work is in permit administration.

The third level of analysis concerns how the agency manages the *transition* between general and specific permitting as it searches for the appropriate balance among the general and specific permitting characteristics. There are two modes of transition—a “continuum mode,” in which the agency can more or less move incrementally between the two extremes as it chooses, and a “discontinuity mode,” in which moving between the extremes at some point triggers sharp thresholds regarding the features of one or more of the characteristics of the permitting system or permit administration.

Table 2 shows how these three levels of analysis fit together, detailing each of the key features of permitting systems and permit administration, describing how they vary between the extremes, and showing the transition mode for each. As explained above, at the extreme, a general permit is kept distinct from an exemption by its regulatory orientation and the discretion an agency retains under the terms of the permit to build more into the process for issuing a permit on a case-specific basis. For the first distinction, general permits are regulatory and exemptions are not. For the second distinction, in the case of permits, but not exemptions, the agency might include in the permit's terms demands for information, closer scrutiny of the proposed project, and performance conditions, among other things.

Exemptions thus are better thought of as safe harbors—the agency cannot identify a specific project or action that meets an exemption and pull it back into the regulatory program on a case-specific basis—whereas general permits can expand in regulatory scope.

Because general permits have the flexibility of being more or less general, an agency can adjust many parameters along a continuum to move away from the quasi-exemption effect of general permits at the extreme. In doing so, however, the agency runs the risk that as more parameters move in the direction of specific permitting attributes, at some point there will be sufficiently particularized agency action that some features of the permitting system and permit administration must flip into what are distinctly specific-permitting procedures. Questions pertaining to whether this flip is desirable, and the circumstances under which one approach is superior to the other, will be discussed later in this Article in Parts II and III. First, in the remainder of this Section we dig deeper into what Table 2 reveals in terms of the system and administration of regulatory permits.

Table 2. Permitting Systems, Permit Administration, and Transitions

General Permits	Transition	Specific Permits
<i>Permitting System</i>		
Agency issues permit	Discontinuities	Applicant requests permit
High agency assessment burden	Continuum	No agency assessment burden
Low regulatory infrastructure	Continuum	High regulatory infrastructure
High promulgation requirements	Discontinuities	Low promulgation requirements
Permit by regulation	Discontinuities	Permit by order
<i>Permit Administration</i>		
No factual submission burden	Continuum	High factual submission burden
No agency assessment burden	Continuum	High agency assessment burden
No negotiation of terms	Continuum	High negotiation of terms
Low agency discretion	Continuum	High agency discretion
No public participation	Continuum	High public participation
No agency order	Discontinuities	Requires agency order
No judicial review	Discontinuities	Judicial review available

1. *Permitting Systems.* We propose five essential characteristics of permitting systems across which general and specific permitting differ. The first characteristic is the determination of which party

initiates the permitting approval process—agency or applicant. In general permitting at its extreme, the agency issues a general permit available for all qualifying projects, whereas in specific permitting, applicants must approach the agency to request a permit.

A second factor is the substantive assessment burden the agency assumes when establishing the system. In general permitting systems, to issue a general permit, the agency usually must make substantive findings about the merits of a general permit it intends to issue, such as whether the permitted activities are likely to cause significant harm to protected interests. Setting up a specific-permitting system, by contrast, involves no agency substantive findings at the extreme—those are all saved for later during permit administration.

On the other hand, the reverse is true for the third factor—regulatory infrastructure. Once a general permitting system is established, it requires relatively little procedural and substantive infrastructure to move to the permit administration phase. Once the general permit is issued, minimal additional agency involvement is required for permit administration. Again, the opposite is true of specific permitting—which backloads the substantive work to the permit administration phase, and thus mostly involves erecting an extensive regulatory infrastructure to support permit administration.

The fourth differentiating characteristic involves promulgation requirements of the two permit types. Given all that is bundled into a general permit, the general-permitting system must incorporate extensive promulgation requirements, such as environmental and other impact assessment steps, public notice and comment, and judicial review. Because specific-permitting systems are principally focused on setting up procedures and standards for later permit administration, they impose far less of this promulgation burden.

The fifth characteristic is the administrative action by which the permits are issued. Because general permitting packages much of the agency's work at the permitting-system stage, the prototypical general-permitting system uses rulemakings as its workhorse. In other words, general permitting involves establishing a rulemaking system for issuing permits in the form of general promulgations. Specific-permitting systems, because they defer the heavy lifting of permit issuance to the permit administration stage, use particularized agency orders as the permit-delivery mechanism. The point of the specific-permitting system, therefore, is to set up the procedures and standards for running permit administration to issue permits.

The Corps' implementation of section 404 permitting aptly illustrates these distinctions between general- and specific-permitting systems. Although the Corps' "nationwide permits" system (a general-permitting system) produces a simplified and streamlined permit administration burden for agencies and applicants alike, promulgating the general permits is a significant burden for the agency.¹¹⁶ As section 404(e)(1) provides, to issue a general permit, the Corps must make specified substantive findings about an identified category of activities otherwise prohibited under section 301¹¹⁷—in other words, that the activities are similar in nature and will have minimal separate and cumulative effects on the environment. Both required findings have been points of contention in the Corps' implementation of general permitting.¹¹⁸ Because the point of general permitting is to avoid having to make these substantive findings about each discrete project within the activity category during permit administration,¹¹⁹ the Corps has established a rulemaking process for issuing general permits¹²⁰ and regularly publishes its nationwide general permits in the Federal Register.¹²¹ The Corps' promulgation

116. For a general overview of the nationwide permitting program, see Davison, *supra* note 79, *passim*; William E. Taylor & Kate L. Geoffrey, *General and Nationwide Permits*, in WETLANDS LAW AND POLICY, *supra* note 92, at 151.

117. See 33 U.S.C. § 1344(e)(1) (2012) (requiring that the Corps must "determine[] that the activities . . . are similar in nature, will cause only minimal adverse environmental effects when performed separately, and will have only minimal cumulative adverse effect on the environment" before issuing permits).

118. Taylor & Geoffrey, *supra* note 116, at 151, 154–57. The regulations governing proposed general permits required the Corps to assess "[a]ll factors which may be relevant to the proposal" including:

[C]onservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership and, in general, the needs and welfare of the people.

33 C.F.R. § 320.4(a)(1) (2011).

119. See *Snoqualmie Valley Pres. Alliance v. U.S. Army Corps of Eng'rs*, 683 F.3d 1155, 1158 (9th Cir. 2012) ("A general nationwide permit . . . must undergo that extensive process at the time the permit is promulgated, rather than at the time an applicant seeks to discharge fill material under such a permit."); *Sierra Club v. U.S. Army Corps of Eng'rs*, No. 13-cv-1239, 2013 WL 6009919, at *15 (D.D.C. Nov. 13, 2013) ("[T]he entire point of the general permitting system is to avoid the burden of having to conduct an environmental review under [the National Environmental Protection Act] when a verification—as distinguished from an individual discharge permit—is sought.").

120. See 33 C.F.R. § 330.1–.6 (explaining the process for distributing general permits).

121. See, e.g., 77 Fed. Reg. 10,184 (Feb. 21, 2012) (most recent publication of nationwide permits).

of each general permit involves compliance with a myriad of impact assessment and public process requirements,¹²² and is subject to judicial review regarding whether the permit satisfies the section 404(e) standards as well as all of the promulgation requirements.¹²³

Assuming the Corps completes the nationwide permit promulgation process and withstands any judicial review, the end result of this permitting system in operation is a ready-made form of permission—a general permit. It warrants emphasizing, however, that one should not mistake “general” as meaning “nonregulatory.” There is no reason why a general permit cannot be a robust regulatory instrument. The Corps’ suite of nationwide permits, for example, covers a broad spectrum of activities from relatively trivial projects, such as minor dredging projects, to more extensive projects, such as certain kinds of mining operations.¹²⁴ Each nationwide permit incorporates particularized conditions the Corps deems appropriate to the intensity of the permitted activity, such as the amount of soil dredged or the areas excluded from eligibility, and all nationwide permits incorporate a set of general conditions, such as requirements to comply with other applicable laws.¹²⁵ Although the level of intensity of these conditions may be a matter of contention between various interests,¹²⁶ our point is that there is plenty of room in general permitting for agencies to exercise the permit power. The key design feature of general permitting is that most of the permit power is exercised by the agency at the permitting-system stage, rather than at the permit administration stage.

By contrast, the Corps’ permitting system for specific permits, known as its “individual permits” program, consists entirely of

122. 33 C.F.R. § 330.1(b); see *Sierra Club*, 2013 WL 6009919, at *13 (“Under the general permitting system, the Corps conducts an extensive environmental review and provides the public with notice and an opportunity to comment regarding categories of construction activity that the Corps seeks to designate as having minimal impact on waterways within specified geographical regions.”). See generally Taylor & Geoffrey, *supra* note 116, at 157–58 (describing compliance with, for example, the Coastal Zone Management Act, the Endangered Species Act, the National Historic Preservation Act, and the National Environmental Policy Act).

123. See, e.g., *Nat’l Ass’n of Home Builders v. U.S. Army Corps of Eng’rs*, 453 F. Supp. 2d 116 (D.D.C. 2006) (describing the nationwide permitting system and rejecting a trade association’s claims that several nationwide permits had been improperly promulgated).

124. Taylor & Geoffrey, *supra* note 116, at 160–69.

125. *Id.* at 169–80.

126. See, e.g., *Nat’l Ass’n of Home Builders*, 453 F. Supp. 2d at 131 (addressing trade-association claims that several nationwide permits had been improperly promulgated because of overly restrictive conditions); see generally COPELAND, *supra* note 68, at 8 (discussing criticisms by environmental-protection and industry groups).

procedural regulations and permit issuance standards.¹²⁷ The core of the procedural regulations consists of explanations of the Corps' checklist for completeness of a permit application, public notice and hearing procedures, and process review of the application.¹²⁸ The regulatory framework also specifies substantive criteria for permit issuance under the EPA's 404(b)(1) guidelines, what the Corps calls its "public interest review" criteria, and other applicable statutes requiring agencies to conduct impact evaluations when issuing permits.¹²⁹ Although it undoubtedly is helpful to the regulated community for the Corps to provide these detailed procedural and substantive regulations, the regulations do not independently provide any form of permission—permission must await the permit administration phase.

2. *Permit Administration.* Once one grasps the differences between general- and specific-permitting *systems*, the manner in which general and specific permit *administrations* differ is fairly straightforward. Ideally, administration of a general permit in its purest form should (1) not require submissions from the regulated entity seeking the permit authorization; (2) not require further substantive assessment by the agency; (3) not involve further negotiation between a regulated entity and the agency; (4) not involve further exercise of discretion by the agency; (5) not involve further public participation; (6) not require an agency order; and (7) not be subject to further judicial review. In essence, the permit has already been issued as part of the permitting system, with assessment, negotiation, discretion, public participation, and judicial review applied at the macro level, so all that is left is for the regulated entity to use the permit at the micro level. Administration of specific permits, by contrast, is the opposite: the regulated entity submits a voluminous set of application materials, the agency engages in a rigorous assessment, the parties negotiate toward mutually acceptable terms, the agency makes discretionary decisions about what is acceptable under the statutory regime, the agency seeks public input at various stages, the agency issues an order setting out its final decision, and the order may be the subject of judicial review. In

127. For a general overview of the individual-permits program, see Stephen M. Johnson, *Individual Permits*, in WETLANDS LAW AND POLICY, *supra* note 92, at 191.

128. *Id.* at 193–96.

129. *Id.* at 196–201.

essence, all that the specific-permitting system accomplishes is setting the administration process in motion with governing procedures and standards, so that all the work is in the permit administration stage.¹³⁰

This is precisely how the Corps has configured its general-nationwide and specific-individual permitting administrations under section 404. As one court recently described the nationwide permit program's administration:

Many projects undertaken pursuant to a general permit do not even need to be brought to the Corps' attention Even when a general permit requires that the Corps provide pre-construction verification, . . . the Corps' role is limited to determining whether the project in question does or does not satisfy the terms of the general permit, and if not, what steps the party seeking verification must take to bring their project within the ambit of that authorization. This type of check-in is far less involved than the probing assessment of the particular facts, circumstances, and environmental consequences of a specific project proposal that precedes a Corps determination of whether or not an individual discharge permit should issue. Put another way, under the nationwide permit system, the Corps has already done an environmental review on a general categorical basis and has already given its imprimatur to discharges that result from the type of construction activity at issue under specified circumstances. When a prospective permittee files a pre-clearance notice, the only thing left to be done is for the Corps' district engineers to verify that the planned project does, in fact, fit within the category of activities that the Corps has already authorized.¹³¹

130. Permit administration might also vary with respect to the need for periodic renewal or revision of the permits. Permit issuance might be a one-time decision by the agency, permanently authorizing the relevant activity. Alternatively, a permit might only be for a limited period of time, requiring renewal by the permit holder and possible revisions by the agency. The nature of the regulated activity might also, in practice, determine whether a permit is perpetual or temporary. For instance, wetland permits under section 404 authorize the disposal of dredge or fill material in wetland areas. Once the disposal has occurred, the area may no longer be considered a wetland and no further section 404 regulation applies. The permit is therefore only needed once by the regulated party. On the other hand, emissions of wastes into waters from a point source are often an ongoing activity. So long as the emitter wishes to continue the regulated activity, it needs a permit on an ongoing basis, and renewals or revisions may be required. The distinction between one-time and ongoing permits might make a difference in whether parties face barriers to enter into a regulated activity and how significant those barriers are. *See infra* Part II.A.

131. *Sierra Club v. U.S. Army Corps of Eng'rs*, 990 F. Supp. 2d 9, 27 (D.D.C. 2013) (citations omitted). Courts have divided over whether an individual actor's reliance on a general permit constitutes federal action triggering statutes such as the National Environmental Policy

Processing of individual permits is another story. As the Corps has concisely explained:

Processing such permits involves evaluation of individual, project specific applications in what can be considered three steps: pre-application consultation (for larger projects), formal permit application review, and decision-making. Pre-application consultation usually involves one or several meetings between an applicant, USACE staff, interested resource agencies (federal, state, or local), and sometimes the interested public. The basic purpose of such meetings is to provide for informal discussions about the pros and cons of a proposal relative to its effects on the aquatic environment while the applicant is still in the planning process. The process allows for a consideration of potentially less environmentally damaging alternatives available to accomplish the project purpose, to discuss measures for reducing the impacts of the project, and to inform the applicant of the factors the USACE must consider in its decision-making process. Once a complete application is received, the formal review process begins. The project manager prepares a public notice (if required), evaluates the impacts of the project and considers all comments received, addresses potential modifications to the project if appropriate, and drafts or oversees drafting of appropriate documentation to support a recommended permit decision. The permit decision document includes a discussion of the environmental impacts of the project, the findings of the public interest review process, and any special evaluation required by the type of activity such as determinations of compliance with the Section 404(b)(1) Guidelines.¹³²

Once again, these passages describe the extremes of general and specific permitting—some general permits involve absolutely no contact with the Corps, and some specific permits potentially involve a long engagement.¹³³ But not all of the Corps' work takes place at these extremes. Indeed, what makes the permit box so flexible is the

Act. *Compare* Spiller v. Walker, No. A 98 CA 255 SS, 1998 U.S. Dist. LEXIS 18341 (W.D. Tex. Aug. 25, 1998) (finding federal action), *with* Ouachita Riverkeeper, Inc. v. Bostick, 938 F. Supp. 2d 32, 35–36, 45–46 & 46 n.7 (D.D.C. 2013) (finding no federal action as the project was properly authorized under the nationwide permits).

132. *Individual Permits*, U.S. ARMY CORPS OF ENG'RS, FORT WORTH DIST. (last visited Aug. 20, 2014), <http://www.swf.usace.army.mil/Missions/Regulatory/Permitting/IndividualPermits.aspx>; *see generally* Johnson, *supra* note 127, at 191–202 (describing individual permits' requirements and review procedures under CWA section 404).

133. Recall that the average processing time for general permits in one study was reported to be 24 days, which includes those general permits with some verification process, whereas for individual permits it was 187 days. COPELAND, *supra* note 68, at 2.

range of possibilities between the extremes. The next Section describes the mechanisms and consequences of transition from one extreme to the other.

3. *Transitions.* A pure general-permitting program frontloads all substantive decisions to the permitting-system stage, whereas a pure specific-permitting system backloads them to the permit administration stage. Illustrating the flexibility that exists for agencies to move around within the permits box, however, the Corps has built intermediate mechanisms into its permitting program. For example, many of its nationwide permits require users to file a preconstruction notification (PCN) with the Corps prior to taking advantage of the general permit through on-the-ground project development.¹³⁴ Under this check-in process, the Corps then has a certain period of time to review the PCN and either provide “verification” that the general permit can be used as promulgated or with additional conditions tailored to the particular project,¹³⁵ or decide that the project must exit the nationwide permit and obtain an individual permit.¹³⁶ For some nationwide permits, the PCN requires only a “notice of intent” to use the general permit, whereas other nationwide permits require additional information such as wetland delineation maps and impact mitigation plans.¹³⁷ The practical effect of the latter kind of PCN, of course, is to shift more of the general-permitting process from the permitting-system phase to the permit administration phase, creating something of a hybrid between pure general and pure specific permitting.

This brings us to the question of transition. The PCN process illustrates how an agency can adjust some of the features of the permitting system and permit administration across a smooth continuum. For example, the amount of information required with the PCN, the intensity of agency review, and the opportunity for negotiation between the parties, can be tweaked incrementally. But one can easily see how the PCN mechanism, if pushed too far toward

134. See 33 C.F.R. § 330.6 (2011) (“Nationwide permittees may, and in some cases must, request from a [district engineer] confirmation that an activity complies with the terms and conditions of an NWP.”).

135. *Sierra Club*, 990 F. Supp. 2d at 27.

136. See *Snoqualmie Valley Pres. Alliance v. U.S. Army Corps of Eng’rs*, 683 F.3d 1155, 1163 (9th Cir. 2012) (describing the PCN verification process); *Sierra Club*, at *12–13 (same); see generally Taylor & Geoffrey, *supra* note 116, at 181 (same).

137. See Taylor & Geoffrey, *supra* note 116, at 180.

requiring applicant submission and agency assessment, could blur into a specific-permitting system. To put it another way, a nationwide permit relying on extensive and burdensome PCN requirements simply would not be a general permit given its onerous case-specific requirements. As a practical matter, users of the general permit would not know their status until after an extensive submission process and intensive Corps review process, possibly with extensive negotiation between the parties over conditions. The Corps would likely want to establish more extensive procedural and substantive regulations for PCN reviews, and require reviewing officers to issue decisions with extensive findings and justifications. There are tradeoffs, in other words, as the agency moves across the permit design spectrum.

Moreover, as a matter of law, at some points such a process might cross a threshold from general to specific permitting for other permitting features not amenable to a smooth continuum, such as the availability of judicial review and public participation. For example, courts might perceive the PCN decision as an agency *order* under the APA, and thus require the process to undergo adjudicatory processes not required of rulemakings. Precisely where that discontinuity would occur is difficult to say,¹³⁸ but its possibility does impose some drag on the ease with which an agency can craft intermediate solutions between pure general-permitting systems and pure specific-permitting systems. We address these tradeoffs in more detail in Part III.

E. Hybrids and Other Variations

Before leaving our description of the dimensions of permitting in the administrative state, we should acknowledge that agencies often have experimented with innovative ways of configuring permits that do not neatly fit onto the permit spectrum described above. Perhaps the best example of how important innovative permitting design can be to the success of a regulatory program is the Endangered Species

138. As noted previously, some courts have held that the act of verifying the applicability of a nationwide permit, with no additional conditions added, does not convert the PCN process into a specific permit order, but others have concluded that more intensive review of PCNs could trigger more demanding processing requirements of the Corps. *See supra* note 131; *see also* Jennifer Seidenberg, Texas Independent Producers & Royalty Owners Ass'n v. Environmental Protection Agency: *Redefining the Role of Public Participation in the Clean Water Act*, 33 *ECOLOGICAL L.Q.* 699, 718 (2006) (discussing a split among the courts as to when public notice and comment is required for project-specific use of a CWA pollution general permit the EPA issued for certain oil and gas operation activities).

Act (ESA).¹³⁹ The congressional politics of the mid-1990s put the ESA at the top of Congress's hit list for agency reform. Seeing the writing on the wall, Secretary of the Interior Bruce Babbitt set in motion an administrative reform agenda that successfully staved off the congressional assault, but which would forever transform the ESA.¹⁴⁰ Chief among these reforms was the reinvention of a previously little-used permitting program found in section 10(a) of the statute, known colloquially as the habitat conservation plan (HCP) program.¹⁴¹ An HCP permit provides an avenue for development projects to obtain authorization to take a member of a protected species, usually through habitat modification, in return for mitigation and other measures assembled in a conservation plan.¹⁴² Although Congress added the HCP program in 1982 when it amended the statute,¹⁴³ the HCP program had been essentially dormant through the 1980s.¹⁴⁴ Secretary Babbitt saw the HCP program as a win-win reform opportunity, however, as he could offer landowners a palatable and secure way out of their ESA problems—by giving the species some conserved habitat as mitigation for the modified habitat, the

139. Endangered Species Act of 1973, 16 U.S.C. §§ 1531–1544 (2012).

140. For a detailed contemporaneous review of the reform agenda items and implementation, see J.B. Ruhl, *Who Needs Congress? An Agenda for Administrative Reform of the Endangered Species Act*, 6 N.Y.U. ENVTL. L.J. 367, 374–87 (1998).

141. See 16 U.S.C. § 1539(a)(1)(B). For policy discussions of the HCP permit program written when it was emerging from disuse under Secretary Babbitt's visionary reform agenda, see generally J.B. Ruhl, *Regional Habitat Conservation Planning under the Endangered Species Act: Pushing the Legal and Practical Limits of Species Protection*, 44 SW. L.J. 1393 (1991); Robert D. Thornton, *Searching for Consensus and Predictability: Habitat Conservation Planning Under the Endangered Species Act of 1973*, 21 ENVTL. L. 605 (1991). For policy discussions having the benefit of several years' experience of program implementation, see generally DEFENDERS OF WILDLIFE, *FRAYED SAFETY NETS: CONSERVATION PLANNING UNDER THE ENDANGERED SPECIES ACT* (1998) (detailing the strengths and weaknesses of HCPs); Eric Fisher, *Habitat Conservation Planning Under the Endangered Species Act: No Surprises & the Quest for Certainty*, 67 U. COLO. L. REV. 371 (1996) (same); Albert C. Lin, *Participants' Experiences with Habitat Conservation Plans and Suggestions for Streamlining the Process*, 23 ECOLOGY L.Q. 369 (1996) (same); Barton H. Thompson, Jr., *The Endangered Species Act: A Case Study in Takings & Incentives*, 49 STAN. L. REV. 305 (1997) (proposing compensation for private landowners subject to HCPs).

142. For a “nuts and bolts” description of the HCP-permitting process, see Ruhl, *supra* note 79, at 376–96. A comprehensive guide is available at *Endangered Species Act Document Library*, U.S. FISH & WILDLIFE SERV. (May 29, 2014), <http://www.fws.gov/endangered/esa-library/index.html#hcp> (discussing the HCP-permitting process).

143. Endangered Species Act Amendments of 1982, Pub. L. No. 95-632, 92 Stat. 3751 (codified as amended in scattered sections of 16 U.S.C.).

144. By 1992, for example, the FWS had issued only 12 HCP permits. DEFENDERS OF WILDLIFE, *supra* note 141, at vi–xiii.

landowner could move forward with the intended uses of the property.¹⁴⁵

The Fish and Wildlife Services (FWS) quickly began issuing permits under the rejuvenated HCP program,¹⁴⁶ which it has since continued.¹⁴⁷ Indeed, through the use of regional HCPs, beginning in the 1990s large metropolitan areas and states began to solve their ESA compliance problems through large-scale permits, some of which covered up to hundreds of thousands of acres.¹⁴⁸ The nature of these regional permits is often hybrid-like, in that the FWS issues what looks like a specific permit to the state or local entity, but the terms of the “specific permit” set up a general-permitting regime under which the state or local government administers what appears to be a general permit for specified public and private land use activities.¹⁴⁹ Overall, these developments went a long way toward allaying the property rights pushback against the ESA¹⁵⁰—illustrating the importance of giving attention to permitting and permit design. The FWS has continued to develop innovative hybrids of general and specific permitting, including a permit that would authorize a variety of activities along Florida’s beaches,¹⁵¹ a permit to facilitate utility-

145. For comprehensive and thoughtful insider accounts of Secretary Babbitt’s vision and implementation of this phase of ESA reform, see generally John D. Leshy, *The Babbitt Legacy at the Department of Interior: A Preliminary View*, 31 ENVTL. L. 199 (2001); Joseph L. Sax, *Environmental Law at the Turn of the Century: A Reportorial Fragment of Contemporary History*, 88 CALIF. L. REV. 2375 (2000). For a brief history of the ramp-up of the HCP program specifically, see Robert D. Thornton, *Habitat Conservation Plans: Frayed Safety Nets or Creative Partnerships?*, 16 NAT. RESOURCES & ENV’T 94, 95 (2001).

146. By late 1997, FWS had issued more than 225 HCP permits. See DEFENDERS OF WILDLIFE, *supra* note 141, at vi–xiii.

147. For a running tally, see U.S. FISH & WILDLIFE SERV., *ECOS: Conservation Plans and Agreements Database*, ENVTL. CONSERVATION ONLINE SYS. (Sept. 24, 2014), http://ecos.fws.gov/conserv_plans/public.jsp (last visited Sept. 24, 2014).

148. See Thornton, *supra* note 145.

149. For a contemporary account of the emergence of regional permitting in the early 1990s, see Ruhl, *supra* note 141, at 1404–06.

150. See Thompson, *supra* note 141, at 322–23 (discussing skepticism regarding the government’s ability to protect property rights and the development of HCPs).

151. See *Florida Beaches Habitat Conservation Plan*, FLA. DEP’T ENVTL. PROT., <http://www.flbeacheshcp.com> (last visited Oct. 6, 2014).

scale wind power generation across large regions of the nation,¹⁵² and guidance on the design of large-scale hybrid “master permits.”¹⁵³

Examples like the FWS’s permit innovations demonstrate that there is considerable space within the permits box for moving between the extremes of general and specific permits and inventing new combinations of permit attributes.¹⁵⁴ The question thus becomes how to navigate this space in a way that most effectively achieves the goals of the relevant statute and avoids the pitfalls of the permit power Professor Epstein identified.¹⁵⁵ This question leads directly to the topic of the next Section—the use of rulemaking versus adjudication in agency decisions.

F. Rulemaking and Adjudication

The general- and specific-permitting processes, for purposes of the APA, fall right on the border between rulemaking and adjudication. When a permit becomes specific enough, it has to be issued through adjudication to produce an agency “order.”¹⁵⁶ The distinction between rulemaking and adjudication is an old chestnut in the administrative law literature, and historically an important issue in agency practice. From the New Deal until the 1960s, agencies predominantly used adjudication for decisionmaking; in the 1960s and 1970s, in response to a series of critiques by academics, practitioners, judges, and policymakers of adjudication, they moved more toward rulemaking.¹⁵⁷ Since the 1970s, scholars and practitioners have debated the pros and cons of each tool.

152. See Draft Environmental Impact Statement and Habitat Conservation Plan for Commercial Wind Energy Developments Within Nine States, 76 Fed. Reg. 41,512, 42,512 (July 14, 2011).

153. See U.S. FISH & WILDLIFE SERV., GUIDANCE FOR INCIDENTAL TAKE PERMITS COVERING MULTIPLE PROJECTS OR PROJECT OWNERS (Apr. 30, 2013) (on file with the *Duke Law Journal*).

154. See also David Markell, *States as Innovators: It's Time for a New Look to Our "Laboratories of Democracy" in the Effort to Improve Our Approach to Environmental Regulation*, 58 ALB. L. REV. 347, 376–80, 393–401 (1994) (discussing efforts by state agencies to improve permitting through design innovations).

155. See *supra* notes 10–20 and accompanying text.

156. See *supra* Part I.D.2.

157. Merton C. Bernstein, *The NLRB's Adjudication-Rule Making Dilemma Under the Administrative Procedure Act*, 79 YALE L.J. 571, 574 (1970); Reuel E. Schiller, *Rulemaking's Promise: Administrative Law and Legal Culture in the 1960s and 1970s*, 53 ADMIN. L. REV. 1139, 1145 (2001); Antonin Scalia, *Back to Basics: Making Law Without Making Rules*, REG., July–Aug. 1981, at 25, 25.

Permits, as we have described them, fit uneasily in this dichotomy. As many have noted, the border between a rulemaking and an adjudication is not pellucid,¹⁵⁸ and their definitions in the APA are far from helpful.¹⁵⁹ But permits—particularly general permits—further emphasize the fact that there is truly a continuum between rulemaking and adjudication. Permits are hybrid tools—general permits may have more of the characteristics of rulemaking because they are framed as a general statement about the performance capabilities of a wide class of people, and specific permits may have more of the characteristics of adjudications because they focus on the rights of an individual actor.¹⁶⁰ But given the ways in which different permits can be “tweaked” to be more general or more specific in character, it may be quite tricky to identify whether any one permit program is more like rulemaking or more like adjudication. Although scholars have on occasion briefly noted the possibility of hybrid forms of rulemaking and adjudication,¹⁶¹ they have not engaged deeply with

158. See, e.g., *NLRB v. Wyman-Gordon Co.*, 394 U.S. 759, 770 (1969) (“The line between these two functions is not always a clear one and in fact the two functions merge at many points.”); William D. Araiza, *Limits on Agency Discretion to Choose Between Rulemaking and Adjudication: Reconsidering Patel v. INS and Ford Motor Co. v. FTC*, 58 ADMIN. L. REV. 899, 908 (2006) (“Adjudicative and rulemaking procedures often feature similar characteristics, and orders and regulations often have similar affects.”); Warren E. Baker, *Policy by Rule or Ad Hoc Approach – Which Should It Be?*, 22 LAW & CONTEMP. PROBS. 658, 658 (1957) (noting that “the demarcation between the two has become somewhat blurred”); Bernstein, *supra* note 157, at 610 (“One might say . . . that defining the differences between rule making and adjudication defies comprehension and expression.”); David L. Shapiro, *The Choice of Rulemaking or Adjudication in the Development of Administrative Policy*, 78 HARV. L. REV. 921, 924 (1965).

159. The APA defines “rule making” as the “agency process for formulating, amending, or repealing a rule,” 5 U.S.C. § 551(5) (2012), and an “adjudication” as the “agency process for the formulation of an order, *id.* § 551(7). Those two terms, in turn, are not well defined. Compare 5 U.S.C. § 551(4) (defining “rule” as “the whole or a part of an agency statement of general or particular applicability and future effect designed to implement, interpret, or prescribe law or policy” including rate-setting and ratemaking proceedings), with § 551(6) (defining “order” as “the whole or a part of a final disposition, whether affirmative, negative, injunctive, or declaratory in form, of an agency in a matter other than rule making but including licensing”).

160. See Bernstein, *supra* note 157, at 613–15 (agreeing); Shapiro, *supra* note 158, at 924 (identifying the distinction that rulemaking “is typically a proceeding that is entirely open ended in form, specifying only the class of persons or practices that will come within its scope, while ‘adjudication’ is a proceeding directed at least in part at determining the legal status of persons who are named as parties, or of the acts or practices of those persons”).

161. See M. Elizabeth Magill, *Agency Choice of Policymaking Form*, 71 U. CHI. L. REV. 1383, 1398–99 (2004) (describing some possible intermediate examples such as negotiated rulemaking, waivers of rules, and agency litigation strategies); Shapiro, *supra* note 158, at 924 (noting wide range of informal tools available to an agency to make policy that do not easily fit into rulemaking-versus-adjudication categories); see also Schuck, *supra* note 3, at 256–57 (describing adjudicatory exception process for oil price regulation in the 1970s that created

what hybridity is and what it might mean for regulatory practice. General permits in particular, allow us to engage deeply with those questions. In the next Part we discuss some of the pros and cons of general versus specific permits, and in doing so, identify different ways in which our analysis of general versus specific permits matches up with the historic depictions of the strengths and weaknesses of rulemaking versus adjudication.

II. PERMIT-DESIGN TRADEOFFS: GENERAL VERSUS SPECIFIC

Why would a regulatory program use general or specific permits, or grant a complete exemption from permit requirements? At heart, these questions come down to two factors: the risk of harm the permitted activity poses, and the level of burden the transaction costs of a general- or specific-permitting program impose on the regulated parties and the agency. Higher risk of harm generally justifies more specific permit requirements. Conversely, more burdensome transaction costs generally support more general permit requirements. General permits are perhaps most useful when they allow for reduced burdens on regulated parties or for reduced political resistance for a regulatory program, without changing the underlying substantive regulatory standards, and when the harm posed by the actions covered by the general permit is minimal.

We play out these two factors through the following specific permit design policy goals and attributes: permits as barriers to entry into economic or other activity, permits as tools to gather information for the regulatory agency, permits as tools to tailor regulation to the specific circumstances of the permitted activity, permits as enforcement tools, and the political constraints on permitting and regulatory systems.

A. *Permits as Barriers to Entry*

Permits are generally pre-conditions to undertaking a regulated activity.¹⁶² As such, they effectively act as barriers to entry for that activity. These barriers to entry can be significant. Permitting can impose substantial costs in the form of paperwork, information

broad categories of relief, similar to general permits). For a discussion of the difficulties presented when multiple agencies take roles in adjudicatory, permitting, or hybrid processes, see Bijal Shah, *Hidden Administrative Coordination*, 128 HARV. L. REV. (forthcoming 2015).

162. But note the possibility that general permits might allow for activity to occur without preclearance by the regulatory agency.

gathering, legal fees, and administrative charges. Those costs will not be evenly distributed, nor will they have even impacts on various economic actors.

First, permitting costs often provide a substantial advantage to incumbents in an economic field. Sometimes this is an artifact of the underlying regulatory scheme that imposes stricter standards on new entrants to a field than those on existing participants. But even if the regulatory standards on their face apply equally to existing and new participants in an activity, that does not mean that their burdens are in fact equal. There will often be substantial fixed costs and investments in a permitting system. For instance, there will be a learning curve as an organization determines what aspects of its operations require permitting, as it confronts how it needs to adjust its existing or planned operations to comply with the relevant regulatory standards, and as it collects information to complete the permit applications and fills out and submits the permits.¹⁶³ Once the first permit has been obtained, it is likely to be much simpler and easier to renew a permit because most of the information has already been collected and developed, and the organization has learned how to manage the permitting process. At the extreme, if a permit is only required to enter into an economic activity, but then has an indefinite duration, existing participants will never need to apply for a new permit, and the permitting system will operate as a significant barrier to entry.¹⁶⁴

Many scholars have noted the important political economy surrounding regulatory barriers to entry. Existing regulated parties will see barriers to entry as a way to create cartels, exclude new entrants to the field, and allow the collection of monopoly rents. Existing regulated parties will therefore be willing to pay substantial amounts to obtain barriers to entry.¹⁶⁵ These costs might take the form of lobbying efforts to create or maintain regulatory barriers to entry

163. See Thomas J. Dean & Robert L. Brown, *Environmental Regulation as a Barrier to the Formation of Small Manufacturing Establishments: A Longitudinal Examination*, 40 J. ENVTL. ECON. & MGMT. 56, 71 (2000) (finding that firms in industrial areas with higher regulatory burdens on average had larger size, and noting importance of “firm learning, past experience in solving environmental problems” in determining costs of regulatory compliance).

164. This is largely the story of state occupational licensing boards, which have been likened to cartels in all but name given, among other behaviors, the high barrier to entry the licensing requirement erects. See Edlin & Haw, *supra* note 69.

165. See, e.g., Jonathan Baert Wiener, *On the Political Economy of Global Environmental Regulation*, 87 GEO. L.J. 749, 754–61 (1999) (describing this dynamic).

(through the legislative or regulatory process); alternatively, industries might be willing to pay significant costs in the form of strengthened regulatory standards (such as higher pollution control requirements) in return for obtaining these barriers to entry.¹⁶⁶

Second, not all regulated parties will be equally able to bear permitting costs. The more that permitting costs are fixed (invariant on the level of production by the firm), the more they are a burden on small actors. This is often the case, for the reasons indicated above: the costs of determining what permits are required and how most effectively to secure them will often have a high fixed component, and the difficulty of filling out forms and compiling the relevant information will also often have a high fixed component.¹⁶⁷ These fixed costs may impose a significant economic burden on small firms.¹⁶⁸ To the extent that we are concerned about deterring or reducing economic activity by small businesses, this is a significant concern.¹⁶⁹ Small businesses also tend to have substantial rhetorical

166. For a discussion of this dynamic in the context of environmental law, see, for example, Jonathan H. Adler, *Rent Seeking Behind the Green Curtain*, REG., Fall 1996, at 26, 27; Daniel Farber, *Politics and Procedure in Environmental Law*, 8 J.L. ECON. & ORG. 59, 62–63 (1992); Wiener, *supra* note 165, at 754–61.

167. See Dean & Brown, *supra* note 163, at 59 (“Research suggests that smaller organizations, without the specialized resources to cope with regulatory compliance obligations, may be more severely impacted by regulations. The costs of discovering and interpreting relevant regulations, dealing with regulatory agencies, and performing necessary paperwork appear to have a large fixed-cost component that increases the scale necessary for effective compliance. Smaller firms, without the ability to spread these administrative costs over higher production volumes, incur a penalty in the form of higher per-unit production costs.”). With respect to the costs of determining the nature and scope of regulations, costs can be fixed because often “the cost of interpreting a regulation does not depend on who is interpreting it.” C. Steven Bradford, *Does Size Matter? An Economic Analysis of Small Business Exemptions from Regulation*, 8 J. SMALL & EMERGING BUS. L. 1, 8 (2004). This is also true for the cost of researching which regulations apply. Similarly, permits often impose “reporting and recordkeeping requirements” in which a substantial amount of the cost is fixed: “the number of reports required and the time necessary to complete the reports” often may not “vary with the size of the business.” *Id.* at 9–10. In filling out permits or reports, the firm must “learn exactly what the regulation requires, develop a form to collect the required information, train the firm’s employees to collect the data, and develop a monitoring system to ensure that the company complies.” *Id.* at 10.

168. See Dean & Brown, *supra* note 163, at 56 (finding that firms in industrial areas with higher regulatory burdens on average had larger size).

169. There are many claims that small businesses produce a disproportionate share of the innovation and job creation in the American economy, but these claims are hotly disputed. See, e.g., Rutherford B. Campbell, Jr., *Regulation A: Small Businesses’ Search for “A Moderate Capital”*, 31 DEL. J. CORP. L. 77, 85–86 (2006) (arguing that small businesses produce innovation and jobs); Richard J. Pierce, Jr., *Small Is Not Beautiful: The Case Against Special Regulatory*

appeal in politics, and thus imposing burdens on them might be politically unappealing.¹⁷⁰ Entrants in a new field may well be small actors, for example, if they are entrepreneurs, rather than an established company entering into a new field of business. Thus, fixed permitting costs may both differentially harm small actors and deter entry into an industry or other area of economic activity.¹⁷¹

General permits are a way of reducing the fixed costs of permitting by making those costs less significant without necessarily relaxing the underlying substantive regulatory standards.¹⁷² They can do that directly by reducing information requirements (for example, by making permit applications simpler and shorter).¹⁷³ They can also do that indirectly by eliminating the need for agency approval before the regulated activity commences (for instance, in the context of

Treatment of Small Firms, 50 ADMIN. L. REV. 537, 551–57 (1998) (rebutting claims that small businesses produce innovation and jobs).

170. See, e.g., Tamara Keith, *Small Businesses Get Big Political Hype. What's the Reality?*, NPR (Apr. 18, 2012), <http://www.npr.org/blogs/itsallpolitics/2012/04/18/150822919/small-businesses-get-big-political-hype-whats-the-reality>.

171. See Dean & Brown, *supra* note 163, at 76 (noting possibility of constrained entry into industrial fields with high regulatory burdens because of increased costs on small actors).

172. *Id.* at 72 (“Efforts to streamline environmental requirements at the federal, state and local level would . . . reduce unit cost disparities created by administrative economies of scale that appear to be inherent in environmental regulation.”).

Of course, one can also simply provide exemptions from the underlying regulatory framework. This will not only eliminate the fixed costs imposed by a permit requirement, but also fixed costs that might result from the substantive regulatory requirements. See Bradford, *supra* note 167 (arguing that in general, exemptions for small businesses from regulatory requirements will be cost-benefit justified because of the existence of fixed costs).

173. Scholars, judges, and agency heads in general agree that standards that are set through rulemaking are more transparent, easier for outsiders to assess and comply with, and therefore impose lower information costs on regulated parties and the public than standards that are set through adjudication. See, e.g., Araiza, *supra* note 158, at 911 (noting that rulemaking prevents agencies from relitigating issues in every case); Baker, *supra* note 158, at 662 (noting that rules provide “definitive guides to agency action”); Richard K. Berg, *Re-examining Policy Procedures: The Choice Between Rulemaking and Adjudication*, 38 ADMIN. L. REV. 149, 163 (1986) (“The articulation of a generally applicable rule provides greater clarity to those affected as well as greater uniformity in enforcement.”); Bernstein, *supra* note 157, at 584–85 (describing difficulty of labor lawyers in keeping up with NLRB decisions and how these decisions change policy); Magill, *supra* note 161, at 1396 (discussing advantages to rulemaking); Scalia, *supra* note 157, at 26 (noting that the prospective nature of rulemaking also leads to expansive statutory interpretation); Shapiro, *supra* note 158, at 940–41 (describing difficulty of labor lawyers in keeping up with NLRB decisions and how these decisions change policy); Peter L. Strauss, *Rules, Adjudications, and Other Sources of Law in an Executive Department: Reflections on the Interior Department’s Administration of the Mining Law*, 74 COLUM. L. REV. 1231, 1238–43 (1974) (discussing the lack of information available to the public from the Bureau of Land Management’s adjudicatory system).

notices of intent).¹⁷⁴ General permits can even eliminate any need for a permit application—such as when the regulated party may proceed without any application or notice to the regulatory agency so long as its activities do not exceed certain thresholds.¹⁷⁵

On the other hand, there may be times when we actually wish to impose barriers to entry on certain activities through the use of permit requirements. More costly specific permit systems can serve as costly screens that deter activities that might have a significant likelihood of producing high social costs but have low social or private benefits.¹⁷⁶ By imposing a fixed cost on those seeking to pursue the activity, costly permit requirements ensure that at least some minimum level of private benefit is likely to be produced in return for the potential harms created by the socially risky activity. This would screen out a wide range of potential activities that might pose significant harm with minimal private benefits.¹⁷⁷ For instance, someone who is filling a wetland to construct a structure with minimal economic or personal benefit will be encouraged by a costly permit system to construct that structure elsewhere, without the harm to the wetland area, or at least with reduced harm.¹⁷⁸

174. In a notice-of-intent system, such as the PCN system described for section 404 general permits, a general permit applicant need only provide notice to the agency of the proposed activity, and can proceed with the activity unless the agency moves to halt it. *See supra* text accompanying notes 135–39.

175. As we discussed earlier, this last situation is for practical purposes more or less the same as a complete exemption from regulation. *See supra* note 87.

176. For discussions of the concept, see generally, for example, Jonathan S. Masur, *Costly Screens and Patent Examination*, 2 J. LEGAL ANALYSIS 687 (2010) (applying the concept to patent applications, arguing that the administrative costs of patent review screen out low-value patents); Matthew C. Stephenson, *A Costly Signaling Theory of “Hard Look” Judicial Review*, 58 ADMIN. L. REV. 753 (2006) (applying the concept to judicial review of agency action, and arguing that agencies can signal to courts that an agency action that is under judicial review has high social value by expending significant resources on preparing administrative records for the court to review).

177. *See* Masur, *supra* note 176, at 722–23 (applying costly screen concept to pollution permits).

178. For example, the Corps has justified its use of general permits in part on the rationale that the lower permit burdens of the general permits create incentives for actors to avoid harm to wetlands so that they can qualify for the general permit, and avoid the costly process of applying for an individual, specific permit. *See* U.S. ARMY CORPS OF ENG’RS, Decision Document: Nationwide Permit 39, at 7, 23 (Feb. 13, 2012), available at http://www.usace.army.mil/Portals/2/docs/civilworks/nwp/2012/NWP_39_2012.pdf (describing a general permit that allows commercial and industrial development so long as the total wetlands impact is less than half an acre); *id.* at 7 (“Another important benefit of the NWP program . . . is the incentive for project proponents to design their projects so that those activities meet the terms and conditions of an NWP. The Corps believes the NWPs have significantly reduced

Costly screens might be particularly useful in situations in which individually small actions that have relatively small private benefits produce disproportionate social harm. This might be because small actors produce greater social harm per unit of activity than larger actors.¹⁷⁹ Or it might be because we are concerned about the cumulative impacts of many small, individual actions. The cumulative impacts might produce feedback or threshold effects such that the total social harm from the total of all the small actions is larger than the sum of the harm from each individual, small action.¹⁸⁰ Cumulative impacts are often an important issue in environmental harm, for instance, when biological systems may have become stressed by prior human impacts and are particularly susceptible to future, additional impacts, even if small. An endangered species might be pushed over the edge to extinction by a small harm that would be trivial for an abundant species. In this situation, we would be interested in screening out the relatively small action.¹⁸¹

Of course there are limits to the utility of specific permit systems as costly screens. First, personal benefits may not be well correlated with social benefits; in other words, it is possible that some activities have low personal benefits but high social benefits (large positive externalities). The private regulated party seeking the permit will only take into account the lack of personal benefits in making the decision not to proceed, or to choose an alternate path; as a result, even though the activity should occur from a societal perspective, the permit requirement will lead the private actor to forego the activity. Reciprocally, there may be high private benefits from the activity, but low social benefits—often because of negative externalities from the activity. If those negative externalities are not the ones covered by the permit requirement, then the costly screen will not prevent the harm. For instance, in the wetlands example above, the proposed activity in the wetland might be extremely lucrative to the regulated party, and therefore might be pursued even though it might produce other social

adverse effects to the aquatic environment because most applicants modify their projects to comply with the NWP and avoid the delays and costs typically associated with the individual permit process.”).

179. See Pierce, *supra* note 169, at 557–60 (making this claim).

180. See Masur, *supra* note 176, at 723–24 (noting the utility of costly screens in reducing cumulative impacts).

181. Thus, the benefits of regulation will not necessarily be proportional to the size of the activity regulated; regulating even small activities may produce large benefits in certain circumstances. See Vandenberg & Stack, *supra* note 84. *Contra* Bradford, *supra* note 167, at 16 (arguing that the total benefit of pollution control depends on the size of the output regulated).

harms, such as large amounts of air pollution from the structure. The section 404 wetlands permit program regulates the harms caused to water resources from the activity, but if other harms from the activity are not regulated (for example, if there are no regulatory requirements for air pollution), the costly screen of wetlands permit requirements might not deter the owner and the activity will proceed, making society worse off.

Second, the analysis above only looks at average levels of benefits and costs. Some activities may have a low probability of producing high social benefits. The expected value of the activity might be less than the fixed costs of the permit requirement, such that actors are deterred from engaging in the activity by the costly screen. However, if society is willing to take the risk of a low probability of high social benefits, we might want to encourage the activity to occur despite the negative expected value.

The concerns about the differential impacts of permitting requirements have motivated a wide range of statutory and regulatory general permit systems, and even complete regulatory exemptions, to reduce the regulatory burdens for small businesses or small actors and to reduce barriers to entry.¹⁸² The Securities and Exchange Commission (SEC) has created streamlined filing and disclosure forms for smaller firms that are subject to SEC securities regulations.¹⁸³ These streamlined provisions are intended to respond to criticisms that the securities laws' filing and disclosure requirements impose large fixed costs on businesses, making it

182. See Pierce, *supra* note 169, at 542–43 (describing widespread special treatment for small businesses in federal and state regulatory systems). Throughout this Part, we will at times draw on both statutory and administrative exemptions as well as general permit systems as examples in our analysis, in part because the same policy goals might be met with both exemptions and general permits. Moreover, it can sometimes be difficult to distinguish between the two. For instance, in the context of securities regulation, the basic rule is that securities must be registered before they can be traded. See THOMAS LEE HAZEN, TREATISE ON THE LAW OF SECURITIES REGULATION § 1.2 (6th ed. 2009). An exemption from the registration requirement might be seen as an exemption from the regulatory system overall. On the other hand, in many cases the unregistered security must still meet other substantive standards in the securities laws, in which case the waiving of the registration requirement is more of a general permit. Substantive standards must still be met, but the paperwork faced by the issuer or securities holder is reduced by eliminating the registration requirement.

183. See HAZEN, *supra* note 182, § 3.4(4)(D) (describing “streamlined disclosure requirements” for smaller public companies). The provisions are generally available to companies providing up to \$75 million in public equity float. *Id.* The provisions do not exempt the companies from any of the reporting or disclosure requirements of the federal securities laws. *Id.*

infeasible for smaller entities to obtain capital funding through public offerings.¹⁸⁴ These streamlined forms do not change the underlying regulatory requirements for the firms under the various securities laws. There is also a range of statutory and administrative exemptions from some of the filing and disclosure requirements under the federal securities laws. Those exemptions allow relatively small issuers of securities to provide minimal or no filings to the SEC or disclosures to purchasers.¹⁸⁵ Again, the rationale has been the need to reduce the burden of regulatory compliance on small businesses.¹⁸⁶

Finally, the three-tiered permit system for hard rock mining on federal lands that is administered by the Bureau of Land Management (BLM), was in part explicitly developed to reduce burdens on small mining operators. The BLM explicitly exempted miners in the “casual use” category from any notice or permitting requirements, and also only required miners who disturbed less than five acres of public lands with their mining activities to file a notice with the agency about their proposed actions—with the burden then falling on the agency to object within a specified time and require a

184. See *id.*; Campbell, *supra* note 169, at 88–92 (2006) (describing how compliance costs for registering public securities offerings will disproportionately affect small offerings, and therefore make many offerings uneconomical); *id.* at 91–92 (“Registration has never been a viable way for small businesses to raise capital. High transaction costs associated with registered offerings inevitably put registration out of the range of small businesses in search of capital.”).

185. Regulation A is an exception from the registration requirement for issuance of securities that are less than \$5 million in any given year; the issuer must still provide some disclosure information to the SEC and to the public. See HAZEN, *supra* note 182, § 4.17; 17 C.F.R. §§ 230.151–263 (2014). Regulation D provides for a series of exceptions from the registration requirement for small-volume issues of securities, generally with limited filing and disclosure requirements to the SEC and to the prospective purchasers. See HAZEN, *supra* note 182, § 4.19; 17 C.F.R. §§ 230.501–506. Statutory exceptions are in sections 3 and 4 of the 1933 Securities Act. See 15 U.S.C. § 77c-d. The most recent of these is the JOBS Act, in which Congress provided relaxed filing and disclosure requirements for “crowdfunding” of small businesses via the Internet. See HAZEN, *supra* note 182, § 4.17B; 15 U.S.C. § 77d(a)(6).

For an overview of all of the exceptions, see U.S. SEC. & EXCH. COMM’N, *Small Business and the SEC*, <http://www.sec.gov/info/smallbus/qasbsec.htm>. Although these exceptions do change many of the underlying substantive regulatory standards of the securities laws, they are not full exemptions from those laws. For instance, issuers of these securities can still be liable under various antifraud provisions of the federal securities laws. See HAZEN, *supra* note 182, § 4.1[2].

186. See HAZEN, *supra* note 182, § 4.15 (describing the history of these exemptions). For instance, the JOBS Act, Jumpstart Our Business Startups Act, Pub. L. No. 112-106, 126 Stat. 306 (2012) (to be codified in scattered sections of 15 U.S.C.), was specifically developed by Congress to reduce the regulatory burden on small, start-up businesses using crowdfunding to raise capital. See Press Release, U.S. Sec. & Exch. Comm’n, SEC Issues Proposal on Crowdfunding (Oct. 23, 2013), <https://www.sec.gov/News/PressRelease/Detail/PressRelease/1370540017677#.UwRiYfldWS0>.

full permit application.¹⁸⁷ Only the largest operations would be required to file a full plan of operations for the BLM's approval.¹⁸⁸ The BLM stated that the reason for this tiered system was to minimize "the adverse impact of the rulemaking on the small operator."¹⁸⁹ Nonetheless, all operators were still required to meet the fundamental regulatory standard for mining operations on public lands: avoiding unnecessary or undue degradation of the public lands.¹⁹⁰

B. Permits as a Tool for Revealing or Developing Information

Essential to the concept of specific permits is the detailed level of applicant-specific information required for the completion of the permit application. This allows for the tailoring of the permit to the circumstances of the particular applicant—either in determining whether the permit should be issued, or in determining the scope and parameters of the permit itself. Specific permits allow the agency to extract information about the activities being permitted, the parties seeking permits, and the harms and benefits that the permitted activities might be producing. The regulator might be able to cumulate the information collected from the full universe of permit applications to get a sense of the overall shape of the regulatory program, and of the activities the program regulates. Aggregation of data in this way can allow for an understanding of how widespread particular impacts from permitted programs are (for example, how many wetlands have been developed in a geographic area over the past ten years) and where those impacts are located (for example, a map of where the development of wetlands has occurred and whether certain watersheds are particularly impacted by the development). Aggregation can give a sense of the net costs and benefits of an

187. 43 C.F.R. §§ 3809.10, 3809.21 (2013).

188. *Id.* § 3809.11.

189. Surface Management of Public Lands Under U.S. Mining Laws, 45 Fed. Reg. 78,902, 78,902 (Nov. 26, 1980) (noting that many commentators expressed a concern that more burdensome regulation "would limit activities on the Federal lands by the smaller operators and would result in their being put out of business"); *id.* ("For example, at the lowest level of activity, prospectors or part-time miners who cause only negligible surface disturbance will not need to contact the Bureau of Land Management.").

190. 43 C.F.R. § 3809.415; Surface Management of Public Lands Under U.S. Mining Laws, 45 Fed. Reg. at 78,908 (stating that in all cases operators "must not cause unnecessary or undue degradation"). Other requirements, such as specific performance standards or the requirement to post a financial guarantee to ensure that postmining reclamation can be paid for, do vary from tier to tier. *See* 43 C.F.R. §§ 3809.415, 3809.420, 3809.500.

overall regulatory program. Data aggregation can also allow regulators to get a sense of which parties are seeking permits and which parties are being granted or denied permits. This might allow for an understanding of the distributional impacts of a regulatory program on regulated parties (for example, are small permit applicants disproportionately having their permits denied?). As noted above, distributional impacts may be a significant issue for a regulatory program.

Of course, there is no guarantee that the information that is gathered will be effectively used, or that the agency will even cumulate the data across permit applicants. For instance, the environmental review process under the National Environmental Policy Act (NEPA) often requires permit applicants to collect and present detailed information about the possible impacts of the activity for which they are seeking a permit.¹⁹¹ The environmental review process can thus be seen as an expansion of the information requirements for the permitting process, and a significant increase in the complexity and difficulty of any specific-permitting system. There is ample evidence, however, that federal agencies do not do very much with the information compiled by the NEPA process after they have made the decision to grant or deny the permit.¹⁹² Nor do federal agencies generally cumulate the information across environmental review documents to get a sense of overall status or trends of a range of permitted activities.¹⁹³ As such, many observers have noted that federal agencies are losing a tremendous opportunity to use the data produced by the NEPA process to improve environmental decisionmaking.¹⁹⁴

191. When a federal regulatory agency issues a permit, the granting of the permit becomes a federal action that triggers environmental review under NEPA. See *NEPA Compliance*, U.S. ENVTL. PROT. AGENCY (Aug. 22, 2014), <http://yosemite.epa.gov/R10/WATER.NSF/34090d07b77d50bd88256b79006529e8/fe7c90b6e62c946c882569530056d925!OpenDocument>.

The scope of the review generally encompasses the full range of impacts caused by the proposed permitted activity, even if that activity is being pursued by a nongovernmental actor. See 40 C.F.R. § 6.605(a)(1) (2002) (“When determining the significance of a proposed new source’s impact, the responsible official shall consider both its short term and long term effects as well as its direct and indirect effects . . .”).

192. See Bradley C. Karkkainen, *Toward a Smarter NEPA: Monitoring and Managing Government’s Environmental Performance*, 102 COLUM. L. REV. 903, 907 (2002).

193. See Daniel Farber, *Adaptation Planning and Climate Risk Assessments: Learning from NEPA’s flaws*, 39 ENVTL. L. REP. NEWS & ANALYSIS 10,605, 10,610–12 (2009) (noting lack of central repository or digitization of NEPA documentation).

194. See *id.*, at 10,610–12; Karkkainen, *supra* note 192, at 923; see also Joseph F.C. DiMento & Helen Ingram, *Science and Environmental Decision Making: The Potential Role of*

General permits, on the other hand, by definition require less information from the applicant than specific permits. On average then, general permits will provide less information to the agency than a specific permit.¹⁹⁵ This has been a significant concern with the general permit systems under the CWA. A study of the application of one section 404 general permit in northern California that covered the filling of “isolated” or “headwaters” wetlands concluded that there was a “black hole” of information about the use of the permit, including a dearth of information on how many activities that were covered by the permit were actually reported to the agency (even when reporting was required).¹⁹⁶ There was also very little information in the permit about the quality and nature of the wetlands affected by the wetland fills, which prevented an assessment of the cumulative environmental harms caused by the permitted activities.¹⁹⁷

Environmental Impact Assessment in the Pursuit of Appropriate Information, 45 NAT. RESOURCES J. 283, 300–03 (2005) (calling for creating central NEPA clearinghouses to allow the accumulation of information across multiple review documents).

195. This is in contrast with the general conclusions drawn by the literature on rulemaking and adjudication, in which rulemaking is generally seen as more effective in gathering and assessing information about how a particular regulatory program is operating. *See* Bernstein, *supra* note 157, at 588, 618 (rulemaking “affords greater opportunity for data collection (and the clear enunciation of policy for ready transmittal to the affected public)”); Ralph F. Fuchs, *Development and Diversification in Administrative Rule Making*, 72 NW. U. L. REV. 83, 94 (1977) (“The advantages of rule making include . . . the possibility of assembling all relevant information from a variety of sources at that time.”); Glen O. Robinson, *The Making of Administrative Policy: Another Look at Rulemaking and Adjudication and Administrative Procedure Reform*, 118 U. PA. L. REV. 485, 503–04 (1970) (noting that scholars have stated that rulemaking is based on “legislative facts” about general conditions in society and adjudication on “adjudicative facts” particular to the individual parties); *see also* Schuck, *supra* note 3, at 295 (describing problems with information collection and analysis for the adjudicatory exceptions process for oil price regulation in the 1970s).

196. *See* Addison & Burns, *supra* note 79, at 637–40 (quoting a Corps official as conceding that the agency has little information about the scope or impact of the program, and noting that the estimates of usage under the program that do exist “appear[] to rest heavily on speculation”).

197. *See id.* at 637–40 (noting that as of the early 1990s there was “little information available on the magnitude of wetland alterations permitted” under Nationwide Permit 26). For other examples of the lack of information about the scope or impacts of the section 404 general permit system, *see* Wyo. Outdoor Council v. U.S. Army Corps of Eng’rs, 351 F. Supp. 2d 1232, 1257–59 (D. Wyo. 2005) (noting lack of cumulative impacts analysis for section 404 general permit because of agency’s inability to do analysis until it has specific proposed activities under that permit), and U.S. ARMY CORPS OF ENG’RS, Decision Document: Nationwide Permit 39, at 22 (Feb. 13, 2012), available at http://www.usace.army.mil/Portals/2/docs/civilworks/nwp/2012/NWP_39_2012.pdf (stating that, for cumulative effects based on one particular section 404 general permit, “it is not possible to quantify the relative contributions of the various activities that affect the quantity of wetlands, streams, and other aquatic resources and the functions they

Nevertheless, general permits may still be a good regulatory choice to increase the provision of information. First, if the legal or political realities are such that the only realistic alternative to a general permit is a full-blown exemption for the relevant activity, the general permit can provide more information than an exemption. For instance, even requiring that minimal information be provided (such as a notice of intent by a private actor that it is proceeding with an activity covered by a general permit)¹⁹⁸ gives more information to a regulatory agency than an exemption for which there is no such requirement. A notice of intent can at least give the agency a sense of how many actors are taking advantage of a general permit provision, and a rough idea of the relative impacts of those actions.¹⁹⁹

provide, because such data are not available at the national scale,” and providing a very general overview of potential impacts from the proposed general permit).

198. Both the section 404 general permit program and the NPDES general permit program require many (but not all) applicants for general permits to file notices of intent. *See, e.g.*, Reissuance of Nationwide Permits, 77 Fed. Reg. 10,184 (Feb. 21, 2012) (reissuing of section 404 nationwide permits, including requirements for many permits for preconstruction notices to be filed with the Corps before work is initiated); General Permit Requirements and Reporting Requirements for Storm Water Discharges Associated with Industrial Activity, 57 Fed. Reg. 11,394, 11,397–98, 11,406 (Apr. 2, 1992) (requiring notices of intent for many sources, but not for small discharges with minimal impacts, as the EPA explicitly relies on information gathering as the justification for the notice-of-intent requirement); *EPA Construction General Permit*, U.S. ENVTL. PROT. AGENCY (Feb. 5, 2014), <http://cfpub.epa.gov/npdes/stormwater/cgp.cfm> (regulating stormwater discharges from construction activities, such as clearing, grading, and excavating, that disturb one or more acres, or smaller sites that are part of a larger development). The EPA’s framework regulations for NPDES general permits require a notice of intent to be filed for all general permits unless exempted by the agency. *See* 40 C.F.R. § 122.28(b)(2) (2002). Exemptions can occur only for certain kinds of sources, and only if the agency makes specific findings. *Id.*

199. For instance, an upper-bound estimate of the impacts of actions can be made by multiplying the total number of notices of intent by the maximum amount of impacts that are permitted under the general permit provision. *See, e.g.*, U.S. ARMY CORPS OF ENG’RS, Decision Document: Nationwide Permit 39, 33 (Feb. 13, 2012), available at http://www.usace.army.mil/Portals/2/docs/civilworks/nwp/2012/NWP_39_2012.pdf (using historic data of total number of activities reported under a section 404 general permit, and average to maximum amount of impacts from each of those activities, to estimate total impacts and required mitigation from that permit). The EPA, which sets guidelines that the Corps is required to follow in developing its section 404 general permit program, mandates these kinds of estimates when the Corps develops a general permit. *See* 40 C.F.R. § 230.7(b)(3). The BLM also has argued that its requirements that many small mining operators provide the agency prior notice of their activities would provide useful information about mining activities and impacts on public lands, information that would not be available from a complete exemption from regulation. Surface Management of Public Lands Under U.S. Mining Laws, 45 Fed. Reg. 78,902, 78,902, 78,904 (Nov. 26, 1980); *see also* Andrew P. Morriss, Roger E. Meiners & Andrew Dorchak, *Between a Hard Rock and a Hard Place: Politics, Midnight Regulations and Mining*, 55 ADMIN. L. REV. 551, 568 (2003).

Second, general permits can allow agencies to focus their energies, and the energies of permit applicants, on the information that is most useful to the regulatory program, rather than waste energy on collecting information that is unnecessary or redundant. For instance, generic drugs have a streamlined permitting process; unlike new drugs, which must provide clinical data on the drug's safety and efficacy, generic drug applications must only demonstrate that the generic is "bioequivalent (i.e., performs in the same manner as the innovator drug)."²⁰⁰ Because the original name-brand drug has already shown its safety and efficacy, requiring that information would be redundant and would impose needless obstacles on the provision of cheaper generic drugs. Alternatively, information may already have been collected and assessed under a different regulatory permit program, on which a general permit program could piggyback.²⁰¹

C. *Permits as Tools to Tailor Regulation to Specific Circumstances*

By definition, more specific permits allow for more tailoring of the permit to the specific circumstances of the applicant, the

200. See 21 C.F.R. § 314.94(a)(7) (2013) (requiring a showing of bioequivalence in abbreviated new drug applications (ANDAs)); 21 C.F.R. § 320 (describing bioavailability and bioequivalence requirements).

201. Many of the section 404 general permits are justified by the Corps as avoiding duplication with other regulatory programs that have already assessed the environmental harms of a regulated action. See, e.g., U.S. ARMY CORPS OF ENG'RS, Decision Document: Nationwide Permit 8, at 2 (2012), available at http://www.usace.army.mil/Portals/2/docs/civilworks/nwp/2012/NWP_08_2012.pdf (oil and gas structures on the Outer Continental Shelf, justified on the basis that the Bureau of Ocean Energy Management already regulates environmental impacts); U.S. ARMY CORPS OF ENG'RS, Decision Document: Nationwide Permit 21, at 2 (2012), available at http://www.usace.army.mil/Portals/2/docs/civilworks/nwp/2012/NWP_21_2012.pdf (surface coal mining activities, justified on the basis that environmental impacts are already regulated under the Surface Mining Control and Reclamation Act); U.S. ARMY CORPS OF ENG'RS, Decision Document: Nationwide Permit 27, at 2 (2012), available at http://www.usace.army.mil/Portals/2/docs/civilworks/nwp/2012/NWP_27_2012.pdf (aquatic restoration projects, in which the projects have already been approved by other conservation agencies); U.S. ARMY CORPS OF ENG'RS, Decision Document: Nationwide Permit 49, at 2 (2012), available at http://www.usace.army.mil/Portals/2/docs/civilworks/nwp/2012/NWP_49_2012.pdf (coal mining activities, justified on the basis that environmental impacts are already regulated under the Surface Mining Control and Reclamation Act); U.S. ARMY CORPS OF ENG'RS, Decision Document: Nationwide Permit 50, at 2 (2012), available at http://www.usace.army.mil/Portals/2/docs/civilworks/nwp/2012/NWP_50_2012.pdf (same); see also 33 C.F.R. § 322.2(f)(2) (2011) (defining a general permit as available when it would "avoid[] unnecessary duplication of the regulatory control exercised by another Federal, state, or local agency provided it has been determined that the environmental consequences of the action are individually and cumulatively minimal").

particular activity being approved, or the particular location of the regulated activity.²⁰² Tailoring might involve: specific findings about the applicant or the activity before an approval is granted; constraints on the activity as conditions of the granted permit; or requirements for mitigation of the harms caused by the activity, among others.

The question thus becomes at what point does the ability to tailor a specific permit make a specific permit more useful than a general permit. Tailoring through specific permits necessarily imposes costs—informational costs, administrative costs, transaction costs, and potentially even litigation costs—and therefore, tailoring will only be worthwhile if the costs of tailoring are outweighed by the benefits of tailoring.²⁰³

The benefits of tailoring stem from being able to reduce harms and increase benefits by carefully deciding whether an activity should proceed and, if so, under what terms. This means that the risks of harms must be high, and can be decreased through tailoring, or that the potential of benefits from a proposed activity must be high, and those benefits can be increased through tailoring. In those circumstances, decreasing risks or increasing benefits through careful permit design can be socially worthwhile. On the other hand, if activities will individually have relatively small risks of harm or potential for benefits, the impacts on those risks or benefits through careful tailoring will be relatively small.²⁰⁴ Thus, general permits make

202. This is one of the more important benefits of adjudication in general. *See, e.g.,* NLRB v. Wyman-Gordon Co., 394 U.S. 759, 774–75 (1969) (Black, J., concurring); SEC v. Chenery Corp. (Chenery II), 332 U.S. 194, 202–03 (1947); Baker, *supra* note 158, at 661 (“Where the particular problem is ‘so specialized’ or so dependent for solution on the various complex factual situations presented as to render it ‘impossible of capture within the boundaries of a general rule,’ the *ad hoc* approach is necessary.”); Schuck, *supra* note 3, at 235 (noting utility of adjudication in focusing on the particular characteristics of individual actors).

203. *See* C. Steven Bradford, *The Cost of Regulatory Exemptions*, 72 U. MO. KANSAS CITY L. REV. 857 (2004) (noting that one cost of varying regulatory levels among different parties will be creating costs for regulated parties, agencies, and third parties to determine what level of regulation properly applies to a particular regulated party).

204. In determining whether it is the risks of harm or the potential for benefits that matter for assessing whether tailoring is important, we focus on why we have the regulatory program in the first place. If the program focuses on preventing harm, then it is whether the risks of harm are large and controllable in that matter; if the program focuses on providing benefits, then it is the potential for benefits that matter; and of course, for some programs both will be relevant.

Another way in which the level of harm or benefit might affect the choice of general versus specific permits is if the resource being allocated through a permit is extremely limited, and we want to ensure that the resource is equally distributed among a limited number of claimants, or the resource is distributed to the most deserving of those claimants. (One classic example of this is the distribution of permits to operate taxis in major metropolitan areas.) In

a lot more sense when either the risks of harm or the potential benefit from an activity are relatively small; or when the risks of harm or the potential benefit are invariant no matter what tailoring is undertaken. In both situations, tailoring will generally not be beneficial.²⁰⁵

We can see this kind of analysis present in various general permit programs. As explained in Part I, for example, the provision of the CWA that allows for general permits in the section 404 regulatory program lays out specific requirements that must be met for a general permit to be issued. The agency must “determine[] that the activities in [the] category [to be covered by a general permit] are similar in nature, will cause only minimal adverse environmental effects when performed separately, and will have only minimal cumulative adverse effects on the environment.”²⁰⁶ The last two requirements (minimal individual and cumulative adverse environmental effects) follow from the above analysis—the program is focused on preventing harm to the environment, but if there is minimal harm, there is no need for careful analysis because harm cannot be reduced very much.²⁰⁷ The first

this case, a “first come, first served” general permit system may not be appropriate, and we instead might choose to use a specific permit system that allows us to distribute permits to use the limited resource to whichever applicants “best” deserve to use the resource, however defined.

205. Rulemaking is generally identified as the more efficient relative to adjudication when the issues that are in common for most regulatory decisions dominate over the issues that vary across decisions. See E. Donald Elliott, *Re-inventing Rulemaking*, 41 DUKE L.J. 1490, 1492 (1992) (observing that rulemaking is better for addressing issues that will be raised repeatedly and are similar); Fuchs, *supra* note 195, at 94.

206. See 33 U.S.C. § 1344(e)(1) (2012).

207. Many of the existing section 404 general permits appear to be examples of activities that cause de minimis harm to wetlands. See generally, e.g., U.S. ARMY CORPS OF ENG’RS, Decision Document: Nationwide Permit 1 (2012), available at http://www.usace.army.mil/Portals/2/docs/civilworks/nwp/2012/NWP_01_2012.pdf (aids to navigation), U.S. ARMY CORPS OF ENG’RS, Decision Document: Nationwide Permit 5 (2012), available at http://www.usace.army.mil/Portals/2/docs/civilworks/nwp/2012/NWP_05_2012.pdf 5 (scientific-measurement devices); U.S. ARMY CORPS OF ENG’RS, Decision Document: Nationwide Permit 6 (2012), available at http://www.usace.army.mil/Portals/2/docs/civilworks/nwp/2012/NWP_06_2012.pdf (survey activities); U.S. ARMY CORPS OF ENG’RS, Decision Document: Nationwide Permit 9 (2012), available at http://www.usace.army.mil/Portals/2/docs/civilworks/nwp/2012/NWP_09_2012.pdf (structures in fleeting and anchorage areas); U.S. ARMY CORPS OF ENG’RS, Decision Document: Nationwide Permit 10 (2012), available at http://www.usace.army.mil/Portals/2/docs/civilworks/nwp/2012/NWP_10_2012.pdf (mooring buoys); U.S. ARMY CORPS OF ENG’RS, Decision Document: Nationwide Permit 11 (2012), available at http://www.usace.army.mil/Portals/2/docs/civilworks/nwp/2012/NWP_11_2012.pdf (temporary recreational structures); U.S. ARMY CORPS OF ENG’RS, Decision Document: Nationwide Permit 28 (2012), available at http://www.usace.army.mil/Portals/2/docs/civilworks/nwp/2012/NWP_28_2012.pdf (modifications of existing marinas); U.S. ARMY CORPS OF ENG’RS, Decision Document: Nationwide Permit 36 (2012), available at <http://www.usace.army.mil/>

requirement can also be seen as based on the above analysis. For, if activities in the category are similar in nature, then that could mean the harms or benefits of those activities will be similar as well—imposing tailored permit analysis or conditions on individual activities will not have a major impact on the harms or benefits that the activities create.²⁰⁸

Several of the general permits issued by the Corps for the section 404 permitting program appear to be examples of relatively high-risk and high-benefit projects that might justify a more tailored permitting system, such as the nationwide permits for various coal mining activities,²⁰⁹ the permits for transportation projects,²¹⁰ residential

Portals/2/docs/civilworks/nwp/2012/NWP_36_2012.pdf (boat ramps); *see also* Reissuance of Nationwide Permits, 77 Fed. Reg. 10,184, 10,184 (Feb. 21, 2012).

208. Note that if our analysis is correct, in situations in which the harms and benefits are relevant to the regulatory program, what matters for this particular factor in the general permit test is whether the activities are similar in the harms or benefits they cause, not whether they are similar on unrelated factors (for example, the number of applicants seeking the permit). The EPA's guidelines for section 404 general permits, which the Corps must follow, appear to recognize this point. *See* 40 C.F.R. § 230.7(a)(1) (2002) (requiring a finding before a general permit is issued that the activities to be regulated will be both "similar in nature and similar in their impact upon water quality and the aquatic environment"). At times the Corps has pointed to other kinds of similarities as justifying the use of general permits. For example, the Corps issued a general permit for certain kinds of oil and gas activities, and stated that the general permit could be justified because those activities had similar purposes (obtaining oil and gas). *See Wyo. Outdoor Council v. U.S. Army Corps of Eng'rs*, 351 F. Supp. 2d 1232, 1257–59 (D. Wyo. 2005). Nevertheless, the Corps also has usually pointed to the similarity of impacts, either explicitly, *id.*, or implicitly, by noting how the conditions on general permits greatly narrow the kinds of impacts that can be expected from the activities regulated by the permit, *see Alaska Ctr. for the Env't v. West*, 157 F.3d 680, 84–85 (9th Cir. 1998) (conditions imposed on general permit limit the kinds of impacts that can be expected from permitted activities); *Sierra Club v. U.S. Army Corps of Eng'rs*, 464 F. Supp. 2d 1171, 1190–96 (M.D. Fla. 2006) (holding that the conditions imposed on a general permit limit the kinds of impacts that can be expected from permitted activities to "suburban development").

Other kinds of similarity besides similarity of impacts might justify the use of general permits based on other factors besides tailoring to reduce risks and increase benefits. For instance, combining a range of activities that are usually performed together (perhaps because they have the same overall purpose) might reduce the administrative burdens of a general permit system, advancing the goal of reducing administrative burdens in general, or for small actors. *See Wyo. Outdoor Council*, 351 F. Supp. at 1257–59 (discussing the agency's reliance on this rationale).

209. *See* U.S. ARMY CORPS OF ENG'RS, Decision Document: Nationwide Permit 21 (2012), available at http://www.usace.army.mil/Portals/2/docs/civilworks/nwp/2012/NWP_21_2012.pdf; U.S. ARMY CORPS OF ENG'RS, Decision Document: Nationwide Permit 49 (2012), available at http://www.usace.army.mil/Portals/2/docs/civilworks/nwp/2012/NWP_49_2012.pdf; U.S. ARMY CORPS OF ENG'RS, Decision Document: Nationwide Permit 50 (2012), available at http://www.usace.army.mil/Portals/2/docs/civilworks/nwp/2012/NWP_50_2012.pdf.

210. *See* U.S. ARMY CORPS OF ENG'RS, Decision Document: Nationwide Permit 14 (2012), available at http://www.usace.army.mil/Portals/2/docs/civilworks/nwp/2012/NWP_14_2012.pdf.

developments,²¹¹ and Commercial and Institutional Developments.²¹² All of these involve potentially substantial impacts on wetland resources,²¹³ all generally involve activities that should have substantial economic value, and therefore might well be worth the time and effort to tailor. And in fact the Corps does provide some tailoring in many of these nationwide permits: the Corps requires preconstruction notice for many projects, allowing the agency either to require an individual permit if necessary or to strike a middle ground by requiring less comprehensive information and attaching case-specific conditions to the use of the general permit.²¹⁴

The Corps has another way of providing at least some tailoring for general permits: general conditions that limit the applicability of general permits and reopener provisions. The conditions prevent the use of general permits in certain sensitive locations,²¹⁵ and also require a much more detailed analysis when certain sensitive resources are present.²¹⁶ The reopener provisions generally allow the Corps to

211. See U.S. ARMY CORPS OF ENG'RS, Decision Document: Nationwide Permit 29 (2012), available at http://www.usace.army.mil/Portals/2/docs/civilworks/nwp/2012/NWP_29_2012.pdf.

212. See U.S. ARMY CORPS OF ENG'RS, Decision Document: Nationwide Permit 39 (2012), available at http://www.usace.army.mil/Portals/2/docs/civilworks/nwp/2012/NWP_39_2012.pdf.

213. All of these permits cap the total impacts on wetlands for each permitted project at one-half acre, though even this amount can be substantial cumulatively across all issued permits. See Reissuance of Nationwide Permits, 77 Fed. Reg. 10,184, 10,184 (Feb. 21, 2012).

214. See *supra* text accompanying note 191. For Nationwide Permit 14, preconstruction notice is required for projects that disturb between one-tenth and one-half an acre; all of the other permits require preconstruction notice for all permitted projects. See Reissuance of Nationwide Permits, 77 Fed. Reg. 10,184, 10,184. Preconstruction notice means that the Corps has forty-five days after receiving the notice to require the permit applicant to file for an individual permit or request more information; in general, failure by the Corps to take any action allows the permit applicant to proceed with the permitted activity. See *id.* (general condition 31). Nonetheless, these permits have been controversial, both because of concerns about a lack of reporting and enforcement, see *supra* notes 193–96 and accompanying text, and because of concerns that the Corps does not effectively exercise its ability to require an individual permit. See COPELAND, *supra* note 68. Nationwide Permit 21 has been particularly controversial and the subject of repeated litigation. See *id.* at 12 (“Citizen groups have filed lawsuits seeking generally to halt the Corps’ use of nationwide permit 21 for mountaintop mining operations.”); see also *Ohio Valley Envtl. Coal. v. Hurst*, 604 F. Supp. 2d 860, 868 (S.D. W. Va. 2009) (vacating the Corps’ issuance of Nationwide Permit 21 because it did not provide evidence that a proposed mitigation process would be successful or adequately enforced).

215. For instance, general permits cannot be used in Wild and Scenic River areas, and many permits are not applicable in marine sanctuaries, marine monuments, and National Estuarine Research Reserves. See Reissuance of Nationwide Permits, 77 Fed. Reg. 10,184, 10,283 (general conditions 16 and 22).

216. If endangered species or historic and cultural resources are present in the location where the permitted activity will occur, then consultation under the ESA or the National Historic Preservation Act must occur. See *id.* at 10,283–84 (general conditions 18 and 20).

require an individual permit when, in its discretion, one appears to be necessary.²¹⁷

Many of the exemptions from the registration requirements under the securities laws (both statutory and regulatory) can be, or are, justified on the grounds that very minimal harm could occur from the exempt securities transactions. For instance, many of the exemptions set caps on the total amount of securities that can be issued or require that the securities can be marketed only to “sophisticated” investors who presumably are less vulnerable to fraud and likely have more funds to cover any losses from fraud, or both.²¹⁸

Finally, the Federal Aviation Administration (FAA) has a system to determine whether proposed construction projects would interfere with air traffic.²¹⁹ Any proposed construction project that is more than two hundred feet high or would vertically cross into the potential approach airspace of a nearby airport must provide notice to the FAA.²²⁰ If the proposed construction project is more than two

217. See 33 C.F.R. § 330.5 (2011). The EPA has a similar provision allowing it to require an individual permit for any general permit application. See 40 C.F.R. § 122.28(b)(3) (2012).

Additional examples of the relevance of tailoring for a general permit program are both the Food and Drug Administration’s (FDA’s) over-the-counter and generic drug-approval process. As noted above, the generic drug approval process has a streamlined permitting program that only requires generics to demonstrate that they are “bioequivalent” to already permitted drugs. Again, by showing similarity with an existing drug, this showing makes clear that tailoring would not be socially beneficial because the harms and benefits would be the same as those already concluded to be acceptable.

The over-the-counter drug approval process is similar. The FDA makes an initial determination that harms are minimal and benefits are relatively large for a specific drug or group of drugs. Here the conclusion that harms are minimal means that the utility of specific permitting of individual drugs would be relatively low. See *Drug Applications for Over-the-Counter (OTC) Drugs*, U.S. Food & Drug Admin., <http://www.fda.gov/Drugs/DevelopmentApprovalProcess/HowDrugsareDevelopedandApproved/ApprovalApplications/Over-the-CounterDrugs/default.htm>; 21 C.F.R. §§ 330.1, 330.10 (2011). The statutory basis for the over-the-counter exception is 21 U.S.C. § 321(p)(1), which defines a “new drug” that requires FDA approval as a drug that is “generally recognized, among experts qualified by scientific training and experience to evaluate the safety and effectiveness of drugs, as safe and effective for use.”

218. See, e.g., HAZEN, *supra* note 182, §§ 4.19–4.20 (describing how various exemptions under Regulation D limit offering amounts to below \$1 million or \$5 million, or allow marketing only to “accredited investors” who have a substantial net worth, or both).

219. See 14 C.F.R. § 77 (2012).

220. *Id.* § 77.9(a)–(d). Structures that fall within the two-hundred-feet-high category must provide additional information. *Id.* § 77.11. Structures that are “shielded by existing structures of a permanent and substantial nature or by natural terrain or topographic features of equal or greater height, and will be located in the congested area of a city, town, or settlement where the shielded structure will not adversely affect safety in air navigation” are exempt from the notice requirements. *Id.* § 77.9(e)(1).

hundred feet high, however, the FAA presumes that the project will interfere with aviation, and the permit seeker must provide evidence rebutting that presumption along with basic notice.²²¹ Proposed construction projects that are five hundred or more feet high, or are over two hundred feet high and close to an airport, or that are within specified areas near to the airport, are presumed to be hazards to air navigation and must submit to an aeronautical study by the FAA to determine if a hazard exists.²²² Other projects may be subject to a study if the FAA determines that a study is required.²²³ Again, the system increases the level of information required by the applicant—and the concomitant scrutiny by the regulatory agency—based on the level of potential harm caused by the proposed project.

The NPDES general permit program, which as previously mentioned is part of the CWA, provides an example of how the need for tailoring might undermine the effectiveness of a general permit program. The NPDES general permit program has at times been justified by the agency on the grounds that it can avoid regulatory burdens for small discharges with minimal impacts.²²⁴ But the NPDES general permit regulations do not restrict the use of general permits to “minor” point sources, and any one permit can cover a range of sources.²²⁵ In addition, there are more fundamental problems with the NPDES general permit program from a tailoring perspective. First, there are often site-specific reasons to be concerned about the impacts of emissions from a particular discharger into a particular waterway. Each waterway is different, and may be susceptible or

221. *Id.* § 77.7(d).

222. *Id.* § 77.17. Even if the FAA concludes that a proposed construction project is a hazard to navigation, the agency cannot directly prohibit the project, although its adverse conclusion will usually have significant impacts on local zoning approvals, insurance, and airport operations. *BFI Waste Sys. of N. Am., Inc. v. FAA*, 293 F.3d 527, 530 (D.C. Cir. 2002); J. Scott Hamilton, *Allocation of Airspace as a Scarce National Resource*, 22 TRANSP. L.J. 251, 267 (1994).

223. 14 C.F.R. § 77.27.

224. *See, e.g.*, General Permit Requirements and Reporting Requirements for Storm Water Discharges Associated with Industrial Activity, 57 Fed. Reg. 11,394, 11,405–06 (Apr. 2, 1992) (justifying exemption of some NPDES general permits from a notice-of-intent requirement on the grounds that those permits involve small discharges with minimal impacts).

225. *See* Gaba, *supra* note 79, at 422–23; 40 C.F.R. § 122.28(a)(2)(ii) (2012). The regulations generally do require a finding that the discharges “within each category” involve similar operations, similar discharges, and require similar effluent limitations or operating conditions. Gaba, *supra* note 79, at 422; 40 C.F.R. § 122.28(a)(2).

vulnerable in different ways to discharges.²²⁶ However, the EPA's current NPDES general permit system does not appear to be very effective at taking these site-specific water quality issues into account.²²⁷ Second, the best management practices (BMPs) that are usually imposed on regulated parties through the NPDES general permit program often require some form of site-specific development; the EPA has attempted to address the potential incompatibility between general permits and site-specific crafting of BMPs by allowing regulated parties to draft their own BMPs with minimal or no review by the agency, which has raised serious enforcement problems.²²⁸ Although there may be other justifications for the current NPDES general permit program—either political, or on the grounds of reducing impacts on small parties—tailoring is not one of them.

D. Permits as Political Tools

The way in which a permitting system is structured might help to address political constraints or reduce resistance to a regulatory scheme.²²⁹ General permits might provoke less political resistance from regulated parties because they are less burdensome in terms of paperwork and transaction costs. Indeed, some permits that do not even require notice to the agency might impose essentially no costs on the regulated party—and from that party's perspective, the permits might equal a full-blown exemption from regulation. Avoiding regulatory burdens might be important even if the use of the permits is not limited to situations in which reduced regulatory burdens are economically justified, such as for small parties or when tailoring is not appropriate. To the extent that particular interest groups have substantial political power or influence, reducing regulatory burdens on those groups might make the regulatory system politically possible. This is likely one reason that the EPA has used general permits for the regulation of agricultural discharges²³⁰—farmers have substantial political sway.²³¹

226. This may be the case, for instance, because the waterway is already heavily affected by other discharges, or contains threatened or endangered species.

227. See Gaba, *supra* note 79, at 434–56.

228. *Id.* at 456–64.

229. See Schuck, *supra* note 3, at 284–85 (noting the importance of exemptions from rules that can mollify powerful political interests).

230. See Gaba, *supra* note 79, at 430–31 (providing an overview of concentrated animal-feeding operations (CAFOs) general permits); Standards for Concentrated Animal Feeding Operations, 68 Fed. Reg. 7176 (Feb. 12, 2003) (the EPA's announcement of general permits for

Another important source of political resistance due to regulatory burdens is the regulation of widespread, common activities pursued by many individual members of the public.²³² The fixed costs of permitting might simply be politically impossible to impose on frequently pursued activities,²³³ especially if there is a general expectation that the activity should be permitted.²³⁴ General permits can allow for regulation with an especially light touch, even allowing ex post approval of projects under the permitting system and avoiding potential backlash against the regulatory system. This is how section 404 permits have been used on occasion, allowing developers who might not have even been aware that their activities were covered by the regulatory program to receive after-the-fact permits.²³⁵ In so doing, the regulators may avoid a major political fight over applying a regulatory program to “everyday activities”—albeit at a potentially high cost to the deterrent effect of the regulatory program.

But if the goal is simply to reduce regulatory burdens to address the political resistance to a regulatory program, why not just grant outright statutory exemptions from the regulatory program for favored interest groups? There are several good reasons. First, general permits might allow at least some regulation even when there is substantial political resistance—providing for some reduction in harm compared to a baseline of no change under an exemption. For

CAFOs); 40 C.F.R. § 122.23(h) (general permit provisions for CAFOs). EPA has justified its use of general permits for CAFOs on the grounds that the NPDES permit process requires end-of-the-pipe emission controls, but that CAFO water emissions are best addressed through BMPs, which are very different. *See* Gaba, *supra* note 79, at 420–21; National Pollutant Discharge Elimination System, 42 Fed. Reg. 6846 (Jan. 28, 1977); *Natural Res. Def. Council, Inc. v. Costle*, 568 F.2d 1369, 1377–80 (D.C. Cir. 1977). There is nothing inherently inconsistent, however, between the use of BMPs and specific permits.

231. *See* Ruhl, *supra* at 84, at 331–33.

232. In Part III, we explore the possible reasons for this resistance, why this resistance will be of increasing importance in a globalizing world, and how this resistance might be reduced or ameliorated using general permits. *See infra* Part III.

233. Of course, the fixed costs of permitting might be economically unjustifiable when they are imposed on frequently pursued activities. If each instance of the activity requires permitting, the fixed costs would mount rapidly. Reducing those fixed costs through general permits will therefore be desirable, just like in the context of regulating the behavior of small actors. Those fixed costs might also be minimized by allowing an actor to receive an ongoing permit, rather than by requiring a permit for each particular activity.

234. *See* Eric Biber, *Climate Change and Backlash*, 17 N.Y.U. ENVTL. L.J. 1295, 1317–28 (2009).

235. *See* Addison & Burns, *supra* note 79, at 621, 647–49.

instance, it is possible that without general permits there might have been no regulation at all of large animal feedlots under the CWA.²³⁶

Second, general permits might also be more flexible compared to exemptions. For instance, compare two options: on the one hand, a complete exemption under the statute for certain activities or interest groups, versus on the other hand, the placement of those activities or interest groups within the regulatory jurisdiction of the agency, to be regulated using a general permit. The statutory exemption might be very difficult to change or eliminate over time—perhaps in response to changed political circumstances (for example, reduced political resistance to the regulatory program), or to an increased need for regulation of the exempted activities or interest groups (for example, because of economic, ecological, or social changes). Legislatures often face substantial inertia that restricts their ability to enact even small changes in statutes²³⁷—particularly at the federal level where legislation requires approval by two legislative bodies, the President, and (effectively) the relevant committees within each legislative body. Agencies, on the other hand, can change rules so long as they have the support from the President (or at least indifference if the change is sufficiently low profile), and the rule change survives judicial review.²³⁸ If the legislature intends to stop the agency's regulatory change, it must overcome its legislative inertia and pass a substantive or appropriations bill that prevents the change.²³⁹ General permit systems, therefore, might more easily allow the phase-in of regulations in situations in which there is substantial political

236. There are significant exemptions from many environmental laws for agriculture. For instance, the CWA exempts “return flows from irrigated agriculture” from regulation. 33 U.S.C. § 1342(k)(1) (2012). For a comprehensive list of the many exemptions, see Ruhl, *supra* note 84, at 293–315. Indeed, the EPA originally intended to completely exempt most agricultural sources from any regulation, but was prevented from doing so by litigation. *See* *Natural Res. Def. Council, Inc. v. Costle*, 568 F.2d 1369 (D.C. Cir. 1977).

237. *See* Richard J. Lazarus, *Super Wicked Problems and Climate Change: Restraining the Present to Liberate the Future*, 94 CORNELL L. REV. 1153, 1179–80, 1198–99 (2009) (describing the difficulty of enacting legislative change at the federal level).

238. Given the deference that courts usually provide to agency action, judicial review is more likely to delay than absolutely prevent a regulatory change. *See* William S. Jordan, III, *Ossification Revisited: Does Arbitrary and Capricious Review Significantly Interfere with Agency Ability to Achieve Regulatory Goals Through Informal Rulemaking?*, 94 NW. U. L. REV. 393, 418 tbl.3 (2000) (concluding that of sixty-one cases in which the D.C. Circuit remanded an agency rule between 1985 and 1995, there were only twelve cases in which the remand order prevented the agency from pursuing its objective).

239. The legislature's position is even worse because if the President supports the regulatory change, he can veto any bill that prevents the change. *See* U.S. CONST. art. I, § 7. Congress must garner two-thirds support to override a presidential veto. *Id.*

resistance because there is less inertia to overcome in making regulatory changes. In fact, although the EPA did not refer to political considerations, its development of the NPDES general permit system was intended as a phased process in which the agency would move over time from permitting a wide range of agricultural, stormwater, and silvicultural sources under blanket general permits, to permitting more tailored general permits and even individual specific permits.²⁴⁰

As for the difference between a regulatory general permit and a regulatory exemption, the border between the two can be difficult to draw—as noted above, it is unclear how different the situation is from a regulated party's perspective, between a rule that grants a general permit for an activity with no notice or conditions requirements, and a rule that flat-out exempts the activity from regulation. Of course, under some statutory schemes the agency might not have the authority to exempt an activity from regulation, even if the activity falls within the agency's jurisdiction.²⁴¹ But even if regulatory exemptions are available as options, there might be a reason for an agency to choose to use a very lax general permit system instead of a complete exemption. There might be a psychological or political difference between not regulating at all and regulating with a very slight touch, if the agency believes that in the future additional regulation might be required. Actors who believe that they are completely exempt from regulation might fiercely object to the imposition of substantial regulatory exemptions, whereas actors who understand that they are subject to minimal regulation might be less resistant to seeing that regulation gradually increased.²⁴² Indeed, it was the concern that exemptions would be all too permanent that led the D.C. Circuit to reject the EPA's efforts to carve out regulatory exemptions from the NPDES permitting program:

240. See National Pollutant Discharge Elimination System, 42 Fed. Reg. 6846 (Jan. 28, 1977). The EPA continued to pursue this strategy for many years. See General Permit Requirements and Reporting Requirements for Storm Water Discharges Associated with Industrial Activity, 57 Fed. Reg. 11,394 (Apr. 2, 1992) (using a phased general permit approach for stormwater regulation).

241. See *Natural Res. Def. Council*, 568 F.2d 1369 (rejecting the EPA's attempts to exempt a wide range of agricultural, silvicultural, and stormwater sources from NPDES regulation).

242. See Biber, *supra* note 234, at 1317–28 (describing how the imposition of new regulatory restrictions on previously unregulated, but widespread, activities can create a political backlash against regulation).

There is also a very practical difference between a general permit and an exemption. An exemption tends to become indefinite: the problem drops out of sight, into a pool of inertia, unlikely to be recalled in the absence of a crisis or a strong political protagonist. In contrast, the general or area permit approach forces the Agency to focus on the problems of specific regions and requires that the problems of the region be reconsidered at least every five years, the maximum duration of a permit.²⁴³

The political and legal flexibility that general permits create compared to exemptions might also be particularly useful in the context of regulating de minimis harms. Although de minimis harms might justify an exemption from regulation,²⁴⁴ one challenge is that the kinds of harms that are considered de minimis might change over time. For instance, as the number of actors imposing very small harms on an environmental resource increases, what was at first seen as a harm that could be ignored, might eventually become a cumulatively important harm that requires attention.²⁴⁵ It will be easier to adjust regulations to take into account the changing impact of certain harms through a more flexible general permit system than through an exemption system.²⁴⁶

Another possible concern with the use of full exemptions is that exemptions might be vulnerable to political pressure. As noted above, in general we would expect that agencies should have less information about how widely exemptions are used, and the harms that they cause, compared to even general permit systems (which might have

243. *Natural Res. Def. Council*, 568 F.2d at 1382. CWA permits are valid only for periods up to five years, so general permits necessarily require revision and reissuance on a regular basis by the EPA. This, however, is particular to the CWA; general permits need not necessarily have limited terms.

244. See Edward W. Warren & Gary E. Marchant, “More Good than Harm”: A First Principle for Environmental Agencies and Reviewing Courts, 20 *ECOLOGY L.Q.* 379, 426–27 (1993).

245. For examples and discussion of this problem, see *infra* Part III. See also Holly Doremus, *Takings and Transitions*, 19 *J. LAND USE & ENVTL. L.* 1, 19–20 (2003).

246. If the use of general permits is seen as a step toward a more “adjudicatory” form of rulemaking compared to exemptions, then it makes sense that general permits would be more flexible and responsive to changes in conditions. Adjudication is frequently identified as more flexible and responsive than rulemaking, and therefore more appropriate for policy contexts that are dynamic or uncertain. Bernstein, *supra* note 157, at 588, 616 (recommending the use of adjudication when information is tentative and uncertain); Shapiro, *supra* note 158, at 927–28; Magill, *supra* note 161, at 1406–07 (noting that adjudication is preferable when there is “inexperience, complexity, and unforeseen circumstance”); Schuck, *supra* note 3, at 196, 265 (arguing that adjudication “facilitates cautious and flexible policy development”).

reporting or other requirements), because exemptions by definition require no reporting through a permit process. Gathering information about how widely an exemption might be used or its impact would be very costly, whether for an agency, outside groups, or the general public.²⁴⁷ Because information is a public good, it will be difficult to organize members of the public to collect information about the use or impacts of the exemption.²⁴⁸ The informational advantages that regulated parties often have will therefore be exacerbated, and the lack of information about the exemption may make it difficult to mobilize members of the public to push for administrative or legislative changes to the exemption, or even to know whether changes are desirable.

A final political advantage of general permits compared to exemptions is that they might provide more politically feasible ways to collect funds for mitigating harms or restoring damaged resources. Activities, whether covered by a general permit or by an exemption, may cause significant social harms—harms that we might want to offset through mitigation or eliminate through restoration activities. Mitigation and restoration cost money. But if the activity is covered by an exemption, it may be more difficult to connect the fees collected with the harms caused—after all, if a harm was caused, why not regulate in the first place?²⁴⁹ General permits, however, explicitly recognize the harm caused by the activity, perhaps providing greater political support for, and judicial approval of, fees that are collected for mitigation or restoration.²⁵⁰ And it seems plausible that these kinds of fees are much more politically feasible to collect and use than are general taxes to pay for restoration or mitigation.²⁵¹

247. Eric Biber, *The Problem of Environmental Monitoring*, 83 U. COLO. L. REV. 1, 31 (2011) (discussing how expensive environmental monitoring can become).

248. Information is a public good in economic terms because it is nonrivalrous and nonexcludable. *Id.* at 13–14. The organizational obstacles to producing information will be particularly challenging to overcome if the harms caused by an exemption are also to a public good—for example, pollution from an unregulated factory that contaminates the air.

249. See Schuck, *supra* note 3, at 184–85 (arguing that the difference between an exception and a permit is that an exception implies that the otherwise-regulated action is justified and without moral blame, whereas a permit implies that the action is morally blameworthy but is being permitted in any case).

250. See *Koontz v. St. Johns River Water Mgmt. Dist.*, 133 S. Ct. 2586 (2013) (requiring environmental permit mitigation exactions and fees to meet the “essential nexus” and “rough proportionality” tests); see also *infra* note 322 and accompanying text.

251. See David Gamage & Darien Shanske, *Three Essays on Tax Salience: Market Salience and Political Salience*, 65 TAX L. REV. 19, 51 (2011) (summarizing literature that finds voters are

We can think of one way in which specific permits might have a political advantage over general permits. To the extent that the public feels a need to closely watch over perceived bad actors such as polluters, the paperwork and transactional burdens of regulation might be seen as a good thing. They might even be seen as appropriate punishment for socially undesirable (but not illegal) activities. The tailored, more empirical approach of specific permitting could also build greater public legitimacy for the regulatory regime.²⁵² Of course, this political rationale will only apply when someone else is paying the cost of a specific permit program, and as such, this rationale will likely not apply when a regulatory program covers activities that are widely pursued by many members of the public.²⁵³

Thus, overall, general permits provide some substantial political advantages compared to specific permits and to outright exemptions. Those advantages might explain why a number of environmental laws give the relevant agencies wide jurisdictional authority over permit design, which those agencies in turn apply through a significant number of general permits or other regulatory tools.²⁵⁴ Statutory exemptions might pose a particular challenge in the context of environmental laws. The beneficiaries of environmental regulation tend to be broadly distributed (often the entire public if an environmental resource is a public good), whereas those subject to much environmental regulation are small groups of regulated industry. Beneficiaries therefore tend to face significant obstacles in organizing to enact legislation.²⁵⁵ The enactment of stringent environmental statutes may therefore be an infrequent event, prompted by high-profile crises or catastrophes that mobilize the

more likely to support government revenues that are labeled as fees than those that are labeled as taxes).

252. See generally Tom Tyler & David Markell, *The Public Regulation of Land Use Decisions: Criteria for Evaluating Alternative Procedures*, 7 J. EMPIRICAL L. STUD. 538 (2010).

253. We discuss the challenges that regulation of individual activities poses in Part III, *infra*.

254. See, for example, the CWA's prohibition of all point-source discharges without a permit, 33 U.S.C. § 1311(a) (2012), the ESA's prohibition of all "take" of members of listed endangered species without a permit, 16 U.S.C. § 1538(a) (2012), and the Migratory Bird Treaty Act's prohibition of all "take" of members of migratory bird species without a permit, 16 U.S.C. § 703. The 1933 Securities Act has a similar default rule of prohibiting all actions unless they are specifically permitted. See 16 U.S.C. § 77d.

255. See Biber, *supra* note 53, at 40–49 (2008).

public to overcome those organizational obstacles.²⁵⁶ If legislation is an infrequent event—and there has not been a significant environmental statute enacted at the federal level in over twenty years²⁵⁷—then statutory exemptions would be extremely hard to eliminate or reduce even if changed circumstances warranted such an adjustment. Legislators and activists who have the opportunity to enact stringent environmental legislation are likely quite aware of how difficult it is to revisit the legislation, and therefore might err on the side of over- rather than under-inclusiveness, counting on the administrative process to address the problems of over-inclusion through tools such as general permits.

E. Permits as Enforcement Tools

Permits are, of course, an important component of the enforcement of regulatory standards. Permits can allow a regulatory agency to know who might be violating the law, what standards regulated parties need to be complying with, and where regulated activities are supposed to be occurring. The value of increased enforcement would be determined, at least in part, by the level of harms or benefits that the regulatory program is trying to prevent or provide; higher harms or benefits mean more payoff from enforcement. Compared to a complete exemption, general permits on average should make agency enforcement easier—though general permits may not facilitate enforcement as much as an individualized specific permit. One of the criticisms of the broad use of general permits in the section 404 program has been that the use of general permits has made it too difficult for the agency to identify and prosecute violations of the law, and that more detailed specific-permitting requirements would allow the agency to keep better tabs on who is engaging in regulated activities and whether those parties are complying with the law.²⁵⁸

There is another enforcement alternative for an agency with a broad regulatory mandate besides general or specific permits—it can choose not to issue any permits (or it may not be empowered to issue permits) that authorize certain activities, and instead it may use its

256. See Anthony Downs, *Up and Down with Ecology—the “Issue-Attention” Cycle*, 28 PUB. INT. 38, 39–41 (1972); Farber, *supra* note 166, at 66–67 (1992).

257. Michael Vandenbergh, *Private Environmental Governance*, 99 CORNELL L. REV. 129 (2013).

258. See Addison & Burns, *supra* note 79, at 645–46.

discretion to not prosecute violations of an otherwise applicable regulatory mandate. In some circumstances, large numbers of people might be violating the law, but the agency prosecutes only a tiny fraction of violators. These kinds of overbroad statutes might allow for relatively simple prosecution of otherwise hard-to-detect regulatory violations, as regulatory agencies can use the frequent but small violations as proxies for more serious, but more difficult-to-prove, violations. For instance, many states prohibit “waste” of animals killed by hunters, which usually is defined to include leaving any portion of a killed animal behind, rather than transporting the animal to be used for food, hides, and other purposes.²⁵⁹ Waste statutes are frequently violated by hunters, but they allow for the easy prosecution of poachers who are seeking to kill animals simply for a particular high-value organ (such as horns or gall bladders).²⁶⁰ Similarly, many states criminalize the nighttime possession of firearms in automobiles in areas that are commonly used for hunting to prevent illegal “spotlighting” of animals.²⁶¹ Spotlighting involves a driver using car headlights to freeze a deer so that it will not react, and can be shot and killed easily. Spotlighting would be very difficult to prevent directly because it requires catching someone in the act of putting their headlights on the animal and attempting to kill it, but it is much easier to identify someone with a weapon in his or her car at night. Prosecutorial discretion can therefore allow enforcement agencies to decide which of the many violations of waste or firearms rules should be enforced based on their judgment about whether the violator is in fact a poacher or spotlighting.²⁶²

The problem is that this sweeping use of prosecutorial discretion creates tremendous uncertainty for regulated parties. Especially if the regulated activity requires significant investment, that uncertainty might be undesirable. A general permit might balance the need for having broad underlying statutory authority to allow for enforcement, with the need to provide some assurance to regulated parties.²⁶³ Indeed, agencies might codify their use of prosecutorial discretion through guidance documents in ways that effectively act like general

259. See DALE D. GOBLE & ERIC T. FREYFOGLE, *WILDLIFE LAW: CASES AND MATERIALS* 724–25 (2d ed. 2010).

260. *Id.*

261. *Id.* at 699–707.

262. *Id.* at 705–06, 723–25.

263. Again, rulemaking is generally identified as providing greater predictability for regulated parties. See *supra* note 163.

permits. For example, the FWS has effectively struck such a deal with regard to the enforcement of the Migratory Bird Treaty Act²⁶⁴ against commercial wind power facilities, under which, if a facility follows the guidance the agency has issued, the agency does not enforce the statutory take prohibition if a migratory bird is killed by a wind turbine.²⁶⁵

F. Permits as Constraints on Administrative Discretion

Specific permits are also more likely to have significant public participation requirements and to face more in-depth judicial review than are general permits. Public participation requirements tend to be greater for specific permits in part because many general permits do not have a structure that allows for notice to the public and an opportunity to be heard: if a general permit does not require notice to the agency, members of the public will not receive notice either. Agencies might apply the statutory mandates for public participation in permitting only during the stage at which they create the general permit, not when applying the permit to individual actors. This has occurred in both the section 404 and the NPDES general permit contexts.²⁶⁶ And, even if there is a theoretical system by which members of the public might be involved in the permit's actual application, there is little reason to expect it will actually occur. For instance, NPDES general permits allow for any "interested person" to request that the agency issue an individualized permit for a particular project.²⁶⁷ However, unless members of the public are regularly sifting through the notices of intent that are submitted to the EPA or to state agencies, there is no way that they would be aware of whether a project is even occurring, let alone whether there

264. Migratory Bird Treaty Act, 16 U.S.C. §§ 701–719c (2012).

265. See *Draft Voluntary, Land-Based Wind Energy Guidelines: Questions and Answers*, U.S. FISH & WILDLIFE SERV., http://www.fws.gov/windenergy/docs/Wind_Energy_Guidelines_Qs_and_As.FINAL.pdf (last visited July 6, 2014) ("The Service will regard such voluntary adherence and communication as evidence of due care with respect to avoiding, minimizing, and mitigating significant negative impacts to species protected under the Migratory Bird Treaty Act and Bald and Golden Eagle Protection Act, and will take that into account when exercising its discretion with respect to any potential referral for prosecution related to the death of or injury to any such species.").

266. See *supra* text accompanying notes 108–15 (describing the section 404 program); see also Gaba, *supra* note 79, at 426 (detailing the framework regulations for EPA-issued NPDES general permits and cross-reference procedures for individual permits when laying out how an overall general permit is created); 40 C.F.R. § 122.28(b)(1) (2012).

267. 40 C.F.R. § 122.28(b)(3)(i).

are any permit applications pending.²⁶⁸ And, if the notice of intent has minimal information about the proposed activity and its potential impacts, it will be very difficult for members of the public to determine whether a request for an individualized permit makes sense.²⁶⁹ Of course, the relative lack of public participation does reduce the burdens on regulated parties, which might be desirable for economic or political reasons.²⁷⁰

Some applications of general permits to particular projects are not exempted from judicial review requirements that apply to specific permits.²⁷¹ Nevertheless, in practice it may be very difficult for outside

268. There are also questions of whether NPDES general permit notices of intent are even available to the public. *See* Gaba, *supra* note 79, at 465–67 (describing litigation on this question and inconsistent agency positions). If notices of intent are not even available to the public, then that makes public participation even more difficult.

269. For instance, early versions of preconstruction notices for section 404 general permits were extremely sparse in information, making it very difficult for outside parties to determine whether more careful scrutiny would be warranted. *See* Addison & Burns, *supra* note 79, at 642–43 (noting the information in preconstruction notices is insufficient to allow for adequate review). Current versions of preconstruction notices have more substantial information requirements. *See* Reissuance of Nationwide Permits, 77 Fed. Reg. 10,184, 10,184 (Feb. 21, 2012) (imposing a general condition (number 31) on preconstruction notices that requires additional information from permit users).

270. The fact that specific permits, on average, might allow for greater public participation than general permits is in tension with the general trend in the literature, which argues that adjudication makes broad public participation more difficult compared to rulemaking. *See* NLRB v. Wyman-Gordon Co., 394 US 759, 777 (1969) (Douglas, J., dissenting) (“The rule-making procedure performs important functions. It gives notice to an entire segment of society of those controls or regimentation that is forthcoming. It gives an opportunity for persons affected to be heard.”); Berg, *supra* note 173, at 163 (describing the most frequently cited arguments for why “rulemaking offers advantages both in terms of fairness and efficiency”); Fuchs, *supra* note 195, at 94 (detailing the advantages of rulemaking); Magill, *supra* note 161, at 1396 (describing the consequences of the choice of forum); Alan B. Morrison, *The Administrative Procedure Act: A Living and Responsive Law*, 72 VA. L. REV. 253, 255 (1986) (“Unlike adjudications, which are often focused on a single party, rulemaking allows an opportunity for all interested parties to comment.”); *id.* at 255–56 (the costs of participating in rulemaking are lower, so it is “much easier for large segments of the public to become involved”); Shapiro, *supra* note 158, at 930 (noting that a “substantial advantage[] . . . for rulemaking is that it requires the agency to allow general participation in the deliberative process by all those who may be affected by the rule”). This in part may be because of the specific statutory requirements for public notice and comment for permits issued under statutes like the CWA and Clean Air Act, which supplement the bare-bone procedural requirements for informal adjudication under the APA.

271. As noted above, the creation of a general permit in the first place is generally subject to judicial review. *See supra* text accompanying note 123; *see, e.g.*, Reissuance of National Pollutant Discharge Elimination System (NPDES) General Permit for Offshore Oil and Gas Exploration, Development and Production Operations off Southern California, 79 Fed. Reg. 1643, 1643 (Jan. 9, 2014) (“For purposes of judicial review the permit is considered issued on January 23, 2014. The final permit was signed on December 20, 2013 . . . and is effective on

parties (parties besides the regulated party) to seek judicial review of the application of a general permit to a particular project, for the same reasons that it is often difficult in practice for outside parties to participate in the general-permitting process. If outside parties are not aware that a general permit even applies, it will be difficult for them to seek judicial review of the permit's application to a particular project. Of course, as has been done, they might challenge the permit as a whole.²⁷² But plaintiffs might then run into the challenges of providing evidence of the flaws in the permit: if general permits provide on average less information about the actions that occur pursuant to the permit, then plaintiffs will have less information to challenge the legality of the permit.

Thus, agencies might have more leeway in the application of general permits to individual cases than they would in the context of specific permits, at least with respect to parties other than the permitted party. The permitted party will often have significant information about whether the activity is occurring, what impacts it might have, and how the activity relates to the regulated system. But that will not be the case for outside parties. As a result, we might expect that agencies' added discretion in the context of general permits will on average result in lower levels of regulation. If this is the case, then the added burdens imposed by specific permits on regulated parties and administrative agencies may be warranted if the harms prevented or benefits provided by the specific regulatory program are substantial enough.

Although general permits might reduce the ability of nonregulated parties to control or constrain agency discretion, they also may have the effect of constraining or reducing agency discretion with respect to regulated parties. General permits are, in effect, an open invitation by the agency for regulated parties to undertake their activities without legal liability. As discussed above, they reverse the background rule holding that activities are prohibited unless the

March 1, 2014."'). Regardless, whether the application of a general permit to a particular regulated party (what we identify as permit administration in Part I) is subject to judicial review varies from context to context. Here we focus on the implications and practical relevance of judicial review for permit administration.

272. There have been several challenges to section 404 general permits as being insufficiently restrictive. *See, e.g.,* *Ky. Riverkeeper v. Rowlette*, 714 F.3d 402 (6th Cir. 2013); *Alaska Ctr. for the Env't v. West*, 157 F.3d 680 (9th Cir. 1998); *Sierra Club v. U.S. Army Corps of Eng'rs*, 464 F. Supp. 2d 1171 (M.D. Fla. 2006). There have also been challenges claiming they are too restrictive. *See, e.g.,* *Nat'l Ass'n of Home Builders v. U.S. Army Corps of Eng'rs*, 453 F. Supp. 2d 116 (D.D.C. 2006).

agency issues a permit—the background rule that so troubled Epstein.²⁷³

Of course, agencies can revise or revoke general permits, either in general or in specific applications.²⁷⁴ Complete revocation of a general permit may require various administrative procedures, such as compliance with notice-and-comment rulemaking requirements.²⁷⁵ Moreover, if the general permit is the response by the agency to political pressures or realities, that would significantly constrain the ability of the agency to eliminate or substantially change a general permit program in its entirety. If the agency singles out individual regulated parties for revision or revocation of their general permits, it can avoid or reduce the political problem. The risk of an agency singling out individual actors appears to be one of Epstein's concerns about how the permit power might be abused. But the same factors that make it difficult for outside parties to determine whether and to what extent general permits are being used will also often constrain the ability of an agency to single out individual actors. At the extreme, a general permit without any reporting or notice requirements leaves the agency with no information about who is engaging in the regulated activity, and therefore who can be singled out for enforcement.²⁷⁶

273. See *supra* note 111 and accompanying text.

274. See, e.g., 33 U.S.C. § 1344(e)(2) (stating that general permits under the section 404 program must be revocable by the agency). For instance, there are general permits that require certification by the agency that the proposed activity would comply with the terms of the general permit. The agency can refuse to grant certification. And there are general permits that require notice to the agency of the regulated activity, in which the agency retains the right to step in and require a specific permit application.

275. See, e.g., *id.* (stating that a general permit revocation requires a public hearing). If the general permit has a sunset provision, such as the five-year limit for CWA permits, then no procedures need be followed by the agency to let the permit expire.

276. The literature generally concludes that adjudication is more susceptible to political pressure and favoritism than rulemaking. See Colin S. Diver, *The Optimal Precision of Administrative Rules*, 93 YALE L.J. 65, 93–94 (1983) (noting criticism of immigration adjudications as being vulnerable to political pressure) [hereinafter Diver, *Optimal Precision*]; Colin S. Diver, *Policymaking Paradigms in Administrative Law*, 95 HARV. L. REV. 393, 408–09 (1981) (stating that critics have argued that adjudication has been “a paper veneer behind which rank favoritism or obsequiousness could flourish”) [hereinafter Diver, *Policymaking*]; Schiller, *supra* note 157, at 1150 (noting critics have argued that adjudication “encouraged agency capture [because a] ‘[l]ack of definite standards creates a void into which attempts to influence are bound to rush [in]’” and “nothing could limit administrative actors from simply following the self-serving dictates of the regulated”) (quoting HENRY J. FRIENDLY, *THE FEDERAL ADMINISTRATIVE AGENCIES: THE NEED FOR BETTER DEFINITION OF STANDARDS* 22–23 (1962)); see also Schuck, *supra* note 3, at 282 n.409 (arguing that it is more difficult for outsiders representing diffuse interests to participate in adjudicatory decisionmaking because of its

G. Permits as Easing Administrative Burdens for Agencies and Regulated Parties

One of the reasons agencies most commonly cite when they develop general permit programs is that once a general permit is issued—which is not necessarily a small feat in the administrative state—it serves to reduce administrative burdens on the agencies themselves,²⁷⁷ for all regulated parties,²⁷⁸ or for both.²⁷⁹ Of course, it makes sense that if an agency is going to fully process a permit application, a shorter and more cursory application is easier to process. But there is no necessary reason why a specific permit

technical complexity and the difficulty of determining whether a particular case will have a significant impact on diffuse interests); *id.* at 293 (noting that the general standards and low-profile nature of adjudication may make adjudicatory exceptions vulnerable to favoritism).

277. For an examination of the reduction of burdens in the context of the section 404 general permit program, see, for example, Reissuance of Nationwide Permits, 77 Fed. Reg. 10,184, 10184 (Feb. 21, 2012) (the Corps' explanation for renewal of the section 404 general permit program); Addison & Burns, *supra* note 79, at 630 (describing how conserving agency administrative resources was a major portion of the Corps' original justification for the section 404 general permit program); Davison, *supra* note 79, at 67 (noting how this explanation has been regularly used by the Corps throughout the history of the general permit program). In the context of the NPDES general permit program, see, for example, National Pollutant Discharge Elimination System; Revision of Regulations, 44 Fed. Reg. 32,854, 32,873 (June 7, 1979) (relying on administrative burden argument when developing general permit program); National Pollutant Discharge Elimination System, 42 Fed. Reg. 6846, 6846 (Jan. 28, 1977) (same); Gaba, *supra* note 79, at 420–23 (describing the history of the general permit program).

An agency's reference to "administrative burdens" might be a cover for the agency's resistance to implementing a new regulatory program; a general permit program can allow the agency to avoid committing significant resources to a program that it does not wish to pursue, and allow enforcement to be minimal. This might have been the original reason behind both the section 404 and the NPDES general permit programs. See Michael C. Blumm & D. Bernard Zaleha, *Federal Wetlands Protection Under the Clean Water Act: Regulatory Ambivalence, Intergovernmental Tension, and a Call for Reform*, 60 U. COLO. L. REV. 695, 704–06, 705 n.56 (1989) (describing how, in response to a court decision that required the agency to expand its regulatory jurisdiction under section 404, the Corps issued a press release stating that the decision "would require permits from 'the rancher who wants to enlarge his stock pond, or the farmer who wants to deepen an irrigation ditch or plow a field, or the mountaineer who wants to protect his land against stream erosion'"); Addison & Burns, *supra* note 79, at 629 (same).

278. See, e.g., 48 Fed. Reg. 21,466 (May 12, 1983) (proposing to change the nature of the section 404 general permit program to "reduc[e] unnecessary regulatory burdens"). Note that these kinds of efforts at regulatory relief are not just focused on small or new entities, unlike those discussed in Part II.A. See *supra* Part II.A.

279. Overall, rulemaking has been identified as imposing upfront costs on the agency to develop rules that would, ideally, reduce administrative costs in the implementation of the rule. See, e.g., Berg, *supra* note 173, at 255; Diver, *Optimal Precision*, *supra* note 276, at 73–74; Fuchs, *supra* note 195, at 94; Morrison, *supra* note 270, at 255. This tradeoff is very similar to the tradeoff we discussed earlier between spending resources in establishing the permit system (higher for a general permit) and spending resources in administering the permit program (lower for a general permit). See *supra* notes 108–13 and accompanying text.

program has to be more burdensome for the agency than a general permit program. An agency could require lots of detailed information on permit applications, but then simply rubberstamp the applications. Ensuring that the application information is accurate could be accomplished by randomly auditing the applications and imposing severe sanctions for false information.²⁸⁰

Setting that point aside, reducing the administrative burdens on the agency—as with reducing burdens on regulated parties in general—will generally be socially beneficial only if the savings that result from the reduced burden outweigh any losses that result from less-effective regulation (less-useful information means less-effective enforcement). That tradeoff will depend a lot on the specifics of a particular regulatory program.

H. Permits as Lessons for the Adjudication Versus Rulemaking Debate

Our analysis of the pros and cons of general versus specific permits does not line up consistently with the general consensus of the pros and cons of adjudication versus rulemaking. We agree that general permits, like rulemaking, will (1) tend to reduce the costs for regulated parties and the public to gather information about what a regulatory standard is; (2) be more efficient than specific permits when issues in future decisions are more likely to have features in common; and (3) tend to be more predictable for regulated parties in terms of their implementation. We also agree that general permits—which may be seen as more like adjudications than full-blown exemptions—are probably more flexible than exemptions in adjusting to changes in future circumstances, just as adjudications are generally seen as more flexible than rulemaking.

But on the other hand, compared to specific permits, general permits may be less likely to produce useful information about how a regulatory program is functioning and may provide fewer opportunities for public participation. These conclusions are both in

280. This is a basic application of deterrence theory. For an example of this theory, see Steven Klepper & Daniel Nagin, *The Deterrent Effect of Perceived Certainty and Severity of Punishment Revisited*, 27 *CRIMINOLOGY* 721, 730–32 (1989). There might be limits on how severe the sanction can be. If so, the agency's audit rate could only be reduced so far without reducing its deterrent potential.

tension with the general assessment of the administrative law literature about the relative merits of adjudication and rulemaking.²⁸¹

We think there are some important implications for the administrative law literature from our analysis. First, studies of hybrid forms can be essential in revealing whether generalizations about overall categories are accurate. Second, agencies that are seeking to resolve the tradeoffs between different archetypal forms may find hybrids attractive, as general permits may allow for some mixing and matching of the pros and cons of different categories, but unexpected results might occur if one is not careful to closely examine how and why different forms of agency decisionmaking produce different results.²⁸² Thus, we think the third and most important lesson is the need to take a careful, context-dependent approach in thinking about rulemaking versus adjudication in agency practice.²⁸³ This includes careful consideration of the appropriate use of hybrid forms of permits in recommendations to legislators or agency leaders about how agencies and agency decisionmaking should be structured.²⁸⁴

III. PERMITTING THE FUTURE—THE CASE FOR GENERAL PERMITS

As Part II covers and Table 3 summarizes below, general and specific permits each have their advantages and disadvantages. But looking forward, it seems plausible that general permits will be increasingly important as a regulatory tool in a world in which social costs and benefits are the result of the accumulation of millions, even billions, of individual actions across regions, nations and the world. As a case study, we focus on environmental problems, but we believe

281. See *supra* Part I.F.

282. For instance, the fact that general permits might produce less-useful policy information compared to specific permits may be a result of the fact that agencies generally do not conduct ongoing monitoring of permitted activities on their own initiative, instead depending on the permit to impose these obligations on permitted parties. See Biber, *supra* note 247, at 13–14. Specific permits are more likely to impose those requirements than general permits. Broad generalizations about rulemaking versus adjudication, however, would miss this important nuance in the context of permitting.

283. See Robinson, *supra* note 195, at 536 (stating that analysis of whether rulemaking or adjudication is preferable “has been hindered by too great an attachment to labels and abstract concepts”); *id.* (“[T]he arbitrary distinction between modes of proceeding does not provide useful criteria for determining what are the appropriate procedures in any particular kind of case. . . . These highly elastic concepts tend to obscure the varied needs of different agencies and varied demands of different regulatory functions.”).

284. See Schuck, *supra* note 3, at 297 (calling for a “richer array of procedural options, a set of alternative decision modes that mirror the diverse mixture of competing values presented by different kinds of exceptions decisions”).

that the issues and concepts we develop here have relevance for a wide range of other areas.²⁸⁵

Table 3. Factors Relevant to Deciding Between General and Specific Permits

Factor	General Permits	Specific Permits
Barriers To Entry	Reduce barriers to entry to perform regulated activities, encourage entry by new actors into economic activity, and reduce fixed costs that burden small business actors.	Impose barriers to entry that might deter new entrants in economic activity or harm small business actors. Can provide screens that deter activities with low social benefits and high social costs.
Information	Relative to exemptions, provide more information about regulated activities and actors.	Relative to general permits, provide more information about regulated activities and actors.
Tailoring	More appropriate when regulating low-harm or low-benefit activities, or when harms and benefits are relatively uniform across regulated activities or actors.	More appropriate when harms and benefits are highly variable across regulated activities or actors.
Politics	May allow for regulation that is socially desirable when specific permits are politically infeasible (such as for regulating politically powerful actors or everyday activities). Relative to exemptions, may allow more flexible and increased regulation over time. May also allow for the collection of mitigation fees.	May satisfy public demand to punish bad actors through punitive regulatory burdens.

285. For discussion of other nonenvironmental areas in which this dynamic may be relevant, see *infra* notes 347–50 and accompanying text.

Factor	General Permits	Specific Permits
Enforcement	Relative to exemptions, provide more information that allows for effective enforcement. Relative to overbroad prohibitions that are sporadically enforced, may be fairer and more predictable.	Relative to general permits, provide more information that allows for effective enforcement.
Constraint on Agency Discretion	Relative to specific permits, harder for public to monitor permitting, and hold agency and regulated parties accountable. Relative to specific permits, may be harder for agency to control regulated parties' activity.	Relative to general permits, easier for public to monitor permitting, and hold agency and regulated parties accountable.
Administrative Burdens	Fewer administrative burdens compared to specific permits.	Greater administrative burdens compared to general permits.

A. *Managing Cumulative Impacts of Small Harms*

The traditional depiction of environmental pollution—one that is still used in stock photos for press coverage of environmental issues—is that of a massive industrial smokestack billowing emissions into the atmosphere, or of a large waste pipe from a factory discharging noxious wastes into a river or lake. Although industrial discharges are a significant contributor to environmental harms in the United States and around the world, it turns out that they are not the most significant contributor. In fact, much environmental harm is increasingly the result of the accumulation of actions by millions of individuals and businesses.²⁸⁶

286. Hope M. Babcock, *Assuming Personal Responsibility for Improving the Environment: Moving Toward a New Environmental Norm*, 33 HARV. ENVTL. L. REV. 117, 119–24 (2009) (describing the contribution of individuals to environmental harm); Jason Czarnecki, *Everyday Environmentalism: Concerning Consumption*, 41 ENVTL. L. REP. 10,374, 10,374 (2011); Michael P. Vandenbergh, *From Smokestack to SUV: The Individual as Regulated Entity in the New Era of Environmental Law*, 57 VAND. L. REV. 515, 541–84 (2004) [hereinafter Vandenbergh, *Smokestack to SUV*] (describing the contribution of individuals to environmental pollution and environmental harms); see also Michael P. Vandenbergh, *The Social Meaning of Environmental Command and Control*, 20 VA. ENVTL. L.J. 191, 193–97 (2001) [hereinafter Vandenbergh, *Social Meaning*] (detailing second generation environmental problems).

Take climate change, for example. Although electricity, coal, and oil and gas companies directly produce fossil fuels and emit carbon dioxide into the atmosphere when producing energy, those emissions are a response to the individual demands of millions of consumers to turn on their lights, heat their homes, drive their cars, or fly in airplanes.²⁸⁷ Another example is the problem of air quality in major metropolitan areas of the United States. Air quality in cities such as Houston and Los Angeles remains unhealthy despite decades of significant federal, state, and local environmental regulation.²⁸⁸ That regulation has removed much of the emissions from large industrial sources of pollution. But, in most cities in the United States, most of the remaining air quality problems are the result of dispersed emissions, which are caused by the individual and mundane choices of millions of Americans to drive their cars instead of taking public transit, to clean their clothes at a dry cleaning facility, to paint their houses, to burn wood in a fireplace, or even to use lighter fluid on a backyard charcoal grill.²⁸⁹

The accumulation of dispersed emissions is also probably the most important remaining cause of water pollution in the United States. Pollution in many rivers and streams in the United States is the result of diverse and frequent activities such as homeowners fertilizing their lawns and using herbicide to eliminate weeds; automobile owners changing their oil in their driveway; and farmers using fertilizers, pesticides, and herbicides on their fields.²⁹⁰ Activities that appear to be far removed from water quality—such as paving over a field or forest to construct a parking lot, or adding a paved driveway to a single home—are major contributors to water quality problems.²⁹¹ Even pet dogs may be a major contributor to water pollution in urban areas, given that many owners do not clean up after their animals, and animal waste has been shown to cause

287. See Vandenberg & Stack, *supra* note 84, at 1402–11 (describing climate change and the 1 percent problem).

288. See David E. Adelman, *Environmental Federalism When Numbers Matter More than Size* (Univ. of Tex. Law Sch. Ctr. for Global Energy, Int'l Arbitration & Envtl. Law, Research Paper No. 2014-04), available at <http://ssrn.com/abstract=2316294>.

289. *Id.*

290. See EDWARD B. WITTE & NATALIA MINKEL-DUMIT, *THE CLEAN WATER ACT HANDBOOK* 194–95 (Mark A. Ryan ed., 3d ed. 2011); Ruhl, *supra* note 84, at 274–92 (describing the environmental harms that farms cause).

291. Dave Owen, *Urbanization, Water Quality, and the Regulated Landscape*, 82 U. COLO. L. REV. 431, 439–55 (2011) (describing how impervious surfaces produce significant water quality problems in urban waterways).

significant water quality issues.²⁹² These so-called “non-point sources” of water pollution—because the pollution cannot be traced to a particular point of emission, but instead result from the accumulation of pollution in runoff from the land into waterways—are generally unregulated under the CWA, yet are probably the primary reason why most rivers, streams, and lakes in the United States do not meet water quality standards.²⁹³

Finally, consider the problem of human activities that degrade and destroy native species’ habitats and ecosystems. Of course, much of this is the result of activities by major corporations (for instance, timber harvesting by paper companies and strip mining by coal companies). But much of it is also the result of relatively small decisions by individual people to, for example, buy a lot and build a single-family home in a rapidly growing exurban development, or clear native vegetation in their front or back yard and plant a lawn.²⁹⁴

Moreover, these are all activities that, if they are to be addressed by the legal system, will primarily be addressed through regulation by administrative agencies rather than by common law tort litigation under claims such as nuisance. Nuisance, after all, requires identifying how a particular actor’s actions proximately caused a particular plaintiff’s injuries.²⁹⁵ But the problems of identifying causation and responsibility are often insurmountable when the harm results from the accumulation of thousands or millions of individually trivial, but collectively problematic, actions. The accumulation of harm from so many sources makes identification, management, and enforcement

292. *Nonpoint Source Pollution (Polluted Runoff)*, ENVTL. PROT. AGENCY (Oct. 5, 2010), <http://www.epa.gov/region2/water/npspage.htm> (“Pet wastes are a significant cause of nutrient contamination and contain bacteria and viruses which can cause harm to people and aquatic life.”).

293. See, e.g., Owen, *supra* note 291, at 432–60 (describing the challenges of improving water quality in urban watersheds, the importance of non-point source pollution in water quality degradation, and the difficulties of using current legal structures to address that problem); David A. Fahrenthold, *Anacostia River Shows Decades-Long Failure to Improve Water Quality, Ecosystem*, WASH. POST (Feb. 2, 2010), <http://www.washingtonpost.com/wp-dyn/content/article/2010/02/01/AR2010020103217.html> (describing the failure to deal with nonpoint source pollution as an “environmental blind spot,” despite successes in reducing pollution from point sources such as sewage plants and industrial facilities).

294. See Paul Robbins, Annemarie Polderman & Trevor Birkenholtz, *Lawns and Toxins: An Ecology of the City*, 18 CITIES 369, 376 (2001).

295. See, e.g., *City of Cleveland v. Ameriquet Mortg. Sec.*, 615 F.3d 496, 502–06 (6th Cir. 2010) (applying proximate causation requirement to public nuisance claim); RESTATEMENT (SECOND) OF TORTS § 822 (1979) (nuisance liability only exists when allegedly tortious activity is the “legal cause” of harm).

much more difficult and costly. These harm-causing activities are often dispersed in space and time precisely because each individual action only produces a limited amount of harm; and the harm caused by each individual action is often subtle or difficult to detect, again because of the limited amount of harm.²⁹⁶ So, whom is the asthmatic resident of Los Angeles supposed to sue to reduce the smog that prevents her from leaving her house on dozens of days each year? Every driver in the greater Los Angeles area? Every dry cleaner? Every person who owns lighter fluid?²⁹⁷

There is little need to carefully tailor a regulatory system for each one of these kinds of individual activities. For instance, there are likely minimal or no differences in the environmental impacts produced by two neighbors' use of lighter fluid on backyard barbecue grills. Those minimal or nonexistent differences mean that we do not need a detailed specific permit to carefully tailor the regulatory system for each neighbor's lighter fluid use.²⁹⁸ A standardized general permit will do.

General permits are likely also superior to the two other options (specific permits and exemptions) in managing the environmental harms from the accumulation of thousands or millions of individual activities. Currently, many of these activities are exempt from government regulation. But as noted above, general permits—even if

296. Vandenbergh, *Smokestack to SUV*, *supra* note 286, at 590 (“Not only are the releases from any one individual smaller and less visible, but the harms arising from individual behavior in many cases are less visible as well. In fact, environmental harm may only arise from individual behavior when many sources are aggregated. In addition, the low concentrations and long time periods involved in many releases from individuals make it more likely that these releases will generate gradual, and in some cases almost imperceptible, changes in ecosystem health . . .”); *see also* Babcock, *supra* note 286, at 130 (describing how “individual contributions are so small compared to the pollution from an industrial polluter”).

297. Indeed, Epstein himself concedes that these kinds of problems are not suitable for common law adjudication. *See* Richard A. Epstein, *Beware of Prods and Pleas: A Defense of the Conventional Views on Tort and Administrative Law in the Context of Global Warming*, 121 YALE L.J. ONLINE 317, 320–26 (2011) (arguing against the application of public nuisance litigation to address climate change, and in favor of exclusive reliance on administrative remedies). There is, at the very least, some tension between Epstein's claim that administrative permits should be limited to situations in which courts would find a common law nuisance, and his position that many diffuse harms that would not qualify as common law nuisances should be addressed only through regulation by administrative agencies.

298. Moreover, the complexity that a specific permit would impose on the broader public would likely be highly inefficient compared to a much simpler general permit. *See* Louis Kaplow, *A Model of the Optimal Complexity of Legal Rules*, 11 J.L. ECON. & ORG. 150, 151 (1995) (noting that complex rules can be efficient for regulation if only a small number of people have to bear the information costs of understanding and complying with the rules).

they impose minimal substantive and procedural burdens—can have significant advantages over an exemption. First, the general permit can allow the collection of information that can be used to design a more effective and politically sustainable regulatory program in the future. Second, it may be more feasible to, over time, increase regulatory standards if one begins with a general permit program rather than with an exemption. General permits also might make it more feasible for a regulatory agency to respond to emerging harms—for instance, an activity that previously was harmless because it was limited might become more widespread and begin causing significant damage.²⁹⁹ A general permit with minimal burdens might be relatively easily expanded into a general permit with some teeth that can more effectively combat the growing damage from the activity. In contrast, eliminating an exemption by imposing regulation where none existed at all may be much more difficult to accomplish, particularly when it requires legislative action. Finally, general permits might allow more public participation and accountability than a legislative exemption, given that there is at least a rulemaking process for the public to participate in and for courts to review.

The other option would be the creation of overbroad laws that regulate a wide range of everyday behavior, with prosecutorial discretion being exercised to limit enforcement to all but the most extreme violations, or to prosecute a few high-profile violations to encourage compliance within the broader public. But as discussed earlier, overbroad laws raise a wide range of serious concerns.³⁰⁰ Those concerns include uncertainty for regulated parties that might deter investment. Selective enforcement—particularly against individuals whose actions are no worse than those of other individuals who escape prosecution—also raises due process concerns,³⁰¹ the potential for corruption and abuse by prosecutorial authorities, and may create a strong political backlash against a regulatory system that can arbitrarily single out individuals for government action. We may

299. See *supra* notes 232–36 and accompanying text.

300. See *supra* notes 263–65 and accompanying text.

301. See *United States v. Apollo Energies, Inc.*, 611 F.3d 679, 691 (10th Cir. 2010) (concluding that conviction under the Migratory Bird Treaty Act violated due process where the defendant did not have notice that the relevant activity might harm birds, and where that activity was widely undertaken in the oil and gas industry).

be better off with a system that regulates almost everyone, but with a light touch, than with a system that regulates only a few.³⁰²

B. *Managing Transitions to New Regulation*

The challenge to addressing many of the most pressing environmental harms is that many of the individually small human actions that contribute to those harms are currently exempted from regulation under environmental laws, either through statutory or administrative exemptions.³⁰³ Most environmental regulations only indirectly touch individuals, by regulating the producers of goods and services rather than the consumers of goods and services.³⁰⁴ The regulation of wetlands and the protection of endangered species are the only two major examples of federal environmental law trying to directly regulate actions by individuals.³⁰⁵ Even in those areas in which there is no explicit exemption, in practice regulation has been either fitful or infrequent.³⁰⁶

Those regulatory gaps likely exist because the regulation of individual activities is a difficult task. First, it may be hard to convince the public that regulation is even necessary. People may discount the importance of individual actions that cause small levels of harm, even though those actions might cumulatively be extremely important.³⁰⁷ In

302. This may be the case because, particularly if the goal is to deter or modify widespread behavior that is environmentally harmful, limiting enforcement to a few select cases may mean that punishment must be imposed at a high level. Fairness concerns and political backlash might be elevated when a few individuals are singled out for draconian punishment for activities that everyone is doing.

303. Ruhl, *supra* note 84, at 293–316 (describing agricultural exemptions); Vandenberg & Stack, *supra* note 84, at 1394–96 (identifying numerous exemptions under many statutes).

304. See Katrina F. Kuh, *When Government Intrudes: Regulating Individual Behaviors that Harm the Environment*, 61 DUKE L.J. 1111, 1130 (2012) (“[T]he federal statutory scheme of environmental protection in large measure reaches individual behaviors and associated environmental harms only indirectly.”).

305. Vandenberg, *Smokestack to SUV*, *supra* note 286, at 611–12.

306. *Id.* at 517.

307. As professors Vandenberg and Stack observe:

When individuals respond to a low probability as if it is essentially zero, one percent arguments may have powerful effects in policy debates, even when they relate to small contributions to a problem as opposed to small probabilities.

One way to see this is to consider how regulatory decisions, and in particular decisions about whether to exempt a source or set a regulatory threshold, can be framed. An exemption for a particular entity based on it being a small part of the problem can be stated as accepting a small increase in the probability of a particular undesired outcome. If, for example, my company’s water discharge amounts to only 1% of the discharge of a pollutant into a river, then providing an exemption to my company is roughly equivalent to saying that a small increase in the probability of the contaminants in water reaching a certain level is acceptable.

general, the public does not know how important individual actions are for environmental harm.³⁰⁸

Even if regulation is seen as potentially necessary, individuals may object to the direct application of government coercion to their day-to-day lives. “[D]irect regulation of individual behaviors may be expected to give rise to or to create perceptions of government overstepping, even when indirect regulation operates, without objection, to control the same behaviors for the same end.”³⁰⁹ Regulation of frequent individual activities may raise significant privacy concerns due to the potentially intrusive nature of enforcement.³¹⁰ Government mandates that reach inside the home might be particularly susceptible to such resistance.³¹¹

Of course, citizens accept government coercion in a wide range of day-to-day activities. For instance, they adhere to speed limits on

Vandenbergh & Stack, *supra* note 84, at 1401.

308. See Babcock, *supra* note 286, at 125; Vandenbergh, *Social Meaning*, *supra* note 286, at 197–99.

309. Kuh, *supra* note 304, at 1166. Indirect regulation may be preferable because instead of requiring constant and potentially intrusive enforcement, it changes the structure of the social and economic environment to make certain undesirable activities less likely and less common, or desirable activities more likely and more common. Edward K. Cheng, *Structural Laws and the Puzzle of Regulating Behavior*, 100 NW. U. L. REV. 655, 662–67 (2006) (arguing that structural laws are preferable). For instance, a ban on the construction of inefficient refrigerators by major corporations would not, in theory, prevent an individual from constructing his own inefficient refrigerator, but it makes it extremely unlikely.

310. See Ann E. Carlson, *Recycling Norms*, 89 CALIF. L. REV. 1231, 1244 (2001) (“Simply mandating a reduction in garbage disposal, for example, can turn government officials into garbage snoops . . .”); Cheng, *supra* note 309, at 659 (detailing fiat regulation and its problems); Kuh, *supra* note 304, at 1148 (noting that it is “frequently articulated . . . that direct regulation of environmentally significant individual behaviors would require unacceptably intrusive enforcement—measures that would be too invasive of privacy and civil liberties”); Vandenbergh, *Smokestack to SUV*, *supra* note 286, at 598 (“[T]he intrusiveness of enforcing these regulations may undermine compliance or produce a political backlash.”).

In theory, one solution to enforcement problems is to increase the level of punishment for those violations that are detected. There are political limits, however, on how severely a punishment can be imposed, and for many minor offenses those limits are quite low. See Cheng, *supra* note 309, at 659–60 (“[I]mposing large, draconian fines or sentences for minor regulatory violations insults common intuitions of desert. Disproportionate penalties provoke community outrage and ultimately may cause even greater underenforcement as police and prosecutors feel increasingly conflicted about the law’s advisability.”). This will be a serious limitation in the environmental context, in which many of the individual actions that cause environmental harm are seen, at worst, as minor offenses. Under-enforced laws also raise the risk of “arbitrary and discriminatory enforcement.” *Id.* at 661.

311. Kuh, *supra* note 304, at 1175. Nonetheless, some forms of regulation—such as local recycling mandates that might require trash inspections or restrictions on the importation or exportation of endangered species—have not prompted the same level of backlash. *Id.* at 1148.

streets and highways—limits enforced by police officers. But regulations of individual behavior in the environmental context face several additional obstacles. Most saliently, they impose new constraints on the ability of people to do things that they had previously been free to pursue. There is evidence that mandates restricting individuals' ability to engage in widespread activities that they feel entitled to pursue may provoke significant political resistance, at least initially.³¹² Many individual actions that cause environmental harm are the result of habits that may be difficult for individuals to change, such as commuting patterns.³¹³ Relatedly, mandates that are seen as infringing on preexisting private property rights might be particularly unpopular.³¹⁴ There are also administrative challenges—the regulation of frequent individual activities may be extremely costly in terms of enforcement.³¹⁵ Finally, there may be a concern that regulation will be unfair or will

312. Babcock, *supra* note 286, at 152 (explaining how “when the freedom to conduct an activity is very important, individuals may react to increased threats to restrict that freedom by simply increasing their commitment to the illegal activity”); Jonathan Baron & James Jurney, *Norms Against Voting for Coerced Reform*, 64 J. PERSONALITY & SOC. PSYCH. 347 (1993) (describing the results of their experiment—that respondents are less likely to vote for imposing coercive regulations because of a fear of intruding on individual rights, even when the regulations are believed to be effective in accomplishing social goals); Biber, *supra* note 234, at 1317–28 (describing the two ways in which backlash might occur); Kuh, *supra* note 304, at 1149 (noting that “opposition has frequently been grounded in property-rights objections”).

313. Babcock, *supra* note 286, at 153–54; Vandenbergh, *Smokestack to SUV*, *supra* note 286, at 594–95; *see also* Giuseppe Carrus, Paola Passafaro & Mirilia Bonnes, *Emotions, Habits and Rational Choices in Ecological Behaviours: The Case of Recycling and Use of Public Transportation*, 28 J. ENVTL. PSYCH. 51, 58–60 (2008) (describing a survey that found past behavior to be a strong predictor of likely future environmental behavior); Christina Knussen, Fred Yule, Julie MacKenzie & Mark Wells, *An Analysis of Intentions to Recycle Household Waste: The Roles of Past Behavior, Perceived Habit, and Perceived Lack of Facilities*, 24 J. ENVTL. PSYCH. 237 (2004) (describing a survey of recycling behavior in Scotland, which found that individuals with a habit of not recycling were unlikely to recycle in the future); Linda Steg & Charles Vlek, *Encouraging Pro-Environmental Behavior: An Integrative Review and Research Agenda*, 29 J. ENVTL. PSYCH. 309, 312–13 (2009) (noting the importance of habits in determining environmental behavior). There is evidence that it may be harder for individuals to make one-time or infrequent changes (for example, by purchasing more efficient or less-polluting equipment) than to make repeated or frequent changes to daily activities (for example, using equipment for shorter periods of time or less frequently). Linda Steg, Lieke Dreijerink & Wokje Abrahamse, *Why Are Energy Policies Acceptable and Effective?*, 38 ENV'T & BEHAV. 92, 97 (2006).

314. Kuh, *supra* note 304, at 1141 (“Section 404’s potential and actual interference with property rights has occasioned vociferous opposition to the program.”).

315. Babcock, *supra* note 286, at 150 (noting that such regulations are “often inefficient and expensive to enforce”); Vandenbergh, *Smokestack to SUV*, *supra* note 286, at 598 (“[T]he cost of enforcement against large numbers of individuals makes behavior change based solely on the threat of formal legal sanctions unlikely.”).

disproportionately affect a particular segment of society, at least in terms of transition costs.³¹⁶ For instance, mandates or restrictions are most unpopular among individuals who have the least ability to take alternative steps to achieve their goals.³¹⁷

Many of the problems relating to the imposition of individual regulation therefore, are problems of transitions—of the psychic, informational, economic, and practical costs to individuals of adjusting their daily lives to a new regulatory rule.³¹⁸ For instance, a ban on lighter fluid in Los Angeles requires individual residents to be aware of the new prohibition, identify alternatives to lighting their charcoal grills or using alternatives to charcoal grills, pay any costs for the transition to new solutions (such as buying a gas grill), and become comfortable with any ongoing added costs or inconveniences associated with the new solutions. Added costs or inconveniences might, for example, include longer wait times to ignite a charcoal grill without fluid, or more effort to light the grill.

General permits might be very helpful in managing this transition. General permits can be structured to reduce some or all of the transition costs of a new regulatory system. For instance, general permits can reduce the administrative burdens on regulated individuals.³¹⁹ At the extreme, general permits that do not require any notice to regulators, any mitigation fees, or any permit application are (in all but name) an exemption from regulation. This can give time for the regulatory agency to notify and educate the public on the

316. Baron & Jurney, *supra* note 312 (describing the results of their experiment—that respondents are less likely to vote for imposing coercive regulations because of a fear of adverse impacts on particular individuals, even when the regulations are believed to be effective in accomplishing social goals); see also Tommy Gärling & Geertje Schuitema, *Travel Demand Management Targeting Reduced Private Car Use: Effectiveness, Public Acceptability and Political Feasibility*, 63 J. SOC. ISSUES 139, 148 (2007) (summarizing traffic-management research reaching similar conclusions); C. Jakobsson, S. Fujii, & T. Gärling, *Determinants of Private Car Users' Acceptance of Road Pricing*, 7 TRANSP. POL'Y 153, 153 (2000) (describing a survey that found lower-income drivers who could not as easily afford price increases were more likely to believe that charges to use roads were unfair and to oppose those charges).

317. See generally, e.g., Sytze A. Rienstra, Piet Rietveld & Erik T. Verhoef, *The Social Support for Policy Measures in Passenger Transport. A Statistical Analysis for the Netherlands*, 4 TRANSP. RES. PART D 181 (1999) (describing that transport users least able to avoid road charges are the group most opposed to those charges).

318. Kuh, *supra* note 304, at 1166–67 (noting that “if government control over a particular type of individual behavior is not usual or customary,” it is potentially more intrusive). Large corporations may have fewer problems with these transition costs because they have expertise and experience in dealing with government regulations, and can afford to hire specialized personnel to manage the transition costs.

319. See *supra* Part II.G.

regulatory system before the permit requirements are stiffened—giving the public time to identify alternatives and adjust to the new regulatory landscape. In this way, general permits also have political benefits in managing the transition, by reducing regulatory burdens on the general public that might otherwise prompt a political backlash against the regulatory system.

Even if a general permit does impose some compliance burdens, these can be made relatively minimal. For instance, permit applications might simply require providing notice to the regulatory agency at the commencement of a regulated activity. If the burden to demand additional information then falls on the regulatory agency before the activity can proceed, the agency can let the vast majority of individuals proceed with no additional compliance requirements. Although a permit system that for most individuals requires only notice does not reduce the public's costs to learn about the new regulatory system, other transition costs will be greatly reduced or minimized. A notice-only system means that most individuals can continue their activities without being required to make any changes or collect any more information—eliminating the costs to the public of identifying alternative actions, paying for alternatives, or dealing with the inconveniences of alternatives.³²⁰ More substantial permit requirements impose greater burdens on the public—both because of greater informational burdens to compile and produce information for permit applications, and because the substantive restrictions of the permit terms may be stricter. Again, however, these can be tailored to reduce the transition costs as the public adjusts to the new regulatory system.

C. *Managing Social Norms*

General permits overall make compliance with the law much easier by reducing the paperwork needed to obtain a permit.³²¹

320. If the notice-only permit system imposes minimal penalties for failure to provide notice, then even the costs of learning about the new regulatory system are reduced for the public. For instance, warnings might be issued to first-time violators who do not provide notice, combined with education and outreach.

321. Mandates that are not complied with can lead to socially suboptimal attempts at evasion. For instance, restrictive garbage disposal laws may increase illegal dumping and therefore increase environmental harm. Carlson, *supra* note 310, at 1244–45; *see also* Babcock, *supra* note 286, at 130–31 (noting how effective regulatory design can be particularly difficult in the environmental context, in which the harms and benefits from activities can be diffuse over space and time). Significant amounts of evasion can lead law-abiding citizens to question whether they should comply with the mandate. *Id.* at 152.

Making a new behavior convenient is one of the most effective ways to encourage changes in behavior.³²² A very lax general permit system (such as a notice-only system) does not necessarily cause a change in the relevant environmental behavior. For instance, a notice-only system that allows the filling of small wetlands for development will make it easy for people to continue to fill wetlands for development, an environmentally harmful behavior. But it does make compliance with the new regulatory system easy, which may make the public more accepting of the new regulatory system. Over time, that system can be made more rigorous, encouraging greater compliance with the new rule against filling small wetlands, and reducing the environmentally harmful behavior. Of course, we might still want to take other steps to make it easier for people to reduce the environmentally harmful behavior or increase environmentally beneficial behavior—for instance, a requirement for individuals to recycle cans and bottles would best be combined with a curbside-pick-up system that makes it easy and convenient for individuals to recycle.

Making compliance with a permitting system convenient will also decrease the willingness of people to violate the law. For instance, allowing solo drivers to purchase the right to travel in high-occupancy vehicle (HOV) lanes actually increased overall compliance with HOV rules, perhaps because this made the less-congested HOV lanes easily available for everyone who needed to travel quickly.³²³ Convenient

322. J. Stanley Black, Paul C. Stern & Julie T. Elworth, *Personal and Contextual Influences on Household Energy Adaptations*, 70 J. APPLIED PSYCHOL. 3, 17 (1985) (describing a study of energy usage in late-1970s Massachusetts households); Carlson, *supra* note 310, at 1275–80 (providing evidence from studies of recycling that making recycling easier, such as through curbside recycling, is one of the most effective ways to increase recycling rates); *id.* at 1296 (“Increasing convenience seems more effective than most persuasive techniques aimed at increasing participation.”); Holly Doremus, *Shaping the Future: The Dialectic of Law and Environmental Values*, 37 U.C. DAVIS L. REV. 233, 255 (2003) (“Making environmentally responsible actions as apparent, easy, and satisfying as possible should encourage people to undertake them.”); Gärling & Schuitema, *supra* note 316, at 150; Gregory A. Guagnano, Paul C. Stern & Thomas Dietz, *Influences on Attitude-Behavior Relationships: A Natural Experiment with Curbside Recycling*, 27 ENV’T & BEHAV. 699, 713–14 (1995) (describing a study of recycling showing that making recycling easier made recycling more common); Knussen et al., *supra* note 313, at 245 (describing a survey of recycling behavior in Scotland that found that the perception as to whether recycling was easy was an important factor in increasing an entity’s stated willingness to recycle in the future). *But see* Carrus, et al., *supra* note 313, at 58–60 (describing a survey that found that one’s perception as to whether recycling was feasible was not a strong predictor of that individual’s likelihood of recycling in the future).

323. Lior Jacob Strahilevitz, *How Changes in Property Regimes Influence Social Norms: Commodifying California’s Carpool Lanes*, 75 IND. L.J. 1231, 1267 (2000) (“[B]y allowing

permitting systems may even increase the social opprobrium that violators face.³²⁴ Conversely, making compliance with a legal mandate inconvenient can decrease its popularity.³²⁵

The transition time that a general permit program establishes can allow time for public education efforts to let individuals know why regulations are necessary and socially beneficial. Regulatory mandates often inspire more compliance to the extent that the public perceives them as having clear benefits.³²⁶ Education efforts by the government about the impacts of regulated individual actions on the environment, or the benefits of alternative choices, may be effective in increasing public awareness about the need for and the benefits of regulation.³²⁷ Such educational efforts may also directly shape the

motorists to buy into the HOV lanes, FasTrak gives people a more attractive alternative to breaking the law.”).

324. Carlson, *supra* note 310, at 1279–80 (“[I]t is one thing not to recycle when the costs of doing so are quite high. It is quite another to flout the convention when compliance would take little effort. Thus the commingled curbside recycling may both reduce the absolute cost of engaging in the behavior and increase the opprobrium one may experience for failing to comply.”); *id.* at 1257 (“During World War II the federal government undertook a massive effort to engage the citizenry in recycling, with a particular emphasis on creating social norms in favor of recycling for patriotic reasons.”); Strahilevitz, *supra* note 323, at 1264–67 (arguing that a program allowing solo drivers to pay for access to less-congested HOV lanes increased overall compliance with the law because solo-driver violators were now seen as avoiding an easy compliance option—the ability to pay to use the HOV lanes).

325. Kuh, *supra* note 304, at 1138–39, 1147 (stating that “[i]mplementation burdens – the cost and administrative burden of testing emissions from hundreds of thousands of vehicles – appear to explain, at least in part, the difficulties encountered with respect to the CAA I/M programs”).

326. Biber, *supra* note 234; Craig N. Oren, *Getting Commuters Out of Their Cars: What Went Wrong?*, 17 STAN. ENVTL. L.J. 141, 203–12 (1998) (arguing that one reason why mandates to employers to reduce the number of trips by employees are politically unpopular is that it is unclear whether trip reduction would produce significant air quality benefits); *see also* Gärling & Schuitema, *supra* note 316, at 148 (summarizing literature from Europe that congestion tolls are more accepted by the public when there is clear reduction in traffic congestion); Rienstra et al., *supra* note 317, at 197 (describing a survey from the Netherlands indicating that pricing measures were seen as ineffective in addressing environmental problems and were also less popular). Some scholars have speculated that individuals may, consciously or not, believe that policies that will have negative impacts on their lives will be ineffective, regardless of the policy’s actual efficacy. *See* Steg et al., *supra* note 313, at 96.

327. *See* Tommy Gärling, Anders Biel & Mathias Gustafsson, *The New Environmental Psychology: The Human Interdependence Paradigm*, in HANDBOOK OF ENVIRONMENTAL PSYCHOLOGY 85, 90 (Robert B. Bechtel & Arza Churchman eds., 2003); Linda Steg & Geertje Schuitema, *Behavioral Responses to Transport Pricing: A Theoretical Analysis*, in THREATS FROM CAR TRAFFIC TO THE QUALITY OF URBAN LIFE 347, 353–54, 356–57 (Tommy Gärling & Linda Steg, eds., 2007); Steg et al., *supra* note 313, at 93–94 (summarizing the literature in the energy and transport areas).

norms of individuals and change individual behavior in ways that reduce environmental impacts.³²⁸

Educational efforts might eventually shift social norms in ways that significantly reduce environmentally harmful behavior or increase environmentally beneficial behavior. And the new regulation itself might be an important educational mechanism for shifting social norms.³²⁹ The new regulation can also communicate to society at large that there is a consensus around a particular norm, and that the norm should be followed.³³⁰ Communication may also provide an assurance

328. Andrew Green, *Norms, Institutions, and the Environment*, 57 UNIV. OF TORONTO L.J. 105, 118 (2007) (describing the role of government and the law). There is a substantial environmental-psychology literature on the role that information plays in shaping individual behavior, generally finding mixed results. See, e.g., Wokje Abrahamse, Linda Steg, Charles Vlek & Talib Rothengatter, *A Review of Intervention Studies Aimed at Household Energy Conservation*, 25 J. ENVTL. PSYCH. 273, 276–78 (2005) (survey of relevant literature in the energy context finding mixed benefits from information in reducing energy consumption with benefits more likely when information was tailored to particular individuals (for example, home energy audits)); William O. Dwyer & Frank C. Leeming, *Critical Review of Behavioral Interventions to Preserve the Environment: Research Since 1980*, 25 ENV'T & BEHAV. 275, 291–93 (1993) (earlier survey also finding mixed results, with personal tailoring of information more likely to be effective). Feedback to an individual about the impacts of her particular activities (for example, feedback about the actual amount of energy used in the past hour or over the past day) can have more substantial impacts on individual behavior. Abrahamse et al., *supra*, at 278–80; Dwyer & Leeming, *supra*, at 297–302. For skepticism about the utility of information provision in shaping behavior, see E.S. Geller, *The Challenge of Increasing Proenvironment Behavior*, in HANDBOOK OF ENVIRONMENTAL PSYCHOLOGY 525, 530 (Robert B. Bechtel & Arza Churchman eds., 2003).

Individuals may need both information about how adverse environmental consequences flow from particular behaviors and also a belief that those who pursue those behaviors have responsibility for the consequences of those behaviors. Information about harm without responsibility may not lead to changes in behavior. A disconnect between information and responsibility might exist, for instance, when individuals believe they have no ability to change behavior despite adverse environmental impacts. See Gärling et al., *supra* note 327.

329. For general statements about how law can shape, sustain, or erode norms, see, for example, Abrahamse et al., *supra* note 328, at 274; Babcock, *supra* note 286, at 145–49; Czarnecki, *supra* note 286; Doremus, *supra* note 322, at 241; Green, *supra* note 328, at 118; Richard H. McAdams, *The Origin, Development, and Regulation of Norms*, 96 MICH. L. REV. 338 (1997); Vandenbergh, *Social Meaning*, *supra* note 286.

330. Babcock, *supra* note 286, at 148 (“A law by itself can influence the social meaning of actions and can influence what people think others might do.”); Carlson, *supra* note 310, at 1263 (“When jurisdictions impose mandatory recycling laws unaccompanied by real enforcement efforts, they may attempt to make noncompliers feel more psychic pain from failing to participate by signaling to their citizenry that recycling is important.”); Green, *supra* note 328, at 118; McAdams, *supra* note 329, at 400–07 (describing how law can signal a consensus).

The new regulation can also communicate that a particular mandate to do or not do something is an appropriate application of an abstract norm that is widely accepted, and that the public should comply with the mandate. McAdams, *supra* note 329, at 407–08. For instance, a

to individuals that their socially beneficial actions are more likely to be reciprocated by other individuals, and therefore, provide greater impetus for the collective pursuit of higher benefits.³³¹ A new regulation may also ingrain an anti-cheating norm over time, with respect to certain behaviors that “might ultimately engender still higher levels of compliance with the law.”³³²

Again, general permits can create a transition period during which norms can be shaped by the new regulatory standard while reducing the transition costs to the public and lessening the possible political resistance to the new standard. Over time, as norms shift, the permit system can be made stricter—though increased compliance might be as much the result of changes in the norms as it is the result of the stricter regulatory standards.³³³

Indeed, the relatively lean, lower-stakes nature of a general-permitting system may also make it more likely that members of the public will independently adopt a new social norm. The relatively mild sanctions or rewards associated with general permits may be more effective in the long run in developing environmentally friendly behavior because individuals have to partly rely on creating their own personal justifications for compliance, rather than simply rely on the sanction or reward. In contrast, strong sanctions or rewards might be less effective in permanently changing behaviors (especially after the sanction or reward is withdrawn).³³⁴

There are other ways in which general permits can make a new regulatory standard more effective and more politically sustainable over the long run. General permits can involve mitigation fees; unlike taxes, it may be more feasible (legally, administratively, and politically) to earmark the mitigation fees from a general permit to a particular environmental program, such as one that restores harm caused by past individual actions. There is research indicating that revenues from charges or fees on environmentally harmful behavior

prohibition on littering can be articulated as a particular application of the abstract norm to “clean up after yourself.” A legal ban on littering can make this connection clearer for citizens.

331. Carlson, *supra* note 310, at 1263; *see also* Jakobsson et al., *supra* note 316 (survey finding that drivers would drive less in response to road charges if they believed that others would also drive less).

332. *See* Strahilevitz, *supra* note 323.

333. Regulations of individual behavior may be more useful “as a second order measure after information and other regulatory instruments have had an influence on beliefs and norms.” Vandenbergh, *Smokestack to SUV*, *supra* note 286, at 600.

334. Geller, *supra* note 328, at 536–37.

may be more acceptable if the revenues are dedicated to addressing or remediating the particular environmental harms created by the behavior, rather than used for general revenue purposes.³³⁵

CONCLUSION

Our perspective on the permit power has fit together three components. First, we have offered a framework for thinking about the scope and design of regulatory permits, showing permitting to constitute a far more flexible and contextual regulatory power than Professor Epstein's critique assumed. In particular, the general permit model offers what might be considered a compromise between Epstein's preference for judicial injunctions and his feared world represented by monolithic regimes of extreme specific permits. Second, we identified key policy questions that are likely to inform permit design decisions, and applied them to the spectrum of permit types from general to specific. Third, we anticipated the kind of challenges likely on the horizon of permitting, suggesting that general permits may be most useful in handling policy problems arising from the massive aggregation of thousands or millions of small harm sources.

From these three analytical sources we now propose a set of default rules and exceptions based on a harm-variance continuum. The continuum captures the essence of the section 404 general permit provision, which conditions that general permits be used only when the risk of harm from a defined activity, both in individual instances and from the cumulative impact of many instances, is low, and the variance expected across instances of the defined activity is low. As

335. Steg et al., *supra* note 313, at 97–98; Steg & Schuitema, *supra* note 327, at 358–59. The choice between imposing a simple prohibition (with a permitting exemption) on an environmentally harmful activity versus allowing the environmentally harmful activity with a charge or tax probably does not make a major difference for political acceptability. Charges and taxes are often just as unpopular as sanctions and mandates. *See, e.g.*, Jens Schade & Bernard Schlag, *Acceptability of Urban Transport Pricing Strategies*, 6 TRANSP. RES. PART F 45, 45–46 (2003) (noting that surveys indicate that road pricing and congestion fees are less popular with drivers than regulation restricting parking or driving).

Unfortunately, overall there has been only limited research on the effectiveness of sanctions and other regulations to change individual behavior in the environmental context. Abrahamse et al., *supra* note 328, at 274; Dwyer & Leeming, *supra* note 328, at 295–96; Steg & Vlek, *supra* note 313. Much of the research on increasing incentives for environmentally friendly individual behavior focuses on providing incentives, rather than on imposing sanctions. Abrahamse et al., *supra* note 328, at 280–81 (finding that incentives often have impacts on individual behavior). A weakness of many of these studies is limited long-term follow-up on the impacts of incentives. *Id.* at 282; Dwyer & Leeming, *supra* note 328, at 295–96, 314.

Table 4 below shows, the strongest case for general permits exists when both factors are very low, and the strongest case for specific permits exists when both factors are very high. Intermediate models, such as the Corps' PCN mechanism, can be used to respond to contexts between the extremes.

Table 4. The Harm-Variance Continuum Default Rules

	Low Variance	High Variance
Low Risk Profile	General Permits	Intermediates
High Risk Profile	Intermediates	Specific Permits

Exceptions to these default rules may be justified, however, when any or a combination of conditions identified in Part II are present.³³⁶ Using specific permits as the default rule, moving toward intermediate or general permits would be justified in the following cases:

1. When using the specific permit model would place undesirably disproportionate entry barriers on small businesses and other interests deemed worthy of protection;
2. When there is no substantial need for new information about instances of the activity;
3. When tailoring to specific circumstances of different instances of the activity is not necessary or practicable;
4. When using the specific permit model for the class of activity presents political obstacles that could undermine implementation of any regulatory response;
5. When public participation and other mechanisms for constraining agency discretion are either unnecessary or impracticable; and
6. When using the specific permit model would impose undue administrative burdens on the agency or regulated entities.

336. See *supra* Part II.

Using this permit design framework, a wide range of environmental problems plausibly might be better resolved by general permits to address the challenges we identify in Part III. For instance, as previously described, when confronted by the prospect of regulating six million sources of carbon dioxide emissions under the Clean Air Act, the EPA's "tailoring rule" gave millions of smaller sources what was in effect a temporary regulatory exemption to avoid what the agency described would be an absurd result of strict statutory interpretation.³³⁷ The Supreme Court agreed that regulating six million sources would be "patently unreasonable," but found that the statute was ambiguous regarding the scope of authority and that the strict interpretation the EPA was hoping to avoid was instead an impermissible interpretation.³³⁸ What the Court failed to seriously consider, however, was the possibility that regulating the small sources through general permits could have fulfilled the intent of the statute without leading to an absurd application of the permit power. Using general permits might have provided an alternative that, for the reasons discussed above, would be superior to an administrative exemption from regulation—particularly in terms of collecting information and even mitigating fees—while still reducing the political and administrative costs of regulating so many individual sources.³³⁹ The EPA and a number of states did explore a range of streamlining alternatives to facilitate future permitting of greenhouse gas sources under the Clean Air Act, including general permits,³⁴⁰ but the government did not advance that prospect before the Court as reason to support the extension of regulatory power over small

337. See Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule, 75 Fed. Reg. 31,514, 31,516–22 (June 3, 2010) (explaining the factual and legal context for greenhouse gas emissions regulation under the Clean Air Act).

338. See *Util. Air Reg. Grp. v. EPA*, 134 S. Ct. 2427, 2444 (2014).

339. The Clean Air Act explicitly authorizes general permits for its Title V permit program, under which all major stationary sources regulated under the Act are supposed to have a single permit that articulates all of their regulatory responsibilities under the Act, 42 U.S.C. § 7661c(d) (2012); Operating Permit Program, 57 Fed. Reg. 32,250, 32,279 (July 21, 1992) (codified at 40 C.F.R. part 70), and the EPA and state agencies already use general permits for a significant amount of compliance with that program, see Thomson Reuters, *Operating Permits under the Clean Air Act Title V Permit Program*, 0070 REGSURVEYS 12 (June 2013).

340. See PERMITS, NEW SOURCE REVIEWS AND TOXICS SUBCOMMITTEE, CLEAN AIR ACT ADVISORY COMM., AIR PERMITTING STREAMLINING TECHNIQUES AND APPROACHES FOR GREENHOUSE GASES (Sept. 14, 2012), available at www.epa.gov/air/caaac/pdfs/ghg-permit-streamlining-final-report.pdf; Alex Ritchie, *Scattered and Dissonant: The Clean Air Act, Greenhouse Gases, and Implications for the Oil and Gas Industry*, 43 ENVTL. L. 461, 487–88 (2013) (describing a number of streamlining options).

sources of carbon dioxide emissions.³⁴¹ Apparently, however, that would not have helped, as the Court conjectured, without analysis, that “none of those techniques would address the more fundamental problem of the EPA’s claiming regulatory authority over millions of small entities.”³⁴² Yet the fact of the matter is that the permit power in its many manifestations already exercises authority over “millions of small entities.”³⁴³ General permits are a way of balancing the reasons for regulating at that scale with the reasons Epstein gave for caution.

Another example of a specific environmental challenge which general permits might help resolve is addressing climate change under the ESA. Climate change is already leading to the endangerment and extinction of species around the world, including species protected under the ESA.³⁴⁴ Climate change raises difficult questions about what, if any, should be the regulatory response under the ESA to these threats.³⁴⁵ For instance, the listing of the polar bear under the ESA could plausibly trigger the regulation of all greenhouse gas emissions in the United States by the ESA—raising the major policy concerns we have discussed in this Article.³⁴⁶ Although specific permits seem clearly infeasible—the FWS is not going to require all individual drivers or all gas station owners to apply for permits under the ESA to emit greenhouse gases that harm polar bears—general permits again might allow the agency to reconcile the strict dictates of the ESA with political and administrative realities, and perhaps also to reduce or mitigate some of the worst harms climate change has inflicted on endangered species. For both of these examples, much more specific research is needed to explore the legality and feasibility

341. See *Util. Air Reg. Grp. v. EPA*, 134 S. Ct. 2427, 2444 n.7 (2014) (“Nor have we been given any information about the ability of other possible ‘streamlining’ techniques alluded to by EPA—such as ‘general or ‘electronic’ permitting—to reduce the administrative problems.”). Briefs by the EPA and environmental groups did mention streamlining, but only in a general way. One amicus brief did discuss general permits in more detail as an option. See Eric Biber & J.B. Ruhl, *General Permits and the Regulation of Greenhouse Gases*, LEGAL PLANET (July 26, 2014), <http://legal-planet.org/2014/07/26/general-permits-and-the-regulation-of-greenhouse-gases/>.

342. *Util. Air Reg. Grp.*, 134 S. Ct. at 2444 n.7.

343. *Id.*

344. See J.B. Ruhl, *Climate Change and the Endangered Species Act: Building Bridges to the No-Analog Future*, 88 B.U. L. REV. 1, 14–26 (2008) (examining the impacts of climate change on species protected under the ESA).

345. See *id.* at 26–31 (identifying these challenges).

346. *Id.* at 39–49 (explaining the legal basis for, and administrative difficulty of, applying the ESA to greenhouse gas emission sources).

of general permits under the statutory scheme and the nature and form of how general permits would best work.

Our focus in Part III was on environmental harms and how they will increasingly involve the accumulation of small harms caused by numerous individual activities. This Part noted how general permits might be important tools in managing this problem. But, as alluded to earlier, we do not think this dynamic is unique to environmental law. Indeed, we can imagine a range of other areas in which there are significant social harms or risks that are the result of widespread individual activities. Some of these examples involve increased risks caused by otherwise trivial actions. For instance, computer systems in large organizations can be vulnerable to malware when individual employees do something as simple as open an e-mail attachment or visit an infected webpage. Other examples are products of increasing interconnectedness in a globalizing world. For example, the global financial crisis was triggered by the collapse of the mortgage market in the United States, a collapse that was the result of the decisions of millions of individuals about mortgages and household finances. Although considering how general permits might help address these and other kinds of problems is beyond the scope of this project, we think that general permits may well be an important part of any international or national effort to address them.

There is another way that general permits might be important to the future of the regulatory state: managing the rise of the sharing economy. A number of high-profile startup companies such as Uber, Lyft, and Airbnb have used the Internet to connect individual sellers and buyers of services that historically were provided by large, centralized businesses like taxi companies and hotels.³⁴⁷ Ride-sharing services such as Uber and Lyft match individual drivers with individual passengers who need lifts; Airbnb allows homeowners and renters to offer a spare bedroom or an entire unit for rent to visitors looking for a place to stay. These start-ups have prompted a wave of legal disputes over whether and how they fit into existing regulations for taxi companies, hotels, and local land use rules.³⁴⁸ The paperwork

347. See Zachary Karabell, *Requiem for the Middleman: Why are governments so afraid of Uber and Airbnb?*, SLATE (Apr. 25, 2014), http://www.slate.com/articles/business/the_edgy_optimist/2014/04/airbnb_uber_tesla_why_are_governments_so_rattled_by_their_business_models.html.

348. See Elizabeth A. Harris, *The Airbnb Economy in New York: Lucrative but Often Illegal*, N.Y. TIMES (Nov. 3, 2013), <http://www.nytimes.com/2013/11/05/nyregion/the-airbnb-economy-in-new-york-lucrative-but-often-unlawful.html>; David Streitfeld, *Companies Built on*

and permitting that seem appropriate for a large-scale, centralized business focused on taxi services or hospitality are a tremendous mismatch with the compliance capabilities of individual drivers, homeowners, and renters. On the other hand, a complete exemption of ride-sharing or home-sharing activities from regulation seems inappropriate because they may have important impacts on the public (such as accidents caused by unlicensed ride-share providers), and exemptions could turn into loopholes that might be exploited by large-scale businesses.³⁴⁹ General permits might therefore be a useful model for tailoring the regulation of individuals participating in these activities—they would lower the compliance costs while minimizing the harm to the public, and would also retain flexibility to ensure that large-scale, centralized businesses do not escape regulation.³⁵⁰

* * *

We are well past the halcyon days, if they ever existed, when common law injunctions effectively managed all the large and small harms people occasioned on each other and the environment. To fill the breach, the modern administrative state has leaned heavily on the permit—the statutorily authorized, judicially reviewable, discretionary administrative granting of permission to do that which is otherwise prohibited by statute. Permits are everywhere, they are here to stay, and they are likely to grow in importance as a delivery mechanism for regulation in the modern administrative state. The permit power thus is an enormous power—of that there is no dispute. But as we have shown, it is an enormously flexible power as well. A robust theory of permits is needed to wisely and effectively calibrate the permit power to its particular policy challenges, to ensure the permit power gets the job done without falling into the traps Professor Epstein identified as cause for alarm two decades ago. Our hope is that we have begun to build that foundation in this Article, and that this foundation will assist us, other legal scholars, and

Sharing Balk When It Comes to Regulators, N.Y. TIMES (Apr. 21, 2014), http://www.nytimes.com/2014/04/22/business/companies-built-on-sharing-balk-when-it-comes-to-regulators.html?_r=1.

349. The first fatal accident involving a ride-sharing driver occurred in San Francisco. See Kale Williams & Kurtis Alexander, *Uber Sued Over Girl's Death in S.F.*, S.F. CHRON. (Jan. 28, 2014), <http://www.sfgate.com/bayarea/article/Uber-sued-over-girl-s-death-in-S-F-5178921.php>.

350. Flexibility may also be important because technological innovation in this area will only accelerate, outpacing the ability of legislatures to devise new rules. General permits may allow more rapid evolution of the relevant legal standards without unduly discouraging innovation.

practitioners in further refinement of the theory and practice of regulatory permits in the administrative state.