Balancing Airport Capacity Requirements with Environmental Concerns: Legal Challenges to Airport Expansion

Timothy R. Wyatt

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* Timothy R. Wyatt received his J.D. in 2010 from Wake Forest University
  School of Law in Winston-Salem, NC. He received his Ph.D. in 2000 from the
  School of Civil and Environmental Engineering at Georgia Institute of
  Technology in Atlanta, GA. This study received the Airport Cooperative
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I. INTRODUCTION

Airport expansion plans are often opposed on environmental grounds. Regulatory agencies, such as the Federal Aviation Administration (FAA or Agency), must balance the need to improve airport capacity with community concerns about environmental impact. The National Environmental Policy Act (NEPA), which for over forty years has established the environmental review procedures for airport development activities that receive federal funding, governs this balance. Similar procedural requirements may exist under state law. Legal and environmental challenges to airport expansion are typically grounded in these federal and state procedural statutes. As this article demonstrates, however, the ability of state legislatures (and state courts) to restrict airport expansion for environmental reasons has decreased over time. As a result, environmental plaintiffs are more likely to be forced to bring a NEPA challenge in the U.S. Courts of Appeals, which measurably stacks the deck in favor of airport expansion.

This article presents a comprehensive study of the legal and environmental challenges to airport construction and physical expansion, focusing on the influence of the procedural statutes. Each known court opinion since the enactment of NEPA was reviewed and characterized with respect to the factual background, the form of the legal challenge, and the disposition of the reviewing court. A statistical regression analysis was performed to determine which factors significantly influenced a court’s decision to approve the environmental review or to enjoin airport expansion pending further environmental review.

The remainder of this Introduction provides background on NEPA and its role in providing a framework for environmental challenges to airport expansion, as the legal challenges have evolved over time from common law nuisance claims to statutory claims focused on analysis of environmental impacts, consideration of alternatives, and discussion of mitigation measures. Part II provides case studies illustrating these three prongs of a NEPA analysis and the varying degrees of legal challenges that
may be argued within each of the three prongs. Part III illustrates the jurisdictional hurdles that environmental plaintiffs face, including the federal preemption doctrine as applied to airport expansion. Part IV presents a statistical regression analysis of all known judicial opinions, coded according to the court’s decision, the NEPA prongs, the jurisdictional defenses, and the factual setting of each case. Part V recaps which forms of environmental challenges are statistically most likely to succeed in a given factual setting, suggests ways that environmental plaintiffs can craft more effective legal challenges to airport expansion, and suggests ways that agencies, such as the FAA, can improve their environmental review of a proposed airport expansion to withstand legal challenges.

A. Pre-NEPA Environmental Challenges

As long as there have been airports, airport development met with environmental legal challenges, which traditionally took the form of nuisance complaints. The maturation of the national airport system and the corresponding increase in use of jet aircraft for passenger travel was accompanied by a maturation of the form of the environmental challenge in the 1960s. The form of the environmental challenge at the end of the 1960s, on the eve of the enactment of NEPA, is best illustrated by the December 1969 opinion of the Chancery Division of the Superior Court of New Jersey in Township of Hanover v. Town of Morristown.

Since the early 1940s, the Town of Morristown owned and operated an airport that was located in the adjacent Township of Hanover. In 1960, Morristown submitted an airport layout plan...
to the FAA, which called for the extension of one of its two runways and other trafficable improvements, including new taxiways. In 1967, Morristown requested construction funds from the FAA to implement the airport expansion plan. Local municipalities, including Hanover, challenged the planned expansion on the basis that it would "result in irreparable, harmful and adverse effects upon life in the surrounding communities."

At the time, the Federal Airport Act required the FAA, before approving the plan, to ensure that the expansion was "reasonably consistent with plans . . . of public agencies for the development of the area in which the airport is located" and to ensure "that fair consideration has been given to the interest of communities in or near which such project may be located." Therefore, the FAA held a public hearing to consider the expansion plan and afterward concluded that the expansion posed "no substantial harm" to the surrounding municipalities because "the anticipated noise after improvements would not reach levels that would affect the health and comfort of ordinary people living or working in the vicinity of the Airport." The FAA subsequently approved the runway extension and provided half of the construction funds. The surrounding municipalities brought suit against Morristown in state court, seeking a permanent injunction against the runway extension.

The court recognized that noise pollution from aircraft is "no less an environmental pollution than the smog and smoke that pollutes the air or the debris which poisons our lakes and rivers." It concluded that some of the planned uses of the expanded airport were "manifestly incompatible with the ordinary and expected comfortable environment" in the surrounding communities. However, the court clearly struggled with competing concerns of environmental protection and the potential economic impact of an expanded airport. The court declined

5 Id.
6 Id. at 695.
7 Id. at 698.
9 Twp. of Hanover, 261 A.2d at 695.
10 Id.
11 Id. at 693.
12 Id. at 696.
13 Id. at 705.
14 Id. at 701 ("The importance of the speed of travel to the corporate executive must be placed on one side of the scale and balanced against the domestic tranquility to which family and the neighborhood are entitled.").
to enjoin construction, concluding that the public interest in air transportation precluded neighboring municipalities "from barring completely the normal growth of the Airport."\(^{15}\)

Recognizing that it had "no expertise" in this area, the court looked to the FAA for guidance as to how to reduce the environmental impact of the airport expansion.\(^{16}\) The court required the airport to adopt specific mitigation measures proposed by the FAA, which included a "preferential runway plan" allocating use of the two runways as "one means of noise abatement" as well as the installation of "noise suppression devices and noise attenuation equipment" recommended by the FAA.\(^{17}\) The court also established procedural requirements for the airport, including maintaining a log of all runway use, making the log available for public inspection, maintaining evidentiary records of complaints and corrective actions taken by the airport or the FAA, and making those records available for public inspection.\(^{18}\) Thus, while the court was unwilling to enjoin expansion of the airport, it indicated that it would be willing to hear "claims based upon detailed information" related to excessive noise arising from use of the expanded airport, suggesting that in the future it might take action to mitigate such problems.\(^{19}\)

**B. The Emergence of NEPA**

Less than a month after the opinion in *Township of Hanover*, Congress enacted the National Environmental Policy Act (NEPA).\(^{20}\) NEPA requires, for all "major [f]ederal actions significantly affecting the quality of the human environment," the preparation of an environmental impact statement (EIS), which must describe "the environmental impact of the proposed action," including "any adverse environmental effects which cannot be avoided should the proposal be implemented" as well as a description of "alternatives to the proposed action."\(^{21}\) NEPA's implementing regulations clarify that the EIS should describe the environmental impact and discuss measures of mitigating

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\(^{15}\) *Id.* at 702 (citing Aviation Servs., Inc. v. Bd. of Adjustment of Hanover Twp., 119 A.2d 761 (N.J. 1956)).

\(^{16}\) *Id.* at 697, 708.

\(^{17}\) *Id.* at 697, 707-08.

\(^{18}\) *Id.* at 707-08.

\(^{19}\) *Id.* at 707.


\(^{21}\) 42 U.S.C. § 4332(C).
that impact for both the proposed action and "all reasonable alternatives."\textsuperscript{22}

Because the EIS is required only for actions that "have a significant impact on the human environment," an agency can avoid preparing an EIS by issuing a finding of no significant impact (FONSI).\textsuperscript{23} However, before doing so, the agency is required to prepare an environmental assessment (EA), which is to contain "brief" versions of what would be required in an EIS, including discussion of the "environmental impacts of the proposed action and alternatives."\textsuperscript{24}

Once an agency has determined that an EIS is required, the agency prepares a draft EIS, which is to meet all the requirements of a completed EIS to the extent possible, and then solicits input from the public and from other relevant agencies on the draft EIS.\textsuperscript{25} The agency then prepares a final EIS, which should respond to comments received regarding the draft EIS.\textsuperscript{26} If the action eventually taken deviates substantially from the proposed action or one of the alternatives analyzed in the EIS or if the agency becomes aware of "significant" new environmental concerns that were not analyzed in the EIS, it is to prepare a supplemental EIS.\textsuperscript{27}

In many ways, NEPA is more notable for what it does not require than for what it does. Despite the requirement that an agency consider all reasonable alternative approaches to meeting its objective, there is no requirement in NEPA that the agency select the approach that minimizes harmful environmental impacts.\textsuperscript{28} Despite the requirement to discuss mitigation measures, there is no requirement in NEPA that the agency actually implement the mitigation measures.\textsuperscript{29} Finally, despite the requirement to supplement the EIS based on significant, new environmental concerns, there is no requirement in NEPA that the agency action, once taken, be undone if the actual environ-

\textsuperscript{22} 40 C.F.R. § 1502.14 (2010).
\textsuperscript{23} Id. § 1508.13.
\textsuperscript{24} Id. § 1508.9.
\textsuperscript{25} Id. §§ 1502.9(a), 1503.1.
\textsuperscript{26} Id. § 1502.9(b).
\textsuperscript{27} Id. § 1502.9(c).
mental impact of the action is worse than projected in the EIS. NEPA merely specifies procedural requirements that must be met prior to taking action. Substantive environmental regulation of the action is the province of other statutes.

A number of states have adopted what are known as “little NEPA” statutes, which require a similar procedure for evaluating state actions having a significant impact on the environment. These include the California Environmental Quality Act (CEQA) and the Massachusetts Environmental Protection Act (MEPA). These statutes establish procedural requirements for state agencies to prepare an environmental impact report (EIR), which is analogous to the federal EIS. Although there are differences, which are discussed herein, the EIR has the same basic content requirements as an EIS: a discussion of environmental impacts of the proposed action, an analysis of alternatives to the proposed action, and a proposal to mitigate the environmental impact of the proposed action and its alternatives. The following Part illustrates how state and federal courts determine whether the regulatory agency fulfilled its environmental review obligations with respect to these basic procedural requirements.

II. CASE STUDIES

This Part examines legal challenges posed to airport expansion based on the three major prongs of NEPA: analysis of environmental impacts, consideration of alternatives, and discussion of mitigation measures. Specific cases are discussed herein to illustrate these three prongs and the varying degrees of legal challenges that may be argued with respect to each prong of the environmental review.

30 40 C.F.R. § 1502.9(c); see 42 U.S.C. §§ 4321-95.
31 Hartmann, supra note 29.
32 Id.
33 CAL. PUB. RES. CODE §§ 21000-177 (West 2007).
34 MASS. GEN. LAWS ANN. ch. 30, § 61 (West 2007).
35 CAL. PUB. RES. CODE § 21061; MASS. GEN. LAWS ANN. ch. 30, § 61.
36 See, e.g., Mass. Port Auth. v. City of Bos., No. 0102731BLS2, 2003 WL 23163109, at *1 nn.4-5 (Mass. Super. Ct. Nov. 18, 2003) (indicating that the requirements for an EIR under MEPA and an EIS under NEPA are so interchangeable that they can be combined into a single report).
37 CAL. PUB. RES. CODE § 21002.1(a) (“The purpose of an [EIR] is to identify the significant effects on the environment of a project, to identify alternatives to the project, and to indicate the manner in which those significant effects can be mitigated or avoided.”).
A. ENVIRONMENTAL IMPACTS

The discussion of environmental impacts required by NEPA "forms the scientific and analytic basis" of the environmental review.\(^\text{38}\) The environmental impacts to be considered are defined broadly to include "cultural, economic, social, or health" effects in addition to ecological effects ("such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems").\(^\text{39}\) Perhaps because the requirement is defined so broadly, courts are highly deferential to an agency's determination that it adequately analyzed the direct environmental impact of a planned airport expansion.\(^\text{40}\) This places a substantial burden on opponents of airport expansion to demonstrate that environmental impacts were not adequately considered. The challenge often takes the form of either a criticism of the scientific methodology used to predict environmental impacts or a complaint that concerns raised during the environmental review were not addressed.\(^\text{41}\) Because courts will defer to the agency's expertise as to technical details,\(^\text{42}\) these are typically ineffective claims as long as the agency appeared to take a "hard look" at the direct environmental impacts.\(^\text{43}\) Opponents of airport expansion, therefore, try to elevate the court's scrutiny of the agency's environmental review by alleging that the agency inadequately considered "indirect, secondary, or cu-

\(^{38}\) 40 C.F.R. § 1502.16 (2010).

\(^{39}\) Id. § 1508.8.

\(^{40}\) See Andrew C. Mergen, The Changing Nature of Airport Environmental Litigation, 18 AIR & SPACE LAW. Winter 2004, at 1, 20–21 (Winter 2004) ("[A]irport projects approved by the FAA and challenged in federal court are rarely enjoined, and the Agency's environmental review and analysis is frequently accorded considerable deference by the reviewing court.").

\(^{41}\) See id. at 21 ("Environmental lawsuits challenging FAA orders approving airport construction and enhancement projects routinely allege that the FAA's NEPA documentation failed to adequately describe and disclose the effects of aircraft noise on the surrounding communities.").

\(^{42}\) See, e.g., Town of Winthrop v. FAA, 535 F.3d 1, 8, 12, 13–14 (1st Cir. 2008) ("The FAA also responded thoroughly to specific concerns regarding [its] sound analysis... There was no regulatory requirement for the FAA to use any specific model for this study."); Cmty. Against Runway Expansion, Inc. v. FAA, 355 F.3d 678, 689 (D.C. Cir. 2004) ("The FAA's methodology was reasonable and adequately explained... The FAA's choice among reasonable analytical methodologies is entitled to deference from this court.").

\(^{43}\) Suburban O'Hare Comm'n v. Dole, 787 F.2d 186, 198 (7th Cir. 1986) (citing Kleppe v. Sierra Club, 427 U.S. 390, 410 n.21 (1976)).
cumulative environmental impacts." These types of challenges are considered in turn.

1. Direct Environmental Impacts

The deferential standard of review for discussion of environmental impacts is illustrated by a pair of early 1990s opinions of the U.S. Court of Appeals for the D.C. Circuit involving the construction of Denver International Airport. In 1988, Denver annexed land in neighboring Adams County and, with the guidance of the FAA, prepared an EA for the planned new airport. On the basis of the EA, the FAA issued a final EIS in 1989 followed by a Record of Decision (ROD) constituting federal approval of the new airport. In 1990, the D.C. Circuit upheld the EIS, despite finding that the FAA had improperly assessed the environmental impact on a neighboring state park and wildlife refuge. In determining that the new airport would not have a significant impact on the park, the FAA relied on noise guidelines for public parks, such as those for zoos, amusement parks, and golf courses. The D.C. Circuit rejected the FAA's methodology because the guidelines were focused on the tolerance of people to noise during recreational activities and "neglect[ed] altogether the effects of noise on wildlife and the natural environment generally." However, despite the FAA's apparent failure to consider these environmental impacts, the D.C. Circuit upheld the EIS, largely by upholding the underlying calculations that supported the FAA's conclusion. The EIS incorporated detailed noise level predictions from the EA, which indicated that the noise impact of the new airport on the park was not expected to be dramatically different from that of the existing airport that would be replaced. Although it improperly arrived at its conclusion, the FAA had included suffi-

44 See discussion infra Part II.A.2.
46 Id. at 1027.
47 Id. at 1031.
48 Id. at 1028.
49 Id. at 1029 (emphasis omitted).
50 Id. at 1031 ("[I]n spite of its mistaken reliance on the noise level guidelines contained in its regulations, the FAA has marshaled sufficient evidence to support its conclusion that the operation of the new airport will not result in a significant increase in noise levels . . . .").
51 Id. at 1030.
cient detail of predicted environmental impacts for the EIS to withstand judicial scrutiny. 52

In 1992, with the airport under construction, Adams County brought suit challenging the adequacy of the EIS on the issue of air pollution and seeking to force the FAA to prepare a supplemental EIS. 53 Adams County contended that the EIS was based on incorrect assumptions about the baseline air quality level, as air pollution had increased significantly since completion of the EIS. 54 Furthermore, because the final design of the terminal had not been complete at the time the EIS was prepared, Adams County challenged the EIS on the basis that the subsequent emissions permit for the terminal reflected higher anticipated pollution levels than were assumed in the EIS. 55 Additionally, the airport layout proposal had undergone changes since the EIS was approved, including a relocation of the planned air cargo facilities, and Adams County contended that the changed layout proposal required supplementation of the EIS. 56 Specifically, Adams County alleged that the changed layout would result in increased taxi distances for cargo aircraft, resulting in increased emissions. 57

In 1994, the D.C. Circuit again declined to order a supplemental EIS, despite what appeared to be a substantial deviation from the construction plan considered in the 1989 EIS and new evidence that the FAA's 1989 baseline pollution predictions were incorrect. 58 Not surprisingly, the D.C. Circuit did not address the change in anticipated air pollution levels from the levels projected in the original EIS. 59 NEPA is a procedural statute, and absent an allegation that the agency completely failed to consider a significant environmental impact or based its analysis on assumptions that it knew to be incorrect or unreasonable, the agency will not be forced to revisit the analysis based on

52 See id. at 1031.
54 Id. at 20, 26-27.
55 Id. at 27.
56 Id. at 20-21.
57 Id. at 22-24.
58 Bd. of Cnty. Comm'r's, 18 F.3d 953.
59 See id.
data that becomes available later.\textsuperscript{60} It is more surprising that the D.C. Circuit did not address the newly detailed terminal design. It is commonly understood that there is a lower threshold of environmental review required for approval of an airport layout plan because an additional EIS will be required before the individual construction projects contained in the plan are specifically approved\textsuperscript{61} or because mere approval of an airport layout plan does not necessarily indicate that the individual construction projects in the plan are funded or imminent.\textsuperscript{62} Here, however, the D.C. Circuit upheld an EIS for the airport layout plan and did not require supplementation once detailed facility designs became available.\textsuperscript{63}

Most surprisingly, the D.C. Circuit elected not to require a supplemental EIS despite significant deviations in the airport layout plan from the original EIS.\textsuperscript{64} The D.C. Circuit concluded that an eighteen-page “[r]evaluation” conducted by the FAA, outside the prescribed NEPA review process, was sufficient to conclude that the 1989 EIS was still “substantially valid.”\textsuperscript{65} The FAA also hypothesized that the relocation of cargo facilities could potentially result in decreased aircraft emissions as a result of reduced taxi distances.\textsuperscript{66} The reevaluation demonstrated that “the FAA considered the relevant factors” in Adams County’s complaint (namely, the impact of the relocated facilities on air pollution).\textsuperscript{67} Even though this analysis of environmental impacts was not contained in the original EIS, the FAA was not ordered to prepare a supplemental EIS.\textsuperscript{68}

The Denver cases are illustrative of the deferential way courts will review an agency’s consideration of direct environmental impacts of airport expansion. Absent a finding that the agency acted in bad faith, courts tend to approve the agency’s discus-

\textsuperscript{60} See Ogunquit Vill. Corp. v. Davis, 553 F.2d 243, 246 (1st Cir. 1977); see also 40 C.F.R. § 1502.9(c) (2010).
\textsuperscript{61} See, e.g., City of Bos. v. Coleman, 397 F. Supp. 698, 701 (D. Mass. 1975) (approving airport layout plan on conditional basis so that projects covered in the EIS could be funded, but other projects in the plan, not covered in the EIS, could not be funded before conducting a project-specific EA).
\textsuperscript{62} See, e.g., Friends of the Earth, Inc. v. Coleman, 518 F.2d 323, 328 (9th Cir. 1975) (“FAA approval of an airport layout plan does not require an EIS.”).
\textsuperscript{63} Bd. of Cnty. Comm’rs, 18 F.3d 953.
\textsuperscript{64} Id.
\textsuperscript{65} Id.
\textsuperscript{66} Id.
\textsuperscript{67} Id.
\textsuperscript{68} Id.
sion of direct impacts even when the court finds that the agency's methodology was flawed or that the agency's evaluation has subsequently been proven incorrect. To overcome this judicial deference, opponents of airport expansion may argue that the agency's obligation extends beyond consideration of the direct environmental impacts and that the agency inadequately considered indirect, secondary, or cumulative impacts of the airport expansion. These types of claims are considered in turn.

2. *Indirect, Secondary, and Cumulative Environmental Impacts*

Due to the highly deferential standard of review that courts will apply to an agency's analytical methodology, particularly with regard to airport expansion, it is unlikely that courts will determine that an agency that has prepared either an EA or EIS has inadequately considered direct environmental impacts, even if the analysis is demonstrably faulty. Therefore, opponents of airport expansion tend to argue for a higher level of judicial scrutiny by claiming that the agency is required to look beyond the direct environmental impacts of the planned expansion. A challenge to the consideration of *indirect* or *secondary* environmental impacts often takes the form of a claim that the expansion will not simply increase airport capacity to match current demand, but that there will actually be increased demand to use the expanded airport. By arguing that the expanded airport will actually induce growth, plaintiffs ask the courts to force agencies to look beyond the immediate impact of the planned expansion and to speculate about the environmental impact of future construction, both on the airport property itself and in the surrounding area, that would be a foreseeable consequence of increased demand to use the expanded airport.

A challenge to the consideration of *cumulative* impacts seeks to hold the agency to an even tougher standard by asking the court to force the agency to consider not just the incremental impact of the planned expansion but also its effect in combina-

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70 See JAYE PERSHING JOHNSON, LEGAL RESEARCH DIGEST 9: CASE STUDIES ON COMMUNITY CHALLENGES TO AIRPORT DEVELOPMENT 9 (2010) [hereinafter ACRP REPORT], available at http://onlinepubs.trb.org/onlinepubs/acrp/acrp_lrd_009.pdf (Plaintiffs argued “that the FAA failed to consider reasonably foreseeable indirect effect of the redesign because it did not adjust its forecast for the growth-inducing effect of reductions in flight delay.” (citing Cnty. of Rockland, N.Y. v. FAA, 335 F. App'x 52 (D.C. Cir. 2009))).
71 See id.
tion with all previous construction activity at the airport.\textsuperscript{72} As demonstrated herein, courts appear to be more sympathetic to these challenges than to attacks on the agency's methodology for calculating direct environmental impacts. This may be due to judicial concerns that the airport could circumvent the environmental review process by seeking incremental approval for expansion projects rather than revealing the comprehensive expansion plan all at once, which would be more likely to trigger the requirement for a full EIS. If courts were not receptive to cumulative-impact challenges, airport expansion proponents could presumably segment any planned expansion into a series of piecemeal developments, any one of which standing alone may have only a nominal or insignificant environmental impact, and thus escape detailed environmental review. However, taken to its extreme, a cumulative-impact challenge to airport expansion would require the agency to balance the environmental impact of the completed, expanded airport against the unspoiled environment that existed prior to the airport's existence, since any expansion activity is, by definition, an incremental addition to the airport as a whole.

One of the earliest cumulative-impact airport cases was decided by the U.S. District Court for New Hampshire in 1979. In \textit{Citizens for Responsible Area Growth (CRAG) v. Adams}, the city of Lebanon planned an expansion of Lebanon Regional Airport that included a runway extension, new taxiways, and a new terminal, apparently in conjunction with its plans for a new industrial park on adjacent property.\textsuperscript{73} The city undertook construction of the taxiways without receiving federal funds and applied separately to the Economic Development Administration (EDA) to fund the new terminal and to the FAA to fund the runway extension.\textsuperscript{74} The FAA held a public hearing on the airport expansion proposal in May 1978, at which opponents of the expansion project complained both about the impact of the runway extension itself and the cumulative impact of the expanded airport and the adjacent industrial park.\textsuperscript{75} The FAA representative at the hearing informed the audience that the FAA would prepare an EIS.\textsuperscript{76} However, the FAA changed course

\textsuperscript{72} \textit{Id.} at 11.
\textsuperscript{74} \textit{Id.} at 997, 1002 n.17.
\textsuperscript{75} \textit{Id.} at 1001 n.14, 1005.
\textsuperscript{76} \textit{Id.} at 997.
after a private meeting with Congressman James Cleveland in December 1978 and proposed instead to issue a FONSI or "negative declaration." Likewise, the EDA issued a FONSI for its portion of the airport development after reaching an agreement with the city "to 'mitigate' certain adverse effects" via a plan yet to be finalized. The EDA approved the grant, and terminal construction was underway as of the trial date.

The federal court flatly rejected EDA's deal with the city as an attempt to bypass the required NEPA process. Acknowledging that there were adverse effects that needed to be mitigated was an admission that the terminal development would have a significant environmental impact, and NEPA requires that those adverse effects, as well as the potential mitigation strategies, be documented in an EIS. The FAA, in turn, relied on the EDA's finding that the terminal would have no significant impact in order to issue a negative declaration for its portion of the airport development—the runway extension. As for the FAA's FONSI, the court rejected the contention of the plaintiff environmental group that the FAA inadequately responded to concerns raised in the public hearing about the direct impact of the runway extension. However, the court agreed with the plaintiff that the FAA impermissibly considered the effects of the runway extension in isolation when determining that the project would have no significant impact. In particular, the court found it disingenuous for the FAA to contend that the runway extension was a separate, discrete project unrelated to the other ongoing airport construction. The court enjoined "any further undertaking which will advance development of the proposed runway."

With numerous concurrent expansion projects undergoing isolated environmental review, the CRAG case illustrates an obvi-
ous segmentation challenge. Another common challenge regarding cumulative impacts involves speculation from plaintiffs about the potential interaction between the planned expansion and other past or future construction activities. In 2000, in *Friends of Mammoth v. Town of Mammoth Lakes Redevelopment Agency*, the California Court of Appeal first heard complaints about the planned expansion of Mammoth Lakes Airport.87 Pursuant to CEQA, the Town of Mammoth Lakes prepared an EIR for what it termed a “redevelopment plan,” which included extensions of the runways and taxiways and an expanded terminal at the airport.88 However, the redevelopment program also included development of a new industrial park as well as revitalization of the downtown area.89 None of these three areas were adjacent to each other, and there was no obvious relationship between the projects.90 However, by characterizing all the projects as part of a single redevelopment program, the town hoped to take advantage of a statutory provision that would permit the EIR, once approved, to be immune from later challenge of the individual projects.91 This type of “program EIR” is authorized not by CEQA itself, but rather by its implementing regulations.92 The purpose of a program EIR is to “[e]nsure consideration of cumulative impacts that might be slighted in a case-by-case analysis.”93 A program EIR is thus designed to ensure the analysis of cumulative impacts of discrete, but related, construction projects, as typified by the *CRAG* case.

However, the *Friends of Mammoth* plaintiff environmental group challenged the cumulative impacts analysis of the program EIR as inadequate for CEQA purposes: “A legally adequate ‘cumulative impact analysis’ is thus an analysis of a particular project viewed over time and in conjunction with other related past, present and reasonably foreseeable probable future projects whose impacts might compound or interrelate with those

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88 *Id.* at 339, 341.
89 *Id.* at 339.
90 *Id.*
93 *Cal. Code Regs. tit. 14, § 15168(b)(2); Friends of Mammoth*, 98 Cal. Rptr. 2d at 346.
of the project at hand.”94 Here, the airport expansion did not have any obvious direct relationship or interrelationship with the other components of the redevelopment program, as evidenced by the fact that the town did not include the effects of airport expansion in the program EIR’s cumulative impacts analysis.95

Among other problems with the town’s proposal, to qualify as a redevelopment program, the area covered by the program had to be “predominantly urbanized.”96 The town counted the entire 202-acre airport site as “urbanized,” which contributed significantly to the proportion of the urbanized land area of the redevelopment program.97 However, the airport site was actually located outside the city and was not adjacent to any urban areas.98 Furthermore, most of the airport site itself was undeveloped.99 Characterizing this large area as already “urbanized,” when it was actually largely undeveloped, effectively downplayed the impact of the planned airport expansion, since expansion of the airport would in reality reduce the amount of undeveloped land at the airport site.

Also, by treating this diverse group of development projects as a single program, the EIR analysis was focused primarily on “the cumulative impacts that could foreseeably occur if all of the proposed projects were actually developed” and “did not analyze direct or indirect environmental impacts potentially caused by each” individual project.100 Unlike the situation in CRAG, the airport and industrial park in Friends of Mammoth were not contiguous, and the cumulative impact of the two projects would not be significantly different from the independent impact of the two projects because here the projects were truly independent.101 By failing to evaluate the direct environmental impact of the airport expansion independently, the EIR also “fail[ed] to analyze the [true] indirect or secondary environmental impact”

95 See id. at 46.
96 Friends of Mammoth, 98 Cal. Rptr. 2d at 351; see also Cal. Health & Safety Code § 33030(b)(1) (West 2010).
97 Friends of Mammoth, 98 Cal. Rptr. 2d at 352, 356–57.
98 Id. at 339, 357.
99 Id. at 356–57.
100 See id. at 341.
that would result from it, such as additional development attracted to the area surrounding the expanded airport.102

Shortly after the ruling from the California state court that the program EIR failed to comply with CEQA, the town prepared an EA for the airport expansion individually, concluding that there would be "'no significant environmental impact caused by the expansion of the airport that could not be satisfactorily mitigated.'"103 Like the deal brokered by the EDA in CRAG, this statement raised red flags due to what would appear to be an improper conflation of the independent requirements to evaluate environmental impacts and to discuss possible mitigation measures, all in an apparent attempt to circumvent the NEPA procedure and avoid preparing an EIS.104 Nevertheless, the FAA adopted the EA and issued a FONSI.105 Environmental organizations and the State of California filed suit.106

The U.S. District Court for the Northern District of California was persuaded by "the volume of comments from and the serious concerns raised by federal and state agencies specifically charged with protecting the environment" and the failure of the town or the FAA to respond to the concerns raised—that the EA failed to adequately evaluate the direct environmental impact of the proposed airport expansion.107 This alone should have been sufficient to invalidate the FONSI, but the federal court provided further support for its decision by proceeding to discuss in detail the EA's failure to evaluate indirect, secondary, and cumulative impacts.108

Unlike the previous EIR, which defined the redevelopment program too broadly, the EA's discussion of cumulative impacts here limited itself to considering the airport expansion in conjunction with other construction projects within the airport site or contiguous to it.109 The EA did not consider the cumulative impact of other related projects in the town's redevelopment plan.110 Despite the fact that the earlier program EIR included plans for increased hotel construction, residential construction,

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102 Id. at 340, 343 n.5.
104 See id. at 971–72.
105 Id. at 971.
106 Id.
107 Id. at 973.
108 See id. at 974–78.
109 Id. at 974–75.
110 Id. at 975.
etc. to support the expected increase in airline travel to the town, the new EA reached the contradictory conclusion that the town’s existing residential properties could sustain the increase in visitors that were expected with the expanded airport.\textsuperscript{111} Therefore, the EA did not consider the cumulative impact of the airport expansion in conjunction with related residential development.\textsuperscript{112} The federal court also determined that the EA failed to consider the indirect and secondary effects of expanding the airport, such as the air pollution that would be caused by highway traffic from additional visitors, as well as the consequent additional burden that would be imposed on the town’s water and sewer systems.\textsuperscript{113} The court enjoined “any construction or other work on the airport expansion project pending conformance with all NEPA requirements, including completion and adoption of an Environmental Impact Statement.”\textsuperscript{114} In a separate opinion issued the same day, the court confirmed that the injunction extended to preliminary site preparation, such as fencing and grading, rejecting the town’s contention that “these initial phases of the project would not result in increased jet service or in adverse cumulative impacts.”\textsuperscript{115} Few concerns appear more likely to put an absolute halt to airport expansion than a court’s concern that an agency or airport sponsor is obscuring the cumulative environmental impact of airport development by ignoring past or foreseeable related developments or otherwise segmenting the environmental review.

B. Alternatives

1. All Reasonable Alternatives

NEPA’s implementing regulations indicate that the discussion of alternatives “is the heart of the environmental impact statement.”\textsuperscript{116} The agency is required to “[r]igorously explore and objectively evaluate all reasonable alternatives” to the proposed action, including “the alternative of no action.”\textsuperscript{117} It has been said that “[t]he most important function of agencies such as the

\textsuperscript{111} Id.
\textsuperscript{112} See id.
\textsuperscript{113} Id. at 975–76.
\textsuperscript{114} Id. at 978.
\textsuperscript{116} 40 C.F.R. § 1502.14 (2010).
\textsuperscript{117} Id. § 1501.14(a), (d).
FAA in approving proposed actions under NEPA is analyzing alternatives.” However, at least in the airport expansion context, a challenge to the adequacy of the alternatives discussion appears to be an especially ineffective tactic. One exception is litigation surrounding expansion of the Oakland Airport, where both federal and state courts have upheld challenges based on inadequate consideration of alternatives.

In *California ex rel. Van de Kamp v. Marsh*, the Port of Oakland sought to expand the air cargo facilities at the Oakland Airport, including construction of a new commercial air terminal. In 1985, the port applied to the U.S. Army Corps of Engineers (USACE or Corps) for a permit to fill 435 acres of wetlands on which to construct the new facility. The Corps performed an EA and issued a FONSI, indicating that an EIS was not necessary. Apparently due to concerns raised by the Environmental Protection Agency (EPA), Fish and Wildlife Service (FWS), and the California Department of Fish and Game, the Corps issued an ROD approving a permit to fill only 180 acres but did not revisit its earlier decision not to prepare an EIS. The State of California challenged the Corps’s decision on NEPA grounds in the U.S. District Court for the Northern District of California. Although the federal court found that “[t]he Corps reviewed alternatives to the proposed wetlands fill which included decreasing the size of the project at the Airport,” it concluded that the Corps’s review of alternatives was inadequate because it did not include a discussion of all reasonable alternatives:

The Corps did not evaluate the alternative of relocating some or all of the air cargo project at nearby airports, including San Francisco International, and San Jose airport. . . . The Corps did not consider changing the project to house only one of the air cargo

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118 Hartmann, *supra* note 29, at 715.

119 *Id.* at 720 (“Although alternative analysis is the heart of an environmental impact statement, case law will show that government agencies have failed to treat it with the importance it demands.”); *see also* ACRP REPORT, *supra* note 70, at 11 n.92.


121 *Id.*

122 *Id.*

123 *Id.*

124 *Id.* at 497–98.

125 *Id.* at 498.
companies who had requested space at the airport, and thereby shrinking the impact on the wetlands.\textsuperscript{126}

The Port of Oakland was enjoined from further filling at the site of the planned facility, and the Corps was directed “to prepare an adequate EA or EIS.”\textsuperscript{127} This decision presents an interesting contrast to the Denver airport litigation in 1994, where the D.C. Circuit upheld the FAA’s approval of the relocation of air cargo facilities without a supplemental EIS and, thus, without any consideration of alternatives.\textsuperscript{128} It may be significant that the State of California in \textit{Van de Kamp v. Marsh} sought to enjoin preliminary site preparation, namely the filling of wetlands, and thus brought suit against USACE rather than the FAA.\textsuperscript{129} Because it was not challenging an FAA order, the State of California was able to bring suit in U.S. District Court rather than the U.S. Court of Appeals.\textsuperscript{130}

In 1994, the port again sought to expand facilities at the Oakland Airport, including its new commercial terminal and its passenger terminal, to increase its capacity for both passenger and cargo aircraft.\textsuperscript{131} As it began the CEQA review process, the port announced that its environmental review would consider both a “passenger dominant alternative” (expansion of the passenger terminal only) and a “cargo dominant alternative” (expansion of the air cargo facilities only).\textsuperscript{132} However, by the time the EIR was completed in 1997, the port concluded that it was no longer feasible to completely refrain from expanding either facility.\textsuperscript{133} The final EIR included twelve other alternatives, including the

\textsuperscript{126} Id. at 499.

\textsuperscript{127} Id. at 501.

\textsuperscript{128} See supra notes 56–68 and accompanying text; see also Opening Brief in Support of Petition for Review of FAA Decision by Board of Commissioners of Adams County, Colorado, City of Brighton, Colorado, & City of Commerce City, Colorado at 15, Bd. of Cnty. Comm’rs v. Isaac, 18 F.3d 953 (D.C. Cir. 1994) (Nos. 92-1672, 93-1138), 1994 WL 16777254 (unpublished table decision) (“The environmental reevaluation done by FAA does not conform to NEPA criteria, because no alternatives were considered, there was no public comment, and no mitigation measures are discussed.”).

\textsuperscript{129} See infra note 346 and accompanying text.

\textsuperscript{130} See infra Part III.B (discussing original and exclusive jurisdiction).


\textsuperscript{132} Id. at 9–10.

\textsuperscript{133} See id. at 10.
required “no project” alternative.\textsuperscript{134} The Board of Port Commissioners approved the EIR, and neighboring municipalities and community groups brought suit under CEQA in the Superior Court of California.\textsuperscript{135} In 1999, the state court found that the EIR was inadequate because it failed to discuss the two alternatives mentioned in the port’s 1994 public announcement, despite the port’s subsequent determination that those alternatives were no longer reasonable.\textsuperscript{136} The EIR was also rejected because it failed to assess the cumulative impacts of potential future projects (a new runway, a runway extension, and a new taxiway) that had been under consideration as part of a draft twenty-year master plan for development of the airport.\textsuperscript{137} The court enjoined further expansion of the airport until the EIR was supplemented.\textsuperscript{138} On appeal in 2001, in \textit{Berkeley Keep Jets over the Bay Committee v. Board of Port Commissioners}, the California Court of Appeal upheld the judgment that the EIR needed to be supplemented to include the two alternatives mentioned in the 1994 notice.\textsuperscript{139} However, the court held that the airport’s “long-range goal of expanded runway capacity is entirely speculative” and that the potential runway projects were not “a reasonably foreseeable consequence” of the terminal expansion project, so failure to consider the cumulative effects of the runway and terminal projects did not constitute improper segmenting or “piecemealing.”\textsuperscript{140}

What is troubling about this decision is that the port included the planned runway extension and taxiway construction in its discussion of the “no project” alternative but not in its analysis of the proposed terminal project.\textsuperscript{141} The purpose of discussing the “no project” alternative is to provide a baseline measurement by which to compare the agency’s proposed action to realistically determine its environmental impact in an incremental

\textsuperscript{134} \textit{Berkeley Keep Jets over the Bay Comm. v. Bd. of Port Comm’rs}, 111 Cal. Rptr. 2d 598, 612 (Ct. App. 2001); Respondent Port of Oakland’s Brief in Response to Opening Briefs on Appeal, \textit{supra} note 131, at 5 n.5.

\textsuperscript{135} \textit{Berkeley Keeps Jets over the Bay Comm.}, 111 Cal. Rptr. 2d at 604.

\textsuperscript{136} \textit{Id.}

\textsuperscript{137} \textit{Id.} at 604, 608.

\textsuperscript{138} \textit{Id.} at 604.

\textsuperscript{139} \textit{Id.} at 602.

\textsuperscript{140} \textit{Id.} at 612.

\textsuperscript{141} \textit{Id.}
including speculative runway development projects in the “no project” alternative would presumably result in a higher predicted environmental impact associated with “no project,” downplaying the apparent relative impact of the agency’s preferred terminal expansion project. However, the state court rejected the notion that the port was required to include the runway projects in its assessment of the environmental impact of the terminal expansion project simply because it had included the runway projects in its analysis of the “no project” alternative. The unfortunate dicta in this opinion—that it is not a per se violation of the statutory procedures to consider speculative future development activities in the “no project” alternative that are not included in the agency’s analysis of its preferred action—could be used to dilute the purpose and meaningfulness of the “no project” alternative. The type of “no project” alternative allowed in Berkeley Keeps Jets over the Bay Commission clearly did not serve the purpose of providing a baseline measurement by which to assess the true incremental impact of the port’s preferred approach to airport expansion.

The decision serves to illustrate the real weakness of a plaintiff’s claim that an airport sponsor or agency has failed to adequately consider alternatives to expansion. Although the injunction was upheld pending supplemental discussion of alternatives, the implication was that the port would not have been required to consider the “passenger dominant” and “cargo dominant” alternatives if it had not itself suggested those two alternatives in a public notice years earlier. The influence of this line of reasoning could be to convince agencies to limit their public discussion of any alternatives prior to issuance of an EIS. However, it is noteworthy that the FAA had not approved or participated in the alternatives analysis that the state court deemed insufficient in this case. This may be because the port declined to pursue federal funding for the more environmentally significant expansion projects (the runway, extension, and taxiway) because those proposals created “a great deal of contro-

142 NEPA requires alternatives to be presented “in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decisionmaker and the public.” 40 C.F.R. § 1502.14 (2010).
143 Berkeley Keeps Jets over the Bay Comm., 111 Cal. Rptr. 2d at 612.
144 See id.
145 See supra note 132 and accompanying text.
146 Berkeley Keeps Jets over the Bay Comm., 111 Cal. Rptr. 2d at 603 n.4.
versy” and “political problems.”147 It is possible that involving the FAA in the environmental review process would have resulted in an EIR/EIS that more adequately considered alternatives.148 It is almost certain that obtaining final FAA approval of the proposed expansion would have resulted in a more deferential review of the discussion of alternatives from the federal judiciary than the port received from the state court, particularly in light of the determination that the rejected alternatives were not feasible.149

2. No Possible, Feasible, Prudent, or Practicable Alternatives

Although NEPA requires an agency to consider all reasonable alternatives to the proposed action, there is no express requirement in NEPA for an agency to select the alternative that will least impact the environment, or even necessarily to justify its preferred approach. However, other statutes dating back to the time of NEPA’s enactment have imposed more substantive requirements for consideration of alternatives in the airport expansion context. The Airport and Airway Development Act of 1970 (AADA), for example, declared that “any project involving airport location, a major runway extension, or runway location,” which was found to have a significant environmental impact, was not to be approved by the FAA absent a determination “that no feasible and prudent alternative exists and that all possible steps have been taken to minimize such adverse effect.”150 Although this would appear to impose a substantive requirement on the FAA to demonstrate that it is not realistically possible to avoid the environmental impact of the agency’s preferred airport expansion plan, a review of the case law offers no indication that courts ever seriously second-guessed the agency’s preferred ap-

147 Id. at 608.
148 But see Shelby Angel, Comment, Airport Expansion—Costs vs. Environmental Damage When Expanding Airport Facilities—The Eight Circuit Holds That All Reasonable Alternative Solutions Need Not Be Explained in Great Detail in the FAA’s Final Environmental Impact Statement—City of Bridgeton v. FAA, 67 J. Air L. & Com. 1009, 1013 (2002) (“If an alternative does not reach every aspect of the FAA’s goals exactly, then the alternative is considered unreasonable, and can be excluded from detailed explanation. Notably, this allows the FAA to discard ‘unreasonable’ alternatives, regardless of the environmental impact relative to the alternative chosen.”).
149 See infra Part III.B; see also Alliance for Legal Action v. FAA, 69 F. App’x 617, 622 (4th Cir. 2003) (“The agency need not consider all of the possible alternative actions in the EIS; it is only required to look at those that are reasonable in light of the project’s stated purpose.”).
proach. Challenges that the agency rejected a feasible or prudent alternative that would be less harmful to the environment have practically never succeeded.\textsuperscript{151}

A case in point is the dispute between the States of Missouri and Illinois in the early 1970s over a planned new airport to serve the St. Louis area and relieve congestion at Lambert-St. Louis International Airport in Missouri.\textsuperscript{152} In 1970, the State of Illinois created the St. Louis Metropolitan Area Airport Authority (SMAAAA) to develop a plan for locating the airport in Illinois.\textsuperscript{153} In 1972, SMAAAA selected a site in Illinois, and Illinois applied for a federal grant to acquire the site.\textsuperscript{154} Immediately thereafter, the State of Missouri created the Missouri-St. Louis Metropolitan Airport Authority (MSMAA) to study alternative sites in Missouri and develop a plan for locating the new airport in Missouri.\textsuperscript{155} In 1974, Lambert-St. Louis Airport obtained a federal grant to consider the alternative of accommodating the expected growth in air travel demand by simply expanding.\textsuperscript{156} In 1976, the FAA issued an EIS and ROD approving the Illinois grant for a new airport.\textsuperscript{157} Missouri challenged the EIS as inadequate, under both NEPA and the AADA, for failing to determine “that there were no ‘feasible and prudent’ alternatives to the [Illinois] site.”\textsuperscript{158} The U.S. District Court for the District of Columbia rejected that argument: “The fact is that alternative sites were examined”—albeit by the Missouri plaintiffs to justify either expanding the existing Missouri airport or locating a new airport in Missouri—and the Missouri studies were available to the FAA and were referenced in its EIS.\textsuperscript{159} The federal court did not express any opinion as to whether the record supported the FAA’s declaration that “no other site provides a feasible and pru-

\textsuperscript{151} See Angel, \textit{supra} note 148, at 1014 (“By not requiring detailed explanations about . . . feasible alternatives, the court creates a situation in which it is impossible to analyze . . . whether other alternatives would have been equally plausible and more beneficial to the public . . . .” (citing N. Buckhead Civic Ass’n v. Skinner, 903 F.2d 1553, 1542 (11th Cir. 1990))).


\textsuperscript{153} \textit{Id.} at 1254.

\textsuperscript{154} \textit{Id.} at 1255.

\textsuperscript{155} \textit{Id.}

\textsuperscript{156} \textit{Id.}

\textsuperscript{157} \textit{Id.}

\textsuperscript{158} \textit{Id.} at 1258.

\textsuperscript{159} \textit{Id.} at 1260 n.33.
dent alternative." The fact that the FAA "considered a variety of alternatives" was apparently sufficient to support its declaration that none of those alternatives were feasible or prudent and no review of that determination was warranted.

Successor legislation to the AADA, the Airport and Airway Improvement Act (AAIA), retains the requirement, as a condition for federal funding, that "no possible and prudent alternative" exists to a major airport expansion that will have a significant impact on the environment. However, as with the AADA, this language does not appear, in the eyes of reviewing courts, to impose a substantive requirement on airports or agencies beyond the NEPA procedural requirement to discuss all reasonable alternatives. The FAA has avoided determining whether the proposed expansion is the only prudent, possible, or feasible alternative by successfully arguing in the U.S. Courts of Appeals that any activity short of a runway extension is not a major airport expansion, or where the activity is a runway extension, by arguing that it has no significant environmental impact. Even where the activity is a major expansion and the FAA acknowledges significant environmental impacts, the U.S. Courts of Appeals have been satisfied by "evidence that the FAA carefully considered a reasonable range of alternatives," and not that the airport definitively determined that there were no possible, feasible, or prudent alternatives. Therefore, despite appearing to impose a substantive requirement that the agency demonstrate that the consequences of the proposed airport expansion are unavoidable, the courts treat this requirement with the same deference that they treat the procedural requirement to consider alternatives under NEPA.

a. State Courts: Less Deferential with Respect to "Prudent Alternatives"?

State courts generally appear to be less deferential to state agencies, in that they will require some evidence that there is no

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160 Id.
161 Id.
163 Town of Stratford, Conn. v. FAA, 285 F.3d 84, 90 (D.C. Cir. 2002).
165 See, e.g., Allison v. DOT, 908 F.2d 1024, 1031 (D.C. Cir. 1990) ("The FAA need not examine an infinite number of alternatives in infinite detail.").
possible, prudent, or feasible alternative to the agency’s proposed action where state statutes have that requirement. For example, in Alaska Center for the Environment v. State, a challenge was brought under the Alaska Coastal Management Act regarding a planned major expansion of Ted Stevens Anchorage International Airport. An environmental organization sought to prevent the dredging and filling of wetlands for the construction of multiple new runways, taxiways, and other facilities. The Supreme Court of Alaska noted that the state actually elected not to locate some of the facilities in the wetlands area based on a determination by the State Department of Fish and Game that there may be “feasible and prudent inland alternatives.” However, the state argued that there was no feasible alternative to locating the runways in the wetlands because the runways would be “most effective and efficient if located close to the existing airport infrastructure,” and all other land adjacent to the airport was either also in wetlands or was being used as an Air National Guard facility. Thus, the state court upheld the plan to dredge and fill the wetlands on the grounds that the state had a “sizeable accumulated record of information” demonstrating “the lack of alternatives for airport expansion.”

The fact that the identified alternate locations might not be the “most effective and efficient” location was apparently sufficient to determine that those locations were not “feasible and prudent,” despite the fact that they would presumably present a less significant impact on the wetlands environment.

Similarly, in Santa Barbara Channelkeeper v. California Coastal Commission, an environmental group challenged a creek realignment intended to support a runway extension at Santa Barbara Municipal Airport under the California Coastal Act of 1976, which required “the least environmentally damaging feasible alternative.” The California Court of Appeal determined that the state marshaled substantial evidence, including multiple expert opinions, that the creek realignment “involves the least en-

167 Id. at 235, 237.
168 Id. at 247.
169 Id. at 248.
170 Id. at 247.
171 Id. at 248.
172 See id. at 247–48.
environmental disturbance, provides the greatest functional reliability, and reduces flooding hazards.” While both the *Santa Barbara Channelkeeper* and *Alaska Center for the Environment* courts purported to find that the agency affirmatively demonstrated a lack of feasible alternatives, it is exceptionally difficult to find an instance where a state court actually overturns an environmental review for airport expansion on the basis that the agency failed to demonstrate that there were no feasible alternatives. State courts typically balance the favorable environmental features of the presented alternative against the effectiveness, efficiency, and “functional reliability” of the airport’s preferred expansion approach.

Therefore, it is hard to say whether state courts seriously scrutinize the agency’s consideration of alternatives or merely pay lip service to the statutory language to select “the least environmentally damaging feasible alternative.”

b. Federal Courts: Increasingly Deferential with Respect to “Practicable Alternatives”?

Recent opinions in U.S. District Courts, interpreting similar provisions in substantive federal environmental statutes, are unquestionably highly deferential to agency determinations that there are no practicable alternatives to the planned expansion. In 2007, in *National Mitigation Banking Ass’n v. United States Army Corps of Engineers*, the U.S. District Court for the Northern District of Illinois considered the plan to construct multiple new runways at Chicago’s O’Hare International Airport. In 2002, the city of Chicago formally requested FAA approval, triggering the NEPA environmental review process. Because the proposed expansion involved the filling of wetlands, the city also applied to the Corps for a permit under section 404 of the Clean Water Act (CWA) in November 2004. The Corps indicated that an EIS would be required and that it was being performed by the FAA. The FAA issued the EIS in July 2005 and subse-

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175 See, e.g., id.
176 Id. at *2.
178 Id. at *2.
181 Id. at *4.
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quently issued a ROD approving the project.182 In December 2005, the Corps issued the wetlands permit, adopting the FAA’s EIS and, based on the discussion of alternatives in the EIS, “concluded that there were no practicable alternatives” to the expansion plan that would have a less adverse impact on the environment, as required by the CWA.183 An environmental organization challenged the Corps’ decision, arguing that the CWA “practicable alternative” standard is stricter than the NEPA requirement to consider all reasonable alternatives.184

However, the federal court took notice of the December 2003 enactment by Congress of the Century of Aviation Reauthorization Act (Vision 100), which calls for a “coordinated environmental review process for airport capacity enhancement projects” and requires any federal or state agency participating in the coordinated review process to “consider only those alternatives to the project that the [FAA] has determined are reasonable.”185 Because the FAA determined in its EIS that alternatives to the proposed expansion were unreasonable,186 “the Corps was prohibited from considering them in further detail” when deciding whether to grant the wetlands permit,187 the CWA “no practicable alternatives” requirement notwithstanding.188 While this interpretation of Vision 100, if adopted by other jurisdictions, would seem to significantly reduce the environmental review requirements for airport expansion, at least with respect to consideration of alternatives, the truth is that it is consistent with interpretations of other statutes pre-dating Vision 100, including the AADA and the AAIA, under which federal courts have traditionally been very deferential to agency preferences despite statutory mandates that there were to be no possible, feasible, or prudent alternatives less harmful to the environment than the agency’s preferred expansion approach.189

182 Id. at *5.
183 Id. at *8; see 40 C.F.R. § 230.10(a) (2010).
186 See P.J. Huffstutter, FAA Backs Chicago Plan for O’Hare Airport Expansion, L.A. TIMES, July 29, 2005, at 10, available at 2005 WLNR 23337080 (“In its [EIS], the [FAA] said it had considered a number of proposals,” but “decided that the city’s solution was the best way to decrease airport congestion while doing the least amount of damage to the area’s water and air quality.”).
187 Nat’l Mitigation Banking Ass’n, 2007 WL 495245, at *27.
188 Id. at *18.
189 See supra Part II.B.2.
Today, even the identification of viable alternatives by the lead federal agency can be insufficient to prevent a federal court from overturning another federal agency’s determination that there are no practicable alternatives to the preferred airport expansion. A 2008 opinion by the U.S. District Court for the Middle District of Florida deferred to the Corps’s determination that there were no practicable alternatives to a proposed 8400-foot runway despite the fact that the FAA determined that a 6800-foot runway would be sufficient. In *Florida Clean Water Network, Inc. v. Grosskruger*, the Panama City-Bay County Airport Authority planned to relocate its airport from Goose Bayou to West Bay County to provide for anticipated future passenger demand. Because the relocation would involve filling wetlands, the Corps participated in the coordinated environmental review process at the FAA’s request, with the FAA taking the lead role. Although the FAA determined that a 6800-foot runway would meet the projected aviation demands, it nonetheless issued an EIS and ROD approving the 8400-foot runway request, but only providing funding for a 6800-foot runway. The Corps subsequently issued an ROD and wetlands permit based on the FAA’s EIS, concluding that there was no practicable alternative to the 8400-foot runway. An environmental organization brought suit, contending that the FAA had identified one practicable alternative—a 6800-foot runway.

The federal court agreed that the CWA imposes a higher standard than does NEPA with respect to the analysis of alternatives in that it “directs the Corps toward selection of alternatives that pose less detrimental environmental impacts.” Nevertheless, the court upheld the Corps’s determination that there was no practicable alternative to the 8400-foot runway by speculate that the Corps may have defined the objective of the airport expansion differently than the FAA did. While the FAA may have been correct that a 6800-foot runway would meet aviation demand for the immediate future, the Corps may have based its

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191 Id. at 1238–39.
192 Id. at 1239–40.
193 Id. at 1241, 1244 n.13.
194 Id. at 1241.
195 Id. at 1243, 1248.
196 Id. at 1243 n.11.
197 Id. at 1245, 1248.
determination on some unspecified longer term.\textsuperscript{198} The Corps was only required to determine that the objective of providing for longer-term growth was “legitimate” and then determine that there was no practicable alternative to accomplish that legitimate objective.\textsuperscript{199} This logic would seem to take the teeth out of any statutory requirement that the least environmentally damaging alternative be selected for accomplishing any government action. As long as a course of action is not unreasonable, it would seem that a “legitimate” government objective could be defined in such a way as to ensure that there is no practicable alternative that would be less environmentally damaging than the agency’s preferred course of action.\textsuperscript{200} The practical effect is that the federal courts negate any legislative intent to impose a higher substantive standard on the analysis of alternatives to airport expansion, limiting the government agency’s obligation to no more than the minimal analysis required under the NEPA “reasonable alternatives” requirement.

C. Mitigation

1. Discussion of Mitigation Measures

Although the text of NEPA itself does not contain any requirement to discuss mitigation measures, the requirement arises from NEPA’s implementing regulations. The discussion of environmental impacts of the proposed action is to include a discussion of the “[m]eans to mitigate adverse environmental impacts.”\textsuperscript{201} Likewise, the discussion of alternatives to the proposed action is to include a discussion of “appropriate mitigation measures not already included in the proposed action or alternatives.”\textsuperscript{202} The discussion is to include an analysis of the effectiveness of the mitigation measures in reducing detrimental impact on the environment.\textsuperscript{203} Notably, there is no require-

\textsuperscript{198} Id. at 1245.
\textsuperscript{199} Id. at 1248.
\textsuperscript{200} See Angel, supra note 148 (“[T]he FAA could establish any goal when designing a project. If an alternative does not reach every aspect of the FAA’s goals exactly, then the alternative is considered unreasonable, and can be excluded from detailed explanation.”).
\textsuperscript{201} 40 C.F.R. § 1502.16(h) (2010).
\textsuperscript{202} Id. § 1502.14(f).
\textsuperscript{203} Id. § 1502.16(e)–(g).
ment in NEPA's implementing regulations that the agency or airport actually employ any of these mitigation measures.  

The requirement to discuss mitigation measures is illustrated by *Miami Sierra Club v. State Administration Commission*, a 1998 decision by the Florida District Court of Appeals that addressed the planned conversion of Homestead Air Force Base into a civilian airport.  The Air Force prepared an EIS in conjunction with its plans to transfer the land to Dade County, but it was determined that a Supplemental EIS was required because the county's development plans, including "an 887 acre airfield parcel, a 122 acre terminal parcel, and a 223 acre aviation area," were "far more expansive than the uses contemplated by the government's first EIS." In response to a challenge brought by environmental organizations, the state court agreed that airport construction could not proceed until mitigation plans related to the airport's impacts with respect to noise, stormwater, and wildlife habitat were completed and incorporated into a supplemental EIS.

2. Challenges to Substantive Mitigation

Sometimes environmental plaintiffs challenge the mitigation plan on grounds that go beyond the discussion required by NEPA regulations. These legal challenges typically invoke substantive environmental statutes and allege that the proposed mitigation plan prepared for NEPA purposes is inadequate for the expanded airport to conform to the substantive law:

Surface water runoff from runways, contaminated with de-icing chemicals and fuel exhaust, may violate the Clean Water Act (CWA). The Endangered Species Act (ESA) may apply if expansion or relocation of runways will destroy habitats. Aircraft emissions impact air quality and must comply with the Clean Air Act (CAA). Airports that are located near public parks . . . may vio-

204 See Jeffrey A. Berger, *False Promises: NEPA's Role in Airport Expansions and the Streamlining of the Environmental Review Process*, 18 J. ENVTL. L. & LITIG. 279, 314 (2003) ("[T]he FAA needs only to discuss potential remedial measures and is not required to develop a comprehensive mitigation plan before it can act.").


206 *Id.* at 830.

207 *Id.* at 831.
late the Department of Transportation Act because of noise pollution or other environmental impact.208

For example, in California ex rel. Van de Kamp v. Marsh, the State of California challenged a plan to fill wetlands to construct a new commercial air terminal at the Oakland Airport.209 USACE performed an EA and issued a FONSI, determining that the 180-acre fill would not result in a significant loss of wetlands.210 The state challenged this conclusion, claiming that the mitigation plan in the EA was inadequate and that the expanded airport would violate the CWA and the CAA.211 The U.S. District Court for the Northern District of California enjoined the planned wetlands fill on the grounds that there were no “contractual obligations” or other “binding agreement” to force the airport to abide by the Corps’s mitigation proposal.212 The federal court therefore determined that “the Corps violated NEPA’s requirements”213 despite the fact that NEPA is commonly understood to merely require a discussion of potential mitigation measures, not a commitment to undertake them.

By determining that NEPA imposed substantive mitigation requirements, the court was able to avoid considering the state’s claim that the expanded airport would violate either the CAA or the CWA.214 Challenges to airport expansion on the basis of these substantive federal laws are typically ineffective because agency decisions under those statutes are only overturned if arbitrary or capricious.215 However, challenges in state courts that the expanded airport will fail to conform to substantive state en-

210 Id.
211 See id. at 500–01.
212 Id. at 501.
213 Id.
214 Id.
215 See, e.g., City of Olmsted Falls, Ohio v. EPA, 435 F.3d 632, 638 (6th Cir. 2006) (“It was neither arbitrary nor capricious for the Corps Defendants to” grant CWA permit for new runway at Cleveland airport, finding that “the project would not contribute to a significant degradation of the waters of the United States.”); Steele Creek Cmty. Ass’n v. U.S. DOT, 435 F. Supp. 196, 199 (W.D.N.C. 1977), aff’d, 570 F.2d 346 (4th Cir. 1978) (unpublished table decision) (upholding FAA approval of a new runway at Charlotte airport under arbitrary and capricious review, finding that “[t]here has been no demonstration of a violation of a standard under the [CAA]”).
environmental laws appear more likely to succeed. For example, in Morse v. Oregon Division of State Lands, the Oregon Supreme Court upheld the denial of a permit to fill wetlands to extend a runway at the North Bend Airport, noting that the state fill-and-removal law required positive measures to "mitigate the loss of estuarial resources." In McCain v. County of Lassen, the California Court of Appeals upheld an injunction against runway construction, where excavation and grading would violate the state mining law, which was intended "to prevent or minimize adverse environmental effects of mining operations."

3. Minimizing Environmental Impact

Where plaintiffs introduce substantive environmental law into the debate, the argument is that the airport expansion proponent is required to do more than simply present a mitigation plan—it must actually implement mitigation measures that reduce the environmental impact of the proposed expansion to a level that conforms to substantive environmental law. Occasionally, opponents of airport expansion argue that these environmental statutes impose even stricter substantive mitigation requirements—that environmental consequences must be "minimized." Taken literally, this is an argument that near-total mitigation is required, so that the net environmental impact of the proposed expansion will be de minimis or insignificant after mitigation. Often, these claims are brought under state "little

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216 Morse v. Or. Div. of State Lands, 590 P.2d 709, 710, 715 (Or. 1979) (en banc).
218 See Michael Schneiderman, Streamlining Environmental Review: Myth or Reality: Changing Compliance Procedures to Speed Runway Approval, 15 AIR & SPACE LAW. Winter, 2001, at 1, 18 (describing federal statutes that impose "substantive standards with respect to avoidance and mitigation of environmental harms caused by projects supported by FAA grants," and state statutes that "impose standards and procedures different from, and sometimes more demanding than, federal law").
220 See, e.g., Matthew J. Christian, Proliferation and Expansion of America's Airports at the Expense of its Treasured Parks and Preserves: Judicial Perversion of the Term "Use" in Section 4(f) of the Department of Transportation Act, 3 NEV. L.J. 613, 616, 629 (2003) (describing the requirement for an airport to "have only a de minimis effect on nearby parks" under section 4(f) of the Department of Transportation Act, which requires "all possible measures that can mitigate the detrimental effects the project will have on the park" (citations omitted)).
NEPA" statutes, which often include language that would appear to impose such strict substantive requirements in addition to the procedural requirements.

For example, the substantive requirements of MEPA have been periodically invoked to challenge runway construction at Logan International Airport in Boston.\textsuperscript{221} Section 61 of MEPA requires that "all practicable means and measures" be taken "to minimize damage to the environment."\textsuperscript{222} In 1974, the Massachusetts State Environmental Affairs Department challenged the failure of the Massachusetts Port Authority (Massport) to prepare an EIR prior to beginning construction on a new runway and the extension of two others.\textsuperscript{223} The Supreme Judicial Court of Massachusetts upheld the trial court's finding, despite Massport's issuance of a FONSI, that "residential areas might suffer from significant increases in noise exposure" as a result of the runway project.\textsuperscript{224} Because there would be a significant environmental impact absent mitigation, Massport was required to prepare an EIR, complete with substantive mitigation plan, to demonstrate that it "had met its obligation under [section] 61 to minimize damage to the environment."\textsuperscript{225} Massport subsequently completed an EIR in 1975 but it was rejected by the state environmental affairs department for failing to comply with MEPA.\textsuperscript{226} In 1976, further construction on the new runway was permanently enjoined.\textsuperscript{227}

In 2001, Massport was again planning a new runway at Logan, where the runway layout had remained largely unchanged for twenty-five years due to the 1976 injunction.\textsuperscript{228} This time, Massport prepared an EIR, which received approval from the state environmental affairs department "subject to Massport's obligation to implement certain mitigation measures pursuant to [section] 61 of MEPA."\textsuperscript{229} In 2003, the Superior Court of

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\item \textsuperscript{221} See, e.g., Matthew Brelis, Runway Plan Clears Key Hurdle Opponents Vow to Challenge Logan Project, BOSTON GLOBE, June 16, 2001, at A1, available at 2001 WLNR 2273319.
\item \textsuperscript{222} MASS. GEN. LAWS ANN. ch. 30, § 61 (West 2007).
\item \textsuperscript{224} See id. at 341.
\item \textsuperscript{225} Id. at 343.
\item \textsuperscript{227} Id. at *3.
\item \textsuperscript{228} Id. at *1 n.9.
\item \textsuperscript{229} Id. at *5.
\end{itemize}
Massachusetts, noting that Massport would "be required to implement mitigation measures," modified the 1976 injunction to allow the new runway to be constructed.\(^{230}\) However, the court retained jurisdiction until such time as it was able "to tell whether Massport will comply fully with MEPA's requirements in terms of implementation of the [section] 61 commitments" to minimize environmental damage.\(^{231}\)

While the Massachusetts cases are somewhat remarkable in their imposition of near-total mitigation requirements on airport expansion, requirements to "minimize" or "eliminate" adverse environmental impacts under other state "little NEPA" statutes have been used with limited success to challenge airport expansion.\(^{232}\) But this near-total mitigation requirement should not be overlooked as a challenge that is only available to plaintiffs in a few states. Federal airport funding statutes have long contained similar language. For example, the AADA of 1970 required that "all possible steps have been taken to minimize such adverse effect."\(^{233}\) The AAIA currently requires "that every reasonable step has been taken to minimize the adverse effect."\(^{234}\) However, challenges brought under these federal statutes asking courts to strictly enforce the statutory text to "minimize" environmental impact are rare, and have been largely unsuccessful to date.\(^{234}\)

\(^{230}\) Id. at *17.

\(^{231}\) Id.

\(^{232}\) See, e.g., Berkeley Keep Jets over the Bay Comm. v. Bd. of Port Comm'rs, 111 Cal. Rptr. 2d 598, 605-06 (Ct. App. 2001) (upholding an injunction of Oakland airport terminal expansion under CEQA, under which "the agency may approve the project only upon finding that it has '[e]liminated or substantially lessened all significant effects on the environment where feasible'"); City of Des Moines v. Puget Sound Reg'l Council, 988 P.2d 27, 34-35 (Wash. Ct. App. 1999) (imposing substantive "permitting and mitigation requirements" on preliminary runway construction activities at Seattle-Tacoma airport, where Washington State Environmental Policy Act is "similar" to the AAIA requirement to "minimize the adverse effects" of airport expansion).


\(^{235}\) See, e.g., City of Normandy Park v. Port of Seattle, 165 F.3d 35 (9th Cir. 1998) (unpublished table decision) (rejecting municipal challenge that FAA failed to determine under the AAIA that "'every reasonable step has been taken to minimize the adverse effects'" of one new runway and extension of a second runway at Seattle-Tacoma airport, despite the FAA's reliance "on a 'no growth' demand model and a limited prediction forecast" to reach its conclusion "that the air emissions levels would be 'de minimis'".")
III. JURISDICTIONAL DEFENSES

Consistent with the deferential review afforded agencies in environmental challenges to airport expansion, courts frequently dismiss challenges for jurisdictional reasons. In particular, with regard to challenges brought against the FAA in state court or in a U.S. district court, the agency will argue that the reviewing court does not have the authority to review its decision. A review of these cases is illustrative of the barriers that airport expansion opponents must clear in order to have a legal challenge considered on its merits.

A. FEDERAL PREEMPTION

The balance between federal and state control with respect to the environmental review of airport expansion has been described as “a nightmare in federalism.” The federal-state balance prior to NEPA was addressed in 1969 by the Chancery Division of the Superior Court of New Jersey in Township of Hanover v. Town of Morristown, where the Town of Morristown sought to expand an airport that it operated in the adjacent Township of Hanover. Morristown planned to extend one of the airport’s runways by 2,000 feet, but under Hanover’s zoning ordinance, airport use was not permitted 100 feet beyond the existing runway. Hanover sought a permanent injunction against the runway extension or, alternatively, a declaration that the planned extension would be a violation of its zoning ordinance. Morristown argued that the state court was without authority to consider Hanover’s challenge to the runway extension because the federal government had “fully pre-empted the field and by such pre-emption has foreclosed states and state courts from interfering in any way with federally regulated air travel and airports.”

236 See infra note 341 and accompanying text.
237 Mergen, supra note 40, at 22 (suggesting that having environmental challenges heard in the U.S. Courts of Appeals “works to the FAA’s advantage” and is one “factor likely contributing to the FAA’s record” of success in such cases).
240 Twp. of Hanover, 261 A.2d at 698–99.
241 Id. at 693, 699.
242 Id. at 698–99.
The state court acknowledged that the federal government preempted certain aspects of aviation, "namely altitudes, flight patterns, take-offs and landings," by establishing the FAA as an "expert agency" in these areas. 243 The FAA's primary responsibility was aviation safety, determined the court, "and insofar as safety is the prime consideration as to aircraft operating procedures, this Court cannot supersede the expertise of the [FAA]." 244 The FAA's second highest priority was abatement of noise, but at the time had not "created any definitive standards for land use planning as it is related to aircraft noise." 245 Therefore, the court reasoned, where a local zoning ordinance did not conflict with FAA supremacy over aviation safety and where the ordinance was "consistent with the avowed second purpose of [the FAA], suppression of noise, a state court may act" with respect to environmental challenges to airport expansion brought under the local ordinance. 246

Determining, therefore, that it had jurisdiction, the court proceeded to deny injunctive relief, concluding that Hanover's specific zoning ordinance, which would effectively bar any expansion of the airport, conflicted with the public interest in air transportation. 247 However, the court imposed substantive mitigation requirements as well as enhanced operating procedures for the expanded airport, effectively requiring the airport to develop an evidentiary record for future environmental challenges in court. 248 Thus, the state court indicated that it would be willing to hear future claims related to adverse impacts of the expanded airport, and it retained jurisdiction to take future action to alleviate such problems. 249

However, in 1973, the U.S. Supreme Court in City of Burbank v. Lockheed Air Terminal Inc. determined that, with passage of the Noise Control Act of 1972, the federal government had preempted state and local control over aircraft noise. 250 Under the Noise Control Act, if the EPA concluded that a proposed course of action by the FAA "does not protect the public health and welfare from aircraft noise," it could challenge the FAA to pre-
pare an EIS detailing "the environmental effects (including those which cannot be avoided) of the action actually taken by the FAA."²⁵¹ Four dissenting justices contended that the majority opinion only prohibited states from attempting to regulate aircraft noise; it did not prohibit states from exercising authority over airport construction or expansion in accordance with state environmental concerns:

A local governing body could likewise use its traditional police power to prevent the establishment of a new airport or the expansion of an existing one within its territorial jurisdiction by declining to grant the necessary zoning for such a facility. Even though the local government's decision[s] in each case were motivated entirely because of the noise associated with airports, I do not read the Court's opinion as indicating that such action would be prohibited by the Supremacy Clause merely because the Federal Government has undertaken the responsibility for some aspects of aircraft noise control.²⁵²

Nevertheless, subsequent state court decisions in the 1970s interpreted the Burbank opinion to prohibit state courts and local agencies from hindering airport expansion on environmental grounds.²⁵³

In 1980, however, the U.S. Supreme Court denied certiorari regarding a decision by the Supreme Court of California that would permit state and local governments to limit airport expansion on the basis of environmental concerns.²⁵⁴ In Greater Westchester Homeowners Ass'n v. City of Los Angeles, the state court was persuaded by the fact that, although the FAA may have en-

²⁵² City of Burbank, 411 U.S. at 653 (Rehnquist, J., dissenting).
²⁵³ See, e.g., Twp. of Hanover v. Town of Morristown, 343 A.2d 792, 796 (N.J. Super. Ct. App. Div. 1975) (holding that "control and regulation of aircraft noise has been preempted by the Federal Government and that the Chancery Division infringed on the federal power when it imposed the restrictions on the use of the airport" to mitigate the environmental impacts of airport expansion); Vill. of Bensenville v. City of Chi., 306 N.E.2d 562, 563, 565 (Ill. App. Ct. 1973) (declining state court jurisdiction over an environmental challenge to expansion of the O'Hare airport because the federal government "has, through the Federal Aviation Act, as now supplemented by the Noise Control Act . . . so occupied the regulation of aircraft noise and air pollution as to preempt any state or local action in that field").
couraged expansion of the Los Angeles International Airport (LAX), it was the City of Los Angeles, "and not the federal government, [that] decided to build and then to expand the airport in the immediate vicinity of a residential area." With federal approval, the "[c]ity voluntarily elected to expand the facility, with foreknowledge of the preexisting nature and usage of the surrounding area," and was therefore barred from arguing that, as an arm of the state government, it was federally preempted from fulfilling its obligation "to minimize noise at LAX." While recognizing federal preemption of the airspace and "aircraft in flight," the court determined that the state legislature could still impose on the airport the responsibility "to institute reasonable noise abatement procedures which do not conflict with federal law," a responsibility that extends to airport facilities construction and "land use planning designed to minimize the effects of noise." This appeared to reverse earlier interpretations of the Supreme Court's Burbank holding, in that not only was it permissible for state and local governments to limit airport expansion on the basis of environmental concerns, it was their responsibility to do so, particularly where the state or local government is the airport proprietor.

The California Court of Appeal relied on this understanding in 1999 in City of Burbank v. Burbank-Glendale-Pasadena Airport Authority to affirm that state and local governments have broad authority over the approval of airport expansion, which is based on their land regulation powers. Likewise, in 2002, the Appellate Court of Illinois, in Philip v. Daley, held that an Illinois state statute requiring state approval prior to airport expansion was not federally preempted: "In short, the way we do business in this state is our business, and ours alone." The scope of aviation activity that the judiciary recognizes to be federally preempted—namely, aircraft in flight—thus appears to be sufficiently limited to provide state legislatures—and state courts—with broad au-

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255 Greater Westchester Homeowners Ass'n, 603 P.2d at 1335.
256 Id.
257 Id. at 1333.
258 Id. at 1337.
259 Id. at 1334.
260 See id.; supra notes 250–53 and accompanying text.
263 Id. at 974.
authority to limit airport expansion due to environmental concerns.\textsuperscript{264}

**B. ORIGINAL AND EXCLUSIVE JURISDICTION**

Where a challenge to airport expansion is brought in federal court, the FAA will prefer for the challenge to be heard in the U.S. courts of appeals, effectively treating the Agency’s decision as a trial court order entitled to deference.\textsuperscript{265} Opponents to airport expansion hope to have their concerns heard in U.S. district court, assuming that the challenge will be more likely to succeed if the reviewing court undertakes additional fact-finding rather than merely adopting the record compiled by the FAA.\textsuperscript{266} However, because NEPA itself does not contain a jurisdictional grant, the proper forum depends on the application of other statutes.

In 1975, the U.S. District Court for the Northern District of Illinois considered a NEPA challenge to a newly constructed runway and taxiway at O’Hare International Airport for which no EIS had been prepared.\textsuperscript{267} The court concluded, despite FAA objections, that it had jurisdiction to consider NEPA complaints.\textsuperscript{268} The court rejected the FAA’s contention that the municipal plaintiffs were required to first exhaust their administrative review options under the Federal Aviation Act, criticizing the FAA’s notice-and-comment regulations under NEPA as “deficient.”\textsuperscript{269} Although the court found the administrative review section of the Federal Aviation Act inadequate,\textsuperscript{270} it did not appear to notice the judicial review section of the same statute, which provided that final FAA orders “shall be subject to review by the courts of appeals of the United States.”\textsuperscript{271}

\textsuperscript{264} See John J. Jenkins Jr., Comment, The Airport Noise and Capacity Act of 1990: Has Congress Finally Solved the Aircraft Noise Problem?, 59 J. AIR L. & COM. 1023, 1029–30 (1994) (“The current trend regarding preemption of state and local regulations appears to be toward acceptance of concurrent regulation, so long as compliance with the local regulations does not make compliance with federal regulations impossible.”).

\textsuperscript{265} See Mergen, supra note 40, at 22 & n.6.

\textsuperscript{266} Id. at 22 (“District court judges are not necessarily immune from the concerns of the communities they serve and may be more receptive to local objections to airport projects.”).


\textsuperscript{268} Id. at 636–39.

\textsuperscript{269} Id. at 638–39.

\textsuperscript{270} Id.; see 49 U.S.C. § 1482 (1970).

\textsuperscript{271} 49 U.S.C. § 1486(a).
Ten years later, however, the same court dismissed on jurisdictional grounds a NEPA complaint related to the FAA’s approval of the O’Hare airport development plan, determining that “exclusive jurisdiction vests in the Court of Appeals to review all final orders of the FAA made under” the Federal Aviation Act.\textsuperscript{272} The plaintiffs contended that the FAA approved the development plan under the AAIA, not the Federal Aviation Act, and that therefore the exclusive jurisdiction grant did not apply.\textsuperscript{273} The court determined that the authority to approve the airport development plan was at least partly derived from the Federal Aviation Act, suggesting jurisdiction was proper only in the courts of appeals.\textsuperscript{274} Furthermore, even if the order was issued under AAIA authority, it did not necessarily follow “that if the Court of Appeals lacks jurisdiction to review an FAA order, the district court necessarily has such jurisdiction: the order may simply be unreviewable.”\textsuperscript{275} The following year, the U.S. Court of Appeals for the Seventh Circuit agreed that the courts of appeals had exclusive jurisdiction\textsuperscript{276} and that the plaintiffs were “effectively foreclosed from pursuing their claims in the district court.”\textsuperscript{277}

Although the Northern District of Illinois concluded that the courts of appeals “uniformly held” that they had exclusive jurisdiction over FAA orders, even those partially authorized by the AAIA, it acknowledged that “this issue is not simple” and that courts struggled with “determining when . . . [FAA] action [fell] within the scope of [the] statute directing exclusive review in the Court[s] of Appeals.”\textsuperscript{278} A few years later, the U.S. District Court for the Southern District of Ohio lamented the “absence of instruction on this subject in this Circuit” regarding judicial review of an FAA order.\textsuperscript{279} In that case, municipal plaintiffs brought a NEPA challenge against the FAA’s environmental review of a proposed new runway at the Greater Cincinnati Inter-

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\item \textsuperscript{272} Suburban O’Hare Comm’n v. Dole, 603 F. Supp. 1013, 1018, 1032 (N.D. Ill. 1985).
\item \textsuperscript{273} Id. at 1020.
\item \textsuperscript{274} Id. at 1021.
\item \textsuperscript{275} Id. at 1022.
\item \textsuperscript{276} Suburban O’Hare Comm’n v. Dole, 787 F.2d 186, 192 (7th Cir. 1986) (“If there is any ambiguity as to whether jurisdiction lies with a district court or with a court of appeals we must resolve that ambiguity in favor of review by a court of appeals.”).
\item \textsuperscript{277} Id. at 193.
\item \textsuperscript{278} \textit{Suburban O’Hare Comm’n}, 603 F. Supp. at 1017–18, 1023.
\item \textsuperscript{279} Twp. of Delhi v. McArtor, 696 F. Supp. 1157, 1161 (S.D. Ohio 1988).
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national Airport. The FAA performed an EA for the new runway and issued a FONSI, subsequently granting over $36 million for the runway's construction. The municipal plaintiffs sought a preliminary injunction in the district court, contending that the FONSI could not qualify as a final FAA order because it failed to comply with NEPA requirements. Notably, the plaintiffs acknowledged that they could not ultimately prevent construction of the runway once the FAA performed a complete environmental review, but only sought to enjoin preliminary site-work until the FAA issued a "final order" that satisfied its requirements under NEPA. However, due to the judicial deference afforded to the consideration of environmental impacts under NEPA, the court determined that the FONSI was a final order of the FAA, so the only question was whether such a final FAA order was subject to the exclusive review of the courts of appeals. Acknowledging the Seventh Circuit's holding in the O'Hare litigation, the district court noted its "substantial doubts regarding its subject matter jurisdiction," but nevertheless proceeded to consider the matter on its merits and then deny the injunction.

In 2003, however, the U.S. Court of Appeals for the Second Circuit rejected the notion that it had exclusive or original jurisdiction to review FAA orders approving airport development plans. In 1994, the FAA approved an airport layout plan for the East Hampton Airport (superseding a plan it had previously approved in 1989) and proceeded to fund construction projects under the 1994 plan. A plaintiff organization opposed to airport expansion brought a successful state court challenge, invalidating the process under which the 1994 plan was approved. As a result, at the town's request, in 2001 the FAA reverted to its

280 Id. at 1159–60.
281 Id.
282 Id.
283 Id. at 1160–61.
284 Id. at 1161.
285 Id.
286 Id. at 1161–63. The court appeared to be impressed with the thoroughness of the EA, believing that it would largely satisfy the requirements of an EIS, which the municipal plaintiffs felt was warranted. Id. at 1159 n.2 (noting that the EA "consists of four volumes measuring 8" in height"); id. at 1161–62 (noting that the EA included a thorough discussion of alternatives).
288 Id. at 286.
289 Id.
previously approved 1989 development plan for the airport. The same plaintiff organization challenged that action in the U.S. District Court for the District of Columbia, contends that re-approval of the 1989 plan was effectively the adoption of a new development plan, requiring full NEPA review. The FAA argued that exclusive jurisdiction resided in the courts of appeals. However, the Second Circuit determined that it did not have original jurisdiction over the challenge, because re-approval of the 1989 plan was an FAA action taken under its AAIA authority over airport development and noise management, and not an FAA order under the Federal Aviation Act. Since the Seventh Circuit’s 1985 holding in the O’Hare litigation, the judicial review section of the Federal Aviation Act had been modified to expressly indicate that review was available only in the courts of appeals for challenges to FAA orders “with respect to aviation safety duties and powers” in the “Air Commerce and Safety” category. Additionally, a judicial review section had been added to the AAIA granting exclusive jurisdiction to the courts of appeals for review of FAA orders withholding approval of expansion projects. Therefore, the Second Circuit determined that Congress did not intend to grant exclusive jurisdiction to the courts of appeals for challenges to FAA orders approving development projects.

Decisions in other circuits over the ensuing months indicate some confusion as to original and exclusive jurisdiction regarding environmental challenges to FAA orders approving airport development. In April 2003, the U.S. District Court for the Northern District of California asserted jurisdiction over a FONSI issued by the FAA with respect to a runway extension at Mammoth Lakes Airport, enjoining construction despite the FAA’s contention that its order related to air commerce and was reviewable only in the courts of appeals. However, in July

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290 *Id.* at 286–87.
291 *Id.* at 287.
292 *Id.*
293 *Id.* at 287–88.
294 *Id.* at 289–90 (emphasis omitted); see 49 U.S.C. § 46110 (2000).
295 *Comm. to Stop Airport Expansion*, 320 F.3d at 288; see 49 U.S.C. § 47106(d)(3).
296 *Comm. to Stop Airport Expansion*, 320 F.3d at 290–91.
297 California v. U.S. DOT, 260 F. Supp. 2d 969, 972 n.3 (N.D. Cal. 2003) (citing *City of Alameda v. FAA*, 285 F.3d 1143, 1145 (9th Cir. 2002), which dictates that “[t]he fact that the ROD refers to matters of Airport Safety and Commerce is of no import here, since petitioners challenge [environmental] actions unrelated to either of those matters”).
2003, the U.S. Court of Appeals for the Fourth Circuit determined that it had original and exclusive jurisdiction over a FONSI issued by the FAA with respect to a proposed new runway at Piedmont-Triad International Airport as well as the FAA’s subsequent ROD approving the new airport development plan because the ROD stated that the proposed new runway was “reasonably necessary for use in air commerce,” and thus fell under the jurisdictional grant for air commerce and safety.\(^{298}\) In December 2003, Congress modified the jurisdictional grant in the Federal Aviation Act to clarify that the courts of appeals had exclusive jurisdiction over FAA orders arising under the FAA’s “aviation duties and powers” related to either air commerce, safety, noise, or airport development.\(^{299}\) Recent decisions reflect a consensus that the courts of appeals have exclusive jurisdiction over challenges to FAA actions brought under NEPA.\(^{300}\) This consensus, combined with the Vision 100 requirement that all state and federal agencies participate in a “coordinated environmental review process” under the direction of the FAA,\(^ {301}\) may have the effect of federally preempting state court challenges to airport expansion on environmental grounds, at least where the airport expansion is federally funded.\(^{302}\)

\(^{298}\) Alliance for Legal Action v. FAA, 69 F. App’x 617, 619–21 (4th Cir. 2003).

\(^{299}\) 49 U.S.C. § 46110(a); see also St. John’s United Church of Christ v. City of Chi., 401 F. Supp. 2d 887, 903 n.10 (N.D. Ill. 2005), aff’d, 502 F.3d 616 (7th Cir. 2007).

\(^{300}\) See, e.g., Ass’n of Citizens to Protect and Pres. the Env’t of the Oak Grove Cmty. v. FAA, 287 F. App’x 764, 767 (11th Cir. 2008) (per curiam) (affirming the dismissal of challenge to FONSI, issued by the FAA for runway extension at Troy Municipal Airport, on the grounds that the Middle District of Alabama did not have subject matter jurisdiction).

\(^{301}\) See supra note 185 and accompanying text.

\(^{302}\) Federal preemption of airport expansion may have been the intent of these 2003 legislative changes, as they were enacted amid an emerging consensus recognizing the need to “yield to more federal control” over the aviation industry and airport expansion in particular. See Jeffrey A. Berger, Comment, Phoenix Grounded: The Impact of the Supreme Court’s Changing Preemption Doctrine on State and Local Impediments to Airport Expansion, 97 Nw. U. L. Rev. 941, 993 (2003) (“A greater federal presence will lead to industry growth without artificial constraints, will reduce the delays needlessly caused by inhibited airport expansion, and, by placing accountability at the national level, will help reduce local strife over airport expansion.”).
IV. REGRESSION ANALYSIS

A. DATABASE DEVELOPMENT

Faced with the variety of environmental challenges brought in court against airport expansion, including claims made under the three NEPA prongs, the author undertook a comprehensive review of all available judicial opinions on the subject. Each known case was categorized according to the factual setting and legal claims considered by the court, and a regression analysis was then performed to identify what factors are statistically significant in a court’s decision to either approve the environmental review or to enjoin airport expansion.

One hundred forty judicial opinions were identified that involved environmental challenges to the construction or physical expansion of an airport. Environmental challenges to the continued operation of an existing airport or to revised airport procedures, not involving physical construction, are not considered herein. Likewise, this study does not include challenges to airport expansion on takings grounds or challenges made purely on the basis of local zoning ordinances designed to prohibit airport expansion, unless those opinions also deal with environmental challenges such as failure to adequately consider environmental impacts, alternatives, or mitigation measures.\(^3\)

The reported opinions were categorized according to the factual setting of the case, the environmental claims considered within the text of the opinion, and the outcome of the case. With respect to the factual setting of each case, parameters considered include the degree of expansion contemplated, the stage of development challenged, the level of environmental review that was performed, the date of decision, and the court hearing the case.

The degree of expansion being challenged is represented by the parameter $F_{\text{Expand}}$, which is coded (on a scale of one to six, as shown in Table 1) to generally reflect the impact of the planned expansion on airport capacity (e.g., so that the value of $F_{\text{Expand}}$ would be greater for a new airport than for a new terminal at an existing airport). It was anticipated that judicial scrutiny of the environmental review might correlate with the degree of expansion.

\(^3\) Although zoning challenges to airport expansion are often motivated by environmental concerns, adequacy of environmental review is a distinct issue and generally is irrelevant to the question of whether zoning ordinances permit airport expansion. See generally Donald W. Tuegel, Note, Airport Expansions: The Need for a Greater Federal Role, 54 WASH. U. J. URB. & CONTEMP. L. 291, 309–10 (1998).
Eighteen cases involve the proposed construction of a new airport ($F_{\text{Expand}} = 6$), including three cases involving challenges to Denver International Airport in the early 1990s, and three recent cases involving the new Panama City-Bay County Airport. Fourteen cases involve the addition of two or more runways to an existing airport ($F_{\text{Expand}} = 5$), most of which are

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304 See, e.g., Life of the Land v. Volpe, 363 F. Supp. 1171, 1174 n.9 (D. Haw. 1972), aff'd, 485 F.2d 460 (9th Cir. 1973) ("For example, an adequate EIS in connection with the establishment of a new airport might well differ quantitatively and qualitatively from an adequate EIS in connection with the expansion of an existing airport.").

305 Three of these eighteen challenges involving new airport construction ($F_{\text{Expand}} = 6$) took place when the proposed new airport was still in the speculative or planning stages ($F_{\text{Stage}} = 1$). See Karst Envtl. Educ. & Prot., Inc. v. EPA, 475 F.3d 1291, 1293 (D.C. Cir. 2007); Miami Sierra Club v. State Admin. Comm'n, 721 So. 2d 829, 830 (Fla. Dist. Ct. App. 1998); Univ. of Tenn. Arboretum Soc'y, Inc. v. City of Oak Ridge, 1983 WL 825161, at *1 (Tenn. Ct. App. May 4, 1983).


Four challenges were made when construction was imminent or ongoing ($F_{\text{Stage}} = 4$). See Grand Canyon Trust v. FAA, 290 F.3d 399, 340 (D.C. Cir. 2002); Allison v. DOT, 908 F.2d 1024, 1026 (D.C. Cir. 1990); Van Aire Skyport Corp. v. FAA, 733 F. Supp. 316, 318 (D. Colo. 1990); Citizens Airport Comm. of Chesterfield Cnty. v. Volpe, 351 F. Supp. 52, 61 (E.D. Va. 1972).

Two of these eighteen opinions were issued after airport construction was complete ($F_{\text{Stage}} = 5$). See Bd. of Cnty. Comm'rs v. FAA, 18 F.3d 953 (D.C. Cir. 1994) (unpublished table decision); Nat'l Parks & Conservation Ass'n v. FAA, 998 F.2d 1523, 1525 n.3 (10th Cir. 1993).

306 See Bd. of Cnty. Comm'rs, 18 F.3d 953; Allison, 908 F.2d at 1026; Van Aire Skyport Corp., 733 F. Supp. at 318.


308 Five out of fourteen opinions involve challenges to new runways still in the planning stages ($F_{\text{Stage}} = 1$), where construction was not imminent or was even speculative. See City of Grapevine, Tex. v. DOT, 17 F.3d 1502, 1503, 1509 (D.C. Cir. 1994); City of Taylor v. Bussey, No. 90-CV-71452-DT, 1991 U.S. Dist. LEXIS
directed at the expansion of O'Hare International Airport in Chicago. Thirty-six cases involve the addition of a single new runway (\(F_{\text{Expand}} = 4\)); eight of these cases are challenges to run-

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Four of these fourteen opinions involve challenges to the acquisition of land (\(F_{\text{Sage}} = 2\)) for new runways at Chicago’s O'Hare International Airport. See St. John’s United Church of Christ v. City of Chi., 502 F.3d 616, 619 (7th Cir. 2007); Vill. of Bensenville v. FAA, 457 F.3d 52, 57, 58 (D.C. Cir. 2006); St. John’s United Church of Christ v. City of Chi., 401 F. Supp. 2d 887, 890 (N.D. Ill. 2005), aff'd, 502 F.3d 616 (7th Cir. 2007); Philip v. Daley, 790 N.E.2d 961, 963 (Ill. App. Ct. 2003), vacated sub nom., Daley v. Hutchinson, 2003 WL 23610572 (Ill. Sept. 9, 2003).

Two cases deal with challenges to filling wetlands to prepare a site for runway construction (\(F_{\text{Sage}} = 3\)). See Nat'l Mitigation Banking Ass'n v. U.S. Army Corps of Eng'rs, No. 06-cv-2820, 2007 WL 495245, at *1–2 (N.D. Ill. Feb. 14, 2007); Alaska Ctr. for the Env't v. the Env't v. State, 80 P.3d 231, 235 (Alaska 2003).

One opinion involves a challenge to final agency approval of the imminent construction (\(F_{\text{Stage}} = 4\)) of two runways at Standiford Field in Kentucky. See Cmty., Inc. v. Busey, 956 F.2d 619, 621 (6th Cir. 1992).


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309 St. John’s United Church of Christ, 502 F.3d at 619; Vill. of Bensenville, 457 F.3d at 57; Nat'l Mitigation Banking Ass'n, 2007 WL 495245, at *1; St. John's United Church of Christ, 401 F. Supp. 2d at 890; People ex rel. Birkett, 705 N.E.2d at 49; Philip, 790 N.E.2d at 963; People ex rel. Birkett, 769 N.E.2d at 88; People ex rel. Birkett, 686 N.E.2d at 67.

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310 Two of these opinions involve challenges to more preliminary plans where the new runway was speculative (\(F_{\text{Sage}} = 1\)). See City of Normandy Park v. Port of Seattle, 165 F.3d 35 (9th Cir. 1998) (unpublished table decision); Airport Impact Relief, Inc. v. Mass. Port Auth., No. 941371B, 1995 WL 809553, at *1 (Mass. Super. Ct. June 8, 1995).


Ten of the thirty-six opinions involve challenges to preparation of the site for runway construction (\(F_{\text{Sage}} = 3\)), such as excavation, grading, dredging, filling, or demolition of pre-existing structures on the site of the proposed runway. See City of Olmsted Falls, Ohio v. EPA, 435 F.3d 632, 633 (6th Cir. 2006); Alliance for Legal Action v. FAA, 69 F. App'x 617, 619 (4th Cir. 2003); Families for Asbestos Compliance Testing & Safety v. City of St. Louis, Mo., 638 F. Supp. 2d 1117, 1118 (E.D. Mo. 2009); Families for Asbestos Compliance Testing & Safety v. City of St. Louis, Mo., No. 4:05-CV-719 (CEJ), 2008 WL 4279569, at *1 (E.D. Mo. Sept. 15,
way construction at Logan International Airport in Boston. Some of these cases also involve other improvements, such as the extension of an existing runway in addition to the new runway. Where a case involves multiple improvements, for the purposes of this regression analysis, it is coded according to the expansion activity that contributes the most to expanding the capacity of the airport (i.e., the largest value of $F_{\text{Expand}}$). Forty-six cases are challenges to runway extensions ($F_{\text{Expand}} = 3$), which is

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312 See, e.g., Cmtns. Against Runway Expansion, Inc., 355 F.3d at 681; Steel Creek Cnty. Ass’n, 435 F. supp. at 507; Sec’y of Envtl. Affairs, 323 N.E.2d at 331.
Four of these cases involve challenges in the planning stage, where runway expansion was still conceptual or speculative ($F_{\text{Stage}} = 1$). See Nat’l Parks & Conservation Ass’n v. U.S. DOT, 222 F.3d 677, 679 n.1 (9th Cir. 2000); Friends of Mammoth v. Town of Mammoth Lakes Redevel. Agency, 98 Cal. Rptr. 2d 334, 340–41 (Ct. App. 2000); City of Lomita v. City of Torrance, 196 Cal. Rptr. 538, 540 (Ct. App. 1983); Georgetown Crime Prevention v. King Cnty., No. 45681-4-I, 103 Wash. App. 1039, at *1 (Ct. App. 2000).


In fourteen challenges, runway construction is presumed to be ongoing or imminent ($F_{\text{Stage}} = 4$). See West v. FAA, 320 F. App’x 782, 783 (9th Cir. 2009); City of Oxford, Ga. v. FAA, 428 F.3d 1346, 1348 (11th Cir. 2005); Citizens Against Burlington, Inc. v. Busey, 938 F.2d 190, 191 (D.C. Cir. 1991); C.A.R.E. Now, Inc. v. FAA, 844 F.2d 1569, 1571 (11th Cir. 1988); Suburban O’Hare Comm’n v. Dole, 787 F.2d 186, 187 (7th Cir. 1986); Friends of the Earth, Inc. v. Brinegar, 518 F.2d 322, 322 (9th Cir. 1975); Town of New Windsor v. Ronan, 481 F.2d 450, 452 (2d Cir. 1973); Black Warrior Riverkeeper, Inc. v. Birmingham Airport Auth., 561 F. Supp. 2d 1250, 1251 (N.D. Ala. 2008); California v. U.S. DOT, 260 F. Supp. 2d 969, 971 (N.D. Cal. 2003); City of Tempe, Ariz. v. FAA, 239 F. Supp. 2d 55, 56 (D.D.C. 2003); Suburban O’Hare Comm’n v. Dole, 603 F. Supp. 1013, 1014–15 (N.D. Ill. 1985); Citizens for Responsible Area Growth (CRAG) v. Adams, 477 F.
the trafficable layout not involving runways, such as new taxiways or new parking aprons ($F_{\text{Expand}} = 2$).\textsuperscript{314} Twenty-two cases involve expansion of support facilities (such as a new terminal or hangar), not involving changes to the trafficable layout ($F_{\text{Expand}} = 1$).\textsuperscript{315}


Five of these forty-six challenges sought to enjoin the use of a runway after construction was completed ($F_{\text{Status}} = 5$). See Comm. to Stop Airport Expansion v. FAA, 320 F.3d 285, 286 (2d Cir. 2003); Citizen Advocacy Ctr. v. DuPage Airport Auth., 141 F.3d 713, 714 (7th Cir. 1998); Airport Neighbors Alliance, Inc. v. United States, 90 F.3d 426, 428 (10th Cir. 1996); Twp. of Hanover v. Town of Morristown, 343 A.2d 792, 793 (N.J. Super. Ct. App. Div. 1975); Gorman v. Town Bd. of Town of E. Hampton, 709 N.Y.S.2d 433, 434 (App. Div. 2000).

One of these four opinions deals with a challenge to the acquisition of land ($F_{\text{Status}} = 2$) for taxiway construction. See Burbank-Glendale-Pasadena Airport Auth. v. Hensler, 284 Cal. Rptr. 498, 500 (Ct. App. 1991).

In the other three challenges, site preparation activities were complete, and construction of the taxiway or parking apron was imminent or ongoing ($F_{\text{Status}} = 4$). See Town of Winthrop v. FAA, 535 F.3d 1, 3 (1st Cir. 2008) ("Notably, petitioners do not seek an injunction to stop the construction which has begun at Logan."); City of Bos. v. Volpe, 464 F.2d 254, 257 (1st Cir. 1972) ("[P]reparatory work has gone forward and, in April 1972, construction began."); Comm. to Stop Airport Expansion v. Town Bd. of Town of E. Hampton, 769 N.Y.S.2d 400, 400 (App. Div. 2003).

Three of these twenty-two opinions involve challenges to preliminary plans, where the proposed airport expansion was conceptual or speculative ($F_{\text{Status}} = 1$). See Town of Rye, N.Y. v. Skinner, 907 F.2d 23, 24 (2d Cir. 1990) (per curiam) ("[F]unding for the Airport project is uncertain."); Cnty. of Orange v. Air Cal., 799 F.2d 535, 536 (9th Cir. 1986) (involving a plan "for the future development" of the airport); City of Bos. v. Coleman, 397 F. Supp. 698, 699 (D. Mass. 1975) ("[P]rojects . . . may be built at some indeterminate time in the future, if at all.").

Four of these opinions deal with challenges to the acquisition or lease of land for the expanded airport facilities ($F_{\text{Status}} = 2$). See City of L.A. v. FAA, 138 F.3d 806, 807 (9th Cir. 1998); Citizens for Responsible Area Growth v. Adams, 680 F.2d 835, 836–37 (1st Cir. 1982); City of L.A. v. Coleman, 397 F. Supp. 547, 550 (D.D.C. 1975); City of Burbank v. Burbank-Glendale-Pasadena Airport Auth., 85 Cal. Rptr. 2d 28, 30–31 (Ct. App. 1999).

One case involves a challenge to the filling of wetlands to prepare a site for the new airport facilities ($F_{\text{Status}} = 3$). See California ex rel. Van de Kamp v. Marsh, 687 F. Supp. 495, 497 (N.D. Cal. 1988).

In the remaining thirteen cases, it is presumed that construction is imminent or ongoing ($F_{\text{Status}} = 4$). See City of Alameda v. FAA, 285 F.3d 1143, 1144 (9th Cir. 2002); Friends of the Earth, Inc. v. Coleman, 518 F.2d 323, 326 (9th Cir. 1975); Neighbors Organized to Insure a Sound Env't, Inc. v. Engen, 665 F. Supp. 537, 538 (M.D. Tenn. 1987), vacated sub nom., Neighbors Organized to Insure a Sound Env't, Inc. v. McArtor, 878 F.2d 174 (6th Cir. 1989); Long Beach Council of Parents & Teachers, Inc. v. City of Long Beach, No. G040430, 2009 WL 1497505, at *1–2 (Cal. Ct. App. May 28, 2009); Fat v. Cnty. of Sacramento, 119 Cal. Rptr. 2d 402, 404–06 (Ct. App. 2002); Berkeley Keep Jets over the Bay Comm. v. Bd. of
Table 1. Coding scheme to represent degree of airport expansion ($F_{\text{Exp}}$) being challenged in a case.

<table>
<thead>
<tr>
<th>Degree of Planned Airport Expansion</th>
<th>$F_{\text{Exp}}$ Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Airport</td>
<td>6</td>
</tr>
<tr>
<td>Multiple New Runways</td>
<td>5</td>
</tr>
<tr>
<td>One New Runway</td>
<td>4</td>
</tr>
<tr>
<td>Runway Extension(s)</td>
<td>3</td>
</tr>
<tr>
<td>Other Trafficable Expansion (e.g., New Taxiway)</td>
<td>2</td>
</tr>
<tr>
<td>Expansion of Support Facilities</td>
<td>1</td>
</tr>
</tbody>
</table>

Each case is also categorized according to the stage of development being challenged. This parameter, $F_{\text{Stage}}$, is coded (on a scale of one to five, as shown in Table 2) to reflect the imminence of the expected environmental impact of the planned airport expansion. Unless otherwise stated in the opinion, it is presumed that plaintiffs seek to enjoin imminent or ongoing construction ($F_{\text{Stage}} = 4$). This is, therefore, the most frequent category, and fifty-three cases are coded to this value.\(^{316}\) However, many challenges are made earlier in time. Thirty-three cases seek to enjoin preliminary site-work ($F_{\text{Stage}} = 3$) such as dredging, filling, excavating, grading, or environmental cleanup prior to construction.\(^{317}\) Twenty-two cases involve challenges to acquisition of the site for the planned expansion ($F_{\text{Stage}} = 2$).\(^{318}\) Seventeen cases involve challenges to long-term development plans, where construction is not imminent and may even be speculative ($F_{\text{Stage}} = 1$).\(^{319}\) Fifteen of the opinions involve challenges made after the airport has expanded, where construction

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\(^{316}\) See sources cited supra notes 305, 308, 310, 313–15.

\(^{317}\) See sources cited supra notes 305, 308, 310, 313, 315.

\(^{318}\) See sources cited supra notes 305, 308, 310, 313–15.

\(^{319}\) See sources cited supra notes 305, 308, 310, 313, 315.
is complete and plaintiffs seek to enjoin operation of the expanded portion of the airport ($F_{\text{Stage}} = 5$).\footnote{See sources cited \textit{supra} notes 305, 308, 313, 315.}

Table 2. Coding scheme to represent stage of development ($F_{\text{Stage}}$) that the expansion opponent is challenging.

<table>
<thead>
<tr>
<th>Stage of Airport Expansion</th>
<th>$F_{\text{Stage}}$ Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long-Range Planning</td>
<td>1</td>
</tr>
<tr>
<td>Site Acquisition</td>
<td>2</td>
</tr>
<tr>
<td>Site Development</td>
<td>3</td>
</tr>
<tr>
<td>Imminent Construction</td>
<td>4</td>
</tr>
<tr>
<td>Construction Complete</td>
<td>5</td>
</tr>
</tbody>
</table>

Each case is also categorized according to the degree of environmental review that has been conducted (on a scale of zero to four, as shown in Table 3). This factor, $F_{\text{Review}}$, is one measure of the compliance of the airport proprietor or defendant agency with respect to NEPA or other similar procedural statutes. In sixty-seven of the cases, a final EIS or EIR was prepared, and the agency subsequently issued an ROD or equivalent order approving the expansion on that basis ($F_{\text{Review}} = 3$).\footnote{Natural Res. Def. Council, Inc. v. FAA, 564 F.3d 549, 554 (2d Cir. 2009); Town of Winthrop v. FAA, 535 F.3d 1, 4 (1st Cir. 2008); United States ex rel. Heath v. Dall.-Fort Worth Int'l Airport Bd., 260 F. App'x 708, 709 (5th Cir. 2007) (per curiam); St. John's United Church of Christ v. City of Chi., 502 F.3d 616, 623 (7th Cir. 2007); Vill. of Bensenville v. FAA, 457 F.3d 52, 59 (D.C. Cir. 2006); City of Olmsted Falls, Ohio v. EPA, 435 F.3d 632, 634 (6th Cir. 2006); Cmtys. Against Runway Expansion, Inc. v. FAA, 355 F.3d 678, 683 (D.C. Cir. 2004); Alliance for Legal Action v. FAA, 69 F. App'x 617, 620 (4th Cir. 2003); City of Olmsted Falls, Ohio v. FAA, 292 F.3d 261, 265 (D.C. Cir. 2002); Town of Stratford, Conn. v. FAA, 292 F.3d 251, 252 (D.C. Cir. 2002); Town of Stratford, Conn. v. FAA, 285 F.3d 84, 87 (D.C. Cir. 2002); Nat'l Parks & Conservation Ass'n v. U.S. DOT, 222 F.3d 677, 683 (9th Cir. 2000) (Fletcher, J. dissenting); City of Bridgeport v. Slater, 212 F.3d 448, 453–54 (8th Cir. 2000); City of L.A. v. FAA, 138 F.3d 806, 807 (9th Cir. 1998); City of Grapevine, Tex. v. DOT, 17 F.3d 1502, 1503 (D.C. Cir. 1994); Bd. of Cnty. Comm'rs v. FAA, 18 F.3d 953 (D.C. Cir. 1994) (unpublished table decision); Nat'l Parks & Conservation Ass'n v. FAA, 998 F.2d 1523, 1526 (10th Cir. 1993); Save Ourselves, Inc. v. U.S. Army Corps of Eng'rs, 958 F.2d 659, 660 (5th Cir. 1992); Cmtys., Inc. v. Busey, 956 F.2d 619, 621 (6th Cir. 1992); Cottonwood Grove Dev. Corp. v. FAA, 952 F.2d 409 (10th Cir. 1992) (unpublished table decision); Citizens Against Burlington, Inc. v. Busey, 938 F.2d 190, 193 (D.C. Cir. 1991); Allison v. DOT, 908 F.2d 1024, 1027 (D.C. Cir. 1990); Cnty. of Orange v. Air Cal., 799 F.2d 535, 536 (9th Cir. 1986); Suburban O'Hare Comm'n v. Dole, 787 F.2d 186, 191 (7th Cir. 1986); City of Blue Ash, Ohio v. McLucas, 596 F.2d 709, 711 (6th Cir. 1979); Matsumoto v. Brinegar, 568 F.2d 1289, 1290 (9th Cir. 1978); Friends of the Earth, Inc. v. Coleman, 518 F.2d 326; City of Bos. v. Brinegar, 512 F.2d 319, 320 (1st Cir. 1975); Life of the Land v. Brinegar, 485 F.2d}
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agency prepared a supplemental EIS (F\text{Review} = 4). In nine cases, the agency prepared a draft EIS, but the final EIS had not yet been issued (F\text{Review} = 2). In twenty-nine cases, the agency performed an EA and issued a FONSI or equivalent negative declaration, indicating that it does not plan to prepare an EIS (F\text{Review} = 1). In the remaining thirty-one cases, there is no in-

that RODs for airport expansion projects are less likely to be challenged than FONSI). 


dication in the opinion that any formal environmental review has been undertaken ($F_{\text{Review}} = 0$).

Table 3. Coding scheme to reflect level of environmental review ($F_{\text{Review}}$) that has been conducted in a case.

<table>
<thead>
<tr>
<th>Level of Environmental Review</th>
<th>$F_{\text{Review}}$ Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supplemental EIS</td>
<td>4</td>
</tr>
<tr>
<td>Final EIS + ROD</td>
<td>3</td>
</tr>
<tr>
<td>Draft EIS</td>
<td>2</td>
</tr>
<tr>
<td>EA + FONSI</td>
<td>1</td>
</tr>
<tr>
<td>None</td>
<td>0</td>
</tr>
</tbody>
</table>

Two other factors considered in the regression analysis are the court issuing the opinion and the date of decision:
- $F_{\text{Court}}$: Fifty of the opinions were issued by a state court ($F_{\text{Court}} = 1$), forty of the cases were in a U.S. district court ($F_{\text{Court}} = 2$), and fifty of the cases were decided by a U.S. court of appeals ($F_{\text{Court}} = 3$).  
- $F_{\text{Date}}$: This parameter is computed according to the following formula:

$$F_{\text{Date}} = \frac{1}{10} (\text{Year} - 1970)$$

Thirty-two of the opinions date back to the 1970s ($F_{\text{Date}} < 1$), sixteen of the opinions are from the 1980s ($1 \leq F_{\text{Date}} < 2$), twenty-eight of the opinions are from the 1990s ($2 \leq F_{\text{Date}} < 3$), and sixty-four of the opinions are dated 2000 or later ($F_{\text{Date}} \geq 3$).

The opinions are also categorized according to the plaintiff's claim with respect to the three primary NEPA prongs: analysis of environmental impacts, consideration of alternatives, and discussion of mitigation measures. For the purposes of this study, the cases are characterized only according to the specific claims that are directly addressed or otherwise acknowledged in the court's opinion, and not to any spurious claims that may have


325 See sources cited supra notes 305, 308, 310, 313–15.
326 See sources cited supra notes 305, 308, 310, 313–15.
been made in the plaintiff’s complaint or briefs. These factors are coded (on scales of zero to two) as follows:

- \( C_{\text{impact}} \): Most of the opinions (ninety-two out of 140) address a claim that the agency inadequately considered environmental impacts. Forty-six (exactly one-half) of the ninety-two cases address a challenge only to the consideration of the direct impact of the planned expansion \( (C_{\text{impact}} = 1) \), such as a claim that the agency’s methodology was flawed or that the agency failed to address environmental concerns advanced by the public.\(^{327}\) In five cases, the opinion addi-

tionally addresses a challenge to the consideration of indirect or secondary impacts of the planned expansion (C_{impact} = 1.5), such as the environmental impact due to growth that is expected to be induced by the expanded airport. In forty-one of the ninety-two cases, the court addresses a claim that the agency improperly segmented its analysis or inadequately considered cumulative impacts (C_{impact} = 2).


328 See Alliance for Legal Action v. FAA, 69 F. App'x 617, 624 (4th Cir. 2003) (Plaintiff "says the EIS should have included . . . the effect of population growth induced by the expansion"); City of Normandy Park v. Port of Seattle, 165 F.3d 35, at *1 (9th Cir. 1998) (unpublished table decision) (Plaintiff claims that the FAA "improperly relied on a 'no growth' demand model and a limited prediction forecast thereby failing to accurately assess the project's environmental impacts"); Life of the Land v. Volpe, 363 F. Supp. 1171, 1174 (D. Haw. 1972), aff'd, 485 F.2d 460 (9th Cir. 1973) ("Plaintiffs question the omission from the EIS of any discussion of the demographic impact of the traffic facilitated by the runway."); City of Lomita v. City of Torrance, 196 Cal. Rptr. 538, 543 (Ct. App. 1989) (Plaintiffs claim "the EIR ignored the growth-inducing impact of the project."); S.F. Ecology Ctr. v. City & Cnty. of S.F., 122 Cal. Rptr. 100, 107 (Ct. App. 1975) (Appellants raise "objections relating to . . . traffic problems, growth-inducing impact and tax burdens on San Francisco residents.").

The remaining forty-eight opinions do not address a challenge to the consideration of environmental impacts.

- **C_{Alternative}:** Fifty-eight of the opinions address a claim that the agency inadequately considered alternatives to the proposed expansion. In thirty (slightly more than half) of the fifty-eight cases, the plaintiff alleges that the agency did not adequately consider all feasible alternatives ($C_{Alternative} = 1$). In twenty-eight of the fifty-eight cases, the plaintiff claims that the agency was required to demonstrate that there were no feasible alternatives to the proposed expansion and failed to do so ($C_{Alternative} = 2$).

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331 See Natural Res. Def. Council, Inc., 564 F.3d at 556-57; St. John's United Church of Christ v. City of Chi., 502 F.3d 616, 635 (7th Cir. 2007); Vill. of Benesville v. FAA, 457 F.3d 52, 57 (D.C. Cir. 2006); City of Omlsted Falls, Ohio, 292 F.3d at 274; Town of Stratford, Conn. v. FAA, 292 F.3d 251, 253 (D.C. Cir. 2002); Town of Stratford, Conn., 285 F.3d at 90; City of Bridgeton, 212 F.3d at 461-62; City of Grapevine, Tex., 17 F.3d at 1507; Nat'l Parks & Conservation Ass'n, 998 F.2d at 1551; Cmtys., Inc., 956 F.2d at 627; Citizens Against Burlington, Inc., 938 F.2d at 205; Al-
cases, $C_{\text{Alternative}} = 0$ because the opinion does not acknowledge a challenge to the discussion of alternatives.

- $C_{\text{Mitigate}}$: Seventy-two (slightly more than half) of the opinions address a claim that the agency inadequately considered mitigation measures. Twelve of the seventy-two cases address a challenge only to the consideration of potential mitigation measures ($C_{\text{Mitigate}} = 1$). In twenty-three cases, the opinion additionally addresses a challenge to the substantive mitigation measures ($C_{\text{Mitigate}} = 1.5$), such as an allegation that the expanded airport will fail to conform to substantive environmental statutes. In thirty-seven of the cases, $C_{\text{Mitigate}} = 0$ because the opinion does not acknowledge a challenge to the discussion of alternatives.
seventy-two opinions, the court addresses a claim that the agency has an absolute duty to minimize environmental impact of the proposed expansion (\( C_{\text{Mitigate}} = 2 \)). 334

A perusal of the briefs and pleadings filed in these cases indicates that plaintiffs typically raise significantly more claims than are addressed in the court’s final opinion.335 For example, challenges to the consideration of alternatives or to the discussion of mitigation measures are brought more frequently than the statistics above indicate. There may be a tendency for the courts to

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335 See, e.g., Life of the Land, 363 F. Supp. at 1174 (“Without attempting an exhaustive discussion of each of the matters as to which plaintiffs argue that the EIS is deficient, I shall illustrate the three categories mentioned.”).
consolidate all challenges to an environmental review into an evaluation of the adequacy of the discussion of environmental impacts. If so, this would be inconsistent with the directive of NEPA's implementing regulations that the discussion of alternatives, and not the consideration of environmental impacts, "is the heart of the environmental impact statement." Nevertheless, if an issue such as consideration of alternatives or discussion of mitigation measures is not addressed or acknowledged in the court's opinion, for the purposes of this study, that parameter is coded to a value of zero, without regard to whether the issue was actually part of the plaintiff's complaint or raised in the plaintiff's brief.

Finally, the outcome parameter $O_{\text{Outcome}}$ is coded according to Table 4 to reflect the degree of success of the environmental challenge. In eighteen cases, the plaintiff actually obtains an injunction or similar ruling (such as overturning the required agency approval) that halts the expansion activity ($O_{\text{Outcome}} = 4$) usually pending supplementation of the environmental review. In three cases, the court orders supplementation of the environmental review but expressly declines to issue an injunction ($O_{\text{Outcome}} = 3$). In nine cases, the court declines to order formal supplementation of the environmental review, but it conditions approval on the completion of some minimal additional compliance, such as securing a permit or providing additional documentation of its environmental analysis ($O_{\text{Outcome}} = 2$). In

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339 See City of Grapevine, Tex., 17 F.3d at 1509; Citizens Against Burlington, Inc., 938 F.2d at 206; Missouri ex rel. Mo.-St. Louis Metro. Airport Auth. v. Coleman,
nine cases, the plaintiff survives a motion to dismiss or a summary judgment motion, but a final decision is not reached, and thus, no further environmental review is ordered ($O_{\text{outcome}} = 1$). Thirty-two of the cases are dismissed due to jurisdictional or other justiciability concerns, without reaching the merits of the plaintiff's claims ($O_{\text{outcome}} = -1$).


See Ass'n of Citizens to Protect & Pres. the Env't v. FAA, 287 F. App'x 764, 765 (11th Cir. 2008) (per curiam); St. John's United Church of Christ v. City of Chi., 502 F.3d 616, 620, 626, 630 (7th Cir. 2007); Karst Envtl. Educ. & Prot., Inc. v. EPA, 475 F.3d 1291, 1293–94 (D.C. Cir. 2007); Vill. of Bensenville v. FAA, 457 F.3d 52, 69 (D.C. Cir. 2006); Heide v. FAA, 110 F. App'x 724, 726 (8th Cir. 2004) (per curiam); Comm. to Stop Airport Expansion v. FAA, 320 F.3d 285, 287 (2d Cir. 2003); Town of Stratford, Conn. v. FAA, 292 F.3d 251, 253 (D.C. Cir. 2002); City of Alameda v. FAA, 285 F.3d 1143, 1144 (9th Cir. 2002); Town of Stratford, Conn. v. FAA, 285 F.3d 84, 89 (D.C. Cir. 2002); Citizen Advocacy Ctr. v. DuPage Airport Auth., 141 F.3d 713, 715 (7th Cir. 1998); Sutton v. U.S. DOT, 38 F.3d 621, 626 (2d Cir. 1994); Save Ourselves, Inc. v. U.S. Army Corps of Eng'rs, 958 F.2d 659, 662 (5th Cir. 1992); Neighbors Organized to Insure a Sound Env't, Inc. v. McArtor, 878 F.2d 174, 179 (6th Cir. 1989); Cnty. of Orange v. Air Cal., 799 F.2d 555, 558 (9th Cir. 1986); City of Romulus v. Cnty. of Wayne, 634 F.2d 347, 349 (6th Cir. 1980); City of Blue Ash v. McClucas, 596 F.2d 709, 713 (6th Cir. 1979); City of Bos. v. Brinegar, 512 F.2d 319, 320 (1st Cir. 1975); Citizens Comm. for the Columbia River v. Callaway, 494 F.2d 124, 126 (9th Cir. 1974); City of Bos. v. Volpe, 464 F.2d 254, 260 (1st Cir. 1972); Families for Asbestos Compliance Testing & Safety v. City of St. Louis, Mo., 638 F. Supp. 2d 1117, 1125 (E.D. Mo. 2009); Ass'n of Citizens to Protect & Pres. the Env't v. FAA, No. 2:07-cv-378-MEF, 2007 WL 3205974, at *2 (M.D. Ala. Oct. 31, 2007), aff'd, 287 F. App'x 764 (11th Cir. 2008) (per curiam); St. John's United Church of Christ v. City of Chi., 401 F. Supp. 2d 887, 896, 903, 905, 906 (N.D. Ill. 2005), aff'd, 502 F.3d 616 (7th Cir. 2007); Town of Fairview, Tex. v. U.S. DOT, 201 F. Supp. 2d 64, 77 (D.D.C. 2002);
nine opinions (roughly one-half of the opinions), the court considers the plaintiff's claims on the merits and denies relief (\(O_{\text{outcome}} = 0\)), ruling in favor of the agency or airport sponsor.\textsuperscript{342}

Table 4. Coding scheme to represent the disposition of a case (\(F_{\text{outcome}}\)).

<table>
<thead>
<tr>
<th>Outcome of Decision</th>
<th>(O_{\text{outcome}}) Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Injunction (Construction Halted)</td>
<td>4</td>
</tr>
<tr>
<td>Supplementation Required</td>
<td>3</td>
</tr>
<tr>
<td>Disclosure Required</td>
<td>2</td>
</tr>
<tr>
<td>Survives Dismissal/Summary Judgment</td>
<td>1</td>
</tr>
<tr>
<td>Unsuccessful Claim</td>
<td>0</td>
</tr>
<tr>
<td>Not Justiciable/No Jurisdiction</td>
<td>-1</td>
</tr>
</tbody>
</table>

B. Regression Results

1. All Cases

Regression results for all 140 cases are displayed in Table 5. The initial regression analysis of all parameters is displayed in Row A1. This analysis illustrates the influence of the three primary NEPA procedural challenges (\(C_{\text{impact}}\), \(C_{\text{alternative}}\), \(C_{\text{mitigate}}\)), factors related to the challenged activity (\(F_{\text{expand}}\), \(F_{\text{stage}}\), \(F_{\text{review}}\)), and factors related to the decision itself (\(F_{\text{court}}\), \(F_{\text{date}}\)) with respect to the success of the environmental challenge. Interestingly, the stage of development challenged (\(F_{\text{stage}}\)) is shown to be an insignificant factor (\(t = 0.69\)). In other words, environmental challenges brought at the speculative planning stage are not significantly more or less likely to succeed than attempts to en-

\textsuperscript{342} A previous study of "most of the cases concerning airport and airspace expansion" concluded that "the opinions resulting in favorable outcomes for the agencies outnumber those opposed by more than four to one." Tom Neuhoff, Jr., Obstacles to Increasing Airspace Jumping Through Environmental Law Hoops, 58 J. AIR L. & COM. 221, 246 (1992). That study considered sixteen cases. \textit{Id.} at 246 n. 162. The present study of 140 cases reveals a moderately better success rate for opponents of airport expansion.

join the use of a recently expanded airport. Therefore, this parameter is removed from consideration in subsequent regressions.

Results from the second iterative regression are displayed in Row A2. This indicates that a challenge to the consideration of alternatives ($C_{\text{Alternative}}$) has an insignificant influence on the outcome of a case ($t = 0.71$). This may seem surprising in as much as the alternatives analysis is considered the “heart” of the NEPA review process, but it is consistent with the qualitative observations of previous commentators that courts are particularly deferential to an agency’s alternatives analysis when it comes to airport expansion. Despite NEPA’s requirement to consider all feasible alternatives to meet the agency’s objectives, courts will approve the environmental review of an airport expansion project when the only alternatives considered are the proposed development and no project. Furthermore, it is not evident that courts give any significant consideration to language of other applicable statutes requiring the agency to determine that there is no possible, prudent, feasible, or practicable alternative to the proposed expansion. Therefore, this parameter is removed from consideration in subsequent regressions.

Row A3 contains the final regression analysis of all remaining parameters in all the cases considered for this study. All remaining parameters are statistically significant ($t > 1$). The most significant parameter ($t = 4.02$) is a challenge brought to the agency’s consideration of environmental impacts ($C_{\text{Impact}}$). The positive magnitude of the regression coefficient ($0.613$) indicates that a challenge to the discussion of environmental impacts is practically required in order for the plaintiff to obtain any relief. Furthermore, the plaintiff challenging the airport expansion can significantly improve its chance of relief by formulating its complaint as a challenge to the discussion of secondary, indirect, or (most effectively) cumulative impacts of the airport expansion. Courts appear most likely to be suspicious of attempts by airports to expand in an incremental, segmented, or piecemeal fashion.

---

343 But see Conservation Law Found., Inc. v. Busey, 79 F.3d 1250, 1272 (1st Cir. 1996) (“‘[B]ureaucratic decision makers ... are less likely to tear down a nearly completed project than a barely started project.’” (quoting Sierra Club v. Marsh, 872 F.2d 497, 500 (1st Cir. 1989))).

344 Hartmann, supra note 29, at 738–40.
Table 5. Regression results (absolute t-statistics in parentheses) for all cases (sample size = 140), with insignificant parameters iteratively removed.

<table>
<thead>
<tr>
<th>Iteration</th>
<th>Intercept</th>
<th>Cimpact</th>
<th>Calternative</th>
<th>Cmitigate</th>
<th>FExpand</th>
<th>Fstage</th>
<th>FReview</th>
<th>FCourt</th>
<th>FDate</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>1.531</td>
<td>0.641</td>
<td>-0.128</td>
<td>0.270</td>
<td>0.117</td>
<td>-0.071</td>
<td>-0.221</td>
<td>-0.515</td>
<td>-0.212</td>
</tr>
<tr>
<td></td>
<td>(2.58)</td>
<td>(4.09)</td>
<td>(0.71)</td>
<td>(1.74)</td>
<td>(1.56)</td>
<td>(0.69)</td>
<td>(2.04)</td>
<td>(3.46)</td>
<td>(2.09)</td>
</tr>
<tr>
<td>A2</td>
<td>1.310</td>
<td>0.637</td>
<td>-0.129</td>
<td>0.267</td>
<td>0.124</td>
<td>-0.222</td>
<td>-0.529</td>
<td>-0.212</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(2.62)</td>
<td>(4.07)</td>
<td>(0.71)</td>
<td>(1.73)</td>
<td>(1.46)</td>
<td>(2.06)</td>
<td>(3.59)</td>
<td>(2.09)</td>
<td></td>
</tr>
<tr>
<td>A3</td>
<td>1.369</td>
<td>0.613</td>
<td>0.235</td>
<td>0.118</td>
<td>-0.249</td>
<td>-0.543</td>
<td>-0.205</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(2.78)</td>
<td>(4.02)</td>
<td>(1.59)</td>
<td>(1.40)</td>
<td>(2.45)</td>
<td>(3.72)</td>
<td>(2.04)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interestingly, the second most significant parameter (t = 3.72) in these cases is not related to the form of the environmental challenge, but rather to which court is reviewing it (FCourt). The large negative coefficient for this parameter (−0.543) indicates that a federal court is much more likely than a state court to uphold or approve the agency’s environmental review, and the U.S. courts of appeals are much more likely than the U.S. district courts to uphold the agency’s review. This indicates that federal statutes preempting control of airport environmental regulation and granting exclusive jurisdiction to the U.S. courts of appeals may be more determinative than NEPA in determining the outcome of an environmental challenge. Because of the December 2003 change to the Federal Aviation Act, granting exclusive jurisdiction to the U.S. courts of appeals for challenges to practically all FAA orders,\textsuperscript{345} it is highly unlikely today that opponents of airport expansion will prevail in a NEPA challenge against the FAA. In order to have a realistic chance of delaying airport expansion pending further environmental review, opponents of airport expansion should attempt to bring a state court challenge, preferably under a “little NEPA” statute, or challenge the action of some agency other than the FAA, such as USACE, in order to have the challenge heard in a U.S. district court.\textsuperscript{346} However, due to increased coordination of the environmental review process in recent years, mandated by the December 2003 enactment of Vision 100,\textsuperscript{347} the FAA is likely to be the agency

\textsuperscript{345} See supra note 299 and accompanying text.
\textsuperscript{346} See Mergen, supra note 40, at 23 (“Although review of FAA orders has largely been limited to the courts of appeal, challenges to Corps of Engineers’ permits may be brought in the district court, making the FAA and sponsors more vulnerable to injunctive relief.”).
\textsuperscript{347} Id. at 23 & n.17.
ultimately responsible for environmental review, denying airport opponents the opportunity to sue USACE.

The influence of other factors is less significant but worth noting. The coefficient for \( F_{\text{Date}} \) is negative (-0.205), indicating that environmental challenges to airport expansion have become significantly less likely to succeed over time since the 1970 enactment of NEPA. Also, the coefficient for \( F_{\text{Review}} \) is negative (-0.249), indicating, intuitively, that courts are more likely to uphold the agency's review where the agency has prepared an EIS rather than issued a FONSI.\(^3\)\(^4\) Also intuitively, the coefficient for \( F_{\text{Expand}} \) is positive (0.118), indicating that courts are somewhat less likely to defer to an agency's environmental review when the proposed expansion is major (e.g., a new airport can be expected to receive more judicial scrutiny than a new taxiway at an existing airport).

One additional significant factor in the outcome of these cases is also one of the three major NEPA prongs: a challenge to the mitigation plan (\( C_{\text{Mitigate}} \)). Although not as significant as a challenge to the consideration of environmental impacts, the positive magnitude of the regression coefficient for \( C_{\text{Mitigate}} \) (0.235) indicates that courts are sympathetic to arguments that the agency has inadequately discussed ways to mitigate the environmental consequences. It also indicates that environmental plaintiffs are even more likely to persuade courts to mandate additional environmental review if they can demonstrate that there is an applicable non-NEPA statute that establishes substantive requirements to actually implement mitigation measures.

In particular, an agency's environmental review is more likely to be overturned if plaintiffs can demonstrate that there is an applicable statute that requires environmental impacts to be minimized. These "near-total mitigation" challenges have a much higher success rate in state court (under a state "little NEPA" statute) than when brought in federal court under a specialized federal statute, such as section 4(f) of the DOT Act (which requires "all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use" of the site by a transportation develop-

\(^3\)\(^4\) It has long been speculated that completing an EIS provides some "insulation" for the challenged agency, which may make the difference "in a close case." *Id.* at 22–23 (concluding that the "most responsible" factor in a court's decision to overturn the FAA's environmental review "was the FAA's decision to prepare an EA rather than an EIS for the replacement airport project" (discussing Grand Canyon Trust v. FAA, 290 F.3d 339, 347 (D.C. Cir. 2002))).
ment project).\textsuperscript{349} However, environmental plaintiffs to date have not significantly exploited the nearly identical language in the AAIA, which requires "that every reasonable step has been taken to minimize the adverse effect" of airport expansion.\textsuperscript{350} This analysis indicates that a "near-total mitigation" challenge is statistically effective, and environmental plaintiffs may be able to leverage the successful state court "little NEPA" challenges as persuasive authority to argue that a given FAA-funded airport expansion fails to minimize environmental impact.

The final regression analysis of all cases, displayed in Row A3, could be represented as the following equation:

\[
O_{\text{Outcome}} = 1.369 + 0.613 \cdot C_{\text{Impact}} + 0.235 \cdot C_{\text{Mitigate}} + 0.118 \cdot F_{\text{Expand}} - 0.249 \cdot F_{\text{Review}} - 0.543 \cdot F_{\text{Court}} - 0.205 \cdot F_{\text{Date}}
\]

For a case in 2010 \((F_{\text{Date}} = 4)\) in a U.S. court of appeals \((F_{\text{Court}} = 3)\), this equation reduces to:

\[
O_{\text{Outcome}} = -1.080 + 0.613 \cdot C_{\text{Impact}} + 0.235 \cdot C_{\text{Mitigate}} + 0.118 \cdot F_{\text{Expand}} - 0.249 \cdot F_{\text{Review}}
\]

For a challenge to a runway extension \((F_{\text{Expand}} = 3)\) where a final EIS has been issued \((F_{\text{Review}} = 3)\), the equation reduces further to:

\[
O_{\text{Outcome}} = -1.472 + 0.613 \cdot C_{\text{Impact}} + 0.235 \cdot C_{\text{Mitigate}}
\]

This illustrates the fact that most challenges today in the U.S. courts of appeals will be unsuccessful, and it will be critical for the challenger to both allege that the environmental review failed to assess cumulative impacts and also to invoke a statute requiring the agency to actively minimize the consequences of the proposed expansion. Merely challenging the discussion in the EIS of environmental impacts \((C_{\text{Impact}} = 1)\) and mitigation measures \((C_{\text{Mitigate}} = 1)\) results in an expected value of \(O_{\text{Outcome}} = -0.624\), which indicates a tendency toward early dismissal on justiciability grounds. However, alleging that cumulative impacts were inadequately considered \((C_{\text{Impact}} = 2)\) and that the agency has failed to ensure minimization of the environmental impacts

\textsuperscript{349} 49 U.S.C. § 303 (2006); see Christian, supra note 220, at 615 ("[Section] 4(f) has never been applied to prevent the construction of a new airport or to even curtail the expansion of an existing airport located near an environmentally-sensitive park.").

\textsuperscript{350} 49 U.S.C. § 47106.
(C_{Mitigate} = 2) results in an expected value of $O_{Outcome} = 0.223$, which indicates a tendency toward having the challenge considered on its merits.

The same factual setting in state court ($F_{Court} = 1$) would result in the following equation:

$$O_{Outcome} = -0.386 + 0.613 \cdot C_{Impact} + 0.235 \cdot C_{Mitigate}$$

Therefore, alleging in state court that cumulative impacts were inadequately considered ($C_{Impact} = 2$) and that environmental impacts must be minimized ($C_{Mitigate} = 2$) results in an expected value of $O_{Outcome} = 1.309$, indicating a slight tendency toward granting the challenger some modest relief, although it is still unlikely that courts will enjoin expansion or even require the agency to formally supplement its environmental review.

2. Justiciable Cases

Because the initial regression indicated that the reviewing court had such a strong influence on the outcome of a challenge, it was hypothesized that this might reflect the influence of federal statutes preempting state control over airport expansion and placing original jurisdiction in the U.S. Courts of Appeals. In order to isolate and eliminate any bias arising from dismissals for lack of jurisdiction, the regression was repeated, after first removing cases that were dismissed on justiciability grounds and considering only the remaining 108 cases. These results are displayed in Table 6.

Interestingly, the results do not change dramatically. As for the three major NEPA prongs, challenges to the discussion of environmental impact ($C_{Impact}$) and the mitigation plan ($C_{Mitigate}$) are still significant factors in the outcome, whereas a challenge to the alternatives analysis ($C_{Alternative}$) is not. The reviewing court ($F_{Court}$), the date of decision ($F_{Date}$), and the magnitude of the planned expansion ($F_{Expand}$) are all significant factors, and the stage of completion ($F_{Stage}$) is not. Interestingly, the most statistically significant factor in this reduced sample of cases is the level of environmental review performed ($F_{Review}$). The magnitude of its negative coefficient ($-0.366$) confirms that courts are much more likely to uphold an EIS than a FONSI.
Table 6. Regression results (absolute t-statistics in parentheses) for all justiciable cases (sample size = 108), with insignificant parameters iteratively removed.

<table>
<thead>
<tr>
<th>Iteration</th>
<th>Intercept</th>
<th>CImpact</th>
<th>CAlternative</th>
<th>CMitigate</th>
<th>FExpand</th>
<th>FStage</th>
<th>FReview</th>
<th>FCourt</th>
<th>FDate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B1</td>
<td>1.642</td>
<td>0.430</td>
<td>-0.154</td>
<td>0.253</td>
<td>0.135</td>
<td>-0.036</td>
<td>-0.342</td>
<td>-0.349</td>
<td>-0.146</td>
</tr>
<tr>
<td></td>
<td>(2.49)</td>
<td>(2.05)</td>
<td>(0.61)</td>
<td>(1.50)</td>
<td>(1.38)</td>
<td>(0.28)</td>
<td>(2.56)</td>
<td>(1.88)</td>
<td>(1.20)</td>
</tr>
<tr>
<td>B2</td>
<td>1.544</td>
<td>0.430</td>
<td>-0.137</td>
<td>0.250</td>
<td>0.139</td>
<td>-0.343</td>
<td>-0.359</td>
<td>-0.148</td>
<td>-0.148</td>
</tr>
<tr>
<td></td>
<td>(2.76)</td>
<td>(2.06)</td>
<td>(0.63)</td>
<td>(1.39)</td>
<td>(1.44)</td>
<td>(2.57)</td>
<td>(1.98)</td>
<td>(1.23)</td>
<td></td>
</tr>
<tr>
<td>B3</td>
<td>1.614</td>
<td>0.391</td>
<td>0.205</td>
<td>0.129</td>
<td>-0.366</td>
<td>-0.368</td>
<td>-0.137</td>
<td>-0.137</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(2.95)</td>
<td>(1.97)</td>
<td>(1.15)</td>
<td>(1.35)</td>
<td>(2.87)</td>
<td>(2.04)</td>
<td>(1.14)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Row B3 contains the final regression analysis of all statistically significant parameters in the reduced set of justiciable cases. Row B3 could be expressed as the following equation:

\[ O_{\text{Outcome}} = 1.614 + 0.391 \cdot C_{\text{Impact}} + 0.205 \cdot C_{\text{Mitigate}} + 0.129 \cdot F_{\text{Expand}} - 0.366 \cdot F_{\text{Review}} - 0.368 \cdot F_{\text{Court}} - 0.136 \cdot F_{\text{Date}} \]

For a case in 2010 (F_{\text{Date}} = 4) in a U.S. court of appeals (F_{\text{Court}} = 3), this equation reduces to:

\[ O_{\text{Outcome}} = -0.033 + 0.391 \cdot C_{\text{Impact}} + 0.205 \cdot C_{\text{Mitigate}} + 0.129 \cdot F_{\text{Expand}} - 0.366 \cdot F_{\text{Review}} \]

For a challenge to a runway extension (F_{\text{Expand}} = 3) based on cumulative environmental impacts (C_{\text{Impact}} = 2) and failure to minimize environmental impacts (C_{\text{Mitigate}} = 2), the equation reduces further to:

\[ O_{\text{Outcome}} = 1.544 - 0.366 \cdot F_{\text{Review}} \]

Again, this confirms the fact that most challenges today in the U.S. courts of appeals are expected to be unsuccessful, particularly where the agency has gone to the trouble of completing a final EIS. Where the agency has issued a final EIS and ROD (F_{\text{Review}} = 3), this equation results in an expected value of O_{\text{Outcome}} = 0.446, indicating that the challenge is expected to be unsuccessful, although the slight positive magnitude indicates a tendency toward the challenge surviving motions for dismissal or summary judgment. However, where the agency has only issued a FONSI (F_{\text{Review}} = 1), it results in an expected value of O_{\text{Outcome}} = 1.178, indicating that the challenge is likely to be heard on the merits, and there is a slight tendency toward granting the challenger some modest relief, although it is still unlikely that courts
will enjoin expansion or even require the agency to supplement its environmental review.

The same factual setting in state court (F_{\text{Court}} = 1) would result in the following equation:

\[ O_{\text{Outcome}} = 2.279 - 0.366 \cdot F_{\text{Review}} \]

indicating an even stronger tendency toward relief in state court, particularly where the agency has issued a FONSI rather than prepared an EIS.

V. CONCLUSION

Successful environmental challenges to airport expansion are infrequent and have become increasingly unlikely over time since the passage of NEPA. If the challenge is heard in the U.S. courts of appeals, it is highly likely that the agency’s environmental review will be upheld. In order to have a substantial chance of delaying airport expansion pending further environmental review, opponents of airport expansion must attempt to bring a state court challenge under a “little NEPA” statute, or challenge the action of some agency other than the FAA, such as the USACE, in order to have the challenge heard in a U.S. district court. However, congressional legislation passed in 2003 calls for other federal or state agencies to participate in a coordinated review process under the direction of the FAA and grants exclusive jurisdiction to the U.S. Courts of Appeals for challenges to practically all FAA actions. This could have the effect of consolidating all NEPA challenges in the U.S. courts of appeals, where it is highly unlikely that opponents of airport expansion can prevail.

This study demonstrates the most effective legal arguments for airport expansion opponents who find themselves facing such a difficult judicial forum. Specifically, environmental plaintiffs should focus their efforts on challenging the FAA’s discussion of cumulative environmental impacts (required by NEPA), and to a lesser degree, on challenging the FAA’s failure to ensure that environmental impacts will be minimized (required by AAIA). Although they still face an uphill battle, the occasional victory for environmental plaintiffs can be disproportionately costly for proponents of airport expansion, if the FAA is required to perform supplemental environmental review and

\[ 351 \text{ See supra note 185 and accompanying text.} \]
airport proprietors are required to delay their plans and renegotiate existing contracts pending supplementation. Therefore, this more focused approach to effective airport environmental litigation should ultimately encourage airport expansion proponents to perform a more thorough environmental review earlier in time, to avoid the possibility of an unfavorable court decision.

From the FAA's perspective, even where significant environmental impacts are not anticipated, the agency should consider the incremental expense of preparing an EIS rather than a FONSI. The EA itself is often a major undertaking today, and the additional review required for an EIS may be nominal when measured against the significantly increased likelihood of court approval of an EIS. This is especially true when one recognizes that, in the context of airport expansion, courts have not strictly required the FAA to consider all possible alternatives in its EIS. For the most part, a comparison of the impact of the proposed expansion with the "no project" alternative will satisfy the court. Agency resources that have historically been focused on providing a superficial analysis of multiple alternatives could instead be more effectively focused on providing an in-depth analysis of the environmental impacts and potential mitigation measures for only two alternatives: the proposed expansion and no project.

On that note, it is most important for the FAA, in its EIS, to proactively address potential claims that the agency has inadequately considered cumulative impacts. This study demonstrates that courts are particularly sympathetic to allegations that an airport is being expanded in an incremental, segmented, or piecemeal fashion to avoid detailed environmental review. Once again, issuance of a full EIS rather than a FONSI goes a long way toward alleviating this concern, since it evidences a willingness on the FAA's part to subject the cumulative history of development at the airport to environmental scrutiny. Agencies should not shy away from a presentation of the cumulative environmental impact of the expanded airport, particularly since the baseline for the court's comparison will be the "no project" alternative, which will also include the cumulative environmental impact of all developments that preceded the proposed expansion. The cumulative impact of the proposed expansion may often compare favorably with the "no project" alternative.

The remaining wild card that should concern the FAA, in its preparation of the EIS, is to proactively address any potential claim that the agency or airport has a substantive requirement
to mitigate the environmental consequences of the planned expansion. This challenge has historically arisen only in isolated contexts: where a state "little NEPA" statute imposes a requirement to minimize harm to the environment, or in special circumstances where a federal statute imposes a similar requirement (e.g., to minimize the impact to a national park located near the airport). However, this form of environmental challenge is almost always available, at least with regard to federally funded airport developments, due to language in AAIA requiring "that every reasonable step has been taken to minimize the adverse effect" of an expanded airport.352 As the agency responsible for both funding and environmental review of airport expansion, the FAA is in position to condition the approval of federal funding on the airport’s actual implementation of mitigation measures identified in the EIS. Courts would probably look favorably upon such good-faith efforts to minimize environmental harm and would likely determine that the conditional approval satisfies the AAIA statutory requirement. Presumably, environmental organizations also would be less likely to resort to litigation if the FAA began to take that statutory requirement more seriously.

However, in order to reach that stage, environmental plaintiffs must first readjust their litigation strategy to make the most effective use of NEPA and similar environmental statutes in the airport expansion context. By emphasizing the most statistically significant aspects of an environmental challenge to airport expansion, this historically ineffective challenge could be reinvigorated. The result should be a more equal balance between expansion of airport capacity and preservation of the local environment, which is the type of outcome that NEPA was always intended to produce.