“Zoning Out” Climate Change: Local Land Use Power, Fossil Fuel Infrastructure, and the Fight Against Climate Change

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I. INTRODUCTION: “ZONING OUT” FOSSIL FUELS AND CLIMATE CHANGE

A. Early Movers

   In August 2018, the U.S. District Court for the District of Maine issued its final opinion upholding a South Portland zoning ordinance challenged by a fossil fuel company.1 The sustained ordinance banned the loading of oil from a pipeline at

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the city’s main harbor, effectively rendering the pipeline useless.2

Although the city justified the ordinance as merely a response to concerns about local air pollution and waterfront aesthetic, others saw the ordinance and its legal challenge as the battleground of a broader fight: climate change. The Natural Resources Council of Maine suggested this kind of victory by South Portland sends the “broader environmental message” that “multinational oil companies can no longer escape responsibility for the . . . climate change they cause.”3 The Conservation Law Foundation of Maine, which assisted with drafting the ordinance, similarly situated South Portland’s victory, saying that it “affirm[ed] the ability and obligation of local communities living on the frontlines of the climate battle to protect the health of their people, their natural resources, and the climate.”4

The court and the litigants, however, barely mentioned climate change. Instead, the court’s decision rested in part on the legitimacy of the City’s power to protect its citizens from the direct effects of inhaling particulate air pollution.5 Precisely because the court’s opinion delivered such a direct hit to the fossil fuel industry but was resolved without reference to climate change, it raised the interesting question of whether the motivation to mitigate climate change could alone legally justify a local zoning ordinance seeking to eliminate fossil fuel infrastructure.

Across the country, another Portland took a similar approach. In 2016, Portland, Oregon adopted zoning amendments limiting expansion of fossil fuel terminals in the city.6 In contrast to South Portland, Maine, however, Portland, Oregon explicitly identified climate change as an important motivation for the amendments. Portland’s City Council stated that it would

2 Id.
“actively oppose expansion of [fossil fuel] infrastructure” because of its concerns about, among other things, “reducing the city’s contribution to greenhouse gasses, pollution, and climate change.” Like in Maine, the ordinance was challenged by the fossil fuel industry. And like in Maine, the Oregon court resolved the dispute with reference to the traditional local safety concerns. It too left unresolved the question of whether “prevent[ing] potential large fuel-export facilities, and thus, possibly reduc[ing] greenhouse gasses, is a legitimate local interest.”

South Portland and Portland are not alone in using their zoning law to “zone out” fossil fuel terminals in all or parts of their cities. At least six other cities have adopted some kind of zoning law or regulation aimed at limiting fossil fuel operations. In March 2018, Baltimore, Maryland adopted a zoning ordinance, similar to Portland, Oregon’s, limiting expansion of fossil fuel terminals in the city. In January 2019, King County, Washington, which includes Seattle, passed a six-month moratorium on major fossil fuel development projects. Again, climate change activists have claimed the ordinances as victories.

9 Id. at 261.
10 Id. at 266.
11 Id. at 267 n.7.
B. Moving Forward

Cities’ efforts to use zoning laws to ban fossil fuel infrastructure demonstrates zoning’s potential viability in the fight against climate change. These efforts already have, and will continue to, inspire other climate-minded cities to imitate these actions. Indeed, a vice president of the Conservation Law Foundation of Maine suggested that the South Portland ordinance could be used as “a model for other communities to protect local interests from those who seek to do harm.” 16 However, while courts have concluded that more traditional safety concerns are legitimate justifications for zoning laws hostile to fossil fuel infrastructure, they have yet to decide whether a zoning ordinance—hostile to fossil fuels and justified on climate change mitigation alone—would be upheld. This Note refers to such a hypothetical local ordinance, a potential model for climate-minded cities, as a “zoning out” ordinance. A “zoning out” ordinance is a local ordinance that prohibits expansion of fossil fuel operations and infrastructure (e.g., export terminals, pipelines) within the local jurisdiction, and is justified not by traditional safety concerns, but solely as a means to mitigate climate change.

The question of whether climate change mitigation is a sufficient justification for local zoning law and whether such a “zoning out” ordinance can survive legal challenge is the focus of this Note. Three considerations motivate this focus on a hypothetical “zoning out” ordinance premised on climate change alone. First, some cities may want to pass such ordinances but may not be able to persuade a court that the prohibited fossil fuel infrastructure would pose traditional health and safety risks. Second, a related point, fossil fuel companies may adapt their technologies and practices to mitigate their contribution to traditional health and safety risks, like particulate air pollution.
to avoid challenges based on these traditional concerns. Third, and most importantly, it remains an open question whether courts will consider climate change an appropriate target of local zoning power.

Ultimately, this Note argues that municipalities can likely pass valid “zoning out” ordinances because climate change is a threat to a municipality’s health, safety, and welfare, which are interests traditionally protected by local zoning. Municipalities may, however, face nontrivial difficulty demonstrating that the ordinances are substantially related to their climate change mitigation goal because of the disparate scale of global climate change and the effects of an ordinance’s prohibitions. This Note also argues that these “zoning out” ordinances are not likely to offend the Dormant Commerce Clause because they will generally operate even-handedly with respect to similarly situated in-state and out-of-state actors, and although they incidentally burden interstate commerce, they will do so in a manner that advances a legitimate local interest (i.e., climate change mitigation) and only marginally affects the interstate fossil fuel market. These ordinances are not likely to be preempted by federal law. Finally, this Note argues that, given the history of land use as a traditional local power, the lack of federal climate change policy, and the current oil transportation regime, Congress should not preempt “zoning out” ordinances. However, if a patchwork of ordinances were to substantially threaten the interstate energy market, then the federal government should pass legislation regulating local zoning prohibitions on fossil fuel infrastructure.

II. BACKGROUND

A. The Problem and the Lack of a Federal Solution

Given the extent of the threat of climate change and the lack of meaningful federal efforts to mitigate the threat, it is not surprising that cities develop their own climate change policies. The scientific consensus that humans are the cause of climate
change is very strong: peer-reviewed studies show that 97% or more of actively publishing scientists agree.17

The current and potential impacts of climate change are wide ranging. Since 1900, global sea level has risen by about 7–8 inches and is expected to continue to rise.18 Daily tidal flooding is increasing in more than twenty-five Atlantic and Gulf Coast cities, the frequency of extreme flooding associated with coastal storms is likely to increase, and the intensities of Atlantic hurricanes are reasonably likely to increase.19 Furthermore, heatwaves and large forest fires are occurring more frequently, and chronic, long-duration droughts are becoming increasingly possible.20 These risks are especially acute for those situated in densely-populated urban areas,21 particularly those that are coastal.

Notwithstanding the scientific consensus on these ongoing and potential threats, the federal policy response to climate change has been weak. For example, the most concentrated effort by Congress to pass climate change legislation—a proposed federal greenhouse gas (“GHG”) cap-and-trade program—failed in the first years of the Obama Presidency.22 Instead, federal climate change policymaking has been mostly limited to rulemaking permitted under the Clean Air Act,23 a law that was not initially meant to address climate change24 but regulates emissions from motor vehicles and stationary sources like power plants.25 While

18 U. S. GLOBAL CHANGE RESEARCH PROGRAM, CLIMATE SCIENCE SPECIAL REPORT, FOURTH NATIONAL CLIMATE ASSESSMENT 10 (2017).
19 Id. at 1, 18. The claim that extreme flooding associated with coastal storms is likely to increase is based on the assumption that storm characteristics do not change. Id. at 18.
20 Id. at 27.
23 Id. at 1078.
climate change proponents have won some victories under the Clean Air Act, the Trump Administration proposed a roll back to the Clean Power Plan, which was the “highest visibility and most embattled” climate change policy measure put forward by the Obama Administration under the Clean Air Act. It is true there are other federal statutes that can be used to mitigate the causes of climate change. However, on the whole, federal actors lack a robust legal toolset to slow GHG emissions and mitigate climate change. Even more, the Trump Administration has announced its intentions of withdrawing from the Paris Accord, signaling the Administration’s low-prioritization of global alignment on the climate change effort. With mixed messages from the Trump Administration, and the high-politicization of the issue, it is unknown if and when federal lawmakers will move forward with climate change policy. The lack of federal action leaves a climate change policy void that state and local lawmakers can seek to fill.


26 Buzbee, supra note 22, at 1074–75, 1078–81 (citing Massachusetts v. U.S. Envtl. Prot. Agency, 549 U.S. 497 (2007), and EPA's Endangerment Finding as examples of litigation and administrative action that expanded the EPA's role in regulating GHGs; discussing the Clean Power Plan as an effort to put forth climate change regulation via EPA action under the Clean Air Act).


28 See Buzbee, supra note 22, at 1078.


B. Cities as Actors in the Fight Against Climate Change

Forward-looking cities have already moved to fill the climate policy void left by the federal government. Over 400 mayors in the United States have committed their cities to meeting the goals set out in the Paris Agreement, in spite of the President’s statements. Each of the five most populous United States cities have joined C40, a collaborative network of the world’s “megacities” that requires its members to set GHG reduction targets, develop climate action plans, and share best practices with other members. Additionally, one hundred cities have pledged to transition to 100% clean, renewable energy sources.

Many of these C40 cities and others have also taken direct action. For instance, six cities in the United States have already transitioned to 100% renewable energy. Outside of energy planning, cities have implemented carbon taxes, have tried to hybridize their taxi fleets, and have attached green building requirements to their building codes. Recently, a wave of litigation by cities in several states seeks to hold fossil fuel companies accountable for the effects of climate change, requesting court ordered remedies like compensatory damages, reimbursement for the city climate change adaptation plans, and abatement of sea level rise nuisances. Cities, like New York,
have also used zoning law to shape urban land uses that are consistent with climate change mitigation strategies. Some cities have pursued environmental land use goals through “smart growth.” The American Planning Association defines smart growth as development “which supports choice and opportunity by promoting efficient and sustainable land development, incorporates redevelopment patterns that optimize prior infrastructure investments, and consumes less land . . . .” An important concept embedded in smart growth is impact analysis, which is “the process of examining a particular land development proposal and analyzing the impact it will have on a community,” an example of which is required environmental reviews that consider a proposed development’s environmental impact. Another important concept embedded in smart growth is sustainable development, which plans for communities to be “maintained into the indefinite future without degrading community institutions, the means of production,” infrastructure, the resource base, and the environment. While this focus on smart growth can reduce GHGs, the concerns at the core of these more traditional smart growth concepts are typically local. By contrast, “zoning out” ordinances have the primary goal of mitigating climate change. Thus, these “zoning out” ordinances may have a broader effect on commerce and the environment outside the immediate locality. The recent trend of cities using their zoning laws to directly target fossil fuel operations may suggest that climate-focused cities desire to extend traditional smart growth zoning principles to encompass more outward-looking goals and measures. These outward-looking measures seek to leverage a city’s strategic geographic position important to fossil fuel transportation, by making the city unavailable to fossil fuel infrastructure.

37 See, e.g., Nolon & Bacher, supra note 35, at 212.
40 See id. at 296.
C. Special Circumstance of Coastal Cities

While observers can agree that local initiatives designed to mitigate climate change have an important symbolic function, they have been more skeptical that subnational climate change initiatives can play an important role in practically solving the problem. This is because climate change is a classic “tragedy of the commons” problem in which no single actor is incentivized to reduce their fossil fuel consumption because their decrease alone is likely insufficient to solve the collective problem and may only put them at an economic disadvantage.41 Through this lens, Kirsten Engel suggests that local actions are particularly powerless in solving this international issue, and thus “irrational,” because they can have no meaningful impact on global GHG emissions. 42 Jonathan Adler agrees that subnational actors, like states, cannot “adopt[] emission controls capable of making a dent in . . . global [GHG] emissions,” and, therefore, cannot meaningfully address the “transboundary concern[]” of climate change.43 However, recent research rebuts these assumptions, suggesting cities may in fact have power to substantially contribute to GHG reduction. For one, research has shown that cities emit 70% of the world’s carbon dioxide.44 Further, in 2015, a city climate leadership group suggested that “urban policy decisions before 2020 could determine up to a third of the remaining [safe] global carbon budget that is not already ‘locked-in’ by past decisions.”45

42 Engel & Saleska, supra note 41, at 192.
Even assuming, however, some general constraints on cities’ ability to contribute to GHG reduction, cities that hold key positions as nodes in the system of fossil fuel transportation may be able to have an outsized influence on access to fossil fuels in and outside their jurisdictions. By “zoning out” fossil fuel operations at an important juncture in the transportation system, cities could potentially disrupt this transportation system. Such a disruption could force fossil fuel companies to develop new routes around the “zoned out” city or region, or even to abandon infrastructure investments in these areas altogether. This may have the ultimate effect of raising fossil fuel transportation costs, and therefore fossil fuel prices.  

Increased costs would make fossil fuel a less attractive fuel source in the interstate and international market. If enough coastal cities, in tandem, adopted zoning laws which made ports and export terminals inaccessible to fossil fuel transporters, this movement could make an appreciable difference on the price of fossil fuels and therefore on national and global consumption. If effective, a patchwork of collective action by municipal actors might work to reduce fossil fuel consumption inside and outside their jurisdictions.

Not only are coastal cities strategically positioned to exact leverage on the fossil fuel industry if legally able, but because of their vulnerabilities to climate change, they may also be poised to act. Robert R.M. Verchick suggests that the urgency of climate change is most compellingly communicated when framed in terms of local issues, and notes that local clean-energy initiatives benefit from advocates being able to frame the issue

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46 See Portland Pipe Line Corp. v. City of South Portland, 288 F. Supp. 2d 321, 340 (D. Me. 2017) (“PPLC determined that, upon reversing the flow if its eighteen-inch pipeline, PPLC would be the only terminal on the United States east coast capable of importing and exporting Canadian oil sand crude.”); see also Portland Pipe Line Corp. v. City of South Portland, 332 F. Supp. 3d 264, 309 (D. Me. 2018) (acknowledging that the ordinance could have an impact on global oil prices, if only a “little impact”).

47 Zahara Hirji, Portland Bans New Fossil Fuel Infrastructure in Stand Against Climate Change, INSIDE CLIMATE NEWS (Dec. 15, 2016), https://insideclimatenews.org/news/14122016/portland-oregon-ban-fossil-fuels-oil-and-gas-pipelines-coal-global-warming [https://perma.cc/9ZQA-KZF3] (Portland Mayor Charlie Hayes, speaking after the passage of the fossil fuel operations ban, said that if other communities took similar action, these actions would “start[] to have a profound effect that’s far more than local.”).
with the local benefits that accrue.\textsuperscript{48} Although he argues that, generally, climate change adaption, rather than mitigation, is more easily framed through local issues,\textsuperscript{49} climate change mitigation initiatives in coastal cities can perhaps more easily be framed in terms of local concerns as compared to the same initiatives in more inland, less urban areas. Cities are likely to suffer the effects of rising sea levels and flooding, as well as a myriad of other climate change issues that disproportionately harm coastal, urban areas. Verchick’s argument may support the idea that coastal cities who can better appreciate the potential harms of climate change will be more likely to support climate change efforts like “zoning out” ordinances.

D. Case Studies

This Note surveys two main case studies: South Portland, Maine and Portland, Oregon. These cities’ fossil fuel zoning ordinances were challenged in cases which have been decided on the merits. Although the ordinances were justified on alternative and additional bases other than climate change mitigation, the case studies are useful in evaluating the legality of a hypothetical “zoning out” ordinance because the courts resolved many of the same questions that would likely arise in a challenge to a “zoning out” ordinance. The facts of the case studies mirror much of what a challenge to a “zoning out” ordinance might look like.

An ongoing challenge to an Oakland, California fossil fuel zoning ordinance, although not resolved on the pertinent Constitutional issues, is also useful for its facts and the parties’ positions on the issues in briefing.\textsuperscript{50}

1. South Portland, Maine

The dispute in South Portland, Maine was between city lawmakers and operators of an oil pipeline.\textsuperscript{51} The South

\textsuperscript{49} Id. at 972.
\textsuperscript{50} Oakland Bulk & Oversized Terminal, LLC v. City of Oakland, 321 F. Supp. 3d 986 (N.D. Cal. 2018).
\textsuperscript{51} Portland Pipe Line Corp., 288 F. Supp. 3d at 329.
Portland City Council passed a zoning ordinance designed to prohibit loading of crude oil from the oil pipeline onto marine tanker vessels docked in the city’s harbor.\textsuperscript{52} The pipeline runs from oil refineries in Montreal East, Quebec to South Portland, Maine.\textsuperscript{53} The American section of the pipeline is operated by Portland Pipe Line Company (“PPLC”).\textsuperscript{54} Except for a roughly ten-year period when the pipeline operator reoriented the pipeline to allow for oil transport from Quebec to South Portland,\textsuperscript{55} the pipeline has been configured to pump oil north from South Portland to Quebec.\textsuperscript{56} However, in the years 2007 and 2008, PPLC recognized that an oil boom in Alberta’s oil sands would substantially decrease demand for oil transport to Canada, and would instead stoke demand for oil transport from Canada to the United States east coast.\textsuperscript{57} With this evolution in mind, PPLC explored a project that would reverse the flow of oil in its pipeline system, allowing it to import oil from Canada into the United States.\textsuperscript{58} The company eventually tabled the plans in the midst of the global recession in 2008.\textsuperscript{59}

PPLC revisited its reversal plans in 2012 and 2013.\textsuperscript{60} However, at this time, PPLC became aware of political opposition, both at the Congressional and local level.\textsuperscript{61} At the local level, a grassroots movement of pipeline opponents acquired enough signatures to put a Waterfront Protection Ordinance (“WPO”) on the November 2013 South Portland ballot.\textsuperscript{62} The proposed WPO, which would have prohibited reversal of the PPLC pipeline, was eventually rejected by voters.\textsuperscript{63} However, in November 2013, the City Council

\textsuperscript{52} Id. at 382–85.
\textsuperscript{53} Id. at 332–33. In fact, the Portland Pipe Line Corporation actually operates two different pipelines that run side-by-side and it is not entirely clear which of the two would be the subject of this project. However, for the purposes of the Note I will refer to the two pipelines collectively as “the pipeline.”
\textsuperscript{54} Id.
\textsuperscript{55} Id. at 338.
\textsuperscript{56} Id. at 339.
\textsuperscript{57} Id. at 339–40.
\textsuperscript{58} Id. at 339–49.
\textsuperscript{59} Id. at 342–43.
\textsuperscript{60} Id. at 349.
\textsuperscript{61} Id. at 353–56.
\textsuperscript{62} Id. at 355.
\textsuperscript{63} Id. at 355–56.
discussed the need to pass a related moratorium, and in December, the City Council passed a temporary moratorium on development proposals that involved the loading of oil, giving them time “to determine the . . . implications” of such projects.\textsuperscript{64} In July 2014, a draft ordinance committee recommended to the City Council the text of the “Clear Skies Ordinance,” which effectively prohibited PPLC from loading oil onto marine tankers in South Portland.\textsuperscript{65} The City Council passed the ordinance on July 21, 2014.\textsuperscript{66}

The ordinance’s legislative findings suggest it was intended to mitigate potential health hazards and protect the waterfront aesthetic.\textsuperscript{67} The findings state that “air pollutants associated with . . . bulk loading of crude oil” “present . . . a threat of . . . serious human health effects, including cancer, reproductive dysfunction, or birth defects.”\textsuperscript{68} The findings also suggest that “expanded land use . . . for the bulk loading of crude oil . . . would adversely impact the balance of mixed-uses on the waterfront.”\textsuperscript{69} Mindful of these concerns, the Ordinance bans “the storing and handling of petroleum” for the “bulk loading of crude oil onto any marine vessel” in designated areas, including the harbor in which PPLC would have loaded imported oil.\textsuperscript{70} The ordinance also bans the expansion of facilities designed to enable the loading of bulk crude oil in designated areas.\textsuperscript{71} In the litigation challenging the ordinance, the District Court noted that given the lack of demand for oil in Canada, PPLC could not likely have survived as a business if it was not able to reverse the flow of its pipeline.\textsuperscript{72} Therefore, the zoning ordinance effectively blocks the use of the pipeline in the national and international oil markets.\textsuperscript{73} Given these consequences, the pipeline operators filed suit challenging the legality of the
ordinance. As mentioned, the District Court ultimately upheld the ordinance.

2. Portland, Oregon

The zoning policies of Portland, Oregon differ from those of South Portland in two main respects: (1) the Portland policies adopted a more general and comprehensive ban on fossil fuel operations; and (2) the Portland policy-makers explicitly identified larger-scale concerns about global climate change as a justification for the zoning policy. However, like in South Portland, a grassroots movement of environmental activists set in motion the series of events that ultimately led to the city’s adoption of the zoning policy.

The movement began in the fall of 2014 as opposition to Mayor Charlie Hales’s public support for the Port of Portland’s proposed deal with Pembina Corporation to develop a propane export terminal. The city held a hearing, well attended by opponents to the project, on a proposed amendment to an environmental regulation that was required for the propane project to go forward. Environmental advocates, voicing their opposition at this public hearing and at other mayoral events, drew media attention to the issue and pressured the mayor. In May 2015, Hales, citing 3,000 public comments opposing the propane project, withdrew his support for it. In November 2015, in the aftermath of the Pembina reversal and other sustained protests and petitioning by activists, the City of Portland passed Resolution 37168.

Resolution 37168 announces it is Portland’s policy to “actively oppose expansion of infrastructure whose primary purpose is transporting or storing fossil fuels in or through Portland or

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74 Id. at 264; Portland Pipe Line Corp., 288 F. Supp. 3d at 321.
75 Portland Pipe Line Corp., 332 F. Supp. 3d at 269.
77 Id. at 5–6.
78 Id. at 5.
79 Id. at 5–6.
80 Id. at 6.
81 Id. at 9–12.
adjacent waterways.” The Resolution requires the city’s Bureau of Planning and Sustainability (“BPS”) to develop zoning code amendments that achieve the policy goals of the resolution. The zoning amendments were also guided by the City’s comprehensive plan, which stated that it was the City’s policy to “limit fossil fuel distribution and storage facilities to those necessary to serve the regional market.”

On December 14, 2016, the city eventually adopted, with some changes, zoning amendments proposed by BPS. The amendments created a new land use category called “Bulk Fossil Fuel Terminals,” and prohibited all new “Bulk Fossil Fuel Terminals” that store two million gallons of fuel or more, while providing exceptions for oil storage facilities with such capacities at places like airports and gas stations. The amendments allowed “Existing Bulk Fossil Fuel Terminals” to operate as before, but prohibited existing terminals from expanding to a capacity greater than that which they had at the time of the amendments’ adoption.

The existing terminals supplied about 90% of Oregon’s fossil fuels, and some of the stored product was used to service nearby states. The ordinance therefore had the effect of locking in the infrastructure necessary to service Oregon’s needs and prohibiting expansion that would facilitate interstate and international fossil fuel trade. The ordinance was particularly important given the recent increase in United States crude oil production, and the industry’s desire to export this oil. If it were to stand, the ordinance would be a strong defense for Portland against the increased number of developer’s proposals to build fossil fuel export terminals on the Pacific Coast to serve international markets like Asia. The potential power of this ordinance drove the industry to challenge to the ordinance in

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82 Colum. Pac. Bldg. Trades Council, 412 P.3d at 262.
83 Id.
84 Id.
85 Id.
86 Id.
87 Id. at 262–63.
88 Id.
89 Id. at 262.
90 Id.
Oregon state court. Although the ordinance was ultimately blocked for noncompliance with procedural requirements of the state land use statute, the Court found that the ordinance did not offend the Dormant Commerce Clause. It did not, however, address the question of whether climate change mitigation was a proper target of local zoning law.

3. Oakland and other Cities

As mentioned above, at least six other cities have adopted some zoning law or regulation aimed at limiting the expansion of fossil fuel infrastructure. Of these cities, Oakland, California serves as a particularly useful case study because its ordinance explicitly took aim at the burning of fossil fuels overseas. In July 2016, Oakland passed an ordinance banning the loading, handling, and storage of coal at the city’s bulk material facilities. The ordinance’s legislative findings state the main purpose of the ordinance is to reduce safety and health risks associated with particulate air pollution from coal. However, the findings also state a purpose to reduce export of coal from Oakland which would be “combusted” overseas, thus causing the “increase of greenhouse gas emissions globally” that “would contribute incrementally to global climate change.”

This ordinance was challenged by a developer who had recently leased land from the city on which he planned to build a coal export facility. The U.S. District Court for the District of Northern California, deciding motions for summary judgement respecting the lease, but did not reach the Constitutional questions, such as whether the ordinance offended the Dormant Commerce Clause, or was otherwise preempted by federal law. The ordinance suggests what a “zoning out” ordinance might

91 Id. at 258.
92 Id. at 272.
93 Talberth, supra note 12.
94 OAKLAND, CAL., CODE OF ORDINANCES § 8.60.010 (2019).
95 Id. at § 8.60.020 (2019).
96 Id.
97 Oakland Bulk & Oversized Terminal, LLC, 321 F. Supp. 3d at 987–90.
98 Id. at 991–92.
partly look like, given its explicit language prioritizing climate change mitigation.

III. LEGAL ANALYSIS

This Section first considers the question of whether a “zoning out” ordinance could be properly passed by a municipality utilizing its zoning law. It then considers the extent to which such an ordinance might conflict with federal law, either through violation of the Dormant Commerce Clause or by being preempted by federal statute or other law.

A. Zoning

1. The General Framework for Zoning Law

A “zoning out” ordinance must necessarily fit within the permissible scope of zoning law to be valid. The modern zoning ordinance was first held constitutional by the Supreme Court in the seminal zoning case Village of Euclid v. Ambler Realty Co. Euclid laid the legal framework for zoning, describing the sources of zoning law power and its underlying justifications.

The legal challenge in Euclid was brought by a plaintiff who owned a tract of land on which Euclid’s new zoning ordinance banned industrial uses. The plaintiff sought to enjoin the ordinance, arguing that it violated the Fourteenth Amendment by depriving him of liberty and property without due process and denying him equal protection of the law. Finding the village had a rational basis for the zoning plan, which was premised on its authority to protect the health, safety, and general welfare of its inhabitants, the Supreme Court upheld the local ordinance.

The Court explained that the power to zone is justified as a means to protect the community. It stated that with “great increase and concentration of population,” urban problems

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100 Id. at 381–82.
101 Id. at 384.
102 Id. at 387–92, 395, 397.
103 Id. at 386–88 ("Such regulations are sustained, under the complex conditions of our day, for reasons analogous to those which justify traffic regulations . . . ").
develop which “require . . . additional restrictions in respect of the use and occupation of private lands.” 104 The Court grounded the power to implement such land use restriction in the states’ “police power, asserted for the public welfare.” 105 Understanding the difficulty of determining which land use restrictions legitimately benefit the “public welfare” from those that do not, the Court suggested this analysis be informed by the legal maxim that “one should not use their land in such a way as to injure another” and the related law of nuisances. 106

The Court also required that a zoning ordinance bear a substantial relation to the goal of protecting the general welfare. 107 The Court found the ordinance in question, which zoned separate neighborhoods for residential and industrial uses, would have effects including, but not limited to, reducing the risk of fire, preserving quiet spaces, and increasing the “safety and security of home life,” and thus had a “substantial relation to the public health, safety, morals, or general welfare.” 108 However, only two years later, in the case Nectow v. City of Cambridge, the Supreme Court struck down a zoning ordinance, as applied to a portion of land that was restricted by the ordinance to residential uses, but neighbored industrialized lands. 109 The court found the application of the ordinance to have no “substantial relation” to public welfare. 110 The Court held that, as applied, the zoning plan “would not promote the health, safety, convenience, and general welfare” of the city’s inhabitants given the “character” of the surrounding industrial neighborhood and the minor benefit “accru[ing] to the whole city.” 111

Given Euclid’s status as the foundational zoning case, zoning ordinances justified on the basis of climate change must necessarily comport with its framework to defeat potential legal challenges posed by the fossil fuel industry.

104 Id. at 387.
105 Id.
106 Id.
107 Id. at 391, 394–95.
108 Id. at 394–95.
110 Id.
111 Id.
2. A Municipality Must Consider its Source of Authority

_Euclid_ located the zoning power in the “police power,” so any local body seeking to pass a “zoning out” ordinance must first consider the extent to which they hold this police power. The “police power”, which resides in states, includes the power to zone property for development.112 The states’ “police power” is unmentioned in the Constitution, but is recognized by judicial precedent as reserved to the states through the Tenth Amendment.113 Therefore, in order for local municipalities—such as cities, towns, and counties—to possess the zoning power, their respective state governments must delegate the power to them. However, all states have delegated this power to local municipalities in at least some respects.114

The zoning power can be delegated from the state to local municipalities in several ways. First, zoning authority can be delegated to local municipalities by way of a zoning enabling act.115 All fifty states have, at least at some point, enacted a zoning enabling act substantially modeled after the Standard State Zoning Act.116 The Standard State Zoning Act is a model statute, published by the U.S. Department of Commerce, that delegates zoning authority “for the purposes of promoting health, safety, morals, or the general welfare of the community.”117 This model still supplies the institutional zoning structure in many states.118 Local zoning authority can also rest upon a broad “home rule” principal that is embedded in a state’s constitution or granted through legislation.119 For instance, the Constitution of Maine states that “inhabitants of any municipality shall have the power to alter and amend their charter on all matters, not prohibited by Constitution or general

113 Id.
115 Juergensmeyer & Roberts, supra note 39, at § 3.5.
116 Id. at § 3.6.
117 Id.
119 Juergensmeyer & Roberts, supra note 39, at § 3.5.
law, which are local and municipal in character.” Finally, local zoning authority can be inferred through a general grant of the state’s “police power” to local municipalities via legislation.

Given the differing methods of delegating zoning power, any local municipality seeking to pass a “zoning out” ordinance must first understand whether the delegation of power to it by its respective state is broad enough to justify the proposed ordinance. For instance, South Portland had ample authority to pass zoning ordinances as the Maine Court recognized that such ordinances are grounded in a “home rule” power—delegated to Maine municipalities by the state constitution and legislature—that should be “liberally construed.” By contrast, in Oregon, land use authority by local governments is regulated by the state’s unique, environment-focused land use statute, the “Oregon Planning Act.” Under this statute, local zoning ordinances must comply with enumerated statewide goals and certain procedural requirements.

In fact, and ironically, it was Portland’s failure to comply with procedural requirements of the environmentally-minded Planning Act, which requires “adequate factual bases” in the legislative record for land use decisions, that ultimately led to the zoning ordinance’s invalidation.

As the case studies demonstrate, complying with the requirements of their respective state land use regimes is the critical first step for any municipality seeking to pass a “zoning out” ordinance. Because these grants of power tend to be broad, delegated powers are likely to be sufficient foundations on which to pass a “zoning out” ordinance.

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120 Me. Const., art. VIII, pt. 2, § 1.
121 JUERGENSMeyer & ROBERTS, supra note 39, at § 3.5.
123 7 NORMAN WILLiAMS, JR. & JOHN M. TAYLOR, AMERICAN LAND PLANNING LAW § 171.15 (Rev. Ed. 2018).
3. Local Zoning Laws Must Address Local Problems

A “zoning out” municipality would need to show that the problem of climate change is sufficiently local so as to be properly addressed by zoning law. A problem of global scale like climate change is not obviously a proper target of local zoning law. However, existing zoning and climate change case law suggests that the local effects of climate change make climate change a sufficiently local problem so as to be appropriately targeted by zoning law.

An intuition that zoning law should address local problems is borne out in the state-to-municipal delegations of zoning power as well as the relevant case law. To the extent that zoning power is delegated to a municipality through a zoning statute or via “home rule” authority, this local power would not be granted to solve problems that cannot be considered “local.” Taking up the issue, state courts have said that “the primary purpose of zoning is the preservation in the public interest of certain neighborhoods against uses... deleterious to such neighborhoods.” Indeed, Euclid itself reigned in the potential reach of zoning authority by stating that the question of whether something is the proper target of zoning law depends not on “an abstract consideration of the building or of the thing considered apart, but by considering it in connection with the circumstances and the locality.” Thus, given this apparent requirement that zoning local law operate so as to address local problems, the question becomes whether climate change is a sufficiently local problem to be properly addressed by local zoning law.

Although no court has addressed directly whether climate change is independently a sufficiently local problem to be targeted by zoning law, localized problems associated with climate change have traditionally been considered its proper targets. For instance, controlling harm from flooding and fire are traditional aims of zoning law. Zoning goals have also included protecting appropriate provision of public

127 Euclid, 272 U.S. at 388 (emphasis added).
infrastructure to citizens. Cities have begun incorporating “coastal resilience” goals in comprehensive plans, and at least one author suggests local no-build zones, regulating development in the face of sea level rise, may be supported in light of the “coastal damage [climate change] portends”. Because these enumerated “symptoms” of climate change appear to be sufficiently local to be targeted by zoning law, it seems a proper extension that climate change itself, the underlying cause, be considered a sufficiently local target.

Conducting this analysis, judges can also be guided by the discussions of several courts of the extent to which climate change is a local problem. These discussions buttress the conclusion that climate change is an appropriate target of zoning law. The local nature of climate change was considered by the Supreme Court in Massachusetts v. EPA. In that case, a collection of states, local governments, and private organizations alleged that the EPA abdicated its responsibility under the Clean Air Act to regulate GHGs from motor vehicles.

Addressing the first prong of the standing analysis, the Court asked whether the alleged injury to the plaintiff state Massachusetts—an exacerbation of climate change caused by the EPA’s lack of regulation of GHGs—was a “cognizable injury.” Finding Massachusetts would have been injured by a lack of regulation of GHGs, the Court highlighted injuries Massachusetts suffers from climate change. The Court noted that Massachusetts alleged particularized harm by showing rising sea levels had “already begun to swallow Massachusetts’s coastal land,” and that if projections proved accurate, it would suffer increased remediation costs through rising sea levels and flooding. The Court identified Massachusetts’s alleged injuries as those of both a landowner and a state sovereign with

132 Id. at 514–18.
133 Id. at 521–23.
134 Id. at 522–23.
interests “in all the earth and air within its domain.”\textsuperscript{135} The Court stated that just because the “climate-change risks [were] ‘widely shared’ [did] not minimize Massachusetts’ interest in the outcome of [the] litigation.”\textsuperscript{136}

Mitigating climate change has also been explicitly recognized as a “legitimate local purpose” by multiple judges evaluating a challenge of California’s low-carbon fuel standards by members of the ethanol industry.\textsuperscript{137} In a series of district court decisions and appeals in the case \textit{Rocky Mountain Farmers Union v. Corey}, both a district court judge and a judge of the Ninth Circuit, reaching the question in the context of a dormant commerce clause analysis, asserted that they found California’s fuel standards to serve a legitimate local purpose of mitigating climate change.\textsuperscript{138} In support of this finding, Judge Murguia, concurring in the judgement of the Ninth Circuit, cited \textit{Massachusetts v. EPA} and \textit{Maine v. Taylor}’s suggestion that states had a “legitimate interest in guarding against imperfectly understood environmental risks, despite the possibility that they may ultimately prove to be negligible.”\textsuperscript{139}

However, other courts have been more hostile to the notion that climate change causes localized problems. For instance, the U.S. Court of Appeals for the District of Columbia Circuit in \textit{Center for Biological Diversity v. United States Department of the Interior}, when considering whether Point Hope, a federally-recognized native tribe in Alaska, had standing to challenge the Department of Interior’s expansion of oil and gas leasing operations, read narrowly the holding of \textit{Massachusetts v. EPA}.\textsuperscript{140} Finding that Point Hope alleged no injury, the Court apparently limited that holding to state sovereigns, and

\textsuperscript{135} Id. at 518–19.
\textsuperscript{136} Id. at 522.
\textsuperscript{138} Id.
\textsuperscript{140} \textit{Ctr. for Biological Diversity v. U.S. Dep’t of Interior}, 563 F.3d 466, 471–72, 475–79 (D.C. Cir. 2009).
presumably similarly situated entities, that could allege “personal” harm.\textsuperscript{141} The Court found that Point Hope did not demonstrate that “climate change would directly cause any diminution of Point Hope’s territory any more than anywhere else,”\textsuperscript{142} perhaps insinuating that climate change should only be considered a local issue to those communities that can show they suffer outsized land losses from rising sea levels.

The federal district court of the District of Columbia in Wildearth Guardians v. Salazar was similarly hostile to the notion of climate change as a local problem.\textsuperscript{143} Wildearth Guardians involved environmental organizations challenging the U.S. Bureau of Land Management’s decision to lease federal land to coal mining operations.\textsuperscript{144} There, the court rejected standing, finding a “disconnect between [the plaintiffs’] recreational, aesthetic, and economic interests, which are \textit{uniformly local,} and the \textit{diffuse and unpredictable effects of GHG emissions.}”\textsuperscript{145} The Wildearth Guardians court, in support of this finding, cited an opinion of the federal district court in New Mexico stating there is not a “generally accepted scientific consensus \ldots with regard to what specific effects of climate change will be on individual geographic areas.”\textsuperscript{146}

The rationale of the climate change case law would arguably support, rather than undermine, a finding that the problem of climate change is sufficiently local to be targeted by zoning law. Coastal, urban municipalities that pass “zoning out” ordinances, given their proximity to the sea, are likely able to readily show, like Massachusetts, that they suffer the personal harm of rising sea levels whether it be through the engulfing of land or flooding, or both. Any city passing a “zoning out” ordinance, on the basis of zoning power delegated from the state, would be exercising

\textsuperscript{141} Id. at 475–79.
\textsuperscript{142} Id. at 477.
\textsuperscript{144} Id.
\textsuperscript{145} Id. at 84 (emphasis added).
\textsuperscript{146} Id. On appeal, the D.C. Circuit Court suggested in dicta that it agreed that the plaintiffs could not establish standing based on global climate change. Wildearth Guardians v. Jewell, 738 F.3d 298, 307 (D.C. Cir. 2013).
this delegated power to protect the same sovereign interests in the “earth and air” that were at stake in *Massachusetts*.147 However, to the extent a court, similar to *Center for Biological Diversity*, requires a municipality to point to a more distinct local harm to justify its use of zoning law, a city that has not yet lost—or has lost little land—to rising sea levels may have a harder time making this showing. Yet, such a distinct harm requirement would break down in front of a judge, even a climate-skeptical one, who heeds the Supreme Court’s suggestion in *Maine v. Taylor* that local actors have an interest in “guarding against imperfectly understood environmental risks.”148 Further, to the extent a challenger relied on reasoning similar to that of *Wildearth Guardians*—suggesting parties may be unable to trace localized climate change harms to a particular region—such reasoning would fall flat in front of the judge who recognizes the evidence showing the widespread reach of climate change effects.

4. Local Zoning Laws Must be Motivated by a Substantively Proper Purpose

A separate but related question also unaddressed by courts is whether the sole climate change mitigation purpose of a “zoning out” ordinance fits within the health, safety, and public welfare purposes of zoning law. Because the scope of these purposes is broad, and climate change can pose meaningful threats to each, climate change mitigation should be considered an appropriate zoning purpose.

While early zoning efforts focused on public health were typically concerned with things like fire and traffic safety, eventually the public health rationale was broadened to encompass zoning plans that encouraged activities like walking and biking.149 Although commentators suggest that urban developmental plans have been instrumental in reducing GHGs, these commentators also note that climate change mitigation, until recently, has not been a traditional objective of such

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147 *Massachusetts*, 549 U.S. at 518–19.
projects. Mitigation of air pollution and environmental protection, however, have traditionally been considered proper subjects of the zoning power.

So, a recognition of climate change mitigation as a proper substantive subject of zoning law would require courts to extend the public health, safety, and welfare rationale, past urban planning and traditional environmental protection, to climate change mitigation. Such an extension of the zoning law would not be judicial overreach. The need for future expansion of the zoning power was explicitly recognized by Euclid. The Euclid court explained that zoning law should adapt with the times, noting that “a degree of elasticity” should be imparted when determining the scope of zoning law. This flexibility is needed to “meet the new and different conditions which are constantly coming within the field of [police power] operation” as society develops. Thus, today’s courts are directed by Euclid to use judgement to determine whether a new aim by localities, like climate change mitigation, falls within the police power. Scholars have recognized the importance of such official appreciation of climate change’s threat to public health, arguing that “achieving public health goals in relationship to climate change effects will mean somehow persuading decisions makers of their present relevance.”

The EPA’s 2009 endangerment finding would likely be a sufficient basis on which a court could identify climate change as a threat to public health and safety. This EPA finding concluded that GHG emissions were air pollutants contributing to climate change and threatening public health and welfare.

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151 Exxon Mobil Corp. v. U.S. Envtl. Prot. Agency, 217 F.3d 1246, 1255 (9th Cir. 2000) ("Air pollution prevention falls under the broad police powers of the states, which include the power to protect the health of citizens in the state."); see 8 McQuillan THE LAW OF MUNICIPAL CORPORATIONS §25:24 (3d ed. 2019).
152 Euclid, 272 U.S. at 387.
153 Id.
The EPA further concluded that GHG-induced climate change wrought several potential public health threats including increased heat waves, increased extreme weather events like cyclones and flooding, and dirtier air. With respect to more general public welfare threats, the EPA warned that climate change threatened to increase disruptions to food production and agriculture, endanger the adequacy of the water supply, submerge and flood low-lying coastal lands with greater frequency, and increase the frequency of extreme weather events that could threaten energy and transportation infrastructure.

Thus, the EPA’s finding is strong authority for a locality seeking to justify its use of zoning law to mitigate climate change under a public health or welfare rationale, given that the risks presented by the EPA would threaten the public safety of any local municipality. Coastal cities, in particular, whose geographic position makes them most likely to pass such “zoning out” ordinances, are likely to be disproportionately burdened by the risks identified by the EPA such as flooding, submerging of coastal land, and extreme weather threats to infrastructure.

The extent to which climate change will be recognized as threatening public health and welfare is central in the case Juliana v. United States. In Juliana, plaintiffs are suing the federal government for condoning production and use of fossil fuels that exacerbate climate change. The plaintiffs alleged several injuries the district court recognized as “cognizable,” including: injuries from flooding and extreme weather, deterioration of water and food supply, and harm to recreational interests. A decision for the plaintiffs would signal a court’s willingness to recognize GHG emissions as a direct threat to the welfare interests zoning law protects.

Ultimately, given the scientific evidence and state of the relevant law, a locality would likely be able to show that the harms caused by climate change threaten local health and welfare.

156 Id. at 66,524.
157 Id. at 66,530–31.
159 Id. at 1242–44.
5. Local Zoning Ordinance Must Be Substantially Related to a Proper Purpose

The third, final, and most demanding threshold a “zoning out” ordinance would have to satisfy is whether the ordinance bore a “substantial relation” to public health, safety, and welfare.\textsuperscript{160} Because the standards for determining whether local zoning legislation is substantially related to its purpose tend to be deferential and the circumstances of climate change make deference to local legislatures appropriate, a municipality may be able to show that a “zoning out” ordinance is substantially related to mitigating climate change.

This substantial relation requirement is a feature of the substantive due process requirements of both federal and state constitutions.\textsuperscript{161} For federal due process challenges, ordinances need only pass the deferential “minimum rationality” test, under which the ordinance is considered “substantially related” to its purpose if the court finds “any conceivable, rational basis in fact or logic linking [the ordinance] with its intended objective or purpose.” \textsuperscript{162} While many state courts adopt this “minimum rationality” test for due process challenges under state constitutions, some states have less deferential substantive due process tests.\textsuperscript{163} For instance, some state courts require that zoning ordinances have a “real and substantial relationship” to a legitimate purpose, invalidating zoning prohibitions that are only “tangentially related to public welfare, unduly oppressive, fundamentally unfair, or over- and under-inclusive in their impact.” \textsuperscript{164} Other states have required that a zoning law’s prohibitions be “reasonably tailored to the objects to be obtained and not overly burdensome or excessive.” \textsuperscript{165}

The logic of a “zoning out” prohibition likely satisfies the “minimum rationality” test: the ordinance mitigates climate change by disrupting the fossil fuel transportation system and raising the transportation costs and market price of fossil fuels,

\textsuperscript{161} \textit{Rathkoff et al.}, supra note 128, at § 3.14.
\textsuperscript{162} \textit{Id.} at § 3:17.
\textsuperscript{163} \textit{Id.} at § 3:18.
\textsuperscript{164} \textit{Id.}
\textsuperscript{165} \textit{Id.} at § 3:19.
thus reducing their consumption and GHG emissions. However, a more difficult question is whether the ordinance would meet the more demanding due process requirements of states which require prohibitions to be not overly burdensome or overly inclusive, or more than somewhat related to the public welfare.

Courts answering these questions can look to case law resolving questions of climate change causation for guidance. Causation is a standard embedded in Article III standing doctrine that requires a defendant’s conduct to be “fairly traceable” to a plaintiff’s injury. This standard can be informative to courts evaluating whether a prohibition of certain land use activities furthers the ordinance’s objective because it parallels the due process standards by focusing on the extent to which an undesirable consequence can be attributed to a targeted action—in causation doctrine, the defendant’s action, and in the zoning context, the land user’s action. For example, when a zoning prohibition is aimed at a land use analogous to a land use or behavior that is “fairly traceable” to a climate change injury (as identified in the standing doctrine), one can more confidently assume that there is rational basis for the zoning prohibition on such land use. These causation analogies, however, are not without limitations, and so courts should be mindful of the relative advantages of the judiciary and legislature in determining which prohibitions meaningfully contribute to climate change mitigation.

The Supreme Court, in its seminal climate change standing case Massachusetts, held that EPA’s lack of regulation of vehicle emissions was “fairly traceable” to Massachusetts’s climate change injury. In reaching this conclusion, the Court first recognized that causal connection between GHGs emissions and climate change.166 The Court then rejected the premise that “a small incremental step [towards climate change mitigation]” could not be considered a step to solve the problem “because it was incremental.”167 This suggestion by the Supreme Court, that policy actions targeting GHG emissions, even if only incremental, can be direct and essential steps to solving the climate change problem supports the notion that a

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167 Id. at 524.
municipality’s zoning prohibitions on fossil fuel infrastructure can be meaningful, direct measures of climate change mitigation.

Yet Massachusetts focused on domestic motor vehicle emissions, a swath of emissions much broader than those eliminated by a “zoning out” ordinance. Therefore, a challenger may attack the relation of a “zoning out” prohibition to meaningful climate change mitigation with similar reasoning as the Ninth Circuit in Washington Environmental Council v. Bellon. In Bellon, an environmental organization sued environmental regulators alleging that they failed to enforce, create, and apply GHG control standards on oil refineries. The Bellon court distinguished Massachusetts, finding that while domestic motor vehicle were “meaningful contributions” to global GHG concentrations, the oil refineries’ GHG contributions (5.9% of Washington State’s GHG emissions) were not shown to be “meaningful contributions” to global GHG levels. Taking notice of this volume of GHG emissions, and “the numerous independent sources of GHG emissions,” the Court found no meaningful nexus between the Washington emissions and global GHG concentration. Courts, however, should remain mindful of the limits of Bellon’s analysis, and indeed their own ability to assess whether a zoning prohibition would meaningfully contribute to, and is thus substantially related to, its stated purpose to mitigate climate change.

With these limitations in mind, even under the stricter “substantial relation” test, courts should often exercise deference to elected, local legislatures and uphold “zoning out” ordinances. First, Bellon shows that answering the question of whether certain GHG emissions substantially contribute to climate change requires subjective, if not completely arbitrary, line drawing that cannot be guided by objective, judicially manageable standards. It follows that drawing a line, in the course of a “substantial relation” analysis, that divides measures that meaningfully mitigate climate change from those that do not would leave litigants with arbitrary results.

169 Id. at 1145–46.
170 Id. at 1143–44.
This problem of arbitrariness is only exacerbated by the difficulty, recognized by several courts, in empirically demonstrating the precise effect certain local actions would or would not have on mitigating local climate change risk. Courts have also suggested there is a lack of accepted standards and methodologies that parties can use to show the impacts of local climate change mitigation efforts. Thus, local communities face a challenge of employing acceptable, useful methodologies to develop a factual record from which a judge would decide whether a “zoning out” ordinance is sufficiently effective in reducing the local risks wrought by climate change. These empirical uncertainties only further highlight the institutional difficulties that the judiciary would face, as compared to the legislature, in determining the extent to which the prohibitions mitigate climate change, and thus bolsters the case for courts to exercise deference. Indeed, several courts and commentators have recognized that climate change is very difficult for judicial organs to deal with. Climate change is, as Donald Gifford suggests, a “harm that our constitutional structures anticipated the political branches would handle,” and, deciding whether prohibitions meaningfully contribute to climate change mitigation “requires a policy decision of the type

171 See Wildearth Guardians v. Salazar, 880 F. Supp. 2d 77, 85 (D.D.C. 2012) (“Plaintiffs point to studies suggesting that GHG emissions may lead to global or even broad regional climate change impacts, . . . but those studies do not establish a nexus between the anticipated GHG emissions . . . and ‘injuries alleged in the specific geographic area[s] of concern’”); Bellon, 732 F.3d at 1143 (“[T]he effect of this emission on global climate change is ‘scientifically indiscernible,’ given the emissions levels, the dispersal of GHGs world-wide, and ‘the absence of any meaningful nexus between Washington refinery emissions and global GHG concentration’”).

172 See Rialto Citizens for Responsible Growth v. City of Rialto, 208 Cal. App. 4th 899, 941 (Cal. Ct. App. 2012) (“The City did not decline to gauge the project’s cumulative impact on greenhouse gases and global climate change merely because there was no single, universally accepted methodology for gauging the impact.”) (emphasis added).

173 See Margaret Rosso Grossman, Climate Change and the Individual, 66 AM. J. COMP. L. 345, 361 (2018) (arguing that “proof faced by climate change plaintiffs are often due to ‘gaps or uncertainties in relevant climate science, in part because scientific studies have focused on large-scale effects, rather than more local impact.’”) (quoting Jacqueline Peel, Issues in Climate Change Litigation, 5 CARBON & CLIMATE L. REV. 15, 19 (2011)).

174 Id. at 357–58 (citing Connecticut v. Am. Elec. Power, 406 F. Supp. 2d 265, 271 n.6, 272, 274 (S.D.N.Y. 2005) as noting that “climate change was ‘patently political’ and ‘transcendentally legislative,’” “requiring a legislative policy determination before it could decide the global warming complaints.”).
appropriate for political institutions deriving their legitimacy from something other than a court’s reasoned elaboration from precedents that bear little or no resemblance to the problems at hand.” 175

Further, this kind of judicial deference gives appropriate life to the principle from Massachusetts and Taylor that a regulation aimed at mitigating an environmental risk is justifiable even if the regulation’s mitigation effort is “incremental” or the risk proves “negligible.” 176 Application of this principle would allow a court, recognizing the harm a city suffers from climate change, to enable the city to defend itself, however negligibly, against the threat of climate change. Indeed, courts should be wary of leaving a municipality unable to leverage its own land use powers to self-protect against climate change, especially when other actors have failed to do so. This reasonable insulation of local legislative judgement with respect to measures that will reduce climate change risk, although to an unknown degree, represents a sound application of the “precautionary principle,” permitting “decisionmakers to avoid or minimize risks[,] whose consequence are uncertain and potentially serious[,] by taking anticipatory action.” 177

Ultimately, in light of the generally accommodating standard of review, and given the logic of Massachusetts, the potential arbitrariness of judicial second-guessing, and the more befitting role of the legislature to address the issue, it is likely appropriate, in most cases, for courts to afford deference to local legislators on the question of whether a “zoning out” ordinance is “substantially related” to climate change mitigation.

176 See Massachusetts v. U.S. Envtl. Prot. Agency, 549 U.S. 497, 524 (2007) (acknowledging that Massachusetts could be injured by the lack of regulatory action that takes “a small incremental step” in the face of a global problem and stating “[a] reform may take one step at a time, addressing itself to the phase of the problem which seems most acute to the legislative mind.” (quoting Williamson v. Lee Optical of Okla., Inc., 348 U.S. 483, 489)); Taylor, 477 U.S. at 148 (state “had a legitimate interest in guarding against imperfectly understood environmental risk, despite the possibility that they may ultimately prove to be negligible”).
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B. Dormant Commerce Clause

Municipalities passing “zoning out” ordinances need also be aware of the implications of the Constitution’s Dormant Commerce Clause, another ground on which their ordinances are likely to be challenged. Both the South Portland and Portland ordinances were challenged on Dormant Commerce Clause grounds, with the courts resolving the issue in favor of the cities.178 The following section lays out the requirements of the Dormant Commerce Clause in relation to the particularities of a “zoning out” ordinance that may make it vulnerable to such a challenge.

1. Purposes and General Framework of the Dormant Commerce Clause

The Dormant Commerce Clause describes the Constitution’s limitations on the power of individual states to regulate interstate commerce. These limitations are implied from the Commerce Clause which states that Congress shall have the power to “regulate Commerce with foreign Nations, and among the several states, and with Indian Tribes.”179 The Commerce Clause, though written as a grant of power, carries a “negative implication”180 that prohibits the states from enacting “regulatory measures designed to benefit in-state economic interests by burdening out-of-state competitors.”181 The doctrine “helps to ‘effectuate[] the Framers’ purpose to ‘prevent a State from retreating into economic isolation or jeopardizing the welfare of the Nation as a whole.’”182 The Dormant Commerce Clause is applied to local laws, as well as state laws.183 The Dormant Commerce Clause, however, still leaves room for local regulation, even of issues that could be regulated at the federal level.184 In fact, courts should be “particularly hesitant” to strike

179 U.S. CONST., art. I, § 8, cl. 3.
down local policy under the commerce clause when localities are pursuing “typical[] and traditional[] ... local government function[s].” 185

The primary justification for the dormant Commerce Clause is economic. The doctrine is illustrative of the principle that the “economic unit is the nation,” 186 and guards against “economic balkanization” 187 and “economic protectionism” 188 among the states that arises from self-interest. However, observers have recognized another rationale, less explicitly stated by courts: the protection of powerless out-of-state interests. 189 These commentators extrapolate this rationale from Supreme Court opinions that justify upholding state statutes on grounds that they do not burden out-of-state interests that are unrepresented in the states’ political processes. 190

2. A “Zoning Out” Ordinance Must Not Regulate Extraterritorially

One requirement of the Dormant Commerce Clause is that state and local statutes do not regulate beyond the respective state’s lines. The “Commerce Clause ... precludes the application of a state statute to commerce that takes place wholly outside of the State’s borders.” 191 Extraterritorial regulation is impermissible regardless of legislative intent: “[t]he critical inquiry is whether the practical effect of the regulation is to control conduct” outside the state. 192 “[T]he

192 Healy, 491 U.S. at 336 (citing Brown-Forman Distillers Corp. v. N.Y. State Liquor Auth., 476 U.S. 573, 579 (1986)).
practical effect of the statute must be evaluated not only by considering the consequences of the statute itself, but also by considering how the challenged statute may interact with the legitimate regulatory regimes of other States and what effect would arise if not one, but many or every, State adopted similar legislation."  

Because a “zoning out” ordinance draws zoning lines wholly within the jurisdiction, and has only incidental effects on commerce outside these boundaries, it should survive extraterritoriality challenges.

The Maine District Court resolved the extraterritorial challenge issue in favor of South Portland. The District Court reasoned that “[c]onduct is not controlled . . . if it occurs outside” Maine. It considered the ordinance no different than any “local prohibition on particular goods or services [that] has the effect of preventing distant merchants from employing their capital and labor to sell those goods or services within the boundaries of the restrictive locality,” and worried that if these kinds of zoning prohibitions were found to have extraterritorial effect, there would be “no room for local historic police powers.” However, the court cited no case law supporting its reasoning except for the general principles of extraterritorial doctrine and the proposition that the Supreme Court had struck down only “price control, price affirmation, or price tying schemes” under the extraterritoriality doctrine.

Yet, the case law suggests that targets of extraterritorial challenges extend beyond price control laws. For example, in the Eighth Circuit case North Dakota v. Heydinger, North Dakota and out-of-state electric companies brought a challenge against Minnesota’s Next Generation Act, which prohibited anyone from importing to Minnesota “power from a new large

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193 Id.
195 Id.
196 Id.
197 The Supreme Court has struck down an Illinois statute requiring out-of-state corporations to disclose materials to out-of-state target companies, and circuit courts have struck down non-price regulating statutes that sought to impose extraterritorial requirements on organizations conducting interstate commerce. See Edgar v. MITE Corp., 457 U.S. 624 (1982); Nat’l Collegiate Athletic Ass’n v. Miller, 10 F.3d 633 (9th Cir. 1993); North Dakota v. Heydinger, 825 F.3d 912 (8th Cir. 2016).
energy facility that would contribute to... power sector carbon dioxide emissions.” The statute regulated “emissions of carbon dioxide from the generation of electricity imported from outside of the State and consumed in Minnesota.” The Eighth Circuit found that out-of-state power companies could only avoid offending the Minnesota statute, even when transacting completely out-of-state transactions, by “unplug[ging] from [a multi-state power grid]” or seeking regulatory approval in Minnesota. The court therefore held that the statute regulated extraterritorially by having the “practical effect of [controlling] activities wholly outside of Minnesota.”

The Ninth Circuit, in *Rocky Mountain Farmers Union*, similarly addressed a state statute seeking to shape out-of-state behavior of energy producers. In that case, fuel industry plaintiffs challenged a California regulation that sought to impose GHG emission standard on fuel consumed in California. California evaluated a fuel’s compliance with GHG emission standards based on a “life-cycle analysis,” which accounted for emissions resulting from the production of the fuel ultimately imported into California, even if the production took place out of state. Upholding the California fuel standards, the Ninth Circuit found the standards to regulate only the California market. It reasoned that out-of-state firms could freely choose whether they wanted to comply with the California standards in order to gain market share there, and California may have incentivized compliance, but out-of-state companies were not required to meet any particular carbon standards nor were any jurisdictions forced to adopt any regulations in order for its producers to gain market share in California.

In light of the case law’s treatment of state regulations that seek to shape out-of-state behavior of energy companies, a

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198 Heydinger, 825 F.3d at 913–14.
199 Id. at 916 (emphasis added).
200 Id.
201 Id. at 922.
202 Rocky Mountain Farmers Union v. Corey, 730 F.3d 1070, 1077–78 (9th Cir. 2013).
203 Id. at 1080–82.
204 Id. at 1102–05.
205 Id. at 1101, 1103 (citing Pharm. Research & Mfrs. of Am. v. Walsh, 538 U.S. 644, 669 (2003)).
“zoning out” ordinance should survive an extraterritorial challenge. First, like the ordinance upheld by the Maine District Court, these zoning prohibitions are likely to be narrow as they will only prohibit operations within their jurisdictions. Unlike in Heydinger, where the statute at issue would have effectively prevented out-of-state companies from participating in out-of-state markets,206 such zoning prohibitions will not preclude an energy company from operating in another jurisdiction outside the municipality where the ordinance operates. Fossil fuel operations originating out-of-state will still have the opportunity, when possible, to re-route their operations to avoid the zoning prohibitions.

However, these ordinances may have a more difficult time surviving an extraterritorial challenge if they have the effect of requiring a fossil fuel operation to shut down completely, such as the South Portland ordinance likely has.207 This kind of extraterritorial effect would go beyond those of the statute in Rocky Mountain which influenced out-of-state choices,208 and resemble more closely the Heydinger facts because such an ordinance would leave the affected business with no choice but to shut down. Yet, even these kinds of ordinances are likely to survive, because as noted by the Maine District Court, these ordinances merely draw lines determining the extent of operations taking place wholly within their geographic spheres of influence.209

Although the primary purpose of a “zoning out” ordinance is climate change mitigation—an effort whose effects extend “extraterritorially”—the extended “reach” of this purpose would not affect an ordinance’s ability to survive an extraterritorial challenge. As the Maine District Court stated, the purpose of the local law is irrelevant because “the ‘critical inquiry’ . . . is ‘whether the practical effect of the regulation is to control conduct’” outside the state.210

206 Heydinger, 825 F.3d at 921–22.
208 Rocky Mountain Farmers Union, 730 F.3d at 1101.
210 Id. at 298 (quoting Nat’l Foreign Trade Council v. Natsios, 181 F.3d 38, 69 (1st Cir. 1999)) (emphasis added)).
Although never resolved by the court, a reasonable extraterritoriality challenge was brought by the Oakland plaintiffs. The plaintiffs cited numerous cases to support an argument that activity which makes interstate transportation of fossil fuels more difficult is a regulation of interstate commerce.\footnote{Plaintiff's Motion For Summary Judgment, Oakland Bulk & Oversized Terminal, LLC v. City of Oakland, 321 F. Supp. 3d 986 (N.D. Cal. 2018). The plaintiff cited the following cases: Pennsylvania v. West Virginia, 262 U.S. 553 (1923) (invalidating statute that required oil companies in West Virginia to fulfill needs of in-state consumers before transporting oil out-of-state to out-of-state consumers); West v. Kan. Nat. Gas, 221 U.S. 229 (1911) (invalidating statute that prohibited in-state oil from using pipelines to transport oil out of state); Bowman v. Chicago & N.W. Ry. Co., 125 U.S. 465 (1888) (invalidating statute prohibiting common carriers from transporting liquor into the state, distinguishing this effect from a right “arise[ing] only after the act of transportation has terminated”); Schollenberger v. Pennsylvania 171 U.S. 1 (1898) (invalidating statute that prohibits importation of oleomargine into the state and in-state sales of the “healthful” commodity); Hannibal & St. Joseph R.R. Co., v. Husen, 95 U.S. 465 (1877) (invalidating state statute that prohibited the transportation of cattle into or through the state, even if the cattle were not unloaded in state); Minnesota Rate Cases, 230 U.S. 352 (1913) (invalidating Minnesota law that required railways to charge favorable rates to in-state commerce).} However, the cases they relied upon generally dealt with laws invalidated because they sought to directly prohibit, or in some case burden, transportation of certain items, into or out of a jurisdiction, through direct regulation of transportation infrastructure and vehicles that cross state borders. By contrast, a “zoning out” ordinance can achieve its full purpose by prohibiting only stationary fossil fuel operations within a jurisdiction. This prohibition may make fossil fuel transportation into the jurisdiction futile or interstate transportation costlier, but it is not likely to be found to directly and impermissibly regulate transportation infrastructure or vehicles moving into, out of, or around the jurisdiction.

3. A “Zoning Out” Ordinance Must Not Discriminate

The Dormant Commerce Clause also prohibits state and local statutes that discriminate against out-of-state commerce on their face, in effect, or in purpose.\footnote{See Chem. Waste Mgmt., Inc. v. Hunt, 504 U.S. 334, 344 n.6 (1992).} Discrimination “simply means differential treatment of in-state and out-of-state economic interests that benefits the former and burdens the
latter.” 213 The legislature need not intend for the statute to be discriminatory for it to be struck down: a statute is invalid if it has “the ‘practical effect’ of discriminating [against interstate commerce] in its operation.” 214 If the law is found to be discriminatory, it is invalid per se and will “survive only if it ‘advances a legitimate local purpose that cannot be adequately served by reasonable nondiscriminatory alternatives.’” 215

i. Facial Discrimination

There is no apparent reason why a “zoning out” ordinance needs to be drafted to facially discriminate against out-of-state fossil fuel companies. Therefore, these ordinances will not be struck down on facial discrimination grounds.

ii. Practical Discrimination

A more likely challenge to these “zoning out” ordinances would involve whether they would discriminate against interstate commerce in practice or effect. However, because “zoning out” ordinances would treat out-of-state companies the same as in-state companies, they would not likely be found to discriminate in effect unless they disproportionately favored in-state consumers. In fact, the Maine District Court and the Oregon Court of Appeals resolved the “practical discrimination” challenges there in favor of the cities. 216

The most important fact to both courts was the ordinances regulated even-handedly with respect to in-state and out-of-state fossil fuel companies, barring both from expanding operations. 217 The courts focused on the Supreme Court’s language in General Motors Corp. v. Tracy that “any notion of discrimination assumes a comparison of substantially similar
entities.” 218 Both courts recognized that even if there were competition between out-of-state and in-state companies, both would be equally affected. 219 Because any “zoning out” ordinance would have the effect of diminishing opportunities for in-state, out-of-state, and foreign companies alike, it is unlikely that courts would find discriminatory effect. Indeed, as noted by the Maine court, the Supreme Court has stated that just because an ordinance harms only interstate companies does not necessarily “lead . . . to a conclusion that the State is discriminating against interstate commerce.” 220

The Third Circuit resolved a case that would be very factually similar to a “practical” discrimination challenge to a “zoning out” ordinance. In Norfolk Southern Corp. v. Oberly, the Court upheld a Delaware statute that banned “bulk transfer facilities,” used for loading coal onto marine tankers, from the state’s coastal areas. 221 The court upheld the statute, finding that it had no discriminatory effect. 222 The Court reasoned that “a state’s choice between competing land use . . . does not implicate the Commerce Clause simply because the alternative may be in the best economic interest of the state so long as the state’s choice does not discriminate between in-state and out-of-state competitors.” 223 However, before making this conclusion, the court stated it “believe[d] the ‘discriminatory effect’ cases are best regarded as cases of purposeful discrimination,” 224 making a step that scholars suggest the Supreme Court appears to reject. 225 Although the holding of Oberly may improperly burden a challenge on the basis of the discriminatory effects test, its holding still supports the idea that a ban on bulk handling of fossil fuels, a feature of a “zoning out” ordinance, is not discriminatory, even if it prioritizes the policies of the

220 Portland Pipe Line Corp., 332 F. Supp. 3d at 303 (citing Exxon Corp., 437 U.S. at 125).
221 Norfolk S. Corp. v. Oberly, 822 F.2d 388, 390 (3d Cir. 1987).
222 Id. at 400–03.
223 Id. at 402.
224 Id. at 400.
municipality (e.g. climate change mitigation), as compared to the interests of out-of-state actors.

However, to the extent a “zoning out” ordinance limits expansion of fossil fuel infrastructure in a way that disproportionately affects out-of-state consumers, it may prove discriminatory. The Oregon plaintiffs raised the persuasive argument that because the Portland ordinance was designed to protect the existing supply of fossil fuels to Oregon, but disallow expansions that would make the terminals capable of supplying out-of-state consumers, the ordinance discriminated against out-of-state consumers as compared to in-state consumers. The principal case cited by the court in response was *Camps Newfound/Owatonna, Inc. v. Town of Harrison*, which involved a challenge to a Maine law that taxed more heavily those campsites which served more out-of-state customers as compared to campsites that served more in-state customers. Finding the Maine legislation unlawful, the Supreme Court explained that “[e]conomic protectionism is not limited to convey advantages on local merchants; it may include attempts to give local consumers an advantage over consumers in other states.”

In response to the plaintiff’s consumer protection argument, the Oregon court simply stated the ordinance did not “favor Oregon consumers when compared to out-of-state consumers,” and did not regulate the conduct of out-of-state consumers. While the Court was right to conclude that the ordinance did not regulate the conduct of out-of-state consumers, it is far from obvious that the ordinance does not favor Oregon consumers. A court could reasonably find favoritism on the basis of the ordinance protecting in-state vis-à-vis out-of-state supply. Even more, the Oregon zoning ordinance, which makes the city unavailable for the expansion of out-of-state fossil fuel transport

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228 *Id.* at 577–78.
229 *Colum. Pac. Bldg. Trades Council*, 412 P.3d at 266.
230 *Id.* at 262–63.
infrastructure, may have an upward effect on future transport costs for fossil fuels being consumed out of state that could be passed on to out-of-state consumers. By contrast, because the Oregon ordinance protects existing infrastructure that services most of Oregon’s fossil fuel demand, it may have no effect on transportation costs of fossil fuels consumed in state, and in-state consumers may suffer no such passed on costs. Therefore, to the extent a “zoning out” ordinance, like the Oregon ordinance, preserves fossil fuel infrastructure sufficient to meet its own citizens’ needs, a court may strike it down, finding economic favoritism of in-state consumers under the logic of Camps Newfound and the Oregon plaintiff’s arguments. Indeed, a municipality can avoid such a challenge altogether by banning fossil fuel infrastructure outright, though this is very likely a step municipalities are not yet practically ready to take.

iii. In Purpose

A “zoning out” ordinance will also be struck down if its purpose, determined by “the plain meaning of the statute’s words, [and] enlightened by their context and the contemporaneous legislative history,” is discriminatory. Because a “zoning out” ordinance’s primary purpose is to mitigate climate change and it intends to treat all fossil fuels the same, it would likely not be found to have a discriminatory purpose.

A court would need to evaluate the primary purpose of a “zoning out” ordinance. The Portland, Maine plaintiffs alleged that public comments surrounding the ordinance legislation, as well as the ordinance’s preclusion of import from Canada, showed the ordinance was intended to discriminate against Canadian commerce. The Court dismissed these claims by first finding that the primary purpose of the law, reflected in both public comment and legislative history, was to protect local

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231 Id.
233 Portland Pipe Line Corp., 332 F. Supp. 3d at 303–05.
health, rather than burden foreign commerce.234 A court looking at a “zoning out” ordinance should be able to easily conclude the primary purpose is to mitigate climate change, rather than burden international commerce.

Additionally, both the Maine and Oregon courts recognized that the ordinances at issue presented facts similar to those in *Philadelphia v. New Jersey*, in that they had the purpose of limiting the access of out-of-state goods to their jurisdiction.235 The courts, however, distinguished *Philadelphia* because the statute at issue in that case specifically precluded the entry of out-of-state waste on the basis of its out-of-state origin.236 The relevant zoning ordinances in Maine and Oregon would treat the handling of any fossil fuel, regardless of its point of origin, identically.237 A “zoning out” ordinance would not have the purpose of discriminatorily burdening interstate commerce, being similarly agnostic to the state of origin of the fossil fuels.

Even if a challenger could show that the ordinance intended to harm interstate and international fossil fuel commerce, a point the Maine District Court found was not at issue,238 a court should still not strike down the ordinance. Such a purpose could be reasonably implied from the findings underlying the Oakland ordinance, which suggested the ordinance was designed to limit exports “lead[ing] to the burning of coal overseas.”239 But again there would be no discriminatory purpose because discrimination analysis compares “substantially similar entities” and a “zoning out” ordinance would have the purpose of treating the fossil fuels produced and distributed by fossil fuel companies, regardless of their point of origin, the same. However, as suggested above, a challenger could still argue that a “zoning out” ordinance has the purpose of favoring in-state consumers.

234 *Id.* at 305.
235 *Id.* at 305–07; *Colum. Pac. Bldg. Trades Council*, 412 P.3d at 265.
239 OAKLAND, CAL. CODE OF ORDINANCES § 8.60.020 (2019).
4. A “Zoning Out” Ordinance Must Satisfy the *Pike* Test

The *Pike v. Bruce Church, Inc.* test will likely be the Dormant Commerce Clause test that challengers to a “zoning out” ordinance most heavily rely upon. Under the *Pike* balancing test, a non-discriminatory statute having incidental effects on interstate commerce will be upheld “unless the burden imposed on such [interstate] commerce is clearly excessive in relation to the putative local benefits.” 240 The local purpose must be found to be “legitimate,” and the extent that the burden on interstate commerce will be tolerated “depend[s] on the nature of the local interest involved, and on whether it could be promoted as well with a lesser impact on interstate activities.” 241 Because climate change mitigation is likely a legitimate purpose within the purview of local governments, and environmental regulations are given solicitude in a *Pike* analysis, a “zoning out” ordinance should likely pass the *Pike* test.

An application of the *Pike* test to a “zoning out” ordinance would begin with an analysis of whether the ordinance’s purpose (i.e., climate change mitigation) is a legitimate local purpose. Although not at issue in Maine, the Oregon Court had the opportunity to consider whether the climate change purpose of the ordinance was a legitimate local purpose but declined to do so, instead focusing on the other more traditional safety purposes of the ordinance it found legitimate. 242 However, multiple judges have addressed this question almost directly.

As noted above, in *Rocky Mountain*, the District Court of the Eastern District of California found that although the statute at issue discriminated against interstate commerce in practice, it served a legitimate local purpose of mitigating climate change. 243 A concurring opinion in the Ninth Circuit agreed with this holding, citing *Massachusetts v. EPA* and *Maine v. Taylor* for the proposition that states have a legitimate interest in protecting

241 *Id.*
themselves against environmental risks. The Ninth Circuit also recognized climate change mitigation as a legitimate local purpose in a subsequent *Rocky Mountain* opinion, finding that California was justified in “attempt[ing] to address a vitally important environmental issue with vast potential consequences.” The Ninth Circuit cited *American Fuel v. O'Keefe*, a Ninth Circuit case, which stated that “[i]t is well settled that [] states have a legitimate interest in combating the adverse effects of climate change on their residents.”

However, in a dissenting opinion from the decision to deny a rehearing en banc for the first *Rocky Mountain* case, six judges signaled their uneasiness with the notion that mitigating climate change could be considered a legitimate local purpose in the context of the Dormant Commerce Clause. It stated that mitigating climate change was not a “legitimate local concern” because a local “scheme” would “have little to no effect in averting the environmental catastrophe envisioned by the majority.”

The dissenting judges employed similar reasoning as the Supreme Court in *Kassel v. Consolidated Freightways Corp. of Delaware*, which suggested that if the stated local purposes are “illusory,” they are not legitimate local purposes. The *Kassel* majority found that a state statute, purported to promote automobile safety, did not actually promote safety. Thus, the statute’s rationale was merely “illusory” and its significant burdens on interstate commerce were unjustified.

If a court considered the effect of a “zoning out” ordinance on climate change to be de minimis, a court may strike the statute down because its underlying rationale about safety and health considerations is “illusory.”

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245 Rocky Mountain Farmers Union v. Corey, 913 F.3d 940, 955 (9th Cir. 2019).
246 Id. (citing *Am. Fuel & Petrochemical Mfrs. v. O'Keeffe*, 903 F.3d 903, 913 (9th Cir. 2018)).
247 Rocky Mountain Farmers Union v. Corey, 740 F.3d 507, 516 (9th Cir. 2014) (Smith, J., dissenting).
248 Id.
249 Id.
250 Id.
251 Id.
Although the Ninth Circuit majority opinions may provide persuasive authority, whether other courts consider climate change a legitimate local purpose will likely depend on how far a court is willing to extend the holding of Massachusetts v. EPA. In many ways, this analysis mirrors the analyses, discussed above, of whether climate change should be considered a local problem in the context of zoning law, and whether zoning prohibitions on fossil fuel infrastructure are substantially related to climate change mitigation. Ultimately, in line with the Ninth Circuit, and for the same reasons that courts should likely exercise deference to a legislature’s finding that its zoning prohibitions were substantially related to climate change mitigation,252 a court should exercise deference to a legislature identifying climate change as a legitimate local purpose. Indeed, given coastal municipalities unique vulnerability to climate change, courts may be willing to find that climate change mitigation in these municipalities is a legitimate local purpose.

The local benefits of a “zoning out” ordinance may also exceed its effects on interstate commerce under the Pike balancing test. At least one commentator suggests that an environmental purpose can hold substantial weight in this balancing test.253 Erin Tanimura suggests Pacific Merchant II is an environmental example of a Ninth Circuit trend to uphold “highly contentious regulations to promote significant public interests.”254 Pacific Merchant II dealt with a California law that imposed fuel standards on ships reaching its ports.255 The court found the law’s local benefit of protecting its citizens from air pollution outweighed the burdens on commerce.256 Tanimura notes that the court’s Pike analysis primarily focused on the environmental policy and its effects, making little substantive analysis of the burdens on commerce.257

252 See supra Section III(A)(5).
254 Id.
255 Pacific Merchant Shipping Ass’n v. Goldstene, 639 F.3d 1154, 1158 (9th Cir. 2011).
256 Id. at 1158.
257 Tanimura, supra note 254, at 435.
The Portland Pipe Line Corp. opinion’s Pike analysis followed a path similar as the Pike analysis in Pacific Merchant II. The court found that the City had several legitimate concerns motivating the ordinance, including air quality, odor, noise, and aesthetic impacts. While the court did address the potential burdens on interstate commerce, which were not insubstantial—financial losses to shareholders, workers, and others—the court’s analysis focused mostly on the evidence of the purported local benefits. The court reviewed testimony of the city’s health expert, submissions of the American Lung Association, and the potential impacts on the city’s developments plan. Ultimately, the court, quoting Kassel, suggested it should not be in the business of “second-guess[ing]” the safety judgements of the city legislature.

The Oregon court conducted the Pike test similarly. The court stressed the ordinance’s local benefits like reducing earthquake-associated risks and air pollution. It even went further than the Portland Pipe Line Corp. and Pacific Merchant II courts by refusing to consider the burdens on interstate commerce, suggesting the plaintiffs had the burden to develop a record showing the effects on interstate commerce and failed to do so.

Because courts appear to afford environmental regulations appreciable deference under the Pike analysis, as suggested by Tanimura and the Maine and Oregon decisions, a court may find the benefits of a “zoning out” ordinance to outweigh its prospective burdens on interstate commerce. Further, a “zoning out” ordinance has a clear safety purpose and courts are instructed to refrain from “second-guess[ing] legislative judgement about [the safety justification’s] importance in comparison with related burdens on interstate commerce.”

258 Portland Pipe Line, 332 F. Supp. 3d at 310.
259 Id. at 309–13.
260 Id. at 310–13.
261 Id. at 313.
263 Id. at 267. It is interesting to note, however, that the opinion cites no Supreme Court precedent that the burden to develop such a burden falls on the challengers to the law at question.
It is true however, as others note, that the balancing test is unpredictable as it requires something like “legislative judgment.”

5. A “Zoning Out” Ordinance Must Not Interfere with Foreign Affairs

Dormant Commerce Clause doctrine also recognizes the “need for [federal] uniformity” in foreign commerce, because in “foreign intercourse and trade[,] the people of the United States act through a single government with unified and adequate national power.” Because a “zoning out” ordinance does not prevent the federal government from “speaking with one voice” in regulating foreign commerce, it should not be struck down on federal uniformity grounds.

For similar reasons as those stated in the Maine decision, a “zoning out” ordinance would not likely face a successful challenge informed by the foreign affairs rationale of Dormant Commerce Clause doctrine. First, like the Maine ordinance, a “zoning out” ordinance need not target any specific nation to achieve its purpose. Additionally, as the Maine opinion explained, a “zoning out” ordinance or a patchwork of “zoning out” ordinances throughout the country, would not threaten the uniformity of federal policy towards interstate commerce, as it would merely limit the U.S. regions in which international fossil fuel companies could develop infrastructure.

C. Federal Preemption

A final challenge a “zoning out” ordinance is likely to face is a charge that the ordinance is preempted by federal law. The Supremacy Clause states that the “Constitution, and the Laws

266 Id. at 166 n.59; Bendix Autolite Corp. v. Midwesco Enter., Inc., 486 U.S. 888, 897 (1988) (Scalia, J. concurring).
268 Id. at 451.
269 Portland Pipe Line, 332 F. Supp. 3d at 314.
270 Id. at 315.
the United States... shall be the supreme Law of the Land.”271
Under this authority, a body of law has developed that
recognizes that federal law trumps state and local law when it
reaches the same subject matter that the state or local law
regulates. Because there is scant federal legislation targeting
climate change or localized fossil fuel handling, federal
preemption will not likely pose a formidable challenge to “zoning
out” ordinances.

1. A “Zoning Out” Ordinance Must Not be Preempted by
   Federal Statute

A state or local statute can be preempted by federal statute in
three different ways, though “[t]he purpose of Congress is the
ultimate touchstone” in every preemption case.”272 First, a
federal statute will preempt a state statute when the federal
statute expressly indicates, or implicitly indicates through its
structure and purpose, that it alone is to regulate a subject that
the state statute also regulates.273 When the statute indicates
such preemptive intent, the Court must then determine “the
substance and scope of Congress’ displacement of state law.”274
Second, federal law preempts state law when it occupies the field
in which the state law regulates, which occurs when the “scheme
of federal regulation [is] so pervasive as to make reasonable the
inference that Congress left no room to supplement it.”275
Finally, federal law preempts state law when “compliance with
both the federal and state regulation is a physical
impossibility.”276

The Maine District Court fielded two statutory federal
preemption claims. The plaintiffs alleged that the local
ordinance was preempted by the Pipeline Safety Act as well as
the Ports and Waterways Safety Act.277 However, the court

271 U.S. CONST., art. VI.
272 Altria Group, Inc. v. Good, 555 U.S. 70, 76 (2008) (quoting Medtronic, Inc. v. Lohr,
518 U.S. 470, 485 (1996)).
274 Altria Group, 555 U.S. at 76.
277 Portland Pipe Line Corp. v. City of South Portland, 288 F. Supp. 3d 321, 428, 434 (D.
Me. 2017).
found that while the purpose and effect of the loading ordinance was to reduce air pollution and protect local aesthetic, the two federal laws in question related to pipeline safety with respect to issues like spills, and the safety of vessels moving through a harbor, respectively. So, to the extent a “zoning out” ordinance would operate against an interstate pipeline, such operation of the law against the pipeline would not be on the basis of imposing safety regulations on the physical infrastructure and therefore the Pipeline Safety statute would not preempt it. Given the Port and Waterways statute’s concern with marine travel in ports, a “zoning out” ordinance targeting on-land infrastructure not directly related to seagoing travel would not likely be preempted.

The Oakland plaintiffs also raised a federal preemption attack on the Oakland ordinance, arguing that the ordinance was preempted by the Hazardous Materials Transportation Act and the Shipping Act. In the case of a “zoning out” ordinance, such an ordinance would not see to be preempted by Hazardous Materials because the Act is concerned with “protect[ing] against the risks... inherent in transportation of hazardous materials.” A narrowly drafted “zoning out” ordinance would need to target only stationary infrastructure, not transportation. “Zoning out” ordinances would also not likely be preempted by the Shipping Act because that Act prohibits “unreasonable” discrimination by marine terminal operators and parallel to the argument of the Oakland defendants, a “zoning out” ordinance, like the Oakland ordinance, is a law of general application justified by health and safety.

276 Id. at 428-40.
279 The Oakland defendants also argued that coal is not defined as a hazardous material under the HMTA, and thus to the extent that a prohibition effects the transportation of coal, the HMTA does not apply. See Oakland Defendant’s Brief, supra note 280, at 33–35.
281 See Oakland Defendant’s Brief, supra note 280, at 36.
Though a closer call, a “zoning out” ordinance is also unlikely to run afoul of the Interstate Commerce Commission Termination Act (“ICCTA”). Although unresolved by the court, the Oakland parties addressed whether Oakland’s zoning prohibition of coal handling at a terminal which would be served by rail, was preempted by the ICCTA.\textsuperscript{284} As a threshold matter, a plaintiff seeking to show that an ordinance is preempted by the ICCTA must show that the ordinance regulates transportation by rail carrier.\textsuperscript{285} However, the preemptive effect of the ICCTA extends broadly to “transportation by rail carriers,” remedies respecting “rates, classifications, rules, practices . . . ,” and the “construction, acquisition, [or] operation . . . of . . . facilities.”\textsuperscript{286} Courts have held that the “ICCTA ‘preempts all state laws that may reasonably be said to have the effect of managing or governing rail transportation, while permitting the continued application of laws having a more remote or incidental effect of transportation.’”\textsuperscript{287}

No “zoning out” ordinance need target transportation of fossil fuels \textit{by rail carrier}, a subject preempted by the ICCTA. When the ordinance seeks only to prohibit “handling” or “storage” of fossil fuels at facilities, it would seem merely an exercise of general police powers and not a regulation of transportation. Yet courts have recognized, as argued by the Oakland plaintiffs,\textsuperscript{288} that operations of intermodal transloading “involving loading and unloading materials from rail cars’ . . . are part of \textit{transportation}”\textsuperscript{289} and that the Surface Transportation Board has found “facilities . . . part of the general system of rail transportation” to be “part of the interstate network.”\textsuperscript{290} Still, as argued by the Oakland

\textsuperscript{284} See Oakland Plaintiff’s Brief, \textit{supra} note 279, at 20–27.
\textsuperscript{286} Id.
\textsuperscript{288} See Oakland Plaintiff’s Brief, \textit{supra} note 279, at 22–27.
\textsuperscript{289} Grosso v. Surface Transp. Bd., 804 F.3d 110, 118 (1st Cir. 2015) (emphasis added).
\textsuperscript{290} Or. Coast Scenic R.R., LLC v. Or. Dep’t of State Lands, 841 F.3d 1069, 1075 (9th Cir. 2016).
defendants, “zoning out” challengers could not show that these targeted, “non-railroad” operations became transportation by rail carrier simply because a rail carrier “uses rail cars to transport” fossil fuels to the operator of the fossil fuel terminal. Indeed, a “zoning out” ordinance would “not prevent anyone from running a rail operation or otherwise . . . attempt to regulate rail operations.” Thus, a “zoning out” ordinance which would operate upon fossil fuel infrastructure served by rail does not regulate a rail carrier and likely would not be preempted by the ICCTA.

2. A “Zoning Out” Ordinance Must Not Be Preempted by the Federal Maritime Powers

Neither should a “zoning out” ordinance be preempted by Congress’s general power to regulate maritime matters under the Admiralty Clause. Because “zoning out” ordinances target on-shore infrastructure, they do not offend the precepts of South Pacific Co. v. Jensen by prejudicing “the characteristic features of maritime law or interfer[ing] with the proper harmony and uniformity of that law in its international and interstate relations.”

Focusing on the act of loading marine vessels in a harbor, the Maine plaintiffs argued that the ordinance was preempted by federal maritime powers. The court rejected the claims, finding that the federal interest in uniformity in on-shore loading operations was weak while the local interests in

\[^{291}\text{See Oakland Defendant’s Brief, supra note 280, at 26–30.}\]
\[^{292}\text{CFNR Operating Co. v. City of Am. Canyon, 282 F. Supp. 2d 1114, 1118 (N.D. Cal. 2003).}\]
\[^{293}\text{Hi Tech Trans, LLC v. New Jersey, 382 F.3d 295, 309 (3d Cir. 2004).}\]
\[^{294}\text{CNFR Operating Co., 282 F. Supp. 2d at 1118.}\]
\[^{295}\text{See also Matthew C. Donahue, Note, Federal Railroad Power Versus Local Land-Use Regulation: Can Localities Stop Crude-By-Rail in its Tracks?, 74 WASH. & LEE L. REV. ONLINE 146, 200–01 (2017) (stating that no courts have found ICCTA preemption “over a facility not owned or operated by a railroad”; and that although a facility will fall within its jurisdiction if operated by an agent “operating under the auspices of rail carrier,” that inquiry “focuses on the amount of liability and ownership responsibility a railroad truly intends to take on regarding the operation of the facility.”).}\]
\[^{296}\text{U.S. CONST. art. 3, § 2, cl. 1.}\]
\[^{297}\text{S. Pac. Co. v. Jensen, 244 U.S. 205, 216 (1917).}\]
\[^{298}\text{Portland Pipe Line, 288 F. Supp. 3d at 445.}\]
reducing air pollution was strong. Specifically, it could find no cases under Jensen that struck down ordinances targeting the loading or unloading of goods, or construction of on-shore facilities. Even in cases where targeted terminals interact directly with sea-bound vessels, the federal maritime power is unlikely to preempt such local “zoning out” ordinances because such ordinances are likely to focus generally on on-shore activities.

3. A “Zoning Out” Ordinance Must Not be Preempted by the Federal Foreign Affairs Power

A “zoning out” ordinance is similarly unlikely to be preempted by the federal foreign affairs power. The Supreme Court has recognized that “an exercise of state power that touches on foreign relations must yield to the National Government’s policy, given the ‘concern for uniformity in this country’s dealings with foreign nations.’” The weight of the municipalities’ interest should be judged in relation to its law’s conflict with federal foreign policy to determine whether the law should be preempted.

The Maine District Court also resolved the foreign affairs preemption challenge against the pipeline operators. The court found that the pipeline did not explicitly target any country, did not conflict with any consistent federal policy, and advanced a legitimate local goal. However, a “zoning out” ordinance would be analyzed slightly differently. Although it too would likely not need to explicitly target any country, a court would consider whether it conflicted with any consistent federal policy on climate change. However, as noted above, there does not seem to be any consistent federal policy on climate change, only an absence of policy.

299 Id. at 447–48.
300 Id. at 447.
302 Id. at 420.
304 See supra Section I(B).
4. A “Zoning Out” Ordinance Must Not be Preempted by State Law

Finally, each state will have its own doctrine of preemption law, and a different statutory scheme. Thus, any local municipality seeking to pass an ordinance must further consider the extent to which it may be preempted by its own state’s statutory scheme. 305

IV. POLICY ANALYSIS

A. Patchwork Preemption: Should Congress Preempt “Zoning Out” Ordinances?

The policy proposed hereinafter proceeds on the assumption that courts will uphold “zoning out” ordinances, and answers the question of whether, under these circumstances, Congress should pass federal legislation effectively preempting local municipalities by prohibiting them from passing such ordinances. I argue that Congress should only step in to preempt such local ordinances if the number of cities prohibiting fossil fuel infrastructure grows so as to substantially burden fossil fuel companies’ ability to meet the fossil fuel demands of interstate markets.

Given the history of land use as a traditional local power, local land use power should only be preempted by federal power in special circumstances. Commentators and courts propound on the inherently local nature of zoning, with Justice Thurgood Marshall stating that “zoning ‘may indeed be the most essential function performed by local government, for it is one of the primary means by which we protect that sometimes difficult to define concept of quality of life.’” 306 Commentators further suggest that the “Supreme Court’s acceptance of otherwise constitutionally suspect conduct . . . when it is embodied in a zoning regulation” and the high deference to local legislatures


exercised by federal courts when evaluating Constitutional rights in zoning challenge indicates the importance of local land use even in the face of other nationally protected interests.\textsuperscript{307} Given this inherently local characteristics of zoning, and its importance via-a-vis national interests, Congress should identify serious threats to national interests before preempting this power.

Secondly, given the lack of federal policy on climate change, municipalities should retain the ability to innovate in this field. Such innovation can reduce the risks of global climate change and serve as an informative example for the federal government when it eventually formulates meaningful policy. William Buzbee describes this kind of state reservation of climate change regulatory power as a “federalism hedge,” which protects against a federal regime that preempts state regulations but is too lax, poorly implemented, or eventually reversed.\textsuperscript{308} He further argues that the mere possibility of such state regulations “creates incentives for greater commitment to the successful implementation of [climate focused] federal law.”\textsuperscript{309}

Importantly, in addition to such practical function, “zoning out” ordinances serve an important symbolic function by allowing big and small cities, affected by climate change alike, to signal that they demand climate action and proactive federal policy. These democratic exercises should be respected, not preempted. Congress should study these exercises as a model of a climate change policy and internalize them as the demands of citizens threatened by climate change.

Finally, federal preemption should only arise in special circumstances because even if these “zoning out” measures are taken by a handful or several dozen municipalities, these ordinances would likely only make transportation of oil marginally more expensive for interstate and international consumers. As noted by Alexandra B. Klass, the current domestic siting and regulation regime of oil transportation is such that even when transportation development projects meet state or local resistance, the flexibility of the regime allows for

\textsuperscript{307} Id. at 40–41.
\textsuperscript{308} Buzbee, supra note 22, at 1093–99.
\textsuperscript{309} Id. at 1099.
the projects to move forward, though at a higher cost.\textsuperscript{310} So, even a number of coastal states passing such ordinances is not likely to have a drastic effect on the supply of oil in the country, although it would raise costs. A marginal effect on price would surely not rise to the level of a threat to national interests that would justify Congressional action.

However, to the extent “zoning out” ordinances are adopted by a large number of municipalities so as to substantially burden fossil fuel companies’ ability to meet the demand of the interstate markets, the federal government will need to pass legislation that manages the extent to which municipalities can pass such ordinances. It is at this point that “zoning out” ordinances would risk meaningful economic inefficiencies, a target of the Commerce Clause, by “diverting business away from presumptively low-cost producers,” thus substantially burdening the whole country while advancing a local benefit that may not enjoy “approval from the point of view of the nation as a whole.”\textsuperscript{311} Although I do not precisely define what a “substantial burden” on the interstate market would look like, it would incorporate some notion of national economic interest and security. Any federal citing regime, preempting local “zoning out” ordinances should, however, promote citing efficiencies and, to the greatest extent possible, balance the promotion of efficient transportation markets and the interests of local governments.\textsuperscript{312}


\textsuperscript{312} See Alexandra B. Klass & Jim Rossi, \textit{Reconstituting the Federalism Battle in Energy Transportation}, 41 HARV. ENVTL. L. REV 423, 491 (2017) (discussing how involving local stakeholders in in energy citing decisions “can improve the quality of the decision-making process and [prevent] protracted, after-the-fact litigation.”).