

COMMENT

LAND USE REGULATIONS, CLIMATE CHANGE, AND REGULATORY TAKINGS

BY
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By all indications, climate catastrophe is quickly approaching and will require that we employ all possible resources to counter it. This Comment focuses on the often-overlooked little guys: The local governments—cities, towns, counties—who have the most direct control over land use through tools such as comprehensive planning, zoning, and building codes. With a committed governing body and willing constituency, these local governments have the ability to take meaningful steps to reduce the causes and mitigate the effects of climate change.

However, these steps could bring local governments in conflict with the 5th Amendment's Taking Clause, which prohibits the government from taking private property for public purposes without compensation. The regulatory takings doctrine, which holds that a government may commit a taking by simply regulating private land, complicates this risk: In order to address climate change, local governments must comprehensively, and perhaps strictly, regulate private land uses, but they likely cannot afford to litigate or pay compensation if those regulations are alleged to be takings. Therefore, it is vital that local governments understand the regulatory takings landscape so they can effectively regulate while avoiding litigation and costly compensation.

To that end, this Comment provides an overview of land use regulations and how they may be used to combat climate change;

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discusses the development of regulatory takings and current jurisprudence that impacts local governments; and provides suggestions to local governments who wish to effectively regulate while steering clear of any takings claims.

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I. INTRODUCTION

We live in a time of significant environmental upheaval. Climate change has fundamentally altered the land on which we live and the ways

in which we conduct our lives. Americans are increasingly at risk of having their homes and places of work drowned by rising sea levels and intensifying tropical storms, flooded by rivers, pushed to the edge of inhabitability by drought, and burned to the ground in climate-change-fueled wildfires.¹ These incidents of climate change cost the United States' economy 240 billion dollars per year² and are estimated to cause over 150,000 deaths annually, worldwide.³

It can appear that little action is being taken to address climate change. The prior presidential administration certainly played a role in this perception.⁴ Good news, however, can be found in our often-overlooked local governments—our cities, counties, special districts—which are, in many ways, better equipped to address climate change than national or even state-level entities. Local governments, more so than any other governmental entity, control how we use the land: where and how we 1) build homes, businesses, and industry; 2) grow agricultural products; 3) consume natural resources; 4) recreate; and 5) travel.⁵ Because these uses are inextricably tied to the land, local governments are in a unique position from which they can address climate change and its effects. Local governments can, and often do, step into the vacuum left by the federal government by enacting their own climate change policies that leverage their land use regulations to shape land use and development in ways that are sustainable, resilient, and mitigate the risks and causes of climate change.⁶ Comprehensive planning, zoning, and building codes are just a few of the land use regulations at their disposal.

A local government with a committed governing body and a willing constituency has the potential to make meaningful differences within its jurisdiction and set an example for local governments without. However, a local government's ability to regulate land use is not limitless—state- and federal-level legislation place boundaries on what local governments can do. As discussed in this Comment, the Fifth Amendment to the

¹ See *infra* text accompanying notes 18–25 (discussing the impacts of climate change on communities).

² SIR ROBERT WATSON ET AL., *THE ECONOMIC CASE FOR CLIMATE CHANGE IN THE UNITED STATES*, UNIVERSAL ECOLOGICAL FUND ii (2017).

³ *Deaths from Climate Change*, WORLD HEALTH ORG., <https://perma.cc/9CXB-6JAM> (last visited Feb. 13, 2022).

⁴ See, e.g., Eric Lutz, *The Trump Administration is Just Flat-Out Lying About Climate Change*, VANITY FAIR (Mar. 2, 2020) <https://perma.cc/PV4Q-5NQS> (“Trump has spent his first term rolling back environmental regulations, appointing fossil fuel company executives to environmental positions, and fostering a sense of uncertainty about the facts on climate change.”).

⁵ See generally ORG. FOR ECON. CO-OPERATION & DEV., *THE GOVERNANCE OF LAND USE* (2017) (describing how local governments use zoning ordinances to restrict and steer development).

⁶ See *infra* text accompanying notes 34–39 (discussing how cities use comprehensive plans and local governments use zoning to effectuate climate policy).

Constitution sets, with its Takings Clause, the outer limit to their power.⁷ Under the Takings Clause, governments, including local ones, may not take private property for a public purpose without paying just compensation. As this Comment discusses, the definition of “take” has evolved to include not only physical appropriations of or intrusions upon private land, but to also include regulations that burden private property.

The issue here is apparent: To effectively mitigate the effects of and become resilient to climate change, we need the government to promulgate land use regulations, which, at times, can be somewhat onerous. That said, the government cannot effectively regulate if it risks litigation and paying compensation with every regulation. Local governments feel this risk acutely, as their budgets are often small.⁸ Therefore, to balance the need to regulate with the need to reduce risk and remain solvent, it is vital that local governments understand the regulatory takings landscape so that they may avoid overstepping the law.

Part II of this Comment discusses the purpose of land use regulations and their basis in law. Part III discusses three types of land use regulations—comprehensive plans, zoning, and building codes—and how local governments can employ them to mitigate climate change and build resiliency. Part IV discusses the types of regulatory takings that impact local governments. Finally, Part V explores ways to avoid regulatory takings claims from developing and strategies for defending against them should they arise.

II. LAND USE REGULATIONS GENERALLY

Land use regulations are a system of laws that govern the relationship between people, their uses of land, and the land itself in order to most efficiently and advantageously use the land.⁹ It also functions as an *ex ante* conflict resolution system by segregating incompatible uses and striking balances between competing uses.¹⁰ To this effect, local governments’ governing bodies,¹¹ with the support of their constituency, make policy decisions about the kind of community

⁷ See discussion *infra* Part IV (describing connection between Fifth Amendment and local government regulations).

⁸ See Christopher Serkin, *Big Differences for Small Governments: Local Governments and the Takings Clause*, 81 N.Y.U. L. REV. 1624, 1668–69 (2006) (discussing the risk aversion of local governments in the context of takings litigation, and finding that risk aversion correlates negatively with the size of the government’s tax base); LIZ GROSS ET AL., PEW CHARITABLE TRUSTS, *THE LOCAL SQUEEZE: FALLING REVENUES AND GROWING DEMAND FOR SERVICES CHALLENGE CITIES, COUNTIES, AND SCHOOL DISTRICTS* 1, 3 (2012) (discussing how local government budgets are in decline, due to decreases in state aid and property tax revenues).

⁹ Craig Anthony Arnold, *The Structure of the Land Use Regulatory System in the United States*, 22 J. LAND USE & ENV’T L. 441, 461 (2007).

¹⁰ *Id.* at 462.

¹¹ *E.g.*, city councils, county commissions, boards of directors.

and environment in which they want live. This policy is carried out by land use regulations that are the results of legislative and administrative actions.¹²

The source of local governments' ability to enact land use regulations is found in the Tenth Amendment, which reserves for the states all powers that are not granted to the federal government.¹³ These "all powers" are commonly referred to as the states' police powers and they, in turn, delegate their police powers to local governments.¹⁴ There are two methods by which state governments delegate police power to local governments. In home rule states, the state government grants its local governments broad power to administrate local affairs.¹⁵ In Dillon's rule states, local governments may only exercise the powers that the state government specifically grants to them and whatever powers are necessary to exercise those specifically granted powers.¹⁶

The Supreme Court has held that land use regulations are constitutional unless they "ha[ve] no foundation in reason and is a mere arbitrary or irrational exercise of power 'having no substantial relation to the public health,' the public morals, the public safety or the public welfare."¹⁷ Additionally, as discussed in Part III, the Takings Clause limits how much land use regulations may burden the use of private property.

III. LAND USE REGULATIONS AS A TOOL AGAINST CLIMATE CHANGE

Climate change has and will continue to fundamentally change the land on which we live. The average global temperature is rising,¹⁸ which causes sea levels to rise,¹⁹ which, in turn, changes the shape of coastlines and increases the risk, frequency, and intensity of coastal flooding.²⁰ Hurricanes and other tropical storms are increasing in frequency and

¹² See *infra* Part III.A (local governments create and use comprehensive plans to implement environmental policies and goals).

¹³ U.S. CONST. amend. X.

¹⁴ E.g., OR. CONST. art. XI, § 2 ("The Legislative Assembly shall not enact, amend or repeal any charter or act of incorporation for any municipality, city or town. The legal voters of every city and town are hereby granted power to enact and amend their municipal charter, subject to the Constitution and criminal laws of the State of Oregon.")

¹⁵ *Id.*

¹⁶ *Cities 101 – Delegation of Power*, NAT'L LEAGUE CITIES, <https://perma.cc/SW63-6TCK> (last visited Oct. 12, 2021).

¹⁷ *Nectow v. City of Cambridge*, 277 U.S. 183, 187–88 (1928) (quoting *Village of Euclid v. Ambler Realty Co.*, 272 U.S. 365, 395 (1926)).

¹⁸ *Climate Change Indicators: Weather and Climate*, U.S. ENV'T PROT. AGENCY, <https://perma.cc/AD6T-BW5Y> (last updated May 12, 2021).

¹⁹ *Climate Change Indicators: Sea Level*, U.S. ENV'T PROT. AGENCY, <https://perma.cc/E9SG-Z5NZ> (last updated July 21, 2021).

²⁰ *Climate Change Indicators: Coastal Flooding*, U.S. ENV'T PROT. AGENCY, <https://perma.cc/KL4K-999A> (last updated July 18, 2021).

intensity as well.²¹ Precipitation patterns have shifted towards intense, single-day rainstorms²² that increase the risk and intensity of river and stream flooding.²³ Other regions suffer from unprecedented droughts.²⁴ In some parts of the country, wildfires are no longer constrained to a season and burn year-round, on a scale that can demolish entire towns.²⁵ In the face of these climate change challenges, local governments have several powerful tools: the comprehensive plan, zoning, building codes and permitting, and their localized knowledge and connections.²⁶

A. *The Comprehensive Plan*

The comprehensive plan is a planning tool used by local governments to develop and commit land use goals and policies into writing that will guide the local government's future development, including residential, commercial, transportation, and agricultural development.²⁷ Some states require that their local governments undertake comprehensive planning²⁸ while others merely recommend it.²⁹ Generally, however, if a local government has a comprehensive plan in place, then all future development must be conducted in accordance with that plan.³⁰ Comprehensive planning is a local government's opportunity to engage with members of the public over the future of their community.³¹ The procedure for developing a comprehensive plan varies from location to

²¹ *Climate Change Indicators: Tropical Cyclone Activity*, U.S. ENV'T PROT. AGENCY, <https://perma.cc/G3H6-FKK8> (last updated July 17, 2021).

²² *Climate Change Indicators: Heavy Precipitation*, U.S. ENV'T PROT. AGENCY, <https://perma.cc/U9SW-GKT6> (last updated July 21, 2021).

²³ *Climate Change Indicators: River Flooding*, U.S. ENV'T PROT. AGENCY, <https://perma.cc/B9TV-R9EV> (last updated July 17, 2021).

²⁴ *Climate Change Indicators: Drought*, U.S. ENV'T PROT. AGENCY, <https://perma.cc/6KR9-QFBZ> (last updated July 17, 2021).

²⁵ *Climate Change Indicators: Wildfires*, U.S. ENV'T PROT. AGENCY, <https://perma.cc/XR76-C84E> (last updated July 21, 2021); *E.g.*, Alastair Gee & Dani Anguiano, *Last Day in Paradise: The Untold Story of How a Fire Swallowed a Town*, GUARDIAN (Dec. 20, 2018), <https://perma.cc/UKK5-NRXH> (telling the story of the California town Paradise where a fire burned down 14,000 homes).

²⁶ Megan M. Susman, *Using Smart Growth to Adapt to Climate Change*, ZONING PRAC., Feb. 2017, at 2, 2–3.

²⁷ Patricia E. Salkin, *Sustainability and Land Use Planning: Greening State and Local Land Use Plans and Regulations to Address Climate Change Challenges and Preserve Resources for Future Generations*, 34 WM. & MARY ENV'T L. & POL'Y REV. 121, 125 (2009).

²⁸ *See, e.g.*, OR. ADMIN. R. 660-015-0000(2) (2022) ("City, county, state, and federal agency and special district plans and actions related to land use *shall* be consistent with the comprehensive plans of cities and counties and regional plans." (emphasis added)).

²⁹ *See, e.g.*, *Local Comprehensive Planning*, GA. DEP'T CMTY. AFFAIRS, <https://perma.cc/4CRJ-F2GV> (last visited Feb. 12, 2022) (explaining that local government comprehensive planning in Georgia is *encouraged* and *incentivized* by the state).

³⁰ *See, e.g.*, OR. ADMIN. R. 660-015-0000(2) (2022) ("The plans shall be the basis for specific implementation measures. These measures shall be consistent with and adequate to carry out the plans.").

³¹ *E.g.*, *Goal 1: Citizen Involvement*, OR. DEP'T LAND CONSERVATION & DEV., <https://perma.cc/PB6Y-L7WF> (last visited Feb. 12, 2022).

location, but it generally includes regular and periodic reviews conducted in phases, fact-finding, public meetings, and public comment periods.³²

Some states require their local governments to assess and account for environmental factors in their comprehensive plans,³³ but whether it is optional or not, all local governments should use the comprehensive plan process to weave climate change resiliency and mitigation into their communities' future. The comprehensive planning process is a unique opportunity to gather facts and data, meet regularly with officials and stakeholders, and engage with the public during meetings and comment periods. A local government with a motivated and environmentally minded constituency and governing body can use this process to formalize policies that aid in climate change mitigation and resiliency.

Cities can use comprehensive plans to implement policies aimed at a variety of environment goals, including reducing carbon emissions and urban sprawl,³⁴ incentivizing “green” development and business,³⁵ conserving vital wetland habitats,³⁶ reducing water consumption,³⁷ preparing for sea level rise,³⁸ and building wildfire resiliency.³⁹

For example, a city might use its comprehensive plan to create a policy favoring high-density development and the clustering of residential subdivisions, which would promote climate change resiliency and mitigation in a number of ways, including limiting resource-draining urban sprawl and sequestering development to locations that have the appropriate infrastructure and geographic characteristics.⁴⁰ Higher-density housing uses less water than lower-density housing, which is desirable for areas facing drought caused by climate change.⁴¹ Clustering requires developers to group developments in a certain area of their parcels, leaving the other areas open.⁴² The open areas remain undeveloped and, as such, can serve as carbon sinks,⁴³ wildfire breaks,⁴⁴ wetland preservation zones,⁴⁵ and mitigation for urban heat island

³² *E.g., id.*

³³ *E.g., Land Use Planning and Climate Change*, OR. DEP'T LAND CONSERVATION & DEV., <https://perma.cc/3DEG-32WK> (last visited Feb. 12, 2022).

³⁴ *E.g., PASCO COUNTY, FL., 2025 COMPREHENSIVE PLAN 2-3* (2013).

³⁵ *E.g., YELM, WASH., COMPREHENSIVE PLAN 8* (2017).

³⁶ *E.g., Waterways & Wetlands*, OR. DEP'T STATE LANDS, <https://perma.cc/XZ7K-6MPF> (last visited Feb. 14, 2022).

³⁷ *E.g., SEVERANCE, COLO., 2020 COMPREHENSIVE PLAN 20* (2020).

³⁸ *E.g., PALO ALTO, CAL., 2030 COMPREHENSIVE PLAN, 47* (2017).

³⁹ *E.g., MARICOPA CTY., ARIZ., COMMUNITY WILDFIRE PROTECTION PLAN: UPDATE JANUARY 2020 at 55–56* (2020).

⁴⁰ KEVIN NELSON ET AL., U.S. ENV'T PROT. AGENCY, *ESSENTIAL SMART GROWTH FIXES FOR URBAN AND SUBURBAN ZONING CODES 5* (2009).

⁴¹ *Id.*

⁴² Susman, *supra* note 26, at 6.

⁴³ Nancy Templeton & David Rouse, *The Role of Tree Preservation Ordinances in Green Infrastructure*, ZONING PRAC., Sept. 2012, at 2, 3.

⁴⁴ Anna Read & Molly Mowery, *Zoning and Land-Use Tools in the Wildland-Urban Interface*, ZONING PRAC., Sept. 2018, at 2, 6.

⁴⁵ Johnathan Rosenbloom, *Facing Water-Based Challenges with Sustainable Development Codes*, ZONING PRAC., Aug. 2019 at 2, 6.

effects.⁴⁶ Both minimum density requirements and clustering reduce dependence on greenhouse gas-producing vehicles by creating compact neighborhoods that are walkable, bikeable, and connectable through public transit.⁴⁷

B. Zoning

Zoning puts the comprehensive plan into practice by dividing land into zones and designating what uses may or may not occur in those zones under the comprehensive plan's policies.⁴⁸ Modern zoning regulations originated in New York at the turn of the 20th century in response to the unregulated construction of high-rises that deprived the streets of sunlight and air.⁴⁹ Zoning was also motivated by the less civically minded desire to keep out the working-class residential buildings that were beginning to appear on the fashionable Fifth Avenue.⁵⁰ From its beginning, zoning has been a tool of inequality—used to exclude, marginalize, and segregate the “undesired elements” of society to areas that are, invariably, the least habitable, healthy, and connected.⁵¹ Zoning has also encouraged urban sprawl and an overreliance on vehicles by prioritizing the creation of single-use commercial zones and far-flung single-family homes.⁵² Local governments are beginning to move away from this traditional form of zoning.⁵³ However, for as long as zoning is the rule and not the exception for most places in the United States, it is important to consider how it can be used to achieve climate change goals.

Local governments can use zoning to promote the conservation and creation of sensitive and environmentally beneficial areas,⁵⁴ set use densities and intensities to promote infill and reduce environmentally damaging sprawl,⁵⁵ and locate development in areas that make the most long-term environmental sense.

Overlay zoning (overlays) is a tool used to create a special zoning district on top of the existing zoning district in order to implement extra regulations in addition to those already imposed by the existing zoning

⁴⁶ Templeton & Rouse, *supra* note 43.

⁴⁷ NELSON ET AL., *supra* note 40, at 2, 5, 44; Susman, *supra* note 26, at 2.

⁴⁸ Salkin, *supra* note 27.

⁴⁹ Stuart Meck, *Model Planning and Zoning Enabling Legislation: A Short History*, in 1 MODERNIZING STATE PLANNING STATUTES: THE GROWING SMARTSM WORKING PAPERS 1, 1 (1996); *City Planning History*, N.Y.C. PLANNING, <https://perma.cc/YUZ7-6DFQ> (last visited May 4, 2022).

⁵⁰ *Id.*

⁵¹ Cecilia Ruse et al., *Exclusionary Zoning: Its Effect on Racial Discrimination in the Housing Market*, WHITE HOUSE BLOG (June 17, 2021), <https://perma.cc/6RJL-3UB8>.

⁵² Salkin, *supra* note 27, at 129, 150–51.

⁵³ *E.g.*, Rachael Watsky, *The Problems with Euclidian Zoning*, BOS. UNIV. (July 19, 2018), <https://perma.cc/TTX8-4L48> (Massachusetts is encouraging this change).

⁵⁴ *E.g.*, ST. HELENS, OR., MUNICIPAL CODE ch. 17.40 (2003).

⁵⁵ *E.g.*, WEST JORDAN, UTAH, CITY CODE § 13-6A (2022).

district.⁵⁶ Overlays are often added to areas of particular environmental sensitivity or importance in order to protect those areas.⁵⁷ Overlays can place additional requirements upon development in overlay zones, heighten development review standards, and restrict certain uses.⁵⁸

Overlays are often used in tandem with exaction requirements because they provide the basis upon which development exactions can be increased. Exactions are conditions that local governments place upon the grant of a development permit and are the main way in which local governments force developers to pay for the negative externalities that their developments will inflict upon the community.⁵⁹ Exactions should be tailored to each specific development project, but some common forms are environmental damage mitigation through setbacks, conservation easements, replacement planting, green building energy requirements, certifications that water usage will not increase with development, and the creation of sidewalks to reduce vehicle dependence.

Dynamic zoning is a relatively new zoning principle that will become very useful as land continues to dramatically shift due to climate change. Dynamic zoning's strongest application is in coastal zoning, where shorelines move due to coastal retreat and land that was once suitable for development and occupation can very suddenly become unsuitable. Rather than rezone every few years as traditional zoning would require, dynamic zoning would automatically rezone its underlying land once certain threshold criteria, ideally based on scientific evidence, were met.⁶⁰ Dynamic zoning is an excellent climate change tool because it acknowledges climate change realities, requires local governments to think prospectively about the state of their lands in both the short-term and long-term, and requires a heavy grounding in science in order to be applied effectively.

C. Development Codes and Permitting

Local governments control development through their building code and permitting system. Local governments have been using building codes to permit all-electric buildings, require electric vehicle infrastructure as a condition of development,⁶¹ and require the use of certain fire-resistant materials in construction.⁶²

⁵⁶ Dorothy Arial, *Property Topics and Concepts*, AM. PLANNING ASS'N, <https://perma.cc/48SH-2VD5> (last visited Feb. 11, 2022).

⁵⁷ *Id.*

⁵⁸ *Id.*

⁵⁹ INST. FOR LOCAL GOV'T, UNDERSTANDING THE BASICS OF LAND USE AND PLANNING: GLOSSARY OF LAND USE AND PLANNING TERMS 21 (2010).

⁶⁰ Richard K. Norton, *Dynamic Coastal Shoreland Zoning: Adapting Fastland Zoning for Naturally Shifting Coastal Shores*, ZONING PRAC., Mar. 2020, at 2, 3–4.

⁶¹ *E.g.*, Matt Gough, *California's Cities Lead the Way to a Gas-Free Future*, SIERRA CLUB (July 22, 2021) <https://perma.cc/3HW4-MWX7>.

⁶² *E.g.*, PORTLAND, OR., FIRE CODE § 701.2 (2021).

Local governments enact setback minimums to protect sensitive areas. Setbacks have been used to limit or prevent development in areas threatened by climate-change-caused sea level rise, coastal retreat, and tropical storm inundation.⁶³ Setbacks are also effective in protecting valuable wetland and riparian habitats, which filter water to maintain water quality and, when left in place, can store vast quantities of water during periods of flooding.⁶⁴

D. Localized Knowledge and Connections

“Local governments are essential players” in planning for and adapting to humanity’s new living conditions because they have local-level knowledge and connections.⁶⁵ Climate change impacts all regions of the world, but many of its effects vary locally⁶⁶ and the intimate community knowledge of local governments are well suited to combat these impacts.⁶⁷ Local governments are better able to encourage community involvement in developing climate change measures and secure community “buy-in” for measures that are adopted.⁶⁸ Local governments are also able to shift the climate change narrative away from faceless federal programs or national politics to make it relevant to the local community.⁶⁹ Additionally, local governments wield a power that is difficult for the federal government to influence or interfere with.⁷⁰

IV. REGULATORY TAKINGS

The Takings Clause of the Fifth Amendment states that governments shall not take private property for public use unless they justly compensate the owner for the taking.⁷¹ Through the Fourteenth Amendment, the Takings Clause governs the federal government as well as state and local governments.⁷² Until the early 1920s, the Takings Clause was interpreted to only forbid governments from physically

⁶³ *E.g.*, Jessica Hitt, *Malibu Land Use and Local Implementation Plans: Setbacks and Sea Level Rise*, CLIMATE ADAPTATION KNOWLEDGE EXCH., <https://perma.cc/5LXY-Q9T3> (last updated Dec. 3, 2021).

⁶⁴ Rosenbloom, *supra* note 45.

⁶⁵ Sarah J. Adams-Schoen, *The WUI, the Waterfront, and the Wicked Problem of Planning and Zoning for Climate Resilience*, ZONING & PLANNING L. REPORT, Oct. 2018, at 1, 2.

⁶⁶ Allen Best, *That Unwelcome Stranger Called Climate Change*, PLANNING, Oct. 2015, at 37, 37–39.

⁶⁷ Adams-Schoen, *supra* note 65.

⁶⁸ *Id.*

⁶⁹ *E.g.*, Patrick Quinn, *After Devastating Tornado, Town is Reborn ‘Green’*, USA TODAY, <https://perma.cc/L9Z6-UJDC> (last updated Apr. 25, 2013).

⁷⁰ *E.g.*, Natasha Balwit, *Portland’s Answer to Climate Denial? Local Action*, BLOOMBERG CITYLAB (Dec. 7, 2016), <https://perma.cc/DA26-GL5B>.

⁷¹ U.S. CONST. amend. V.

⁷² *Chicago, Burlington & Quincy R.R. Co. v. Chicago*, 166 U.S. 226, 238–39 (1897).

appropriating private property without just compensation.⁷³ Under that interpretation, a regulation could not be a taking requiring just compensation.⁷⁴ However, Supreme Court decisions, beginning with the famous *Pennsylvania Coal Co. v. Mahon*,⁷⁵ have expanded the definition of “taking” to include regulations that overly burden the use of private property.

There are four types of regulatory takings that local governments should be aware of: takings A) found under the *Penn Central* balancing test, B) resulting from the government’s permanent physical invasion of private property, C) created by regulations that cause a total loss in the private property’s economic value, and D) caused by building exactions.

A. Penn Central Takings

In *Penn Central Transportation Co. v. New York City*,⁷⁶ Penn Central owned Grand Central Terminal, which was a designated landmark and therefore subject to development restrictions under New York City’s Landmark Preservation Law.⁷⁷ Three years after the law was passed, Penn Central leased the airspace above Grand Central for development.⁷⁸ However, development plans were denied under the Landmarks Preservation Law and Penn Central sued the City for an uncompensated taking.⁷⁹

The Supreme Court held that the law, as applied, did not constitute a taking.⁸⁰ In so holding, the Court articulated a new balancing test to be used to evaluate whether a regulation constitutes a taking. The factors to consider are the 1) economic impact the regulation has upon the property owner; 2) extent to which that regulation interferes with the owner’s reasonable, investment-backed expectations for that property; and 3) nature of the government action.⁸¹

Development moratoria fall under this analysis. In a later case, the Supreme Court held moratoria are evaluated under the *Penn Central* test, rejecting the property owners’ arguments that moratoria should undergo a *Lucas* total economic deprivation analysis and declining to

⁷³ Calvert G. Chipchase, *From Grand Central to the Sierras: What Do We Do with Investment-Backed Expectations in Partial Regulatory Takings?*, 23 VA. ENV’T L. J. 43, 43 (2004).

⁷⁴ *E.g.*, *Mugler v. Kansas*, 123 U.S. 623, 668–69 (1887) (holding that shutting down an existing brewhouse pursuant to a newly passed statute banning alcohol production was not a taking).

⁷⁵ 260 U.S. 393 (1922).

⁷⁶ 438 U.S. 104 (1978).

⁷⁷ *Id.*

⁷⁸ *Id.* at 116.

⁷⁹ *Id.* at 119.

⁸⁰ *Id.* at 138.

⁸¹ *Id.* at 124.

create a new rule that would declare any moratoria or moratoria that exceed a certain amount of time to be takings.⁸²

B. Permanent Physical Invasions

A new regulatory takings rule was developed in *Loretto v. Teleprompter Manhattan CATV Corp.*,⁸³ which concerned a New York statute that prohibited landlords from refusing cable installations on their properties.⁸⁴ A landlord sued the cable company, alleging that the statute violated the Takings Clause by forcing her to permit a cable to run through her property without compensation.⁸⁵

The Court agreed with her and focused its analysis on the nature of the intrusion: “[A] permanent physical occupation authorized by the government is a taking without regard to the public interests it may serve.”⁸⁶ According to the Court, physical intrusions are “of an unusually serious character,” such that, in the context of the *Penn Central* multi-factor balancing test, the “character of the government action” factor is “not only an important factor . . . but also is determinative.”⁸⁷ However, in articulating this new categorical rule, the Court carefully explained that its application was narrow in scope—it is only applicable in situations in which a permanent physical invasion has occurred.⁸⁸

C. Total Economic Deprivation

If a government’s regulation of private property deprives that property of all economically beneficial uses, then the government has committed a taking under the Takings Clause.⁸⁹ This was the new regulatory takings rule announced by the Court in *Lucas v. South Carolina Coastal Council*. This case was the result of South Carolina’s Beachfront Management Act,⁹⁰ a conservation measure designed to reduce beachfront erosion.⁹¹ Lucas owned beachfront property that became unbuildable and virtually worthless under the Act.⁹² He argued a taking and the Court agreed, thereby creating this new category of takings that does not require a balancing test under *Penn Central*.⁹³ The *Lucas* decision included an exception for the new categorical rule: If the

⁸² See generally *Tahoe-Sierra Pres. Council, Inc. v. Tahoe Reg’l Planning Agency*, 535 U.S. 302 (2002).

⁸³ 458 U.S. 419 (1982).

⁸⁴ *Id.* at 421.

⁸⁵ *Id.* at 424.

⁸⁶ *Id.* at 426.

⁸⁷ *Id.*

⁸⁸ *Id.* at 440–41.

⁸⁹ *Lucas v. S.C. Coastal Council*, 505 U.S. 1003, 1028–30 (1992).

⁹⁰ S.C. CODE ANN. § 48-39-250 (1990).

⁹¹ *Lucas*, 505 U.S. at 1007–08.

⁹² *Id.* at 1009.

⁹³ *Id.* at 1028–30.

land use regulation is not “newly legislated or decreed” and “do[es] no[thing] more than duplicate the” restrictions that background principles of “the State’s law of private nuisance” already place upon land ownership, then the regulation does not amount to a taking.⁹⁴

D. Exactions

The Supreme Court reviewed the constitutionality of government exactions in exchange for permits to develop private land in *Nollan v. California Coastal Commission*,⁹⁵ *Dolan v. City of Tigard*,⁹⁶ and *Koontz v. St. Johns River Water Management District*.⁹⁷ In *Nollan*, the California Coastal Commission granted building permits on the condition that the property owners grant a public easement on the basis that the public needed to “see” the beach to overcome the “psychological barrier” created by the sight of a privately developed beachfront.⁹⁸ The Court stated that protecting the public’s ability to access the public beach was a legitimate government interest and if the property owners’ development interfered with that interest, then the Commission could deny the permits on those grounds without committing a taking.⁹⁹ Furthermore, the Commission could also constitutionally impose conditions on the permit to mitigate the interferences with that legitimate interest.¹⁰⁰ However, the conditions the Commission chose to impose did constitute a taking because they did not actually further the legitimate government interest—an “essential nexus” did not exist between the means (the conditions) and the ends (the public’s access).¹⁰¹ Therefore, the condition was really just an extortion.¹⁰² The Court declined to establish standards for meeting this “essential nexus,” merely stating that, in this case, the Commission’s conditions would not meet even the most liberal interpretation of the test.¹⁰³

In *Dolan*, the City of Tigard granted the property owner permission to double her parking lot if she dedicated ten percent of her land to the City for a greenway for floodplain management and another strip of land for the development of a public bike path to alleviate traffic congestion.¹⁰⁴ The Court again found a taking in these exactions and in doing so, it developed a clearer test. “[W]e must first determine whether the ‘essential nexus’ exists between the ‘legitimate state interest’ and the permit condition exacted by the city. If we find that a nexus exists, we must then decide the required degree of connection between the exactions

⁹⁴ *Id.* at 1029.

⁹⁵ 483 U.S. 825 (1987).

⁹⁶ 512 U.S. 374 (1994).

⁹⁷ 570 U.S. 595 (2013).

⁹⁸ *Nollan*, 483 U.S. at 828–29, 835.

⁹⁹ *Id.* at 834–35.

¹⁰⁰ *Id.* at 836.

¹⁰¹ *Id.* at 837.

¹⁰² *Id.*

¹⁰³ *Id.* at 838.

¹⁰⁴ *Dolan*, 512 U.S. 374, 379–80 (1994).

and the projected impact of the proposed development.”¹⁰⁵ The required relationship, the Court said, is “rough proportionality,” which essentially is a reasonable relationship standard—“[n]o precise mathematical calculation is required, but the city must make some sort of individualized determination that the required dedication is related both in nature and extent to the impact of the proposed development.”¹⁰⁶

In applying this test, the Court found the floodplain dedication requirement met the “essential nexus” part of the test but not the “rough proportionality” part because of the extreme nature of requiring Dolan to transfer her own property plus the fact that the City did not explain why a private greenway would not serve just as well as a public one.¹⁰⁷ The second condition also failed at the “rough proportionality” part of the test: The City did not make any quantifiable findings that the bike path could actually help alleviate traffic.¹⁰⁸

Finally, in *Koontz*, the Court held the *Nollan* and *Dolan* precedents apply, regardless of whether the government frames its decision on the building permit as a denial, unless certain conditions are met or an approval, subject to conditions, and regardless of whether the conditions are monetary or property interests.¹⁰⁹

V. REGULATORY TAKINGS CLAIMS ARISING FROM LAND USE REGULATIONS

Land use regulations that address climate change are susceptible to regulatory takings claims.¹¹⁰ The decisions that expanded the scope of regulatory takings, a fair number of which have directly involved some form of climate change regulation, have created legal uncertainty for local governments and place local governments at significant economic risk.¹¹¹ A local government that takes private land under its eminent domain power plans to compensate the private landowner and makes room for that in its budget.¹¹² But a local government that passes a new zoning ordinance is not likely to allocate money to litigate resulting takings claims or buy any properties burdened by the regulation, and an adverse court decision could be ruinous.¹¹³ Therefore, in order to continue leveraging land use regulations for climate resilience while mitigating its risks, the local government must understand 1) the types of regulatory takings claims that could be raised against it, 2) the manner in which a court will likely evaluate those claims, 3) what actions the government

¹⁰⁵ *Id.* at 386 (quoting *Nollan*, 483 U.S. at 837).

¹⁰⁶ *Id.* at 391.

¹⁰⁷ *Id.* at 395–96.

¹⁰⁸ *Id.*

¹⁰⁹ *Koontz*, 570 U.S. 595, 619 (2013).

¹¹⁰ Michael Allan Wolf, *Climate, Takings, and the U.S. Supreme Court*, PLANNING, Oct. 2014, at 49, 49–50.

¹¹¹ *APA Policy Guide on Takings*, AM. PLANNING ASS'N (Apr. 11, 1995), <https://perma.cc/B7T6-U879>.

¹¹² *Id.*

¹¹³ *Id.*

can take to prevent regulatory takings claims from developing in the first place, and 4) how to defend against takings claims when they arise. The following suggestions are general in nature as the particulars will necessarily vary by jurisdiction. Of course, nothing is a substitute for seeking advice from local counsel.

A. *Balancing the Penn Central Factors*

If an alleged taking does not involve a categorical taking under *Loretto* or *Lucas* and its facts do not involve exactions, then the case will be evaluated ad hoc under the *Penn Central* factors: the 1) economic impacts of the government regulation upon the regulated party, 2) reasonable, investment-backed expectations that the property owner had for the regulated property, and 3) character of the government regulation.¹¹⁴

There are a couple things that are important to keep in mind about the *Penn Central* test. First, courts evaluate the factors on a case-by-case basis—there is no set formula for how to apply the factors.¹¹⁵ Second, the factors must be balanced against each other. None are dispositive alone, but facts that bear strongly on one factor or another can ultimately make that factor determinative.¹¹⁶ Unfortunately, the Supreme Court has yet to provide explicit guidance on how to weigh and apply the *Penn Central* factors, drawing criticism that the test itself is no “more than legal decoration for judicial rulings based on intuition.”¹¹⁷

1. *Economic Impact*

The economic impact factor is “a rough measure of harm” used by courts to identify regulatory takings that are a “functional equivalent” to actual physical appropriation.¹¹⁸ The greater the economic impact, the more likely there is to be a taking; if there is no economic impact, the court is unlikely to find a taking.¹¹⁹ Subjective, personal value is not compensable, only market value, i.e., “what a willing buyer would pay in cash to a willing seller.”¹²⁰

Courts’ consideration of economic impacts upon the regulation-burdened property can be traced back to “the language and original understanding of the Takings Clause [which] provide[d] no direct support

¹¹⁴ *Penn Central*, 438 U.S. 104, 124 (1978).

¹¹⁵ *Id.*

¹¹⁶ *E.g.*, *Hodel v. Irving*, 481 U.S. 704, 719 (1987); *see also* Chipchase, *supra* note 73, at 67–71 (discussing cases that give the *Penn Central* factors different weight).

¹¹⁷ John D. Echeverria, *Making Sense of Penn Central*, 39 ENV’T L. REP. 10,471, 10,472 (2009).

¹¹⁸ Steven J. Eagle, *The Four-Factor Penn Central Regulatory Takings Test*, 118 PENN ST. L. REV. 601, 618 (2014).

¹¹⁹ *Id.*

¹²⁰ *United States v. 564.54 Acres of Land*, 441 U.S. 506, 511 (1979) (quoting *United States v. Miller*, 317 U.S. 369, 374 (1943)).

for the concept of a regulatory taking.”¹²¹ As discussed earlier in this Comment, the original understanding contemplated only actual physical appropriation, so regulations must “have . . . economic impacts . . . qualitatively similar to” actual physical appropriations in order to constitute a taking.¹²² If there is no economic impact, or if the economic impact is slight, then the alleged regulatory taking can be distinguished from the Takings Clause’s doctrinal origins and likely defeated on those grounds.¹²³

There is no official formula for measuring economic impacts, but the most common approach is to calculate the difference between the fair market value of the property as burdened by the regulation and the hypothetical value of the property without the regulation.¹²⁴ Again, there is no set value reduction threshold to meet, but “diminutions well in excess of 85 percent” typically must be shown before a taking will be found.¹²⁵

2. Investment-Backed Expectations

The investment-backed expectations factor concerns “fairness and reliance.”¹²⁶ “Thus, claimants must show that their ‘expectations,’ in light of the law and perhaps even legal trends, are both subjectively held and objectively reasonable.”¹²⁷ Typical of all *Penn Central* factors, there is no strict rule or guideline accompanying this factor. For example, the Court, in *Palazzolo v. Rhode Island*,¹²⁸ rejected the “notice” rule applied by lower courts which held that purchasers who bought properties knowing of the property’s status as burdened by regulations could not then allege a regulatory taking on the basis of those regulations.¹²⁹ The notice rule was, apparently, too strict, but the Court assured that preexisting regulations would continue to be a relevant factor to be weighed in this part of the test.¹³⁰

The ever-elusive concept of foreseeability also plays into this factor, particularly in regulated fields. The court of appeals in *Commonwealth Edison Co. v. United States*¹³¹ laid out three factors to consider when assessing the foreseeability component: 1) Is the plaintiff operating in a regulated industry? 2) Did the plaintiff know about the problem that spawned the regulation at the time of the property’s purchase? And 3) could the plaintiff have reasonably anticipated the possibility of such a

¹²¹ Echeverria, *supra* note 117, at 10,474.

¹²² *Id.*

¹²³ *Id.*

¹²⁴ *Id.*

¹²⁵ *Walcek v. United States*, 49 Fed. Cl. 248, 271 (2001).

¹²⁶ *Eagle*, *supra* note 118, at 619.

¹²⁷ *Id.* at 620.

¹²⁸ 533 U.S. 606 (2001).

¹²⁹ *Id.* at 626–27.

¹³⁰ *Tahoe-Sierra*, 535 U.S. 302, 336–37 (2002).

¹³¹ 271 F.3d 1327 (Fed. Cir. 2001).

regulation in light of the regulatory environment existing at the time of the property's purchase?¹³² An affirmative answer to all three of these questions will lead the court to find that a claimant did not have reasonable, investment-backed expectations for the property, but it is not certain what a negative answer to one or more will result in.¹³³

3. *The Character of the Government's Action*

The character of the government's action factor "is of particular significance" for courts.¹³⁴ When the character of the governmental regulation involves a permanent physical invasion, then the regulation is always a taking.¹³⁵ When the nature of the government action is arbitrary and capricious, then it is unconstitutional and must be struck down.¹³⁶ However, when the nature of the action is to promote a substantial public benefit as a valid exercise of the state's police powers or to abate a nuisance, a taking is less likely to be found.

For zoning, government actions that are "comprehensive, appl[y] neutral and general criteria, . . . and provide[] benefits to all members of the community" are relevant characteristics to the analysis.¹³⁷ The scope of the public benefit accomplished from the government action may also be a relevant characteristic that weighs in favor of the government action—the bigger the public benefit, the less likely the court will be inclined to find a taking—but there is some question as to whether great public benefit should excuse a taking without compensation.¹³⁸ However, if government regulation also benefits the same property it burdens—for example, a zoning that restricts land uses thereby raising property prices generally—then there is a reciprocal characteristic to the regulation that does not favor a taking.¹³⁹

Though not determinative, the character of the government action factor is particularly relevant in a moratorium analysis.¹⁴⁰ Moratoria may be required for adequate development planning in environmentally sensitive areas and allow time for public participation and transparency in the planning process.¹⁴¹ Moratoria have the benefit of general applicability, which "lesse[ns the] risk that individual landowners will be

¹³² *Id.* at 1348.

¹³³ *Id.*

¹³⁴ *Loretto*, 458 U.S. 419, 426 (1982).

¹³⁵ *E.g., id.*

¹³⁶ *Lingle v. Chevron U.S.A. Inc.*, 544 U.S. 528, 543 (2005).

¹³⁷ Thomas W. Merrill, *The Character of the Governmental Action*, 36 VT. L. REV. 649, 654–55 (2012).

¹³⁸ Echeverria, *supra* note 117, at 10,473.

¹³⁹ *Id.*

¹⁴⁰ Steven J. Eagle, *Planning Moratoria and Regulation Takings: The Supreme Court's Fairness Mandate Benefits Landowners*, 31 FLA. ST. U. L. REV. 429, 497 (2004).

¹⁴¹ See DIV. OF LOCAL GOV'T SERVS., N.Y. DEP'T OF STATE, LAND USE MORATORIA 1 (2010) (explaining how moratoria are designed to allow for enough time for community planning values to be considered during land use planning).

‘singled out’ to bear a special burden that should be shared by the public as a whole.”¹⁴²

Characteristic of all regulatory takings analyses, there are no bright-line rules for when moratoria constitute takings.¹⁴³ However, there are some general guidelines. For example, moratoria enacted merely to stop growth have been found unconstitutional.¹⁴⁴ However, moratoria enacted because public services were inadequate to support growth have been upheld, so long as efforts are being made to improve public services.¹⁴⁵ Moratoria enacted to address public health issues and to give the government time to develop new zoning regulations are typically upheld as well.¹⁴⁶ Both of these justifications for moratoria can be used for climate change zoning because the effects of climate change will, in many cases, constitute a public health problem and new climate change zoning ordinances will require time to develop.

Generally, a moratorium should be implemented only after a robust evidentiary record is developed and findings are made based on that record.¹⁴⁷ Additionally, the moratorium should be drafted narrowly, be terminated as quickly as possible, and ideally allow some form of economically beneficial use for impacted properties in order to avoid takings claims.¹⁴⁸

4. Avoiding Penn Central Takings Claims

A local government can build different measures into its comprehensive planning, zoning, and building codes to reduce the risk of a regulatory takings claim under *Penn Central* and support defenses to such a claim. First and foremost, the comprehensive planning process and resulting plan should give clear statements of purpose and intent, with emphasis on the social and environmental benefits they are intended to confer upon the public.¹⁴⁹ This will characterize the nature of the government action as an exercise of police powers in pursuit of the public health, safety, and welfare. Often, courts will decline to find a taking in a regulation with this characterization.¹⁵⁰

Zoning ordinances and building codes should reflect and explicitly refer to the comprehensive plan’s articulations of the local government’s

¹⁴² *Tahoe-Sierra*, 535 U.S. 302, 341 (2002) (quoting *Nollan*, 483 U.S. 825, 835 (1987)).

¹⁴³ *Id.* at 332.

¹⁴⁴ *E.g.*, *Bd. of Cty. Comm’rs of Cty. of Arapahoe v. Denver Bd. of Water Comm’rs*, 718 P.2d 235, 245–46 (Colo. 1986) (holding that Denver Water Board’s water supply to counties served by Public Utilities in response to higher demand could not be prevented by the Public Utility Commission).

¹⁴⁵ *E.g.*, *Kaplan v. Clear Lake City Water Auth.*, 794 F.2d 1059, 1064 (5th Cir. 1986).

¹⁴⁶ MICHAEL A. ZIZKA ET AL., *STATE AND LOCAL GOVERNMENT LAND USE LIABILITY* § 4.4 (2021).

¹⁴⁷ *Id.*

¹⁴⁸ *Id.*

¹⁴⁹ *E.g.*, *Templeton & Rouse*, *supra* note 43, at 4 (outlining the common elements of effective tree protection standards).

¹⁵⁰ *See supra* text accompanying notes 87–97.

climate change goals.¹⁵¹ They should have a strong basis in recorded factual findings and be adopted after a review process that allows for significant public participation.¹⁵² These actions may put landowners on notice as to what their properties can and cannot be used for and guard against due process claims.¹⁵³

In a specific development's permitting stage, a local government can create processes that take the "guesswork" out of its takings claims exposure by requiring that the developer provide financial statements about the property so that the government can evaluate the economic impact that the regulations will have.¹⁵⁴ If it appears that a regulation will have a significant economic impact, then a local government can turn to a variance or other ad hoc solution to avoid the impact and potential resulting claim.¹⁵⁵

There is also a question as to whether a landowner can truly have reasonable investment-backed expectations for a piece of property that will be drowned by rising sea levels, washed away by a super hurricane, have its water source dry up, or be burned to the ground in a climate-change-fueled wildfire. Depending on the property in question, it is likely these climate-change-caused conditions will be predictable or even expected. In that light, it is difficult to argue that a landowner who bought beachfront property in the face of observable erosion could have any reasonable investment-backed expectations for developments or uses fundamentally incompatible with the land's present and future state. Some courts have agreed with this argument.¹⁵⁶ Again, the local government's role in this context is to proactively and systemically set landowners' expectations in a manner that favorably characterizes its land use regulations in case the matter ends up in court.¹⁵⁷

B. Avoiding Loretto and Lucas Categorical Takings

As previously discussed, the Supreme Court's decisions in *Loretto* and *Lucas* created two new categorical takings rules. Under *Loretto*, any permanent physical invasion of private property, no matter how small or for what purpose, is a per se taking requiring compensation.¹⁵⁸ Under *Lucas*, a regulation that deprives private property of "all economically beneficial uses" is a per se taking requiring compensation.¹⁵⁹ Both of these

¹⁵¹ See *APA Policy Guide on Takings*, *supra* note 111 (explaining how to avoid takings claims).

¹⁵² *Id.*

¹⁵³ See *id.* (arguing that regulations should include appropriate procedures for due process and be adopted only after opportunity for significant landowner participation).

¹⁵⁴ *Id.*

¹⁵⁵ *Id.*

¹⁵⁶ *E.g.*, *Just v. Marinette Cty.*, 201 N.W.2d 761, 768 (Wis. 1972).

¹⁵⁷ See *infra* text accompanying notes 169–174 (illustrating the importance of proactively setting landowner expectations).

¹⁵⁸ *Loretto*, 458 U.S. 419, 436–37, 441 (1982).

¹⁵⁹ *Lucas*, 505 U.S. 1003, 1019 (1992).

rules seem to create hard lines that local governments cannot cross without paying compensation. However, both allow local governments opportunities to avoid or mitigate the worst of their effects.

1. *Loretto*

Under *Loretto*, any government action that causes a permanent, physical invasion of private property, no matter how small or insignificant that invasion may be,¹⁶⁰ is a per se taking and will always require compensation.¹⁶¹ In *Loretto* situations, local governments must be prepared to compensate property owners for the permanent, physical invasion of their land. In some situations, the permanent, physical invasion might be minimal, as it was in *Loretto*, and the amount of compensation required will be commensurate.¹⁶² On balance, local governments might find it more efficient to simply compensate landowners, but they should take care to fully investigate the financial risk before making that decision. If the physical invasion is likely to be significant, then limiting the invasion to a certain length of time might allow a local government to evade a categorical taking under *Loretto*, though doing so may not insulate it from a claim under *Penn Central*.¹⁶³

2. *Lucas*

The Supreme Court in *Lucas* held that any regulation that deprives private property of all economically beneficial uses is a taking that requires just compensation.¹⁶⁴ Though the *Lucas* rule appears to be a formidable barrier to government regulations, local governments have room to maneuver around its strictures to avoid paying compensation or litigating a costly takings claim.

a. Avoid Depriving a Property of All Economically Beneficial Uses

The *Lucas* categorical takings rule is triggered when a regulation deprives private property of all economically beneficial uses,¹⁶⁵ so ensuring that zoning ordinances do not deprive a property owner of all economically beneficial uses of that property will prevent a *Lucas*-style takings claim. Local governments should generally avoid subdividing or zoning land in ways that create unbuildable parcels or require onerous setbacks.¹⁶⁶ For specific developments, a local government should consider requiring property owners to produce financial reports that

¹⁶⁰ *Loretto*, 458 U.S. at 436–37.

¹⁶¹ See *supra* text accompanying notes 122–127.

¹⁶² *Loretto*, 458 U.S. at 423–26.

¹⁶³ See *supra* text accompanying notes 134–150.

¹⁶⁴ *Lucas*, 505 U.S. at 1019.

¹⁶⁵ *Id.*

¹⁶⁶ *APA Policy Guide on Takings*, *supra* note 111.

reflect the owner's anticipated use of their property so the local government may determine if the regulation might inflict a *Lucas*-style taking.¹⁶⁷ If it appears that a *Lucas*-style taking will occur, then the local government should consider granting a variance or allowing for some other flexibility.¹⁶⁸

There is some ambiguity as to how the size of the property interest should be measured against the impact of the regulation.¹⁶⁹ Private property owners will want to resolve this denominator question by "market[ing] specialized estates to take advantage of the Court's new rule."¹⁷⁰ For example, in *Lost Village Tree Corp. v. United States*,¹⁷¹ a land developer sought a permit to fill in wetlands on a single 4.99-acre parcel of land that had been platted separately from the developer's entire 1,300-acre residential community, which was developed years earlier.¹⁷² The permit was denied, and the land developer alleged a *Lucas*-style taking.¹⁷³ The court agreed, finding that the 4.99-acre parcel separate from the developer's entire property was the appropriate denominator against which to measure the regulation's effects because the owner "treat[ed] the parcels as distinct economic units" rather than one whole parcel.¹⁷⁴

Despite the denominator issue, a true *Lucas*-style taking is rare because land will still have value even if a certain type of development is prohibited.¹⁷⁵ Additionally, local governments can help keep the economically beneficial use "door" open by proactively identifying areas that are more susceptible to a *Lucas*-style takings claim and zoning to allow some baseline uses in those areas.¹⁷⁶ For example, courts have held that recreational uses of undeveloped parcels are not without value under the *Lucas* analysis.¹⁷⁷

b. Utilize Lucas' Background Principles Exception

The *Lucas* decision carved out an exception to its new categorical takings rule: If the challenged land use regulation is not "newly legislated or decreed" and does nothing more than duplicate "the restrictions that background principles of the State's law of property and nuisance already place upon land ownership,"¹⁷⁸ then the regulation does not amount to a taking.

¹⁶⁷ *Id.*

¹⁶⁸ *Id.*

¹⁶⁹ *Lucas*, 505 U.S. at 1016–17 n.7.

¹⁷⁰ *Id.* at 1065–66 (Stevens, J., dissenting).

¹⁷¹ 707 F.3d 1286 (2013).

¹⁷² *Id.* at 1288, 1290–91.

¹⁷³ *Id.* at 1288.

¹⁷⁴ *Id.* at 1293–94.

¹⁷⁵ Michael C. Blumm & Rachael G. Wolfard, *Revisiting Background Principles in Takings Litigation*, 71 FLA. L. REV. 1165, 1169 (2019).

¹⁷⁶ *APA Policy Guide on Takings*, *supra* note 111.

¹⁷⁷ *E.g.*, *Shukovsky v. Clavin*, 163 N.Y.S.2d 431, 432 (N.Y. 1990).

¹⁷⁸ *Lucas*, 505 U.S. 1003, 1029 (1992).

Subsequent Supreme Court holdings show that both statutes and common law doctrines can serve as “background principles” to defeat a *Lucas*-style takings claim. However, there is not yet a definitive answer as to when a statute is too “newly legislated or decreed” to qualify as a background principle.¹⁷⁹ In *Palazzolo*, the Court overturned the state supreme court ruling that 1) a landowner acquiring property under an existing land use regulation is barred from mounting a total economic deprivation per se takings claim under *Lucas* because the landowner had notice of its existence before acquiring the property and 2) the landowner in this specific case also did not suffer a regulatory taking under the *Penn Central* analysis because notice of the existence of regulations meant that the landowner could not have had “reasonable investment-backed expectations” for the property.¹⁸⁰ Instead, the Court held that some “enactments are unreasonable and do not become less so through [the] passage of time,” and if all preexisting regulations could serve as a background principle to defeat a takings claim, then “[a] State would be allowed, in effect, to put an expiration date on the Takings Clause.”¹⁸¹ Therefore, a statute does not become a background principle just because it exists at the time the alleged property right is acquired. Generally, a statute must be part of “a State’s legal tradition” and “existing, general law.”¹⁸² It has been suggested, through a survey of cases, that forty years may be a sufficient amount of time to pass for a statute to become a background principle.¹⁸³

1. Statutory Background Principles

The Court in *Palazzolo* held that zoning ordinances can serve as background principles for the purpose of defending against *Lucas*-type takings.¹⁸⁴ This holding has been used in subsequent cases to reject takings claims on the basis of zoning as a valid background principle.

For example, the plaintiff in *Outdoor Graphics, Inc. v. City of Burlington, Iowa*¹⁸⁵ alleged that the City of Burlington deprived it of all economically beneficial uses of its billboards when the City passed an ordinance prohibiting all billboards in residential zones.¹⁸⁶ This billboard ban was passed for safety and aesthetic reasons, which are valid purposes for zoning ordinances that exclude off-premises billboards.¹⁸⁷ At the time of the ordinance’s passing, the plaintiff had billboards in residential zones

¹⁷⁹ Blumm & Wolfard, *supra* note 175, at 1182.

¹⁸⁰ *Palazzolo*, 533 U.S. 606, 616, 626 (2001).

¹⁸¹ *Id.* at 627.

¹⁸² *Id.* at 630.

¹⁸³ Blumm & Wolfard, *supra* note 193, at 1182.

¹⁸⁴ *Palazzolo*, 533 U.S. at 627.

¹⁸⁵ 103 F.3d 690 (8th Cir. 1996).

¹⁸⁶ *Id.* at 693.

¹⁸⁷ *Id.*; see *Metromedia, Inc. v. City of San Diego*, 453 U.S. 490, 490–91 (1981) (allowing cities to ban commercial billboards for traffic safety and aesthetic reasons).

which were nonconforming uses required to be specially certificated.¹⁸⁸ In fact, the plaintiff had knowingly acquired those billboards below market price because they were nonconforming uses, made quite a bit of profit from them, and never obtained the required recertification.¹⁸⁹ The court rejected the plaintiff's takings claim, noting that "[a] nonconforming use is one that lawfully existed prior to the effective date of a zoning restriction and that is allowed to continue to exist in nonconformity with the restriction."¹⁹⁰ If a property owner wishes to continue the nonconforming use, then the property owner bears the burden of establishing the right to do so.¹⁹¹ Because the plaintiff never recertified the billboards' nonconforming use in violation of the zoning ordinance, the plaintiff did not establish a property right for that use and the court concluded no property right had been taken.¹⁹²

2. Common Law Background Principles

Nuisances were a defense to regulatory takings claims before *Lucas*. Landowners have never possessed the right to use their land to create a nuisance, so preventing property owners from committing a nuisance cannot be a taking requiring compensation.¹⁹³ Justice Scalia, writing for the *Lucas* majority, explicitly recognized this exception.¹⁹⁴ For example, *Hoeck v. City of Portland*¹⁹⁵ involved a landowner whose partially-renovated but vacant building had been torn down by the City under a zoning ordinance that allowed an "abandoned" building to be demolished as an attractive nuisance or a hazard to the public.¹⁹⁶ The landowner alleged the City's actions constituted a taking by depriving him of all economically beneficial use of the building.¹⁹⁷ The court, however, held the owner "had no right . . . to maintain an abandoned structure" on his property, citing the ordinance, which was founded on nuisance law, as the supporting background principle.¹⁹⁸

Nuisance law, as a common law doctrine, "is fundamentally evolutionary" and has a degree of flexibility that more historically grounded property laws do not possess.¹⁹⁹ The *Lucas* majority recognized this characteristic, stating that "changed circumstances or new

¹⁸⁸ *Outdoor Graphics*, 103 F.3d at 692.

¹⁸⁹ *Id.* at 692–93.

¹⁹⁰ *Id.* at 694.

¹⁹¹ *Id.*

¹⁹² *Id.*

¹⁹³ *Lucas*, 505 U.S. 1003, 1051 (1992).

¹⁹⁴ *Id.*

¹⁹⁵ 57 F.3d 781 (9th Cir. 1995).

¹⁹⁶ *Id.* at 783–85.

¹⁹⁷ *Id.* at 787.

¹⁹⁸ *Id.* at 783, 789.

¹⁹⁹ Christine A. Klein, *The New Nuisance, An Antidote to Wetland Loss, Sprawl, and Global Warming*, 48 B.C. L. REV. 1155, 1156 (2007).

knowledge may make what was previously permissible no longer so.”²⁰⁰ This flexibility makes nuisance laws a very suitable background principle upon which to base zoning ordinances directed at climate change. Given the novel climate conditions and constantly advancing scientific understanding of climate change, what is known today to be detrimental to the public welfare may be very different in the future. As the common law evolves to recognize new forms of nuisances, zoning ordinances can be enacted to mirror them and could withstand a takings claim on that characteristic.

The *Lucas* decision has also changed the takings analysis formula in a manner favorable to local government defendants: If a background principles defense is raised, then courts must first compare the challenged regulation to the background principle raised as a defense to the challenge to determine whether the regulation merely mirrors the background principle’s existing restriction on the property or if the regulation is an additional burden upon the property.²⁰¹ If the regulation merely mirrors a background principle, then no taking has occurred.²⁰² If the regulation is an additional burden, then courts must proceed to determine if the regulation completely deprives the landowner of any economically beneficial use of the property.²⁰³ The effect of this analysis is that the threshold issue—whether the landowner actually has the right to use the property in such a manner—can be resolved in early stages of litigation when costs are (hopefully) still low.²⁰⁴

3. The Public Necessity Doctrine as a Background Principle

The *Lucas* Court expressly mentioned the public necessity doctrine as a background principle capable of defeating a takings claim.²⁰⁵ The public necessity doctrine protects governments and individuals from liability for actions they take to prevent or protect the public from a disaster.²⁰⁶ In the takings context, a local government could invoke the public necessity doctrine to defend against claims that its regulatory actions caused a taking of private property.²⁰⁷

The Supreme Court has long upheld the public necessity doctrine as a defense against takings claims. In *Bowditch v. Boston*,²⁰⁸ the case

²⁰⁰ *Lucas*, 505 U.S. at 1031.

²⁰¹ Klein, *supra* note 199.

²⁰² *Id.*

²⁰³ *Id.*

²⁰⁴ *Id.* at 1192; Michael C. Blumm & Lucas Ritchie, *Lucas’s Unlikely Legacy: The Rise of Background Principles as Categorical Takings Defenses*, 29 HARV. ENV’T L. REV. 321, 321–22 (2005).

²⁰⁵ *Lucas*, 505 U.S. 1003, 1028–29 (1992).

²⁰⁶ *Id.*

²⁰⁷ *E.g.*, *Orr v. United States*, 145 Fed. Cl. 140, 151 (2019) (explaining that in some circumstances the government may take the property of an individual in order to prevent a greater, imminent danger).

²⁰⁸ 101 U.S. 16 (1879).

quoted by the *Lucas* Court, the city of Boston did not commit a taking when it destroyed the plaintiff's building in order to protect the city from a growing fire.²⁰⁹ In *Miller v. Schoene*,²¹⁰ the Massachusetts State Entomologist did not commit a taking when he ordered certain trees on the plaintiff's property to be cut down to protect neighboring apple orchards from disease.²¹¹ In *United States v. Caltex, Inc.*,²¹² there was no taking found when, during World War II, the Army requisitioned and destroyed an oil company's facilities during a Japanese attack.²¹³

The Supreme Court has not articulated "rigid rules" for applying the public necessity doctrine defense.²¹⁴ However, a recent Federal Circuit case attempted to distill earlier Supreme Court holdings into a workable test: A defendant must show that it acted in response to an "actual necessity" arising from "imminent danger" and "actual emergency" in order to successfully use the public necessity doctrine as a defense against a takings claim.²¹⁵ This test could pose a problem for local governments endeavoring to prepare for the coming consequences of climate change rather than react to the effects already in existence. For example, a mega-fire born from years of drought spreading towards a city clearly constitutes an "imminent danger" and "actual emergency," thereby creating an "actual necessity" which justifies the city to take protective action such as burning private property to create a firebreak. The city's action in this acute situation is a clear candidate for the public necessity doctrine.

However, if a city prohibits development of beachfront property to prepare for inevitable sea level rise, could the city show "imminent danger" and "actual emergency" in order to use the public necessity doctrine as a background principle to avoid the resulting takings claim? That answer is unknown as such a case has yet to be litigated as of this writing. The city in this example would likely have to prove to the court that the coming sea level rise is imminent and emergent enough to make its regulation an "actual necessity." This might be a tough argument to sell. As discussed in the case examples above, the public necessity doctrine has traditionally applied to discrete emergency situations in which the government needed to make a quick decision in order to prevent incipient losses.²¹⁶ A court might not be willing to accept future losses, which necessarily involve a degree of uncertainty, as justification enough for the prohibition. Similarly, the court may not believe that development prohibition is an "actual necessity." Even if the court acknowledges sea level rise to be a certain danger and emergency, the remoteness of the

²⁰⁹ *Id.* at 18.

²¹⁰ 276 U.S. 272 (1928).

²¹¹ *Id.* at 276.

²¹² 344 U.S. 149 (1952).

²¹³ *Id.* at 153–54.

²¹⁴ *Id.* at 156.

²¹⁵ *TrinCo Investment Co. v. United States*, 722 F.3d 1375, 1380 (Fed. Cir. 2013).

²¹⁶ *See supra* text accompanying notes 205–211.

harms to be suffered may introduce doubt as to whether the development prohibition is actually necessary to avert those harms. How can a court conclude that the development prohibition is necessary to prevent a public disaster when the extent of public disaster is unknown?

The local government's success in this example, and likely in any similar situation that arises in real life, will depend on how well the local government can argue that the sea level rise or other climate change effect is imminent, dangerous, and constitutes a present and future public emergency. A well-developed factual record providing the scientific basis and predictions for the particular effects of climate change that the local government is attempting to address will be essential. The local government should attempt to draw parallels between its case and cases where the public necessity doctrine was successful even though the government's action was more preventative than reactive. *Miller*, discussed above, is an example of this: The plaintiff's trees were destroyed to prevent disease from spreading to apple orchards, not to stop the spread of disease that was already occurring.²¹⁷

C. *Exacting without Taking under Nollan, Dolan, and Koontz*

Exactions are not traditional land use regulations because they are not applied generally against the public; rather, they are levied against individual landowners seeking permits to develop as conditions upon development.²¹⁸ However, through exactions, local governments can force developers "to pay for certain consequences of (or demands created by) their projects—that is, to internalize their externalities."²¹⁹

Misapplied exactions, as seen in *Nollan*, *Dolan*, and *Koontz*, can rise to the level of a taking. *Nollan* and *Dolan* articulated a two-prong test for exactions: Exactions must 1) bear an essential nexus to the anticipated externalities of the development project and 2) be roughly proportional to the cost of those anticipated externalities.²²⁰ *Koontz* extended this test to situations in which a local government denies applications when its exactions are rejected and to situations in which monetary exactions are sought.²²¹

In order to avoid takings claims, local governments should carefully tailor exactions on a case-by-case basis, pursuant to findings "based on evidence in the record regarding the specific type and magnitude of the anticipated externality that would justify denial of the requested permit."²²² Evidence, ideally, should be drawn from sound scientific sources such as national studies, surveys of local costs, and actual site

²¹⁷ *Miller*, 276 U.S. 272, 277–78 (1928).

²¹⁸ Daniel S. Huffenus, *Dolan Meets Nollan: Towards A Workable Takings Test for Development Exactions Cases*, 4 N.Y.U. ENV'T L. J. 30, 33 (1995).

²¹⁹ *Id.* at 34.

²²⁰ See *supra* text accompanying notes 137–156.

²²¹ See *supra* text accompanying notes 154–164.

²²² Huffenus, *supra* note 218, at 53.

determinations.²²³ The most effective findings will explicitly state how the exactions satisfy both the essential nexus and roughly proportional requirements of the test.²²⁴ It may be helpful for local governments to develop specific assessment tools and protocols to ensure that the record is adequately developed and decisions are rationally based on that record.²²⁵ Absent an adequate record and findings, a legitimate state interest may not exist.²²⁶ Local governments should also be wary of negotiations with developers and avoid informal discussions about potential development conditions—they run the risk that proposals and suggestions not intended to be binding will be construed as binding and turn into a takings claim.²²⁷ In the end, the ideal condition imposed upon a permit is one that advances a legitimate government interest by completely mitigating the anticipated externalities, and nothing more.²²⁸

VI. CONCLUSION

The American landscape is undergoing fundamental changes and we must adjust our uses of land to mitigate and adapt to those changes. As this Comment discussed, local governments, through their ability to regulate land uses with tools such as comprehensive planning, zoning, and building codes, are well-equipped to create meaningful climate change mitigation and resilience. However, the specter of regulatory takings claims looms over local government actions and its legal and economic risks can prevent local governments from regulating as effectively as they might otherwise. In light of these risks, this Comment discussed the types of regulatory takings claims that local governments could face, ways to avoid those claims from developing in the first place, and strategies for defending against those claims should they arise. As President Barack Obama said in his remarks to the U.N. Climate Change Summit in 2014, “[w]e are the first generation to feel the impact of climate change and the last generation that can do something about it.”²²⁹

²²³ *APA Policy Guide on Takings*, *supra* note 111.

²²⁴ NELSON ET AL., *supra* note 40, at 2.

²²⁵ Tyson Smith, *What Koontz v. St. Johns River Water Management District Means for Planners . . . For Now*, ZONING PRAC., Oct. 2013, at 2, 6.

²²⁶ *Dolan*, 512 U.S. 374, 395–96 (1994).

²²⁷ Smith, *supra* note 225.

²²⁸ Huffenus, *supra* note 218, at 55.

²²⁹ *Remarks by the President at the U.N. Climate Change Summit*, WHITE HOUSE (Sept. 23, 2014), <https://perma.cc/5EUW-T7TQ>; see Jim Brunner, *Jay Inslee’s Campaign Hits Beto O’Rourke for Lifting Signature Climate-Change Line. But Who Said It First?*, SEATTLE TIMES (Apr. 30, 2019), <https://perma.cc/25TR-KF38> (explaining that Washington Governor Jay Inslee used this line during his 2020 presidential campaign and that Washington Governor Jay Inslee’s speechwriter got this line from a 2013 letter written by Seattle Mayor Mike McGinn).