

Article

A New Phase of Just Urban Climate Action in the Rocky Mountain West

Clara Stein¹ and Corina McKendry^{1,2,*}

¹ Environmental Studies Program, Colorado College, USA

² Department of Political Science, Colorado College, USA

* Corresponding author (cmckendry@coloradocollege.edu)

Submitted: 25 July 2022 | Accepted: 13 November 2022 | Published: 16 March 2023

Abstract

The imperative of climate change has inspired hundreds of cities across the United States to act to reduce greenhouse gas emissions. Yet in some contexts, urban greening and climate action have exacerbated social injustices, spawning green gentrification or increasing the cost of living. In response, cities are beginning to shift their governing institutions to foster collaboration between departments and build local capacities while leaning into the interconnected nature of climate change mitigation, housing affordability, and social justice. Through a cross-case comparison of Denver, Colorado and Salt Lake City, Utah, two cities committed to climate action while facing severe housing crises, this study argues that cities are entering a new phase of urban climate action, one that can build a more sustainable and equitable urban environment for all.

Keywords

climate justice; green gentrification; housing affordability; intersectional planning; urban climate policies

Issue

This article is part of the issue “Social Justice in the Green City” edited by Roberta Cucca (Norwegian University of Life Sciences) and Thomas Thaler (University of Natural Resources and Life Sciences).

© 2023 by the author(s); licensee Cogitatio (Lisbon, Portugal). This article is licensed under a Creative Commons Attribution 4.0 International License (CC BY).

1. Introduction

Climate change is an issue of social justice. It is an issue of intergenerational injustice in that future generations will have to pay for past generations’ profligate emission of greenhouse gases (Page, 2006). Climate change raises issues of global distributive justice because those countries that have benefited the least from fossil fuel use are facing the most severe impacts of climate change (Okereke & Coventry, 2016), and it is a matter of environmental justice wherein the production of fossil fuels contaminate fenceline communities (Johnson & Cushing, 2020). Indeed, the justice implications of climate change are myriad, intersecting larger issues of racism, colonialism, sovereignty, and the functioning of the global economy (Ranganathan & Bratman, 2019; Schlosberg & Collins, 2014; Sultana, 2022).

This article focuses on a small slice of these much broader issues of climate justice, namely, the growing efforts of US cities to reduce carbon emissions in a way

that also addresses the local injustices of displacement and a lack of affordable housing. Many cities in the US have been acting to reduce emissions for decades, thereby contributing to global climate justice. Yet some city efforts to lower carbon emissions have been criticized for exacerbating displacement and raising the cost of living, thereby intensifying local injustices and raising tensions between different scales of climate justice (McKendry, 2015). This, however, may be changing. Examining the cities of Salt Lake City, Utah and Denver, Colorado, we find that they are beginning to restructure their institutions and work across departmental silos in order to build a lower-carbon urban environment that also addresses parallel crises of gentrification, displacement, and escalating costs of living.

Denver and Salt Lake City offer interesting cases for examining the incorporation of social justice into city climate plans. Both are relatively young, mid-sized, Western cities whose cultures and economies have been shaped by the mountains and nature that surround them.

The cities are similarly vulnerable to the impacts of climate change, particularly drought but also increasing heat and regional forest fires (Flavelle, 2022). Furthermore, Denver and Salt Lake City are both in the top 20 fastest-growing cities in the country, with the population of Denver growing by 19.2 percent between 2010 and 2020 and Salt Lake City by 7.1 percent (U.S. Census Bureau, n.d.). This growth has led to housing affordability challenges, with 35 percent of renters in Denver and 49 percent of renters in Salt Lake City cost burdened (spending more than 30 percent of their income on housing; City of Denver, 2022a; Salt Lake City, 2018). In addition, these cities are both relative newcomers to climate action, with neither having the decades-long commitment to climate mitigation as the more well-known coastal leaders in climate action or, closer by, the famously green Boulder, Colorado. This makes them more reflective of average American cities, most of which have come to adopt climate action recently. Finally, these cities make interesting cases because in the last few years Denver and Salt Lake City have adopted both ambitious greenhouse gas reduction plans and equitable growth plans. This article examines the beginning of their efforts to build the new institutions and cross-department collaboration necessary to connect their climate and equitable growth goals. It offers early insights into how municipal governments can foster a more livable future for all residents but also highlights the challenges they are encountering. We argue that although the climate crisis and housing crisis have often been thought about separately, by changing the ways city departments communicate and collaborate, Denver and Salt Lake City are seeking more affordable, sustainable, and socially just futures.

2. Urban Climate Governance and Social (In)Justice

When US cities began adopting carbon emission reduction goals around the turn of the 21st century, this was a new policy arena, outside the scope of the existing capacities of even large and well-resourced municipalities (Hughes, 2019). This forced planners and sustainability managers to be “building the plane while flying the plane” (Hughes & Hoffmann, 2020, p. 2), figuring out as they went ways to make the institutional and policy changes necessary to achieve their climate goals. As they focused on the challenge of emission reductions, questions of social and environmental justice were often ignored, seen as separate from reducing carbon emissions. Illustrative of this, a decade ago, Portney’s (2013) extensive study of US cities’ sustainability plans found that while some incorporated social justice and equity, most did not. Likewise, a large global survey by Castán Broto and Bulkeley (2013) found that city governments rarely included any explicit consideration of environmental justice in their major climate change policy experiments. This lacuna was reflected in academic analyses as well, with little of the growing literature on

cities and climate governance addressing local, rather than global, climate justice (Bulkeley et al., 2014; but see McKendry, 2015).

Around this same time, a growing body of research began to examine the injustices of urban greening. Though limited by methodological gaps (Quinton et al., 2022), cumulative evidence strongly suggests green amenities such as parks can exacerbate gentrification and displacement (e.g., Anguelovski et al., 2018; Checker, 2011; Gould & Lewis, 2017; McKendry, 2018; Wolch et al., 2014). Scholarship on green gentrification highlights how environmental amenities contribute to broader processes of urban transformation focused on increasing city center property values and attracting tourists and higher-income residents to the urban core. When successful, demand from these new, wealthier residents drives up housing costs, spawning gentrification and involuntary displacement (Florida, 2017). That environmental amenities could contribute to growing urban inequality has raised concerns about who the green city is for.

Building on the green gentrification literature, some have argued that city climate initiatives can also exacerbate urban inequalities. There are two major strands in this literature. The first, which is beyond the scope of this article, focuses on unjust urban adaptations to a changing climate. This scholarship examines the ways that adaptations can funnel resources into already privileged communities at the expense of the lower-income and BIPOC neighborhoods that are often most vulnerable to the impacts of climate change (e.g., Anguelovski et al., 2016; Keenan et al., 2018). The second strand, which is relevant here, investigates the intersection of climate mitigation and urban planning, with a focus on involuntary displacement and gentrification associated with low-carbon urban development, densification, and the cost of decarbonizing buildings.

Rice et al. (2019, p. 6) define this climate or “carbon” gentrification as “middle- and upper-income residents’ preference for neighborhoods that offer the opportunity to walk, bike and ride transit in a mixed-use, dense urban environment, as a means to lower their carbon footprint...leading to a rise in housing prices for those areas.” Analyses of climate gentrification note that sometimes the new high-end, mixed-use housing developments that are a common part of downtown urban revitalization are marketed as low-carbon, hoping to add to the appeal of city-center living (Quastel, 2009; Rice et al., 2019). This can also be the case for accompanying low-carbon “gray” amenities such as public transportation and bike lanes (Bardaka et al., 2018; Hoffmann, 2016). For scholars of climate gentrification, a lower carbon lifestyle for the well-to-do means increased housing costs, longer commutes, and accompanying higher transportation costs and carbon emissions for lower-income residents.

Nearly every urban climate plan in the US focuses on density, transit, and walkability, all of which intersect with rebuilding city centers for consumer-based,

low-carbon lifestyles (Rice et al., 2019). Yet, a limitation to research on climate gentrification is that it is not clear people choose to move to a redeveloped city center because of the carbon benefits of walkability, transit, and green amenities. Rather, it is “largely assumed that gentrifiers move in because of greening, but this has rarely been directly confirmed, and there could be a wide variety of factors motivating individuals to move” (Quinton et al., 2022, p. 17). Nevertheless, in many cities, a low-carbon lifestyle is at least one among many marketing strategies undertaken to promote in-movement of the elite to a gentrifying city center.

If the US is going to come anywhere close to achieving necessary carbon emission reductions, we need to reshape the built environment of American cities, including through densification, low-carbon buildings, and significantly enhanced public transportation. The problem is not these changes in themselves, as some of the climate gentrification literature seems to suggest. Rather, the problem is that there has been a failure on the part of planners to adequately consider these developments in conjunction with affordable housing and a lack of proactive measures to prevent displacement when low-carbon interventions are made (Jennings et al., 2019; Oscilowicz et al., 2022).

As urban inequality continues to intersect with the climate crisis, it is becoming ever-more apparent that “there is no climate justice without a clear and central focus on housing justice” (Rice et al., 2019, p. 160), and that urban planners and communities must reimagine what a low-carbon, socially just city can be (Curran & Hamilton, 2018; Langemeyer & Connolly, 2020). In order to promote just and sustainable cities, housing justice must be prioritized in urban climate initiatives. Without ensuring safe and affordable housing, urban climate action may continue to disenfranchise marginalized communities, exacerbate displacement, and increase the costs of living. Alternatively, responses to the imperative of climate change can reshape urban areas in ways that address historic and current urban injustices while undertaking more widely embraced, and therefore ambitious, climate actions (Méndez, 2020). The causes of displacement vary depending on local context, and therefore, what strategies are most effective at preventing it must be context-specific (Chapple & Loukaitou-Sideris, 2021). But what is vital across local contexts is that climate action and housing justice are considered in tandem.

Most existing research on the intersection of urban climate policy and social justice is retrospective and critical. Important justice critiques of urban climate policies are raised but little is offered as to how to move forward to build socially just, low-carbon cities (Hughes & Hoffmann, 2020). Only recently has a small body of work begun looking at ways cities are successfully incorporating justice into climate planning and, in so doing, helping to establish pathways for others to follow. Fitzgerald (2022), for example, examines five US cities that have recently rewritten their climate plans to prioritize climate

justice and equity. Her analysis focuses on how planners in these cities incorporate procedural equity into the creation of climate plans. Fitzgerald points to the necessity of taking time to establish trust between frontline communities and planners, and of including clear metrics for determining equity outcomes in city climate policies.

Here we highlight another vital piece of the movement toward more equitable city climate plans: institution and capacity building in city governments, particularly through cooperation between offices of housing and sustainability. Oscilowicz et al. (2022, p. 2) argue that:

In order to build greener and healthier cities for all, urban policy developments and planning strategies should move beyond traditional silo, uni-sectoral thinking and reactive equity planning to provide more proactive equitable and inclusive greening in cities while prioritizing anti-gentrification and anti-displacement practice for communities most socio-economically vulnerable.

Though inchoate, this is beginning to occur.

3. Institution Building for Low-Carbon Affordable Housing in Denver and Salt Lake City

To analyze the emerging intersection of climate action and housing justice, we draw on Hughes’ (2019) evaluation of the governing strategies cities use in implementing their climate policies. Hughes argues that in order to successfully address this new issue area, cities had to build new institutions, coalitions, and capacities. Cities built new coalitions in order to facilitate greater trust in government, increase political support for climate plans and policies, and foster a network of advocates for the policies. They built new capacities to collect, analyze, and organize the data necessary to understand the effectiveness of their climate policies. Finally, new institutions were constructed to coordinate climate action across various divisions of city government and to maintain climate projects over multiple political terms.

Hughes’ analysis of the major governing strategies for urban climate action is useful for understanding the new, more holistic approaches to addressing climate change, social equity, and housing affordability that Salt Lake City and Denver are undertaking, as all three strategies can be seen in these cities. Though coalition and capacity building are important, here we are particularly interested in institution building, as this most directly speaks to Oscilowicz et al.’s (2022) call for planners to think beyond silos in their approaches to greening and affordability. In both cities, new institutions have been built through the creation of entirely new municipal departments, by shifting the priorities of existing departments, and through building new relationships between departments. These institutional shifts allow for a sharing of resources, funding, and expertise that is leading

to a reshaping of how municipal divisions operate and thereby creating a greater opportunity to achieve intertwined goals of sustainability, affordability, and equity. While still in the early stages and limited by the common barriers of time and money, in both cities, there is a sense of silos breaking down as staff from different departments recognize they are “playing in the same sandbox” (personal communication, July 9, 2021). It is to this that we now turn.

3.1. Methodologies

This study is based on document analysis of the following city documents: *Housing an Inclusive Denver* (City of Denver, 2018b), *Blueprint Denver* (City of Denver, 2019a), *Comprehensive Plan 2040* (City of Denver, 2019b), *Plan Salt Lake* (Salt Lake City, 2015), and *Growing SLC* (Salt Lake City, 2018), as well as the cities’ climate action plans, such as *Denver 80X50 Climate Action Plan* (City of Denver, 2018a) and *SLC Climate Positive 2040* (Salt Lake City, 2017). These documents represent the large-scale visioning for the city planning, sustainability, and housing stability departments in each city. Documents were analyzed using in-vivo coding to understand how equity and justice are incorporated into each plan, as well as to evaluate how each department articulates its relationship with other departments. Supplemental documents including the *Expanding Housing Affordability Recommended Policy Approach* (City of Denver, 2021c), the *Climate Protection Fund Five Year Plan* (City of Denver, 2022c), and the *Phase One Summary Report: Thriving in Place* (Salt Lake City, 2022) were also analyzed as cities progressed in policy development over the period of the study. Document analysis is appropriate for this study because we seek to offer a rich description of the developing recognition of connections between housing and climate change across departments, as officially articulated by these departments (see Bowen, 2009). Document analysis was complemented by six semi-structured interviews with city officials across the Office of Climate Action, Sustainability, and Resiliency (CASR; Denver); the Office of Housing Stability (Denver); the Denver Office of Community Planning and Development; the Salt Lake City Sustainability Department (SLCgreen); the Office of Housing and Neighborhood Development (HAND; Salt Lake City); and the Salt Lake City Planning Department during the summer of 2021. Because of the limited number of interviews, in the following discussion, they are used as supplemental to the primary method of document analysis.

Though their climate plans are multifaceted, this study focuses on the slice of urban climate action in Denver and Salt Lake City that most closely intersects with housing affordability, namely, reducing the carbon intensity of buildings through electrification, weatherization and retrofitting, and urban densification. This allows us to focus on the cities’ recently passed climate

action plans alongside the issue of housing affordability, which both cities recognize as a crisis. Though a similar analysis of climate mitigation and social equity could be conducted for transportation, green space, or other elements of city climate policies, buildings offer the most immediate and legible intersection between housing affordability and environmental sustainability, key concerns for rapidly expanding cities struggling with the tensions of development. While energy-efficient and electric buildings create clear environmental benefits, they also reduce utility costs for residents. Ensuring that transitions to low-carbon buildings, both in existing structures and new developments, are distributed equitably across the lines of race and class is critical for economic and climate justice.

3.2. Denver

Since 2018, Denver has substantially reorganized and recalibrated municipal departments in the branches of sustainability, housing development, and anti-displacement intervention (see Figure 1). Key to this shift was the creation of the Office of CASR by Mayor Michael Hancock in 2019, shortly after the adoption of Denver’s *80X50 Climate Action Plan* (2018). The *80X50 Climate Action Plan* pledges to cut greenhouse gas emissions by 80 percent of 2005 levels by 2050 through energy efficiency in buildings, decarbonization of the electric grid, enabling next-generation mobility, and improving waste management (City of Denver, 2018a, p. 4). CASR replaced the former Office of Sustainability, and its mission is to urgently and proactively mitigate climate change through science-based methods while cultivating resiliency against potential climate-related disasters (City of Denver, n.d.-a). In alignment with Denver’s broader vision for the future, CASR seeks to “secure an economically, socially, and environmentally sustainable city for generations to come; and ensure that the setting of goals and metrics and monitoring of results *considers equity*” (City of Denver, n.d.-a, emphasis added).

Vital to the effectiveness of CASR, Mayor Hancock sponsored a 0.25 percent increase in the local sales tax, passed in 2020, to create the Climate Protection Fund (Brasch, 2020). This Fund sustains CASR’s in-house projects and funds work by local partner organizations (Brasch & Minor, 2020). Notably, at least 50 percent of revenue from the tax is required to be allocated to historically marginalized communities, with the explicit goal of combating economic disparities along with climate change (City of Denver, 2021b). In 2022, CASR released a five-year plan for the Climate Protection Fund, designating six areas of spending including “neighborhood based environmental and climate justice programs,” adaptation and resiliency programs “that help vulnerable communities prepare for climate change,” and energy efficiency building programs “to reduce their carbon footprint, utility bills and indoor air pollution” (City of Denver, 2022c, p. 5). CASR is beginning to pull

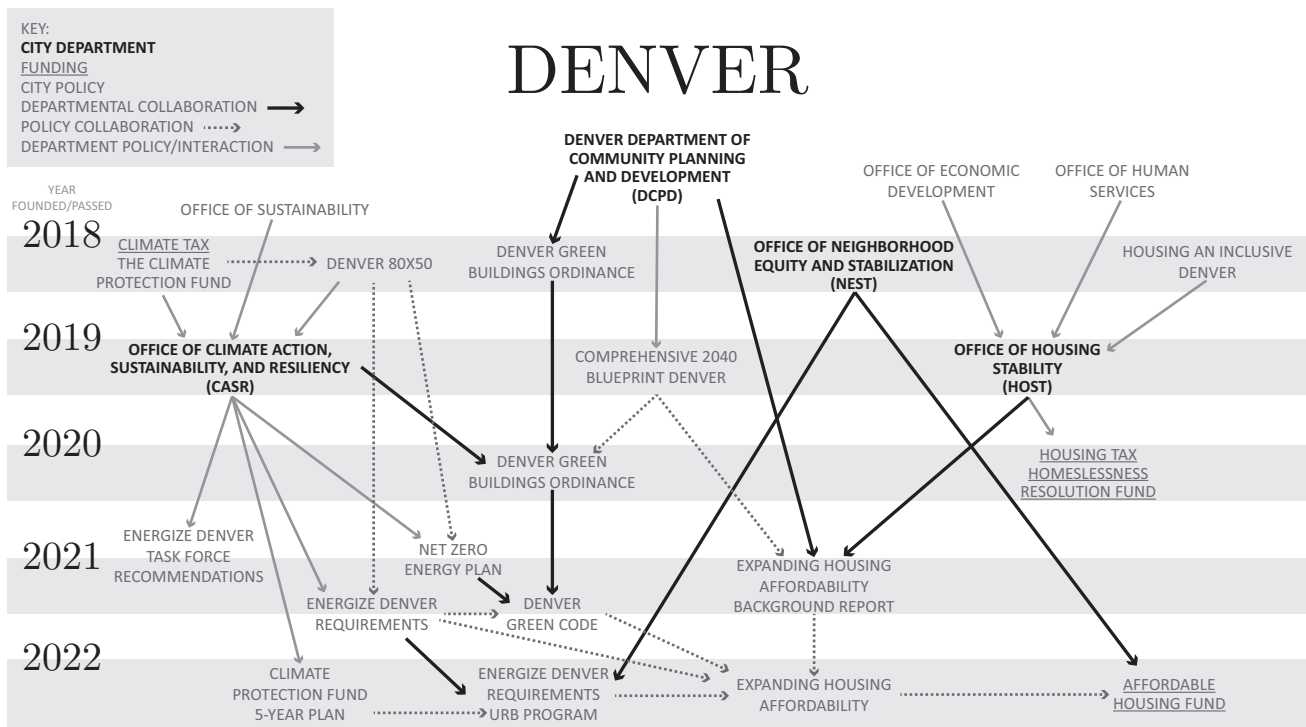


Figure 1. Institution building has created growing collaborations between municipal departments in Denver.

these threads together through the Healthy Affordable Home Electrification Program which will work with community partners to decarbonize 200 low- to moderate-income households over the next three years (City of Denver, 2022b). Electrification funding will be prioritized for under-resourced families living with chronic respiratory illness, with the goal of creating healthier, more sustainable, and more affordable homes (City of Denver, 2022b, 2022c). The creation of CASR as a new institution, and the sustained funding achieved through the Climate Protection Fund, refocuses climate efforts on neighborhood residents who have been disproportionately impacted by environmental injustices and who are most likely to be housing cost burdened.

Further illustrating institution building, to reduce the carbon intensity of buildings, CASR has begun working closely with the Denver Community Planning and Development Office (DCPD) to promote sustainable urban design and development through the Green Code and Energize Denver Hub. The Denver Green Code lives predominantly with the DCPD, impacting the energy efficiency and electrification of new buildings, while the Energize Denver Hub, which benchmarks energy efficiency for existing buildings, is controlled by CASR (City of Denver, n.d.-a, 2022). Denver began phasing in its Green Code in 2021 with the adoption of the *Net Zero Energy (NZE) Plan*, outlining goals to require net zero energy through all-electric new homes in the 2024 building code, all-electric new buildings in the 2027 building code, and performance verifications in the 2030 building code (City of Denver, 2021a, p. 1). The Denver Green Code is currently voluntary, offering incentives for developers who choose to construct buildings with high energy efficiency

and/or net zero energy standards. The Green Code will become more stringent with each iteration, eventually requiring all new developments to be highly efficient in alignment with Denver’s *NZE Plan* (personal communication, July 23, 2021).

Though the movement towards zero carbon new developments is important, as stricter codes and requirements for new build prevents the lock-in of carbon infrastructure or the expense of transitioning the building later, most of a city’s building stock is already built, and the majority of naturally occurring affordable housing is in existing, older buildings (Chapple & Loukaitou-Sideris, 2021). Denver is therefore reaching beyond new buildings with the 2021 Energize Denver Requirements which institute benchmarking, performance, and electrification requirements in existing buildings over 25,000 square feet (City of Denver, n.d.-d). Importantly, as of this writing, CASR is in the process of crafting an equity plan in conjunction with the Energize Denver Requirements. This plan will provide city funding for under-resourced buildings to alleviate the cost burden of reducing the carbon intensity of buildings serving vulnerable populations (City of Denver, n.d.-d). Under-resourced buildings include buildings containing affordable housing units or serving frontline communities, as well as market-rate units located in Office of Neighborhood Equity and Stabilization (NEST) priority neighborhoods (City of Denver, n.d.-b). Further collaboration between CASR and NEST through the Energize Denver Requirements seeks to reduce the risk of climate gentrification and to promote environmental justice.

NEST was created in 2018 for the express purpose of combatting gentrification and helping long-term

residents and businesses stay in place amid a stark rise in the cost of living (City of Denver, n.d.-c). New policies within the DCPD and CASR seek to build capacity for NEST-identified vulnerable neighborhoods, ensuring building decarbonization programs support affordable housing. The collaboration between DCPD and the Department of Housing Stability (HOST) will establish new funds and opportunities for NEST to facilitate aid for neighborhood residents to stay housed, while the Climate Protection Fund will allocate resources to weatherize affordable housing, thereby lowering utility bills and decreasing carbon emissions.

In addition to the newly institutionalized relationship between CASR and DCPD around the Green Code, DCPD has also begun collaborating with HOST to design new frameworks for incentivizing and sustaining affordability within Denver, serving as partners in the Expanding Housing Affordability Project. The creation of HOST in 2019 was another of Mayor Hancock's explicit efforts at institution building, merging affordable housing efforts in the Department of Economic Development with housing stabilization and homelessness prevention in the Department of Human Services (personal communication, July 1, 2021). An institutional shift of this caliber increased the capacity of each department, establishing a higher level of permanent funding through the Affordable Housing Fund and the Homelessness Resolution Fund, supported by a local sales tax of 0.25 percent (this tax is separate from the tax to support The Climate Protection Fund; personal communication, July 1, 2021; City of Denver, 2020). The Expanding Housing Affordability Project institutionalizes funding for the Affordable Housing Fund, which will allocate resources to procure and protect deeply affordable housing (Toomer, 2022).

In line with affordability priorities institutionalized through *Comprehensive Plan 2040* and *Blueprint Denver*, DCPD and HOST have partnered to create Denver's Expanding Housing Affordability Project, the guidelines of which were given final approval by the Denver City Council in June 2022. Their passage instituted a long-awaited inclusionary zoning policy that requires all new developments to contribute to the city's affordable housing stock either through constructing a percentage of affordable units, offsetting city expenses for constructing affordable units, or paying a linkage fee that contributes to the Affordable Housing Fund (Toomer, 2022; see also Keep-Barnes, 2017). There are criticisms that the program does not reach far enough, and staff members in the CPD recognize that this policy will not solve all of Denver's affordable housing issues. But the policies will provide important support for acquiring and constructing deeply affordable housing options for the city's most vulnerable populations while continuing to expand moderately affordable options (Toomer, 2022).

Examining the work of HOST, NEST, DCPD, and CASR illustrates how offices dedicated to climate change and housing justice have begun working together to estab-

lish the groundwork for more sustainable and equitable development in Denver. People working in these departments recognize the significance of this shift, with a representative from the DCPD stating that "if anything, it's more about how we show that these are important [issues] and need to work together, rather than what they're often perceived to be, as in conflict with one another" (personal communication, July 13, 2021). Another noted that now is "the first time I think we, and many other cities across the country, are trying to acknowledge the impacts that we play in housing costs and displacement" (personal communication, July 13, 2021). Although the *80X50 Climate Action Plan* (2018) only briefly touches on climate justice, equity, and affordability, the policies and programs that have emerged from the plan make these issues of social justice focal points for municipal climate action. Through a two-pronged approach to sustainable and affordable housing, with inclusionary zoning in the Expanding Housing Affordability Plan mandating affordability and the Denver Green Code and Energize Denver Requirements mandating low-carbon transitions, Denver has set housing development on a new trajectory. This forward momentum is made possible by the institutional shifts promoted by Mayor Hancock, the growing collaboration between departments, and the capacity built through restructuring and acquiring sustained funding sources. In Denver, the building blocks of transformation are already visible, with the creation of policies that weave together sustainability and affordability, drawing a potential new path for city-wide development.

3.3. Salt Lake City

While the intentions within Salt Lake City are similar to those in Denver, with goals of uniting municipal departments along the priorities of creating a more affordable, lower carbon city, the scope of action within Salt Lake City is thus far more limited. Building codes are established at the state level in Utah, and the statewide political landscape is far more conservative than that of Colorado, making progress on sustainability and affordability more difficult (personal communication, July 14, 2021). In addition, while Denver has established independent funding sources in the Climate Protection Fund, the Affordable Housing Fund, and the Resolving Homelessness Fund, Salt Lake City continues to work within the confines of a limited city budget. Despite this more challenging political and fiscal context, the beginnings of institution-building for affordability and sustainability can be seen.

SLCgreen, the colloquial name for the Salt Lake City Sustainability Department created in 2016, serves as the city's sustainability and climate leader. SLCgreen's climate policies are driven by their *Climate Positive 2040* plan which commits the city to reduce carbon emissions to 80 percent of 2009 levels by 2040, primarily by transitioning community electricity to renewable sources

by 2032, reducing on-site fossil-fuel burning in buildings, and minimizing transportation emissions (Salt Lake City, 2017). However, until the election of Mayor Erin Mendenhall in 2020, SLCgreen's focus was mainly limited to air pollution and consumer-based greenhouse gas reduction goals rather than institution-building for broader policy changes.

The election of Mayor Mendenhall was an important turning point, with her priorities of sustainability, affordability, and equity shifting the trajectory of policy within the city and leading to the incorporation of sustainability into other branches of the city government beyond SLCgreen. Mayor Mendenhall tasked "each of the [city] departments and divisions with creating their own sustainability plan that directly impacts their programming and work," fostering "stronger connections" along the lines of sustainability between SLC departments (personal communication, August 3, 2021). In response to the new mayor's priorities, in 2021 the Redevelopment Agency (RDA), the department responsible for distributing city funding for development projects, began mandating energy efficiency and electrification preparedness standards for city-funded projects (Building Electrification Institute, n.d.; Emerson, 2021; Salt Lake City, 2021).

As the RDA had begun mandating affordable housing production in RDA developments in 2016, the new energy-focused requirements for RDA-funded buildings necessitated new collaborations between SLCgreen, HAND, and the RDA to ensure that green standards "align and aren't detrimental to aspects such as affordable housing" (personal communication, August 3, 2021; personal communication July 9, 2021). While Salt Lake City has yet to pass an inclusionary housing ordinance and linkage fees are prohibited by state law, the RDA has shifted its focus to ensure that at least a portion of all units constructed with city funding contributes to the affordable housing stock, while maintaining the flexibility to negotiate affordability proportions with developers (Salt Lake City, 2016). The relationship that the RDA is building with developers through this collaborative process has altered the conversation regarding inclusionary zoning in Salt Lake City, with the city council now seeking further details on what a city-wide inclusionary zoning ordinance may entail (Salt Lake City, 2018; personal communication, July 9, 2021).

The RDA only has control over developments receiving city funds, and since building codes are established at the state level, the ability of the municipal government to mandate building efficiency and electrification standards is limited (Salt Lake City, 2021). To navigate this constraint, Salt Lake City is working to shift the practices of the development community through incentive programs and education (Building Electrification Institute, n.d.; Salt Lake City, 2017). Salt Lake City is pursuing a green buildings agenda similar to Denver's Green Code through its Building Electrification Proposal, a project brought to fruition through the partnerships of SLCgreen,

the RDA, and the Building Electrification Institute. In late 2020, together with the Building Electrification Institute, Salt Lake City conducted an intensive round of interviews with local stakeholders to design the proposal. The city is now completing phase two of their community outreach program, an economic analysis of what energy efficiency standards may cost developers, with the intention to "publish this publicly and inspire some of the local developers [to see] that this is something that's economical and that people want" (personal communication, August 3, 2021; see also Building Electrification Institute, n.d.). Because of the city's legal constraints, phase two is meant to incentivize greening measures without the tool of government mandates.

While the RDA's position within the government structure has remained unchanged, here institution-building for more socially and environmentally sustainable growth has been marked by deeper collaboration and an evolving departmental mission. SLCgreen, HAND, and the RDA are collaborating with the SLC Planning Department to promote a growth and development plan that fosters a more sustainable and affordable Salt Lake. A representative from the SLC Planning Department stated, "affordability and public health have always been important priorities...so where we can make those connections with sustainability, especially in reducing emissions, but also in improving air quality and general comfort and livability of homes, is really important" (personal communication, July 14, 2021). As in Denver, cross-departmental collaboration is facilitating institutional shifts that allow municipal departments to expand historically limited capacities, building knowledge and motivation to pursue low-carbon, affordable urban development (see Figure 2).

Institutional building through greater departmental collaboration is also beginning to address wider questions of affordability. In the wake of a growing crisis of affordability, Salt Lake City concluded a gentrification study in the summer of 2022 (Salt Lake City, 2022). This study was designed to inform the Thriving In Place project, a community-focused process to study the impacts of gentrification, driven by a steering committee made up of sixteen city departments including the RDA, SLCgreen, HAND, and the SLC Planning Department (Salt Lake City, n.d.). The *Phase 1 Summary Report* for the Thriving in Place project was released in July 2022 and presents community feedback, gentrification and displacement data, and an introduction to the next steps. The report details the severity of Salt Lake City's current housing situation, finding that there are no longer any "more affordable" neighborhoods in Salt Lake City, that displacement is an active worry for residents across race, class, and ownership status, and that residents see the city as prioritizing growth and economic development over the community (Salt Lake City, 2022). As an introductory report, there is still much work to be done, both in policy development and government recognition of the depth of the challenge. However, the breadth

SALT LAKE CITY

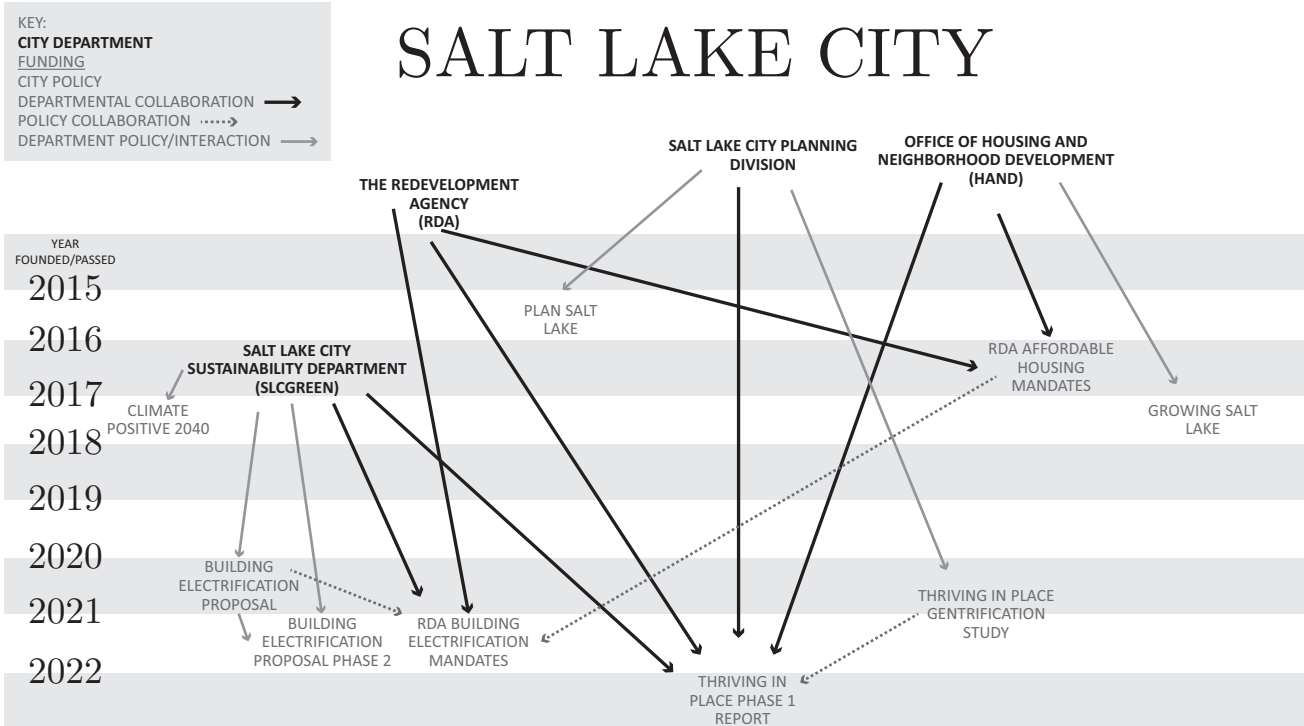


Figure 2. Growing interactions between municipal departments in Salt Lake City are beginning to institutionalize the connection between climate and housing affordability.

of departments involved in the project, including those working across housing and environmental sustainability, illustrates the potential intersection of these issues in the next steps of the project.

In Salt Lake City, the urgency of action has shifted drastically in the last five years. *Growing SLC* (2018) mentions “displacement” a mere four times, with one use of the word “gentrification,” and *Plan Salt Lake* (2015) mentions neither issue. Yet at the time of this writing, wider government action regarding housing affordability seems imminent given the recent *Phase 1 Thriving in Place* report, which focused almost entirely on mitigating the risk of displacement for Salt Lake City residents. Whether such interventions will be paired with sustainability efforts in future city-wide growth plans, as they already are through the RDA, remains to be seen. However, the growth of action on the issues of affordability, sustainability, and equity in recent years is notable. In Salt Lake City, the RDA requirement that city-funded housing projects include sustainable design while contributing to the affordable housing stock achieves a similar goal to Denver, though with a more limited scope. In the past, development projects have been promoted with at best a superficial component of social, racial, and environmental justice. Now we see both Salt Lake City and Denver working to achieve the carbon benefits of higher density and low-carbon development while striving to minimize the climate gentrification that can accompany such projects.

4. The Intersection of Urban Greening and Housing Justice

As cities grow and change, a long-posed question resurfaces: “For whom?” Sustainable for whom? Affordable for whom? Development for whom (Bulkeley & Betsill, 2013)? For decades, cities have largely avoided reckoning with these questions, neglecting the larger impacts of capital investment, unsustainable growth models, and skyrocketing housing markets on low-income communities and people of color. Investments in greening measures and redevelopment projects have too often exacerbated these problems, contributing to gentrification and involuntary displacement.

But the solution to environmental and climate gentrification is not to halt greening efforts or stop work to reduce urban carbon emissions; it is to think critically and creatively about the interconnected nature of two seemingly disparate crises. This starts with cities recognizing their responsibility to aid in mitigating involuntary displacement while taking ambitious steps to reduce carbon emissions. By shifting the way that city departments interact, institutions can be reshaped to build capacity and plan for more inclusive, low-carbon development.

Denver and Salt Lake City are taking important early steps to ensure new and existing developments are contributing to a more sustainable and equitable future. While much work remains to be done, and Salt Lake City makes it clear that larger legal barriers need to be addressed for cities to be as effective as possible, the goals and emerging practices of these cities reflect a

new possibility of what climate action can entail. Both cities are beginning to recognize that development must change. Denver is crafting new policies to grow in a more sustainable and affordable way. Salt Lake City is building knowledge of the situation at hand while acting on the development it directly controls. Although Salt Lake City appears ready to prioritize affordability (Salt Lake City, 2022), the question remains as to whether policymakers will follow Denver's lead and pair those efforts with low-carbon incentives.

This is a preliminary study observing initial policy trends and interesting shifts in institutional structures in these two cities. Additional study of the emerging trend toward a synthesizing of justice and sustainability would further this analysis and potentially lead to more conclusive results on the effectiveness and replicability of the institution building that is occurring. Though further analysis is needed, it is already apparent that the ways Denver and Salt Lake City are utilizing institution building to establish interdepartmental collaboration and build capacity for sustainability and affordability reflect an important shift in how cities are approaching climate change mitigation and equity. While the impacts of these cities' policies are not yet measurable, their recognition of the need for more just and sustainable futures, and willingness to reshape governing institutions to achieve this change, are clear.

5. Conclusion: A New Phase of Urban Climate Governance

This study illustrates how institutional shifts toward equitable urban climate action are beginning to occur in Denver and Salt Lake City. However, Salt Lake City and Denver are not alone in incorporating social justice into their climate efforts. Boston, Massachusetts; Baltimore, Maryland; Oakland, California; Austin, Texas; Portland, Oregon, and others are making justice an explicit focus of their climate action plans (Jennings et al., 2019; Méndez, 2020; Murray-Cooper, 2021). Yet, Salt Lake City and Denver do not have the decades-long history of climate action that defines Portland and Boston, nor Oakland's long history of social justice organizing. That these two cities are also thinking about the intersection of climate action and social equity speaks to the extent to which this shift may be occurring more broadly.

Future research on cities and climate change should continue to examine the intersection of climate mitigation and housing justice. Analysis of green gentrification is important and has raised vital questions about who benefits from the green or low-carbon city. Our research suggests that city officials are starting to take these critiques seriously. This, therefore, opens up important research questions that have been missed by much of the green and climate gentrification research: What has inspired this emerging, more holistic understanding of the intersection of climate mitigation and social justice among city planners and officials? To what extent

have grassroots mobilization and participatory justice reshaped city climate efforts toward equity? What more needs to be done to wed the imperatives of rapid decarbonization and social justice at the urban scale? This next phase of municipal climate action calls for research that recognizes the genuine efforts being undertaken by city governments on the intersection of climate change and social justice while maintaining the pressure of critique.

Cities across the country are seeing that the path forward on climate action is dependent on reckoning with the racism and classism that produced current urban planning practices and embedded inequality into urban environments. As cities face a myriad of crises, including climate change, housing insecurity, and social inequality, merely having ambitious goals no longer suffices. Transformative action through institution-building and collaboration is essential to craft a livable future for all.

Acknowledgments

We would like to thank three anonymous reviewers for their valuable feedback, as well as the representatives from Denver and Salt Lake City who offered their time and expertise to this project. This research received funding from the Colorado College State of the Rockies Project and the Colorado College Environmental Studies Program.

Conflict of Interests

The authors declare no conflict of interests.

References

- Anguelovski, I., Connolly, J., Masip, L., & Pearsall, H. (2018). Assessing green gentrification in historically disenfranchised neighborhoods: A longitudinal and spatial analysis of Barcelona. *Urban Geography*, 39(3), 458–491.
- Anguelovski, I., Shi, L., Chu, E., Gallagher, D., Goh, K., Lamb, Z., Reeve, K., & Teicher, H. (2016). Equity impacts of urban land use planning for climate adaptation. *Journal of Planning Education and Research*, 36(3), 333–348.
- Bardaka, E., Delgado, M. S., & Florax, R. J. G. M. (2018). Causal identification of transit-induced gentrification and spatial spillover effects: The case of the Denver light rail. *Journal of Transportation Geography*, 71, 15–31.
- Bowen, G. A. (2009). Document analysis as a qualitative research method. *Qualitative Research Journal*, 9(2), 27–40.
- Brasch, S. (2020, November 30). How Denver got its climate sales tax—And what happens next. *Colorado Public Radio*. <http://www.cpr.org/2020/11/25/how-denver-got-its-climate-sales-tax-and-what-happens-next>
- Brasch, S., & Minor, N. (2020, July 8). Denver's new

- climate action vision could lead to a very different Denver. *Denverite*. <https://denverite.com/2020/07/07/denvers-new-climate-action-vision-could-lead-to-a-very-different-denver>
- Building Electrification Institute. (n.d.). *Salt Lake City, Utah*. <https://www.beicities.org/salt-lake-city>
- Bulkeley, H., & Betsill, M. (2013). Revisiting the urban politics of climate change. *Environmental Politics*, 22(1), 136–154.
- Bulkeley, H., Edwards, G., & Fuller, S. (2014). Contesting climate justice in the city: Examining politics and practice in urban climate change experiments. *Global Environmental Change*, 25, 31–40.
- Castán Broto, V., & Bulkeley, H. (2013). A survey of urban climate change experiments in 100 cities. *Global Environmental Change*, 23(1), 92–102.
- Chapple, K., & Loukaitou-Sideris, A. (2021). *White paper on anti-displacement strategy effectiveness*. California Air Resource Board. <https://ww2.arb.ca.gov/sites/default/files/2021-04/19RD018%20-%20Anti-Displacement%20Strategy%20Effectiveness.pdf>
- Checker, M. (2011). Wiped out by the ‘greenwave’: Environmental gentrification and the paradoxical politics of urban sustainability. *City & Society*, 23(2), 210–229.
- City of Denver. (2018a). *Denver 80X50 climate action plan*. Office of Climate Action, Sustainability and Resiliency.
- City of Denver. (2018b). *Housing an inclusive Denver*. Office of Housing Stability.
- City of Denver. (2019a). *Blueprint Denver*. City Planning Department.
- City of Denver. (2019b). *Comprehensive plan 2040*. City Planning Department.
- City of Denver. (2020, November 5). *Homelessness resolution funding passed by voters* [Press Release]. <https://www.denvergov.org/content/denvergov/en/mayors-office/newsroom/2020/homelessness-resolution-funding-passed-by-denver-voters.html>
- City of Denver. (2021a). *Denver’s net zero energy (NZE) new buildings & homes implementation plan*. Office of Climate Action, Sustainability and Resiliency.
- City of Denver. (2021b). *Energize Denver taskforce recommendations draft*. Office of Climate Action, Sustainability and Resiliency.
- City of Denver. (2021c). *Expanding housing affordability through market-based tools: Proposed policy approach*. City Planning Department.
- City of Denver. (2022a). *Affordable housing prioritization policy*. Office of Housing Stability. <https://www.denvergov.org/files/assets/public/housing-stability/documents/prioritization-policy-one-pager-march-2022.pdf>
- City of Denver. (2022b, October 11). *Denver and partners implement a new healthy homes program* [Press Release]. <https://www.denvergov.org/Government/Agencies-Departments-Offices/Agencies-Departments-Offices-Directory/Climate-Action-Sustainability-Resiliency/News-Events/News/2022/Denver-and-Partners-Implement-a-New-Healthy-Homes-Program>
- City of Denver. (2022c). *Climate protection fund five year plan*. Office of Climate Action, Sustainability and Resiliency.
- City of Denver. (n.d.-a). *Climate action, sustainability, & resiliency*. <https://www.denvergov.org/Government/Agencies-Departments-Offices/Agencies-Departments-Offices-Directory/Climate-Action-Sustainability-Resiliency>
- City of Denver. (n.d.-b). *Equity: Under-resourced buildings*. Energize Denver Hub. <https://www.denvergov.org/Government/Agencies-Departments-Offices/Agencies-Departments-Offices-Directory/Climate-Action-Sustainability-Resiliency/High-Performance-Buildings-and-Homes/Energize-Denver-Hub/Equity-Under-Resourced-Buildings>
- City of Denver. (n.d.-c). *Neighborhood Equity and Stabilization (NEST)*. <https://www.denvergov.org/Government/Agencies-Departments-Offices/Agencies-Departments-Offices-Directory/Economic-Development-Opportunity/Neighborhood-Equity>
- City of Denver. (n.d.-d). *Existing building regulations*. Energize Denver Hub. <https://www.denvergov.org/Government/Agencies-Departments-Offices/Agencies-Departments-Offices-Directory/Climate-Action-Sustainability-Resiliency/High-Performance-Buildings-and-Homes/Energize-Denver-Hub/Regulation-Basics>
- Curran, W., & Hamilton, T. (2018). *Just green enough: Urban development and environmental gentrification*. Routledge.
- Emerson, K. (2021, December 17). Salt Lake City’s RDA adopts an innovative policy to advance clean air and climate solutions. *Utah Clean Energy*. <https://utahcleanenergy.org/salt-lake-citys-redevelopment-agency-adopts-an-innovative-policy-to-advance-clean-air-and-climate-solutions>
- Fitzgerald, J. (2022). Transitioning from urban climate action to climate equity. *Journal of the American Planning Association*, 88(4), 508–523. <https://doi.org/10.1080/01944363.2021.2013301>
- Flavelle, C. (2022, June 7). As the Great Salt Lake dries up, Utah faces an “environmental nuclear bomb.” *The New York Times*. <https://www.nytimes.com/2022/06/07/climate/salt-lake-city-climate-disaster.html>
- Florida, R. (2017). *The new urban crisis*. Basic Books.
- Gould, K., & Lewis, T. (2017). *Green gentrification: Urban sustainability and the struggle for environmental justice*. Routledge.
- Hoffmann, M. (2016). *Bike lanes are white lanes*. University of Nebraska Press.
- Hughes, S. (2019). *Repowering cities: Governing climate change mitigation in New York City, Los Angeles, and Toronto*. Cornell University Press.
- Hughes, S., & Hoffmann, M. (2020). Just urban transitions: Toward a research agenda. *WIREs Climate*

- Change*, 11(3). <https://doi.org/10.1002/wcc.640>
- Jennings, V., Browning, M., & Rigolon, A. (2019). *Urban green spaces*. Springer.
- Johnson, J., & Cushing, L. (2020). Chemical exposures, health, and environmental justice in communities living on the fenceline of industry. *Current Environmental Health Reports*, 7, 48–57.
- Keenan, J., Hill, T., & Gumber, A. (2018). Climate gentrification: From theory to empiricism in Miami-Dade County, Florida. *Environmental Research Letters*, 13(5), Article 054001. <https://doi.org/10.1088/1748-9326/aabb32>
- Keep-Barnes, J. (2017). Inclusionary zoning as a taking: A critical look at its ability to provide affordable housing. *The Urban Lawyer*, 49(1), 67–107.
- Langemeyer, J., & Connolly, J. (2020). Weaving notions of justice into urban ecosystem services research and practice. *Environmental Science & Policy*, 109, 1–14.
- McKendry, C. (2015). Cities and the challenge of multi-scalar climate justice: Climate governance and social equity in Chicago, Birmingham, and Vancouver. *Local Environment*, 21(11), 1354–1371.
- McKendry, C. (2018). *Greening post-industrial cities: Growth, equity, and environmental governance*. Routledge.
- Méndez, M. (2020). *Climate change from the streets*. Yale University Press.
- Murray-Cooper, A. (2021, December 7). *Justice in urban climate plans: How and where cities are integrating equity and climate*. BU Initiative on Cities. <https://www.bu.edu/ioc/2021/11/01/justice-in-urban-climate-plans-how-and-where-cities-are-integrating-equity-and-climate>
- Okereke, C., & Coventry, P. (2016). Climate justice and the international regime: Before, during, and after Paris. *WIREs Climate Change*, 7(6), 835–851.
- Oscilowicz, E., Angeulovski, I., Trigueiro-Mas, M., García-Lamarca, M., Baró, F., & Cole, H. (2022). Green justice through policy and practice: A call for further research into tools that foster healthy green cities for all. *Cities and Health*. Advance online publication. <https://doi.org/10.1080/23748834.2022.2072057>
- Page, E. A. (2006). *Climate change, justice, and future generations*. Edward Elgar Publishing.
- Portney, K. (2013). *Taking sustainable cities seriously: Economic development, the environment, and quality of life in American cities* (2nd ed.). MIT Press.
- Quastel, N. (2009). Political ecologies of gentrification. *Urban Geography*, 30(7), 694–725.
- Quinton, J., Nesbitt, L., & Sax, D. (2022). How well do we know green gentrification? A systematic review of the methods. *Progress in Human Geography*, 46(4), 960–987. <https://doi.org/10.1177/03091325221104478>
- Ranganathan, M., & Bratman, E. (2019). From urban resilience to abolitionist climate justice in Washington, DC. *Antipode*, 53(1), 115–137.
- Rice, J., Cohen, D., Long, J., & Jurjevich, J. (2019). Contradictions of the climate-friendly city: New perspectives on eco-gentrification and housing justice. *International Journal of Urban and Regional Research*, 44(1), 145–165.
- Salt Lake City. (2015). *Plan Salt Lake*. Salt Lake City Planning Department.
- Salt Lake City. (2016). *RDA loan policies and guidelines*. Redevelopment Agency of Salt Lake City.
- Salt Lake City. (2017). *Climate Positive 2040*. Office of Sustainability.
- Salt Lake City. (2018). *Growing SLC*. Office of Housing and Neighborhood Development.
- Salt Lake City. (2021). *Sustainable development policy*. Redevelopment Agency of Salt Lake City.
- Salt Lake City. (2022). *Phase 1 summary report: Thriving in place: Salt Lake City's anti-displacement strategy*. Salt Lake City Department of Community and Neighborhoods.
- Salt Lake City. (n.d.). *About*. <https://www.thrivinginplaceslc.org/about>
- Schlosberg, D., & Collins, L. B. (2014). From environmental to climate justice: Climate change and discourses of environmental justice. *WIREs Climate Change*, 5, 356–374.
- Sultana, F. (2022). The unbearable heaviness of climate coloniality. *Political Geography*, 99, Article 102638. <https://doi.org/10.1016/j.polgeo.2022.102638>
- Toomer, L. (2022, June 6). Expanding housing affordability guidelines given final Denver Council approval. *The Denver Gazette*. https://denvergazette.com/news/government/expanding-housing-affordability-guidelines-given-final-denver-council-approval/article_19eeca4c-e620-11ec-af9d-8f90546d2ad4.html
- U. S. Census Bureau. (n.d.). *Quickfacts*. <https://www.census.gov/quickfacts/fact/table/US/PST045221>
- Wolch, J., Byrne, J., & Newell, J. (2014). Urban green space, public health, and environmental justice: The challenge of making cities 'just green enough.' *Landscape and Urban Planning*, 125, 234–244.

About the Authors



Clara Stein is a recent graduate of Colorado College where she majored in environmental studies and minored in mathematical modeling. She is now located in Chicago, Illinois, and is pursuing a career in environmental policy analysis and urban development, with a particular interest in the nexus of housing affordability and environmental justice.



Corina McKendry is an associate professor of political science and director of the Environmental Studies Program at Colorado College. She has published extensively on city environmentalism and social justice in urban climate and environmental policies including the book *Greening Post-Industrial Cities: Growth, Equity, and Environmental Governance* (Routledge Press, 2018) and the co-edited volume *Urban Cascadia and the Pursuit of Environmental Justice* (University of Washington Press, 2021).