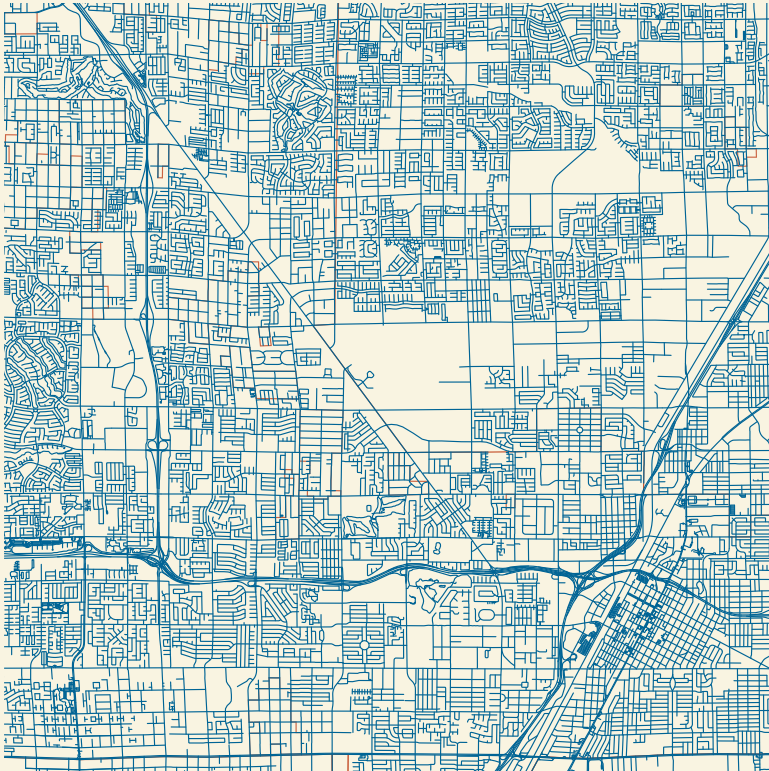


Living Within Limits

Urban Growth
Boundary for
the Las Vegas
Valley



Kayla LaRose

LIVING WITHIN LIMITS:
URBAN GROWTH BOUNDARY FOR THE LAS VEGAS VALLEY

By

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Thank you to everyone whose paths have crossed mine and brought me to this point. Thank you to my parents for all that they have done for me. Thank you to the professors and mentors who have offered their guidance along the way. And thank you to my friends for the late nights and shoulders to cry on.

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Foreword



To design in the desert is to design with consequence.

I have lived in the Las Vegas Valley since 1969 and have watched it transform from a compact desert city into an expansive metropolitan region pushing steadily into an arid landscape never meant to absorb unlimited growth. As a child, the desert was a daily presence, not an abstraction. As an architect and planner, I have seen those edges recede year after year, replaced by infrastructure that increasingly strains the systems that make life here possible. No resource reveals that tension more clearly than water.

Water has always been the quiet governor of the American West. For decades, growth in Southern Nevada was enabled by engineering

ingenuity and policy negotiation, creating the impression that limits could always be extended. Yet long-term experience teaches otherwise. Lake levels fluctuate, allocations tighten, and conservation shifts from optional to essential. The desert does not negotiate: it responds. “Living Within Limits” emerges directly from this reality. It is not an abstract critique of sprawl, but a response to a region where growth can no longer be separated from carrying capacity.

Historically, Las Vegas has relied on a planning model defined by low-density suburban expansion, automobile dependence, and the assumption that land, energy, and water could be endlessly extended. While this model produced rapid growth, it also fractured the city socially, economically, and ecologically. Infrastructure stretched thin, neighborhoods became isolated, and environmental costs were deferred rather than addressed. Today, as heat intensifies and water scarcity becomes unavoidable, those deferred consequences shape daily life. “Living Within Limits” does not simply critique this trajectory; it asks how a different one might be possible.

Cities that acknowledge ecological limits early gain flexibility; those that deny them face crisis-driven adaptation.

What distinguishes this capstone is its reframing of the Urban Growth Boundary. Too often, UGBs are described as blunt regulatory tools. Kayla challenges that framing by aligning her work with a planning tradition that understands limits as generative. As documented in *Planning the Portland Urban Growth Boundary: The Struggle to Transform Trend City*” by Sy Adler, Portland’s boundary was never merely technical; it was a political and cultural project that reshaped growth by redirecting investment inward, encouraging density and mixed-use development, and fostering long-term stewardship.

My own understanding of this shift was shaped by a decade working in Portland, where I witnessed how the UGB influenced not only urban form, but architectural culture itself. Density became an opportunity rather than an inconvenience, and infrastructure was treated as something to be shared rather than endlessly extended.

“Living Within Limits” asks what it would mean to bring that mindset to the Las Vegas Valley. Situated within the Colorado River Basin, Las Vegas must reconcile growth with reality. Within this capstone, the UGB becomes a design framework rather than a prohibition, compelling new approaches to density, proximity, and efficiency. References to arcology function not as utopian fantasies, but as principles for thinking about cities as interdependent systems.

This is not a master plan, nor a single architectural object. It is a framework for asking whether Las Vegas is willing to evolve from a city defined by outward expansion to one defined by care and resilience. This capstone offers clarity at a moment when the future of Las Vegas will be determined not by how far it grows into the desert, but by how intelligently it learns to live within it.

Jeffrey Roberts
AIA, LEED AP BD+C, NOMA
Enrolled Citizen of the Cherokee Nation
Visiting Affiliate Assistant Professor
UNLV School of Architecture



Overview

- + Context
- + Problem
- + What is an Urban Growth Boundary?
- + Argument
- + Objective & Impacts
- + Research Questions
- + Methodology

An aerial photograph of a desert landscape. In the upper left, a small, dense cluster of buildings and roads indicates a city, likely Las Vegas. The surrounding terrain is arid, with brown and tan hues, showing signs of erosion and sparse vegetation. A dark, winding path or road cuts through the desert on the right side of the image.

“Las Vegas has grown from fewer than 700,000 people in 1988 to more than 2.2 million today. That growth has been out, not up, as the region’s footprint has more than doubled in size.”

- WildEarth Guardians,
“Las Vegas Sprawl - Privatization of public lands”

1985



Context

Las Vegas exists within a complex environmental and cultural framework that shapes its urban identity and development trajectory.

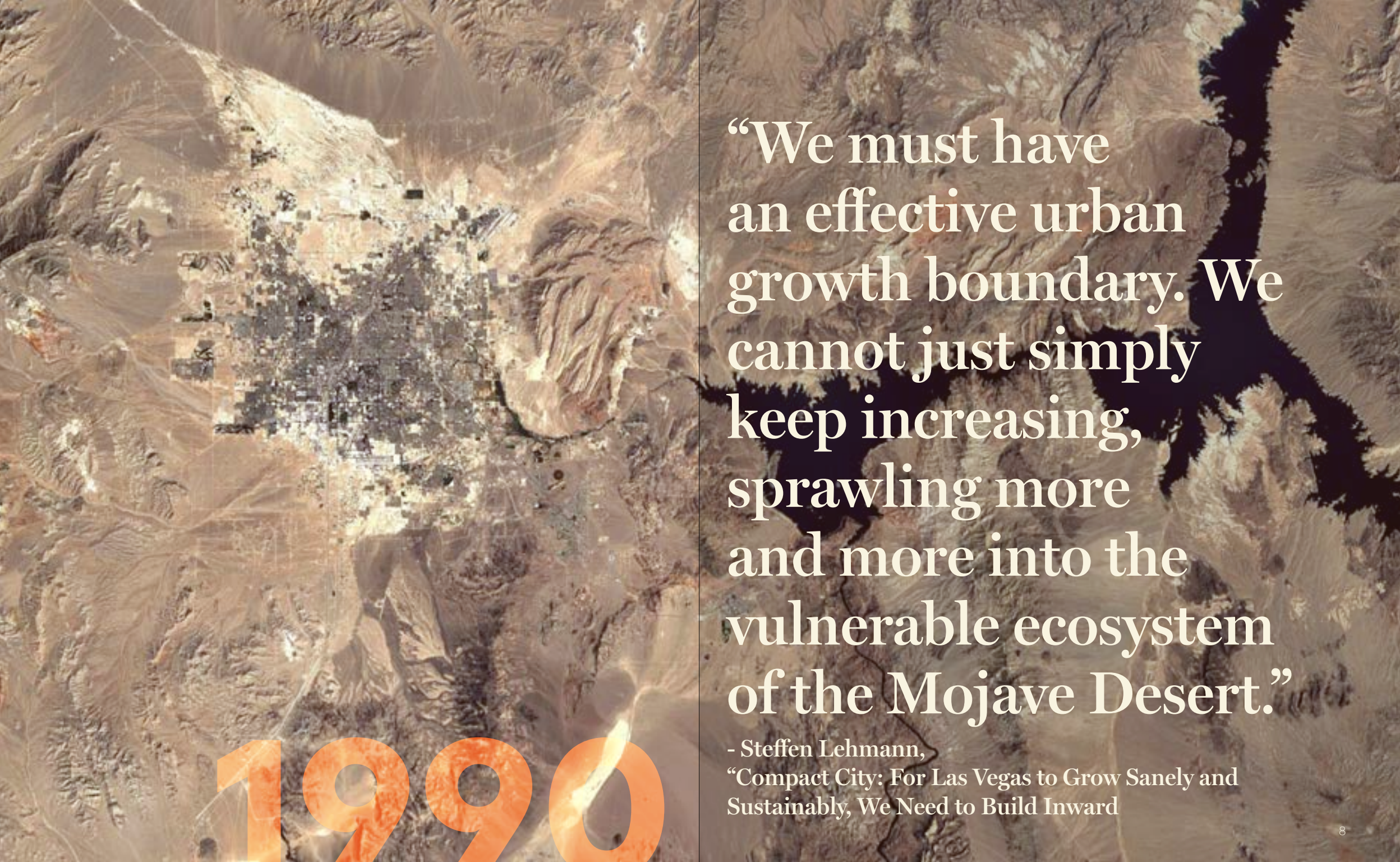
Environmentally, the city is deeply dependent on the diminishing waters of Lake Mead, a fragile lifeline that functions as an unspoken growth boundary. Its setting within a delicate desert ecosystem amplifies this vulnerability, as continued expansion and rising temperatures accelerate the pressures of climate change. The city's growth therefore challenges the limits of ecological resilience, revealing tensions between urban ambition and environmental constraint.

Urbanistically, Las Vegas has expanded through rapid sprawl, reflecting a model of growth that prioritizes land consumption and automobile use. This car-centric development pattern has created a dispersed city form, where auto-dependence is a defining characteristic and public transit remains underdeveloped. As a result, mobility, accessibility, and sustainability are key challenges for the region, particularly as it

continues to expand beyond its infrastructural and ecological means.

Culturally, Las Vegas maintains a dual identity that shapes its spatial and social fabric — one defined by the spectacle of the Strip and another by the everyday life of its suburban communities. The dominance of a tourist-driven economy reinforces this divide, positioning the city as both a global destination and a fragmented local community. This cultural duality complicates how Las Vegas perceives itself and how it plans for long-term resilience beyond entertainment and consumption.

Historically, the city's identity has been rooted in cycles of growth and reinvention. From its origins as a railroad town to its transformation into a dam construction hub, a gambling and entertainment capital, and eventually a sprawling residential metropolis, each phase of Las Vegas' development has deepened its reliance on the automobile and speculative growth, producing a pattern of boom and bust that mirrors its cultural narrative of reinvention and risk that is not sustainable.

An aerial photograph of a desert landscape, likely the Mojave Desert. A city, possibly Las Vegas, is visible in the center-left, surrounded by arid, hilly terrain. The image is used as a background for a presentation slide.

“We must have
an effective urban
growth boundary. We
cannot just simply
keep increasing,
sprawling more
and more into the
vulnerable ecosystem
of the Mojave Desert.”

- Steffen Lehmann,
“Compact City: For Las Vegas to Grow Sanely and
Sustainably, We Need to Build Inward

1990

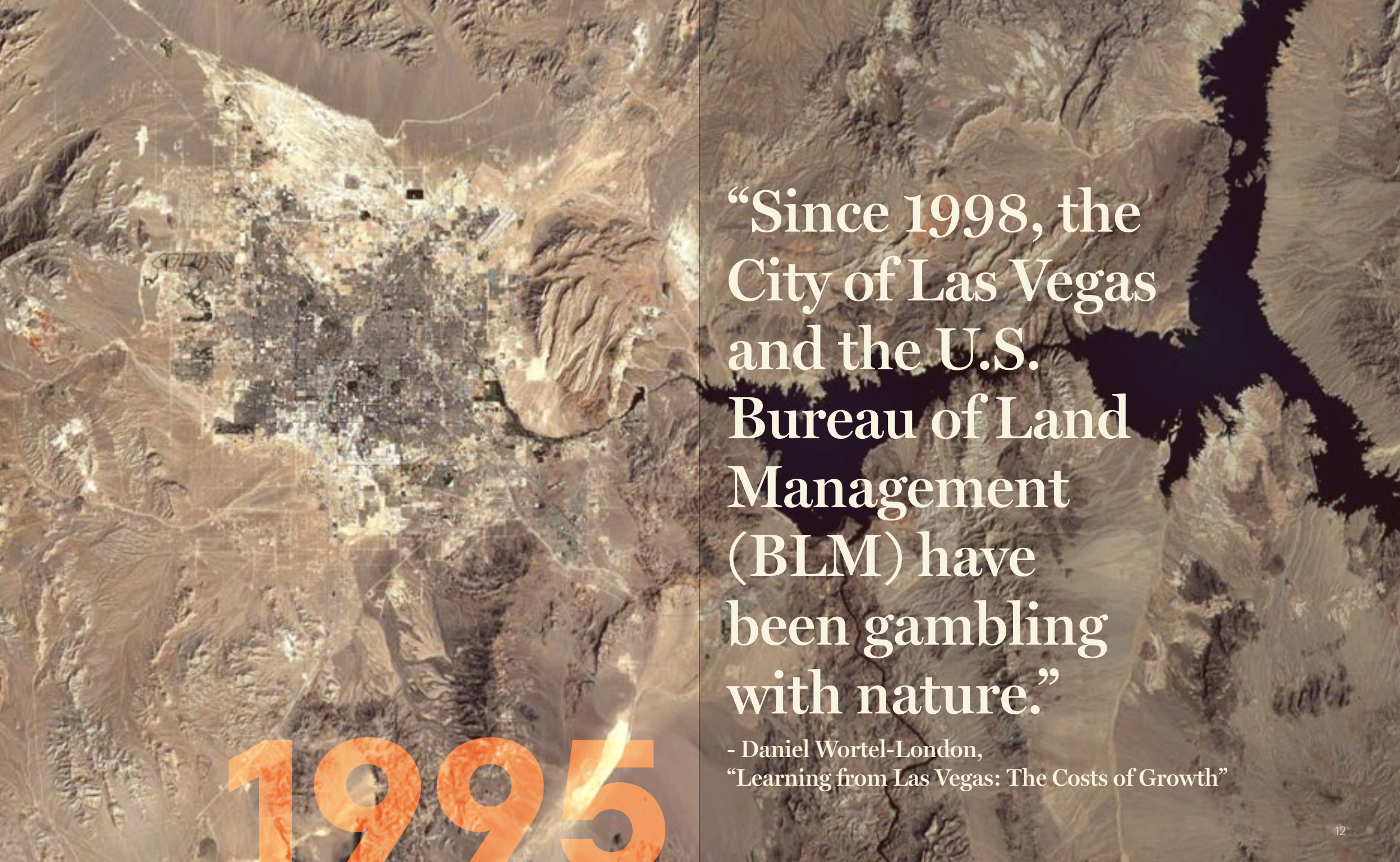


Problem

The City of Las Vegas has historically expanded through low-density suburban sprawl, consuming vast amounts of land, energy, and water in one of the most fragile desert environments in the world. With water shortages, climate stress, and ecological limits becoming increasingly urgent, unchecked growth threatens both environmental sustainability and long-term livability. This pattern is the result of car-dependency and a planning model that prioritizes rapid expansion over long-term resilience, and it has led to a fragmented urban fabric both economically and socially.

Las Vegas faces a growing contradiction between its development trajectory and carrying capacity set by its environment. With water shortages intensifying and heat extremes rising, the existing sprawl model strains limited resources and leads to disproportionate infrastructure access. All of this means that Las Vegas is more susceptible to climate-related dangers and the perpetuation of inequity in housing, transportation, and public space. Without a shift in growth-management and the built

environment, the valley will continue to undermine its livability and compromise its longterm viability as a desert city.

An aerial photograph of Las Vegas, Nevada, and the surrounding desert landscape. The city's urban sprawl is visible in the center-left, with its characteristic grid pattern. To the right, a large, dark, winding reservoir (Lake Mead) is visible. The surrounding terrain is arid and hilly, with some sparse vegetation. The overall color palette is dominated by earthy browns, tans, and greys.

“Since 1998, the
City of Las Vegas
and the U.S.
Bureau of Land
Management
(BLM) have
been gambling
with nature.”

- Daniel Wortel-London,
“Learning from Las Vegas: The Costs of Growth”

1995



What is an Urban Growth Boundary (UGB)?

An urban growth boundary (UGB) is a planning tool used to clearly define where urban development can and cannot occur. It draws a line around a city or metropolitan area, separating land designated for urban uses - such as housing, infrastructure, and businesses - from surrounding rural, agricultural, or natural areas. By doing so, it helps guide growth inward rather than outward, curbing urban sprawl and promoting more efficient land use.

The main goal of an urban growth boundary is to encourage compact, sustainable development within existing urban areas.

This approach supports walkable, transit-friendly neighborhoods, reduces car dependency and greenhouse gas emissions, and helps cities use infrastructure and public services more efficiently.

Beyond shaping urban form, urban growth boundaries also protect valuable open space, farmland, and natural habitats outside the boundary. They preserve regional character

and environmental resources while allowing cities to focus investment where it is most needed. Importantly, an urban growth boundary does not dictate how development occurs within the boundary; it simply sets limits on where it can happen, ensuring growth aligns with long - term sustainability and resilience goals.

An aerial photograph of a desert landscape. In the center-left, a city is visible with a grid-like street pattern. To the right of the city is a large, dark, irregularly shaped reservoir. The surrounding terrain is arid and hilly, with various shades of brown and tan. The text "2000" is overlaid in large orange letters at the bottom left, and a quote is overlaid in white serif font on the right side.

“Put simply, an urban growth boundary determines where we build, not what we build.”

- Teri Shore, “What Are Urban Growth Boundaries and Why Do We Need Them?”

2000



Argument

Current planning tools like urban growth boundaries (UGBs) are often framed primarily as restrictive regulatory mechanisms, lines on a map meant to curb sprawl, rather than as generative opportunities for architectural and urban innovation. This limited interpretation overlooks the transformative potential of UGBs to serve as catalysts for reimagining how cities can and should grow, adapt, and thrive within ecological limits.

For cities like Las Vegas, the establishment of an UGB could be reframed not as a constraint, but as a design challenge that encourages density, efficiency, and creativity within a finite footprint. Instead of replicating low-density sprawl, the city could embrace an arcology-inspired model of urbanism: compact, self-sustaining, resource-conscious, and deeply integrated with the desert environment. Within this boundary, the pressure to innovate could encourage mixed-use, walkable neighborhoods, resilient infrastructure, and climatic architectural strategies that harmonize with the harsh yet delicate desert ecology.

The intersection of architecture and urbanism is at the center of this exploration. By viewing growth boundaries as a design framework rather than a limitation, architects, planners, and policymakers can collaboratively transform the UGB into a platform for pioneering forms of desert urbanism. In doing so, Las Vegas has the potential not only to contain growth but to redefine it while transforming necessity into a model of visionary, resilient development that demonstrates how finite resources can foster rather than hinder urban possibility.

An aerial photograph of a desert landscape. On the left, a city grid is visible, with a prominent circular feature in the center. To the right, a dark, winding river flows through the arid terrain. The overall color palette is dominated by earthy browns and tans.

“Make no little
plans; they have
no magic to stir
men’s blood
and probably
themselves will
not be realized.”

- Daniel H. Burnham, Architect

2005



Objective & Impacts

The objective of this thesis is to identify and propose the ideal urban growth boundary (UGB) for Las Vegas that operates simultaneously as an ecological threshold and as an urban design framework. Rather than functioning solely as a regulatory line, the UGB is envisioned here as a generative design tool.

Through testing various architectural and urban design strategies, this thesis seeks to demonstrate how growth limits can become catalysts for a more resilient and sustainable model of desert urbanism.

The impacts of this work extend across multiple scales:

01/ New typologies for density: explore alternative typologies for high-density, mixed-use development tailored to the climatic and ecological realities of the Mojave Desert, with a focus on performance, compact form, and community vibrancy.

02/ Reimagining the edge: investigate how planning and design can impact the transition zone where the city meets the desert, framing edge conditions not as boundaries of exclusion but as spaces of ecological restoration, public space, and expression.

03/ Architecture as reconciliation: using design as a mediator to explore how the built environment can negotiate between ecological limits and urban livability to balance efficiency with human comfort, social equity, and cultural identity.

04/ Contributions to post-sprawl discourse: contribute to conversations about post-sprawl urbanism and the future of desert cities, positioning Las Vegas as a testing ground for ideas that reconcile urban growth with environmentalism.

An aerial photograph of a desert landscape, likely in the southwestern United States. A city grid is overlaid on the terrain, showing a dense urban area in the upper left and a more sparse, grid-like area in the center. The terrain is rugged and brown, with some darker patches of vegetation or water. A large, winding river or canal is visible on the right side of the image.

“We need to draw lines in the ground and say, ‘The concrete stops here.’ That forces people to build in and up, rather than out.”

- Patrick Moore, “Fake Invisible Catastrophes and Threats of Doom”

2015

Research

01

How has suburban sprawl in Las Vegas shaped patterns of land, water, and energy consumption over the past 50 years?

02

What lessons from other cities' UGBs (e.g., Portland, London) are most applicable to shaping a growth boundary tailored to Las Vegas' desert context?

Questions

03

Within the UGB, what urban design and planning strategies could shift Las Vegas from low-density sprawl toward more resilient, compact, and sustainable development?

04

How might implementing growth boundaries, density incentives, or water-use regulations affect the long-term sustainability and livability of Las Vegas?

An aerial photograph of a desert city, likely Las Vegas, showing a dense grid of streets and buildings. A large, dark reservoir is visible on the right side of the image. The surrounding landscape is arid and brown.

“The answer isn’t out there in untouched desert. It’s within our existing city footprint. It’s in our empty lots, in our strip malls and shopping centers, and especially in our large parking lots.”

- Geoff Carter, “Compact City: For Las Vegas to Grow Sanely and Sustainably, We Need to Build Inward”

2020

Process

Land Analysis

01 / Compile Baseline Data: Demographics, parcel maps, and infrastructure layers.

02 / Define Utility Service Areas: Map water and energy service boundaries.

03 / Map Ecological Systems: Identify protected lands, habitats, and vegetation zones.

04 / Create Existing Valley Model: Use existing density markers to simulate Valley massing.

Inclusive Engagement

01 / Structure Engagement: Phases to include inform, consult, co-create, feedback.

02 / Hold Expert Conversations: Meet with planners, designers, and other professionals.

03 / Facilitate Peer Engagement: Run a 20-minute boundary and city-center charrette.

Management & Implementation

01 / Define the Urban Growth Boundary Policy Framework: Establish the guiding principles, objectives, and regulatory structure.

02 / Detail the Implementation Process: Clarify governance roles, monitoring methods, and supporting policies.

Outline

Iterative Prototyping

01 / Classify Boundary Determinants: Identify 10 potential boundary determinant categories.

02 / Boundary Mapping: Overlay subcategory maps; understand their spatial overlap.

03 / Determine Initial Boundary Location: Assess overlap and place boundary lines.

Testing New Limits

01 / Boundary Simulation: Overlay boundary lines with existing Valley model.

02 / Growth Simulation: Use Grasshopper and Rabbit to simulation massing growth within new limits.

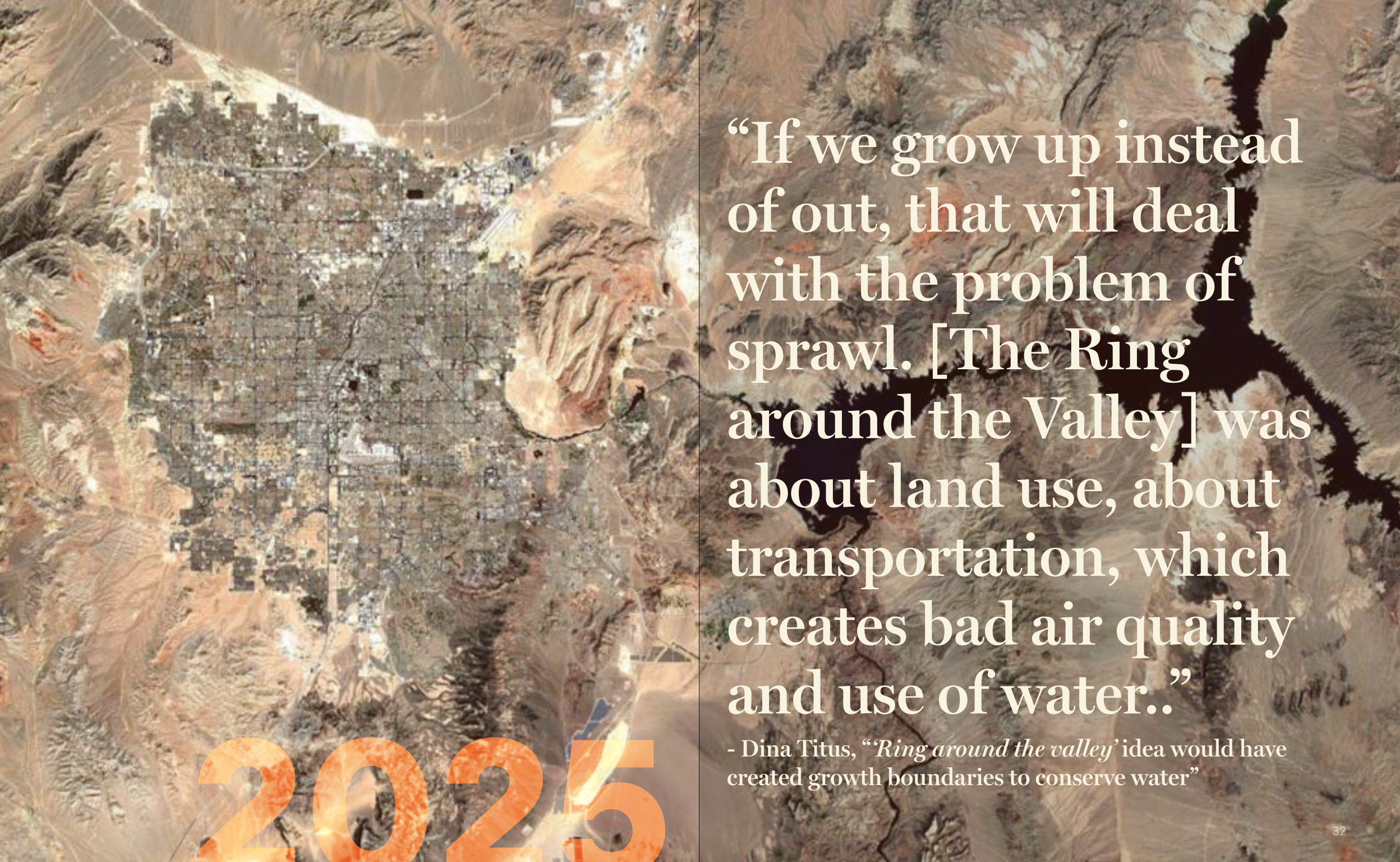
03 / Time Lapse Simulation: Snapshot this growth simulation at fixed points over the next century.

Scenario Comparisons

01 / Assess Metrics for a No-Boundary Growth Scenario: Calculate qualitative and quantitative impacts if the Valley continues outward expansion.

02 / Assess Metrics for a Boundary-Constrained Scenario: Evaluate qualitative and quantitative outcomes if growth occurs within the UGB.

03 / Compare Scenario Outcomes: Contrast the two sets of metrics to highlight key differences and implications.



“If we grow up instead of out, that will deal with the problem of sprawl. [The Ring around the Valley] was about land use, about transportation, which creates bad air quality and use of water..”

- Dina Titus, “*Ring around the valley*’ idea would have created growth boundaries to conserve water”

2025

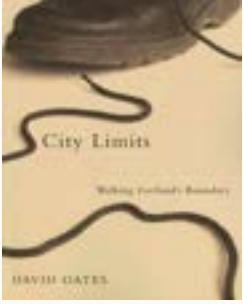


Literature Reviews

- + Urban Growth Boundary & Policy
- + Urban Development & City Planning
- + Philosophy

Urban Growth Boundary & Policy Reviews

The Urban Growth Boundary & Policy literature reviews examine the rationale and real-world implications of implementing a UGB. It explores how these policies operate through first-hand accounts from Portland's residents, planners, and policymakers—often cited as a model for growth management—and addresses debates over their benefits, criticisms, and placement processes. Together, these perspectives provide a balanced view of the policy's effectiveness and its impact on regional development.



**“City Limits: Walking Portland’s Boundary”
by David Oates**

Useful for first-hand accounts and perspectives on Portland’s urban growth boundary from Portland’s locals and leaders.

“A democracy of water is the democracy of our common flesh and common fate. Suffering, compassion, the common good” ... “The saying is that you can never step into the same river twice....So it’s our turn, now, to define our community. A democracy of water cannot be saved except today.”

In *City Limits: Walking Portland’s Boundary* (2006), David Oates documents his two-year journey walking the entire Urban Growth Boundary (UGB) encircling Portland, Oregon.

Through a mix of personal essays and conversations with local leaders, planners, and artists, Oates explores how the UGB—created in response to 1970s land use laws to prevent urban sprawl—shapes not just the city’s physical growth but its cultural and communal identity. Contributors like William Ashworth liken the city’s economic patterns to Monopoly, where value builds inward, while others, such as Kelly Rodgers and David Bragdon, emphasize the UGB’s role in fostering urban vitality and environmental integration.

Voices like Ana Maria Spagna challenge the permanence of boundaries, noting human tendencies to subvert imposed limits, while Eric Lemelson and others advocate for long-term, sustainable planning rooted in generational thinking. The book culminates in a reflection on Measure 37, which weakened

Oregon’s land-use framework, raising questions about public trust and the future of collective planning. Overall, the text provides rich, firsthand insights into Portland’s unique approach to urban growth and the deeper philosophies it reflects.



“How well do urban growth boundaries contain development?”

by Judith Dempsey & Andrew J. Plantinga

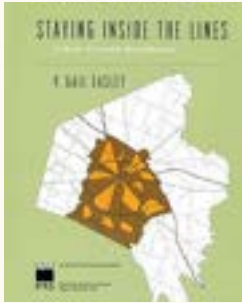
Useful for understanding the counterarguments and contrary data on the effectiveness of instating an urban growth boundary.

“One of the challenges in measuring the effects of UGBs is that many of the factors that influence housing prices, urbanization rates, and other outcomes of interest also affect decisions by city planners about where to place UGBs.”

In their 2013 study, Judith A. Dempsey and Andrew J. Plantinga examine how effectively Oregon’s urban growth boundaries (UGBs) contain development, using a difference-in-differences statistical method to better isolate the impact of UGBs from other variables.

Drawing on land cover data from 1973 to 2000 across 17 cities in the Willamette Valley, the authors compare development trends just inside and outside UGBs. They find that while UGBs do limit development to some extent, on average increasing development by 7.3 percentage points inside boundaries, the effects vary widely between cities. Some places, particularly those with higher population growth or stronger planning policies, show significant containment effects, while others see little difference.

The study critiques cross-sectional methods often used in earlier research, arguing they may overstate UGB effects by ignoring pre-existing land differences. Robustness checks support the main findings but also reveal that UGB effectiveness depends heavily on local conditions and development pressure. Ultimately, the paper offers a nuanced view, suggesting that while UGBs can shape development patterns, their impact is far from uniform and depends on broader dynamics.



“Staying Inside the Lines: Urban Growth Boundaries” by V. Gail Easley

Useful for understanding the benefits and effectiveness of instating an urban growth boundary as well as going through the process that occurs when determining where the UGB should be placed.

“The irony, of course, is that the characteristics that initially draw people to the urban fringe disappear as more and more people come. The fringe becomes more dense and congested, and the quality of life goes down. People look to move further away, creating more sprawl.”

In *Staying Inside the Lines: Urban Growth Boundaries* (1992), V. Gail Easley presents urban growth boundaries (UGBs) as a critical planning tool for managing sprawl, conserving farmland and open space, and promoting efficient service delivery. Easley explains that UGBs encourage compact growth within defined areas where infrastructure can be efficiently extended, while limiting non-urban development beyond these lines. Establishing a UGB involves forecasting land demand, analyzing existing land use and services, and excluding protected lands, but final boundaries often reflect political and economic negotiations. Easley highlights the need for coordinated governance among local and regional entities through interlocal agreements and regional planning bodies. Case studies from Portland, Sarasota County, and Lexington—the first U.S. city to adopt a UGB—demonstrate both the successes and challenges of implementation. While UGBs are increasingly adopted nationwide, their effectiveness depends on local conditions, regional coordination, and the tools available to guide development. Easley concludes that long-term success requires not only sound planning and regulation but also strong public engagement and a forward-looking, regionally coordinated vision.

The Urban Development & City Planning literature reviews examine how contemporary planning shapes the growth, identity, and future of cities, with a focus on Las Vegas. This section explores the city's development strategies, long-term goals, and the intersection of policy, infrastructure, and design in a desert environment. It also considers biophilic and forward-looking urbanism, using planning documents, transit projects, and regional initiatives to show why urban plans matter, how they are developed, and what they aim to achieve.

Urban Development & City Planning Reviews

The 2021 Las Vegas 2050 Master Plan outlines a comprehensive, forward-looking vision for equitable, resilient, and sustainable urban development. Building on city goals such as transit-oriented development, affordable housing, urban forestry, and climate resilience, the plan introduces 16 special area plans and updated zoning strategies to guide growth through 2050. It emphasizes mixed-use infill and walkable communities, with efforts like rezoning the Historic Westside and updating the Arts District’s form-based code reflecting these priorities. Projects outlined here also show how planning helps the city to adapt to various community needs and

challenges. Sustainability initiatives focus on renewable energy, solar installations, EV infrastructure, and the city’s LEED Gold certification. The report highlights the roles of city divisions—including Current Planning, Business Licensing, Code Enforcement, and Historic Preservation—in supporting development and community well-being. The Planning Department also implemented text amendments in 2021 to streamline zoning and modernize land use regulations. Together, the plan and updates provide a holistic, actionable roadmap aligning Las Vegas’s growth with social equity, economic vitality, and environmental sustainability.



**“City of Las Vegas, NV Annual Report (2021)”
by The Department of Planning**

Useful for understanding the actual development and planning that is occurring in the City of Las Vegas as well as long-term goals.

**“Our Mission:
To develop and implement
sound planning
and licensing regulations
and to enforce city
codes so that citizens,
businesses and visitors
can benefit from an orderly,
diverse, clean and
environmentally sensitive
community.”**

Timothy Beatley's *The Handbook of Biophilic City Planning & Design* (2016) presents a compelling case for making nature a central element of urban life. Grounded in the concept of biophilia—the innate human connection to nature—the book explores how cities can become healthier, more resilient, and more sustainable by weaving natural elements into their design and planning. Beatley outlines the wide-ranging benefits of urban nature, from reduced stress and improved mental health to enhanced social cohesion, economic value, and climate resilience. The book includes global case studies from cities like Singapore, Milwaukee, Portland, and Oslo, demonstrating real-world strategies

such as urban forests, green infrastructure, rooftop gardens, and restored rivers. It also introduces frameworks like the “nature pyramid” and “urban nature diet” to guide the scale and frequency of human-nature interaction. In addition to physical design, the book emphasizes the importance of citizen engagement, community-based projects, and strong partnerships across sectors. Beatley concludes with reflections on the future of biophilic cities, highlighting challenges like equity, funding, and policy reform, while calling for a deeper cultural shift that recognizes nature not as an amenity, but as essential to urban life.



“Handbook of Biophilic City Planning & Design” by Timothy Beatley

Useful as a guide to biophilic urbanism and urban practice as well as inspiration for how cities of the future might look, feel, and function.

“Human beings need contact with nature and the natural environment. They need it to be healthy, happy, and productive and to lead meaningful lives. Nature is not optional, but an absolutely essential quality of modern urban life.”

In *Transparent Urban Development: Building Sustainability amid Speculation in Phoenix* (2017), Benjamin W. Stanley examines the complexities of sustainable urban planning in Phoenix, Arizona, focusing on both its tangible progress and persistent barriers. The book explores how transparency in development—through accountable governance, community involvement, and strategic policy—can foster more sustainable outcomes in a city historically shaped by land speculation and rapid growth. Stanley critiques the dominant speculative growth paradigm and traces how Phoenix’s development has been influenced by capitalist land markets, policy boosterism, and exchange-value-

driven planning. He highlights the evolution of infill strategies and transit investments, like the Central Phoenix Plan and Community Development Block Grants, while noting ongoing challenges such as competition from surface parking and the effects of entrenched land speculation. The book also discusses transition management frameworks and innovative tools—such as taxing vacant land or time-limited zoning entitlements—as means of curbing speculative behaviors and promoting equitable, sustainable growth. It serves as a valuable case study for desert urbanism and cities navigating sustainability in the face of economic pressures and climate challenges.



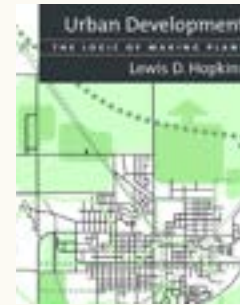
**“Transparent Urban Development: Building Sustainability Amid Speculation in Phoenix”
by Benjamin W. Stanley**

Useful as a frame of reference for desert urbanism especially as a city that has been actively improving its transit systems.

“Human beings need contact with nature and the natural environment. They need it to be healthy, happy, and productive and to lead meaningful lives. Nature is not optional, but an absolutely essential quality of modern urban life.”

In *Urban Development: The Logic of Making Plans* (2001), Lewis D. Hopkins explores the fundamental role of planning in shaping urban development, emphasizing that plans are not just technical documents but essential tools for coordinating complex, uncertain, and interdependent decisions. He explains how plans differ from visions or policies by structuring decisions across time, helping people and institutions manage limited attention, imperfect foresight, and competing values. Hopkins outlines how plans can function as agendas, policies, designs, visions, or strategies, and how their effectiveness depends more on their use in real decision-making than on strict implementation. He discusses the challenges

posed by land use regulations, private development, and speculative markets, especially in environments where multiple stakeholders have competing interests. The book highlights the importance of collective planning, organizational capacity, and public participation while acknowledging that planning cannot fully resolve deeper political or social conflicts. Instead, effective plans work within existing systems to improve outcomes by clarifying intentions, evaluating trade-offs, and supporting adaptive responses to change. Hopkins ultimately argues that good plans are not about predicting or controlling the future but about improving how decisions are made in a dynamic world.



“Urban Development: The Logic of Making Plans” by Lewis D. Hopkins

Useful in understanding what plans are, why they are essential, and how they are developed.

“There are at least seven distinct ways in which zoning, as currently practiced in the United States, can address land development issues: externalities (or nuisance), infrastructure sizing and timing, fiscal management, costly or misperceived information, land supply, amenity protection, and development timing.”

Philosophy Reviews

The Philosophy literature reviews establish a foundation for understanding how ecological values and design ethics shape urban form. This section contrasts traditional human-centered urbanism with arcological approaches that merge architecture and ecology into self-sustaining systems. Drawing from thinkers like Sim Van der Ryn, it highlights how an ecological worldview emphasizes harmony between design and nature, framing sustainability as a guiding philosophy rather than just a technical goal.

“Towards sustainable urbanism: The arcology and organic compact urban formation”
by Sally Fakhri Khalaf Abdullah

Useful for the compare and contrast of traditional urbanism and arcological urbanism.

“Arcology aims to achieve a perfect balance between housing and the natural needs of a built environment with available resources and within a secure infrastructure, ensuring that the waste released does not cause environmental degradation.”
... “Arcology model has not only been proposed as a very simple and high-density structure, but rather as attractive structures that emerge from multi-level structures with complex relationships that emulate nature in complexity.”

Fakhri Khalaf Abdullah and Sally explore arcology, a fusion of architecture and ecology, as a sustainable urban design model compared with traditional organic compact urban forms. Using case studies of Arcosanti (Arizona) and Bab al-Sheikh (Baghdad), the research evaluates how both approaches prioritize dense, walkable, human-scaled environments that reduce land use and ecological impact. Space syntax analysis reveals strong spatial and functional similarities, including compactness, centrality, mixed land use, and pedestrian connectivity. While arcology is expressed vertically and traditional forms grow horizontally, both



spatial models support socially vibrant, efficient, and resilient communities. The study emphasizes that historic organic layouts hold valuable lessons for sustainable design and underscores the need for continued research into arcology’s environmental, economic, and social potential for future urban development.

“Design for Life: The Architecture of Sim Van Der Ryn” by Sim Van Der Ryn

Useful for a foundational ecological worldview that challenges conventional architecture by prioritizing harmony between human design and natural systems.

“Our buildings, our suburbs, and most of our cities are cold, lifeless, and disconnected from people. They are uninspiring. To inspire is to breathe life into. How can we make the buildings of our everyday lives fit our deepest human needs? We can design environments that inspire and nourish our souls, bringing architecture into deeper connection with our innermost self.”

Sim Van der Ryn’s Design for Life outlines his philosophy of ecological design, which aligns human-built environments with natural systems to create sustainable, regenerative, and life-enhancing places. Rooted in his early experiences with nature and shaped by mentors like Buckminster Fuller, he challenges conventional architecture by rethinking not only what we build but how and why we design. Through projects like The People’s Park, the Integral Urban House, and his work with California’s Office of Appropriate Technology, he demonstrated that design can be low-impact, participatory, socially engaged, and deeply responsive to place



and community. His later work extends into spiritual and cultural dimensions, emphasizing ancient wisdom and a shift in collective consciousness. Van der Ryn sees design as a mediator between nature and culture, urging a move from industrial efficiency toward interconnected, place-based practices.



Precedent Reviews

- + Zoning & Sprawl
- + Desert Urbanism
- + Communal Space
- + Policy

Zoning & Sprawl Precedents

The Zoning & Sprawl precedent reviews examine how zoning policies and land-use regulations shape urban growth and form. This section explores how planning frameworks influence whether development remains compact and coordinated or expands through unregulated sprawl. Through key precedents and case studies, it highlights how zoning decisions affect density, connectivity, and environmental impact, offering context for how policy choices shape the social and ecological sustainability of cities.

Zoning & Sprawl: Do

Portland, Oregon

Established: February 8, 1851

Population: 635,749 (2024)

Land Area: 145 sq mi (345.58 sq km)



Governance & Regulatory Framework

Regional land-use planning and an urban growth boundary is used to coordinate policy across counties, limit sprawl, support infill, and protect natural areas.

Urban Form & Sprawl Pattern

The growth boundary creates a compact, dense metro with sharp urban-rural edges, prioritizing transit, walkability, mixed-use, and infill housing development.

Transportation & Mobility

Combined, an integrated transit, light rail, buses, and bike networks with land use planning reduces vehicle miles traveled through high modal diversity and well-connected mobility options.

Environment & Ecology

The growth boundary protects habitat, watersheds, and farmland while advancing urban resilience through green infrastructure and integrated stormwater systems.

Housing, Affordability, & Equity

Limited land within the boundary raises prices, risking displacement; Portland counters through infill and inclusionary policies, trading some affordability for sustainability.

Culture & Politics

The city is known for progressive planning, environmental stewardship, and collective governance, where urban planning is widely seen as a tool for shared public benefit.

“For more than thirty years, [Portland] agreed to see ourselves as a community, and to decide, collaboratively, what that meant.”

- David Oates, “*City Limits: Walking Portland’s Boundary*”

Zoning & Sprawl: Don't

Houston, Texas

Established: June 5, 1837

Population: 2.39 million (2024)

Land Area: 601.7 sq mi (1,558 sq km)



Governance & Regulatory Framework

The largest U.S. city without formal zoning: relies on market forces, deed restrictions, and decentralized ordinances, prioritizing property rights and limited land-use coordination.

Urban Form & Sprawl Pattern

Low-density, polycentric sprawl with multiple activity centers, auto-oriented subdivisions, strip development, and minimal metropolitan edge control.

Transportation & Mobility

It is a highly car-dependent city with limited public transit, contributing to high per-capita vehicle miles traveled, longer commutes, and increased transportation-related carbon emissions.

Environment & Ecology

Sprawl has reduced wetlands, increased impervious surfaces, and worsened flooding, reflecting limited proactive resilience planning, with mitigation largely reactive.

Housing, Affordability, & Equity

Lax land rules support affordability and flexible growth, but uneven quality, long commutes, and limited sustainability contribute to inequality and access gaps.

Culture & Politics

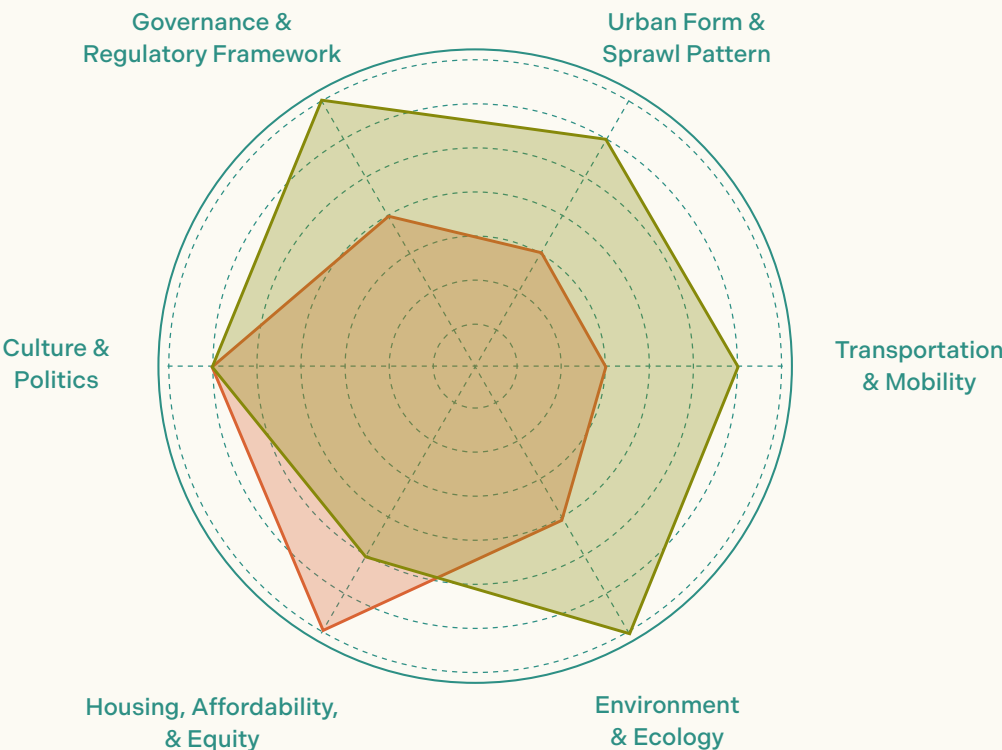
Its hands-off planning reflects pro-property, minimal-regulation values, prioritizing individualism and market freedom, often viewing planning as government interference.

“Historically, Houston mostly made space for new residents (and old) by growing outwards. The city is a byword for urban sprawl and car culture.”

- Anya Martin, “*Houston, We Have A Solution*”

Zoning & Sprawl: Don't

Side-by-Side Summary



	Do: Portland, Oregon	Don't: Houston, Texas	Lesson Learned
Governance & Regulatory Framework	Regional authority	Fragmented	Coordination is key
Urban Form & Sprawl Pattern	Compact, mixed-use	Dispersed, single-use	Regulation shapes form
Transportation & Mobility	Integrated	Car-dominant	Infrastructure should be integrated
Environment & Ecology	Preserved	Degraded	Limits leads to resilience
Housing, Affordability, & Equity	Controlled growth, rising cost	Sprawl, access inequity	Balance is best
Culture & Politics	Collectivism	Individualism	Coordination leads to equity

The Desert Urbanism precedent reviews examine how cities in arid environments adapt their form, infrastructure, and design strategies to balance growth with resource scarcity and climatic extremes. Through key precedents, it highlights innovative approaches to water management, heat mitigation, and ecological integration that redefine sustainable living in harsh climates. Ultimately, this review reveals how urbanism can evolve to thrive within environmental limits rather than in spite of them.

Desert Urbanism Precedents

Desert Urbanism: Do

Phoenix, Arizona

Established: February 25, 1881
Population: 1.673 million (2024)
Land Area: 517 sq mi (1,338 sq km)

Climate Response & Adaptation

It uses tech and infrastructure to combat heat, expanding shade, tree canopy, and cooling corridors to improve equity, livability, and climate resilience.

Culture & Politics

It reflects a cultural shift toward forward urbanism, using strong institutional planning, technology, and adaptability to innovate within an arid landscape.

Urban Form & Development

Recent growth focuses on light-rail corridors, supporting walkable mixed-use infill within a polycentric framework that balances urban expansion with desert ecological preservation.

Materiality & Expression

With shaded facades, cool roofs, and advanced materials, it is emerging as a model of modern desert architecture that unites innovation and energy-efficient technology.



Ecology & Resilience

Regional, data-driven approach to heat, drought, and flood resilience, building connected preserve systems for recreation, conservation, and long-term ecological health.

Water & Ecology Stewardship

Supported by regional water systems and multiple sources, it advances conservation, recharge programs, and integrates green corridors, wetlands, and stormwater reuse.

“Downtown Phoenix is an especially relevant study area because [its history] [has influenced] infill development on vacant lots surrounding downtown.”

- Benjamin W. Stanley,
“Transparent Urban Development”

Desert Urbanism: Don't

El Paso, Texas

Established: May 17, 1837
Population: 681,723 (2024)
Land Area: 256.3 sq mi (663 sq km)

Climate Response & Adaptation

Compact form, courtyards, and shaded vernacular is used for thermal comfort, offering climate-responsive lessons, but scalability is limited for densification.

Culture & Politics

Tradition-rooted and locally driven, shaped by heritage and borderland conservatism, emphasizing continuity over institutional or regional change.

Urban Form & Development

Despite geographic constraints, it favors outward sprawl over density, driving big-box expansion, historic vacancy, fragmentation, and increased strain on limited desert water.

Materiality & Expression

In contrast to high-tech models, it relies on adobe and stucco traditions, prioritizing heritage and local identity as a foundation for place-based climate adaptation.



Ecology & Resilience

Resilience efforts operate at the community scale with smaller, less connected ecological areas, trending reactive and local rather than proactive and regionally integrated.

Water & Ecology Stewardship

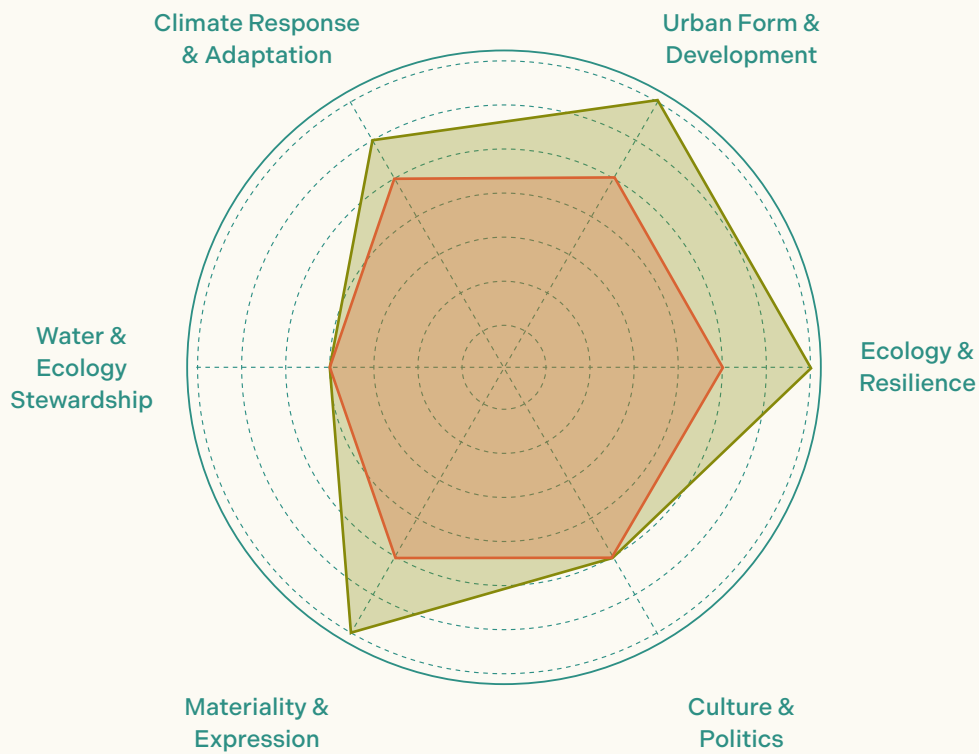
With fewer water sources, it is more vulnerable; conservation efforts remain localized and small-scale, lacking the regional connectivity and integration seen elsewhere.

“[Developers are continuing to] build further and further from the city center because, they say, El Pasoans want a driveway, space, and maybe even a pool.”

- Alana Semuels, *“El Paso is Learning That Not Everyone Hates Sprawl”*

Desert Urbanism: Don't

Side-by-Side Summary



	Do: Phoenix, Arizona	Don't: El Paso, Texas	Lesson Learned
Climate Response & Adaptation	Engineered cooling	Vernacular shading	Design with climate, not against it
Urban Form & Development	Redirected towards corridor infill	Outward sprawl	Topography can guide restraint
Ecology & Resilience	Large-scale	Community-scale	Prioritize regional efforts
Culture & Politics	Forward-looking urbanism	Borderland conservatism	Balance is key
Materiality & Expression	Modernity	Regional identity	Balance is key
Water & Ecology Stewardship	Imported & irrigated	Local & conserved	Preservation is key

Communal Space Precedents

The Communal Space precedent reviews explore how urban form, spatial design, and civic participation shape social connection and collective well-being. By examining shared environments—such as plazas, courtyards, and pedestrian networks—it shows how thoughtful design fosters belonging, while dispersed layouts can fragment community life. Ultimately, this review highlights the role of spatial cohesion and participatory design in cultivating vibrant, inclusive urban environments.

Communal Space: Do

Arcosanti, Arizona

Established: 1970

Population: 70 - 80 people

Land Area: 25 acres

Founding Vision

Arcology prioritizes communal living, cooperation, and ecological stewardship through compact, inward forms organized around shared spaces and infrastructure.

Environmental Integration

Earth-cast concrete and passive solar shape a shared identity, embedding communal terraces into the mesa and reflecting collective environmental stewardship.

Communal Design

Spatially dense and vertically layered, it is designed for collaboration, with communal spaces that foster spontaneous interaction, shared activity, and collective life.

Social Cohesion

It evolved as a close-knit micro-community shaped by shared space, where collaboration, art, work, and rituals form a collective social core.

Legacy & Heritage

Though smaller than envisioned, it endures as an experimental lab built through incremental collective labor, recognized for sustainable, cooperative, and participatory design.

Governance & Participation

Built through collective labor, it operates as an educational project with collaborative governance and communal ownership fostering social cohesion.

“Community life at Arcosanti is vibrant.” ... “We share a distinct sense of being a part of something larger than ourselves, with a focus that aligns with our personal values.”

- The Cosanti Foundation



Communal Space: Don't

El Paso, Texas

Established: December 10, 1965
Population: 13,174 (2024)
Land Area: 203.7 sq mi (527.4 sq km)

Founding Vision

Born from 1960s speculation, individual lots and endless expansion won over shared infrastructure which led to dispersed land, limited community, and an individualist ethos.

Environmental Integration

Its generic suburban materials and imposed grid ignore desert ecology, lacking environmental response, cohesion, and a sense of place or belonging.

Communal Design

Its vast lots and empty streets create a dispersed layout with no central public core, resulting in minimal shared spaces, weak infrastructure, and limited social cohesion.

Social Cohesion

A top-down approach created scattered habitation and weak community fabric, leaving minimal shared institutions and a legacy rooted in individualism over collective identity.

Legacy & Heritage

It stands as a cautionary tale of speculative development without community, context, or shared vision, revealing the limits of growth without social or civic foundation.

Governance & Participation

A top-down speculative project, it lacked resident input and civic structure, leaving governance to market forces and resulting in weak civic identity and limited social cohesion.

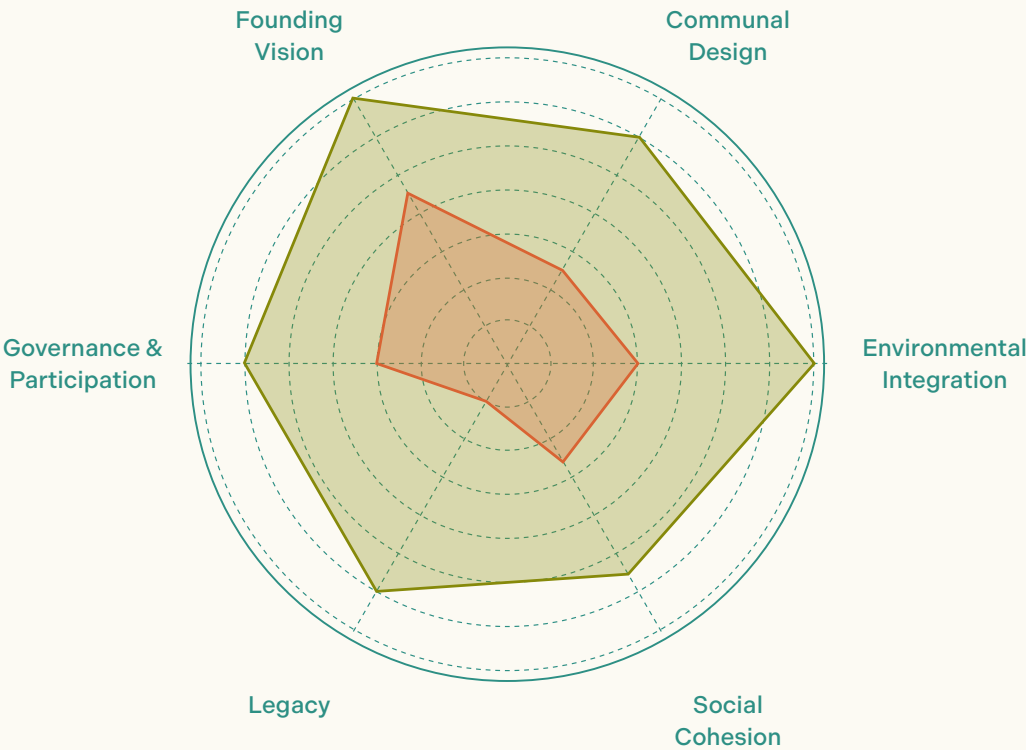
“The city remains California’s third largest by land area. Its sprawling footprint on the map attests to the gulf between ambitions and outcomes.”

- Timothy Karoff,
“California’s third largest city is a mostly empty, forgotten dream”



Communal Space: Don't

Side-by-Side Summary



	Do: Arcosanti, Arizona	Don't: California City, California	Lesson Learned
Founding Vision	Collective & ecological	Speculative & individual	Intent shapes community
Communal Design	Shared courtyards, dense form	Isolated lots, empty grid	Form fosters interaction
Environmental Integration	Responsive & crafted	Detached & imposed	Context informs connection
Social Cohesion	Strong & participatory	Weak & dispersed	Proximity leads to community
Legacy	Living experiment	Unrealized plan	Build for people, not projection
Governance & Participation	Shared-ownership	Top-down approach	Community leads to resilience

The Policy precedent reviews examine how key regional and municipal plans in Southern Nevada approach growth, sustainability, and livability within the desert context. By analyzing the City of Las Vegas 2050 Master Plan, Southern Nevada Strong 2050 Plan, and The Hundred Plan, this section evaluates how governance, land use, environmental management, mobility, equity, and implementation strategies shape growth in the Las Vegas Valley. Together, these policies reveal how planning efforts balance urban expansion with ecological limits.

Policy Precedents

City of Las Vegas

2050 Master Plan

Published: 2021

Scale: City

Governing Body: Municipal Government

Governance & Policy Framework

City comprehensive plan aligns with regional policy and promotes growth management, but lacks enforcement beyond city limits and has no formal urban growth boundary.

Equity & Economic Development

Uses zoning incentives and housing diversity goals to improve affordability, but market-driven pressures persist, highlighting tension in advancing equitable outcomes.

Land Use & Urban Form

Prioritizes infill, mixed-use corridors, and denser centers while still allowing planned peripheral growth, reflecting a gradual shift toward compact urban form.

Implementation & Public Engagement

Uses metrics and public engagement but remains mostly top-down, relying on institutional oversight with limited long-term community influence.

Environmental Stewardship

Integrates green infrastructure, water efficiency, and desert preservation, prioritizing environmental resilience and climate adaptation while taking a less aggressive stance on growth limits.

Transportation & Mobility

Advances multimodal transport and walkable districts, with incremental transit expansion reflecting a gradual, adaptive shift toward sustainable mobility.

“And we have to look at our infrastructure, as well, Transportation, education, health care, things of that nature. It’s not just a matter of us just building up houses, but it’s also about the infrastructure all the way around.”

- Maurice Page, “*Compact City: For Las Vegas to Grow Sanely and Sustainably...*”



Southern Nevada Strong

2050 Plan

Published: 2024
Scale: Regional
Governing Body: RTC (Regional Transportation Commission)



Governance & Policy Framework

Regional collaboration across jurisdictions creates a shared sustainability and mobility framework, but implementation depends on voluntary adoption by local governments.

Land Use & Urban Form

Promotes compact, transit-oriented growth and coordinated land use, balancing local autonomy with regional cohesion to support environmental and economic outcomes.

Environmental Stewardship

Prioritizes resource conservation and climate resilience, linking land use to air quality, heat mitigation, and long-term water protection through regionally integrated sustainability goals and planning.

Transportation & Mobility

Centers on a region-wide multimodal network, prioritizing transit-oriented development, reduced car dependency, and stronger regional connectivity.

Equity & Economic Development

Built on equity, it connects housing, transit, and job access for underserved communities, prioritizing inclusion and upward mobility through equitable planning.

Implementation & Public Engagement

Built on regional cooperation and data-driven policy, this model aligns jurisdictions while supporting accountability and long-term adaptability.

“The RTC and over 20 community partner organizations are coming together to create the all-new SNS 2050 Plan to help our region find different ways to solve our problems.”

- RTC, “*Introducing Southern Nevada Strong 2050*”

Historic Westside

HUNDRED Plan (Historic Urban Neighborhood Design Redevelopment)

Published: 2016

Scale: Neighborhood

Governing Body: Nevada Partners (nonprofit-led)



Governance & Policy Framework

A community-led planning model advancing restorative urbanism, centering residents as co-authors of equity-driven, place-based growth beyond traditional frameworks.

Land Use & Urban Form

Proposes mixed-use infill along Westside corridors, emphasizing adaptive reuse, small-parcel development, cultural public spaces, and reinvestment over outward expansion.

Environmental Stewardship

Frames stewardship as ecological and cultural repair, advancing urban greening, passive cooling, and resilient desert landscapes while aligning sustainability with community health and historic preservation.

Transportation & Mobility

Promotes pedestrian-first corridors, shaded streets, and transit hubs to reconnect the Westside with downtown, restoring mobility, safety, and community cohesion.

Equity & Economic Development

Centers cultural and economic restoration, supporting affordable infill, minority business growth, heritage preservation, and reinvestment in disinvested neighborhoods.

Implementation & Public Engagement

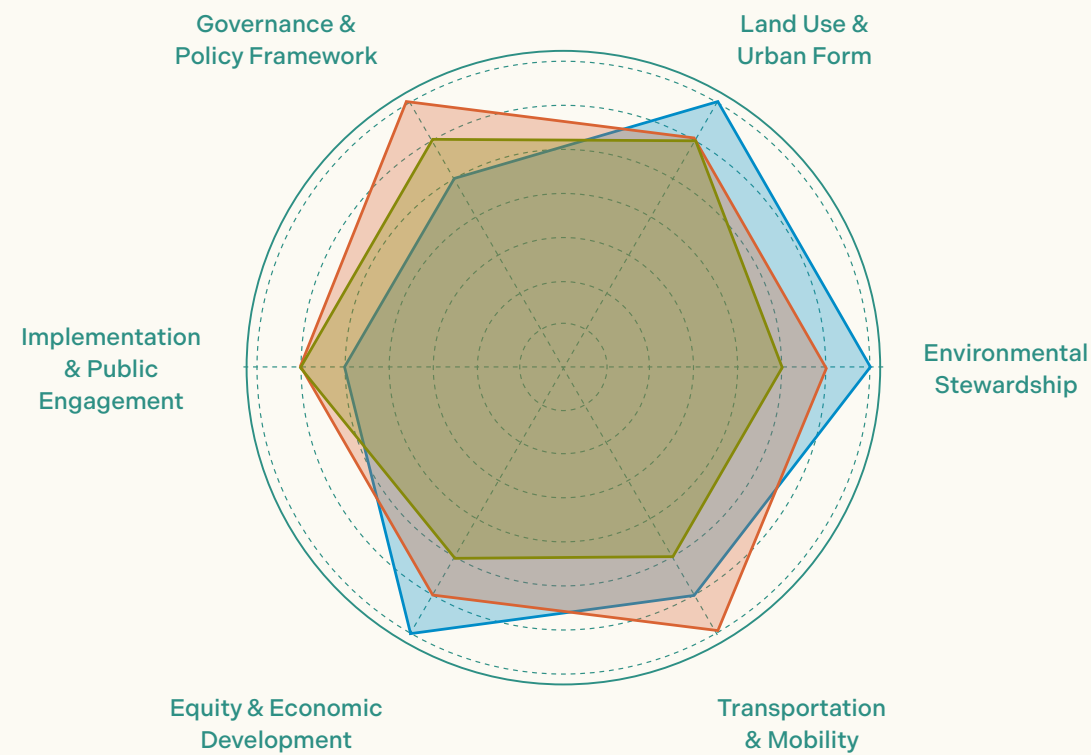
Driven by local advocacy, it uses partnerships, storytelling, and cultural tools to guide neighborhood change aligned with community priorities, not external agendas.

“Making sure we don’t displace the residents that are in this community. The goal is not to kick anybody out. The goal is to bring everyone along with us.”

- Cedric Crear, “*Las Vegas’ Historic Westside revitalization plans are gaining momentum*”

Policy

Side-by-Side Summary



	City of Las Vegas 2050 Master Plan	Southern Nevada Strong 2050 Plan	Historic Westside HUNDRED Plan
Governance & Policy Framework	Collective & ecological	Speculative & individual	Intent shapes community
Land Use & Urban Form	Shared courtyards, dense form	Isolated lots, empty grid	Form fosters interaction
Environmental Stewardship	Responsive & crafted	Detached & imposed	Context informs connection
Transportation & Mobility	Strong & participatory	Weak & dispersed	Proximity leads to community
Equity & Economic Development	Living experiment	Unrealized plan	Build for people, not projection
Implementation & Public Engagement	Shared-ownership	Top-down approach	Community leads to resilience



People

+ Dialogues

+ Peer Engagement



Seth T. Floyd

Executive Director of Community Development

City of Las Vegas, NV

Seth Floyd serves as Executive Director of Community Development for the City of Las Vegas, where he guides urban policy and redevelopment efforts with a focus on building sustainable, inclusive communities. With deep experience in municipal leadership, legal and planning frameworks, and public-private partnerships, he prioritizes strategic growth, equity, and quality of life. Seth is dedicated to aligning economic development with community values, creating vibrant neighborhoods and stronger civic infrastructure across Las Vegas.

Book Recommendation:
Happy City by Charles Montgomery

Q1: What are the main factors currently driving development patterns in the city and the surrounding valley?

A1: Development in the Las Vegas Valley has long favored single-family suburban expansion, supported by a strong pro-growth political climate. Future growth capacity varies across the region's four jurisdictions: Clark County and Henderson still have land to expand, while the City of Las Vegas is largely built out, limited by Red Rock, Paiute tribal lands, and county boundaries. Historically, low land costs, strong investor interest, car dependence, and market-driven homebuilding have reinforced outward expansion, shaping a persistent pattern of rapid sprawl that influenced the region's long-term growth trajectory. This is changing, however, because it has to.

Q2: What existing policies or tools, like zoning incentives, redevelopment plans, or density bonuses, support infill or higher-density development within the city?

A2: While zoning is often seen as the main driver of development, in Las Vegas it plays a smaller role than many assume. The city's long-standing pro-development culture and

strong developer influence tend to favor low- and mid-density projects over true high-rise construction. Although density bonuses exist to promote more compact growth, taller buildings remain prohibitively expensive, and the local market lacks enough high-income buyers to make them viable. The challenge lies less in zoning and more in broader issues of inequity and fragmentation. Still, progress is emerging through new mid-rise infill in the Medical District, Fremont East, and the Arts District.

Q3: How do you see the role of new city centers in shaping a more sustainable or contained growth pattern for the Las Vegas Valley?

A3: One of the most effective ways to drive redevelopment in underutilized areas is through direct investment in public infrastructure. When the city prioritizes roads, sidewalks, parks, and utilities, private development is more likely to follow, as seen at Symphony Park. Redevelopment agencies further support this with incentives and targeted public funding. Equitable investment remains critical on the east side and in the Historic Westside, where efforts like the HUNDRED Plan and the East Las Vegas

Plan show progress. Continued coordination with the RTC and prioritizing walkability and accessibility can strengthen reinvestment across the city.

Q4: How can community engagement or public perception shape the success or resistance of a policy like an urban growth boundary?

A4: For any controversial policy like an urban growth boundary, success depends on clear, early, and responsive community engagement. Planners must go beyond collecting feedback by listening, communicating transparently, and adapting to concerns, especially in outer areas facing growth pressure. With likely developer resistance, trust and clarity become critical. Lessons from Ring Around the Valley highlight the need to balance support for density with community concerns during a housing crisis.

“The 15-minute concept doesn't fit our current development patterns. People here are used to commuting. Walkability scores are low in many Las Vegas neighborhoods.”



Jeff Hosea

Urban Designer & Placemaker

RICK Engineering Company, Tucson, AZ

Jeff Hosea is an accomplished creative director in urban design and placemaking with over 27 years of experience transforming public spaces across the Western United States. His work emphasizes adaptability, local character, and inclusive design, delivering thoughtful, human-centered solutions for communities in Arizona, California, Colorado, Nevada, and Utah. Drawing on a background that spans tech and design, Jeff brings a unique blend of innovation and place-based thinking to help cities evolve in resilient and meaningful ways.

Book Recommendation:

(1) *The Creative Act: A Way of Being* by Rick Rubin

(2) *Humanise: A Maker's Guide to Building Our World* by Thomas Heatherwick

(3) *Thoreau in the Mountains* by Henry David Thoreau

Q1: From your perspective, what defines a successful city center in today's urban context? What would you define as a healthy size for a city center?

A1: A successful city center today is defined less by size and more by connectivity, accessibility, and community. Rather than relying on one core, thriving metro areas can support multiple 10–15 minute neighborhoods where daily needs are met by walking, biking, or transit. This people-centered model values social and economic ecosystems over car dominance, creating places where residents live, work, and connect. Over time, these networks of “third places” build neighborhood identity and communal pride.

Q2: What urban design principles are most effective in creating a strong sense of place in large, dispersed regions like the Las Vegas Valley?

A2: A strong sense of place in large, dispersed cities like Las Vegas comes from allowing culture and identity to evolve organically over time rather than being imposed through top-down design. Unlike master-planned subdivisions such as Summerlin, where everything is built at once and lacks

an established community, authentic places emerge gradually through everyday interactions, adaptation, and shared history. Over time, this growth allows character, diversity, and cultural expression to take root. While new urbanism offers valuable design principles, it often falls short by creating exclusive environments instead of inclusive, context-driven neighborhoods that reflect the people who inhabit them.

Q3: How do you see the role of new city centers in shaping a more sustainable or contained growth pattern for the Las Vegas Valley?

A3: New city centers have the potential to make the Las Vegas Valley more sustainable by concentrating activity and promoting livability without detracting from the Strip's vital cultural and economic role. As these emerging cores develop, they naturally bring greater prosperity and equity through a mix of housing types, market opportunities, and public amenities. While congestion may increase, so does accessibility and local prioritization, creating vibrant hubs that serve as the daily anchors of urban life and contribute to a more connected regional identity.

Q4: If you could recommend one key urban design or placemaking strategy for Las Vegas, what would it be?

A4: One key urban design strategy for Las Vegas would be to create shaded, walkable cooling corridors that respond directly to the harsh desert climate. By starting with the urban core and prioritizing comfortable, climate-adaptive streetscapes, the city can set the foundation for more sustainable, resilient, and connected growth. Focusing on pedestrian-friendly environments first allows everything else, housing, transit, and public life, to follow naturally, rather than continuing to expand outward along car-dominated routes like the beltway.

“Design with, not for. You have to design with the community, not for them. They will tell you what they need and how to make it authentic.”



Dr. Nicholas Irwin

Research Director

Lied Center for Real Estate UNLV, Las Vegas, Nevada

Dr. Nicholas Irwin is an economist whose work focuses on housing, urban development, and environmental policy. His research explores how homeowners respond to information, market shifts, and changes in public goods, offering insights into how real-estate markets adapt over time. His scholarship appears in leading journals and contributes to broader policy conversations on housing, land use, and environmental challenges across growing regions.

Book Recommendation:
On the Housing Crisis: Land, Development, Democracy by Jerusalem Demsas

Q1: From an economic perspective, what do you see as the potential benefits and downsides of implementing an urban growth boundary in a high-growth metropolitan area such as Las Vegas?

A1: From an economic standpoint, sprawl is often interpreted as a sign of rising incomes and a growing regional economy, which is seen as a positive outcome. The challenge, however, is uncoordinated sprawl, which can lead to inefficient land use patterns, fragmented development, and higher long-term public costs. Implementing a UGB would mirror Portland's experience, where land inside the boundary becomes more valuable and housing prices rise relative to areas outside it. At the same time, a boundary can deliver meaningful benefits by preserving green space, public parks, and the natural beauty that helps define the region's identity and quality of life. The tradeoff is clear: any growth limitation places upward pressure on prices, even as it protects environmental assets and encourages more thoughtful development.

Q2: How might restricted land supply affect housing affordability, development costs, and (most importantly) housing types over time?

A2: A growth boundary would raise land prices and, in turn, development costs, which can be especially challenging in a region with a large blue-collar workforce. While low-income housing would remain difficult without subsidies, market-rate projects would continue but trend toward denser, more vertical construction, especially as developers face mid-rise code requirements above four stories. Housing types inside the boundary would shift toward multifamily and mixed-use buildings, while areas outside it risk inefficient large-lot development if left unmanaged. Incentives could help maintain affordability, but they require public funding, which can limit resources for transportation and schools—though Las Vegas's gaming economy softens that impact somewhat.

Q3: Also in your interview with UNLV, you note that 86% of Clark County land is federally owned (Soria, 2025). How does this constraint shape real estate dynamics, and how might it complicate efforts to create dense, well-designed new urban centers?

A3: The fact that 86% of Clark County's land is federally owned creates a major constraint on where growth can occur, and it significantly shapes real estate dynamics. Because large

portions of BLM land are unavailable or difficult to release, developers often have to build around these parcels, which leads to fragmented, inefficient growth rather than the cohesive, polycentric pattern the region aspires to. This fragmentation also complicates long-term planning: it typically takes five years from identifying a parcel to delivering a home, and when developable land is scattered, it becomes much harder to create transit-ready, well-designed urban centers. Leap-frogging development becomes more common, transit becomes less viable, and isolated BLM parcels end up gaining value simply because growth surrounds them over time. Overall, the federal land constraint makes coordinated, dense, and well-connected urban centers more difficult to achieve.

“Economists see sprawl differently than most; to them, it signals rising incomes and economic growth. The real concern isn't sprawl itself, but uncoordinated sprawl.”



Steffen Lehmann

Researcher, Professor, & Author

si_architecture + urban design, Dubai,
United Arab Emirates

Steffen Lehmann is an internationally recognized architect, urban designer, and scholar whose work spans sustainable architecture, urban systems, and resilient city-building. With a foundation in both practice and academic research, he leads interdisciplinary efforts to rethink how cities can adapt to environmental, social, and economic challenges. Currently working across U.S. and U.K. contexts, he brings a global perspective and systems-based mindset to guiding city frameworks that foster sustainable, inclusive, and visionary urban futures.

Book Recommendation:
Growing Compact: Urban Form, Density and Sustainability by Joo Hwa P. Bay & Steffen Lehmann

Q1: To start, could you share what initially motivated your perspective on the need for an urban growth boundary in Las Vegas?

A1: My perspective on the need for an urban growth boundary in Las Vegas comes from seeing how commuting distances and car dependence continue to rise. Like Los Angeles, increasing vehicle miles traveled point to an unsustainable growth pattern. A defined UGB could curb sprawl, direct development inward, and help protect natural areas like Red Rock and Sloan Canyon while supporting infill, water conservation, and habitat protection. More compact, shaded neighborhoods would also reduce heat, infrastructure costs, and traffic, while improving health, air quality, and affordability.

This shift toward smarter, denser growth would help Las Vegas thrive within its ecological limits.

Q2: Are there specific environmental indicators or thresholds that you think should guide future decisions about where development stops?

A2: Yes, future development in the Las Vegas Valley should be guided by clear, science-based environmental indicators

that establish firm thresholds for growth.

These metrics should act as non-negotiable red lines, grounded in data from federal and state resource limits, ecological carrying capacity studies, climate models, and regional planning projections. Indicators such as water availability, urban heat island intensity, and air quality can help determine when the landscape has reached its sustainable limits. From a planning perspective, achieving a minimum density of around 80 dwellings per hectare is also essential to ensure efficient land use and reduce the pressure to expand further into the Mojave Desert.

Q3: How do you envision the identity of Las Vegas changing if it begins to grow inward rather than outward?

A3: If Las Vegas begins to grow inward rather than outward, its identity would transform into that of a compact, resilient desert metropolis. By 2030, imagine an urban growth boundary made law, BLM land sales frozen, and sprawl halted at the 1998 disposal line. The city would re-compact, channeling all new housing, jobs, and cultural spaces within its defined boundary, similar to London's Green Belt model. Architecturally, it could adopt a "Desert Courtyard Mid-Rise"

character, marked by white stucco, deep setbacks, shaded walkways, and rooftop oasis that reflect both climate and culture. A defining feature might be *The Loop*, a 22-mile shaded trail encircling the valley, connecting micro-neighborhoods and fostering a more cohesive urban fabric. In this vision, Las Vegas is no longer a city in the desert, but a city with the desert, thriving in balance with its environment, prioritizing, creating vibrant, self-sustaining hubs that serve as the daily anchors of urban life and contribute to a more connected regional identity.

“The footprint of greater metropolitan Las Vegas needs to be curbed from ever-increasing. We already commute over 20 miles from East to West, and over 30 miles from North Las Vegas to Henderson. Do we want Las Vegas’ footprint to be as large as Phoenix or Los Angeles? When is enough?”



Arthur C. Nelson

Urban Planner, Researcher, & Professor

University of Arizona, Tucson, Arizona

Arthur C. Nelson is a distinguished urban planner and real-estate development scholar whose work focuses on growth management, metropolitan development, public-facility finance, and sustainable urban form. He has authored an extensive body of influential research and helped shape national conversations on smart growth, urban containment, and long-term regional planning. As Professor Emeritus of Urban Planning and Real Estate Development at the University of Arizona, he continues to guide cities and practitioners with evidence-based insights on resilient, equitable, and forward-looking development strategies.

Book Recommendation:
Missing Middle Housing by Daniel Parolek
& Arthur C. Nelson

Q1: When identifying underutilized parcels, how might you recommend prioritizing redevelopment, through metrics like land value ratios, proximity to transit, or policy readiness?

A1: The process starts by filtering for privately owned, nonresidential parcels, then identifying sites that are either vacant or where land value exceeds improvement value. Remaining parcels would be limited to low-rise buildings under three stories to focus the redevelopment scope. Land values would be projected to 2050 using a conservative 2% annual growth rate, while improvements would depreciate over 50 years based on effective build year, stopping at zero value. **Parcels where future land value exceeds improvement value would be flagged as potential redevelopment opportunities, with total acreage calculated and spatial clusters mapped for analysis. This workflow requires Clark County Assessor parcel data with geocodes for full evaluation.**

Q2: How do you typically balance the technical rationale for redevelopment timing with the political or community resistance that often arises when intensifying established commercial areas?

A2: This strategy targets only nonresidential parcels, focusing redevelopment along commercial corridors to absorb market demand while protecting neighborhoods. Most projects would be residential-led mixed use, easing housing pressure, with an approximate 75/25 residential to nonresidential mix depending on site. Success relies on strong urban design and community partnership to guide growth and prevent neighborhood spillover. A next step could be a small pilot charrette to test increased density, such as rising from 0.20 to 1.00 FAR, with residents and corridor stakeholders.

Q4: Consider potential tensions between implementing an urban growth boundary and advancing housing affordability or equity goals: do you see these objectives as compatible, and how might one mitigate those conflicts?

A4: Urban containment strategies are compatible with equity, though the term urban growth boundary can carry unnecessary political baggage, making urban service limits a more pragmatic alternative. Urban service limits also offer a strong fiscal argument by reducing costly suburban sprawl, while infill and corridor redevelopment generate long-

term economic and equity benefits, similar to Complete Streets models that could work well across the Valley. The real key to affordability is sensible density: low density drives up housing and infrastructure costs, and high-rise construction becomes expensive past five stories, whereas middle-housing density provides the greatest affordability with the lowest public cost. While not suited for every household, middle housing represents a major unmet demand and the most cost-effective way to expand housing choice without adding fiscal strain.

“Bottom line, the Valley can accommodate all future growth maybe to the end of the century on (1) existing parking lots, (2) redevelopment of low FAR (floor area ratio) properties, and (3) strategic compact development in targeted areas such as the envisioned new airport.”



Erin Reome

Planner & Urban Designer

North Clackamas Parks and Recreation District, Portland, Oregon

Erin Reome is an urban designer and planning strategist based in Portland, focused on building resilient, equitable, and sustainable communities. She brings expertise in urban design, project leadership, sustainable design coordination, and cross-sector collaboration, working with cities to strengthen long-term adaptability. Her work supports community recovery and resilience, with an emphasis on inclusive planning, small city revitalization, and equitable design solutions.

Book Recommendation:
Life Between Buildings by Jan Gehl

Q1: From a planning and political standpoint, what would be the greatest challenges to implementing an urban growth boundary in the Las Vegas Valley?

A1: Implementing an urban growth boundary would likely face strong opposition from developers and landowners, as it can reduce property values outside the boundary while raising values within it. The policy would require substantial political will, long-term commitment, and sustained regional coordination, challenging long-standing growth patterns and entrenched support for car-oriented development norms. While tools like density bonuses and reduced parking requirements can encourage infill and expand housing options, they often face push back from stakeholders concerned about density, infrastructure capacity, increased traffic impacts, and shifting neighborhood character. Overcoming these challenges would require transparent communication, cross-jurisdictional collaboration, and intentional trust-building with affected communities, advocacy groups, and industry stakeholders.

Q2: How could a boundary impact housing affordability, especially given Las Vegas' current market pressures?

A2: The housing crisis is a nationwide issue, and while some critics point to Portland's urban growth boundary as limiting housing supply, the challenge is more complex. Factors like land costs, construction expenses, and financing play major roles beyond available land. When paired with strong affordable housing incentives, a growth boundary can support infill development, reduce sprawl costs, and align growth management with housing equity.

Q3: What is one key lesson that the metro area of Portland has learned from its urban growth boundary?

A3: One key lesson is the importance of patience and long-term commitment. The impacts of such a policy often take decades, sometimes 20 to 30 years, to fully materialize, which can make it difficult to gain and sustain public and political support. A growth boundary requires steady adherence to a shared vision, even as leadership, priorities, and political climates shift over time. Portland's experience shows that managed growth succeeds not through short-term wins, but through consistency, public trust, and sustained political resolve. Ultimately, long-term policies like this demand persistence

beyond individual administrations in order to deliver lasting benefits across generations.

Q4: If you could recommend one key policy change or pilot project to better manage growth, what would it be?

A4: A valuable policy experiment for the Las Vegas Valley could pilot density bonuses in the urban core, paired with reduced parking minimums and streetscape redesigns to test compact, mixed-use development within an urban growth boundary. Portland offers a useful example: post-pandemic office vacancies revealed the need for more flexible downtowns. By expanding ground-floor requirements from retail to broader "active uses" like gyms and community spaces, Portland demonstrates how adaptable zoning can strengthen long-term urban vitality and resilience.

“The key is grounding the conversation in shared human values. The policy may become political, but the goals should always feel human.”

Peer Engagement: Pin Maps

Exercise Goal

To gather perspectives on where key elements and anchors exist, or *should* exist, throughout the Las Vegas Valley.

Materials

- + Map Pins: 30 each in Red, Green, Blue, Yellow, Pink, and Orange
- + Yarn Strands (60" each): Red, Green, Blue, Yellow, Pink, Orange, White, and Black
- + Las Vegas Valley base map mounted on 12" x 18" white foam core
- + 14" x 11.5" trace overlay sheet



Exercise Steps

1. Map Familiarization
 - a. Note the boundaries of: federal lands, City of Las Vegas, City of Henderson, North Las Vegas, Boulder City, and the land disposal area (SNPLMA).
 - b. Identify major highways and roads as reference points.
2. (Perhaps) Decide Your Area of Focus
 - a. Use your local knowledge to your advantage: you may map the entire valley or focus only on areas you know well.
3. Pin Placement Exercise
 - a. Place as many or as few pins as you feel are meaningful. You should have 30 pins of each color, but let me know if you need more!
4. Corridors & Connections Exercise
 - a. Sketch major axes or desired connections. This can include:
 - i. New transit corridors, green corridors or ecological links, major pedestrian spines, reimagined highway edges, cross-valley connections between city centers.
 - b. Emphasize movement, access, or relationships between your mapped pins.
 - c. Feel free to do this step with any material: marker, pen... Color coded yarn is included in your provided materials just in case - also let me know if you need more of this!
5. Leave notes/annotation/comments.
6. Thank you!

Pin Color	Representation
Red	Hot Spots & Major Activity Centers
Green	Parks, Open Space, & Ecological Assets
Blue	Mobility Hubs & Transit Corridors
Yellow	Neighborhood Centers
Pink	Social, Cultural, & Community Anchors
Orange	Free Color

Pin Map Submissions

Pin Map Background
Outlining existing jurisdictions and boundaries



Participant A
Participant Zip Code: 89011



Participant Notes:
+ Orange pins = Locations where notable events took place throughout the Valley

Pin Map Submissions

Participant B
Participant Zip Code: 89081



Participant Notes:
+ Orange pins = Existing industrial zones throughout the Valley

Participant C
Participant Zip Code: 89104



Participant Notes:

- + Initial mapping: personal familiarity; key soccer sites (KZ Park, Betty Wilson, Heritage, stadiums)
- + Insight: limited amenities in the southwest portion of the city
- + District hubs identified: Water Street, Broadacres, Arts District, Downtown Summerlin, and Lone Mountain
- + Additional layer: Strip mapped for ideal transit hubs (strong N/S and E/W access)
- + Boundary outcome: smaller than current, supporting higher density
- + Orange pins = Citywide decompression points (Lake Mead, Red Rock, Mount Charleston)

Pin Map Submissions

Participant D

Participant Zip Code: 89110



Participant Notes:

- + The East side should have a “ladder” for transit
- + A large park to the East
- + Connection to UNLV for higher education
- + Do infill in the East side that can help small businesses
- + Connection to Sunrise Mt. to Mt. Charleston

115

Participant E

Participant Zip Code: 89110



Participant Notes:

- + Desired outcome: direct connection to Henderson/Lake Las Vegas/215
- + White yarn = proposed link
- + Hollywood Blvd ends at Cheyenne (North) and Desert Inn (south)
- + Current condition: 15-minute detour to U.S. 95 for regional access

116

Pin Map Submissions

Participant F
Participant Zip Code: 89119



Participant Notes:

- + I tried to combine Las Vegas' existing condition with the way I wish it could be
- + More green spaces near to neighborhood centers

Participant G
Participant Zip Code: 89123



Participant Notes:

- + Highlights the Arts District, Downtown Summerlin, Town Square, Common Wealth, Red Rock, 215, Boulder Highway, and the Strip

Pin Map Submissions

Participant H
Participant Zip Code: 89129



Participant Notes:
+ Orange pins = Places I have lived throughout the Valley

Participant I
Participant Zip Code: 89178



Participant Notes:
+ Approximately equal distances between major nodes
+ All amenities to be included with reference (and reverence?) to surrounding context
+ Many of these already exist but could be amplified architecturally (or economically, environmentally, socially?)
+ Driven by concepts of Jane Jacobs' Diversity & Complexity of Cities, and by Frank Lloyd Wright's Broadacre City emphasizing decentralization



Site Analysis

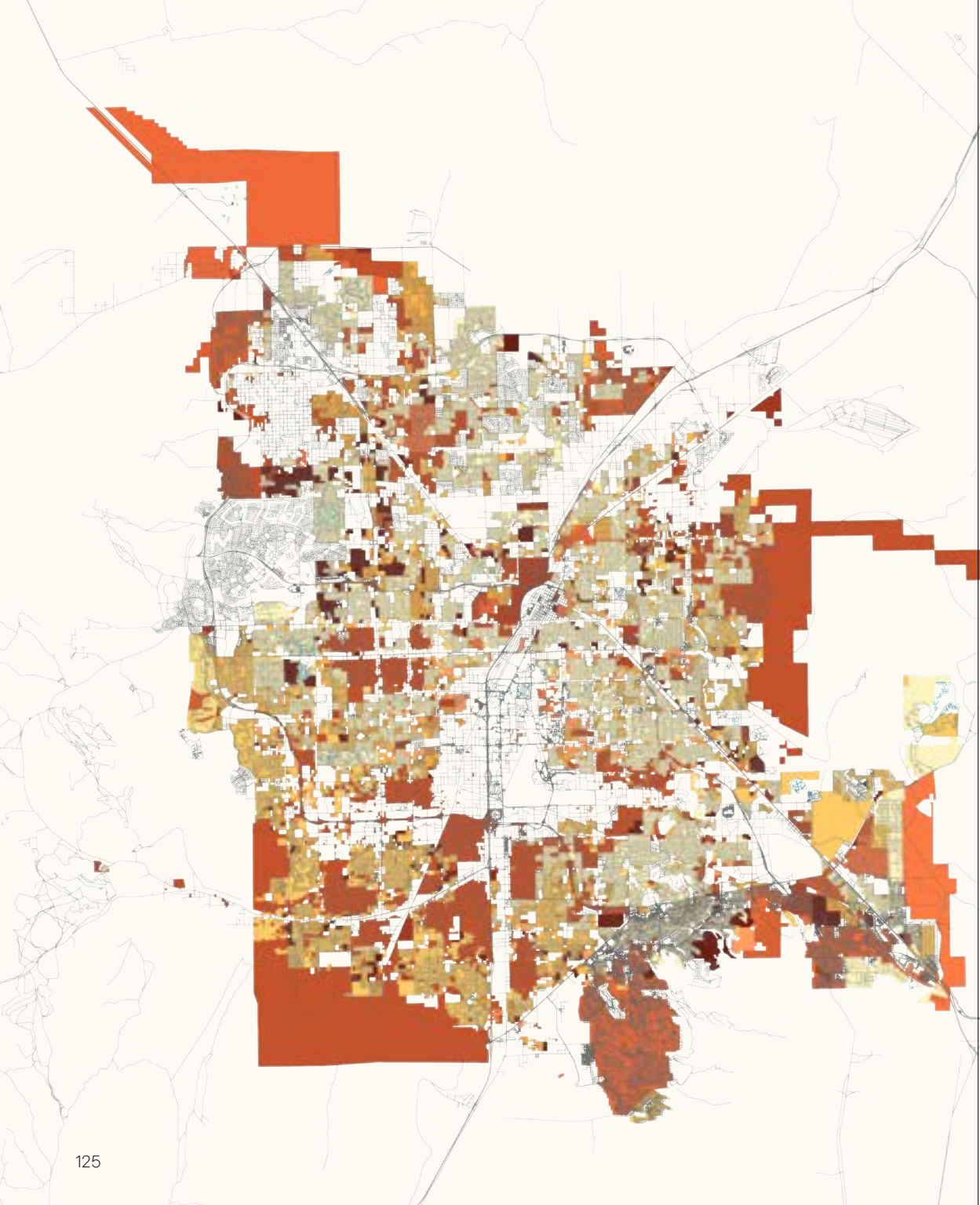
- + Planning Maps
- + Social Maps
- + Environmental Maps

Mapping: Planning, Social, & Environment

The Las Vegas Valley is not a blank slate, but a landscape shaped by policy, environment, and social patterns over time. This chapter examines existing conditions through mapping, framing the valley as an interconnected system of land use, people, and ecological forces.

Organized into planning, social, and environmental lenses, the maps reveal how zoning structures development, how demographic patterns reflect equity and investment, and how environmental factors—such as heat and access to green space—vary across the valley.

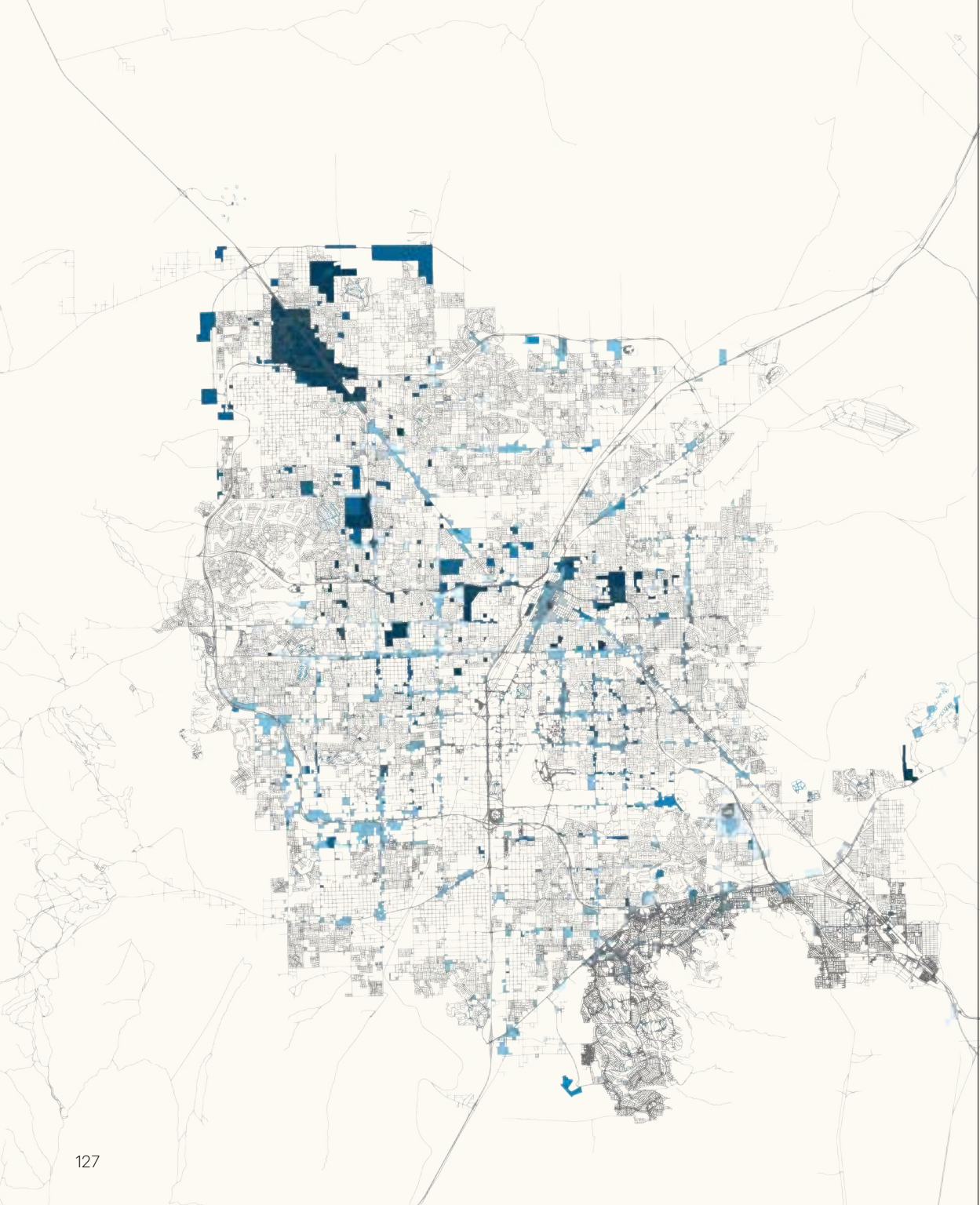
Together, these mappings highlight key constraints and opportunities, establishing a foundation for more intentional, equitable, and environmentally responsive design decisions moving forward.



Planning: Residential Zoning

Color	Zoning District
	R-1
	R-1A
	R-2
	R-3
	R-4
	R-5
	R-A
	R-D
	R-E
	R-T
	R-U
	R-V-P
	RUD

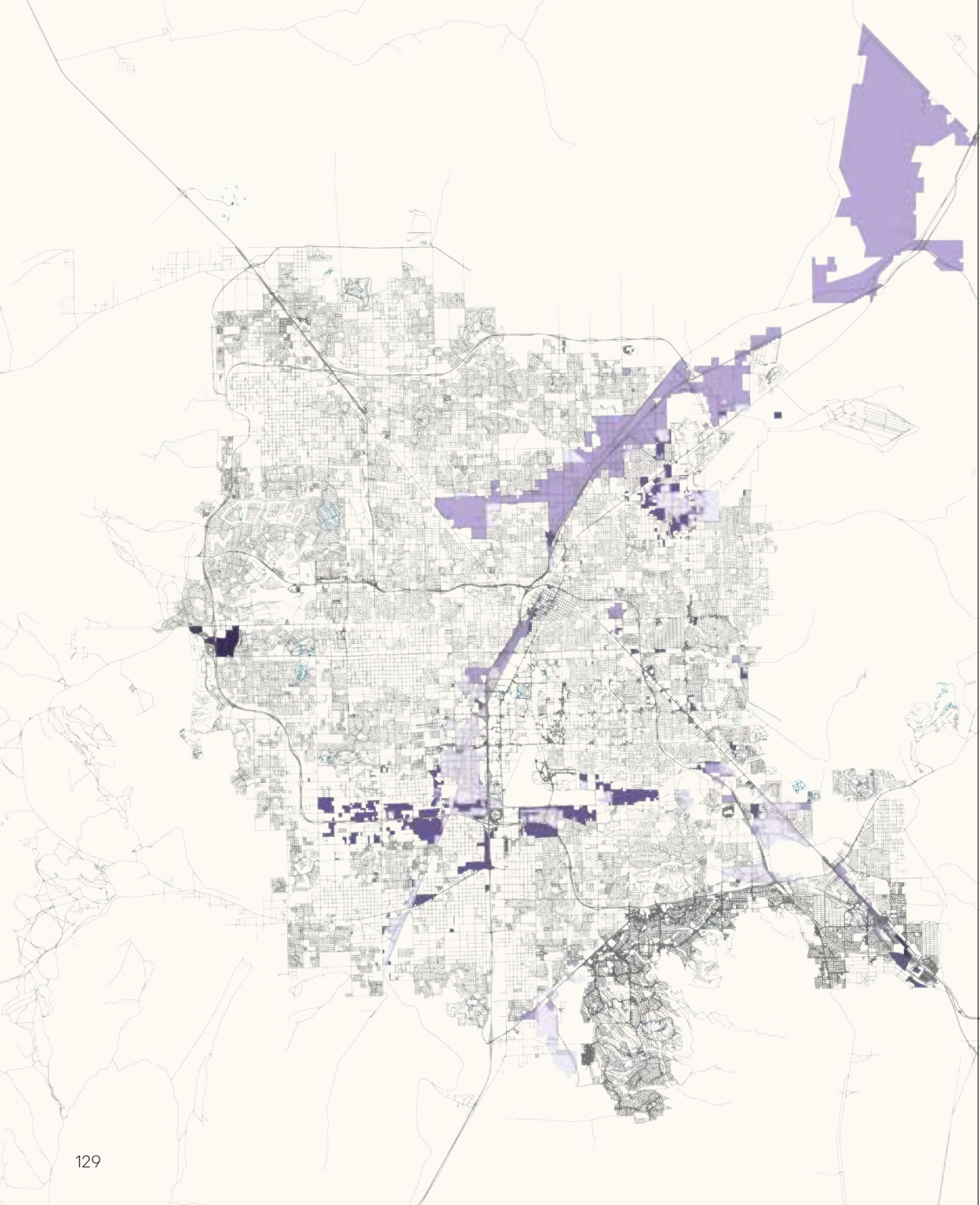
Zoning district classifications vary across municipalities; for clarity and consistency, they have been standardized to align with the City of Las Vegas zoning designations.



Planning: Commercial Zoning

Color	Zoning District
	C-1
	C-2
	C-3
	C-P
	CRT

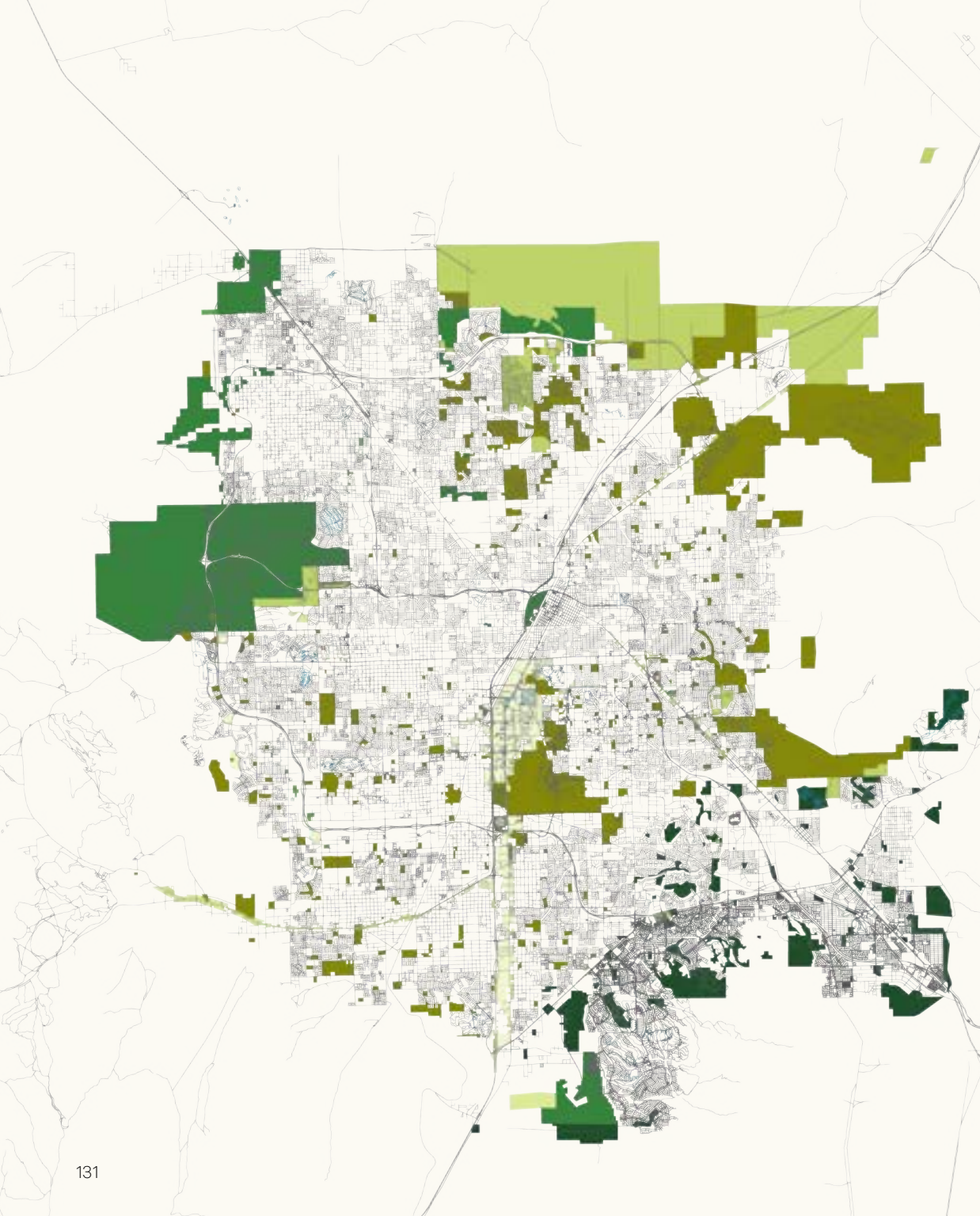
Zoning district classifications vary across municipalities; for clarity and consistency, they have been standardized to align with the City of Las Vegas zoning designations.



Planning: Industrial Zoning

Color	Zoning District
	M-1
	M-2
	M-D
	MLZ

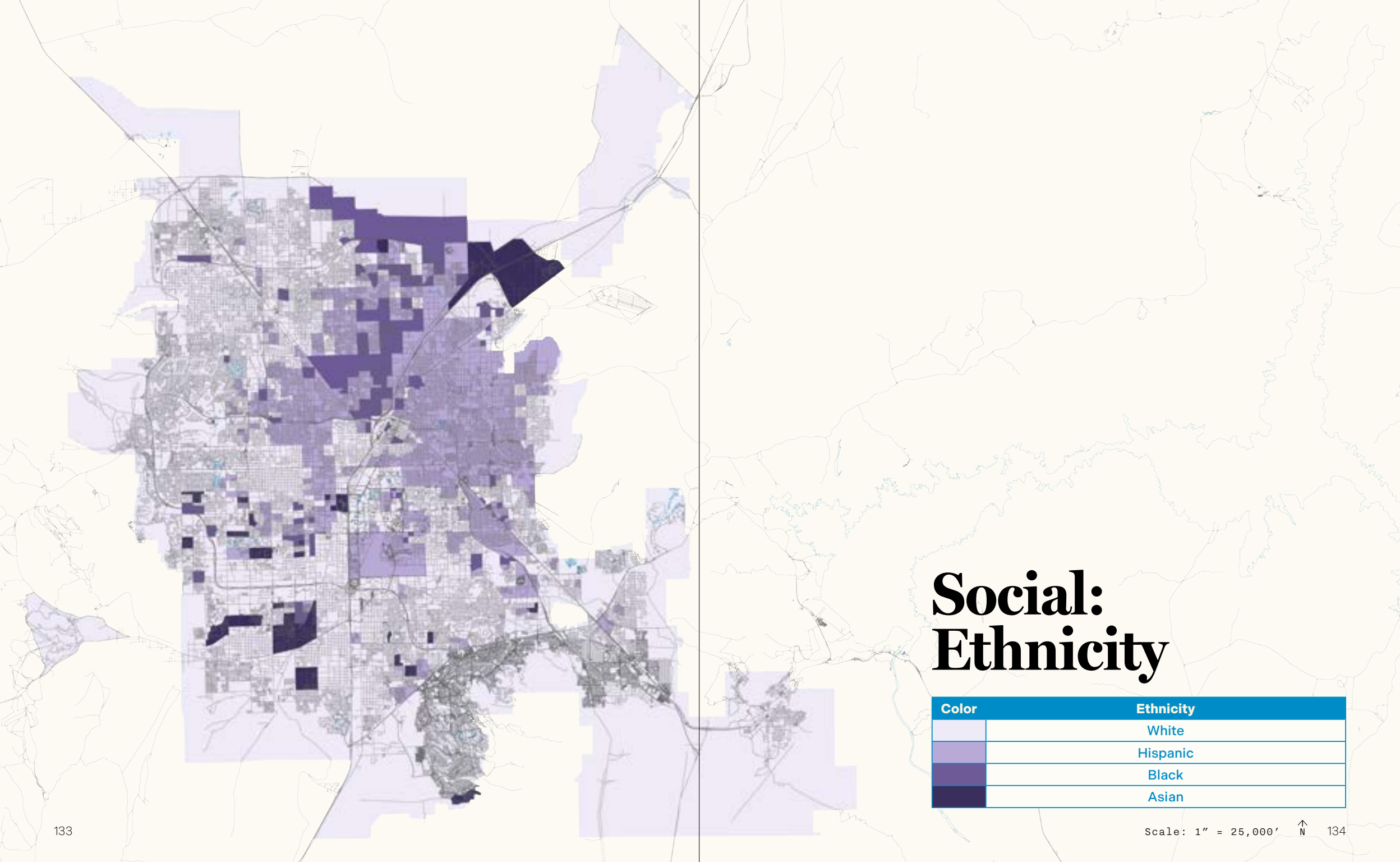
Zoning district classifications vary across municipalities; for clarity and consistency, they have been standardized to align with the City of Las Vegas zoning designations.



Planning: Miscellaneous Zoning

Color	Zoning District
	H-1
	H-2
	O-S
	P-F
	U-V
	P-C
	P-S

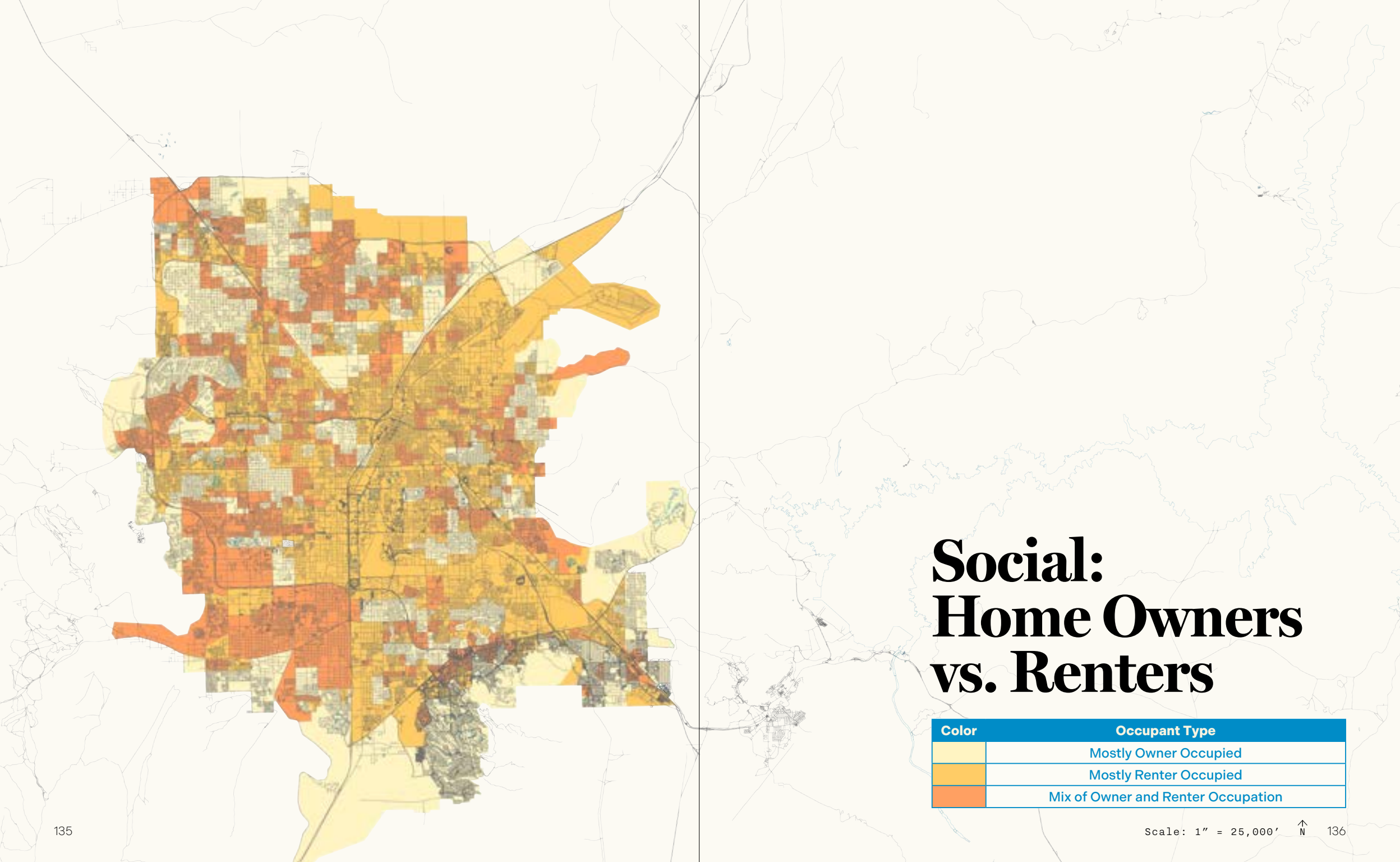
Zoning district classifications vary across municipalities; for clarity and consistency, they have been standardized to align with the City of Las Vegas zoning designations.



Social: Ethnicity

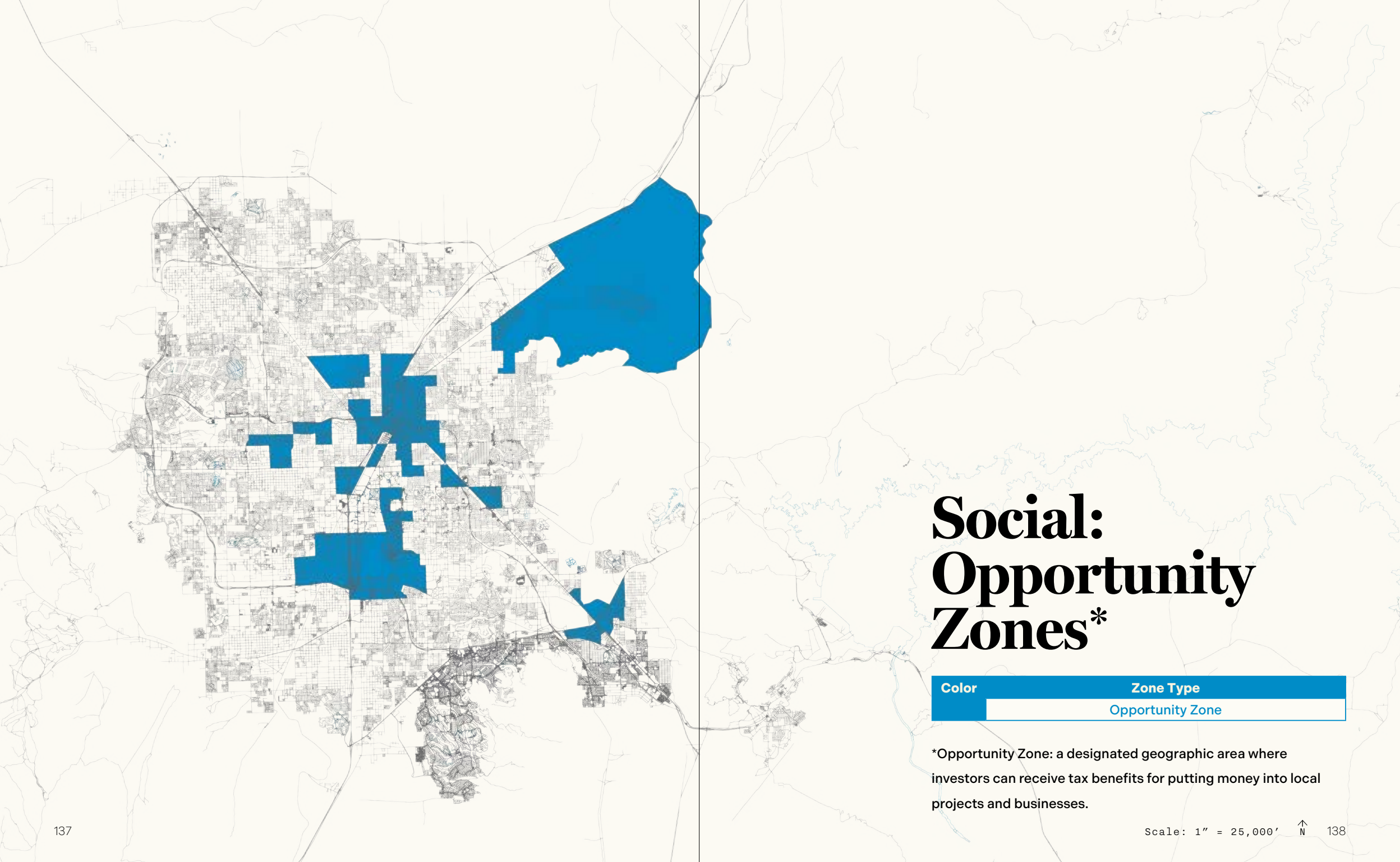
Color	Ethnicity
	White
	Hispanic
	Black
	Asian

Scale: 1" = 25,000'  134



Social: Home Owners vs. Renters

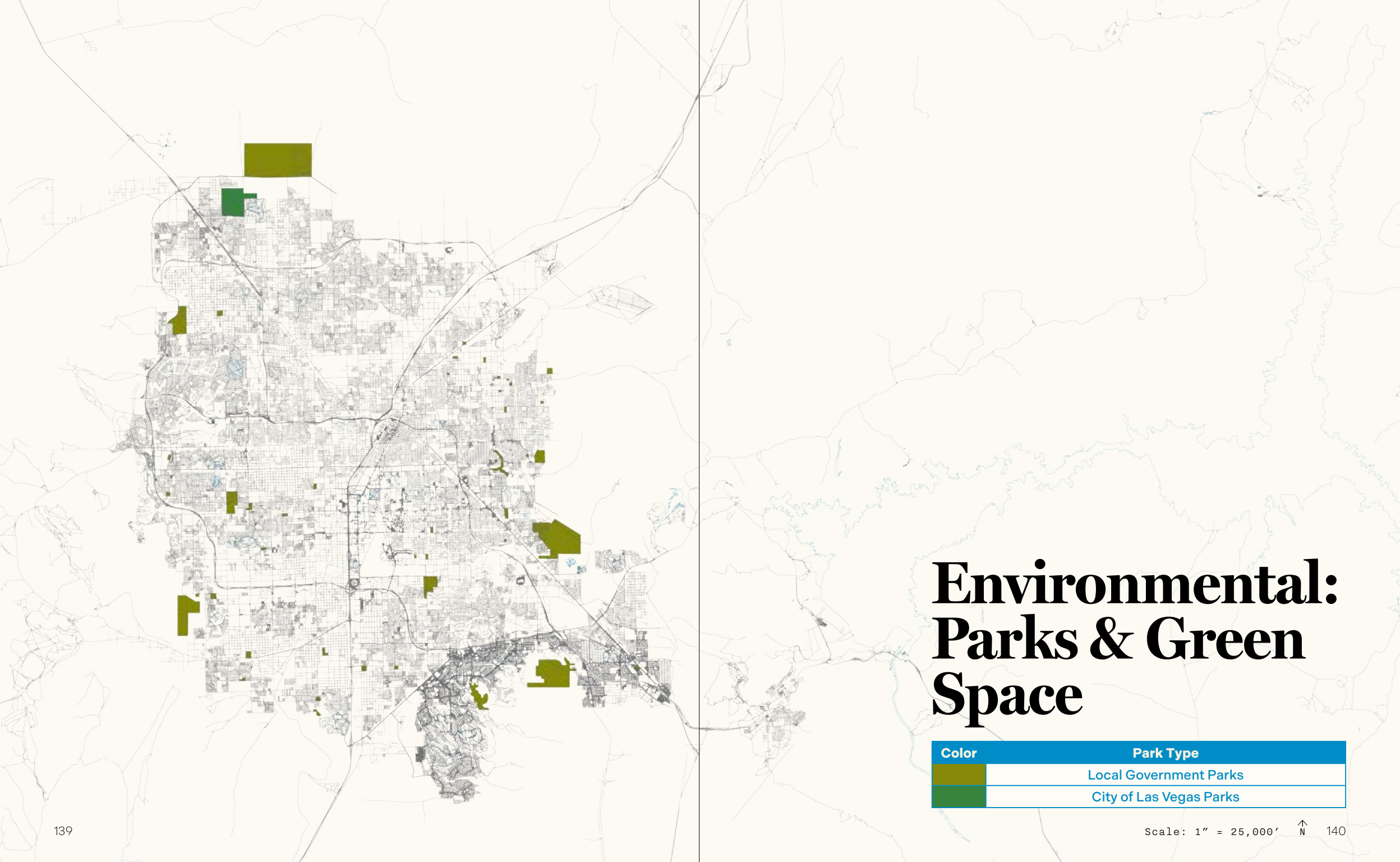
Color	Occupant Type
Light Yellow	Mostly Owner Occupied
Orange	Mostly Renter Occupied
Dark Orange	Mix of Owner and Renter Occupation



Social: Opportunity Zones*

Color	Zone Type
	Opportunity Zone

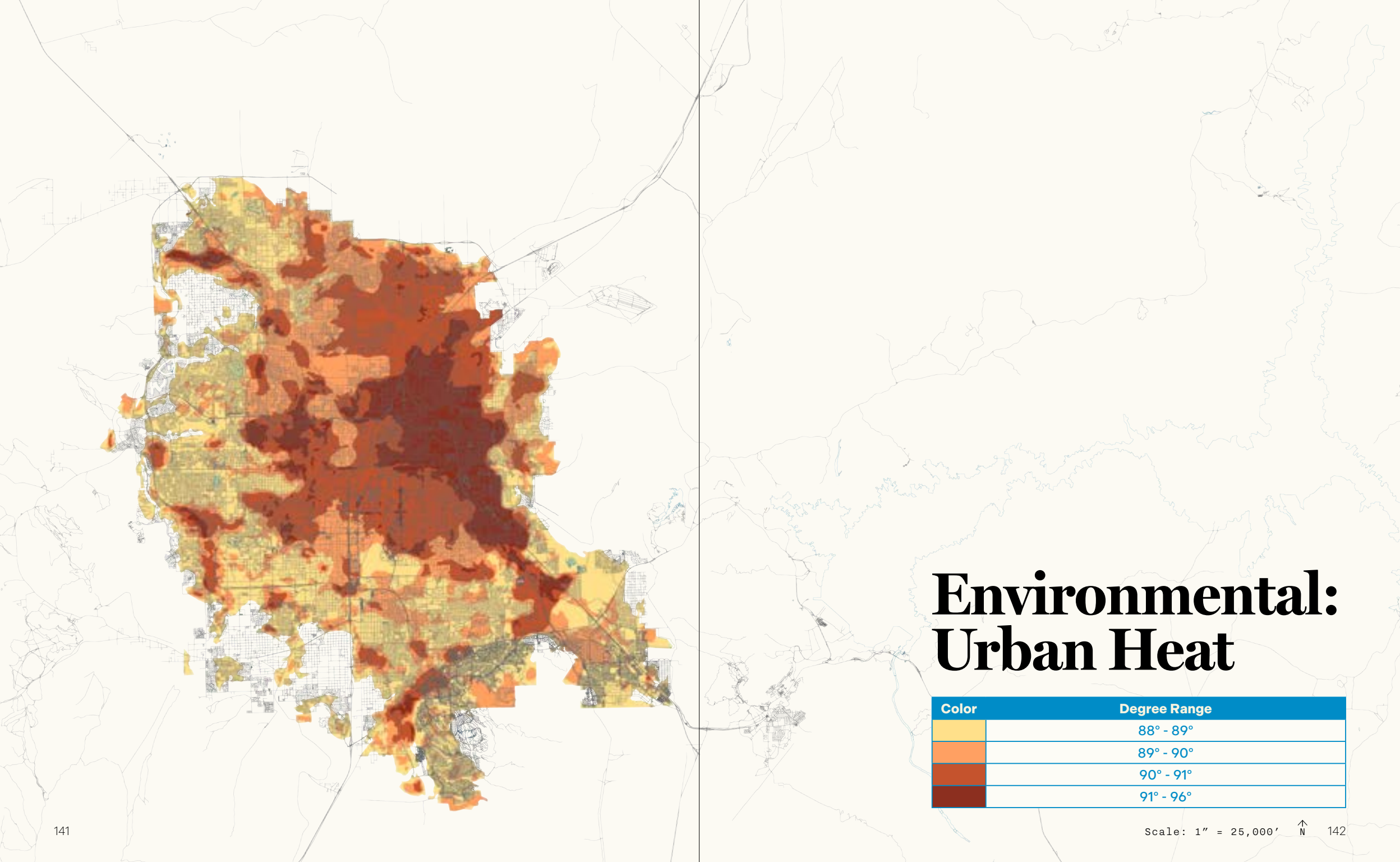
*Opportunity Zone: a designated geographic area where investors can receive tax benefits for putting money into local projects and businesses.



Environmental: Parks & Green Space

Color	Park Type
	Local Government Parks
	City of Las Vegas Parks

Scale: 1" = 25,000'  140



Environmental: Urban Heat

Color	Degree Range
	88° - 89°
	89° - 90°
	90° - 91°
	91° - 96°

Scale: 1" = 25,000'  142



Limits of the Landscape

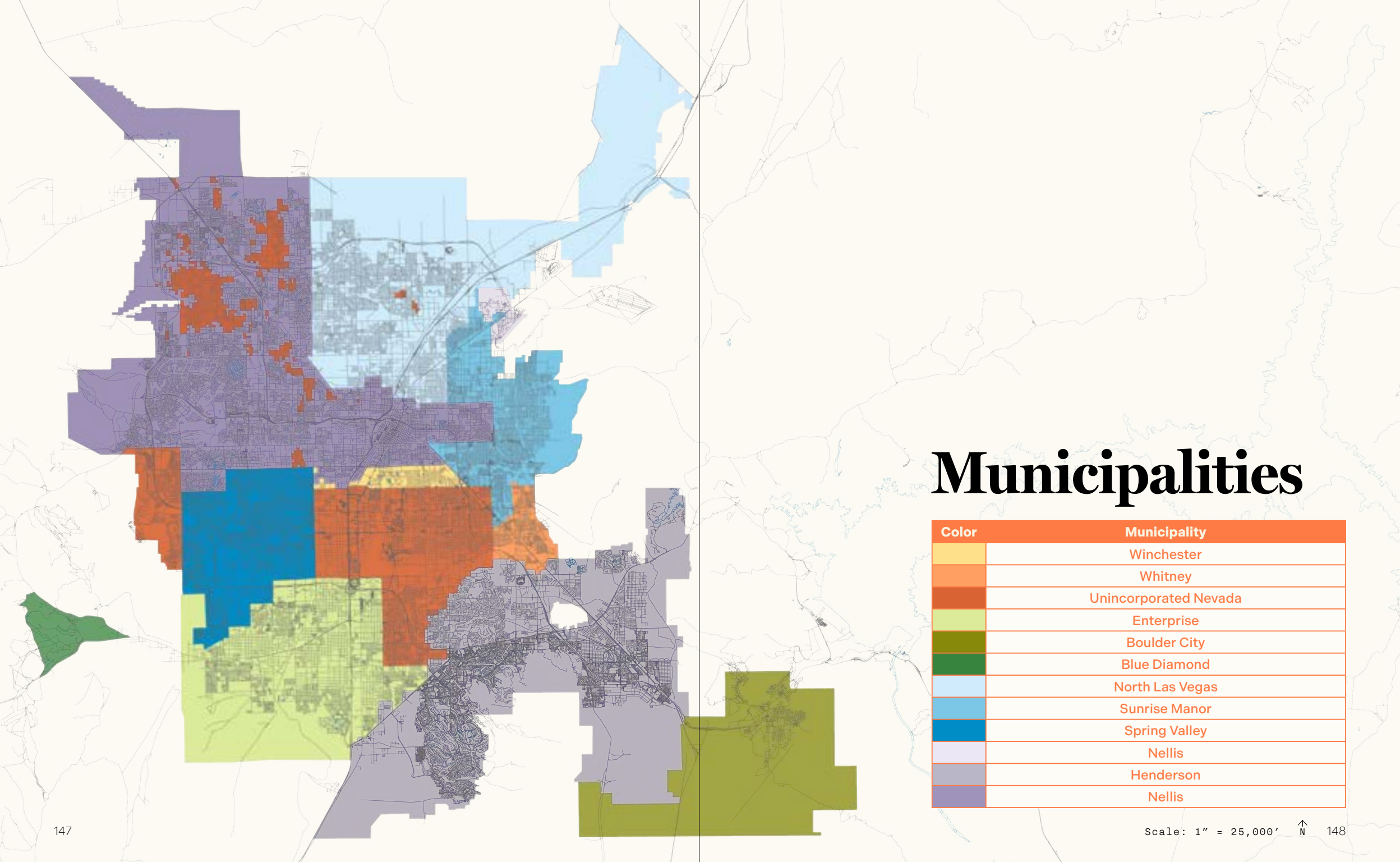
- + Municipalities Mapping
- + Challenges
- + Limits of the Landscape Mapping
- + Opposition

Mapping: Limits of the Landscape

Growth in the Las Vegas Valley is shaped by both physical and political limits. This chapter maps those constraints, framing the valley as a landscape defined by restriction as much as opportunity.

Through physical and political lenses, the maps show how federal lands managed by the Bureau of Land Management, topography, water infrastructure, jurisdictional boundaries, and political opposition all influence where development is possible, restricted, or contested.

Together, these constraints establish a clear framework for understanding the limits that will shape future growth.



Municipalities

Color	Municipality
	Winchester
	Whitney
	Unincorporated Nevada
	Enterprise
	Boulder City
	Blue Diamond
	North Las Vegas
	Sunrise Manor
	Spring Valley
	Nellis
	Henderson
	Nellis



Challenges

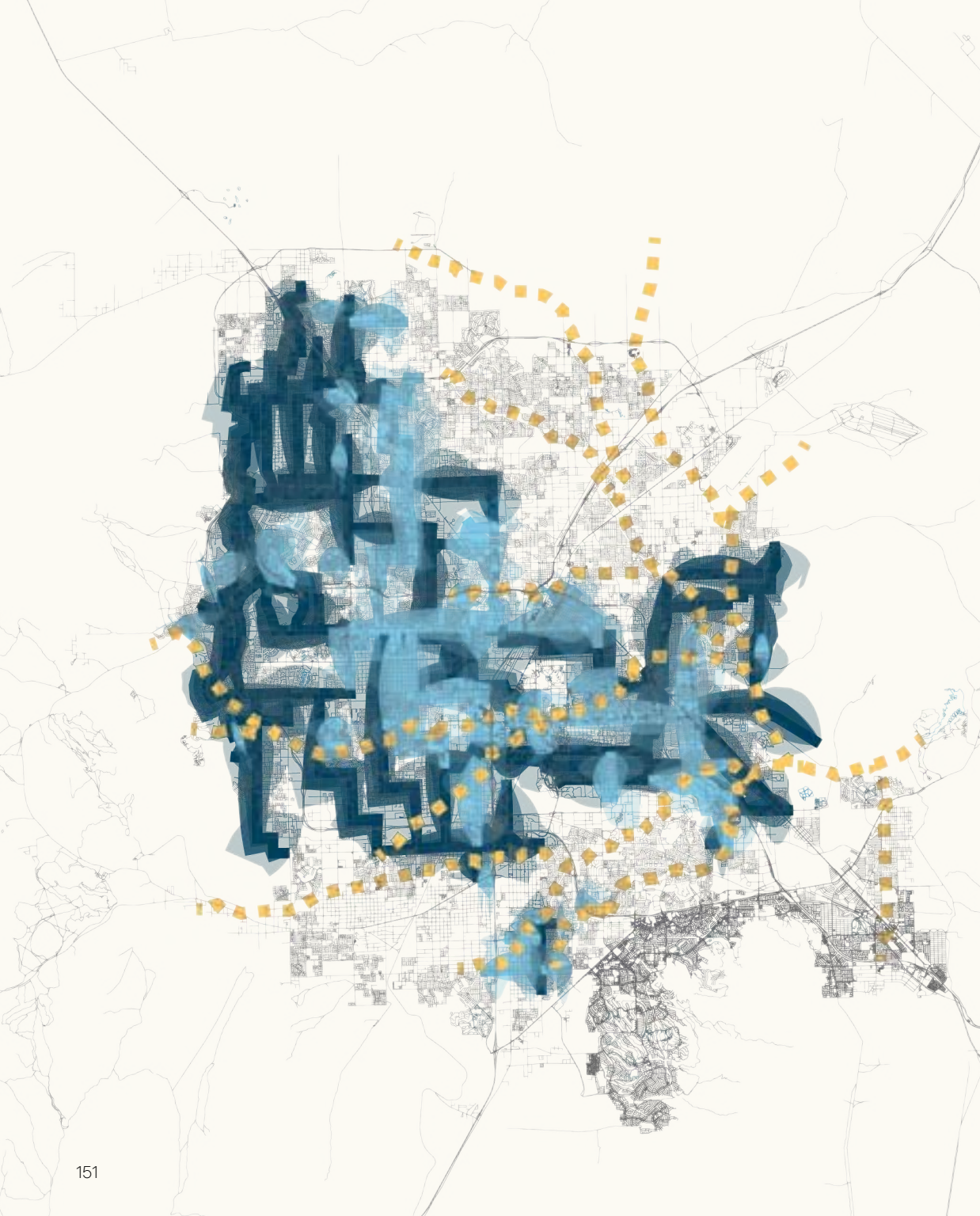
Establishing an urban growth boundary in the Las Vegas Valley is complicated by the region's fragmented governance structure. The valley is divided among multiple municipalities and unincorporated areas, each with its own priorities, regulations, and economic incentives. Implementing a unified boundary would require coordination across all jurisdictions, making alignment both politically and logistically challenging.

Local governments often rely on continued development for tax revenue and economic growth, creating resistance to policies that may limit expansion. Without a coordinated approach, restrictions in one jurisdiction could simply redirect development pressure to another, undermining the effectiveness of a boundary at the regional scale.

Infrastructure systems further intensify this challenge. Water, transportation, and utilities operate across jurisdictional lines, yet planning decisions are often made independently. Aligning these systems with a growth boundary would require shared strategies and consistent policy enforcement.

These conditions underscore the need for a Regional Governance Framework that can align incentives, coordinate decision-making, and manage growth at the scale of the entire valley. Without such a framework, implementing an urban growth boundary risks inconsistency, inefficiency, and limited long-term impact. Ultimately, the success of any growth boundary will depend not only on where it is drawn, but on how effectively it is governed.

Equally important is the question of authority and accountability within such a framework. A regional entity would need not only the capacity to coordinate, but the legitimacy to enforce decisions across jurisdictions that may be reluctant to relinquish control. Establishing clear mechanisms for decision-making and long-term monitoring would be essential to ensure that the boundary remains adaptive yet consistent over time. Governance becomes less about a fixed structure and more about a balanced regional vision with local realities while maintaining a shared commitment to managing growth within environmental limits.

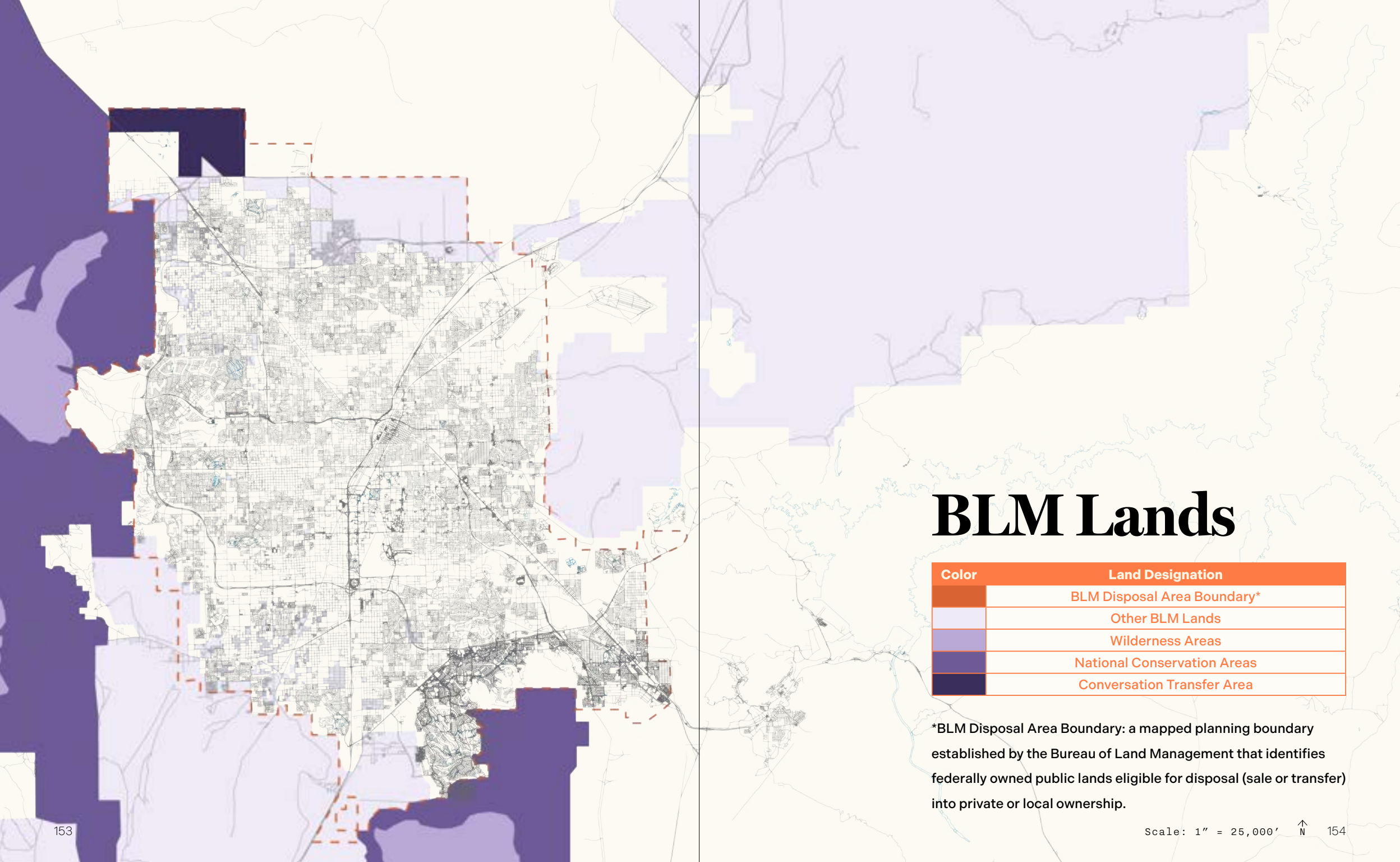


Water Lines

Color	Line Type
Orange	USGS Washes
Light Blue	24" Lines
Dark Blue	36" Lines

*This map illustrates the water distribution lines within the Las Vegas Valley Water District boundary. Water infrastructure for the municipalities of North Las Vegas, Henderson, and Boulder City is managed independently, and corresponding data was not publicly available for inclusion.

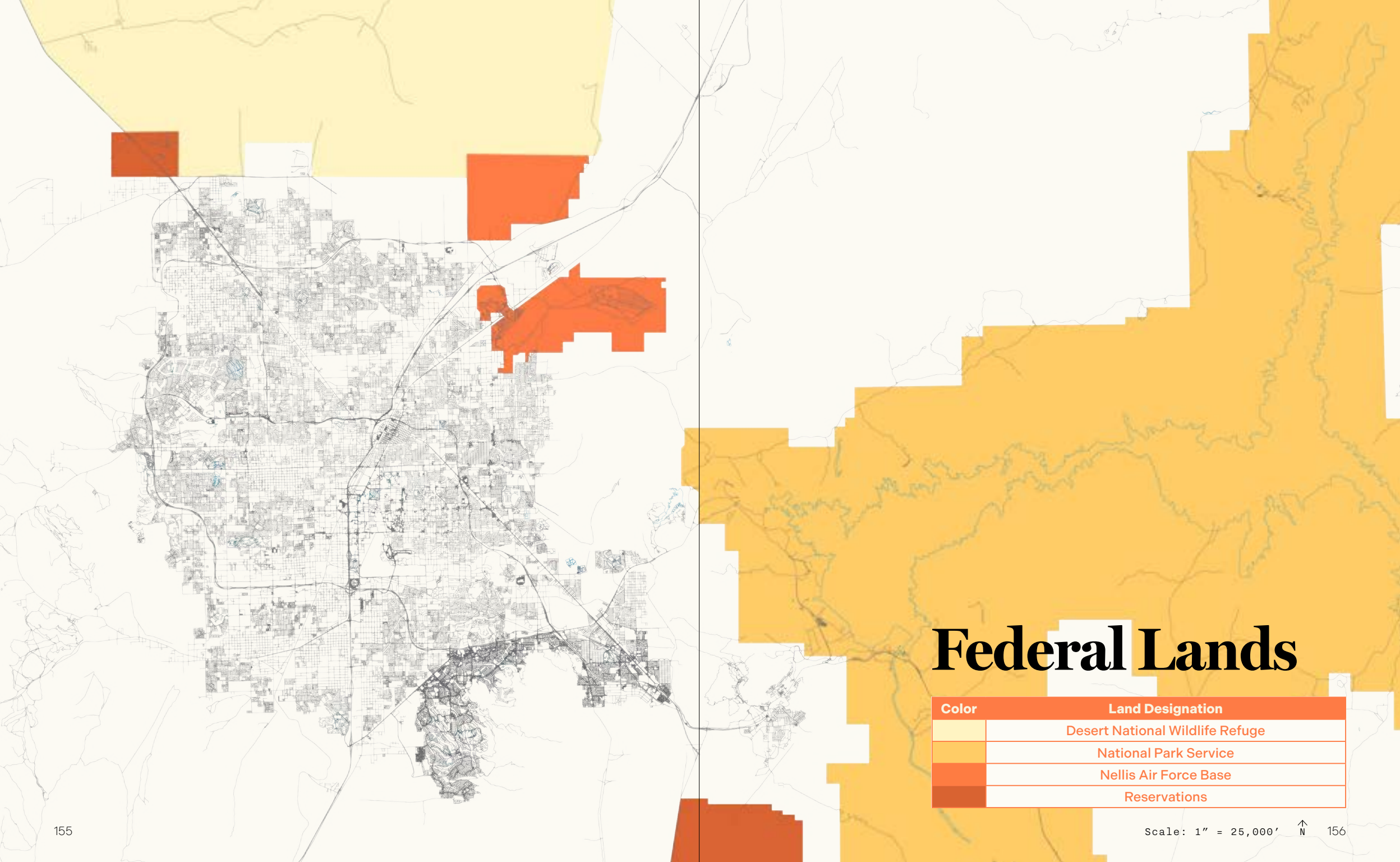
Scale: 1" = 25,000'  152



BLM Lands

Color	Land Designation
	BLM Disposal Area Boundary*
	Other BLM Lands
	Wilderness Areas
	National Conservation Areas
	Conversation Transfer Area

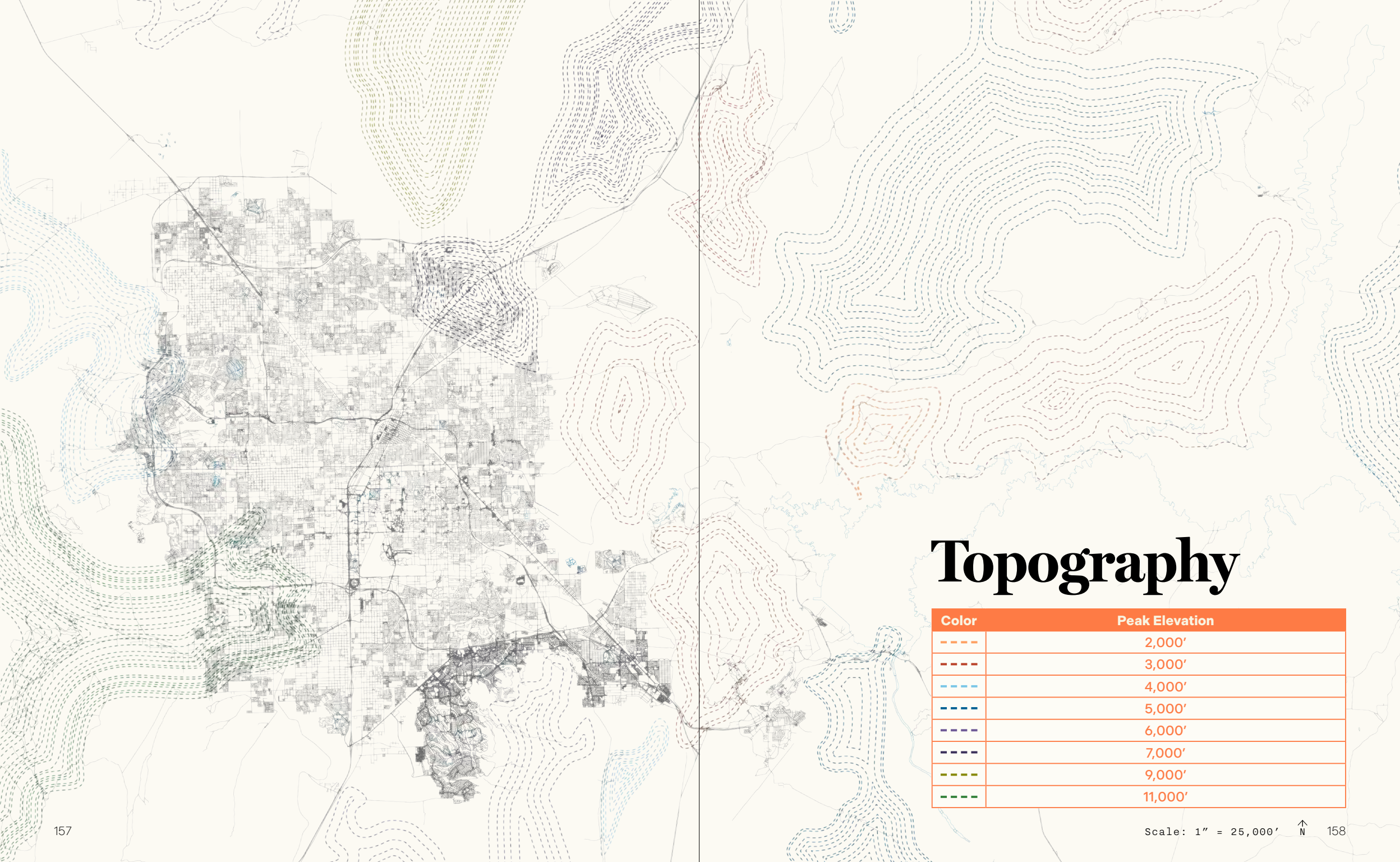
*BLM Disposal Area Boundary: a mapped planning boundary established by the Bureau of Land Management that identifies federally owned public lands eligible for disposal (sale or transfer) into private or local ownership.



Federal Lands

Color	Land Designation
Yellow	Desert National Wildlife Refuge
Orange	National Park Service
Red	Nellis Air Force Base
Dark Red	Reservations

Scale: 1" = 25,000'  156



Topography

Color	Peak Elevation
-----	2,000'
-----	3,000'
-----	4,000'
-----	5,000'
-----	6,000'
-----	7,000'
-----	9,000'
-----	11,000'



Opposition

Efforts to establish urban growth boundaries in the Las Vegas Valley have consistently faced strong opposition, highlighting a tension between resource management and the region's expansion-driven identity. The proposed "ring around the valley" aimed to limit outward growth in order to conserve land and water resources while encouraging more efficient, compact development. However, the idea was met with significant backlash from developers, policymakers, and other stakeholders who viewed it as a restriction on economic growth and regional flexibility.

Much of this resistance stems from concerns that growth boundaries would constrain land supply, drive up housing costs, and limit development opportunities. In a city historically defined by outward expansion and abundant land, imposing limits challenges both market expectations and deeply rooted development patterns.

Opposition is also reinforced by governance complexity. The Las Vegas Valley is divided among multiple jurisdictions, each with its own priorities and incentives, making

coordinated implementation difficult. As a result, urban growth boundaries remain a politically sensitive and contested strategy and the Valley finds itself caught between the need to manage finite resources and the desire to sustain continued growth.

There is also a cultural dimension to this resistance. Growth in Las Vegas has long been associated with opportunity, affordability, and individual mobility; all of which area values tied to the availability of land and the ability to expand outward, shaping public perception and resistance to imposed limits.

"They very much opposed it in the legislature because they thought it would cut off development. I kept saying no. We're not going to stop development. We're just going to do it smart."

- Dina Titus, "Ring around the valley idea would have created growth boundaries to conserve water"



Boundary Iterations

- + Urban Growth Boundary Determinant Overlays
- + Urban Growth Boundary Iterations

Urban Growth Boundary Iterations

This chapter examines the Las Vegas Valley through three frameworks that define its limits: ecological systems, infrastructure capacity, and governance structure. Together, these layers reveal where growth is constrained, where it is supported, and where it becomes inefficient or difficult to manage.

From this foundation, a series of urban growth boundary iterations are developed, each aligned with one of these logics. The environmental boundary follows topography and protected lands, the infrastructure boundary traces existing service capacity, and the governance boundary reflects jurisdictional control and policy alignment.

As these boundaries are overlaid and tested, the focus shifts to their combined effects. Areas of overlap begin to suggest a more precise and resilient limit to growth, while their misalignments reveal tensions between natural systems, urban systems, and institutional control.

Boundary A: Environmental & Ecological Determinants

The environmental and ecological boundary is shaped by the systems that constrain the Las Vegas Valley. By overlaying federal and BLM lands with topography, water infrastructure, parks and green space, and urban heat patterns, it identifies areas where development would disrupt fragile desert conditions or exceed natural limits. Miscellaneous zoning highlights zones under pressure for expansion, revealing a boundary that emerges from the region's ecological logic and defines where growth should be limited.

Color	Determinant
	Misc. Zoning
	Parks & Green Spaces
	Urban Heat
	Municipalities
	Water Lines
	BLM Lands
	Federal Lands
	Topography

Boundary A: Limits in Time

This map explores a phased iteration of the environmental and ecological “Boundary A,” beginning with its initial implementation in 2030 and extending through a series of updates and expansions to 2090.

Grounded in the ecological logic outlined on the previous page, the boundary responds to layered constraints across the Las Vegas Valley. It evolves over time, reinforcing natural limits while adapting to growth pressures.

The following spread visualizes this evolution, tracing how growth is accommodated within these limits. A series of axonometric diagrams illustrate the valley’s development over time, revealing how the boundary shapes patterns of density, expansion, and spatial organization as it evolves.

Color	Year
	2030
	2050
	2070
	2090

Boundary B: Infrastructure & Efficiency Determinants

The infrastructure capacity and efficiency boundary is defined by the relationship between existing service networks and development patterns across the Las Vegas Valley. By overlaying water lines with zoning and opportunity zones, it identifies where infrastructure can support additional growth without major expansion. Jurisdictional boundaries, topography, and parks further reveal where service becomes fragmented or underutilized, highlighting areas best suited for efficient infill and coordinated investment.

Color	Determinant
	Residential Zoning
	Commercial Zoning
	Industrial Zoning
	Misc. Zoning
	Opportunity Zones
	Parks & Green Space
	Municipalities
	Water Lines
	Topography

Boundary B: Limits in Time

This map explores a phased iteration of the infrastructure & efficiency “Boundary B,” beginning with its initial implementation in 2030 and extending through a series of updates and expansions to 2090.

Grounded in the infrastructure framework outlined on the previous page, the boundary responds to existing service networks and development patterns across the Las Vegas Valley. It evolves over time, directing growth toward areas with existing capacity while adapting to shifting demands and opportunities for efficient infill.

The following spread visualizes this evolution, tracing how growth is accommodated within these limits. A series of axonometric diagrams illustrate the valley’s development over time, revealing how the boundary shapes patterns of density, expansion, and spatial organization as it evolves.

Color	Year
	2030
	2050
	2070
	2090

Boundary C: Governance & Jurisdictional Determinants

The governance and jurisdictional boundary is shaped by the distribution of authority and land control across the Las Vegas Valley. By overlaying municipal jurisdictions with federal and BLM lands, it reveals where decision-making is unified and where it is fragmented. Opportunity zones and zoning show how policy directs growth, while water lines and parks reflect how resources are distributed. Together, these layers identify where coordinated planning is feasible and where governance complexity may limit implementation.

Color	Determinant
	Residential Zoning
	Commercial Zoning
	Industrial Zoning
	Misc. Zoning
	Opportunity Zones
	Parks & Green Space
	Municipalities
	Water Lines
	BLM Lands
	Federal Lands

Boundary C: Limits in Time

This map explores a phased iteration of the government & jurisdictional “Boundary C,” beginning with its initial implementation in 2030 and extending through a series of updates and expansions to 2090.

Grounded in the governance framework outlined on the previous page, the boundary responds to the distribution of authority and land control across the Las Vegas Valley. It evolves over time, aligning growth with areas of coordinated decision-making while adapting to the complexities of fragmented jurisdictions and resource distribution.

The following spread visualizes this evolution, tracing how growth is accommodated within these limits. A series of axonometric diagrams illustrate the valley’s development over time, revealing how the boundary shapes patterns of density, expansion, and spatial organization as it evolves.

Color	Year
	2030
	2050
	2070
	2090



Regional Unity

+ Governance Framework

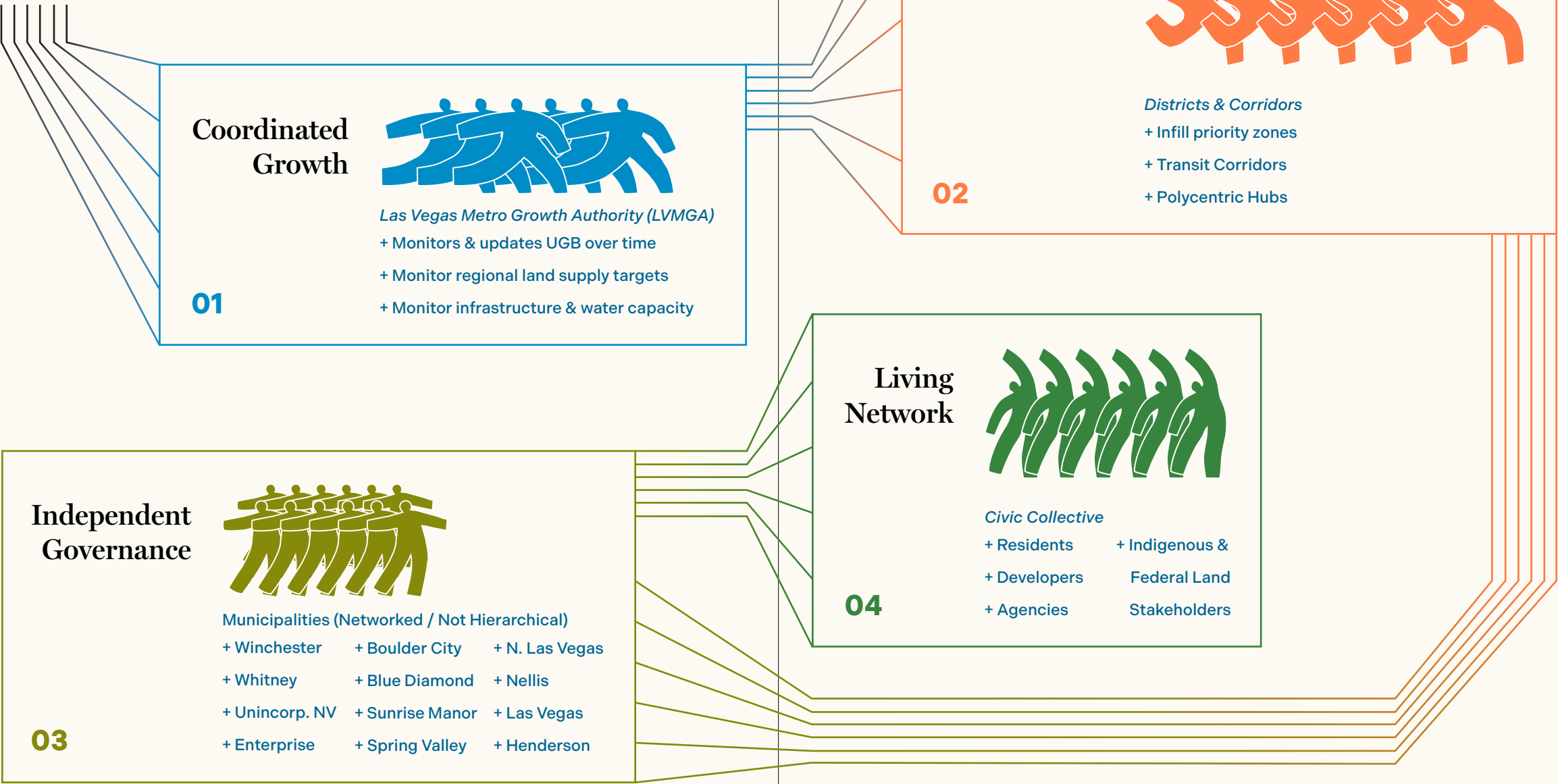
+ Regulatory Policy

Regional Governance

Cities are not experienced through jurisdictional lines, yet they are governed by them. In the Las Vegas Valley, this disconnect has allowed growth to extend outward without a shared structure to guide it.

This chapter explores an alternative: a governance framework that operates at the scale the city is actually experienced. It introduces a regional system that defines limits while enabling coordination, supported by policies that redistribute growth inward and across multiple centers. Here, boundaries are not imposed as restrictions, but used as a means to organize responsibility, transforming growth from an individual pursuit into a collective act.

Regional Governance Framework



Coordinated Growth

Las Vegas Metro Growth Authority (LVMGA)

Coordinated growth is established through a regional authority that operates as the steward of the urban growth boundary. The LVMGA does not replace local governance, but provides a shared structure through which growth is monitored, evaluated, and adjusted over time. It tracks regional land supply, aligns development capacity with infrastructure and water availability, and ensures that expansion remains within environmental limits.

In addition to oversight, the authority sets regional targets and establishes a framework for how growth is distributed across the valley. By coordinating data, policy, and long-term planning, it creates consistency between jurisdictions while allowing for flexibility at the local level. Through ongoing monitoring and periodic recalibration, the boundary becomes a dynamic tool rather than a fixed line, responding to changing conditions while maintaining a clear regional vision. In this way, growth is not left to accumulate unpredictably, but is continuously guided through collective oversight and shared responsibility.

Shared Responsibility

Districts & Corridors

Shared responsibility is realized spatially through districts and corridors that concentrate and redistribute growth across the valley. Infill priority zones, transit corridors, and polycentric hubs become the primary sites for development, shifting the focus from outward expansion to inward intensification. These areas are not owned by a single jurisdiction, but supported collectively, requiring coordination in planning, investment, and implementation.

Rather than dispersing growth evenly, the framework directs it toward locations with the capacity to support it, strengthening connections between housing, mobility, and infrastructure. Transit corridors link these districts, reinforcing accessibility while reducing dependence on outward expansion. By aligning density with transit and infrastructure, the framework ensures that development is both efficient and accessible. Responsibility is no longer isolated within individual municipalities, but shared across a network that operate as a cohesive system.

Independent Governance

Municipalities (Networked / Not Hierarchical)

Independent governance preserves the autonomy of each municipality while repositioning it within a larger system of coordination. Cities retain control over zoning, approvals, and local priorities, but operate within a shared regional framework that guides how and where growth occurs. This balance allows jurisdictions to respond to local needs while remaining aligned with broader regional objectives.

Rather than functioning as isolated entities, municipalities are connected through agreements, aligned policies, and coordinated infrastructure planning. This includes shared commitments to land use strategies, transit investments, and resource management that extend beyond jurisdictional boundaries. The networked structure allows each jurisdiction to maintain its identity while contributing to a collective urban strategy. Growth is no longer competitive, but negotiated, shaped through collaboration rather than fragmentation, and supported by a system that values coordination without sacrificing local control.

Living Network

Civic Collective

The living network recognizes that governance extends beyond institutions to include the people, relationships, and systems that actively shape the city. Residents, developers, agencies, and Indigenous and federal land stakeholders form a dynamic layer of participation that informs how the framework evolves over time. Rather than existing at the edge of decision-making, this collective is embedded within it, contributing local knowledge and lived experience that cannot be captured through policy alone.

Through continuous engagement, feedback, and adaptation, the network creates an ongoing dialogue between communities and governing bodies, allowing strategies to be tested and refined as conditions change. The network is not static; it responds to social, environmental, and economic pressures, ensuring that the framework remains relevant over time. In this model, the city is not simply managed from above, but co-produced through an exchange between governance structures and the communities they serve.

Regulatory Policy

*A boundary defines where growth stops.
Policy defines how it continues.*

Establishing a regional governance framework requires more than structure; it requires a set of policies that guide how growth is managed over time. This section outlines the regulatory mechanisms that support the urban growth boundary, ensuring that it functions not as a static line, but as an adaptable system. Managed by the Las Vegas Metro Growth Authority, these policies coordinate land use, infrastructure, and environmental capacity, translating regional intent into measurable action.

UGB Regulatory Policy

Managed by the Las Vegas Metro Growth
Authority

Urban Growth Boundary Designation & Review

- + Establishes a fixed regional boundary that separates urban development from protected land.
- + Reviewed on a set cycle, every 6 years, based on population growth, land supply, and environmental capacity.

Regional Land Supply Targets

- + Maintains a 20-year land supply for housing and employment within the boundary.
- + Allocates growth capacity across municipalities based on infrastructure readiness and available land.

Growth Allocation Framework

- + Distributes projected growth across designated districts, corridors, and hubs.
- + Sets minimum density targets for key areas to ensure efficient land use.

Infill & Redevelopment Priority Policy

- + Prioritizes development within existing urbanized areas before allowing expansion.
- + Incentives:
 - 01. Adaptive Reuse
 - 02. Brownfield Redevelopment
 - 03. Underutilized land conversion

Urban Expansion Exception Criteria

- + Defines strict conditions under which the boundary can expand:
 - 01. Demonstrated land shortage
 - 02. Infrastructure feasibility
 - 03. Environmental impact review

Transit-Oriented Development Mandate

- + Requires higher density and mixed-use development within transit corridors and nodes.
- + Links land use directly to transit investment.

Environmental Protection Overlay

- + Limits/prohibits development in sensitive zones.
- + Protects:
 - 01. Desert ecosystems
 - 02. Federal Lands
 - 03. Conservation Areas

Density Bonus & Incentive Zoning

- + To be focused within designated zones.
- + Provides incentives for:
 - 01. Higher Density
 - 02. Affordable Housing
 - 03. Mixed-use development

Interlocal Coordination Agreements

- + Formal agreements between municipalities:
 - 01. Align zoning strategies
 - 02. Share infrastructure investments
 - 03. Coordinate development timelines

Infrastructure & Water Capacity Alignment

- + New development approvals must demonstrate:
 - 01. Adequate infrastructure capacity
 - 02. Long-term water availability
- + Growth to be phased based on resource availability.

Monitoring & Reporting System

- + Annual reporting on:
 - 01. Land Consumption
 - 02. Federal Lands
 - 03. Infrastructure capacity
- + Data feeds back into boundary adjustments.

Public Engagement & Review Process

- + Public feedback informs policy updates.
- + Requires ongoing public input through:
 - 01. Workshops
 - 02. Mapping exercises



Comparative Analysis

- + Metrics of Growth
- + Quantitative Analysis
- + Qualitative Analysis

Metrics of Growth

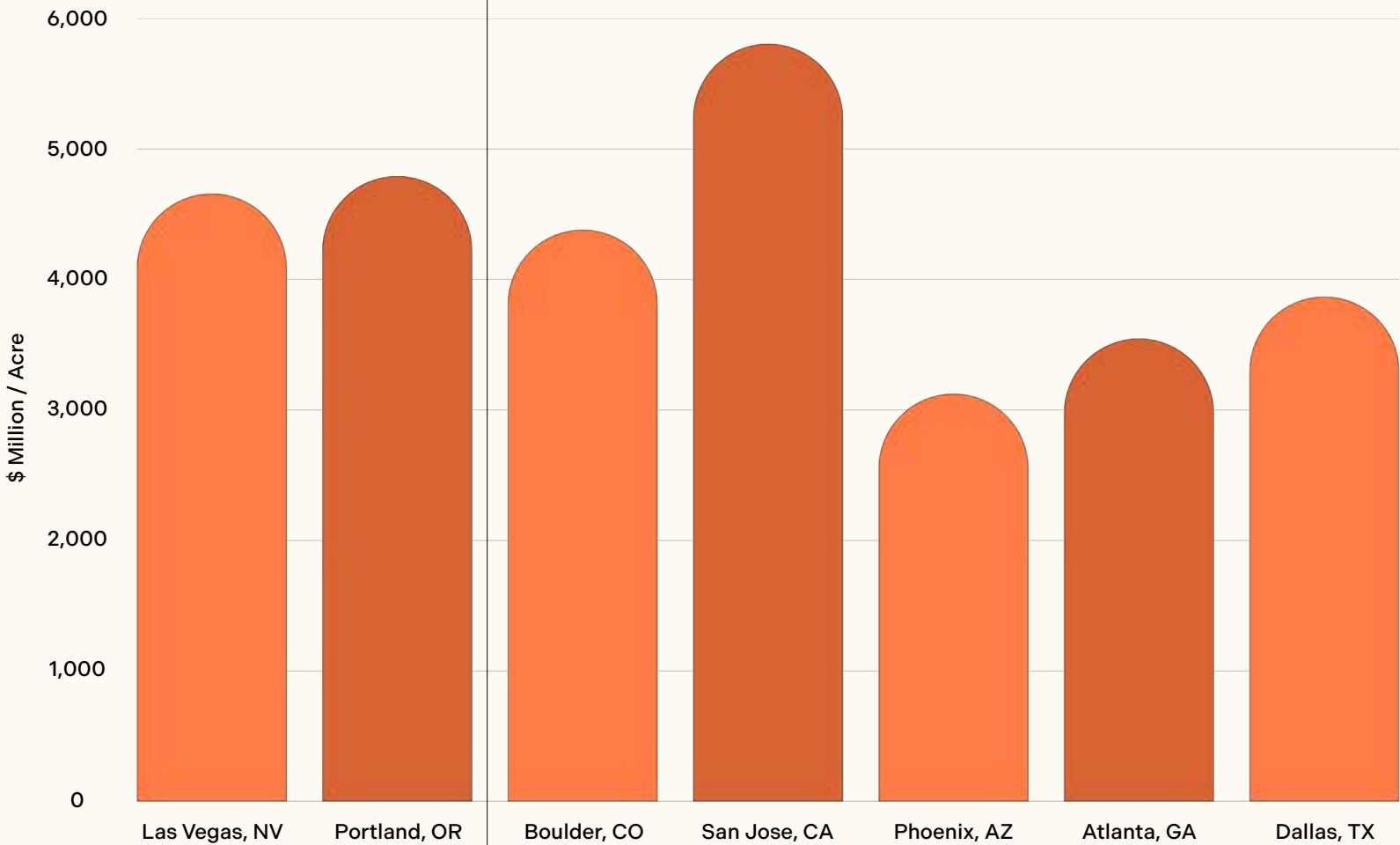
Growth is often measured in numbers, but experienced through space, movement, and everyday life. This chapter compares a series of growth scenarios in the Las Vegas Valley through both quantitative metrics and qualitative conditions, examining how each model shapes the city physically, environmentally, and socially.

By evaluating density, land use, mobility, and resource consumption alongside public realm, identity, equity, and environmental integration, the analysis reveals the underlying characteristics that emerge from each approach. In doing so, it positions the urban growth boundary not just as a policy decision, but as a framework that reshapes how the city is formed and experienced over time.

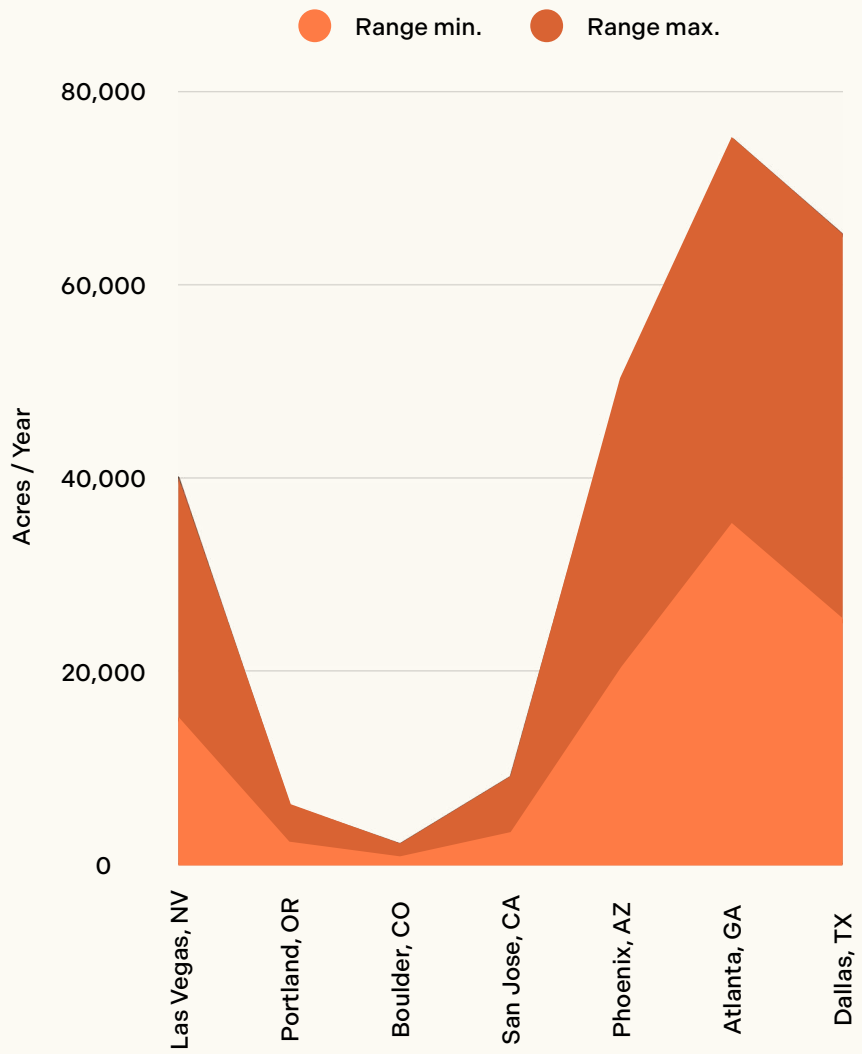
Population Density

Population density is a critical metric in evaluating growth because it reveals how efficiently land, infrastructure, and resources are used within the city. In a region like the Las Vegas Valley, where land is limited and water is scarce, density becomes a key indicator of whether growth is being accommodated sustainably or dispersed inefficiently.

Beyond efficiency, density shapes how the city is experienced. It influences mobility, access to amenities, the viability of transit, and the overall structure of urban form. As a result, analyzing population density allows this project to move beyond abstract policy and understand how different growth models translate into spatial organization, resource consumption, and everyday life.



Land Consumption Rate



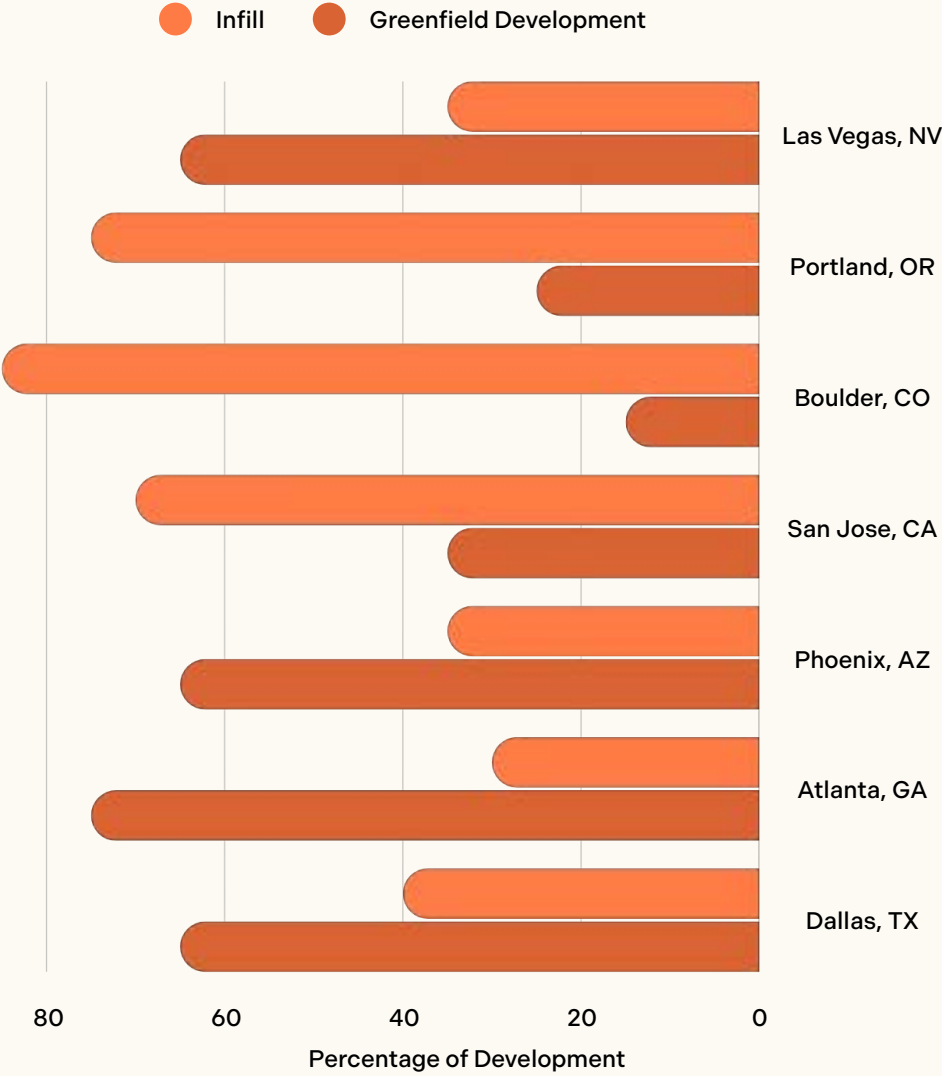
Land consumption rate is a critical metric in evaluating growth because it reveals how quickly land is being converted into urban development and how efficiently that land is being used. In a region like the Las Vegas Valley, where ecological systems are fragile and expansion directly impacts desert landscapes, this metric highlights the long-term consequences of outward growth.

Beyond land use, consumption rate reflects the spatial footprint of development and its relationship to infrastructure, resource demand, and environmental preservation. It indicates whether growth is compact and intentional or dispersed and expansive. As a result, analyzing land consumption rate allows this project to assess how different growth models shape the scale of the city, its impact on surrounding landscapes, and its overall sustainability over time.

Infill vs. Greenfield

The proportion of infill versus greenfield development is a critical metric in evaluating growth because it reveals where development is occurring and how existing land is being utilized. In a region like the Las Vegas Valley, this distinction highlights whether growth is reinforcing the current urban fabric or extending outward into undeveloped desert landscapes.

Beyond location, this metric reflects the efficiency and impact of different growth patterns. Infill development leverages existing infrastructure, services, and access, while greenfield development often requires new systems and expands the city's footprint. As a result, analyzing the balance between infill and greenfield growth allows this project to understand how different approaches influence resource use, spatial organization, and the long-term sustainability of the region.



Vehicle Miles Traveled

Vehicle miles traveled (VMT) is a critical metric in evaluating growth because it measures how much people rely on driving to navigate the city and access daily needs. In a region like the Las Vegas Valley, where distances are large and development is often dispersed, VMT reflects the relationship between urban form, mobility, and energy consumption.

Beyond transportation, VMT captures the broader impacts of how the city is organized. Higher VMT is often associated with longer commutes, increased emissions, and greater time spent in transit, while lower VMT suggests more compact development, closer proximity to amenities, and viable alternatives to driving. As a result, analyzing VMT allows this project to understand how different growth models influence mobility patterns, environmental performance, and the overall experience of daily life.



Las Vegas, NV 23



Portland, OR 20



Boulder, CO 18



San Jose, CA 22



Phoenix, AZ 30



Atlanta, GA 35

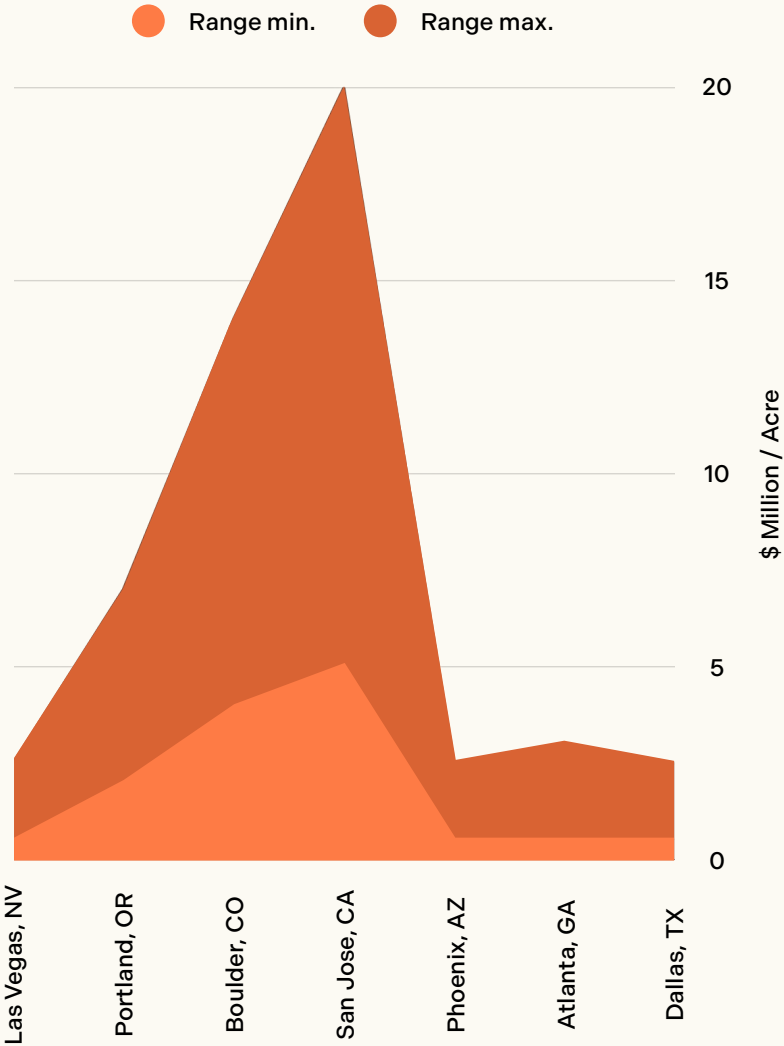


Dallas, TX 36

Land Value Per Acre

Land value per acre is a critical metric in evaluating growth because it reflects how land is valued, utilized, and intensified within the urban system. In a region like the Las Vegas Valley, this metric reveals where demand is concentrated and how development pressure responds to constraints such as limited land supply and infrastructure capacity.

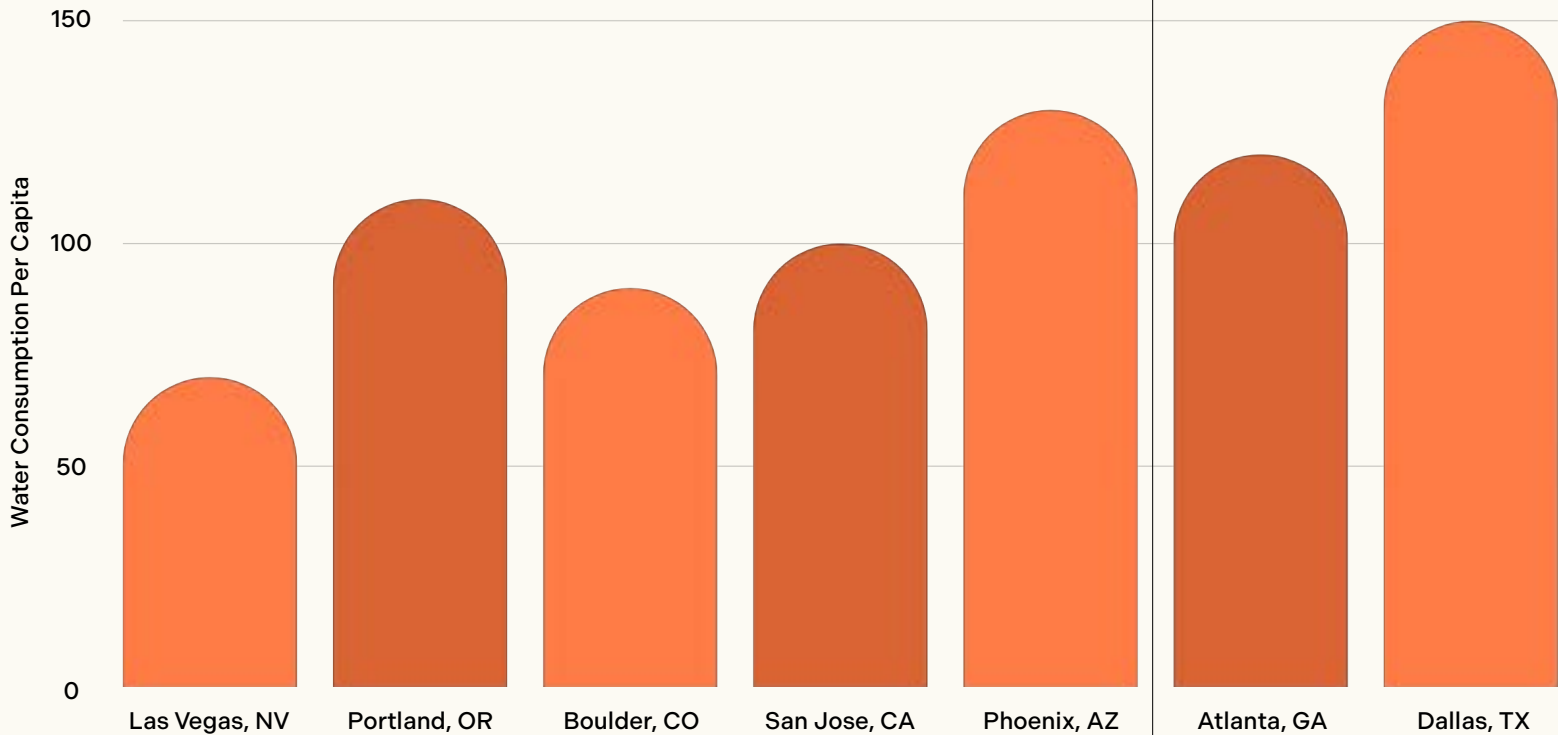
Beyond economics, land value per acre influences the form and distribution of development. Higher values often encourage more efficient, compact, and higher-density uses, while lower values can enable more expansive and less intensive growth patterns. As a result, analyzing land value per acre allows this project to understand how different growth models shape investment, accessibility, and the overall spatial organization of the city.



Water Usage

Water usage is a critical metric in evaluating growth because it reflects how development patterns translate directly into resource demand. In a region like the Las Vegas Valley, where water is limited and tightly managed, this metric reveals whether growth is aligned with long-term environmental capacity or placing additional strain on an already constrained system.

Beyond resource consumption, water usage is closely tied to urban form. More compact, efficient development typically requires less water per capita, while dispersed growth often increases demand through larger landscapes and extended infrastructure. As a result, analyzing water usage allows this project to understand how different growth models impact resource efficiency, environmental resilience, and the long-term viability of the region.

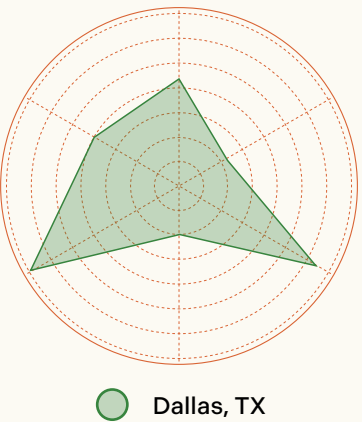
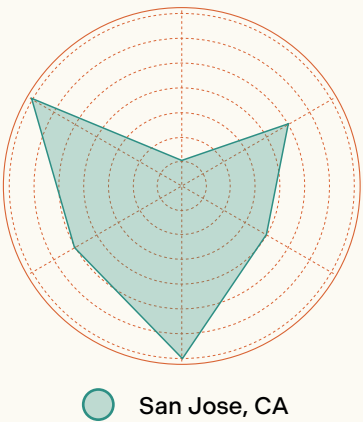
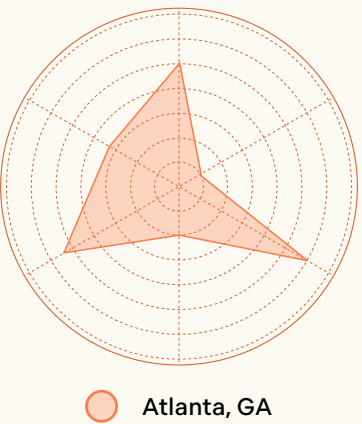
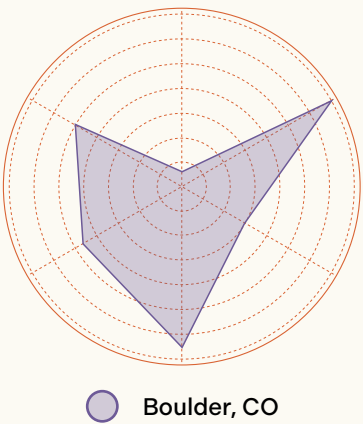
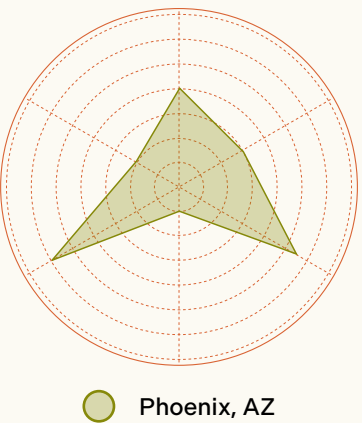
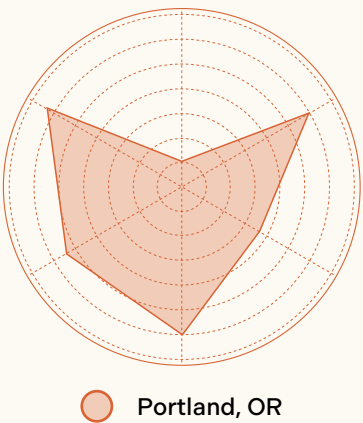
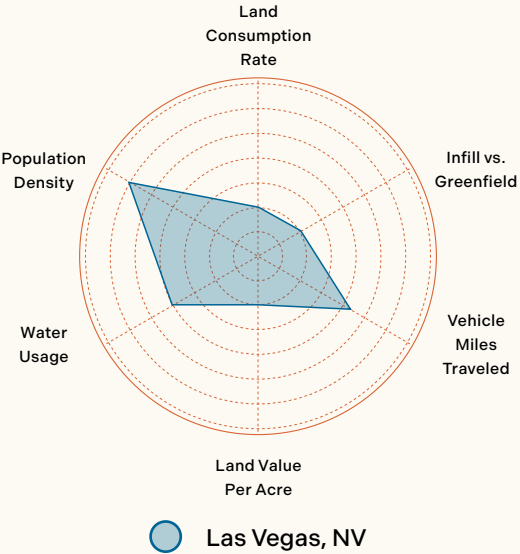


Growth Metrics

Quantitative Summary

The quantitative analysis reveals a consistent relationship between growth patterns and urban performance in the Las Vegas Valley. Lower-density, outward expansion is linked to higher land consumption, increased vehicle miles traveled, and greater water and infrastructure demands, reflecting reduced spatial and resource efficiency. In contrast, more compact development patterns demonstrate improved performance, with lower per capita resource use and stronger land value outcomes.

These findings suggest that the distribution of growth directly shapes environmental impact, economic efficiency, and infrastructure burden. Continued outward expansion compounds these inefficiencies over time, while more concentrated, infill-oriented development offers clear measurable advantages, supporting a shift toward denser and more efficient land use strategies.



Portland, OR

Rating: High

- + Highly walkable, fine-grain block structure
- + Strong integration of parks (Park Blocks, waterfront)
- + Active street life and multimodal priority
- + Consistent human-scale design

Boulder, CO

Rating: Very High

- + Pedestrianized core (Pearl Street Mall)
- + Strong connection to landscape (mountains, creek system)
- + High-quality materials and intimate scale
- + Extremely high user comfort

San Jose, CA

Rating: Moderate

- + Pockets of strong activation (San Pedro Square)
- + Inconsistent walkability across the city
- + Large blocks and auto-oriented areas persist
- + Public realm improving but fragmented

Phoenix, AZ

Rating: Low-Moderate

- + Climate limits daytime usability
- + Large blocks and wide roads reduce walkability
- + Some strong districts (Roosevelt Row)
- + Shade and cooling strategies still emerging

Atlanta, GA

Rating: Moderate (Highly Variable)

- + Strong flagship project: BeltLine
- + Otherwise fragmented and car-dependent
- + Limited pedestrian continuity
- + Public space unevenly distributed

Dallas, TX

Rating: Moderate

- + High-quality individual spaces (Klyde Warren Park)
- + Large-scale infrastructure dominates
- + Walkability varies significantly
- + Public realm often secondary to vehicles

Quality of Public Realm

Quality of public realm is a critical metric in evaluating growth because it reflects how urban spaces support everyday life beyond private development. It includes the design, accessibility, and usability of shared environments such as streets, sidewalks, parks, and plazas. In a region like the Las Vegas Valley, where climate and scale can limit outdoor activity, the quality of these spaces plays a key role in how the city is experienced.

Beyond design, the public realm shapes social interaction, comfort, and overall livability. Well-designed spaces encourage movement and gathering, while fragmented environments can limit engagement. Analyzing the quality of public realm allows this project to understand how different growth models influence not just urban form, but the experience of shared space.



Las Vegas, NV

Rating: Moderate-Low (Highly Uneven)

- + Strong iconography (Strip, Fremont Street)
- + But everyday neighborhoods are auto-oriented and have low walkability
- + Large block sizes and wide roads reduce pedestrian comfort

Portland, OR

Rating: High

- + Strong neighborhood identities
- + Consistent material + urban language
- + Deep environmental integration
- + Clear urban structure and recognizable districts

Boulder, CO

Rating: Very High

- + Extremely strong relationship to landscape
- + Pedestrian core reinforces identity
- + Cohesive scale, materials, and cultural tone
- + Strong environmental ethic embedded in form

San Jose, CA

Rating: Moderate-Low

- + Competing identities (tech hub vs suburban fabric)
- + Weak visual cohesion across the city
- + Limited historic or environmental anchoring
- + Some strong nodes, but not citywide

Phoenix, AZ

Rating: Low-Moderate

- + Strong potential desert identity
- + Often overridden by generic suburban development
- + Some districts express culture
- + Weak cohesion across metro

Atlanta, GA

Rating: Moderate

- + Strong cultural identity
- + Distinct neighborhoods, but disconnected
- + Infrastructure (highways) fragments experience
- + Identity exists socially more than spatially

Dallas, TX

Rating: Low-Moderate

- + Strong skyline and economic identity
- + Weak pedestrian-scale character
- + Large-scale, auto-oriented development dominates
- + Limited cohesion between districts

Sense of Place / Identity

Sense of place and identity is a critical metric in evaluating growth because it reflects how distinct and recognizable different parts of the city become over time. It encompasses the character, culture, and spatial qualities that give meaning to a place beyond its physical form. In a region like the Las Vegas Valley, where development can often feel uniform and transient, this metric highlights whether growth contributes to a more grounded and identifiable urban environment.

Beyond appearance, sense of place shapes how people connect to their surroundings. It influences attachment, memory, and the feeling of belonging within a community. Analyzing this quality allows the project to understand how different growth models either reinforce local identity or produce more generic and disconnected environments.



Las Vegas, NV

Rating: High (Iconic) / Low (Everyday)

- + One of the strongest global identities
- + Clear visual and cultural branding (neon, themed architecture)
- + Weak connection between suburban fabric and desert context

Portland, OR

Rating: High

- + Strong 15-minute neighborhood structure
- + Daily needs accessible by walking/biking
- + Moderate commute times, but shorter distances
- + High perceived livability due to consistence

Boulder, CO

Rating: Very High

- + Extremely high proximity to daily needs
- + Strong bike and pedestrian culture
- + Minimal reliance on long commutes (for those living in-city)
- + Very high perceived livability

San Jose, CA

Rating: Moderate

- + Daily needs often require driving
- + Job-housing imbalance leads to longer commutes
- + Some walkable pockets, but not widespread
- + Livability varies significantly

Phoenix, AZ

Rating: Moderate-Low

- + High reliance on driving for daily routines
- + Long distances between destinations
- + Climate limits walkability for much of the year
- + Convenience can be high if you have a car

Atlanta, GA

Rating: Low-Moderate

- + Long commute times (traffic-heavy)
- + Daily routines highly car-dependent
- + Strong localized districts, but not widespread
- + Time burden reduces perceived livability

Dallas, TX

Rating: Moderate-Low

- + High convenience via road infrastructure
- + But requires constant driving
- + Long distances leads to high travel times
- + Livability varies widely depending on location

Daily Quality of Life

Daily quality of life is a critical metric in evaluating growth because it reflects how urban form supports the routines and experiences of everyday living. It considers how easily people can access work, services, and recreation, and how much time and effort is required to do so. In a region like the Las Vegas Valley, where distances are often large and mobility is car-dependent, this metric highlights how growth patterns shape convenience and overall livability.

Beyond access, daily quality of life captures the comfort and ease of moving through the city. It is influenced by commute times, proximity to amenities, and the overall efficiency of urban systems. Analyzing this metric allows the project to understand how different growth models impact not just how the city functions, but how it is experienced day to day.



Las Vegas, NV

Rating: Moderate

- + Daily life is car-dependent
- + Walkability is limited in many neighborhoods due to auto-oriented design
- + Emerging mixed-use centers improving proximity (Compact Centers concept)

Portland, OR

Rating: High

- + Strong green infrastructure
- + Dense tree canopy and climate-adapted public realm
- + Growth containment protects surrounding ecosystems

Boulder, CO

Rating: Very High

- + Extensive greenbelt and open space preservation
- + Direct integration with natural systems
- + Strong environmental policy and culture
- + Growth limits protect surrounding landscape

San Jose, CA

Rating: Moderate

- + Strong regional environmental policies
- + Some ecological restoration
- + But suburban form still dominant
- + Environmental systems present but not fully structuring growth

Phoenix, AZ

Rating: Low-Moderate

- + Advanced water conservation and xeriscaping
- + Increasing focus on heat mitigation
- + Large-scale sprawl conflicts with desert limits

Atlanta, GA

Rating: Moderate

- + Strong tree canopy (“urban forest”)
- + Green infrastructure expanding, but sprawl + fragments ecosystems
- + Environmental systems not fully integrated into growth pattern

Dallas, TX

Rating: Low-Moderate

- + Some large-scale ecological projects (Trinity River)
- + High heat and low shade in many areas
- + Sprawl increases environmental strain
- + Limited climate-responsive design

Environmental Integration

Environmental integration is a critical metric in evaluating growth because it reflects how development responds to and works with existing natural systems. It considers how urban form engages with climate, water, and ecology rather than overriding them. In a region like the Las Vegas Valley, where conditions are extreme and resources are limited, this metric highlights whether growth is aligned with its surrounding landscape.

Beyond performance, integration shapes the resilience and character of the city. It influences how built and natural systems coexist, from shading and cooling to the preservation of open space. Analyzing this metric allows the project to understand how different growth models impact both sustainability and the long-term relationship between the city and its environment.



Las Vegas, NV

Rating: Moderate

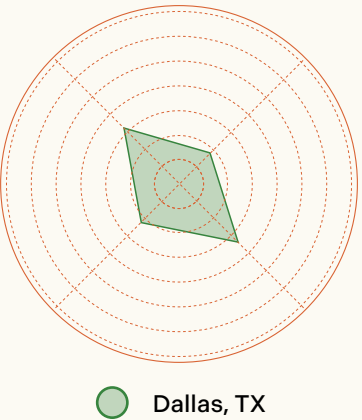
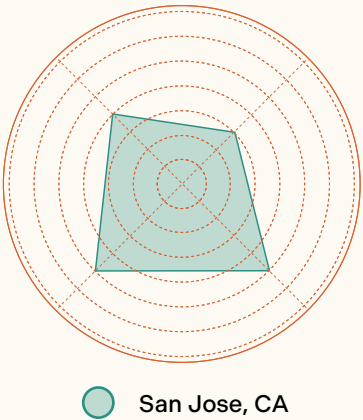
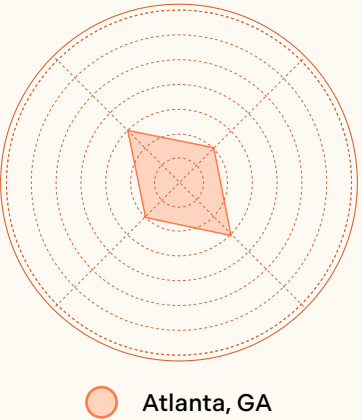
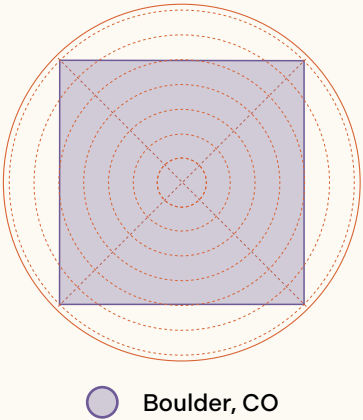
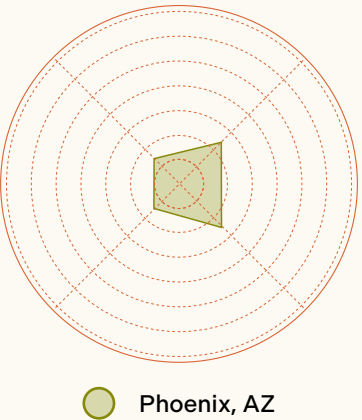
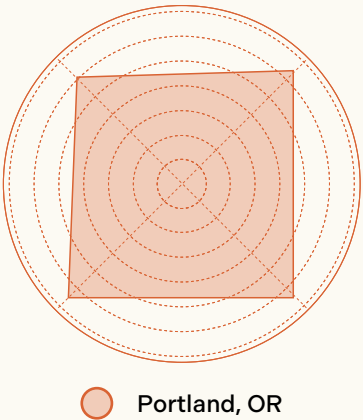
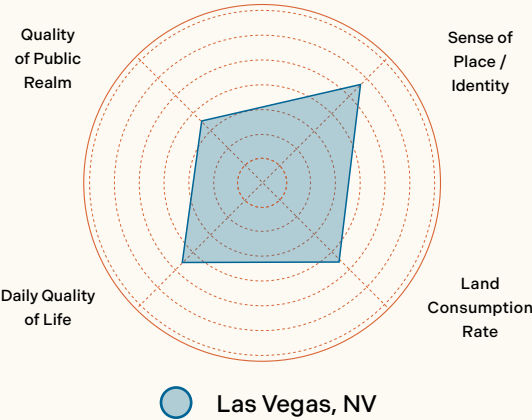
- + National leader in water conservation and reuse systems
- + Strong resource efficiency at systems level
- + But urban form spreads into fragile desert landscape & heat and sprawl = stress

Growth Metrics

Qualitative Summary

The qualitative analysis reveals a clear relationship between patterns of growth and the lived experience of the city. Dispersed, low-density development is often associated with fragmented public realms, limited environmental integration, and a weaker sense of place, resulting in a more isolated and convenience-driven daily life. In contrast, more compact and connected areas tend to support higher-quality public spaces, stronger identity, and improved accessibility to everyday needs.

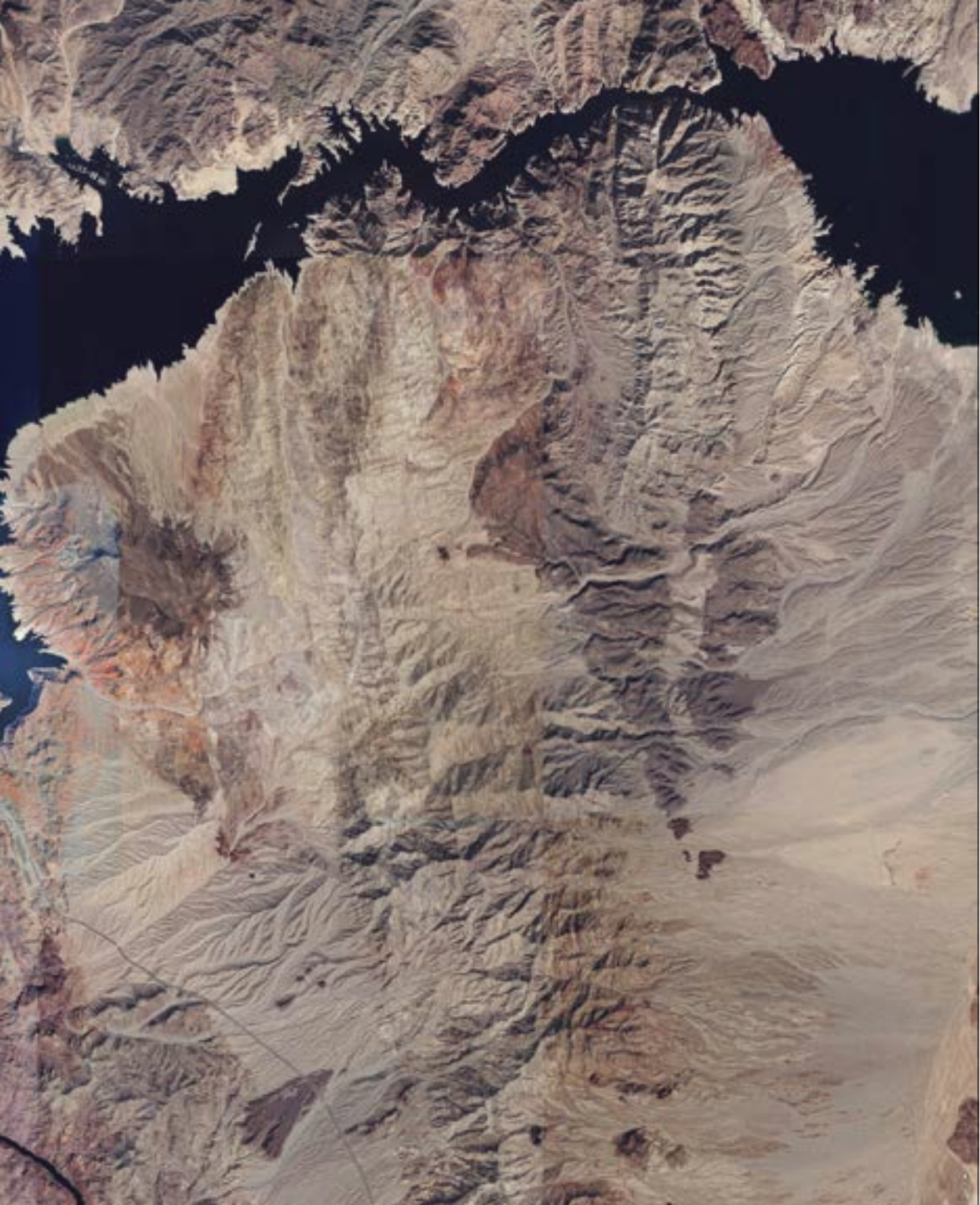
These findings suggest that urban form not only shapes how efficiently a city functions, but also how it is experienced. As growth becomes more spread out, the cohesion and character of place begin to diminish, while more concentrated development fosters social interaction, legibility, and a greater sense of belonging. Overall, the analysis reinforces the importance of designing for both performance and experience, highlighting the role of intentionality in shaping daily quality of life.





Closing

- + Conclusion
- + Questions & Answers
- + Works Cited
- + Image Credits



Conclusion

The Las Vegas Valley stands at a critical threshold, where continued outward growth is no longer aligned with the ecological realities that sustain it. Over time, a model of low-density sprawl has produced a fragmented urban form and placed increasing pressure on limited resources, particularly water. As this research demonstrates, that trajectory is no longer sustainable, revealing a growing disconnect between development patterns and environmental capacity .

This project reframes the urban growth boundary not as a restriction, but as a generative framework for design. Rather than continuing to expand outward, Las Vegas has the opportunity to evolve within its limits by encouraging compact, efficient, and connected development. Scenario comparisons and precedent studies show that inward growth can reduce resource consumption while supporting more resilient and livable urban environments, aligning growth with infrastructure capacity, ecological constraints, and governance to create a coordinated, adaptable framework for a more intentional and sustainable urban future.

Equally important is how this shift is experienced at the human scale. Strategies such as shaded walkable corridors, mixed-use centers, and climate-responsive design demonstrate that density can enhance daily life rather than diminish it. By prioritizing proximity, comfort, and accessibility, a more compact Las Vegas can foster stronger communities, improve public health, and create a more cohesive urban identity that is rooted in both place and climate.

Ultimately, the success of this approach depends on more than a boundary alone. It requires coordinated governance, long-term commitment, and policies that support density, water efficiency, and reinvestment within existing areas. “Living Within Limits” positions these constraints not as barriers, but as opportunities to redefine growth. In doing so, it suggests that the future of Las Vegas will be shaped not by how far it expands into the desert, but by how thoughtfully it learns to live within it.

Questions

01

Q: How has suburban sprawl in Las Vegas shaped patterns of land, water, and energy consumption over the past 50 years?

A: Over the past 50 years, suburban sprawl in Las Vegas has created a development pattern that consumes more land, water, and energy per person than a compact city. As growth pushed outward into the desert, low-density neighborhoods increased distances between homes, jobs, and services. This expansion raised water demand, especially for outdoor uses, placing pressure on supplies from the Colorado River and Lake Mead. At the same time, car dependence and larger homes have increased energy use, particularly for transportation and cooling, making the city more resource-intensive over time.

02

Q: What lessons from other cities' UGBs (e.g., Portland, London) are most applicable to shaping a growth boundary tailored to Las Vegas' desert context?

A: Lessons from cities with urban growth boundaries, such as Portland and London, show that successful boundaries require strong regional governance, long-term commitment, and a focus on infill development. Portland highlights aligning a boundary with transit, density incentives, and coordinated planning, while London shows how to protect open space while accommodating growth through densification. For Las Vegas, the key lesson is that a boundary must be paired with policies that promote compact, water-efficient development, reduce car dependence, and prioritize redevelopment within existing urban areas while tying growth to resource limits like water.

& Answers

03

Q: Within the UGB, what urban design and planning strategies could shift Las Vegas from low-density sprawl toward more resilient, compact, and sustainable development?

A: Within a UGB, Las Vegas can shift from low-density sprawl by focusing on compact, mixed-use development, transit-oriented corridors, and reinvestment in underutilized areas. Strategies include increasing density, reducing parking requirements, and creating walkable, shaded public spaces suited to the desert climate. Prioritizing infill, adaptive reuse, and diverse housing types can improve efficiency and access to daily needs, supporting more resilient and connected neighborhoods.

04

Q: How might implementing growth boundaries, density incentives, or water-use regulations affect the long-term sustainability and livability of Las Vegas?

A: Implementing growth boundaries, density incentives, and water-use regulations in Las Vegas could improve long-term sustainability and livability by guiding growth inward and reducing resource demand. A growth boundary would limit outward expansion, while density incentives would support more compact, mixed-use development that shortens travel distances and improves efficiency. Water-use regulations would align development with limited supplies from the Colorado River and Lake Mead. Together, these strategies could lower per-capita land, water, and energy use while creating more connected, resilient communities.

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A desert city built on expansion must begin to confront its limits. *Living Within Limits* explores an alternative future for the Las Vegas Valley. A future shaped not by outward growth, but by intentional boundaries, density, and ecological awareness. Through research, mapping, and speculative iteration, this work invites readers to reconsider how cities evolve when growth is no longer infinite.

